FINAL

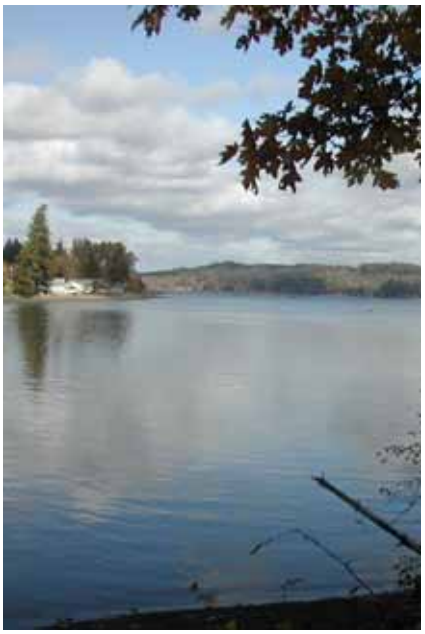
Mason County

Update of County's Stormwater Policies/Regulations and Development of Comprehensive Stormwater Management Plans

Countywide Stormwater Management Plan

Submitted to:
Mason County
Department of Public Works
411 N. Fifth Street
Shelton, WA 98584

Submitted by:
Otak, Inc.
10230 NE Points Drive
Suite 400
Kirkland, WA 98033
Otak Project No. 30784



March 30, 2009

Mason County

Update of County's Stormwater Policies/Regulations and Development of Comprehensive Stormwater Management Plans

Countywide
Stormwater Management Plan

Submitted to:
Mason County
Department of Public Works
411 N. Fifth Street
Shelton, WA 98584

Prepared By
Otak, Inc.
Joe Simmler, Ph.D.
Project Manager

Maureen Knutson, PE
Project Engineer

Acknowledgments

Mason County

Update of County's Stormwater Policies/Regulations and Development of Comprehensive Stormwater Management Plans

Countywide
Stormwater Management Plan

Mason County Board of Commissioners
Lynda Ring Erickson—District 1
Tim Sheldon—District 2
Ross Gallagher—District 3

Mason County Department of Public Works
Charlie Butros, PE, Director

Mason County Department of Community Development
Barbara Adkins, ACIP, Department Co-Manager

Mason County Department of Utilities and Waste Management
Emmett Dobey, AICP, Director

Mason County Public Health
Debbie Riley, RS, Environmental Health Manager

The development of this Countywide SWM Plan was funded in part by Grant No. G0700040 from the Washington State Department of Ecology, which is being administered by Ecology with assistance from the Puget Sound Partnership. Funding was provided by the Washington State Legislature 2005-2007 Capital Budget, Section 325(3).

Table of Contents

Countywide Stormwater Management Plan

Table of Contents

Countywide Stormwater Management Plan

List of Tables

Figures

Attachments

Section 1—Introduction

1.1 Purpose

Mason County currently has a Stormwater Management (SWM) Program that does not address current federal, state, regional, and local stormwater related regulatory requirements. The purpose of this document is to present a Countywide SWM Plan that is consistent with the County's SWM Program and the Puget Sound Action Agenda, begins to address required stormwater related program responsibilities, and prepares the County for the receipt of a Phase II NPDES Municipal Stormwater Permit.

1.2 Authority

This study has been authorized by the Mason County Board of Commissioners and is being jointly implemented by the Departments of Public Works, Utilities and Waste Management, and Community Development. Mason County Public Health has also participated in the planning process. The development of the Countywide SWM Strategy has been funded in part by a grant to Mason County by the Washington State Department of Ecology.

1.3 Study Area

Mason County is situated along the southwestern portion of Puget Sound, and encompasses roughly 968 square miles. It borders Jefferson County to the north, Grays Harbor County to the west and southwest, Thurston County to the southeast, Pierce County to the east, and Kitsap County to the northeast (see Figure 1.1).

Seven watersheds exist within Mason County. They include Case Inlet, Chehalis, Lower Hood Canal, Oakland Bay, Skokomish, Totten-Little Skookum, and West Hood Canal. Mason County also includes over 90 miles of marine shoreline, nearly 100 freshwater lakes, two major rivers, and a number of smaller tributaries and creeks.

Mason County's climate is moderate-maritime, influenced by the Pacific Ocean, yet sheltered by the Olympic Mountains. Average temperatures range from a high of 78 degrees in July to a low of 32 degrees in January. The average daily temperature in the County is 51 degrees. The County receives an average of 64 inches of precipitation annually, with average monthly rainfalls ranging from a low in July of 0.8 inches, to a high in January of 10.4 inches.

According to the State Office of Financial Management, the 2008 countywide population estimate was 56,300 with 47,320 occupying the unincorporated areas. Mason County remains a predominantly rural county despite the urban spillover from both Thurston and Kitsap Counties. Natural resource industries currently support Mason County's economy and are expected to be as important in the future. The County is highly specialized in the production of forestry and aquaculture commodities.

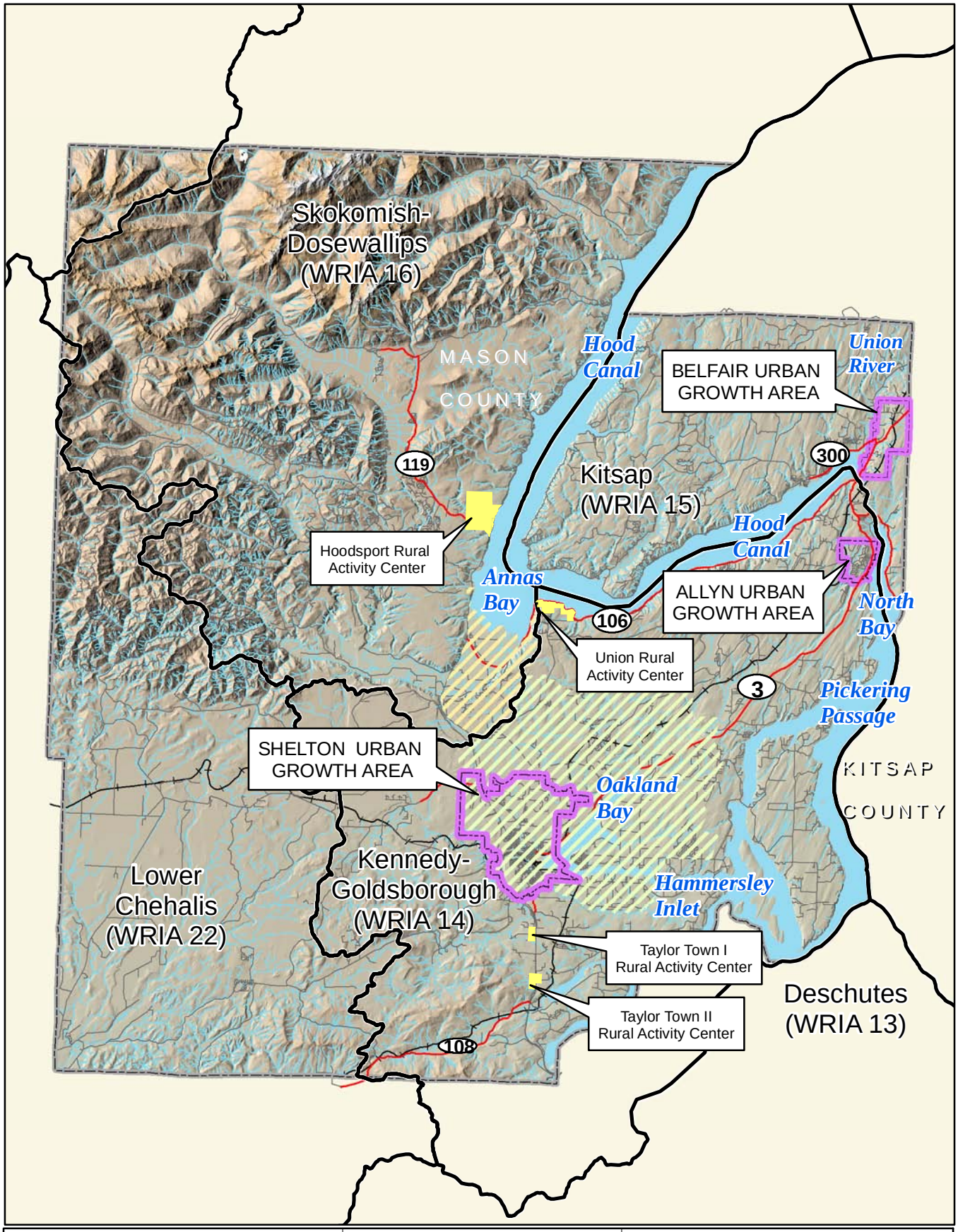


Figure 1.1
Mason County SWM
Planning Area Map

N
W E
S

0 2 4
Miles

411 North 5th, P.O. Box 279
Shelton, Washington 98584
Phone: (360) 427-9670
Fax: (360) 427-8425

10230 NE Points Drive, Suite 400
Kirkland, Washington 98033
Phone: (425) 822-4446
Fax: (425) 827-9577

K:/project/30700/30784/GIS/mxds/Figure1_1MasonCountySWMMforMK.mxd

1.4 County's Comprehensive SWM Planning Process

This countywide stormwater and regulatory compliance planning effort undertaken by the County is entitled: Update of County's Stormwater Policies/Regulations and Development of Comprehensive Stormwater Management Plan for Mason County and the Communities of Belfair, Allyn, and Hoodsport. Components of this planning effort include the development of a comprehensive stormwater management Plan for the County and SWM plans for the areas of Allyn, Belfair, and Hoodsport. The Allyn, Belfair and Hoodsport SWM Plans have been developed, reviewed by the public and adopted by the Board of County Commissioners. The Allyn and Belfair SWM Plans were adopted on September 18, 2007, and the Hoodsport SWM Plan was adopted on November 4, 2008.

Since the beginning of the planning effort, several issues have arisen that influenced the evolution of the Countywide SWM Plan. GMA compliance issues associated with SWM planning and funding in the Allyn and Belfair UGAs resulted in the creation and adoption of a stormwater utility. Regulatory compliance issues and urging from regulatory agencies resulted in the creation and adoption of low impact development (LID) requirements as well as the adoption of the minimum requirements of the 2005 Ecology Manual to guide new and redevelopment. Both the utility and development regulations were adopted in June of 2008, and are to be implemented in a phased five-year approach that prioritizes implementation based on areas of greatest need. The first year of the approach focuses on the urban areas of Allyn and Belfair. In the second and third years, the focus will be expanded to include designated areas of impaired water quality, such as marine recovery areas and shellfish protection districts. In the fourth year, rural activity centers, such as Hoodsport will be added, and in the fifth year, the approach will be expanded countywide with the exception of designated forest lands, agricultural lands, open space, and tribal lands.

In addition to these developments, the County successfully applied for and received a $1 million Stormwater Implementation Grant (Grant No.G0800631) from Ecology to assist it in implementing and funding several elements of its countywide SWM Program. These elements include stormwater system retrofits, LID best management practices, public education and outreach, development of a SWM funding plan, development of needed legal authorities, staff training, and GIS mapping. The Stormwater Implementation Grant also includes funding for staffing to help administer the SWM Program. The grant duration is January 31, 2008 to June 30, 2011. The Stormwater Implementation Grant scope of work is provided in Attachment 1 and outlines the short-term implementation steps in continued SWM Program development.

This Countywide SWM plan acknowledges these current and future implementation steps and provides a framework for continued Countywide SWM Program development and

implementation. This Plan lays out a comprehensive approach for stormwater management that proactively anticipates regulatory compliance needs and is sensitive to water quality and the natural environment. Additional detail and specificity regarding the Countywide SWM Program will emerge as implementation steps proceed, more information is gathered, and an iterative process of adaptive management is applied. Ongoing public involvement will help to guide the continued development and refinement of the Countywide SWM Program through the annual review process.

1.5 Countywide Stormwater Mission Statement: Goals and Objectives

Listed below are excerpts from the Mason County Vision Statement, as documented in the Mason County Comprehensive Plan (2005). These statements document the County's intent to "protect the environment in a way which is compatible with the needs of a growing population."

Mason County Vision Statement

Mason County will remain a primarily rural county where residents will enjoy peace and quiet, privacy, natural views, and rural enterprise. Although rural character means different things to different people, aspects of it include: natural vistas, wildlife, and natural ecosystems; fewer restrictions and more privacy than in an urban area; the easy operation of resource based industries such as timber, mining and agriculture; and the close ties of family and community to the land.

The Rural Areas

Natural resources will continue to provide the foundation of the County's economy. Forestry, agriculture, aquaculture including shellfish and other fisheries industries, Christmas tree farming and mining will provide employment for County residents. The County's abundance of natural amenities including mountains, lakes, rivers, and wildlife will continue to support the county's thriving tourist industries, including Master Planned Resorts. The county's land use regulations will protect natural resource lands and industries against encroachment from incompatible, competing uses.

The Environment and Open Space

Mason County will protect the environment in a way which is compatible with the needs of a growing population. One focus will be watersheds and their water quality. The County will also conserve an open space network that will include wildlife habitat and corridors, greenways, estuaries, parks, trails and campgrounds. This system will help preserve the county's environment and the rural character, support the County's tourism industry, and meet the recreation needs of County residents.

1.6 Overview of Public Process and BOCC Review

In October of 2008, the County created a Stormwater Task Force of eight community members to assist in review and development of the Countywide SWM Plan. The composition of the Task Force reflects major stakeholder groups such as business owners,

the timber and shellfish industries, the Tribes, environmental groups, the Washington Association of Sewer and Water Districts, the City of Shelton and the general public. Over the course of a series of meetings and briefings, the Task Force provided feedback that helped to ensure the public's interests were represented and that contributed to shaping the final plan.

Throughout the process of developing the Countywide SWM Plan, the Board of Commissioners was briefed regularly to obtain feedback and direction. The adoption of the Countywide SWM Plan is a two-step process. First, a public hearing before the Planning Advisory Commission was held on March 16, 2009, to review the Plan and encourage comments. A comment response summary is included in Attachment 2. Second, a public hearing that is scheduled for April 14, 2009, will be held before the Board of County Commissioners. Following the close of the hearing, the Board will consider adoption.

Section 2—Need for Comprehensive Countywide SWM Planning

2.1 Stewardship of the Region's Natural Resources

Objectives of the Countywide Comprehensive SWM Planning Process

Mason County is blessed with a wealth of natural resources that significantly add to the local quality of life and the economy of the region. The County, recognizing its role as one of the primary stewards of these resources, is in the process of developing a countywide stormwater management plan (SWM Plan) to both protect and enhance these resources.

Of special concern are the impacts of continued and increased stormwater discharges to the local water quality of Hood Canal, Oakland and Annas Bays, and the rich shellfish habitat in nearby natural and commercial rearing areas. Pollution from pathogens in sewage and animal wastes are a chronic problem in many areas of Puget Sound and is closely associated with rainfall events and stormwater runoff as well as being influenced by population densities and development levels. Because of fecal contamination, shellfish beds in both Oakland and Annas Bays have been downgraded and shellfish protection districts have been created to improve water quality and preserve natural resources.

The primary objective of this Countywide SWM Plan is to protect water quality, shellfish, habitat, groundwater and their supporting natural processes and functions, to continue to promote and guide new development and to be responsive to state policy and existing and future regulatory requirements.

2.2 State Policy on the Management of Puget Sound

The Puget Sound Partnership and the Puget Sound Action Agenda

In April 2007, the Washington State Legislature passed legislation replacing the Puget Sound Action Team and creating a new Puget Sound Partnership to coordinate and lead the effort to restore and protect Puget Sound. The partnership consists of a Leadership Council, , Ecosystem Coordination Board, a Science Panel, an Executive Director, and staff. The partnership's charge is to define a strategic action agenda based on science that prioritizes necessary actions and includes clear, measurable goals for the recovery of Puget Sound by 2020. Adopted December 1, 2008, the Puget Sound Action Agenda replaces the prior Puget Sound Water Quality Management Plan.

The Action Agenda sets state policy, is a strategy for cleaning up, restoring and protecting Puget Sound, and includes five strategic priorities and associated long-term and near-term actions to achieve progress. During 2009, the State Legislature will choose how much funding to dedicate to recommended, prioritized near term actions for the 2009-2011 biennium. Once funding decisions are made, the Partnership will develop detailed

implementation plans including scopes of work with key steps, associated schedules, and performance measures.

The priority and actions from the Puget Sound Action Agenda most relevant to the Countywide SWM planning process are to prevent water pollution at its source and over the long-term to manage stormwater runoff in urban and urbanizing areas to reduce stormwater related impacts. Specifically, long-term Action C.2.2.3 aims to:

- improve stormwater management in communities not currently covered by NPDES permits by providing financial and technical assistance to local government to create local comprehensive stormwater control programs,
- investigate expansion of NPDES permit coverage to include additional jurisdictions with municipal storm sewer systems, and
- initiate work in areas with documented stormwater-related problems and intact resources that are threatened by surface water runoff.

2.3 Regulatory Compliance

National Pollution Discharge Elimination System Phase II Municipal Stormwater Permit

Preparing the County for compliance with a future Phase II NPDES Municipal Stormwater Permit requires the County to add stormwater programmatic elements to its existing annual SWM Program. Future compliance with the NPDES Phase II Permit will include:

- Developing and conducting a public education program.
- Implementing a public involvement program.
- Initiating an illicit discharge detection and elimination program.
- Adopting the minimum technical requirements of 2005 Manual (done) and maintaining an effective and responsive development review program that includes inspection and enforcement, especially for erosion control.
- Conducting good housekeeping activities and annual maintenance consistent with the protocols and frequencies listed in the Phase II Permit.
- Complying with any applicable Total Maximum Daily Loads (TMDLs), also known as water clean up plans.
- Setting up a comprehensive stormwater management program, and conducting annual reporting and assessments of program effectiveness using adaptive management.

2.4 County's Watershed Planning Needs and Priorities

Prioritization of Stormwater and Water Quality Problems

The County's SWM Program is in its initial stages of development. Over the past two years, the County has conducted studies and developed SWM Plans for Allyn, Belfair and Hoodsport but has not had the opportunity to conduct watershed planning, complete a comprehensive inventory of stormwater facilities, or assess the problems that stormwater runoff may be causing throughout the County. However, as a result of this SWM planning process, research has been undertaken and interviews have been conducted, the results of which suggest that the County's current stormwater related water quality problems consist of the following:

Nutrient and fecal coliform loadings into sensitive receiving waters

Research by the University of Washington and monitoring by Ecology, County and State departments of health, and State Fish and Wildlife suggest that nutrients and coliforms are having major impacts on local and regional receiving waters and their associated habitat areas. Failing and poorly designed and maintained septic systems have been identified as one of the major sources, and septic maintenance and monitoring programs have been proposed. In addition, centralized wastewater collection, conveyance and treatment systems have been proposed for the Belfair and Hoodsport areas, and a small system has already been installed at the end of North Bay near the Allyn UGA.

A second major source of nutrient and coliform pollution is through stormwater runoff. While stormwater runoff does not generate these pollutants, it does pick them up from various land uses, concentrates them and transports them directly into sensitive local receiving waters. Most of the runoff in the County is not adequately detained or treated, which causes both flow and habitat problems and increases the need for effective stormwater management, particularly within the more urban and developing areas of the County.

Impacts to water quality, shellfish and habitat areas

The impacts to local natural resources within Hood Canal and the southern reaches of Puget Sound are well documented. Monitoring within the areas adjacent to the Allyn UGA in North Bay and within the Belfair UGA in the south end of Hood Canal suggest that nutrients, and fecal coliforms from surface water runoff and failing septic systems are degrading water quality, freshwater streams and habitat of fish and ESA-listed salmonid species, as well as saltwater shellfish rearing areas. Substantial documentation of these impacts has been recorded and on-going monitoring programs continue to provide updated status of local conditions on an annual basis. Many of the coliform monitoring stations show a steady increase in concentrations, which are threatening recreational and commercial

shellfish harvesting, and if unchecked, will result in the decertification of many of the existing commercial harvest areas.

Again, inadequately detained and treated stormwater runoff from developed areas has been identified as one of the primary causes of continued and increasing loadings of pollutants and their resulting degradation of water quality and threats to adjacent shellfish rearing areas. Regulatory agencies, stakeholders and the public are mandating additional control of runoff from developed areas, as well as runoff from future developed areas. Additional development controls and guidance are included in the 2005 Ecology Manual and the LID ordinance adopted by the County in June of 2008 and will be applied according to the phased approach described in this document.

Erosion and sedimentation

Erosion and sedimentation impacts generally have two major sources that often are interrelated, further enhancing the problem and the resulting impacts. Significant erosion can occur when a new site is graded for development. After development, the increase in surface water flows often causes downstream channel erosion and undercutting of stream banks. Deposition of eroded sediments smother sensitive spawning areas and if discharged into marine areas can also degrade shallow shellfish rearing areas. Addressing erosion related problems involves the development and enforcement of effective development standards and design criteria, as well as the effective management of onsite and downstream surface water runoff. For Class IV Forest Practices Applications, the County conducts stormwater reviews and imposes requirements for stormwater management and erosion control in accordance with its Stormwater Management Ordinance as codified in Mason County Code Chapter 14.48. The adoption and application of the requirements of the 2005 Ecology Manual and the LID ordinance will further reduce erosion and sedimentation provided effective enforcement authority is established and exercised.

Flood control

Flooding is common in certain parts of the County and is often the direct result of land use changes. Having good land use controls, including comprehensive planning, design standards and permit review along with enforcement processes are the primary tools for the control of flooding. Usually flooding is the cumulative effect of a series of major land use changes that occur over time throughout the watershed. Flooding and uncontrolled runoff with its associated property damage and habitat loss is the result of these changes. The effective control of flooding is directly related to the effective control of surface water, both during and after land use alterations. A comprehensive stormwater management program is needed within the County to support the County's flood reduction and management efforts.

2.5 Other Planning Efforts within the Region

In addition to comprehensive land use and stormwater management, several other planning and monitoring initiatives within the region have identified a number of stormwater related issues concerning water quality, habitat, and shellfish. While these identified stormwater concerns are addressed by this Countywide SWM Plan, a brief overview of these regional planning efforts is provided below.

- Water quality monitoring is conducted by the Washington State Department of Ecology, Mason County Department of Health, and the Washington State Department of Health, Office of Shellfish Programs, and the Squaxin Island Tribe.

- Salmon recovery planning has been conducted by the Shared Strategy for Puget Sound and the Hood Canal Coordinating Council, in conjunction with the National Marine Fisheries Service (NMFS) of the National Oceanic and Atmospheric Administration (NOAA). Responsibilities for salmon recovery planning by the Shared Strategy for Puget Sound have been recently transferred to the Puget Sound Partnership.

- The Watershed Planning Act (RCW 90.82) provides local governments a framework and resources for developing local solutions to watershed issues on a watershed basis. As a component of this process, the WRIA 16 Planning Unit was formed, and is comprised of a variety of public and non-governmental stakeholders in the Hood Canal region, including the Port of Hoodsport. The Planning Unit has prepared reports that assess water quality, quantity, fish habitat, and instream flow conditions within the WRIA 16 watershed (Golder Associates, 2002; EnviroVision, 2005) adjacent to Hood Canal. Furthermore, the Planning Unit has consolidated the WRIA 16 data and a series of recommendations into a broad-based and comprehensive watershed plan for WRIA 16 (WRIA 16 Planning Unit, 2006). Watershed plans for WRIAs 14 and 15 have also been developed; however, they have not been adopted by the Planning Units due to opposition from an initiating government.

- The Puget Sound Partnership defines, coordinates and implements Washington State's environmental agenda for Puget Sound and has been providing leadership in the area of low impact development (LID) and regional watershed planning. The Partnership has also developed the December 1, 2008, Puget Sound Action Agenda, which presents the State's long-term strategy for managing and protecting the Sound, and coordinating the roles and responsibilities of federal, state and local governments.

- The Lower Hood Canal Watershed Coalition is composed of local citizens and representatives from federal, state and local agencies, and the Skokomish Tribe. Its primary goal is protecting, maintaining, and restoring water quality and water quantity within lower Hood Canal. The Coalition's monthly meetings provide education and outreach opportunities and serve as a forum for discussion of issues of community concern. Much of the Coalition's work involves reviewing proposed regulations and planning activities conducted by Mason County and providing feedback that can be used to help shape the final products.

- The Hood Canal Salmon Enhancement Group (HCSEG) is one of fourteen groups in the Washington State Regional Fisheries Enhancement Group (RFEG) Program. The RFEG Program was instituted to promote citizen involvement in local salmon recovery efforts. The HCSEG is a volunteer driven, non-profit organization that releases fish through its Wild Salmon recovery program, removes fish passage barriers, re-establishes stream habitat, and conducts research as well as education and outreach activities.

- The South Puget Sound Salmon Enhancement Group (SPSSEG) is also one of the fourteen groups in the Washington State RFEG Program. The SPSSEG is a 501(c)(3) non-profit organization committed to protecting and restoring salmon populations and aquatic habitat with an emphasis on ecosystem functions through scientifically informed projects, community education, and volunteer involvement. The SPSSEG works cooperatively with other organizations to help plan, fund, carry out and monitor fishery enhancement and habitat restoration projects.

- The Hood Canal Coordinating Council (HCCC) was established in 1985, with the mission to improve regulatory decision making by providing a forum for discussion of regional water quality issues affecting Hood Canal. The HCCC serves Mason, Kitsap and Jefferson counties.

- The Hood Canal Dissolved Oxygen Program (HCDOP) is a partnership of 28 organizations that conducts monitoring and analysis and develops potential corrective actions to address the low dissolved oxygen problem in Hood Canal.

- The County, the Skokomish Tribe and Mason County PUD #1 entered into a Memorandum of Understanding (MOU) in 2006 that commits the governments to jointly secure funds for the design and construction of wastewater facilities to serve the Hoodsport, Potlatch and tribal reservation areas on the west side of Hood Canal. The intent of this MOU was to address the onsite treatment system problems

identified in the Hood Canal Low Dissolved Oxygen Preliminary Assessment and Corrective Action (PACA) Plan. As of June 2007, the group agreed on three similar wastewater treatment systems to serve each of the three areas and obtained approval of facilities plans. Starting in 2008 and moving into 2009, simultaneous efforts to secure additional funding, initiate design, and explore expedited design/ construction are underway.

- On the east side of Hood Canal, the County is finalizing design of the Belfair Wastewater and Water Reclamation Facilities project to reduce nitrogen loading to Hood Canal using an expandable membrane system. The facility is being designed to provide a sustainable approach to water management that protects Hood Canal and treats wastewater to the highest standards for water reuse. Uses of the reclaimed water include irrigation, stream flow augmentation and other beneficial uses. The project is on target to begin construction in spring 2009, continuing in 2009 and 2010, and be operational in spring 2011.

- The 2007 Oakland Bay Action Plan was developed in response to the November 2006 closure of the north end of Oakland Bay to shellfish harvesting. Mason County took the lead in developing this broad-based community plan to reduce water pollution. The Plan calls for monitoring of water quality, surveys of shoreline and upland areas, and conducting research. It also includes strategies to correct sources of water contamination from agriculture, onsite sewage systems and pet and wildlife wastes, and focuses on land use and growth management policies that will protect, preserve and restore Oakland Bay's water quality.

- Annas Bay Closure Response Strategy, revised 4/20/07 serves as the strategy to address the closure of commercial and recreational shellfish beds in Annas Bay due to fecal coliform contamination. Mason County Public Health is the lead agency working cooperatively with other state and local agencies, the tribes, WSU cooperative extension, business and citizens in developing and implementing the strategy. Strategy actions include identifying pollution sources and developing bacterial pollution control plans for sources such as agriculture, pet waste, individual onsite sewage systems, and stormwater runoff.

- Mason County On-Site Sewage System Management Plan, revised 12/5/07, provides guidance, focus and direction to the County's onsite sewage program. The Plan includes policies and procedures for the design of, installation, operation and maintenance of onsite sewage treatment systems to prevent health hazards and risks, and to improve, restore, and preserve water quality.

- Mason County Hood Canal Pollution Identification and Correction Project started in April of 2005 with funding from the governor's emergency fund to identify and correct nonfunctioning septic systems that allowed fecal pollution to enter Hood Canal. The project was continued with funding from the County for water monitoring and analysis during 2005 and 2006, and from Ecology through the Septic System Survey and Database Enhancement grant during 2007 and 2008. The project also attempted to locate inputs of organic material and nutrients that can promote algal growth that causes depletion of dissolved oxygen in Hood Canal. The project ultimately performed three years of data collection and pollution source corrections from Triton's Head to Belfair. Many remaining recommendations identified through the project will require management approval and funding for continued implementation.

2.6 Coordination with Other SWM Programs in the Region

Stormwater management is most effective when applied on a watershed scale. Mason County's watersheds extend beyond its political boundaries into neighboring jurisdictions such as Shelton and Kitsap County. Both the City of Shelton and Kitsap County have developed and are implementing comprehensive SWM Programs similar to that being proposed in the Allyn, Belfair and Hoodsport SWM Plans and this Countywide SWM Plan. As the County begins implementing its enhanced SWM Program, and partnering with its neighbors to address common SWM needs, it can take advantage of opportunities to leverage resources, increase efficiencies, and multiply benefits. Brief summaries of the SWM programs of Shelton and Kitsap County are provided below.

City of Shelton SWM Program

In anticipation of a future NPDES Phase II Municipal Stormwater permit, the City undertook an update of its Surface and Stormwater Management (SSWM) Program and Six-Year Surface and Stormwater Comprehensive Plan that was completed and adopted in May of 2008. In addition to the regulatory elements needed to satisfy the permit, the City also included other SWM related activities and obligations in its updated program, such as compliance with the Underground Injection Control Rule, WRIA #14 watershed planning, the Puget Sound Water Quality Management Plan, the Oakland Bay Action Plan, the City's comprehensive Wellhead Protection Program, and capital improvements.

The City's intent was to address both capital improvements as well as get an early start on future regulatory compliance obligations; however, results indicated that the City would need to raise rates four-fold from its existing rate of $8.50 per Equivalent Residential Unit (ERU) per month. Such a rate increase was not feasible for the City so an alternative was developed

that reprioritized capital improvements, reduced program activities in certain areas, and deferred regulatory compliance until receipt of a NPDES Phase II permit in 2012. These cost reductions coupled with annual six percent rate increases between 2008 and 2013 to $12.50/ERU/ month allow the City to fund its top five priority capital improvement projects prior to shifting its financial resources to regulatory compliance in 2013. As a proactive measure, the City adopted the 2005 Ecology Manual in May of 2008 and is applying its requirements to new development, redevelopment and construction sites.

The City's SSWM Program activities include:

- Public Education and Outreach
- Development Review, including inspection and enforcement
- Operations and Maintenance
- Watershed Planning
- Capital Improvements
- Program Administration

Kitsap County SSWM Program

The Kitsap County Surface and Stormwater Management (SSWM) Program was established in October of 1993 and has been recognized for its innovative approach to surface and stormwater management. The SSWM Program is a comprehensive, interagency partnership developed to address local issues related to stormwater management, nonpoint source pollution, and water quality. The goals of the Program are to:

- Protect public health and natural resources
- Minimize institutional costs
- Obtain support for the Program from other municipalities, tribal governments, and county residents
- Meet state and federal regulatory requirements (Puget Sound Plan and NPDES Phase II)
- Provide a permanent funding source to address nonpoint source pollution

SSWM Program fees are based on land use and total amount of impervious area on each parcel. When fees were first collected in 1995, the base rate was $3.75/ERU/month. As of January 1, 2009, the base rate increased to $5.19/ERU/month. According to the County, revenue collected from SSWM fees is allocated as shown in Table 2.1 below.

Table 2.1: Kitsap SSWM Program Fee Allocations			
Program Receiving Funds		Percent of Total	Activities Funded
Public Works			
	Operations and Maintenance	33	Routine maintenance of stormwater facilities
	Construction Fund Transfer	14	Design and construction of new stormwater facilities for water quality, fish passage and flood control
	Program Management	16	Overhead and administrative costs, including billing system maintenance
	Monitoring	4	Stormwater outfall monitoring, testing, and complaint response
	Engineering	4	Salaries associated with capital facility design
	Debt Service	3	Lease and building bond for PW Facility
	Public Outreach	1	Education programs
	Planning	1	GIS mapping and drainage planning
Health District			
	Source Control	14	Water quality, pollution identification and correction and wellhead protection
Conservation District			
	Agriculture Program	5	Landowner assistance public education and involvement
Community Development		5	Watershed planning, stream team and public education programs

Section 3—Comprehensive Countywide SWM Program

3.1 County's SWM Strategy

Throughout the development of this Countywide SWM Plan, the County has focused on improving local water quality and its related stream/habitat areas. It recognizes and understands the direct link between clean stormwater runoff and the continuation of healthy shellfish rearing areas. It is for these reasons that:

- The entire SWM planning strategy has been shifted from supporting new development by collecting and concentrating stormwater runoff and constructing large centralized regional SWM facilities, to an entirely decentralized approach that is based on LID techniques that minimize the impacts of future land use changes, as well as promote the design and construction of onsite LID systems.
- A facility retrofit program has been developed to detain and treat the runoff from existing development using LID techniques.
- County road runoff will begin to be treated by retrofitting existing facilities, as well as by adding water quality treatment to all new County road designs.
- The important role of regular maintenance has been developed and continues to be stressed, further expanding the need for adequate staffing and funding of O/M programs during the annual budget cycle.
- The County has proceeded with the adoption of the Ecology 2005 Manual and the LID ordinance under a phased implementation approach.
- Citizen and stakeholder input and involvement has been emphasized and expanded to include a citizen advisory committee and a public process for the annual review and update of the SWM Plan(s). Citizen volunteers may also play a key role in future program implementation including water quality and habitat monitoring, as well as public education.
- The County has proceeded with the establishment of a stormwater utility as a first step in its SWM Program funding plan, development of which will be completed with funding from the Stormwater Implementation Grant. The grant also provides funding for the hiring of a supervisor to help guide the continued development and implementation of the County's SWM Program.

3.2 County's Existing SWM Program

The County's existing SWM Program is focused in two primary areas, review of new development and redevelopment for compliance with stormwater standards, including inspection and enforcement of development codes, and a basic program of stormwater facility inspection and maintenance. As part of the comprehensive Countywide SWM Program, these existing activities will be enhanced and supplemented with additional activities as described in Section 3.6, Elements of the Countywide SWM Program.

3.3 Focus of the Comprehensive Countywide SWM Program

Emphasis on Water Quality and Effective SWM in Urban Areas

The County is committed to enhancing water quality and promoting effective stormwater management especially in its Urban Growth Areas (UGAs) and rapidly urbanizing areas, both within and adjacent to sensitive natural resource areas. This Comprehensive Countywide SWM Plan is intended to address the drainage related impacts of existing and future development and to protect and enhance water quality, shellfish, habitat and groundwater.

Developing a Comprehensive Countywide SWM Plan at this time allows the County to address immediate water quality, shellfish, and habitat needs and the requirements of the Puget Sound Action Agenda, as well as begin to prepare the County to come into compliance with a future National Pollution Discharge Elimination System (NPDES) Phase II Municipal Stormwater Permit.

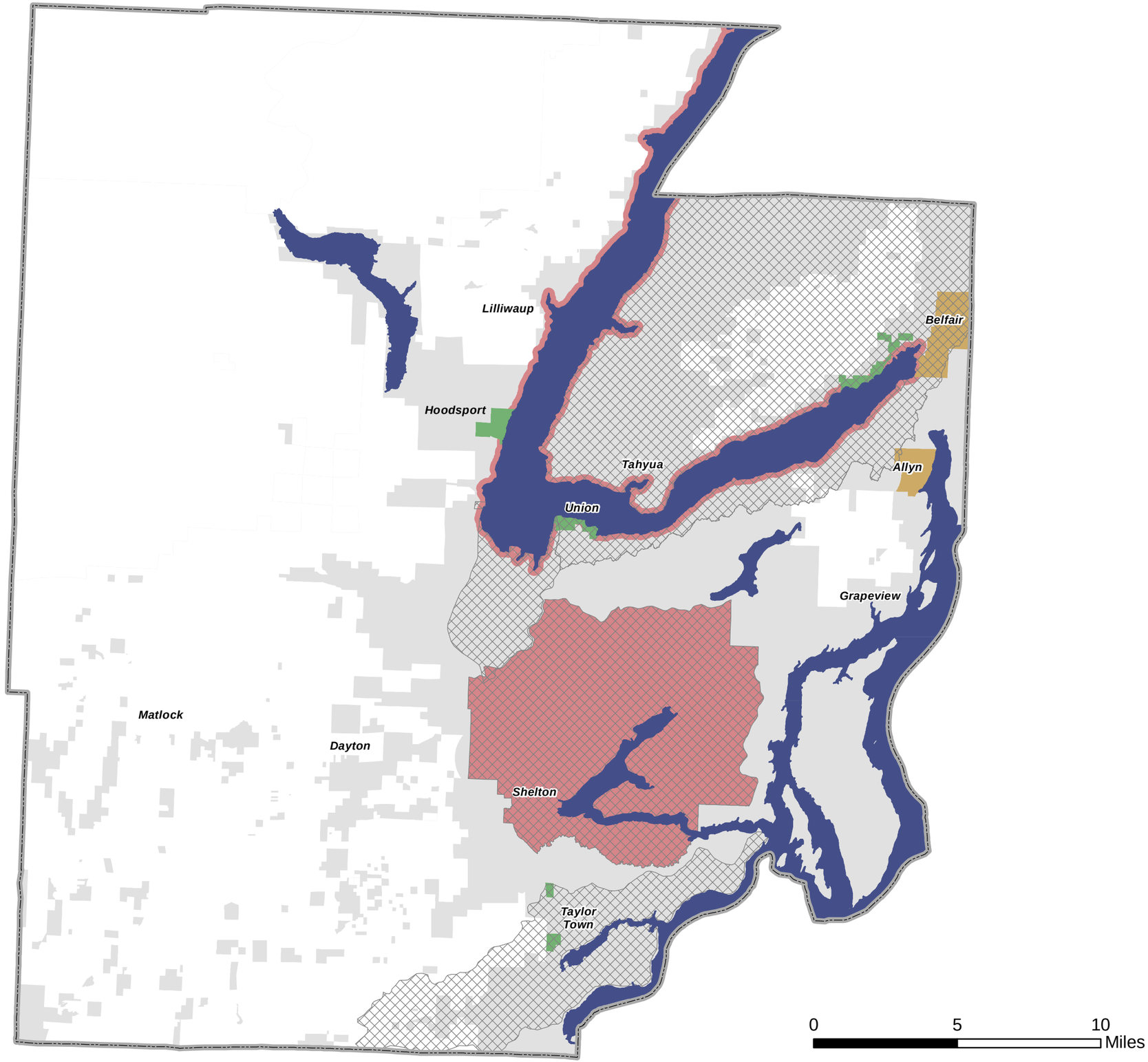
3.4 Development and Implementation Using a Phased Approach

The County's proposed stormwater management strategy is a phased approach that initially focuses on the protection and enhancement of the County's most sensitive natural resources by addressing the SWM issues in the urban areas of the County. This strategy includes the development of a Comprehensive Countywide SWM Program, with more in-depth technical SWM studies in the areas of Allyn, Belfair, and Hoodsport. The SWM Program will be supplemented by activities recommended in action plans developed in response to closures of shellfish growing areas in impacted sensitive areas such as Oakland and Annas Bays.

The concept of the County is to develop a comprehensive SWM Program throughout the unincorporated County, excluding open space, and forest, agricultural and tribal lands, over a five-year period beginning in 2008. The program, complete with the adoption of the 2005 Manual and a Low Impact Development Ordinance, along with the generation of local funding, including a stormwater utility, will be implemented by phasing in stormwater management requirements annually, according to the following five phases as shown in Figure 3.1:

- Phase I – Allyn and Belfair Urban Growth Areas (UGAs) – Year 1, 2008
- Phase II – Defined Marine Recovery Areas (MRAs) – Year 2, 2009
- Phase III – Defined Shellfish Protection Areas (SPDs) – Year 3, 2010
- Phase IV – Defined Rural Activities Centers (RACs) and Limited Areas of More Intense Rural Development (LAMIRD) – Year 4, 2011
- Phase V – Countywide – Year 5, 2012

Figure 3.1 - Mason County SWM Utility Phase Map



Mason County GIS Department
Map Date: 1/27/2009
Map Project File: Stormwater_Phase_Map.mxd
Map created using ArcMap 9.3
Author: MTS

Legend

- County Boundary
- Water Bodies
- Phase I - Urban Growth Areas
- Phase II - Marine Recovery Areas
- Phase III - Shellfish Protect Districts
- Phase IV - LAMIRD & Rural Activity Centers (RAC)
- Phase V - County Areas outside Designated Forest Lands

In Phase I (2008), the UGAs for Allyn and Belfair were phased into the utility service boundary, covering a total of 5.5 square miles or close to 2% of the ultimate utility area coverage.

In Phase II (2009), the MRAs associated with Hood Canal and Oakland Bay are added. The Hood Canal MRA overlaps slightly with the Hoodsport RAC. The incremental addition to the utility service boundary for this phase is 79.6 square miles and includes the Shelton UGA, which the County anticipates bringing into the utility service area during this phase through an amendment to the stormwater utility ordinance. Total utility service area in 2009 reaches 85.1 square miles or close to 24% of the ultimate utility area coverage. Note that there is a proposal before the Board of County Commissioners to expand the boundaries of the MRA for Hood Canal to the entire Hood Canal watershed. If this proposal is approved, it will affect the boundaries of the utility area.

In Phase III (2010), several SPDs are added including the Annas Bay SPD and two inactive SPDs, the Hood Canal Clean Water District and the Totten/Little Skookum Inlet SPD. While the Oakland Bay Clean Water District is an SPD, it is also designated as an MRA and is included in Phase II instead of Phase III. The incremental addition to the utility service boundary for this phase is 109.6 square miles. Total utility service area in 2010 reaches 194.7 square miles or close to 55% of the ultimate utility area coverage.

In Phase IV (2011), RACs and LAMIRDs join the utility service area. Most of the RACs and LAMIRDs within the County are also included in the SPDs that were included in Phase III. Also, a small portion of the Hoodsport RAC was included in Phase II as part of the Hood Canal MRA. Consequently, only the remaining portion of the Hoodsport RAC at 0.8 square miles is added to the utility service boundary in this phase. Total utility service area in 2010 reaches 195.5 square miles or 55% of the ultimate utility area coverage.

In Phase V (2012), the utility service area coverage expands to the remainder of County lands, excluding open space and forest, agriculture and tribal lands. The incremental addition to the utility service boundary for this phase is 160 square miles. Total utility service area in 2012 reaches 355.5 square miles or 100% of the ultimate utility area coverage.

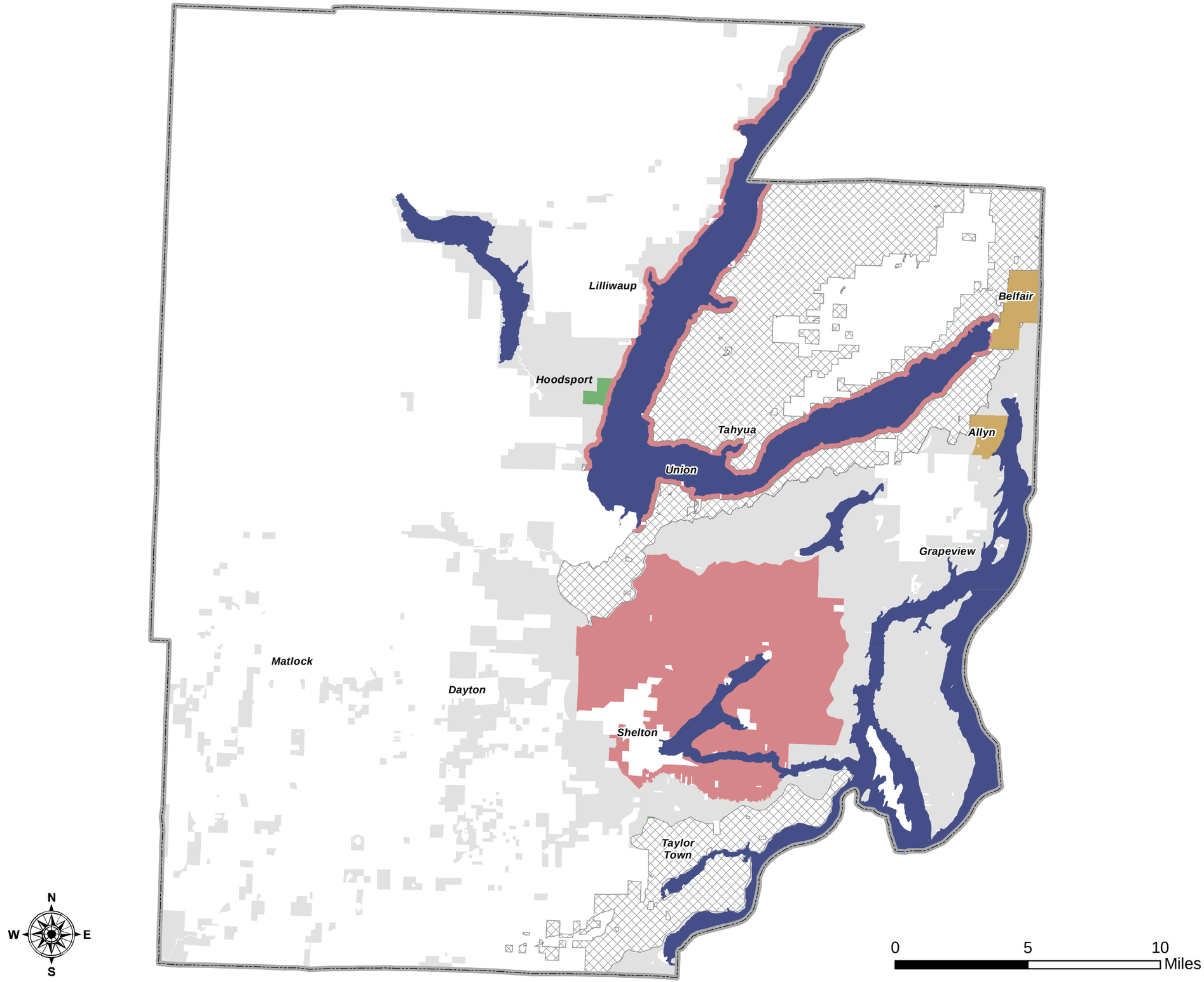
Table 3.1 summarizes the additions to the stormwater utility service area boundary by phase. By 2009, roughly 25% of eligible lands will be covered by the utility; by 2010, about 55% of eligible lands will be covered and this percentage holds steady through 2011. In 2012, the remaining 45% of eligible lands will be covered, completing the utility service area expansion.

Table 3.1: Phasing of SWM Utility Service Area Boundary Expansion					
Phase (Year)	Description	Increment (sq mi)	Percent of Ultimate Utility Coverage	Utility Area (sq mi)	Percent of Cumulative Utility Coverage
1 (2008)	Belfair & Allyn Urban Growth Areas	5.5	1.5%	5.5	1.5%
2 (2009)	Marine Recovery Areas	79.6	22.4%	85.1	23.9%
3 (2010)	Shellfish Protection Districts	109.6	30.8%	194.7	54.8%
4 (2011)	Rural Activity Centers & Limited Areas of More Intense Rural Development	0.8	0.2%	195.5	55.0%
5 (2012)	Countywide (excluding open space and forest, agricultural and tribal lands)	160	45.0%	355.5	100.0%

A stormwater utility service area boundary map reflecting the utility areas as described above with overlaps removed, and excluding open space, and forest, agriculture and tribal lands, is shown in Figure 3.2

Ultimately, many of the administrative and management costs of the Allyn, Belfair and Hoodsport SWM Programs will be supported by the larger, centrally funded Countywide SWM Program. The Countywide SWM Program will be supported by dedicated SWM staff that will be responsible for the administration and implementation of SWM planning throughout the County. The Stormwater Implementation Grant will provide this SWM staff funding for the first two years of the Countywide Program.

Figure 3.2 - Mason County SWM Utility Service Area Coverage



Mason County GIS Department
Map Date: 2/12/2009
Map Project File: Stormwater_Phase_Map_NoOverlap.mxd
Map created using ArcMap 9.3

Legend

- County Boundary
- Water Bodies
- Phase I - Urban Growth Areas
- Phase II - Marine Recovery Areas
- Phase III - Shellfish Protection Districts
- Phase IV - LAMIRD & Rural Activity Centers (RAC)
- Phase V - County Areas outside Designated Forest Lands

3.5 Overall Countywide SWM Program Philosophy

Using the phased approach described above, the adoption of a comprehensive SWM philosophy will include:

- *SWM Program:* Development, adoption and annual implementation and funding of a programmatic approach to stormwater management throughout the area, as presented in the Puget Sound Action Agenda and future NPDES II Permit.
- *Design Criteria for New Development:*
  - 2005 Ecology Manual minimum technical requirements for all new development,
  - Low Impact Development (LID), as a requirement of all new development, with the exception of construction of single-family units on legal lots of record. The County has existing drainage requirements for small parcels that mirror LID measures and result in no net increase in site runoff.
  - Review and possible adoption of revisions to the Development Standards of the Comprehensive Plan, requiring all future development be conducted according to current low impact principles that include minimizing new impervious areas, optimizing the preservation of natural vegetation (including the natural understory beneath the tree cover), disconnection of roof drains, infiltration of site runoff, and dispersion of surface runoff sheet flows into the remaining natural vegetation areas.
- *Development Review:* Review of new development and redevelopment for compliance with stormwater standards, including inspection and enforcement of development codes.
- *Stormwater Facility Maintenance Program:* Stormwater system inspection, cleaning, and maintenance activities.
- *Existing Development:* Retrofit of existing impervious areas to detain and treat runoff from existing development prior to discharge using LID techniques (i.e. bio-retention),
- *County Road Design:* Treating the runoff from all new County roads using LID techniques (i.e. bio-retention, water quality treatment filters, etc.), and
- *Funding:* Establishment of adequate local funding to implement the annual Comprehensive Countywide SWM Program.

3.6 Elements of the Countywide SWM Program

Similar to the Allyn, Belfair, and Hoodsport SWM Plans, the County's Comprehensive SWM Program will assume a watershed based management philosophy for the protection of natural resources and the establishment of effective stormwater management throughout the County. This means that the County's Comprehensive SWM Program will be based upon the technical, programmatic, capital and funding approach needed to achieve natural resource protection objectives, consistency with the Puget Sound Action Agenda and

compliance with a future Phase II NPDES Permit and support continued growth. It will emphasize the protection and enhancement of the natural resources throughout the County. It will include a series of programmatic elements, as well as a capital improvement program (CIP) for both the short- and long-term planning periods. The short-term CIP will support growth over the next six years, while the long term CIP will address ultimate build-out, as defined in the County's Comprehensive Plan.

To retain consistency with the existing SWM Plans and provide a comprehensive approach to SWM within the ultimate utility service boundary, the Countywide SWM Plan recommends a baseline SWM Program for those areas outside Allyn, Belfair and Hoodsport that mirrors the level of service provided by the Hoodsport SWM Plan and as further described below.

SWM Activities Needed for Compliance with the NPDES Phase II Permit

Due to the likelihood that the County will be receiving an NPDES Phase II Permit within the next few years, the following regulatory gap, or programmatic, analysis has been performed and has been used to develop the comprehensive Countywide SWM Plan. These NPDES Phase II requirements were issued in January of 2007 to most smaller municipalities (with populations less than 100,000) throughout the State.

The various existing regulatory requirements have been grouped into nine stormwater management program (SWMP) elements, to form the primary elements of the Countywide SWM Plan. A listing of each regulatory requirement and recommended actions for compliance are provided below.

SWMP Element #1—Public Education and Outreach

Develop and implement a public education and outreach program designed to achieve measurable improvements in stakeholders understanding of stormwater pollution sources and impacts and what they can do to address these issues. The program needs to include efforts to measure the effectiveness of any education activities as well as maintaining records of activities undertaken.

Applicability:

Public education and outreach is an effective and low-cost method for addressing stormwater pollution issues within the County and can be focused on those specific issues relevant for the each of the geographic areas as they are added to the utility boundary, especially those related to existing water quality impairments such as fecal coliform contamination and low dissolved oxygen levels.

Recommended Actions:
Develop and distribute a Countywide brochure for the public that addresses stormwater pollution issues and what homeowners can to do to help solve them. Ensure it covers those issues specific to the County, including the benefits of low impact development (LID). Consider the use of the Puget Sound Partnership's recently updated general education brochure on LID, which is available on its web site. These actions could be supplemented by newsletters, annual reports to the public, and information booths at events, as future funding and priorities allow.

The County intends to partner with the Mason Conservation District and WSU Cooperative Extension to implement activities under this element.

SWMP Element #2—Public Involvement and Participation
Develop and implement a public involvement and participation program to create ongoing opportunities for the public to participate in the decision-making processes involved in the development, implementation and update of the SWMP and make all program documents available on the County website.

Applicability:
Public involvement and outreach is vital to the success of stormwater management and compliance with regulations. There is an increasing realization that government programs with limited resources cannot do the job alone and that citizens share the responsibility of finding, funding, and implementing solutions to local stormwater problems. It is equally important to keep the public informed about program goals, objectives, priorities, available resources, and strategies.

Recommended Actions:
Engage the local County stakeholders in SWM planning and implementation. Organize volunteers to assist in the development of a Stream Team that can assist the County in regional surface water management water quality monitoring, and facility inventory and mapping. The County may consider development of a long-term advisory committee as future funding and priorities allow.

The County intends to partner with the Mason Conservation District and WSU Cooperative Extension to implement activities under this element.

SWMP Element #3—Illicit Discharge Detection and Elimination (IDDE)
Develop and implement an ongoing program to detect and remove illicit discharges and spills to the County's stormwater system. The program needs to include system mapping, an ordinance to prohibit such discharges that includes escalating enforcement procedures and

actions, field assessment procedures and activities, and procedures for characterizing discharges, tracing sources, notifying the appropriate parties, and removing sources.

Applicability:
Due to the small amount of stormwater infrastructure within the less urbanized areas of the County and the relatively high expense of program development and implementation, this element is not being broadly considered for the Countywide SWM Program at this time. If spills or obvious pollution does occur, these should be reported to Ecology for cleanup and possible enforcement activities.

Recommended Actions:
Illicit discharge and spill education is a topic that should be incorporated into products developed under SWMP Public Education Element #1. An element of the IDDE requirement that would be useful in the short-term is an accurate inventory of facilities and a survey of key drainage facilities electronically recorded in the County's GIS/mapping system. This could be done in annual increments over the next few years. The County will publish local contact information for reporting illicit discharges and spills, as well as the Ecology hotline, and other educational materials on its website and will consider conducting business outreach regarding dumping and materials storage and using fire district volunteers as future funding and priorities allow.

SWMP Element #4—Controlling Runoff from New Development, Redevelopment and Construction Sites
Develop and implement a program designed to reduce pollutants in stormwater runoff. The program needs to include a stormwater runoff control ordinance that allows the use of low impact development (LID) and specifies site plan review and permitting processes. It also needs to establish maintenance standards and regulations to enforce long-term operations and maintenance of facilities.

Applicability:
The County's existing design criteria for stormwater are based largely on the 1992 Ecology Manual. When the County was more rural that level of treatment may have been adequate, however, as urban centers have emerged throughout the County pollutant loadings have increased and impacts to water quality, fish habitat, and shellfish rearing areas have been documented. It is widely understood that untreated or inadequately treated surface water runoff, particularly from the more intensely developed areas, may be a major contributor to these problems in local receiving waters.

Recommended Actions:
Adoption of the 2005 Ecology Manual and LID ordinance by the County in June of 2008 will help to address both local flow and potential water quality related problems in the urban or urbanizing areas of the UGAs and RACs, as well as Marine Recovery Areas, Shellfish Protection Areas and the remaining area that will ultimately be covered by the stormwater utility boundary. Please refer to Section 3.4 for a more detailed description of design criteria for new and redevelopment. The County's existing Stormwater Ordinance #81-08 includes provision for construction inspection and long-term facility maintenance responsibility and enforcement.

SWMP Element #5—Pollution Prevention & Operations/Maintenance for Municipal Operations
Develop and implement an operations and maintenance program designed to prevent or reduce pollutant runoff from municipal operations. The program needs to include establishment of maintenance standards, policies and procedures, inspections, maintenance practices, staff training, and recordkeeping.

Applicability:
Due to the small amount of stormwater infrastructure outside the urban or urbanizing areas and the relatively high expense of program development and implementation, enhancement of the County's existing level of maintenance is not being recommended at this time, except at known problem areas.

Recommended Actions:
Review the adequacy of current annual maintenance practices including private facility maintenance enforcement and their effectiveness. Annually review and update their effectiveness to improve water quality. Enhance frequency of inspection and maintenance of known problem areas.

SWMP Element #6—Stormwater Management Program Implementation
Develop and implement a SWMP consistent with permit requirements. The SWMP needs to include program cost tracking and coordination mechanisms and be designed to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP), meet All Known, Available, and Reasonable methods of prevention, control and Treatment (AKART).

Applicability:
The County is not yet subject to the NPDES Phase II permit requirements, however, it understands the value of tracking SWMP implementation activities for the purposes of annual reporting that can be used as part of an adaptive management strategy to help annually measure the effectiveness of the SWM Program.

Recommended Actions:
Develop and implement a routine tracking system consistent with NPDES Phase II permit activities for Countywide SWM Program implementation that includes all SWM activities. Evaluate annually using adaptive management and make annual refinements as needed, involving local citizen, stakeholder, and regulatory input to improve protection of water quality, shellfish, and other natural resources.

SWMP Element #7—Total Maximum Daily Load (TMDL) Allocations

The Phase II permit requires compliance with established TMDLs. For most TMDLs, with the exception of those identified in Appendix 2 of the permit, compliance with the permit constitutes compliance with the TMDL. For those TMDLs identified in Appendix 2 of the permit, additional activities are required as detailed in Appendix 2.

Applicability:
There are currently four TMDLs established for water bodies within Mason County.

- The County has been working to fulfill its obligations under the 2003 Union River Fecal Coliform Cleanup Detailed Implementation Plan for stormwater planning for Belfair.
- The 2003 Skokomish River Detailed Implementation Plan for Fecal Coliform did not identify stormwater as a contributing pollution source.
- The Tributataries to Totten, Eld and Little Skookum Inlets Fecal Coliform Bacteria and Temperature Total Maximum Daily Load Water Quality Implementation Plan identified stormwater as a pollution source from Highway runoff and identified WSDOT as the lead for pollution prevention.
- While there is not yet a Detailed Implementation Plan for the Oakland Bay TMDL for fecal coliform and temperature, Ecology has acknowledged that the County's Oakland Bay Action Plan will provide the foundation for the clean up plan. The Oakland Bay Action Plan includes several strategies and goals that target reduction of stormwater impacts to water quality in the Bay.

Recommended Actions:
Implement County obligations as identified in TMDL Water Quality Implementation Plans. In addition, strategies to protect surface waters from water quality degradation are also included in other SWMP elements, including the adoption of the 2005 Ecology Manual and development/ adoption of the LID ordinance. Local water quality monitoring of major outfalls has been recommended in SWM Element #12 to assess impacts of stormwater and the effectiveness of existing SWM controls and practices, as future funding allows.

The County intends to develop, fund, and implement a countywide program to retrofit the runoff from existing development using bio-retention and other LID types of facilities. The Hoodsport RAC, along with the GMA areas of Allyn and Belfair are being targeted as high priority areas for this type of water quality enhancement program that is included in the Stormwater Implementation Grant from Ecology. See Attachment 1 for detail on planned activities.

SWMP Element #8—Monitoring (of SWM Program)

The Phase II permit requires an assessment of the appropriateness of best management practices (BMPs) in the permittee's SWMP and any changes made or proposed to those previously selected. It also specifies steps to be taken in preparation for future stormwater monitoring in the next permit cycle, which starts in 2012.

Applicability:

Annual assessments of the appropriateness and effectiveness of the BMPs to be implemented as part of the SWMP are recommended as part of the tracking and evaluation activities identified in SWMP Element 6—Stormwater Management Program Implementation. Water quality monitoring is also addressed in SWMP Element #12.

Recommended Actions:

As the Countywide SWM Program is established over the next several years, an annual monitoring program to review the effectiveness of individual SWM Program activities should be established. The SWM Program should be modified as needed on an annual basis using the principles of adaptive management.

SWMP Element #9—Reporting

The Phase II permit requires that permittees submit annual reports that include documentation of its SWMP, formal report forms that summarize the status of implementation, progress toward meeting minimum performance standards, and description of activities, an implementation schedule, and a summary of its SWMP evaluation.

Applicability:

The County is not yet subject to these requirements of the Phase II permit, however, as mentioned in SWMP Element #6—Program Implementation, there is value in the tracking of SWMP implementation activities for the purpose of annually evaluating SWMP effectiveness. The annual SWM Program effectiveness evaluation could also be used as part of an adaptive management strategy to help document the effectiveness of the existing SWMP. Annual reports are also useful for informing the public and elected officials of implementation progress and results.

Recommended Actions:
Develop and implement an annual internal reporting system for County SWMP implementation that includes the SWM activities contained within the recommended Countywide SWM Plan. As mentioned in Element #8, documenting and evaluating the effectiveness of the proposed SWMP should be done annually in order to review and refine the program and continue to address high priority needs.

SWM Program Elements Required for Consistency with the SWM Plans for Allyn, Belfair and Hoodsport.

These elements include conducting watershed or basin planning, creating adequate local funding, implementing annual water quality monitoring to assess program effectiveness, and capital improvement projects. To ensure consistency of the County's response to the various stormwater requirements, the following four should also be included in the recommended Countywide SWM Plan.

SWMP Element #10—Watershed or Basin Planning

Watershed or basin planning processes are used to identify and rank existing problems that degrade water quality, aquatic species, habitat, and natural hydrological processes; this element of the SWMP also calls for the development of action plans/schedules, along with the identification of funding strategies to fix local drainage problems.

Applicability:
The development of the Allyn, Belfair and Hoodsport SWM Plans fulfill this intent since they are based on both basin characterization and problem assessment within the UGAs and RAC. Both capital and programmatic recommendations are included in the recommended Plans, together with implementation costs, schedule, and funding strategy to address regulatory SWM obligations and water quality and habitat needs.

Recommended Actions:
These SWM Plans and the SWMP elements of the proposed Countywide SWM Plan are consistent with this intent.

SWMP Element #11—Funding

To ensure adequate, permanent funding for SWMP activities and regional stormwater projects, creation of funding capacity, such as a utility, is essential.

Applicability:
Developing and maintaining an adequate level of annual local funding is the key to the long-term success of the program and the support of an effective capital improvement program.

Creating adequate local funding for the Countywide SWM Plan is the focus of the financial analysis presented in Section 4.

Recommended Actions:
The County has already established a stormwater utility and a phased implementation schedule. Over the next two years, the Stormwater Implementation Grant will provide the resources needed to develop and implement a SWM funding plan. The SWM funding plan should explore the development of a system development charge for new development and redevelopment to help the County offset some of the costs of building the future conveyance systems and water quality treatment systems that will be needed in the future. This Countywide SWM Plan provides an overview of estimated revenue needs and potential funding sources that will be further refined by the SWM funding plan developed under the grant.

SWMP Element #12—Water Quality Monitoring
Monitoring of program implementation and environmental conditions and trends over time allows the County to measure the effectiveness of program activities and to share the results with others.

Applicability:
The need for program effectiveness and water quality monitoring is discussed in SWMP Elements #6—Program Implementation and #8—Monitoring.

Recommended Actions:
At this point in time, consistent with the Allyn, Belfair and Hoodsport SWM Plans, water quality monitoring will consist primarily of documenting the effectiveness of LID retrofit facilities that are being designed to treat existing runoff and producing an annual report. As discussed in SWMP Elements #6 and #8, implementation of an annual monitoring program (programmatic in nature; i.e. not involving any water quality monitoring) to track progress and assess effectiveness is also recommended.

In the future, as funding allows, water quality monitoring of major outfalls, as well as the effectiveness of annual maintenance and new development review practices, should be considered by the County. This monitoring program should be annually tailored to focus on local flooding problems and water quality and habitat priorities, especially if local TMDLs have not been established by Ecology.

SWMP Element #13—Capital Improvement Program

Water quality treatment facilities, flood reduction facilities, and projects to improve habitat and fish passage are all examples of capital improvements that the County plans to pursue to address existing and future water quality, flooding and habitat needs.

Applicability:

As part of its Comprehensive Plan updates, the County conducts capital facility planning and updates to its Capital Facilities Plans on a regular basis that includes stormwater facility development and critical habitat rehabilitation.

Recommended Actions:

For existing development, retrofit of existing impervious areas to detain and treat runoff from existing development prior to discharge using LID techniques (i.e. bio-retention). For County road design, treat the runoff from all new County roads using LID techniques (i.e. bio-retention, water quality treatment filters, etc.). Attachment 4 provides excerpts from the County's current Comprehensive Plan Capital Facilities chapter, which summarizes types of projects to be undertaken, estimated costs, and sources of funding.

3.7 Relationship to Allyn, Belfair and Hoodsport SWM Plans

The Allyn, Belfair and Hoodsport SWM Plans complement and support the development of the Comprehensive Countywide SWM Plan. These SWM Plans have been developed by:

- Collecting information and characterizing the various drainage areas,
- Evaluating existing facilities and planning for future capital needs,
- Reviewing and evaluating regulatory compliance/programmatic needs in comparison to the County's existing surface water management program,
- Combining the recommended capital and programmatic needs together, along with costs and a schedule for implementation, to form the SWM Plan, and
- Providing a conceptual financial plan, outlining various potential funding mechanisms and amounts of annual revenues.
- Development of the Countywide SWM Plan followed a similar approach to maintain consistency across the County's SWM Program. Implementation of the Allyn, Belfair and Hoodsport SWM Plans is expected to follow in accordance with the associated implementation schedules and the County's proposed phasing of its Stormwater Utility service area boundaries. This Countywide SWM Plan acknowledges these existing plans and focuses on addressing the Marine Recovery Areas, the Shellfish Protection Districts, the Rural Activity Centers and Limited Areas of More Intense Rural Development, as well as the remaining County areas, exclusive of those where the utility will not apply, such as designated forest lands, agricultural lands, open space, and tribal lands.

3.8 Funding and Implementation

Creation and Allocation of New Annual Revenues

One of the challenges in developing a new Comprehensive Countywide SWM Program will be in creating the amount of new revenue needed to annually develop and operate the Program. Similar to the financial plans presented in the Allyn, Belfair and Hoodsport SWM Plans, it is likely that various new revenue sources will need to be created and/or existing revenue sources will need to be reprioritized so that additional revenue can be directed to the new Comprehensive Countywide SWM Program. Details on funding and implementation will be specifically addressed in Section 4.

3.9 Implementation and Annual Reviews to Update/Refine SWM Program

The implementation and funding of the Comprehensive Countywide SWM Program, as well as the Allyn, Belfair and Hoodsport SWM Plans, will emphasize an initial series of recommended, high priority SWM programmatic activities and capital projects. The development of one or more dedicated funding sources has been recommended in the conceptual financial plan to meet projected annual revenue needs; however, additional revenues will likely be needed. It is important to recognize that this is not the end of the planning process; rather it is just the beginning. Throughout the continued development and implementation of the Countywide SWM Program, the County will continue to gather data and learn more about the natural systems and the effectiveness of the various SWM initiatives. This information will be used on an annual basis to continue to evaluate the effectiveness of the proposed Program. Using the process of adaptive management, further refinement and adjustment of the Program will continue to enhance its overall effectiveness.

Section 4—Funding and Phased Implementation

4.1 Introduction and Overview

The intent of this section is to address the annual revenue needs identified in the recommended Countywide SWM Plan.

- The first part of this analysis combines the capital and programmatic SWM needs, as identified previously in Section 3, and the Allyn, Belfair and Hoodsport SWM Plans so that total annualized costs can be identified in Section 4.2.
- Funding alternatives are reviewed and preferred revenue options and recommendations are selected and presented in Section 4.3.

4.2 SWM Program Cost and Revenue Needs

The funding/revenue needed to implement the recommended Countywide SWM Program is presented in Table 4.1 below. A basic level of service consistent with the Hoodsport Plan has been used as a basis for cost estimating for the areas outside Allyn and Belfair. For the areas of Allyn and Belfair, a higher level of service has been proposed as complexity and needs are greater in these most urbanized areas of the County. Costs for Allyn and Belfair reflect those shown in the adopted SWM Plans; activities subsequent to plan adoption, such as the adoption of the 2005 Ecology Manual and LID ordinance, may result in lower costs than those originally proposed.

No costs are shown for Phase IV – LAMIRDs and RACs due to the fact that with the exception of a portion of the Hoodsport RAC, all other LAMIRDS and RACs have already been encompassed in the utility service area boundary as part of earlier phases and costs for Hoodsport are already accounted for separately in Table 4.1.

Rationale and assumptions used in developing costs for the Countywide SWM Program are discussed in Section 3; the most significant ones are summarized here including those used in developing the costs for the SWM Plans for Allyn and Belfair.

- Elements 1 and 2, Public Education and Public Involvement – Costs shown for Allyn and Belfair reflect the greater complexity and needs of urbanized areas for education and involvement than is proposed for the less densely developed and rural areas of the County.

- Element 3, Illicit Discharge – The urbanized areas of Allyn and Belfair host land uses that create a greater potential for illicit discharges than the rural areas, which is reflected in higher costs for program development and implementation.

- Element 4, New Development – Costs shown for Allyn and Belfair predated the County's adoption of the 2005 Ecology Manual and the LID ordinance and assume more rigorous development review for these urbanized areas; for the other phases,

no additional cost to the SWM Program is anticipated. For all phases, no costs are included for development review labor, which is paid for by developer fees.

- Element 5, Maintenance – For the areas outside the urban areas of Allyn and Belfair, activities would focus on reviewing annual maintenance practices for effectiveness and enhancing frequency of inspection and maintenance of known problem areas. In Allyn and Belfair, costs are higher in order to respond to the need to increase regular inspections, conduct small studies, and to fix local drainage problems.

- Element 6, SWM Program Implementation – Costs shown are for developing and implementing a routine tracking system for SWM Program implementation activities and annual evaluation using adaptive management.

- Element 7, TMDLs – The County has fulfilled its obligations under existing TMDLs. There are no costs shown since strategies to protect surface waters from water quality degradation are also included in other SWMP Elements, including water quality monitoring and retrofits to treat runoff from existing development. Obligations and associated costs under any future TMDLs will be assessed and addressed as part of the annual review and adaptive management process.

- Element 8, SWM Program Monitoring – Annual assessments of the appropriateness and effectiveness of program activities are recommended as part of tracking and evaluation activities identified in Element 6, SWM Program Implementation so no additional costs are included in this element.

- Element 9, Reporting – Costs shown are for developing an internal reporting system for County SWM Program implementation to help evaluate and document Program effectiveness that can be used to inform the public and elected officials of progress and results.

- Element 10, Basin Planning – No costs are shown for this element as the development of the Allyn, Belfair and Hoodsport SWM Plans fulfills this intent.

- Element 11, Funding – Costs shown are for Allyn and Belfair only and predate the County's creation of its Stormwater Utility and receipt of the $1M Stormwater Implementation Grant from Ecology that will provide resources needed to develop and implement a SWM funding Plan.

- Element 12, Water Quality Monitoring – The emphasis of the water quality monitoring is to evaluate the effectiveness of water quality retrofit bio-retention facilities installed in road right of ways to treat existing runoff; monitoring will be conducted by volunteers; and costs included are primarily for laboratory-related analyses. For Allyn and Belfair, costs for water quality monitoring are included in the Addendum and also focus on measuring the effectiveness of the proposed LID retrofits.

- Element 13, Capital Improvement Projects (CIP) – Costs shown are for short-term CIP needs. For Hoodsport, short-term CIP include four projects totaling $423K, averaging approximately $70K annually. For Allyn and Belfair, short-term CIP projects are included in the Addendum. The County's long-term CIP strategy embraces the continued use of a decentralized approach emphasizing LID to address the needs of future development.

- Addendum – These four activities relate specifically to the Allyn and Belfair areas that, due to intensity of development and urban conditions, have increased needs for water quality treatment and flood reduction facilities.

Table 4.1: Recommended SWM Program Elements and Costs (in thousands)

SWMP Element	Recommended Action	Year 1 2008	Year 2 2009	Year 3 2010	Year 4 2011	Year 5 2012	Year 6 2013
1	Public Education						
	Allyn	$5	$5	$25	$25	$25	$25
	Belfair	$5	$5	$25	$25	$25	$25
	Marine Recovery Areas		$5	$5	$5	$5	$5
	Shellfish Protection Districts			$5	$5	$5	$5
	Hoodsport				$5	$5	$5
	LAMIRDs & Rural Activity Centers				$0	$0	$0
	Remaining County Areas					$5	$5
	Total	$10	$15	$60	$65	$70	$70
2	Public Involvement						
	Allyn	$25	$25	$25	$25	$25	$25
	Belfair	$25	$25	$25	$25	$25	$25
	Marine Recovery Areas		$10	$10	$10	$10	$10
	Shellfish Protection Districts			$10	$10	$10	$10
	Hoodsport				$10	$10	$10
	LAMIRDs & Rural Activity Centers				$0	$0	$0
	Remaining County Areas					$10	$10
	Total	$50	$60	$70	$80	$90	$90

Table 4.1: Recommended SWM Program Elements and Costs (in thousands)							
SWMP Element	Recommended Action	Year 1 2008	Year 2 2009	Year 3 2010	Year 4 2011	Year 5 2012	Year 6 2013
3	Illicit Discharge						
	Allyn	$0	$25	$25	$25	$25	$25
	Belfair	$0	$25	$25	$25	$25	$25
	Marine Recovery Areas		$0	$10	$10	$10	$0
	Shellfish Protection Districts			$0	$10	$10	$10
	Hoodsport				$0	$10	$10
	LAMIRDs & Rural Activity Centers				$0	$0	$0
	Remaining County Areas					$0	$10
	Total	$0	$50	$60	$70	$80	$80
4	New Development						
	Allyn	$50	$60	$10	$10	$10	$10
	Belfair	$50	$60	$10	$10	$10	$10
	Marine Recovery Areas		$0	$0	$0	$0	$0
	Shellfish Protection Districts			$0	$0	$0	$0
	Hoodsport				$0	$0	$0
	LAMIRDs & Rural Activity Centers				$0	$0	$0
	Remaining County Areas					$0	$0
	Total	$100	$120	$20	$20	$20	$20
5	Maintenance						
	Allyn	$25	$25	$35	$35	$35	$35
	Belfair	$25	$25	$35	$35	$35	$35
	Marine Recovery Areas		$25	$25	$25	$25	$25
	Shellfish Protection Districts			$25	$25	$25	$25
	Hoodsport				$25	$25	$25
	LAMIRDs & Rural Activity Centers				$0	$0	$0
	Remaining County Areas					$25	$25
	Total	$50	$75	$120	$145	$170	$170
6	SWM Program Implementation						
	Allyn	$15	$25	$20	$20	$20	$20
	Belfair	$15	$25	$20	$20	$20	$20
	Marine Recovery Areas		$10	$10	$10	$10	$10
	Shellfish Protection Districts			$10	$10	$10	$10
	Hoodsport				$10	$10	$10
	LAMIRDs & Rural Activity Centers				$0	$0	$0
	Remaining County Areas					$10	$10
	Total	$30	$60	$60	$70	$80	$80

Table 4.1: Recommended SWM Program Elements and Costs (in thousands)							
SWMP Element	Recommended Action	Year 1 2008	Year 2 2009	Year 3 2010	Year 4 2011	Year 5 2012	Year 6 2013
7	TMDLs						
	Allyn	$0	$0	$0	$0	$0	$0
	Belfair	$0	$0	$0	$0	$0	$0
	Marine Recovery Areas		$0	$0	$0	$0	$0
	Shellfish Protection Districts			$0	$0	$0	$0
	Hoodsport				$0	$0	$0
	LAMIRDs & Rural Activity Centers				$0	$0	$0
	Remaining County Areas					$0	$0
	Total	$0	$0	$0	$0	$0	$0
8	SWM Program Monitoring (covered in SWM Program Implementation)						
	Allyn	$0	$0	$0	$0	$0	$0
	Belfair	$0	$0	$0	$0	$0	$0
	Marine Recovery Areas		$0	$0	$0	$0	$0
	Shellfish Protection Districts			$0	$0	$0	$0
	Hoodsport				$0	$0	$0
	LAMIRDs & Rural Activity Centers				$0	$0	$0
	Remaining County Areas					$0	$0
	Total	$0	$0	$0	$0	$0	$0
9	Reporting (Internal)						
	Allyn	$10	$10	$10	$10	$10	$10
	Belfair	$10	$10	$10	$10	$10	$10
	Marine Recovery Areas		$5	$5	$5	$5	$5
	Shellfish Protection Districts			$5	$5	$5	$5
	Hoodsport				$5	$5	$5
	LAMIRDs & Rural Activity Centers				$0	$0	$0
	Remaining County Areas					$5	$5
	Total	$20	$25	$30	$35	$40	$40
10	Basin Planning						
	Allyn	$0	$0	$0	$0	$0	$0
	Belfair	$0	$0	$0	$0	$0	$0
	Marine Recovery Areas		$0	$0	$0	$0	$0
	Shellfish Protection Districts			$0	$0	$0	$0
	Hoodsport				$0	$0	$0
	LAMIRDs & Rural Activity Centers				$0	$0	$0
	Remaining County Areas					$0	$0
	Total	$0	$0	$0	$0	$0	$0

Table 4.1: Recommended SWM Program Elements and Costs (in thousands)							
SWMP Element	Recommended Action	Year 1 2008	Year 2 2009	Year 3 2010	Year 4 2011	Year 5 2012	Year 6 2013
11	Funding						
	Allyn	$100	$100	$0	$0	$0	$0
	Belfair	$100	$100	$0	$0	$0	$0
	Marine Recovery Areas		$0	$0	$0	$0	$0
	Shellfish Protection Districts			$0	$0	$0	$0
	Hoodsport				$0	$0	$0
	LAMIRDs & Rural Activity Centers				$0	$0	$0
	Remaining County Areas					$0	$0
	Total	$200	$200	$0	$0	$0	$0
12	WQ Monitoring: Baseline						
	Allyn (See Addendum)	$0	$0	$0	$0	$0	$0
	Belfair (See Addendum)	$0	$0	$0	$0	$0	$0
	Marine Recovery Areas		$5	$5	$5	$5	$5
	Shellfish Protection Districts			$5	$5	$5	$5
	Hoodsport				$5	$5	$5
	LAMIRDs & Rural Activity Centers				$0	$0	$0
	Remaining County Areas					$5	$5
	Total	$0	$5	$10	$15	$20	$20
	Programmatic Total	**$460**	**$610**	**$430**	**$500**	**$570**	**$570**
13	CIP						
	Allyn (See Addendum)	$0	$0	$0	$0	$0	$0
	Belfair (See Addendum)	$0	$0	$0	$0	$0	$0
	Marine Recovery Areas		$70	$70	$70	$70	$70
	Shellfish Protection Districts			$70	$70	$70	$70
	Hoodsport				$70	$70	$70
	LAMIRDs & Rural Activity Centers				$0	$0	$0
	Remaining County Areas					$70	$70
	CIP Total	**$0**	**$70**	**$140**	**$210**	**$280**	**$280**
Addendum	Enhanced O&M: Study/Fixes						
	Allyn	$20	$20	$20	$20	$20	$20
	Belfair	$20	$20	$20	$20	$20	$20
	WQ Treatment - Road Ditches						
	Allyn	$80	$80	$80	$80	$80	$80
	Belfair	$80	$80	$80	$80	$80	$80
	Retrofits for Water Quality						
	Allyn	$80	$80	$80	$80	$80	$80
	Belfair	$80	$80	$80	$80	$80	$80

	WQ Monitoring: Retrofit LID						
	Allyn	$20	$20	$20	$20	$20	$20
	Belfair	$20	$20	$20	$20	$20	$20
	Addendum Total	**$400**	**$400**	**$400**	**$400**	**$400**	**$400**
	Total	**$860**	**$1,080**	**$970**	**$1,110**	**$1,250**	**$1,250**

Over the six-year planning period, the Countywide SWM Program costs for programmatic elements range annually from a low of $430K to a high of $610K, averaging $523K. Similarly, for the CIP element, costs range from $70K to $280K, averaging $163K, and for the Addendum, annual costs are constant at $400K. In total, the costs for the Countywide SWM Program for all phases range from $860K to $1.25M between 2008 and 2013, averaging approximately $1.1M on an annual basis.

Note that as more knowledge and experience is gained in implementing the Countywide SWM Program, service levels as currently defined in Table 4.1 will be subject to review and revision on an annual basis as part of the future public involvement and updates to the Program and the County's annual budgeting process.

4.3 Potential Funding Sources

Funding Analysis

Presented in Table 4.1 is an estimate of the cost of the recommended Countywide SWM Program. New revenue is needed over the planning period to support programmatic initiatives and capital projects that will be needed to support ultimate build out.

SWM Policies Guide Selection of Financial Options

The SWM management policies and approaches preferred by the County, as presented in this document, play a large role in determining the funding strategies to implement the proposed Countywide SWM Program. In general, the proposed funding strategy has been guided by the following policies and technical decisions that have been created to manage stormwater Countywide:

- Low impact development will be required for all new development and redevelopment unless it is infeasible for the site. The Low Impact Development Technical Manual for Puget Sound, 2005 or current edition will be referenced for siting, design, construction and maintenance of LID techniques used in the County.
- The County's intent is to manage stormwater onsite to the greatest extent feasible. Regional detention will only be considered if the characteristics of a site or group of

sites are such that LID and other onsite stormwater management techniques are not feasible.

- New development/redevelopment will pay for the cost of onsite water quality treatment (per the adoption of the 2005 Manual by the County).
- New development/redevelopment may help pay for future regional conveyance facilities, as/if needed to support future growth through the establishment of SEPA mitigation and system developer charges.
- Retrofitting existing homes and businesses for detention or water quality treatment has not been included at this time, but is currently being considered as part of the County's stormwater implementation grant from Ecology.
- As the County builds new roads it will design and pay for some new water quality retrofit systems that will be located within the County road right-of-ways to collect and treat road runoff.

Review and Evaluate Potential Funding/Revenue Options

Discussions with the County suggest that there are several financial options that should be considered to fund stormwater management. A preliminary review of these potential funding sources suggests that multiple sources of funding will likely be needed; no single source of funding will likely be adequate by itself. Funding sources that are currently being considered include:

- **Formation of a Local Drainage/Stormwater Improvement District,** which would have an annual assessment usually based on assessed property value, or some other equitable means of establishing value and/or benefit to the various rate payers.
- **Real Estate Excise Tax (REET) Funding,** which currently amounts to about $750K per year for the County, and is currently being used to pay for a number of capital projects throughout the County. Securing periodic appropriations from REET funding for either capital or program needs may be available on an annual basis depending on other County project priorities.
- **Annual County Portion of State Sales Tax,** which has recently been raised from .08% to .09%; this will amount to about $450K per year for the County with the recent increase to 0.09 per cent.
- **Public Sector Funding,** such as grants and low interest loans from the State (Ecology or the Puget Sound Partnership) or federal government, including federal 319 Water Quality Grants, and the State Public Works Trust Fund and State Revolving Fund. While available, they potential funding sources are generally limited in duration and amount. They are also very competitive and have limitations regarding timing, applicability, reporting, and administrative costs.

- **Stormwater Utility Funding**, where a monthly service fee is assessed to ratepayers, often based on the amount of impervious area per parcel, including public and private roads.
- **Continued collection and use of developer fees** to review and approve plans for new development and re-development, as well as conducting inspection and enforcement in the field.
- **System Development Charges (SDCs),** where any person moving into an upstream drainage area by the purchase of a home would be required to pay for a portion of the downstream collection, conveyance, detention, treatment, and outfall facilities that may be needed to support continued development within the drainage basin. These would be assessed to the developer prior to the construction of the home during the County's permitting process.
- **SEPA Mitigation Funds,** which would be established on a per development basis as a project enters and is ultimately approved through the State SEPA review process. This has historically been used very successfully by the County for additional infrastructure that has directly resulted from new proposed development/redevelopment.
- **Partnering with prospective developers,** landowners and other State agencies can be especially effective in establishing funding for larger regional drainage facilities. These are usually project-specific types of funding agreements based on use or contribution of stormwater runoff.
- **Other potential, but less likely sources of direct internal County funding,** include the General, Road, Park, and Utility (Sewer) Funds; however, these funds are perhaps best used as potential sources for the *joint funding of projects* with common community purposes.

From this list of ten potential sources of funding, the most likely sources of new future funding for the Countywide SWM Program, in relative order of priority, are the following:

1. **Stormwater Utility** to support programmatic SWM activities.
2. Ensuring **developer and permit fees** are adequate to support development review, inspection, and enforcement services.
3. Using project related **SEPA mitigation** funding to support capital projects, especially those required by an increase in capacity within a regional conveyance system.
4. Establishing **System Development Charges** for new growth-related capital drainage projects; this is also another good source of funding for regional conveyance and/or treatment systems.
5. Annually appropriating a portion of Annual State **Sales Tax Returns**.

6. Securing periodic appropriations from **REET funding** for either capital or program needs.
7. Obtaining capital project funding, from **Future Road, Park, and/or Utility Projects,** with common objectives that include stormwater management opportunities.

4.4 Concluding Statement

This Countywide SWM Plan has been prepared to address deficiencies within the drainage infrastructure, assess proposed land uses and develop guidelines for new development, and assist the County in addressing existing and future regulatory requirements with the primary intent of protecting and maintaining the unique water quality and habitat functions of the region.

In 2009 as part of the scope of work of its $1M Stormwater Implementation Grant, the County will develop a SWM Program funding plan that will identify revenue sources and relative contributions.

Section 5—Future Public Involvement and Updates to the Program

5.1 Ongoing Public Involvement

The County established a Stormwater Task Force of community members to help guide the development of the Countywide SWM Program. It is expected that this group will continue to play an active role in the public review of the Countywide SWM Program, as well as in the annual updates to all of the County's SWM planning efforts, which include future updates to the SWM Plans of Allyn, Belfair, and Hoodsport.

5.2 Future Updates to the SWM Plan

The County recognizes the cooperative effort needed for successful and effective SWM planning throughout the County. It intends to conduct an annual review of the effectiveness of each of the elements of the Countywide SWM Program and implementation plan. Annual refinements to the SWM Program activities, as well as their associated budgets and associated service levels, are anticipated. This review and refinement will continue to occur through an open and well-advertised public review process.

Puget Sound Action Agenda, Puget Sound Partnership, December 1, 2008.

Kitsap County Surface and Stormwater Management Program, A Case Study, Puget Sound Action Team, 2005.

Literature Review and Analysis: Coastal Urbanization and Microbial Contamination of Shellfish Growing Areas, Stuart Glasoe and Aimee Christy, 2004.

City of Shelton Six Year Surface and Stormwater Comprehensive Plan, Otak, May 2008.

Mason County Code Chapters 14.46 Storm and Surface Water Utility, 14.48 Stormwater Management, and 17.80 Low Impact Development.

Hood Canal Pollution Identification and Correction Project Final Report, Mason County Public Health, December 2008.

Annas Bay Closure Response Strategy, Mason County Public Health, Revised April 20, 2007.

Mason County Comprehensive Plan, April 1996, Revised 2005.

Oakland Bay Action Plan, Mason County Public Health, August 16, 2007.

Tributaries to Totten, Eld and Little Skookum Inlets Fecal Coliform Bacteria and Temperature Total Maximum Daily Load Water Quality Implementation Plan, Washington State Department of Ecology, November 2007.

Union River Fecal Coliform Water Cleanup Detailed Implementation Plan, Washington State Department of Ecology, August 2003.

Mason County's On-Site Sewage System Maintenance Plan, Mason County Public Health, June 30, 2007.

Skokomish River Detailed Implementation Plan for Fecal Coliform Bacteria, Washington State Department of Ecology, February 2003.

Allyn Urban Growth Area Stormwater Management Plan, Otak, June 2007, and Addendum, Otak, August 2007.

Belfair Urban Growth Area Stormwater Management Plan, Otak, June 2007, and Addendum, Otak, August 2007.

Hoodsport Rural Activity Center Stormwater Management Plan, Otak, September 2008.

Attachment 1—Ecology Stormwater Implementation Grant No. G0800631

Wellcome - Karen
Copy - Dec

COPY

STORMWATER MANAGEMENT IMPLEMENTATION GRANT PROGRAM FUNDING AGREEMENT

BETWEEN
THE STATE OF WASHINGTON DEPARTMENT OF ECOLOGY
AND
MASON COUNTY

THIS is a binding agreement between the state of Washington Department of Ecology (DEPARTMENT) and Mason County (RECIPIENT). The purpose of this agreement is to provide funds to the RECIPIENT, who will carry out the requirements described in this Agreement.

PART I. GENERAL INFORMATION

Project Title:	**Mason County SWM Program Funding and Improvement/Urban Water Quality LID Retrofit Project**
Ecology Grant Number:	**G0800631**
RECIPIENT Name:	**Mason County**
Mailing Address:	**P.O. Box 1850**
Street Address if different:	**Shelton, WA 98584**
RECIPIENT Contact Information:	**Charlie Butros**
Telephone Number:	**(360) 427-9670 ext. 450**
Fax Number:	**(360) 427-7783**
E-Mail Address:	**charlesb@co.mason.wa.us**
RECIPIENT Billing Contact:	**Karen Dowling**
Telephone Number:	**(360) 427-9670 ext. 451**
Fax Number:	**(360) 427-7783**
E-Mail Address:	**karend@co.mason.wa.us**
Disbursement Name (applicant name to be payable to):	**Mason County Public Works**
Address:	**P.O. Box 1850** **415 North 5th St.** **Shelton, WA 98584** **DOE Vendor Number: SWV0001893-01**
RECIPIENT Federal ID Number:	**91-6001354**

DEPARTMENT Project Manager:	**Deborah Cornett**
Mailing Address:	**Water Quality Program** **Washington State Department of Ecology** **P.O. Box 47600** **Olympia, WA 98504-7600**
Telephone Number:	**(360) 407-7269**
Fax Number:	**(360) 407-6305**
E-Mail Address:	**dcor461@ecy.wa.gov**
DEPARTMENT Financial Manager:	**Shelly Eisenbarth**
Mailing Address:	**Water Quality Program** **Washington State Department of Ecology** **P.O. Box 47600** **Olympia, WA 98504-7600**
Telephone Number:	**(360) 407-7039**
Fax Number:	**(360) 407-7151**
E-Mail Address:	**scis461@ecy.wa.gov**
DEPARTMENT Project Engineer	**Kris Walters**
Mailing Address:	**Water Quality Program** **Washington State Department of Ecology** **P.O. Box 47600** **Olympia, WA 98504-7600**
Telephone Number:	**(360) 407-6655**
Fax Number:	**(360) 407-6426**
E-Mail Address:	**krwa461@ecy.wa.gov**
DEPARTMENT Funding Source:	**Stormwater Management Implementation Grant Program FY2008** **2007-09 Biennial Capital Budget**
Total Project Cost: (TPC)	**$1,000,000**
Total Eligible Cost: (TEC)	**$1,000,000**
DEPARTMENT Share: 75% of TEC	**$750,000**
RECIPIENT Share: 25% of TEC	**$250,000**
DEPARTMENT Maximum Percentage:	**75 percent**

The effective date of this Agreement is January 31, 2008. Any work performed prior to the effective date of this Agreement, without written Prior Authorization of the DEPARTMENT, will be at the sole expense and risk of the RECIPIENT.

Is Prior Authorization granted by the Water Quality Program Manager? ☒ Yes ☐ No

If yes, Effective Date: **January 31, 2008**

With written Prior Authorization from the DEPARTMENT, the RECIPIENT may begin incurring eligible project costs on or after the prior authorization effective date and until the grant agreement is signed. Costs incurred during the prior authorization period are at the sole risk of the applicant. Funds cannot be released until a grant agreement is signed by the Water Quality Program Manager.

This agreement will expire no later than: **June 30, 2011**

PART II. GOALS, OUTCOMES, AND POST PROJECT ASSESSMENT

A. Project Goals. The overall goals of this project are focused on the protection of southern Hood Canal, Annas Bay, North Bay, Oakland Bay, and includes the following:

1. Stormwater system retrofits.
2. Low impact development (LID) best management practices (BMP).
3. Other stormwater activities, such as planning, mapping, education and outreach, utility/ordinance development.

B. Water Quality Project Outcomes. The following summarize the quantitative results anticipated from the project:

1. Funding and Implementation of a countywide Stormwater Management Program (SWMP).
2. North Bay, Oakland Bay, and Hood Canal Urban water quality LID.
3. Water quality improvement and retrofit projects.

C. Post Project Assessment. The RECIPIENT will submit a brief survey regarding the key project results or water quality project outcomes and status of eventual environmental results or goals three years after project completion.

The DEPARTMENT's Performance Measures Lead will make every effort to e-mail the RECIPIENT the Post Project Assessment Survey approximately 60 days prior to the Post Project Assessment Date. This date will be three years after the agreement expires. This survey is to be completed by the RECIPIENT and sent as an e-mail attachment to the DEPARTMENT's Project Manager and the DEPARTMENT's Water Quality Program Performance Measures Lead.

The DEPARTMENT may conduct additional on-site interviews and inspections to gather information for this assessment. The DEPARTMENT will provide the performance measures data to the Legislature, Environmental Protection Agency, and other natural resource agencies in support of continued water quality financial assistance programs.

Post Project Assessment Date: **June 30, 2014**

PART III. PROJECT SUMMARY

This project will implement a countywide SWMP. The implementation will include public education and outreach, stormwater utility funding plan, stormwater control features including illicit discharge detection and elimination, shoreline property runoff controls, and water quality monitoring. Additionally, the project will implement several stormwater retrofit and LID projects in the urban growth and rural activity center areas of Mason County.

PART IV. PROJECT BUDGET

ELEMENTS (Tasks or Objects)	TOTAL PROJECT COST (TPC)	TOTAL ELIGIBLE COST (TEC)
1 - Project Management	$30,000	$30,000
2 – Program Implementation	$390,000	$390,000
3 – Stormwater Retrofit, LID Projects, and Planning	$580,000	$580,000
Total	$1,000,000	$1,000,000
The DEPARTMENT's Fiscal Office will track to the Total Eligible Cost.		
MATCHING REQUIREMENTS		
DEPARTMENT Share: maximum 75% of TEC		$750,000
RECIPIENT Share: minimum 25% of TEC		$250,000

PART V. SCOPE OF WORK

Task 1 - Project Administration/Management

A. The RECIPIENT will administer the project. Responsibilities will include, but not be limited to: maintenance of project records; submittal of payment vouchers, fiscal forms, and progress reports; compliance with applicable procurement, contracting, and interlocal agreement requirements; consultant selection; attainment of all required permits, licenses, easements, or property rights necessary for the project; and submittal of required performance items.

B. The RECIPIENT will manage the project. Efforts will include conducting, coordinating, and scheduling project activities and assuring quality control. Every effort will be made to maintain effective communication with the RECIPIENT's designees, the DEPARTMENT, all affected local, state, or federal jurisdictions, and any interested individuals or groups. The RECIPIENT will carry out this project in accordance with any completion dates outlined in this agreement.

C. The RECIPIENT will submit the project documents as requested by the DEPARTMENT's Project Manager or Financial Manager:

- Electronic copy of **draft final report two months prior to expiration date** – one copy to the DEPARTMENT's Project Manager.
- **Final project completion report** – two hard copies and two electronic copies. One of each to the DEPARTMENT's Project Manager and Financial Manager.

D. The RECIPIENT will provide project coordination and monthly reporting to the County and any consultants involved in the project.

E. The RECIPIENT will conduct six-project meeting.

F. Required Performance:

1. Effective administration and management of this grant project.
2. Maintenance of all project records.
3. Submittal of all required performance items, progress reports, financial vouchers, and maintenance of all project records.
4. Provide monthly reports to the County and consultant(s).
5. Conduct six project meetings.

Task 2 – Program Implementation

A. The RECIPIENT will develop a public education and involvement program countywide. This includes:

- Task force development and two meetings or two public meetings.
- SWMP and funding brochure.
- County SWMP Website.
- Community volunteer program for monitoring, reporting, and site reviews.
- North Bay and Hood Canal Shoreline Property Owner Awareness and Information Assistance Program to include a water quality awareness brochure for county shoreline dwellers, an on-going outreach strategy or programs stressing water quality retrofit using LID, and a shoreline owners technical assistance program or website.
- Development of a public involvement program and coordination of two workshops or public meetings, conceptual layout for signage, and project brochures for sites selected for the water quality LID retrofit program.

B. The RECIPIENT will develop and implement SWM funding plan. This includes:

- The hiring of one SWMP Supervisor.
- Management approach to lead, guide, monitor, track, and report on the development of the county's SWM Program.
- A technical memorandum, which includes a financial review of annual revenue needs and potential funding mechanisms.
- Public review and outreach process.
- Selection of a preferred funding mechanism.
- Development of preferred funding mechanism.
- Creation of needed financial policies, ordinances, and legal authorities.
- Collection and distribution of annual revenues.

C. The RECIPIENT will develop and implement legal authorities and train staff. This includes:

- Update ordinances for development review, maintenance, inspection, enforcement, illegal spills, and cross-connections.
- Develop and implement a final ordinance to adopt 2005 Ecology Manual.

- Develop and implement a final ordinance to adopt an LID ordinance. This includes briefing the Board of County Commissioners, attending one public meeting, conducting one public hearing, and provide training for County staff.
- Develop and implement final ordinance for County's Stormwater Utility.
- Develop and implement final ordinance for an Illicit Discharge Detection and Elimination Program.

D. The RECPIENT will develop a countywide GIS based program that will provide the following:

- Mapping of areas with poor water quality that were found through water quality inspections. Data and information from previous studies and reports will be included in the maps and updated with the newly acquired data.
- Develop one or more Quality Assurance Project Plan (QAPP) as appropriate for required sampling.
- Stormwater treatment features and projects.
- Locations of illicit discharges.
- Areas requiring special surveillance and monitoring attention due to water quality concerns.

E. Required Performance:

1. Develop a Public Education and Involvement Program.
2. Develop and implement North Bay and Hood Canal Shoreline Property Owner Awareness and Information Assistance Program.
3. Conduct two countywide workshops consisting of public meetings, public hearings or a combination of hearings and meetings.
4. Develop and submit QAPP's to the DEPARTMENT for approval as needed based on individual project needs.

Task 3 – Stormwater Retrofit, LID Projects, and Planning

A. The RECIPIENT will perform the steps to review and plan the retrofit and LID projects as follows:

- Review and evaluate the results of monitoring for areas of water quality concern.
- Establish a priority evaluation process for these areas.
- Identify BMP treatment methods that may be applied to improve water quality in areas of concern.

- Identify and schedule two to three projects for design and construction. Submit plans and specifications to the DEPARTMENT for concurrence.
- Develop and submit a retrofit project definition and prioritization, preliminary design, cost estimate, and implementation schedule for the top two or three projects.

B. The RECIPIENT will design and permit stormwater retrofit and LID projects in Allyn, Belfair, and Hoodsport.

C. The RECIPIENT will conduct and submit to the DEPARTMENT all pre-design environmental studies and permitting requirements which includes but not limited to the following:

- Water quality LID retrofit.
- Outfall water quality memorandum.
- Permitting requirements memorandum for North Bay, Hood Canal, Allyn, Belfair, and Hoodsport projects, as necessary.
- Information gathered in the monitoring step appropriate to the water quality retrofit projects being proposed.
- JARPA documents for Allyn, Belfair, and Hoodsport water quality retrofit projects, as necessary.
- Biological assessments for Allyn, Belfair, and Hoodsport water quality retrofit projects, as necessary.

D. Plans and specifications must be submitted to the DEPARTMENT's Project Manager 45 days prior to bid advertisement. The DEPARTMENT's Project Manager will work with Ecology's engineer to review the plans and specifications for consistency. The RECIPIENT must justify significant deviations from the following:

1. **Western Washington Stormwater Maintenance Manual** (SWMMWW), found at: http://www.ecy.wa.gov/programs/wq/stormwater/manual.html, or **Puget Sound Low Impact Development – Technical Guidance found at:** http://www.psp.wa.gov/downloads/LID/LID_manual2005.pdf, or equivalent design manuals.
2. Good engineering practices and generally recognized engineering standards.
3. The project pre-design report.

E. The plans, specifications, construction contract documents, and addenda must be approved by the RECIPIENT prior to submittal to the DEPARTMENT.

F. All construction plans submitted to the DEPARTMENT will be reduced to no larger than 11" x 17" in size. The RECIPIENT may bind them with the specifications or related

construction contract documents or bound as a separate document. All reduced drawings must be legible.

G. The RECIPIENT will construct water quality LID projects which includes:

- Selecting up to three projects based on priorities established in review process.
- Construct up to three projects.
- Selection and development of one to three water quality LID designs to treat runoff. Areas being considered for treatment include existing development, County roads, and areas with runoff from shoreline dwellers.

H. The RECIPIENT will submit water quality retrofit final design and construction documents for the areas of Allyn, Belfair, and Hoodsport. For each of the projects selected the RECIPIENT will submit:

- Electronic AutoCAD (v.2004) files of all survey base map information will be provided to the County upon completion of work.
- Survey products include a survey base map of the associated conveyance, treatment and outfall facilities, utilities, parcels, easements, and topographic features.
- 60%, 90%, and Final Plans.
- 60%, 90%, and Final Special Provisions.
- 60%, 90%, and Final Cost Opinion.

I. The RECIPIENT will develop and implement capital construction for each project selected. This includes:

- Coordinate with the project consultant to select and develop one to three water quality LID designs to treat runoff throughout the county, including areas with existing development, county roads, and areas with runoff from shoreline dwellers.
- Incorporate selected water quality LID designs into training and practices of the county road crews.

J. The RECIPIENT will submit to the DEPARTMENT's Project Manager a copy of the construction contract within 30 days of execution.

K. The RECIPIENT will develop and implement a maintenance plan for the retrofit projects selected.

L. The RECIPIENT will submit a list of projects and final project assessment to the DEPARTMENT's Project Manager.

M. Required Performance:

1. Develop and submit a retrofit project definition, implementation schedule, and prioritization list for the top two or three projects.
2. Submit preliminary designs.
3. Submit 60% and 90% final plans, special provisions, and cost opinions.
4. Submit cost estimates.
5. Select and complete one to three LID projects.
6. Submit a maintenance plan.
7. Submit final project assessment by June 1, 2011.

PART VI. SPECIAL TERMS AND CONDITIONS

A. **Commencement of Work**. The DEPARTMENT reserves the right to terminate this agreement if the RECIPIENT does not commence work on the project funded herein within 10 months of the publication date of the FY08 Stormwater Management Implementation Grant Final Offer and Applicant List (dated January 31, 2008). Based on this list date, work must begin by November 30, 2008.

B. **DEPARTMENT Funding Recognition**. The RECIPIENT will acknowledge and inform the public about DEPARTMENT funding participation in this project through the use of project signs and/or acknowledgement in published materials and reports, the news media, or other public announcements. Projects addressing site-specific locations must utilize appropriately sized and weather-resistant signs. Sign logos are available from the DEPARTMENT's Financial Manager upon request.

C. **Education and Outreach**. The RECIPIENT will provide the DEPARTMENT up to two copies and an electronic copy either on disks or CD-ROM of any tangible educational products developed under this grant, such as brochures, manuals, pamphlets, videos, audio tapes, CDs, curriculum, posters, media announcements or gadgets, such as a refrigerator magnet with a message. If this is not practical, the RECIPIENT will provide a complete description including photographs or printouts of the product.

If there are a significant number of people in the community that speak languages other than English, the RECIPIENT will produce all pamphlets, fliers, meeting notices, reports, and other educational and public outreach materials in English and in the other prevalent language.

D. **Interlocal Agreements**. The RECIPIENT will submit one copy of all interlocal agreements relating to the project to the DEPARTMENT's Financial Manager.

E. **Indirect Rate**. The RECIPIENT may charge an indirect rate of up to 25 percent based on employee's direct salary and benefit costs incurred while conducting project-related work. The DEPARTMENT's Financial Manager may require a list of items included in the indirect rate at any time.

F. **Light Refreshments and Meetings**. The RECIPIENT may spend up to $50 for light refreshments per meeting associated with this project. The total amount spent for light refreshments under this agreement cannot exceed $300.

G. **Match Requirement**.

Cash Match. The RECIPIENT share for this project must be entirely in the form of cash expenditures or interlocal contributions. In-kind contributions cannot be used to satisfy RECIPIENT grant matching requirements.

Interlocal Match. The RECIPIENT certifies by signing this agreement that all negotiated interlocal agreements are consistent with all of the following:

1. Terms of this grant agreement
2. The edition of Administrative Requirements for Ecology Grants and Loans that is effective at the signing of this agreement
3. Chapter 39.34 RCW Interlocal Cooperation Act

All negotiated interlocal agreements will be consistent with the terms of this grant Agreement, the DEPARTMENT's current edition (at the signing of this agreement) of Administrative Requirements for Ecology Grants and Loans and Chapter 39.34 RCW Interlocal Cooperation Act. The RECIPIENT will submit a copy of each interlocal agreement to the DEPARTMENT's Financial Manager before credit is given for grant tasks associated with the interlocal agreement.

H. **Minority and Women's Business Participation.** The RECIPIENT agrees to solicit and recruit, to the extent possible, certified minority-owned (MBE) and women-owned (WBE) businesses in purchases and contracts initiated after the effective date of this agreement.

Contract awards or rejections cannot be made based on MBE or WBE participation. M/WBE participation is encouraged, however, and the RECIPIENT and all prospective bidders or persons submitting qualifications should take the following steps, when possible, in any procurement initiated after the effective date of this agreement:

1. Include qualified minority and women's businesses on solicitation lists.
2. Assure that qualified minority and women's businesses are solicited whenever they are potential sources of services or supplies.
3. Divide the total requirements, when economically feasible, into smaller tasks or quantities, to permit maximum participation by qualified minority and women's businesses.
4. Establish delivery schedules, where work requirements permit, which will encourage participation of qualified minority and women's businesses.
5. Use the services and assistance of the State Office of Minority and Women's Business Enterprises (OMWBE) and the Office of Minority Business Enterprises of the U.S. Department of Commerce, as appropriate.

The RECIPIENT will report to the DEPARTMENT at the time of submitting each invoice, on forms provided by the DEPARTMENT, payments made to qualified firms. Please include the following information:

1. Name and state OMWBE certification number (if available) of any qualified firm receiving funds under the invoice, including any sub-and/or sub-subcontractors.
2. The total dollar amount paid to qualified firms under this invoice.

I. **Payment Request Submittals**. The RECIPIENT must submit payment requests at least quarterly but no more often than monthly, unless allowed by the DEPARTMENT's Financial Manager. The DEPARTMENT's Financial Manager may require the RECIPIENT to submit regular payment requests to ensure efficient and timely use of funds.

Supporting Documentation. The RECIPIENT will submit all payment request vouchers and supportive documentation to the DEPARTMENT's Financial Manager. Payment request voucher submittals are based on match requirements found in the budget.

Required Forms.

Any Match Combination	Cash Only Match	Where Applicable
Form A19-1A (original signature)	Form A19-1A (original signature)	Form E (ECY 060-12)
Form B1 (ECY 060-3)	Form B2 (ECY 060-7)	Form F (ECY 060-13)
Form C1 (ECY 060-8)	Form C2 (ECY 060-9)	Form H (F-21)
Form D (ECY 060-11)	Form D (ECY 060-11)	Form I (ECY 060-15)

Tracking and Reporting Costs. The RECIPIENT will track and report on all costs incurred on the project, regardless of the funding source. This includes costs used as match. All eligible and ineligible project costs must be separate and identifiable.

Reimbursements. Payments will be made on a cost-reimbursable basis.

J. **Procurement**. The RECIPIENT may elect to use its own forces or may contract for professional services necessary to perform and complete project related work. The RECIPIENT will ensure that this project is completed according to the details of this agreement. By signing this agreement, the RECIPIENT certifies that all applicable requirements have been satisfied in the procurement of any professional services.

The RECIPIENT certifies by signing this agreement that all requirements of Chapter 39.80 RCW Contracts for Architectural and Engineering Services have been met in selecting qualified architectural/engineering services. The RECIPIENT will also identify and separate eligible and ineligible project costs in the final negotiated agreement and will submit a copy of this agreement to the DEPARTMENT's Financial Manager.

K. **Progress Reports**. The RECIPIENT will submit quarterly Progress Reports to the DEPARTMENT's Financial Manger and Project Manager. Payment requests will not be processed without a Progress Report.

Reporting Periods.
January 1 through March 31
April 1 through June 30
July 1 through September 30
October 1 through December 31

Reporting Due Date. Quarterly Progress Reports are due 30 days following the end of the quarter.

Report Content. At a minimum, all Progress Reports must contain a comparison of actual accomplishments to the objectives established for the period, the reasons for delay if established objectives were not met and any additional pertinent information specified in this agreement.

L. **Water Quality Monitoring**. Prior to initiating water quality monitoring activities, the RECIPIENT must prepare a Quality Assurance Project Plan (QAPP). The QAPP must follow Ecology's *Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies*, July 2004 (Ecology Publication No. 04-03-030). The applicant may also reference the *Technical Guidance for Assessing the Quality of Aquatic Environments*, revised February 1994 (Ecology Publication No. 91-78) or more current revision, in developing the QAPP.

The RECIPIENT must submit the QAPP to Ecology's project manager for review, comment, and must be approved before starting the environmental monitoring activities.

The RECIPIENT must use an environmental laboratory accredited by Ecology to analyze water samples for all parameters to be analyzed that require bench testing. Information on currently accredited laboratories and the accreditation process is provided on the Department of Ecology's Environmental Assessment Program's website, available at:

http://www.ecy.wa.gov/programs/eap/lab-accreditation.html

The RECIPIENT should manage all monitoring data collected or acquired under this agreement in order to be available to secondary users and meet the "ten-year rule." The ten-year rule means that data documentation is sufficient to allow an individual not directly familiar with the specific monitoring effort to understand the purpose of the data set, methods used, results obtained, and quality assurance measures taken ten years after data are collected.

Monitoring Data Submittal / Environmental Information Management System. Funding recipients that collect water quality monitoring data must submit all data to Ecology through the Environmental Information Management System (EIM). Data must be submitted by following instructions on the EIM website, currently available at:

http://www.ecy.wa.gov/eim

The data submittal portion of the EIM website provides information and help on formats and requirements for submitting tabular data.

If GIS data is collected, Ecology data standards are encouraged. An Ecology Focus Sheet entitled *GIS Data and Ecology Grants* (Publication No. 98-1812-SEA) outlines the standards. Common standards must be used for infrastructure details, such as geographic names, Geographic Information System (GIS) coverage, list of methods, and reference tables.

PART VII. ALL WRITINGS CONTAINED HEREIN

This agreement, the appended GENERAL TERMS AND CONDITIONS (Attachment 1); the DEPARTMENT's current edition of Administrative Requirements for Ecology Grants and Loans, the FY 2008 Stormwater Management Implementation Grant Program Guidelines, the Low Impact Development Technical Guidance Manual For Puget Sound, and the applicable regional stormwater manual, referenced in Attachment 2; contain the entire understanding between the parties, and there are no other understandings or representations other than as set forth or incorporated by reference. No subsequent modification(s) or amendment(s) of this agreement will be of any force or effect unless signed by authorized representatives of the RECIPIENT and the DEPARTMENT and made a part of this agreement, EXCEPT that in response to a request from the RECIPIENT, the DEPARTMENT may redistribute the grant budget. The DEPARTMENT or the RECIPIENT may change their respective staff contacts without the concurrence of either party.

IN WITNESS WHEREOF, the parties hereby execute this Grant:

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

10/7/08

KELLY SUSEWIND, P.E., P.G. DATE
INTERIM WATER QUALITY
PROGRAM MANAGER

MASON COUNTY

10/10/08

CHARLIE BUTROS DATE
DIRECTOR, PUBLIC WORKS DEPT

APPROVED AS TO FORM ONLY
ASSISTANT ATTORNEY GENERAL

(Revised 05/27/08)

ATTACHMENT 1

GENERAL TERMS AND CONDITIONS
Pertaining to Grant and Loan Agreements of the Department of Ecology

A. RECIPIENT PERFORMANCE

All activities for which grant/loan funds are to be used shall be accomplished by the RECIPIENT and RECIPIENT's employees. The RECIPIENT shall only use contractor/consultant assistance if that has been included in the agreement's final scope of work and budget.

B. SUBGRANTEE/CONTRACTOR COMPLIANCE

The RECIPIENT must ensure that all subgrantees and contractors comply with the terms and conditions of this agreement.

C. THIRD PARTY BENEFICIARY

The RECIPIENT shall ensure that in all subcontracts entered into by the RECIPIENT pursuant to this agreement, the state of Washington is named as an express third-party beneficiary of such subcontracts with full rights as such.

D. CONTRACTING FOR SERVICES (BIDDING)

Contracts for construction, purchase of equipment and professional architectural and engineering services shall be awarded through a competitive process, if required by State law. RECIPIENT shall retain copies of all bids received and contracts awarded, for inspection and use by the DEPARTMENT.

E. ASSIGNMENTS

No right or claim of the RECIPIENT arising under this agreement shall be transferred or assigned by the RECIPIENT.

F. COMPLIANCE WITH ALL LAWS

1. The RECIPIENT shall comply fully with all applicable Federal, State and local laws, orders, regulations and permits.

Prior to commencement of any construction, the RECIPIENT shall secure the necessary approvals and permits required by authorities having jurisdiction over the project, provide assurance to the DEPARTMENT that all approvals and permits have been secured, and make copies available to the DEPARTMENT upon request.

2. Discrimination. The DEPARTMENT and the RECIPIENT agree to be bound by all Federal and State laws, regulations, and policies against discrimination. The RECIPIENT further agrees to affirmatively support the program of the Office of Minority and Women's Business Enterprises to the maximum extent possible. If the agreement is federally-funded, the RECIPIENT shall report to the DEPARTMENT the percent of grant/loan funds available to women or minority owned businesses.

3. Wages And Job Safety. The RECIPIENT agrees to comply with all applicable laws, regulations, and policies of the United States and the State of Washington which affect wages and job safety.

4. Industrial Insurance. The RECIPIENT certifies full compliance with all applicable state industrial insurance requirements. If the RECIPIENT fails to comply with such laws, the DEPARTMENT shall have the right to immediately terminate this agreement for cause as provided in Section K.1, herein.

G. KICKBACKS

The RECIPIENT is prohibited from inducing by any means any person employed or otherwise involved in this project to give up any part of the compensation to which he/she is otherwise entitled or, receive any fee, commission or gift in return for award of a subcontract hereunder.

H. AUDITS AND INSPECTIONS

1. The RECIPIENT shall maintain complete program and financial records relating to this agreement. Such records shall clearly indicate total receipts and expenditures by fund source and task or object.

All grant/loan records shall be kept in a manner which provides an audit trail for all expenditures. All records shall be kept in a common file to facilitate audits and inspections.

Engineering documentation and field inspection reports of all construction work accomplished under this agreement shall be maintained by the RECIPIENT.

2. All grant/loan records shall be open for audit or inspection by the DEPARTMENT or by any duly authorized audit representative of the State of Washington for a period of at least three years after the final grant payment/loan repayment or any dispute resolution hereunder. If any such audits identify discrepancies in the financial records, the RECIPIENT shall provide clarification and/or make adjustments accordingly.

3. All work performed under this agreement and any equipment purchased, shall be made available to the DEPARTMENT and to any authorized state, federal or local representative for inspection at any time during the course of this agreement and for at least three years following grant/loan termination or dispute resolution hereunder.

4. RECIPIENT shall meet the provisions in OMB Circular A-133 (Audits of States, Local Governments & Non Profit Organizations), including the compliance Supplement to OMB Circular A-133, if the RECIPIENT expends $500,000 or more in a year in Federal funds. The $500,000 threshold for each year is a cumulative total of all federal funding from all sources. The RECIPIENT must forward a copy of the audit along with the RECIPIENT'S response and the final corrective action plan to the DEPARTMENT within ninety (90) days of the date of the audit report.

I. PERFORMANCE REPORTING

The RECIPIENT shall submit progress reports to the DEPARTMENT with each payment request or such other schedule as set forth in the Special Conditions. The RECIPIENT shall also report in writing to the DEPARTMENT any problems, delays or adverse conditions which will materially affect their ability to meet project objectives or time schedules. This disclosure shall be accompanied by a statement of the action taken or proposed and any assistance needed from the DEPARTMENT to resolve the situation. Payments may be withheld if required progress reports are not submitted.

Quarterly reports shall cover the periods January 1 through March 31, April 1 through June 30, July 1 through September 30, and October 1 through December 31. Reports shall be due within thirty (30) days following the end of the quarter being reported.

J. COMPENSATION

1. Method of compensation. Payment shall normally be made on a reimbursable basis as specified in the grant agreement and no more often than once per month. Each request for payment will be submitted by the RECIPIENT on State voucher request forms provided by the DEPARTMENT along with documentation of the expenses. Payments shall be made for each task/phase of the project, or portion thereof, as set out in the Scope of Work when completed by the RECIPIENT and approved as satisfactory by the Project Officer.

The payment request form and supportive documents must itemize all allowable costs by major elements as described in the Scope of Work. Instructions for submitting the payment requests are found in "Administrative Requirements for Ecology Grants and Loans", part IV, published by the DEPARTMENT. A copy of this document shall be furnished to the RECIPIENT. When payment requests are approved by the DEPARTMENT, payments will be made to the mutually agreed upon designee.

Payment requests shall be submitted to the DEPARTMENT and directed to the Project Officer assigned to administer this agreement.

2. Period of Compensation. Payments shall only be made for actions of the RECIPIENT pursuant to the grant/loan agreement and performed after the effective date and prior to the expiration date of this agreement, unless those dates are specifically modified in writing as provided herein.

3. Final Request(s) for Payment. The RECIPIENT should submit final requests for compensation within forty-five(45) days after the expiration date of this agreement and within fifteen (15) days after the end of a fiscal biennium. Failure to comply may result in delayed reimbursement.

4. Performance Guarantee. The DEPARTMENT may withhold an amount not to exceed ten percent (10%) of each reimbursement payment as security for the RECIPIENT's performance. Monies withheld by the DEPARTMENT may be paid to the RECIPIENT when the project(s) described herein, or a portion thereof, have been completed if, in the DEPARTMENT's sole discretion, such payment is

reasonable and approved according to this agreement and, as appropriate, upon completion of an audit as specified under section J.6. herein.

5. Unauthorized Expenditures. All payments to the RECIPIENT may be subject to final audit by the DEPARTMENT and any unauthorized expenditure(s) charged to this grant/loan shall be refunded to the DEPARTMENT by the RECIPIENT.

6. Mileage and Per Diem. If mileage and per diem are paid to the employees of the RECIPIENT or other public entities, it shall not exceed the amount allowed under state law for state employees.

7. Overhead Costs. No reimbursement for overhead costs shall be allowed unless provided for in the Scope of Work hereunder.

K. TERMINATION

1. For Cause. The obligation of the DEPARTMENT to the RECIPIENT is contingent upon satisfactory performance by the RECIPIENT of all of its obligations under this agreement. In the event the RECIPIENT unjustifiably fails, in the opinion of the DEPARTMENT, to perform any obligation required of it by this agreement, the DEPARTMENT may refuse to pay any further funds thereunder and/or terminate this agreement by giving written notice of termination.

A written notice of termination shall be given at least five working days prior to the effective date of termination. In that event, all finished or unfinished documents, data studies, surveys, drawings, maps, models, photographs, and reports or other materials prepared by the RECIPIENT under this agreement, at the option of the DEPARTMENT, shall become Department property and the RECIPIENT shall be entitled to receive just and equitable compensation for any satisfactory work completed on such documents and other materials.

Despite the above, the RECIPIENT shall not be relieved of any liability to the DEPARTMENT for damages sustained by the DEPARTMENT and/or the State of Washington because of any breach of agreement by the RECIPIENT. The DEPARTMENT may withhold payments for the purpose of setoff until such time as the exact amount of damages due the DEPARTMENT from the RECIPIENT is determined.

2. Insufficient Funds. The obligation of the DEPARTMENT to make payments is contingent on the availability of state and federal funds through legislative appropriation and state allotment. When this agreement crosses over state fiscal years the obligation of the DEPARTMENT is contingent upon the appropriation of funds during the next fiscal year. The failure to appropriate or allot such funds shall be good cause to terminate this agreement as provided in paragraph K.1 above.

When this agreement crosses the RECIPIENT's fiscal year, the obligation of the RECIPIENT to continue or complete the project described herein shall be contingent upon appropriation of funds by the RECIPIENT's governing body; Provided, however, that nothing contained herein shall preclude the DEPARTMENT from demanding repayment of ALL funds paid to the RECIPIENT in accordance with Section O herein.

3. Failure to Commence Work. In the event the RECIPIENT fails to commence work on the project funded herein within four months after the effective date of this agreement, or by any date mutually agreed upon in writing for commencement of work, the DEPARTMENT reserves the right to terminate this agreement.

L. WAIVER

Waiver of any RECIPIENT default is not a waiver of any subsequent default. Waiver of a breach of any provision of this agreement is not a waiver of any subsequent breach and will not be construed as a modification of the terms of this agreement unless stated as such in writing by the authorized representative of the DEPARTMENT.

M. PROPERTY RIGHTS

1. Copyrights and Patents. When the RECIPIENT creates any copyrightable materials or invents any patentable property, the RECIPIENT may copyright or patent the same but the DEPARTMENT retains a royalty-free, nonexclusive and irrevocable license to reproduce, publish, recover or otherwise use the material(s) or property and to authorize others to use the same for federal, state or local government purposes..

Where federal funding is involved, the federal government may have a proprietary interest in patent rights to any inventions that are developed by the RECIPIENT as provided in 35 U.S.C. 200-212.

2. Publications. When the RECIPIENT or persons employed by the RECIPIENT use or publish information of the DEPARTMENT; present papers, lectures, or seminars involving information supplied by the DEPARTMENT; use logos, reports, maps or other data, in printed reports, signs, brochures, pamphlets, etc., appropriate credit shall be given to the DEPARTMENT.

3. Tangible Property Rights. The DEPARTMENT's current edition of "Administrative Requirements for Ecology Grants and Loans", Part V, shall control the use and disposition of all real and personal property purchased wholly or in part with funds furnished by the DEPARTMENT in the absence of state, federal statute(s), regulation(s), or policy(s) to the contrary or upon specific instructions with respect thereto in the Scope of Work.

4. Personal Property Furnished by the DEPARTMENT. When the DEPARTMENT provides personal property directly to the RECIPIENT for use in performance of the project, it shall be returned to the DEPARTMENT prior to final payment by the DEPARTMENT. If said property is lost, stolen or damaged while in the RECIPIENT's possession, the DEPARTMENT shall be reimbursed in cash or by setoff by the RECIPIENT for the fair market value of such property.

5. Acquisition Projects. The following provisions shall apply if the project covered by this agreement includes funds for the acquisition of land or facilities:

a. Prior to disbursement of funds provided for in this agreement, the RECIPIENT shall establish that the cost of land/or facilities is fair and reasonable.

b. The RECIPIENT shall provide satisfactory evidence of title or ability to acquire title for each parcel prior to disbursement of funds provided by this agreement. Such evidence may include title insurance policies, Torrens certificates, or abstracts, and attorney's opinions establishing that the land is free from any impediment, lien, or claim which would impair the uses contemplated by this agreement.

6. Conversions. Regardless of the contract termination date shown on the cover sheet, the RECIPIENT shall not at any time convert any equipment, property or facility acquired or developed pursuant to this agreement to uses other than those for which assistance was originally approved without prior written approval of the DEPARTMENT. Such approval may be conditioned upon payment to the DEPARTMENT of that portion of the proceeds of the sale, lease or other conversion or encumbrance which monies granted pursuant to this agreement bear to the total acquisition, purchase or construction costs of such property.

N. SUSTAINABLE PRODUCTS

In order to sustain Washington's natural resources and ecosystems, the RECIPIENT is encouraged to implement sustainable practices where and when possible. These practices include use of clean energy, and purchase and use of sustainably produced products (e.g. recycled paper). For more information, see www.ecy.wa.gov/sustainability..

O. RECOVERY OF PAYMENTS TO RECIPIENT

The right of the RECIPIENT to retain monies paid to it as reimbursement payments is contingent upon satisfactory performance of this agreement including the satisfactory completion of the project described in the Scope of Work. In the event the RECIPIENT fails, for any reason, to perform obligations required of it by this agreement, the RECIPIENT may, at the DEPARTMENT's sole discretion, be required to repay to the DEPARTMENT all grant/loan funds disbursed to the RECIPIENT for those parts of the project that are rendered worthless in the opinion of the DEPARTMENT by such failure to perform.

Interest shall accrue at the rate of twelve percent (12%) per year from the time the DEPARTMENT demands repayment of funds. If payments have been discontinued by the DEPARTMENT due to insufficient funds as in Section K.2 above, the RECIPIENT shall not be obligated to repay monies which had been paid to the RECIPIENT prior to such termination. Any property acquired under this agreement, at the option of the DEPARTMENT, may become the DEPARTMENT'S property and the RECIPIENT'S liability to repay monies shall be reduced by an amount reflecting the fair value of such property.

P. PROJECT APPROVAL

The extent and character of all work and services to be performed under this agreement by the RECIPIENT shall be subject to the review and approval of the DEPARTMENT through the Project Officer or other designated official to whom the RECIPIENT shall report and be responsible. In the event there is a dispute with regard to the extent and character of the work to be done, the determination of the Project Officer or other designated official as to the extent and character of the work to be done shall govern. The RECIPIENT shall have the right to appeal decisions as provided for below.

Q. DISPUTES

Except as otherwise provided in this agreement, any dispute concerning a question of fact arising under this agreement which is not disposed of in writing shall be decided by the Project Officer or other designated official who shall provide a written statement of decision to the RECIPIENT. The decision of the Project Officer or other designated official shall be final and conclusive unless, within thirty days from the date of receipt of such statement, the RECIPIENT mails or otherwise furnishes to the Director of the DEPARTMENT a written appeal.

In connection with appeal of any proceeding under this clause, the RECIPIENT shall have the opportunity to be heard and to offer evidence in support of this appeal. The decision of the Director or duly authorized representative for the determination of such appeals shall be final and conclusive. Appeals from the Director's determination shall be brought in the Superior Court of Thurston County. Review of the decision of the Director will not be sought before either the Pollution Control Hearings Board or the Shoreline Hearings Board. Pending final decision of dispute hereunder, the RECIPIENT shall proceed diligently with the performance of this agreement and in accordance with the decision rendered.

R. CONFLICT OF INTEREST

No officer, member, agent, or employee of either party to this agreement who exercises any function or responsibility in the review, approval, or carrying out of this agreement, shall participate in any decision which affects his/her personal interest or the interest of any corporation, partnership or association in which he/she is, directly or indirectly interested; nor shall he/she have any personal or pecuniary interest, direct or indirect, in this agreement or the proceeds thereof.

S. INDEMNIFICATION

1. The DEPARTMENT shall in no way be held responsible for payment of salaries, consultant's fees, and other costs related to the project described herein, except as provided in the Scope of Work.

2. To the extent that the Constitution and laws of the State of Washington permit, each party shall indemnify and hold the other harmless from and against any liability for any or all injuries to persons or property arising from the negligent act or omission of that party or that party's agents or employees arising out of this agreement.

T. GOVERNING LAW

This agreement shall be governed by the laws of the State of Washington.

U. SEVERABILITY

If any provision of this agreement or any provision of any document incorporated by reference shall be held invalid, such invalidity shall not affect the other provisions of this agreement which can be given effect without the invalid provision, and to this end the provisions of this agreement are declared to be severable.

V. PRECEDENCE

In the event of inconsistency in this agreement, unless otherwise provided herein, the inconsistency shall be resolved by giving precedence in the following order: (a) applicable Federal and State statutes and regulations; (b) Scope of Work; (c) Special Terms and Conditions; (d) Any terms incorporated herein by reference including the "Administrative Requirements for Ecology Grants and Loans"; and (e) the General Terms and Conditions.

SS-010 Rev. 04/04

ATTACHMENT 2

WATER QUALITY PROGRAM'S FINANCIAL MANAGEMENT PUBLICATIONS

1. Administrative Requirements for Ecology Grants and Loans, Publication No. 91-18 (September 2005).
2. FY 2008 Stormwater Management Implementation Grant Program Guidelines, Publication No. 07-10-067.
3. Low Impact Development Technical Guidance Manual for Puget Sound, Publication No. PSAT 05-03.
4. 2005 Stormwater Management Manual for Western Washington: Volume I-V, Publication No. 05-10-029/030/031/032/033
5. Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies, Publication No. 04-03-030 (July 2004).
6. Stream Habitat Restoration Guidelines (2004), http://wdfw.wa.gov/hab/ahg/shrg/index.htm

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

RECEIVED
OCT 22 2008
MASON COUNTY PUBLIC WORKS

October 20, 2008

Mr. Charlie Butros
Director Public Works Department
Mason County
P.O. Box 1850
Shelton, WA 98584

Re: **Mason County SWM Program Funding and Improvement/Urban Water Quality LID Retrofit Project**
Stormwater Management Implementation Grant Program, FY 2008
Grant No. G0800631

Dear Mr. Butros:

I am pleased to inform you that the Stormwater Management Implementation Grant agreement for the Mason County SWM Program Funding and Improvement/Urban Water Quality LID Retrofit Project has been signed. A signed original is enclosed for project files and future reference.

The grant provides $750,000 toward the project. We appreciate this opportunity to assist you with financial and technical assistance. Ecology's Water Quality Program staff in Lacey is available to assist you with your project.

If you have any questions or need additional information, please call Deborah Cornett, Ecology's project manager, at 360-407-7269 or Shelly Eisenbarth, Ecology's financial manager, at 360-407-7039.

Sincerely,

Kelly Susewind, P.E., P.G.
Interim Water Quality Program Manager

KS:SE:mb

cc: Deborah Cornett, Ecology
Shelly Eisenbarth, Ecology

Attachment 2—Draft Plan Comment Response and Comments

Draft Countywide SWM Plan (February 19, 2009)
Comment Response Summary

Background

On February 26, 2009, Mason County issued the Draft Countywide SWM Plan for public review and comment. A public hearing was held before the Planning Advisory Commission on March 16, 2009, to receive and review public comments. This comment response summary provides an overview of comments received through March 23, 2009, and actions taken to address them. Comment letters received and documentation of verbal comments are included in this attachment following the summary narrative.

Comments were received by the following individuals and/or entities:

- Kim McKee, Unit Supervisor, SWRO Water Quality Program, Department of Ecology (3/6/09)
- Bruce Wulkan, Stormwater Program Manager, Puget Sound Partnership (3/11/09)
- The Mason County SWM Advisory Task Force (2/26/09-3/16/09)
- The Mason County Planning Advisory Commission and Public (3/16/09)

Comments fell into three general groupings and included:

- Support for Plan recommendations and approach,
- Requests for clarification or more information and additional program activities, and
- Concerns and suggestions related to specific Plan recommendations.

Support for Plan Recommendations and Approach

Specific supporting comments focused on agreement with the County's proactive approach to ensure future compliance with the NPDES Phase II Stormwater Permit, phasing the program in over time with highest priority given to areas of greatest need, emphasis on water quality and protection of shellfish rearing areas, retrofitting of existing development to treat runoff using LID techniques, and the use of reporting and adaptive management to continue program development and refine implementation.

Requests for Clarifications and Additional Information

Requests for clarifications or additional information were fairly minor and in general have been addressed in the revised Plan. Requests for addition program activities have been documented and will be tracked and considered as implementation planning continues and as part of the annual review, reporting, and adaptive management process.

Concerns and Suggestions

In general, the majority of concerns related to a desire for more detailed and specific information on implementation and program funding. While the County acknowledges that the Plan lays out a comprehensive approach for stormwater management that proactively anticipates regulatory

compliance needs and is sensitive to water quality and the natural environment, specific details for implementation have yet to be developed. Additional detail and specificity regarding the Countywide SWM Program will emerge as implementation steps proceed, more information is gathered, and an iterative process of adaptive management is applied. Ongoing public involvement will help to guide the continued development and refinement of the Countywide SWM Program through the annual review process. Much of the concern related to program funding focused on adequacy of funding sources and the fair and equitable distribution of costs across sources and ratepayers.

One commenter voiced concerns about whether the plan was aggressive enough, and another wanted to see the 2005 Ecology Manual and LID ordinances applied Countywide now rather than being phased in over the planning period. There was also a request for more emphasis on water quality monitoring and enforcement for water quality protection.

Conclusion

Comments received from both the Department of Ecology and the Puget Sound Partnership have been fully addressed throughout the revised Plan. Consistent with the agencies' requests to provide greater specificity about short-term implementation targets and to guide further implementation planning, the Stormwater Implementation Grant Scope of Work has been included as Attachment 2 to the Final Countywide SWM Plan, and the NPDES Phase II Permit Minimum Measures have been included as Attachment 3.

The $1 million Stormwater Implementation Grant (Grant No.G0800631) from Ecology outlines next steps that the County is undertaking over the next few years to assist it in implementing and funding several elements of its countywide SWM Program. These elements include stormwater system retrofits, LID best management practices, public education and outreach, development of a SWM funding plan, development of needed legal authorities, staff training, and GIS mapping. The Stormwater Implementation Grant also includes funding for staffing to help administer the SWM Program.

March 6, 2009

Mr. Charles Butros, P.E., Director
Mason County Public Works Department
P.O. Box 1850
Shelton, WA 98584

Re: Draft Countywide Stormwater Management Strategy

Dear Mr. Butros:

In response to your request for Ecology review of the February 19, 2009, draft document, I would like to provide you with the following general and specific comments from the Southwest Regional Office Water Quality Program. This review is based upon compliance with the requirements of Ecology Grant G0700040, Belfair and Hoodsport Stormwater Planning Project.

Plan comments are as follows:

General

This document title and all references to it should be as a stormwater plan rather than a stormwater strategy. For some reviewers, this may be a minor difference but because Ecology has provided Mason County with an additional $1 million grant for stormwater implementation, planning should be completed with this effort. Referring to a strategy implies to me that more planning is needed. I am confident that we have a good handle on "what" is needed to address County stormwater issues and Grant G0700040 was written with the expectation that a plan would be a final product. I'm sorry that I didn't notice this when the preliminary draft document was sent to me in December. It is also interesting to note that the electronic file title that is shown in the footer references a Draft Countywide SWM Plan.

The draft plan clearly identifies what is needed to address County stormwater issues. In some areas of the plan, a reference is made to a second Ecology grant (G0800631) which has recently been awarded. The purpose of this second grant is to implement the stormwater program along with funding for improvement/urban water quality low impact development retrofits. To show the continuity of planning through implementation, I would request that the grant scope of work for G0800631 be included in an appendix. References to this scope of work could be acknowledged in the stormwater plan text to reflect how plan elements will be bolstered and expanded through program implementation.

Specific

Cover Page, Acknowledgements, Page i-ii. It appears when I printed the draft that there are font and computer code issues related to various words in the text. Individual letters have been replaced by symbols or subscripts and are even absent in some places. It is also interesting to note that starting with Page 2 the balance of the report prints out correctly.

Acknowledgements, Page 0. Please change the following text to read as follows "…. which is being administered by Ecology with assistance from the Puget Sound Partnership. Funding was provided by the Washington State Legislature 2005-07 Capital Budget, Section 325(3)."

Section 1.4, Page 3, Paragraph 3. The Stormwater Implementation Grant number is G0800631. The draft document has one too many zeros.

Section 2.2, Paragraph 3. The document references long-term Action C.2.2.3. I cannot find these actions in this draft plan. Whose plan is referenced here?

Section 2.5, Bullet 12. The reference to sewage treatment should be replaced with a reference to individual on-site sewage systems, as there are no permitted wastewater treatment plant discharges in Annas Bay,

Section 2.6, City of Shelton SWM Program, Paragraph 2. The acronym ERU is used. I am sure that it doesn't refer to *Emission Reduction Unit*. Please define.

Section 3.1, County's SWM Strategy. This section on stormwater strategy seems to be out of sequence as it precedes Section 3.5 Overall Countywide SWM Philosophy. My thinking is that the overall philosophy should come before strategy.

Section 3.4, Development and Implementation using a Phased Approach, Paragraph 1. The Washington Department of Health closes "shellfish growing areas."

Section 3.6, Elements of the Countywide SWM Program, Element #3. This sections shifts awareness of spills or obvious pollution away from the County in favor of Ecology. While reports of spills or obvious pollution can always be made to Ecology, the County has a role in problem corrections and with enforcement, too. I would think that both the County and Ecology should be notified, even if the County is not in a position to respond. Reporting of illicit discharges should also be made this same way.

Section 3.6, Elements of the Countywide SWM Program, Element #7. Two comments:

1) I believe the reference here to Appendix 2 does not apply to this plan but rather the reference is pertinent to a Phase 2 NPDES Municipal Stormwater Permit. Please revise.

2) The recommended actions for this element could be simply stated as "Implement County obligations as identified in TMDL Water Quality Implementation Plans

(formerly TMDL Detailed Implementation Plans)." The current text is not related to TMDL expectations.

Section 3.6, Elements of the Countywide SWM Program, Lead In Paragraphs ahead of SWMP Elements 10-13. It appears that this discussion is similar to that of Section 3.7. Could these be combined?

Section 3.6, Elements of the Countywide SWM Program, Element #12. While the subject of this particular element is water quality monitoring, a recommended action is to develop an annual report that is programmatic (not involving water quality monitoring). This action relates more to SWM Program Element #9 and should be moved. Annual reporting of water quality findings should still be recommended action.

Those are my comments to the draft document. I think the plan as written can provide a good roadmap for focusing attention to countywide stormwater needs. I applaud your efforts along with those of your consultant, and convey our endorsement for stormwater management efforts in Mason County.

Thank you for this opportunity to comment.

Sincerely,

Kim O. McKee
Unit Supervisor
Southwest Region Water Quality Program

cc: Joe Simmler, Otak
Bruce Wulkan, Puget Sound Partnership
Deborah Cornett, WQP/SWRO

Comments on the "Draft Mason County Update of County's Stormwater Policies/Regulations and Development of Comprehensive Stormwater Management Plans," dated February 19, 2009

Submitted by Bruce Wulkan, Stormwater Program Manager,
Puget Sound Partnership
March 11, 2009

I congratulate the county on its efforts to improve its stormwater management program. In particular, I congratulate the county on its adoption and use of the 2005 *Stormwater Management Manual for Western Washington* for new and redevelopment projects, for integrating the low impact development (LID) approach and techniques into the county's program, for outlining the elements of a countywide program that match up well with the elements found in the general municipal Phase II NPDES (National Pollutant Discharge Elimination System) permit, and for initiating the steps needed to form a stormwater utility.

The following comments are intended to strengthen this document. Please contact me at bruce.wulkan@psp.wa.gov or (360) 725-5455 if you have any questions. Thank you for the opportunity to comment on this document.

Pages 6-7

To improve accuracy, please revise the existing text as follows:

The Puget Sound Partnership and the Puget Sound Action Agenda

In April 2007, the Washington State Legislature passed legislation replacing the Puget Sound Action Team and creating a new Puget Sound Partnership to coordinate and lead the effort to restore and protect Puget Sound. The partnership consists of a Leadership Council, Ecosystem Coordination Board, a Science Panel, an Executive Director, and staff. The partnership's charge is to define a strategic action agenda based on science that prioritizes necessary actions and includes clear, measurable goals for the recovery of Puget Sound by 2020. Adopted December 1, 2008, the Puget Sound Action Agenda replaces the prior Puget Sound Water Quality Management Plan.

Deleted: abolishing

Deleted: Executive Director,

Deleted: and

Deleted: Puget Sound

Deleted: supersedes

Deleted: and its associated 2007-2009 Recovery and Conservation Plan.

The Action Agenda sets state policy, is a strategy for cleaning up, restoring and protecting Puget Sound, and includes five strategic priorities and associated long-term and near-term actions to achieve progress. During 2009, the State Legislature will choose how much funding to dedicate to recommended, prioritized near term actions for the 2009-2011 biennium. Once funding decisions are made, the Partnership will develop detailed implementation plans including scopes of work with key steps, associated schedules, and performance measures.

Deleted: which of the

Deleted: to fund

Deleted: it is clear which actions are funded,

Page 8

Recommend adding salmon and their listing under ESA. The county has salmon runs that it's trying to protect and restore.

Page 13
Recommend defining ERU, and spelling out all acronyms the first time they are used.

Figure 3.1
Does Phase V, remainder of county areas with the noted exclusions, really only include these limited areas? Please check – I would have assumed that more land than this would have been covered in this phase.

Page 22, Element 3.5

- Recommend adding routine, ongoing maintenance to this list, perhaps in the bullet referring to existing development.
- Recommend adding "redevelopment" to the bullet referring to adoption of the 2005 Ecology manual. Rationale: the minimum requirements of the Ecology manual refer to both new and redevelopment.
- Recommend adding a bullet here re: public education and outreach to citizens, businesses and others so they understand the negative effects of stormwater runoff and everyone's role in reducing those effects.

Overall comments relating to Stormwater Program Elements

- The document states that it is the intent of the county to develop a program that is in compliance with a future NPDES Phase II permit. This is laudable and I fully support the county's intention. However, the NPDES phase II permit contains minimum measures that are intended to guide program development and establish a minimum level of performance. These measures are largely absent in this section detailing the county's stormwater program. I have included several of the minimum measures below, but I encourage the county to consider phasing in these minimum measures over the next 3-5 years so their program will be effective and be in compliance with the NPDES phase II permit. See the NPDES Phase II permit, minimum measures, at: http://www.ecy.wa.gov/programs/wq/stormwater/municipal/phaseIIww/wwphiipermit.html.
- Recommend either: a) Replacing "Recommended Actions" in this section with "County Actions" and "Timeline for Implementation", or b) Adding these items to this section. Rationale: While it is helpful to hear Otak's recommendations to the county, this is the "County's Stormwater Management Strategy." As such, it is far more helpful to actually outline what the county will do re: stormwater management program activities and when.
- Recommend referencing the *Low Impact Development Technical Guidance Manual for Puget Sound,* 2005 or current edition, for siting,

design, construction, and maintenance of LID techniques used in the county.

Page 23, SWMP Element #1
Recommend adding more to this program element. Relying on just 1 or 2 brochures on stormwater and LID is likely to be insufficient to engage and mobilize citizens and businesses.
Recommend one or more of these:

- Developing some kind of inexpensive flyer (single sheet of paper) that lets ratepayers know how utility revenues are being spent;
- Working with WSU Extension and others to educate citizens at community events (like Oysterfest);
- Storm drain stenciling in areas where there are storm drains;
- Educating project proponents at the permit desk with verbal suggestions and handing out brochures.

Page 24, Element #2
Recommend using watershed planning groups, such as the Lower Hood Canal Watershed Implementation group (if they're still meeting) to keep citizens involved and interested in stormwater related issues. Recommend convening a citizen advisory committee for at least monthly meetings.

Page 24, Element #3
Recommend mapping the county's stormwater drainage system, and facilities, over the next 3-5 years. Knowing the extent and location of a drainage system, and specific locations of flow control and treatment facilities, is important for planning purposes, maintenance activities, spill response, monitoring, and capitol improvement projects.

Recommend developing and phasing in over the next 3 years a business education and outreach campaign that identifies businesses most at risk of damaging the environment with their daily activities and providing outreach and education to them. This need not be an extensive or expensive activity; one staffperson visiting 1-2 businesses each week can make a big difference.

Recommend adopting an ordinance prohibiting the illicit discharge of stormwater, with definitions of what is considered illicit and allowable, and with penalties for non-compliance.

Page 25, Element #4
Recommend specifying that the county is adopting the manual, including Volume I, which includes the minimum requirements and standards for flow control and treatment. Rationale: It is important that it be clear that the county is adopting the flow control and treatment standards contained in the manual, not just the BMPs.

Recommend including at least one inspection of every new and redevelopment construction site one acre and larger to ensure that temporary BMPs are in place and are being maintained.

Recommend adding county project review of new and redevelopment projects to ensure that the projects comply with the county's drainage standards. Recommend adding that all projects and permanent BMPs will be inspected prior to final approval.

Recommend adopting an ordinance requiring that all new private development projects contain a long-term maintenance plan for permanent BMPs. Recommend updating county policies, as needed, to ensure that new development on county property contains a long-term maintenance plan as well.

Page 26, Element #5
What is the current level of maintenance provided by the county? This should be specified. Recommend that all stormwater facilities, with the exception of catch basins, be inspected yearly. Catch basins should be inspected at least once every five years.

Recommend instituting some type of professional training program for staff responsible for inspections and maintenance.

Recommend instituting policies and programs to reduce the use of pesticides and other chemicals at county parks, along roadsides, etc.

Recommend developing a stormwater pollution prevention plan for municipally owned/operated yards for heavy equipment and machinery to reduce runoff of petroleum and other toxic products.

Page 27, Element #7
Recommend adding greater detail re: the county's intention to retrofit existing facilities (last paragraph). How many facilities do they intend to retrofit, to what performance level, and by when?

Page 28, Element #8
Recommend clarifying what actually *will* be done, not what should be done. This occurs in several places throughout this document: Rather than stating what the county will do re: its program, and timeline for doing so, the report recommends what the county *should do.* Recommend that the county, over the next 3 years, establish a program to evaluate the effectiveness of its stormwater management efforts, and report findings to its citizens and others. There are currently models to use - Kitsap County already does this as part of their program.

Page 29, Element #10

Recommend adding that the county intends to assess the need to undertake watershed or basin planning activities in areas outside the UGAs and RACs, and a projected timeline for assessing need. Rationale: Watershed or basin planning is not just needed for urban areas, it is needed for any area that is either already developed, or is urbanizing (i.e., undergoing residential and/or commercial development).

Page 30, Element #12
Recommend the county consider tying water quality monitoring to Stream Team activities. Volunteers can be trained to take grab samples in streams and measure the number and types of benthic invertebrates in streams (B-IBI monitoring). There are a number of successful examples of Stream Teams, including the City of Olympia's.

Page 30, Element #13
Recommend adding at least a brief summary of the county's plans for capital facilities improvements over the next 6 years. This could be a summary of the types of projects that will be undertaken, estimated costs, and sources of funding for the projects.

Page 39, Section 4.3, first bullet
Recommend qualifying that LID will be required for all new and redevelopment, unless it is determined that LID is infeasible for the site. Rationale: There are some sites where it is not feasible to use LID techniques (e.g., sites with very high groundwater, with soils that essentially do not infiltrate, sites adjacent to steep shoreline bluffs, and sites with contaminated soils). It is therefore important to allow for the use of more conventional stormwater techniques on certain sites.

Similarly, for the 2nd bullet, recommend softening this statement so that it's clear that the county's intent is to manage stormwater on-site to the greatest extent feasible, and that regional detention will only be considered if the characteristics of a site or group of sites are such that LID and other on-site stormwater management are not feasible.

Page 40, first bullet
Reference to future regional conveyance facilities is confusing here, given the statement in the 2nd bullet that regional detention will not be used. Recommend adding clarifying language.

Compilation of SWM Advisory Task Force Comments

General (2/26/09)

- Indicate that SW Plans will be developed for other areas of the County, basins, Union, etc.
- Concern regarding SW Fees imposed by the Utility on residences
- Is it appropriate to focus the initial funding attention to the UGA's and not have a more Countywide prospective?
- How do we intend to deal with SW contaminants from wildlife sources?
- There is no member of the SW Advisory Committee from the Salmon Enhancement Group

Bob Hager (3/9/09)

- The document reads like an OTAK study report (which it really is)rather than a Mason County strategy. It makes suggestions and recommendations rather than stating what the strategy is. It uses words like"should be considered", "may", "needs to", "intends" , or "should do provided there is adequate funding" rather than stating what is planned to do. I recommend the County decide what the strategy is at this time and reword the statements to be positive like "will", "plans to" so that it's clear what is being approved.
- In Section 1.6 the advisory task force is described with specific reference to the Hood Canal Salmon Enhancement Group and the Lower Hood Canal Watershed Committee (should be Coalition). Although I am a member of both organizations I am not an official designee. The Lower Hood Canal Watershed Coalition is not an official organization but rather a public forum for discussion and has not taken group position on issues. Individuals from the Coalition have commented directly on issues but were not an agreed position of the Coalition. Is there to be a member on the task force from the HCSEG? I assummed that I was added to the task force as an individual and not a designee from an organization. I would suggest that rather than stating these two orgaizations as members of the task force that the paragraph includes "environmental organizations."
- The definition of the the Hood Canal Marine Recovery Area needs to be cleared up. The On-Site Sewage Management plan is being updated to show the entire Hood Canal watershed as the MRA. Expect this update to be approved following approval of the On-site Sewage Regulation by April. The On-Site Sewage Management Plan version approved in December 2007 did show the MRA as 1100 feet from the marine shoreline. Although the nearshore septics and stormwater are critical, measurements have shown pollutants in the streams and rivers coming from the entire watershed. The MRA should include the entire watershed. Suggest coordination on this with Environmental Health.
- Figure 1.1 does not show WRIA 14B which is the south shore watershed for the lower Hood Canal and is managed as a part of WRIA 16.
- I recognize that the US forests, State forests and National Parks are in the Mason county area and are excluded from the stormwater management plans. They are controlled by other regulations. The private operated forests are also excluded. However in some cases they are

close to the marine water and surround some of the streams and rivers draining into the marine water. As a part of the stormwater strategy, the forest practices ordinances should be reviewed and updated for consistency with stormwater BMP's.

- I still recommend as I have done in the past, that the stormwater ordinance be applied to the entire county now, rather than phasing in over a number of years as this strategy imples. Having different regulations for different areas and changing them every year will cause confusion and more county staff effort. In addition stormwater developments will be approved and installed that would not meet the regulations a year later. Actually because of allowed permit time they may actually be installed at a time that the regulations would not allow them. Ordinance 80-08 phases in the Storm and Surface Water Utility boundaries over several years and this could still be done. But the regulations with minimum 2005 Guidance and the LID ordinance should be applied countywide now.

John Konovsky (3/11/09)

Positives:

- Proactive approach to Phase II Stormwater Permit
- **Primary Recommendation**
- Page 30, 2nd paragraph: need to form an adaptive management committee of governments and stakeholders to oversee credible, defensible monitoring of LID retrofit facilities, and make recommendations for any improvements necessary to achieve water quality goals.

Technical errors:

- Page 6, 2nd paragraph: fecal coliform concentrations in Lynch Cove, upper Oakland Bay and North Bay are not "…closely associated with rainfall events..." Summer is the critical period especially for upper Oakland Bay. Bacteria likely accumulate on sediment during the winter and reproduce during the summer. Windy conditions stir up the sediment and re-suspend bacteria into the water column with a peak in September.
- Page 8, 2nd paragraph: DFW has not conducted any research on nutrients or coliforms. The Squaxin Island Tribe has.
- Page 8, 4th paragraph: "Many of the coliform monitoring stations show a steady increase in concentrations…" is an oversimplification of the pattern.
- Page 10, 2nd paragraph: the Squaxin Island Tribe conducts extensive water quality monitoring.
- Page 10, 4th paragraph: "…due to opposition form an initiating government" works for WRIA 14 but not WRIA 15. There was more than one opposing government.
- Page 10, 5th paragraph: Tribal role ignored.
- Page 11, 2nd paragraph: what about the South Puget Sound Salmon Enhancement Group?
- Page 14, 1st paragraph: why is there a reference to WRIA 14 Watershed Planning?
- Page 27, 1st paragraph: where is Appendix 2?

Other Substantial comments

- Page 29, 2nd paragraph: why no additional basin plans? They can be extremely helpful.
- Page 40, 2nd paragraph: retrofitting existing homes and businesses is necessary to meet water quality standards, especially in North Bay.

- Is the plan aggressive enough?

Questions:

- Page 22, 1st paragraph: "The County has existing drainage requirements for small parcels that mirror LID measures and result in <u>no net increase</u> in site runoff." What evidence is there to justify the "no net increase" statement?
- Page 27, 1st paragraph: draft Oakland Bay FC TMDL sets a target of 14/43 FC/100 ml at stream mouths and that will be a standard under Phase II.
- Page 34, 4th paragraph: what about obligations under forthcoming TMDL's?

<u>Will Stakelin (3/16/09)</u>

Dear Charlie Butros and members of the Mason County Planning Advisory Committee:

First, I would like to thank you and County staff for including the Mason County Chapter of the Olympia Master Builders (OMB) in the process to develop a Countywide Stormwater Management (SWM) Strategy. Second, on behalf of OMB I have included our comments regarding the draft strategy plan under consideration. Our comments are as follows:

The draft "Update to County's Stormwater Policies/Regulations and Development of Comprehensive Stormwater Management Plans – Countywide Stormwater Management Strategy" reads like a study report and not a strategic planning and implementation document. The study report identifies concerns and offers a series of recommendations, but a clear strategy of what the County plans to implement is lacking. It is a report from a consultant that doesn't provide the public with a clear understanding of the County's strategy and lacks articulation on how the program's process will be implemented.

Recommendation #1: Allow additional time for the County's Stormwater Advisory Committee to work with County staff on creating a clear plan of action and process for implementation based, in part, on recommendations contained within the study. This would provide clarity to both staff and stakeholders and reduce the potential for challenges and costly litigation.

<u>Section 1.1 Purpose (Page 1) states</u>:

> ***The purpose of this document is to present a Countywide SWM Strategy that is consistent with the County's SWM Program and the Puget Sound Action Agenda, begins to address required stormwater related program responsibilities, and prepares the County for receipt of a Phase II NPDES Municipal Stormwater Permit.***

OMB understands and supports the need for a proactive approach to stormwater management and protection of our water quality. OMB feels new regulatory mandates contained in the County's draft Stormwater Management Plan & Strategy should be based on minimum requirements contained in Department of Ecology's (DOE) 05 manual and not the Puget Sound Action Agenda. The action agenda of the Puget Sound Partnership (PSP) is an action plan of **recommendations** that the County should include, but listed as program **goals** and not mandates.

The "Findings and Intent" of the legislation related to the Puget Sound Partnership clearly states the Partnership "Define a strategic action agenda prioritizing necessary actions, both basin-wide and

within specific areas, and creating an approach that address all of the complex connections among the land, water, web of species, and human needs. The action agenda will be based on science and include clear, measurable goals for the recovery of Puget Sound by 2020; Determine accountability for performance, oversee the efficiency and effectiveness of money spent, educate and engage the public, and track and report results to the legislature, the governor, and the public; **Not have regulatory authority, nor authority to transfer the responsibility for, or implementation of, any state regulatory program, unless otherwise specifically authorized by the legislature.**

OMB believes the County should not adopt regulation based on the goals and policies of the PSP which lacks regulatory authority. Additional regulations will be costly to the County, property owners and future proposed new development. As a result, badly needed construction projects could be rendered cost prohibitive resulting in the loss of local tax revenue and jobs.

Recommendation #2: In addition to the adoption of the DOE 05 manual the County should clearly define the goals (not mandate) of the Action Agenda in the County's strategic plan and specifically identify ways to promote and implement the goals through voluntary incentives to property owners and new de

Section 1.4 County's Comprehensive SWM Planning Process (Page 3) states:

> **Both utility and development regulations were adopted in June of 2008, and are to be implemented in a phased five-year approach that prioritizes implementation based on the areas of greatest need.**

OMB agrees with the proposed phase-in approach based on prioritizing the areas of greatest need. Phasing-in the implementation of significant changes to the regulations related to development and the formation of a Stormwater Utility can be done more effectively and fairly by addressing the areas of greatest need before expanding into other areas of the County. This allows the development community ample time to plan accordingly for the new regulations while allowing the County to focus staff and resources in specific areas reducing the potential of spreading staff and resources too thin by trying to implement a complex program countywide all at once. This could potentially reduce efficiency in monitoring etc.

Recommendation #3: Implement the new requirements using a phased in approach as proposed in the draft.

Section 2 – Need for Comprehensive Countywide SWM Planning (Page 10) states:

> **The Puget Sound Partnership defines, coordinates, and implements Washington State's environmental agenda for Puget Sound and has been provided leadership in the area of low impact development (LID) and regional watershed planning. The Partnership has also developed the December 1, 2008, Puget Sound Action Agenda, which presents the State's long-term strategy for management and protecting the Sound, and coordinating the roles and responsibilities of federal, state and local governments.**

OMB believes this paragraph defines the role of the PSP Action Agenda, but also substantiates the "State's long-term strategy" as a series of polices and goals and not newly mandated requirements for local jurisdictions. Simple referring to the PSP Action Agenda results in the County's plan being overly vague and the potential for huge unnecessary costs to development and existing property owners (especially absent future grants).

Recommendation #4: County staff and stakeholders need to distill all of the new stormwater requirements and goals of the PSP Action Agenda to develop a user friendly strategic planning document and implementation process. Every effort must be made to reduce vagueness. The process needs to be easy for the public to interpret and understand while clearly defining the costs, requirements and permitting process for new and existing development.

Section 3.5 Overall Countywide SWM Strategy Philosophy (Page 22) states:

> **Using the phased approach described above, the adoption of a comprehensive SWM philosophy will include: SWM Program…Design Criteria for New Development…2005 Ecology Manual minimum technical requirements for all new development…Low Impact Development (LID), as required of all new development, with the exception of construction of single-family units of legal lots of record…Review and possible adoption of revisions to the Development Standards of the Comprehensive Plan, requiring all future development be conducted according to current low impact principles…retrofitting of existing development…County road design and funding.**

OMB feels the "philosophy" outlined will simply become the County's strategy plan without further consideration or discussion on the individual components. OMB supports the County's development, adoption and annual implementation of a workable SWM Program based on a programmatic approach to stormwater management based on the minimum requirements contained in the 05 DOE manual and future NPDES II Permit requirements. **OMB is opposed to a SWM program that includes, as regulations, the Puget Sound Action Agenda and mandatory LID for all new development.**

LID should be encouraged with incentives, but not mandatory. LID is encouraged – not mandated - by the PSP and isn't mandatory for PHASE II NPDES Permit. If left as a mandatory requirement, some new development projects may be rendered unbuildable when other prudent and acceptable engineering solutions may exist. It could be construed as a "regulatory takings" and subject the County to unnecessary litigation.

"Design Criteria for New Development" is too vague and additional input from the building community needs to be considered to avoid cost prohibitive regulations related to design review.

Components of the program are dependent on receiving future grants, which are never a guaranteed source of future funds, to offset the enormous costs of retrofitting existing development. **This becomes a policy question for the Board of Commissioners whether or not they wish to potentially pass the costs associated with the new requirements onto existing already over burdened taxpayers during tough economic times.**

Recommendation #5:

- Remove any reference to the Puget Sound Action Agenda that could be construed as a regulatory requirement in the plan.
- Remove "Design Criteria" due to vagueness and associated costs.
- Develop incentives and encourage LID, but don't mandate.
- In addition to the concerns previously stated, mandating current LID techniques locks the County in and may prevent new techniques from being considered or pursued.
- The Board of Commissioners should consider the policy question raised regarding retrofitting of existing development and County road design. *Costs to retrofit can not be charges to new development.*
- The number one source for funding new infrastructure needs to be the Stormwater Utility.

Section 3.6 Elements of the Countywide SWM Program (Page 22) states:

> **The County's Comprehensive SWM Program will be based upon the technical, programmatic, capital and funding approach needed to achieve natural resource protection objectives, compliance with the Puget Sound Action Agenda and future Phase II NPDES Permit and support continued growth.**

Compliance infers the Puget Sound Action Agenda carries the same mandatory implementation as the minimum requirements in the 05 DOE manual related to the Phase II NPDES Permit. This is not the case.

OMB understands the County's efforts to show DOE and PSP that it is doing everything possibly for compliance reasons in order to stay in the good graces of PSP for future grant funding consideration. Excessive regulation that will be detrimental to other segments of the community can not be an excuse for maximizing the County's potential to receive future grants.

Recommendation #6: Replace "compliance" with "new and existing development is encouraged to consider".

SWMP Element #11 – Funding (Page 29) states:

> **The SWM funding plan should explore the development of a system development charge for new development and redevelopment to help the County offset some of**

the costs of building the future conveyance systems and water quality treatment systems that will be needed in the future.

OMB feels that given our current economy any new charge will be detrimental to stimulating new projects and act as a deterrent to new development. A system development charge is synonymous with an impact fee. The actual costs necessary to implement the draft program are unclear and needs additional work. OMB supports reasonable and prudent funding methods, but adamantly opposes system development charges.

Recommendation #7: Focus on expanding the Stormwater Utility and formation of a Local Drainage/Stormwater Improvement District with use of Real Estate Excise Tax (REET) dollars, SEPA mitigation funds, increasing annual County portion of State sales tax and partnering with prospective developers to establish funding for larger regional drainage facilities. **Remove System Development Charges** from the funding strategy.

OMB looks forward to continued discussions and collaboration with Mason County staff and other stakeholders on important issues such as stormwater management, watershed protection and the quality of life for all Mason County residents.

Email documentation of PAC Hearing Comments of 3/16/09 from Charles Butros, Public Works Director, Mason County

-Rick Jenner asked questions about the planned retrofits and the monitoring, He also was concerned about the accuracy of the estimates that were in the plan.

-Jeff Carey asked about stormwater fee credits for residents or developers that were providing WQ treatment features. He asked if the program was adequately funded and how it would be demonstrated that the SW fees would be applied fairly.

-George Severe asked if consideration was given in the plans to peak flows.

-Bill Dewey (Planning Advisory Commission Member) suggested the following:
- Put more emphasis on WQ monitoring work - p. 24 of the Plan
- Put more emphasis/importance on enforcement for WQ - p. 26 of the Plan
- In Element 5 on p. 26, it addresses "municipal operations", should allow for rural as well
- Address oversight of private water treatment features
- Put more emphasis on program reporting being critical to the success of the program
- Address pet waste and domesticated animal waste contributing to the WQ degradation
- Adaptive management should be used to allow adjustment of approaches when needed

-Jim Reese (Planning Advisory Commission Member)
- Wildlife contamination from geese should be addressed

Attachment 3—NPDES Phase II Permit Minimum Measures

2007-2012 NPDES PHASE II PERMIT SWMP ELEMENTS AND MINIMUM MEASURES

	Stormwater Program Element	Permit Reference / Rule or Law	Activities / BMPs Needed for Regulatory Compliance	Suggested Activities to be Considered for Implementation
NPDES SWMP Element #1 - Public Education and Outreach				
1.1	**Outreach to Target Audiences and Subject Areas**	**S5.C.1.a**	Provide an education and outreach program for the MS4 service area designed to achieve measurable improvements in the target audience's understanding of the problem and what they can do to solve it. Prioritized target audiences and subject areas: i. General public - impacts of stormwater on surface water, impacts of impervious surfaces, and source control BMPs and environmental stewardship actions and opportunities. ii. General public, businesses, including home-based / mobile businesses - BMPs for use and storage of automotive chemicals, hazardous cleaning supplies, carwash soaps and other hazardous materials, and impacts of illicit discharges and how to report them. iii. Homeowners, Landscapers, property managers - yard care techniques protective of water quality, BMPs for use / storage of pesticides / fertilizers, carpet cleaning, auto repair / maintenance, LID techniques, and stormwater pond maintenance. iv. Engineers, contractors, developers, review staff, land use planners - technical standards for stormwater site and erosion control plans, LID techniques, and storm- water treatment and flow control BMPs.	-Develop some kind of inexpensive flyer (single sheet of paper) that lets ratepayers know how utility revenues are being spent; - Work with WSU Extension and others to educate citizens at community events (like Oysterfest); - Storm drain stenciling in areas where there are storm drains; - Educate project proponents at the permit desk with verbal suggestions and handing out brochures.
1.2	**Measure Results of the Educational Activities**	**S5.C.1.b**	Participate in an effort to measure understanding and adoption of the targeted behaviors among the target audiences.	
1.3	**Maintain Records**	**S5.C.1.c**	Track and maintain records of public education and outreach activities.	
NPDES SWMP Element #2 - Public Involvement and Participation				

Stormwater Program Element	Permit Reference / Rule or Law	Activities / BMPs Needed for Regulatory Compliance	Suggested Activities to be Considered for Implementation
2.1 Input to SWMP	**S5.C.2.a**	Create opportunities for public to participate in the decision making processes involved in the development, implementation and update of the SWMP.	-Use watershed planning groups, such as the Lower Hood Canal Watershed Implementation group to keep citizens involved and interested in stormwater related issues. -Convene a citizen advisory committee for at least monthly meetings
2.2 Availability of Program Documents	**S5.C.2.b**	Post the SWMP, the Annual Report, and all other required permit submittals on the Permittee's Website.	
NPDES SWMP Element #3 - Illicit Discharge Detection and Elimination			
3.1 Storm Sewer System Map	**S5.C.3.a**	Develop a municipal storm sewer system map of all storm sewer outfalls, receiving waters, and structural stormwater facilities. For all outfalls with a 24-inch nominal diameter include: - Tributary conveyances (type, material, size) - Associated drainage areas - Land Use Also map - Authorized connection points - Geographic areas served that do not discharge to surface waters Map should be in electronic format, with fully described mapping standards.	-Map the county's stormwater drainage system, and facilities, over the next 3-5 years. Knowing the extent and location of a drainage system, and specific locations of flow control and treatment facilities, is important for planning purposes, maintenance activities, spill response, monitoring, and capital improvement projects.

Stormwater Program Element	Permit Reference / Rule or Law	Activities / BMPs Needed for Regulatory Compliance	Suggested Activities to be Considered for Implementation
3.2 Illicit Discharge Ordinance	**S5.C.3.b**	Develop and implement an ordinance prohibiting non-stormwater discharge to the Municipal Separate Storm Sewer System (MS4). The ordinance should cover: -Potable water flushing; -Lawn and landscape irrigation runoff; -Swimming pool discharges; -Street and sidewalk wash water; -Other non-stormwater discharges. The ordinance must include escalating enforcement procedures and actions and an enforcement strategy.	-Adopt an ordinance prohibiting the illicit discharge of stormwater, with definitions of what is considered illicit and allowable, and with penalties for non-compliance.
3.3 Detection and Elimination Program	**S5.C.3.c**	Develop and implement an ongoing program to detect and address non-stormwater discharges, spills, illicit connections and illegal dumping. -Include procedures for locating priority areas based on land use, previous complaints, and storage practices Year 4.5); -Prioritize receiving waters for visual inspection (Year 3); -Field assessment of 3 priority receiving waters in the first four years (Year 4); -Field assessment of at least 1 priority receiving water each year annually (after Year 4). Screening must follow Center for Watershed Protection guidance manual. Include procedures (Permit End) for: -Characterizing nature and potential threat of illicit discharges; -Tracing the source of illicit discharge; -Notifying authorities and property owners; -Removing the source and conducting follow-up inspections Once identified, investigate and characterize problems (7 days), initiate investigation needed to remove source (21 days), and terminate illicit discharge (180 days).	-Develop and phase in over 3 years a business education and outreach campaign that identifies businesses most at risk of damaging the environment with their daily activities and providing outreach and education to them. This need not be an extensive or expensive activity; one staff person visiting 1-2 businesses each week can make a big difference.

	Stormwater Program Element	Permit Reference / Rule or Law	Activities / BMPs Needed for Regulatory Compliance	Suggested Activities to be Considered for Implementation
3.4	**Public Education and Spill Reporting**	**S5.C.3.d**	Inform public employees, businesses, and general public of hazards associated with illegal discharges and improper waste disposal. Distribute information to target audiences identified in Element 1.1 Publicly list and publicize a hotline for public reporting of spills and illicit discharges; keep records of calls and follow-up actions taken.	
3.5	**Program Evaluation and Tracking**	**S5.C.3.e**	Adopt and implement procedures for program evaluation and assessment, including tracking number and type of spills identified, inspections made, and feedback from public education efforts.	
3.6	**Staff Training**	**S5.C.3.f**	Train responsible staff on illicit discharge identification, investigation, termination, clean-up, and reporting with follow up training as needed to address changes; Ongoing training for all municipal field staff on identification and reporting with follow up training as needed to address changes; document and maintain records of trainings.	
NPDES SWMP Element #4 - Controlling Runoff from New Development, Redevelopment, and Construction Sites				
4.1	**Stormwater Runoff Control Ordinance**	**S5.C.4.a**	Adopt an ordinance to address runoff from new development, redevelopment, and construction site projects disturbing 1 or more acre. The ordinance should include: -Minimum requirements and thresholds equivalent to the 2005 Ecology Manual; -BMP selection and design criteria equivalent to the 2005 Ecology Manual; -Legal authority for inspection of private facilities discharging to the MS4; -Provisions to allow LID techniques to reduce impervious surfaces; -Guidelines for applying Ecology's "erosivity waiver" (if applicable).	-Adopt the 2005 Ecology Manual, including Volume I, which includes the minimum requirements and standards for flow control and treatment. Rationale: It is important that it be clear that the county is adopting the flow control and treatment standards contained in the manual, not just the BMPs.

	Stormwater Program Element	Permit Reference / Rule or Law	Activities / BMPs Needed for Regulatory Compliance	Suggested Activities to be Considered for Implementation
4.2	**Site Plan Review and Permitting**	**S5.C.4.b**	Develop a permitting process with plan review, inspection, and enforcement to ensure that the ordinance guidelines (Element 4.1) are applied to all sites disturbing 1 acre of land or greater. Inspection should apply to high risk sites prior to construction and all sites during and after construction.	-Add county project review of new and redevelopment projects to ensure that the projects comply with the county's drainage standards. -Include at least one inspection of every new and redevelopment construction site one acre and larger to ensure that temporary BMPs are in place and are being maintained. -Add inspection of all projects and permanent BMPs prior to final approval.
4.3	**Long Term Operation and Maintenance**	**S5.C.4.c**	Adopt an ordinance identifying parties responsible for maintenance and inspection of facilities permitted under Element 4.2, requiring inspection and establishing enforcement procedures; Establish maintenance standards for facilities permitted under Element 4.2 consistent with the 2005 Ecology Manual; Inspect established facilities (water quality and flow control) annually; Inspect new water quality and flow control facilities, including catch basins, every 6 months during building construction.	-Adopt an ordinance requiring that all new private development projects contain a long-term maintenance plan for permanent BMPs. Recommend updating county policies, as needed, to ensure that new development on county property contains a long-term maintenance plan as well.
4.4	**Maintenance Inspection Records**	**S5.C.4.d**	Develop procedure for keeping records. Keep records of all inspections, enforcement actions, maintenance activities, and construction sites.	
4.5	**NOI for Construction Activity**	**S5.C.4.e**	Make copies of the "Notice of Intent for Construction Activity" and/or "Notice of Intent for Industrial Activity" available to developers.	

	Stormwater Program Element	Permit Reference / Rule or Law	Activities / BMPs Needed for Regulatory Compliance	Suggested Activities to be Considered for Implementation
4.6	**Staff Training**	**S5.C.4.f**	Conduct training for staff in permitting, plan review, construction site inspection, and enforcement concerning the Stormwater Runoff Control program (Element 4.1); Maintain records of training.	
NPDES SWMP Element #5 - Pollution Prevention and Operation and Maintenance for Municipal Operations				
5.1	**Establish Maintenance Standards**	**S5.C.5.a**	Establish maintenance standards consistent with the 2005 Ecology Manual; When an inspection identifies an exceedance of the maintenance standard, maintenance shall be performed: -Within 1 year for wet pool facilities and retention / detention ponds. -Within 6 months for typical maintenance. -Within 9 months for maintenance that requires capital construction. -Within 2 years for maintenance that requires capital construction of less than $25k.	
5.2	**Annual Inspections of Water Quality and Flow Control Facilities**	**S5.C.5.b**	Conduct annual inspections of stormwater treatment and flow control facilities, other than catch basins; Perform necessary maintenance actions in accordance with established maintenance standards.	-All stormwater facilities, with the exception of catch basins, be inspected yearly.
5.3	**Spot Checks after Storm Events**	**S5.C.5.c**	Spot check stormwater treatment and flow control facilities after major storm events (>10-year recurrence interval); Conduct repairs as necessary.	
5.4	**Catch Basin Inspection**	**S5.C.5.d**	Inspect all catch basins and inlets at least once during the permit term; Clean catch basins as necessary; Dispose of decant water appropriately.	-Catch basins should be inspected at least once every five years.

Stormwater Program Element	Permit Reference / Rule or Law	Activities / BMPs Needed for Regulatory Compliance	Suggested Activities to be Considered for Implementation
5.5 Road Maintenance	**S5.C.5.f**	Implement practices to reduce stormwater impacts from street, parking lot, and highway runoff. Address the following activities: -Pipe and culvert cleaning; -Ditch and roadside areas including vegetation management; -Street cleaning; -Street repair and resurfacing, including pavement grinding; -Pavement striping maintenance; -Snow and ice control; -Utility installation; -Dust control.	
5.6 Non-Roadway Property Maintenance	**S5.C.5.g**	Implement practices to reduce stormwater impacts from non-roadway property runoff (parks, open space, right-of-way, and maintenance yards). Address the following: -Application of fertilizer, pesticides, and herbicides, including the development of nutrient management and integrated pest management plans; -Sediment and Erosion control; -Landscape maintenance and vegetation disposal; -Trash management; -Building exterior cleaning and maintenance.	-Institute policies and programs to reduce the use of pesticides and other chemicals at county parks, along roadsides, etc.
5.7 Staff Training	**S5.C.5.h**	Implement ongoing training activities for construction, maintenance, and operations personnel. Include training on: -Permit requirements; -O&M standards; -Inspection procedures; -Selecting appropriate BMPs; -Reducing water quality impact in daily activities; -Reporting of water quality concerns and illicit discharges. Maintain records of training.	-Institute professional training program for staff responsible for inspections and maintenance.

	Stormwater Program Element	Permit Reference / Rule or Law	Activities / BMPs Needed for Regulatory Compliance	Suggested Activities to be Considered for Implementation
5.8	**SWPPP for Maintenance Yards**	**S5.C.5.i**	Develop and implement Stormwater Pollution Prevention Plans for all equipment maintenance and storage yards not covered under the Industrial Stormwater General Permit. Include an implementation schedule for structural BMPs and conduct occasional visual inspection of discharge from the site.	-Develop a stormwater pollution prevention plan for municipally owned / operated yards for heavy equipment and machinery to reduce runoff of petroleum and other toxic products.
5.9	**Record Keeping**	**S5.C.5.j**	Maintain records of inspection and / or repair activities.	
NPDES SWMP Element #6 - Program Implementation				
6.1	**SWMP Implementation**	**S5.A.1**	Develop and implement a SWMP that covers the geographic area subject to the permit.	
6.2	**SWMP Documentation**	**S5.A.2**	Prepare written documentation of the SWMP and maintain annual updates in accordance with Element 10.	
6.3	**Program Tracking**	**S5.A.3**	Track the cost of development and implementation of the SWMP (beginning no later than January 1, 2009), including the number of inspections, enforcement actions, and public education activities. Use this information to evaluate SWMP development, implementation and permit compliance and to set priorities. Include this information in the Annual Report.	
6.4	**Coordination Among Permittees**	**S5.A.5**	Include in the SWMP stormwater management activity coordination mechanisms as needed among: -other municipal stormwater NPDES permittees within adjoining or shared areas to clarify roles and responsibilities for pollutant control and to avoid conflicting plans, policies and regulations. -departments within each jurisdiction to eliminate barriers to compliance.	
6.5	**MEP and AKART**	**S5.B**	Design the SWMP to reduce discharge of pollutants from the MS4 to the Maximum Extent Practicable (MEP), meet State AKART requirements, and protect water quality. Continue to implement existing SWMP activities, even if they are ahead of the schedule of this permit.	
NPDES SWMP Element #7 - Total Maximum Daily Load Allocations				

	Stormwater Program Element	Permit Reference / Rule or Law	Activities / BMPs Needed for Regulatory Compliance	Suggested Activities to be Considered for Implementation
7.1	**Applicable TMDLs in Appendix 2**	**S7.A**	Comply with requirements of Appendix 2 of the Phase II permit. When monitoring is required, submit a Quality Assurance Project Plan (QAPP) to Ecology.	
7.2	**TMDLs not listed in Appendix 2**	**S7.B**	Comply with requirements of the NPDES Phase II permit; Keep records and report activities relevant to applicable TMDLs.	
7.3	**TMDLs Approved during the Permit Cycle**	**S7.C**	Comply with future permit modifications (if applicable); Permittees are encouraged to participate in developing TMDLs and begin implementation.	
NPDES SWMP Element #8 - Monitoring				
8.1	**Existing Monitoring**	**S8.B**	Describe any stormwater monitoring or studies and type of information gathered; Assess the appropriateness of the BMPs in the SWMP and note any proposed changes.	
8.2	**Stormwater Monitoring**	**S8.C.1.a**	Prepare for future monitoring by identifying 2 outfalls or conveyances (1 commercial and 1 low density residential) suitable for permanent flow-weighted composite sampling equipment. Document site selection and justify basin size based on times of concentration for typical seasonal storms.	
8.3	**SWMP Effectiveness Monitoring**	**S8.C.1.b**	Prepare for future monitoring by identifying 2 suitable questions that could be studied through future monitoring; Select sites for future monitoring to explore the answers to the selected questions; Develop a monitoring plan for each question including: -Statement of the problem and why it is significant; -Specific hypothesis about the problem; -Specific parameters of attributes to be measured; -Expected modifications based on outcome of the monitoring.	-Over 3 years, establish a program to evaluate the effectiveness of its stormwater management efforts, and report findings to its citizens and others. There are currently models to use - Kitsap County already does this as part of their program.
8.4	**Annual Reporting**	**S8.C.2.a**	Describe the status of identifying sites, questions, and development of monitoring plan outlined in Elements 8.2 and 8.3.	
NPDES SWMP Element #9 - Reporting				

Stormwater Program Element	Permit Reference / Rule or Law	Activities / BMPs Needed for Regulatory Compliance	Suggested Activities to be Considered for Implementation
9.1 Annual Reports	**S9.A&B**	Submit annual reports each year on the previous year's NPDES Phase II activities. Use reporting forms supplied in Appendix 3 of the Phase II permit and submit applicable supporting documentation.	
9.2 Ongoing Tracking	**S9.C.2**	To support annual report submittal, maintain records of: -Implementation status of each activity in Elements 1 through 5 and 8; -Assessment of progress toward meeting minimum performance measures; -Activities implemented to comply with program requirement (Elements 1 through 5 and 8); -SWMP implementation schedule and plans for meeting future permit deadlines.	
9.3 Maintaining Records	**S9.C**	Maintain records of final SWMP documentation and permit activities for five years.	
9.4 Public Access	**S9.D**	Make all records of final SWMP and permit activities available to the public at reasonable times during business hours.	

Notes:

- Activities are based on the *NPDES and State Waste Discharge General Permit for Discharges from Small MS4s in Western Washington* , issued January 17, 2007 and effective February 16, 2007.
- Year 1 ends February 15, 2008. Year 2 ends February 15, 2009; Year 3 ends February 15, 2010; Year 4 ends February 15, 2011; Year 5 ends February 15, 2012
- "Permit End" means 180 days prior to the expiration date of the permit.
- "2005 Ecology Manual" refers to the Washington State Department of Ecology's 2005 *Stormwater Management Manual for Western Washington.*
- Monitoring requirements vary based on City or County population. Guidelines listed here are for counties of population between 25,000 and 100,000.

Attachment 4—Excerpts from Mason County Comprehensive Plan, Chapter VI Capital Facilities

Chapter VI
CAPITAL FACILITIES

VI - 1 INTRODUCTION

Purpose

The Capital Facilities Chapter contains the capital facilities element, one of the six elements required for Mason County's Comprehensive Plan under the Growth Management Act (GMA) (36.70A.070 RCW). This element provides an inventory of existing conditions and publicly owned facilities by quantifying capital facilities currently provided by Mason County or by other jurisdictions operating in the County.

The chapter also contains goals and policies for the capital facilities operated by Mason County, except for transportation facilities, which are discussed in the Transportation Chapter.

The capacity of the County facilities and the level of service they provide is discussed and compared with the County's desired levels of service. The "level of service" is an objective measure of how well services are provided to the public. Deficiencies and improvement needs are identified, improvement costs are estimated, projects are scheduled for six and 20-year planning horizons, and a six-year finance plan and possible financing options are discussed.

Besides the City of Shelton, there are other public organizations and special districts that have capital facilities and taxing authority which exist in the county. These include the school districts, hospital districts, port districts, cemetery district Public Utility Districts, regional library system, and fire districts. These districts have their own governing body and capital facilities planning. The county coordinated the comprehensive plan with these bodies, through meetings, correspondence, and by providing draft of the comprehensive plan to these districts for comment. A list of these districts is provided as follows:

Mason County Hospital District #1
Mason County Hospital District #2

Port of Allyn
Port of Dewatto
Port of Grapeview
Port of Hoodsport
Port of Shelton

Southside School District #42
Grapeview School District #54
Elma School District #68/137
Shelton School District #309
Mary M Knight School District #311
Pioneer School District #402
North Mason School District #403
Hood Canal School District #404

Fire Protection District #1
Fire Protection District #2
Fire Protection District #3
Fire Protection District #4
Fire Protection District #5
Fire Protection District #6
Fire Protection District #8
Fire Protection District #9
Fire Protection District #11
Fire Protection District #12
Fire Protection District #13
Fire Protection District #16
Fire Protection District #17
Fire Protection District #18

Cemetery District #1

Belfair Water District #1
Public Utility District #1
Public Utility District #3

Organization and Contents

The following section of this chapter, VI-2, includes a list of goals and policies that provides the direction for future capital facility decisions for Mason County.

Subsequent sections, VI-3 through 9, profile and analyze seven types of capital facilities in the County, as follows:

- **Water and Wastewater Utilities**
- **Solid Waste Utility**
- **Parks and Recreation Facilities**
- **County Administration Buildings**
- **Police and Criminal Justice Facilities**
- **Stormwater Management Facilities**
- **Public Works Facilities**

Sections 3 through 9 each includes a brief description of the existing systems and public entities that provide the facilities. An assessment of future facility needs is also developed for each category of facility. The last section of this chapter, VI-10, discusses financing for county owned and operated facilities for the six-year financial planning period 2009 to 2014.

Facility Needs

A number of methods can be used to determine Mason County's capital facility needs over the next six and 20-year GMA planning periods. As not all capital facilities require the same level of analysis to determine needed improvements, different analytical techniques can be employed to identify facility needs as long as they accomplish the goal of determining future need for the capital facilities.

While the state Growth Management Act requires that level of service (LOS) standards be established to identify transportation improvements, the need for other capital facilities can be assessed using either LOS or planning level assumptions (WAC 365-195-315).

The advantage of using LOS standards is the ability to quantify deficiencies and identify improvement needs. The LOS can also be used as a performance standard for concurrency by comparing the service level being provided by a capital facility against the quantitative LOS standard. The service is considered deficient if it does not meet the service level standard that the County has determined it wants to deliver to its residents and users. The LOS approach makes the most sense where there are easily quantifiable facilities or where the state has defined the standards, such as for sewer and water facilities.

The less rigorous planning assumptions approach also has advantages. The capital facilities planning assumptions are not quantitative measures of facility need. Instead, they identify facility improvements based upon the need to serve growth and development anticipated in the land use element. This approach works best where identification of quantitative measures would be difficult, where there are no statewide standards, or where the necessary information or data to apply quantitative measures would be difficult or too time-consuming to obtain. Facilities such as parks and recreation and stormwater facilities might best be handled with this approach.

Financing

Facility needs are identified, and a six-year finance plan is developed, in section VI-10 for the following County-owned-and-operated facilities.

- **Sewer**
- **Water**
- **Parks and recreation**
- **Stormwater**

This section also includes the results of facility planning efforts completed by the County for County administrative buildings, police and criminal justice facilities, and solid waste facilities. Financing needs and options are included for these facilities as well. The section includes by reference the capital facilities plans for Grapeview, Hood Canal, North Mason, Pioneer, and Shelton School Districts, to facilitate orderly growth and coordination in the provision of future capital facility needs.

Concurrency Management

One of the Growth Management Act goals, referred to as "concurrency," is the provision of infrastructure facilities and services to serve projected growth at the time such growth occurs, or within a reasonable time afterwards. This starts with identifying specific facility needs using the strategies previously discussed. Another important aspect of concurrency is the ability to monitor the development of infrastructure improvements to assess whether they keep pace with approved development.

Concurrency management, as it is called, involves a set of land use and permit approval processes designed to ensure facilities and services keep pace with growth. In some cases, development codes could be enacted to require that specific LOS standards be promulgated through the development of identified improvements.

In other cases, restrictions to growth may be imposed until appropriate service standards for capital facilities are achieved. Land use applications for certain development proposals, in areas targeted for future growth, could have their approvals withheld pending concomitant development of appropriate urban service level facilities (e.g., sewer facilities). The municipality would be responsible for managing the concurrent development of these urban services. This can be accomplished by requiring that individual developers fund and implement needed improvements. Under this arrangement, the final tenant (e.g., homebuyer or building purchaser) would ultimately pay for the new facilities through a higher initial purchase price or through a periodic assessment.

Mason County's policies for concurrency management are contained in the following section, VI-2.

CF-703 Develop and adopt a realistic long-range schedule for park management, maintenance, and operation. Adopt a workable County capital improvement program (CIP) every six years, to be amended as needed.

CF-704 Update current 2006 Comprehensive Parks and Recreation Comprehensive Plan in 2011 to project future demands and needs; define acquisition, leases, and development opportunities; draft financial implementation programs; and be eligible for state and federal grants.

Administrative Services

Develop and implement a long-range program of expansion and improvement to accommodate the County's projected administrative staffing requirements.

CF-801 Annually review the long-range facilities plan for buildings and space improvements to efficiently provide work space for projected staffing levels.

Police and Criminal Justice

Develop and implement a coordinated facility program among the departments and agencies that provide the County's police and criminal justice services.

CF-901 Complete a strategic long-range plan for the effective and coordinated operation and management of all County police and criminal justice functions, including a full analysis of all space and facility needs required to support the plan.

CF-902 Explore alternative funding sources for law and justice facilities and operations, including contracts for service with other agencies and joint use of facilities.

Stormwater Management

Create a facilities strategy that preserves and supplements necessary natural drainage processes and other natural systems to minimize runoff impacts from development.

CF-1001 Investigate needs and means for implementing and maintaining a safe and cost-effective storm and stormwater collection system in identified problem areas.

CF-1002 Protect surface and ground water quality through state and local controls and public education on water quality issues.

CF-1003 Design stormwater systems to meet the approval standards prescribed in the Mason County Stormwater Management Ordinance.

CF-1004 Protect physical and biological integrity of wetlands, streams, wildlife habitat, and other identified critical areas.

CF-1005 Maintain water quality within all Shoreline Management Act waterfront areas through careful design, operation, construction, and placement of public facilities.

CF-1006 Carefully control development in areas with steep slopes where surface water runoff can create unstable conditions. Maintain natural vegetation for slope stabilization.

CF-1007 Public facility development shall minimize impacts to shorelines, preserving the natural stream environments where possible.

CF-1008 Comply with the National Pollutant Discharge Elimination System (NPDES) and state regulations.

CF-1009 Under no circumstances should hazardous waste be allowed to contaminate the groundwater, surface water, or sewer systems of Mason County. Dispose of hazardous wastes only in locations designated for that purpose.

Solid Waste

Ensure that garbage collection and recycling needs of the County are met in an efficient and cost-effective manner.

CF-1101 Manage a cost-effective and responsive solid waste collection system.

CF-1102 Manage solid waste collection methods to minimize litter, neighborhood disruption, and degradation of the environment.

CF-1103 Promote the recycling of solid waste materials through waste reduction and source separation. Develop educational materials on recycling and other waste reduction methods.

CF-1104 Work cooperatively with cities, the Washington State Department of Ecology, and the Mason County Health District to achieve an environmentally safe and cost-effective solution to the disposal of catch basin wastes and street sweepings.

VI.8 STORMWATER MANAGEMENT

System Description

Existing stormwater facilities in Mason County include both natural systems and built collection and conveyance. Existing systems generally handle runoff from State and County Roads and existing development. Run-off control is limited to new construction which is managed through requirements in 1992 Ecology Stormwater Manual. More stringent control is proposed for the Belfair/Allyn Urban Growth areas and the Hoodsport Rural Activity Center by implementing the 2005 Ecology Stormwater Manual and Low-Impact Development techniques.

Increases in the amount of residential and commercial impervious surfaces have increased stormwater runoff in the county. In addition, forestry practices, such as logging, and new road construction, have also increase runoff and created sedimentation problems in a number of the county's creeks and streams resulting in diminished water quality and loss of critical aquatic habitat. Stormwater runoff, erosion, sedimentation, habitat loss and flooding problems will likely continue in the County especially in the designated urban growth areas if strong control measures are not implanted.

Inventory

Mason County has adopted a Stormwater Management Ordinance (Mason County Code Section 14.48). This ordinance adopts by reference the 1992 edition of the Washington State Department of Ecology's Stormwater Management Manual, with the exception of the Minimum Requirements chapter, for use in designing best management practices (BMPs) for new development and other improvements. The ordinance defines specific minimum requirements and other approval standards for development on all ranges of parcel sizes

The City of Shelton has prepared a Surface Water Drainage Utility Master Plan. Their master plan identifies existing problems in the city and offers recommendations for improvements. The city has scheduled improvements based on the existing master plan; the city intends to update the plan before 2013.

The county is in the process of adopting stormwater plans for the Belfair/Allyn Urban Growth Area, and the Hoodsport Rural Activity Center. A more general plan for the entire county is expected to be developed in 2009. The specific plans and the more general countywide plan will set the stage for the development of a utility that will implement programmatic and capital improvement projects to manage strormwater. Activities will focus on addressing flooding in the county, improving the water quality in South Puget Sound and protecting critical aquatic habitat. Strormwater programs and capital improvements will be lunched through direct developer contributions as new development occurs; grants and loans; a dedicated portion of the Real Estate Excise Tax (REET 2) collected by the county; and utility fees.

Facility Needs

Mason County continues the development of a comprehensive countywide Stormwater Management Plan. This planning process focuses on a review of existing stormwater policies and the County's stormwater regulations. In addition, a review for regulatory consistency with

the County's Critical Areas Ordinance (CAO) and Low Impact Development (LID) Standards will be completed. The plan addresses changing state, federal, and regional regulatory requirements. This includes the National Pollutant Discharge Elimination System (NPDES) Phase II permit program of the Clean Water Act. This act controls water pollution by regulating point sources that discharge pollutants into waters of the state. Also, the plan will consider implementation of the 2005-2007 Puget Sound Conservation Plan as well as consider the adoption of the Department of Ecology (DOE) 2005 Stormwater Design Manual for Western Washington in areas of the County beyond the designated Urban Growth Areas. The plan will address evolving water quality needs affecting Hood Canal and South Puget Sound. Also the plan will delineate program objectives and capital facility needs and identify funding sources to implement required action elements.

The County will begin community environmental education and training activities in the Belfair, Allyn, Shelton and Hoodsport areas. This program will expand to other areas of sensitive water quality in 2009 / 2010 and continuing throughout the county in later years.

The identification of capital projects to address both regional strormwater problems and the need to retrofit existing development will complete during the planning process. Strormwater planning in the urban growth areas and water quality monitoring by the County's Environmental Health Section have identified needed capital projects. These projects will be address from revenues secured from grants provided by the state. Revenues generated by the utility will fund future capital facilities.

Flooding problems in the Skokomish River watershed have been addressed in a Comprehensive Flood Hazard Management Plan. This plan defines a total program of river maintenance activities, valley creek maintenance measures, flood protection measures, and flood warning and emergency response procedures.

Mason County anticipates that the Skokomish River Watershed Comprehensive Flood Hazard Management Plan will be completed and adopted in 2007.

2009-2014 Capital Facilities Plan Worksheet
Public Works/Utilities & Waste Management

Fund: **Storm Drainage System Development Fund/Stormwater Utility**

Project Name: **Storm Water Facilities Development**

Estimates: **Planning Level**

Description: Upgrading and construction of stormwater facilities in the County to provide affective stormwater management and treatment to reducing the risk of flood damage improve water quality and enhance aquatic habitat.

Justifications: Stormwater planning has identified several areas within Mason County where contamination is decreasing the water quality of South Puget Sound

Estimated Project Costs

	2009	2010	2011	2012	2013	2014	Total
Project Management	27,000	12,000	6,000	30,000	30,000	30,000	135,000
Program Design & Implementatio n	264,500	139,500	36,000				440,000
Strormwater Project Design & Construction	370,000	195,000	150,000	275,000	315,000	360,000	1,675,000
Total Cost :	**661,500**	**346,500**	**192,000**	**305,000**	**345,000**	**390,000**	**2,250,000**
Funding Sources:							
Real Estate Excise Tax (REET)	150,000	100,000	50,000	20,000	20,000	20,000	360,000
Developer contributions			10,000	10,000			20,000
Utility Fees & GFC				225,000.	275,000	330,000	830,000
Grants/Loans	511,500	246,500	132,000	50,000	50,000	50,000	1,040,000
Total Funding:	**661,500**	**346,500**	**192,000**	**305,000**	**345,000**	**400,000**	**2,250,000**

*** GRANT DETAIL**

2009

$ 75,000	Oakland Bay
$ 75,000	Annas Bay
$ 361,500	New 1 Million $ grant
$ 511,500	

2010

$246,500 New 1 million $ grant

2011

$ 142,000 New 1 million $ grant

2012

Unknown

Equals = $ 750,000 New 1 million $ grant

2009-2014 Capital Facilities Plan Worksheet
Utilities, & Waste Management

Fund: Stormwater Utility

Project Name: Critical Habitat Rehabilitation

Estimates: Planning

Description: preservation and enhancement of critical aquatic habitat including purchase of land or land conservation easement.

Justification: The loss of critical aquatic habitat can be attributed to poor stormwater management. Improvements to and enhancement of aquatic habitat along county creeks, streams, and in Puget Sound estuaries and shorelines will increase fish and shellfish populations.

Estimated Project Costs (in thousands)

	2009	2010	2011	2012	2013	2014	TOTAL
Prelim Engineering	5	5	5	7.5	7.5	10	40
Environmental Engineering Design	5	5	5	10.5	2.5	2.5	30.5
Construction/including accruing critical land				56.5	56.5	56.5	169.5
TOTAL COST:	**10**	**10**	**10**	**74.5**	**66.5**	**69**	**240**
Funding Sources:							
Grants/Loans	5	5	5		10	15	40
Developer contributions							
Rates				64.5	46.5	51.5	162.5
Real estate Excise Tax (REET)	5	5	5	10	10	12.5	37.5
TOTAL FUNDING:	**10**	**10**	**10**	**74.5**	**66.5**	**69**	**240**