

# Detailed Implementation Plan

## Skokomish-Dosewallips Watershed

### Water Resource Inventory Areas 16 and 14b

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June 19, 2008

Prepared by the WRIA 16 Planning Unit

With assistance from



Washington State Department of Ecology grant number G0800033 provided funding for this project.

## List of WRIA 16 Planning Unit Members

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Name/Alternate	Organization	Representation
<i>Government Organizations</i>		
David Sullivan/Tami Pokorny/Neil Harrington	Jefferson County	Initiating Government
Bill Graham/Wayne King	Jefferson County PUD #1	Jefferson County PUD #1
Tim Sheldon/Pam Bennett-Cumming	Mason County	Initiating Government
Ron Gold/Debbie Knipschild	Mason County PUD #1	Initiating Government
David Herrera/Marty Ereth	Skokomish Tribe	Initiating Government
Phil Wiatrak	WA State – Ecology	State Government
<i>Other Voting Members</i>		
Mike Petz	Local Farmer	Agriculture*
George Sickel/Bud Schindler	Citizen-at-large	Citizens – Jefferson County*
Barbara Levette/Gwen Gadberry	Citizen-at-large	Citizens – Mason County*
Currently Vacant	Lake Cushman Maintenance Company	Development*
Constance Ibsen	Lower Hood Canal Watershed Coalition	Environment*
Donna Simmons	Hood Canal Environmental Council	Environment*
Currently Vacant		Forestry*
Currently Vacant		Growth Management*
George Fisher	Save the Lakes Coalition	Lake Issues*
John Wyatt/Frank Benavente	Port of Hoodspport	Port Districts*
Don LeMaster	Hoodspport Realtor	Realtors and Builders*
Frances Arnold	Walkie-Talkies	Recreation*/Seniors
Diane Cooper	Taylor Shellfish	Shellfish Industry*
<i>Ex-Officio (Non-Voting) Members</i>		
Vacant	Hood Canal Coordinating Council	Water Quality and Salmon Issues
Dan Hannafious/Neil Werner	Hood Canal Salmon Enhancement Group	Salmon Enhancement*
Currently Vacant	Mason County Planning Advisory Commission	Planning Commission
Currently Vacant	Jefferson County Planning Commission	Planning Commission
<i>Technical Advisors (Non-voting)</i>		
Currently Vacant	Mason County Conservation District	Agriculture and Water Quality Issues
Duane Fagergren	Puget Sound Partnership	Puget Sound Partnership – Hood Canal Action Area
Teri King	Washington Sea Grant	Marine Resources
Doris Small	WA State – WDFW	Habitat Issues
Ken Stone	WA State – DOT	Transportation Environmental Impacts

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\*Interests identified by the Initiating Governments

## Acknowledgements

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As lead agency, Mason County gratefully acknowledges the dedication and hard work of the Planning Unit members noted on the previous page. These individuals have put forth outstanding efforts and untold hours to develop this Detailed Implementation Plan and to collaboratively address issues in the watershed.

Development of this Detailed Implementation Plan was funded by the Washington State Department of Ecology under Watershed Planning Grant # G0800033, as authorized in the Watershed Planning Act (Chapter 90.82 RCW). WRIA 16 Planning Unit meetings and this plan-writing process have been facilitated by Susan Gulick of Sound Resolutions. Laila Parker of Cascadia Consulting Group assisted with writing the plan. The photograph on the cover of this document is from the US Army Corps of Engineers. The Hoodspout Library provided meeting space.

For information regarding the WRIA 16 Planning Area or this Detailed Implementation Plan, please contact Mason County Planning Department at 360-427-9679, extension 287, or [pambc@co.mason.wa.us](mailto:pambc@co.mason.wa.us), or refer to the web page at: <http://www.ecy.wa.gov/apps/watersheds/wriapages/16.html>.

# Table of Contents

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<i>List of WRIA 16 Planning Unit Members</i> .....	2
<i>Acknowledgements</i> .....	3
<i>Table of Contents</i> .....	4
<i>Acronyms and Abbreviations</i> .....	5
<i>Executive Summary</i> .....	6
<i>Introduction</i> .....	7
<b>I. Implementation of Each Recommendation</b> .....	<b>9</b>
<i>Water Quantity Recommendations</i> .....	10
Data Needs .....	10
Water Conservation.....	10
Water Supply and Use .....	12
<i>Water Quality Recommendations</i> .....	15
Data Needs .....	15
On-site sewage systems .....	18
Animal Waste .....	21
Stormwater .....	22
Other .....	25
<i>Habitat Recommendations</i> .....	26
<i>Other Recommendations</i> .....	28
Hood Canal .....	28
Funding .....	35
Education and Outreach.....	36
Enforcement.....	38
Support for Ongoing Activities.....	40
Information Gathering.....	41
Plan Implementation.....	44
<b>II. Implementation Considerations</b> .....	<b>45</b>
<i>Introduction</i> .....	45
<i>Regulatory Changes/Legislative Actions Needed</i> .....	45
<i>Performance Indicators/Deliverables Checklist</i> .....	46
<i>Strategies to Provide Sufficient Water</i> .....	54
<b>III. Inchoate Water Rights in the WRIA 16 Planning Area</b> .....	<b>55</b>
<b>Appendix A: 2009-2010 Workplan</b> .....	<b>56</b>
<b>Appendix B: Actions to be Implemented by Each Party</b> .....	<b>68</b>

## Acronyms and Abbreviations

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BMP – Best Management Practices  
BOCC – Board of County Commissioners  
CAO – Critical Areas Ordinance  
DNR – Washington State Department of Natural Resources  
DOH – Washington State Department of Health  
DOT – Washington State Department of Transportation  
Ecology – Washington State Department of Ecology  
EIM – Ecology's Environmental Information Management database  
GIS – Geographic Information System  
GMA – Growth Management Act  
HCCC – Hood Canal Coordinating Council  
HCDOP – Hood Canal Dissolved Oxygen Program  
HCSEG – Hood Canal Salmon Enhancement Group  
HCWEN – Hood Canal Watershed Education Network  
IPM – Integrated Pest Management  
LHCWC – Lower Hood Canal Watershed Coalition  
LID – Low Impact Development  
O&M – Operations and Maintenance  
OSS – On-site Sewage Systems  
Partnership – Puget Sound Partnership  
PUD – Public Utility District  
RCW – Revised Code of Washington  
RFP – Request for Proposals  
RFQ – Request for Qualifications  
Sea Grant – Washington Sea Grant  
SMP – Shoreline Master Program  
TDR – Transfer of Development Rights  
TMDL – Total Maximum Daily Load<sup>1</sup>  
USFS – United States Forest Service  
USGS – United States Geological Survey  
WDA – Washington Department of Agriculture  
WDFW – Washington Department of Fish and Wildlife  
WRIA – Water Resource Inventory Area  
WSU – Washington State University  
\$ - dedicated funding required to implement the action

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<sup>1</sup> The term 'Total Maximum Daily Load', or TMDL, refers to plans to clean up water quality in order to comply with standards set by the U.S. Environmental Protection Agency and the Washington Department of Ecology.

## Executive Summary

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Stretching from the Olympic Mountains to Hood Canal, the WRIA 16 Planning Area encompasses a rural area rich in natural beauty and water resources. Yet the basin increasingly faces water resource management challenges. Low stream flows in the summer and fall may impair fish habitat, which in turn may increase the pressure to restrict withdrawals for residential, agricultural, and commercial water supply. Septic systems, animal waste, stormwater flows, and other inputs from human activity threaten the quality of Hood Canal's water. Adequate clean water is crucial to the area's residents, visitors, fish, shellfish and wildlife.

The WRIA 16 Planning Unit has been working since 1999 to address these and other water resource management issues within the Skokomish Dosewallips Watershed (Water Resource Inventory Area (WRIA) 16) and the South Shore Sub-basin portion of the Kennedy-Goldsborough Watershed (WRIA 14b). Representatives of many local and state entities and individual citizens worked together to develop the 84 recommendations in the WRIA 16 Watershed Management Plan, addressing water quality, quantity, and habitat issues such as:

- expanded and coordinated **water quantity and quality monitoring**;
- **water conservation**;
- management of **water supply and use** to meet changing demands;
- efforts to inspect, maintain, upgrade, or replace **septic systems**, as needed;
- strategies to reduce the water-quality impacts of **animal manure and pet wastes**;
- **stormwater** management;
- activities to enhance water-quality and habitat impacts on **Hood Canal**;
- pursuit of **stable, ongoing funding** to enable Watershed Management Plan implementation;
- **communication** of information and strategies to WRIA 16 Planning Area residents, visitors, and businesses;
- better **enforcement** of existing laws that would protect or improve water resources; and
- **support for ongoing activities**, including those addressing **habitat for salmon and shellfish**.

This Detailed Implementation Plan lays out short and long-term actions to implement these 84 recommendations. This plan identifies implementation responsibilities, funding needs and sources, permits or legislative actions required, oversight responsibilities and performance indicators, and addresses inchoate water rights. Finally, the plan contains a synopsis of specific recommendations which should help provide adequate water for production agriculture, instream flows, and commercial, residential, and industrial use.

# Introduction

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## Overview of Water Resources in the WRIA 16 Planning Area

The Skokomish-Dosewallips Watershed, WRIA 16, is located on the eastern slope of the Olympic Peninsula, while the South Shore Sub-basin of the Kennedy Goldsborough Watershed, WRIA 14b, is located just south of Hood Canal. Together, these areas make up the WRIA 16 Planning Area. On the western shore of Hood Canal, major rivers, including the Skokomish, Dosewallips, Hamma Hamma, and Duckabush, as well as many small and intermittent streams, flow from headwaters in the snow-capped Olympic Mountains down to the glacier-carved fjord of Hood Canal and the floodplains of the Skokomish River Valley. The low-lying areas just south of Hood Canal are crossed by rivers such as Big Bend, Twanoh Falls, and Holyoke Creeks.

The WRIA 16 Planning Area is characterized by significant variability in precipitation and groundwater recharge. Annual precipitation ranges from 250 inches per year in the temperate rain forests of the Olympic Mountains to approximately 60 inches per year along Hood Canal. Forecasted climate trends are expected to result in diminished snowpack and, consequently, reduced stream flows on the west shore. Groundwater storage capacity in the mountainous terrain of the watershed is limited, but alluvial and glacial sediments along the shoreline and in floodplains and estuaries store a significant supply of groundwater.

Roughly 60% of the watershed's land area is under federal jurisdiction in either Olympic National Park, Olympic National Forest, or wilderness areas. All of the Planning Area's approximately 8,000 permanent residents live in unincorporated areas, mostly in Mason County, with major communities along the shore of Hood Canal including Brinnon, Lilliwaup, Hoodsport, Potlatch, Union, and the outskirts of Belfair, as well as the 8.2-square mile Skokomish Indian Reservation. The area's population grew 24% between 1990 and 2000, and this growth increases demands on water supply. Increased groundwater pumping to meet this demand may lead to salt-water intrusions in the future. The local economy relies largely on tourism, recreational and commercial shellfish harvesting, forestry, and agriculture.

The watershed's rivers, streams, and nearshore environment provide important habitat for coho, chum, pink, and chinook salmon, steelhead and cutthroat trout, and associated aquatic species. Habitat quality has diminished due to multiple causes including roads and land development, stream modifications, shoreline development, and water pollution from sediment, nutrients, and pathogens.

Several surface water bodies in the southern portion of the WRIA 16 Planning Area have been listed under Section 303(d) of the Clean Water Act for exceedences of water quality standards. A Total Maximum Daily Load (TMDL) and related clean-up plan has been developed for the Skokomish River. These stream reaches, as well as areas of Hood Canal with high fecal coliform counts and low dissolved oxygen levels, threaten shellfish harvests, human health and habitat for a variety of aquatic organisms.

## History of Watershed Planning in the WRIA 16 Planning Area

The 1998 Washington Watershed Planning Act provides a means for people who live, work, and recreate within a watershed to work collaboratively towards managing water resources for the future. The Washington State Department of Ecology (Ecology) administers the act through a series of grants in four major phases for each watershed. Planning occurs within the boundaries of Washington's 62 WRIsAs, although as in WRIsAs 16 and 14b, multiple WRIsAs or portions of WRIsAs are sometimes combined for planning purposes.

The Watershed Planning Act process provides for four phases of planning, each of which is funded by Ecology. Phase I of watershed planning provides funding for the convening of a planning unit formed of representatives of local government, interest groups, and citizens. In Phase II, planning units may apply for funding to conduct watershed assessments, which may range from a compilation of existing data on water resources to new studies of

specific watershed attributes. Phase III provides monies for development of a watershed management plan, while Phase IV funding allows planning units to develop detailed implementation plans to coordinate and oversee the actual implementation of the alternatives and recommendations of their watershed management plan.

Mason, Jefferson, and Grays Harbor Counties, Mason County Public Utility District (PUD) #1, and the Skokomish Tribe formed the WRIA 16 Planning Unit in 1999. With less than 5% of its land area in WRIA 16, Grays Harbor County opted out of WRIA 16 planning. The WRIA 16 Planning Unit signed interlocal agreements with WRIA 14 in order to also plan for the portion of WRIA 14 which drains into Hood Canal, thereby consolidating planning for Hood Canal and the nearshore environment. The WRIA 16 Planning Unit proposed legislation establishing the South Shore Sub-basin of WRIA 14 as WRIA 14b, to be managed with WRIA 16; this bill was signed into law in 2008. (See Recommendation 6.1.17, page 35).

Golder Associates conducted a Phase II watershed assessment of the WRIA 16 Planning Area, completed in 2003. Cascadia Consulting Group and Sound Resolutions helped with the development of the WRIA 16 Watershed Management Plan, which the Planning Unit adopted in 2006. Both documents may be found on-line at <http://www.ecy.wa.gov/apps/watersheds/wriapages/16.html>.

### **Status of Instream Flow Rule-Making**

The Planning Unit has decided to delay instream flow discussions with Ecology until there is agreement between Ecology and the Skokomish Tribe on recommended instream flows.

### **Legal Authority for this Plan**

Phase IV of the watershed planning process, added in 2003 under RCW 90.82.043, provides the funding and authority for this Detailed Implementation Plan. Certain elements are required by that statute to be incorporated in this stage of the planning process, including a consideration of inchoate municipal water rights in the watershed; strategies to provide sufficient water for production agriculture, instream flows, and/or commercial, industrial, and residential use; and identification of coordination and oversight responsibilities, any needed interlocal agreements, rules, ordinances or permits, and specific funding mechanisms.

### **Process Used to Develop this Plan**

Following the adoption of the WRIA 16 Watershed Management Plan in 2006, the Planning Unit agreed by consensus to move to Phase IV of watershed planning. Upon receipt of Phase IV funding, the Planning Unit began to develop this Detailed Implementation Plan. In twice-monthly Planning Unit meetings, members discussed and agreed upon actions to implement all 84 recommendations in the Watershed Management Plan, and worked to identify timelines and funding sources for effective implementation. The Planning Unit made all decisions by consensus and all meetings were open to the public.

This Detailed Implementation Plan was approved by the WRIA 16 Planning Unit by consensus on June 19, 2008. The Planning Unit will review the Plan at least once every five years and consider proposed amendments. This review will consider and incorporate the efforts by the Puget Sound Partnership, the Hood Canal Coordinating Council, Hood Canal Dissolved Oxygen Program, and other relevant entities. In addition, in 2010 the Planning Unit will develop a new two-year work plan for the years 2011-2012.

### **Potential Funding Sources**

Implementation of the Watershed Management Plan's 84 recommendations requires funding and staff resources. The majority of the actions in this Detailed Implementation Plan will be implemented through staff time contributed by Planning Unit members and member agencies, including Mason and Jefferson Counties, the Mason Conservation District, Mason County PUD #1, Jefferson County PUD #1, Ecology and other state agencies, and the Skokomish Tribe. In addition, large amounts of time and effort will be donated by citizen members of the Planning Unit.

As with the WRIA 16 Watershed Management Plan, nothing in this plan creates an obligation for a Planning Unit member unless that member determines that funding is available. Government members may also prioritize tasks based on available funding and need.

Future additional funding may come from a variety of agency grant programs including Phase IV Implementation grants, the Terry Husseman account, and the Centennial Clean Water Fund. Several of the recommended actions may be funded if they become part of the Hood Canal Action Agenda of the Puget Sound Partnership.

## Organizational Structure

Mason County is lead agency for the Planning Unit. Mason County has implementation and administration responsibilities including administering implementation grant funds and keeping track of projects and budgets. The Planning Unit provides overall direction and approval for implementation of current and future projects, and develops and approves revisions to the WRIA 16 Watershed Management Plan as well as the Detailed Implementation Plan.

## Plan Organization

This plan has three major sections and two appendices:

**Part I: Implementation of Each Recommendation** contains immediate and future actions agreed upon by the Planning Unit as necessary to implement each of the Watershed Management Plan's 84 recommendations. Current and ongoing efforts which contribute to recommendation implementation are also noted.

**Part II: Implementation Considerations** addresses other pertinent details to implementing each recommendation. These include notations on permits or legislative action needed to implement specific recommendations and a checklist of performance indicators and deliverables. This section also highlights the actions in the plan that address provision of water for production agriculture, instream flows and/or commercial, industrial, and residential use, as required under RCW 90.82.043.

**Part III: Inchoate Water Rights in the WRIA 16 Planning Area** describes the inchoate water rights assessment.

Both appendices are designed to help implementers (e.g., Mason County, the Planning Unit, etc.) complete their responsibilities.

**Appendix A**, the 2009-2010 Workplan, lays out a quarter-by-quarter timeline for completing immediate actions over the course of those two years.

**Appendix B** contains matrices displaying each implementer's responsibilities, both for immediate and future actions.

# I. Implementation of Each Recommendation

## Overarching Needs

The Planning Unit has identified several overarching resource needs essential to implementing the recommendations of the WRIA 16 Watershed Management Plan. These include:

- Adequate staff resources, particularly in the counties, to implement the watershed plan;
- Adequate training opportunities for staff;
- Adequate project resources;
- Consistent and continuing funding for water quality and water quantity monitoring;
- Education and outreach to citizens on all aspects of watershed stewardship; and
- GIS capabilities and relevant coverages to support projects.

# Water Quantity Recommendations

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## Data Needs

### 3.1.1 Prioritize water-quantity monitoring activities and pursue funding

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The Planning Unit recommends that Mason and Jefferson Counties, the Skokomish Tribe, and water purveyors develop a prioritized list of surface and groundwater-quantity monitoring activities and pursue funding (e.g. grants) for ongoing, comprehensive water-quantity monitoring throughout the watershed.

#### Current Implementation Actions (2008)

- The Planning Unit is preparing a groundwater monitoring plan that will address groundwater quantity (ambient groundwater levels). The plan will also address groundwater quality.
- Mason County has prepared a list of current surface water quantity monitoring (stream gauging) in the WRIA.

#### Immediate Actions Required (2009-2010)

- The Planning Unit will prioritize surface water quantity monitoring needs based on the list of current activities.
- The Planning Unit will prioritize groundwater monitoring needs based on the groundwater monitoring plan.
- Planning Unit members will continue to pursue funding for surface and groundwater quantity monitoring based on prioritized needs.

#### Future Actions Required (2011 and beyond)

- The Planning Unit will review the prioritized list of surface and groundwater quantity needs at least once every two years and revise as necessary.
- The Planning Unit will work with other agencies to encourage coordinated monitoring efforts and to pursue funding on an ongoing basis.
- The Planning Unit will annually track and report monitoring results for water quantity monitoring. The report will summarize funding sources and/or staff time used for the monitoring.

## Water Conservation

### 3.2.1 Support and encourage tiered water rate structures

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The Planning Unit supports the tiered rate structures adopted by the Jefferson and Mason PUDs #1 to encourage water conservation and encourages other water purveyors in the WRIA to adopt similar rate structures.

#### Current Implementation Actions (2008)

- Mason County PUD #1 and Jefferson County PUD #1 have tiered rates. Under these rate structures, customers pay a higher rate to use water above a certain threshold, thus customers have a financial incentive to conserve.

#### Immediate Actions Required (2009-2010)

- The Planning Unit, with Mason County PUD #1 as the lead, will contact Group A water purveyors in the Mason County portion of the WRIA 16 Planning Area to encourage them to adopt tiered rate structures if they do not already employ such pricing methods.
- Jefferson County PUD #1 will communicate with Group A water purveyors through the Water Utility Coordinating Council to encourage them to adopt tiered water rate structures.

### **Future Actions Required (2011 and beyond)**

- The Planning Unit will continue to encourage tiered rate systems indefinitely.

### **3.2.2 Offer rebates for low-flow fixtures and appliances**

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The Planning Unit recommends that all water purveyors in the WRIA pursue funding to offer rebates for the purchase of low-flow fixtures and appliances to encourage water conservation.

#### **Current Implementation Actions (2008)**

- Mason County PUD #1 currently offers rebates to electric customers for low-flow shower heads and efficient washers and dishwashers.

#### **Immediate Actions Required (2009-2010)**

- Mason County PUD #1 will expand their existing program of rebates for water-efficient devices to water customers.
- Jefferson County PUD #1 will develop a water conservation program that will consider rebates on water-efficient devices.

#### **Future Actions Required (2011 and beyond)**

- The Planning Unit will review programs offering rebates for water-efficient devices after 3-5 years to assess water conservation benefits.

### **3.2.3 Offer water meters and encourage voluntary water metering**

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The Planning Unit recommends that water purveyors offer meters for sale to all interested water users in the WRIA and encourage water users to voluntarily meter their water use.

#### **Current Implementation Actions (2008)**

- Mason and Jefferson County PUDs offer surplus meters for sale, although demand often exceeds supply.

#### **Immediate Actions Required (2009-2010)**

- Mason and Jefferson County PUDs will continue to sell surplus meters to interested water users as available.
- The Planning Unit will contact Group A water purveyors in the WRIA 16 Planning Area to encourage them to sell water meters.

#### **Future Actions Required (2011 and beyond)**

- Ongoing actions will be continued as applicable.

### **3.2.4 Encourage golf courses to conserve water and minimize use of chemicals**

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The Planning Unit recommends that Mason and Jefferson Counties encourage new golf courses in the WRIA to adopt and implement golf course management plans that address water conservation strategies (including water re-use), use of pesticides (including herbicides and insecticides) and fertilizers and other water-related impacts. The Planning Unit also recommends that Mason and Jefferson Counties encourage existing golf courses to adopt golf course management plans.

#### **Current Implementation Actions (2008)**

- Mason County PUD #1 has water meters at the Alderbrook golf course.

#### **Immediate Actions Required (2009-2010)**

- Mason County PUD #1 and Mason County will contact Alderbrook and Cushman Golf Courses to encourage them to adopt a golf course management plan.
- Jefferson County will implement a development agreement with the proposed Blackpoint Golf Course that includes required Best Management Practices.

#### **Future Actions Required (2011 and beyond)**

- The Planning Unit will continue to work with golf courses on development and implementation of golf course management plans, and to update or revise the plans as new information becomes available.

### **3.2.5 Review alternative sewage and greywater regulations**

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The Planning Unit recommends that the state Departments of Health and Ecology review alternative sewage and greywater treatment systems and revise regulations to allow greater use of these alternative sources of reused water, as appropriate.

#### **Immediate Actions Required (2009-2010)**

- The Planning Unit will host a meeting and invite representatives of DOH and Ecology to update the Planning Unit on alternative sewage and greywater treatment systems.
- The Planning Unit will request that DOH and Ecology conduct a review of alternative sewage and greywater treatment systems and assess regulatory revisions to expand use of these approaches.

#### **Future Actions Required (2011 and beyond)**

- The Planning Unit will continue to work with DOH and Ecology on reviewing alternative sewage and greywater treatment systems until new regulations allowing greater use of these methods are adopted.

## **Water Supply and Use**

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### **3.3.1 Encourage small public water systems over new permit-exempt wells**

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The Planning Unit recommends that the Department of Ecology, Mason and Jefferson Counties, and water purveyors encourage the development and/or consolidation of small public water systems over the proliferation of exempt wells in areas: a) where appropriate zoning exists; b) where growth is anticipated by county planning efforts; and c) when it is fiscally feasible.

#### **Immediate Actions Required (2009-2010)**

- DOH or Ecology will provide Mason and Jefferson Counties and water purveyors with information on the rationale for the use of public water systems instead of use of exempt wells.
- Mason and Jefferson Counties and water purveyors will share information on the rationale for public water systems instead of exempt wells with permit applicants and other persons expressing interest in development.

#### **Future Actions Required (2011 and beyond)**

- The Planning Unit will continue to encourage the development and/or consolidation of small public water systems.

### **3.3.2 Determine future water needs of domestic and public water systems**

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The Planning Unit recommends that Mason and Jefferson Counties, as part of planning under the Growth Management Act (GMA), determine how much additional water will be required to meet the water supply needs of single domestic wells and public water systems in the WRIA. At a minimum, the counties should

use long-range demand forecasting consistent with GMA timelines (currently 20 years), but they are encouraged to consider 50 years. The counties should also work with water purveyors to integrate water supply forecasts into their analysis.

#### **Immediate Actions Required (2009-2010)**

- \$<sup>2</sup> Mason and Jefferson Counties and water purveyors will analyze water system plans, capacities, and needs within the WRIA 16 Planning Area as part of the consistency determination of GMA.
- \$ Mason County, working with water purveyors, will begin an analysis of water supply availability for the Mason County portion of the WRIA 16 Planning Area. The analysis will rely on the water supply needs identified by the Counties and water purveyors.

#### **Future Actions Required (2011 and beyond)**

- \$ Jefferson County will begin an analysis of water supply availability after instream flows are adopted.
- Mason and Jefferson Counties will present written summaries of the results of their water supply analyses to the respective Board of County Commissioners (BOCC) for each county, as well as to the Planning Unit.

### **3.3.3 Implement water trusts and water banking**

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The Planning Unit recommends that the Department of Ecology work with Planning Unit members to develop and implement water trust and water banking opportunities that enhance instream flows.

#### **Current Implementation Actions (2008)**

- Ecology provides state-wide financial and technical assistance on water trusts and water banking. There have been no water trust or water banking activities in the WRIA 16 Planning Area to date.

#### **Immediate Actions Required (2009-2010)**

- Ecology will present options for water trusts and water banking to the Planning Unit.
- The Planning Unit will work with Ecology to identify the most feasible water trust and/or water banking options.

#### **Future Actions Required (2011 and beyond)**

- \$ Depending on the results of their previous work identifying water trust and/or water banking options, Planning Unit members will work with Ecology to implement feasible options.

### **3.3.4 Involve local parties in review of applications to remove water from the watershed**

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The Planning Unit recommends that the Department of Ecology involve local governments, tribal governments, and the Planning Unit throughout the review of applications for out-of-basin water transfers.

#### **Current Implementation Actions (2008)**

- Ecology consults with the Skokomish Tribe and local governments on water rights applications and other important water resource issues.

#### **Immediate Actions Required (2009-2010)**

- If Ecology begins to review or process any applications for out-of-basin water transfers, it will: a) brief the Planning Unit; b) offer Planning Unit members opportunities to provide input and comments on the applications; and c) respond to the comments, both in writing and at a meeting with the Planning Unit, before making a final decision on the application.

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<sup>2</sup> \$ indicates dedicated funding is required to implement the action.

### Future Actions Required (2011 and beyond)

- Ecology will continue to provide opportunities for the Planning Unit to comment on out-of-basin water transfers.

### 3.3.5 Allow rainwater capture below a certain threshold

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The Planning Unit recommends that the Department of Ecology work with the Legislature to recommend a specific quantity threshold for the amount of rainwater that can be captured without a permit and request that the Legislature expressly authorize rainwater capture in quantities below this threshold. This permit exemption recommendation does not imply a recommended change in Washington State Department of Health policy regarding rain catchment for potable purposes.

#### Immediate Actions Required (2009-2010)

- Ecology will continue to support any appropriate proposed legislation on rainwater catchment.
- The Planning Unit will hold a meeting with Ecology to discuss options for rainwater catchment.
- The Planning Unit will support appropriate legislation on rainwater catchment by writing letters and testifying in favor of the bill(s).
- The Planning Unit will work within the rule-making process to ensure there is consideration of local differences in proposed rainwater catchment legislation (e.g. often the goal is to decrease stormwater in urban areas, while in rural areas it is to capture potable or irrigation water).

#### Future Actions Required (2011 and beyond)

- If rainwater catchment legislation is not enacted during 2009-10, the Planning Unit will encourage Ecology's continued support for similar legislation in 2011.

### 3.3.6 Investigate winter water storage to enhance summer water supply

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The Planning Unit recommends pursuing collaborative opportunities among Mason and Jefferson Counties, Mason County PUD #1 and Jefferson County PUD #1, and the Skokomish Tribe to investigate the feasibility of multi-purpose storage projects that utilize seasonally available water to enhance aquifers and stream flows during critical low flow periods, while taking into account the benefits of high stream flows. This recommendation is merely to collaboratively study the feasibility of multi-purpose storage in WRIA 16 and should not be construed as a recommendation for any particular multi-purpose storage project.

#### Immediate Actions Required (2009-2010)

- The Planning Unit will apply for grant funds to conduct a feasibility study of non-dam storage in the Skokomish basin.
- \$ The Planning Unit will issue a Request for Proposals (RFP) or Request for Qualifications (RFQ) for a feasibility study of multi-purpose storage projects. The study will evaluate existing natural storage (wetlands, etc.). The analysis will estimate the rate of loss of wetlands and assess the impacts of ongoing loss. The analysis will also examine options to direct stormwater back into aquifers and decrease the amount draining directly into Hood Canal.
- \$ The Planning Unit (either with staff or through a consultant) will gather and review other relevant multi-purpose storage feasibility studies (nationally and internationally) to ensure that they are building on the existing state-wide knowledge of storage options and feasibility.

#### Future Actions Required (2011 and beyond)

- Future actions will depend on the results of the feasibility study.

# Water Quality Recommendations

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## Data Needs

### 4.1.1 Implement the WRIA 16 Surface Water Quality Monitoring Strategy

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The Planning Unit recommends that the WRIA 16 Surface Water Quality Monitoring Strategy be implemented (same as recommendation 6.1.1).

#### Current Implementation Actions (2008)

- The United States Geological Survey (USGS), United States Forest Service (USFS), Ecology, Washington Department of Fish and Wildlife (WDFW), DOH, the Skokomish Tribe, Mason County, and Mason County PUD #1 all monitor various water quality constituents.
- Mason County has prepared a summary of all ongoing surface water quality monitoring (locations, parameters sampled, etc), compared it to the monitoring strategy, and identified deficiencies.

#### Immediate Actions Required (2009-2010)

- Mason County, with input from the Planning Unit, will develop a list of needed surface water quality monitoring activities and the estimated costs.
- \$ Mason and Jefferson Counties will seek both state and local funding, and work with the Puget Sound Partnership (Partnership) for additional resources and partnerships, to expand monitoring as necessary to fully implement the Surface Water Quality Monitoring Strategy.
- Mason County, with support and funding from the Planning Unit, will update the parameters and sites included in the Surface Water Quality Monitoring Strategy based on the Partnership's Action Agenda and other new information, including biological habitat monitoring.
- \$ Mason and Jefferson Counties will implement the Surface Water Quality Monitoring Strategy.

#### Future Actions Required (2011 and beyond)

- \$ Mason and Jefferson Counties will implement the Surface Water Quality Monitoring Strategy.

### 4.1.2 Continue consistent and coordinated water-quality monitoring

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The Planning Unit recommends that existing organizations conducting water-quality monitoring continue to work together and with the Planning Unit to ensure that consistent, coordinated water quality monitoring occurs that is responsive to the concerns of the community and is protective of the environment, including chemical, biological and physical health.

#### Immediate Actions Required (2009-2010)

- The Planning Unit will request that Ecology, the Partnership, or the Hood Canal Coordinating Council (HCCC) hold a meeting of all water-quality monitoring entities within Hood Canal to discuss activities and upcoming plans and coordinate on water quality parameters monitored and frequency and timing of monitoring.
- The Planning Unit will request that Ecology, the Partnership, or HCCC provide annual compilations of Hood Canal water quality data.

#### Future Actions Required (2011 and beyond)

- Immediate actions will be continued.

### 4.1.3 Better coordinate the State's water-quality monitoring

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The Planning Unit encourages the state Departments of Health and Ecology to better coordinate their respective water-quality monitoring efforts, including data sharing, rule making, enforcement, and other regulatory efforts.

#### Immediate Actions Required (2009-2010)

- The Planning Unit will write a letter to DOH and Ecology encouraging better coordination between the departments' water quality monitoring and related regulatory efforts.
- The Planning Unit will invite managers from DOH and Ecology to present on water quality monitoring at a Planning Unit meeting.
- The Planning Unit will ask the Partnership to make improving coordination of state water quality monitoring efforts a high priority.

#### Future Actions Required (2011 and beyond)

- Future actions will depend on the results of the immediate actions.

### 4.1.4 Inventory and monitor dump sites and landfills

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The Planning Unit recommends that Mason and Jefferson Counties and the Department of Ecology prepare an inventory of current and former dump sites and landfills and, where appropriate, prepare and implement clean-up plans. Mason and Jefferson Counties should also seek grant funding to compile and assess water quality data from these sites.

#### Immediate Actions Required (2009-2010)

- \$ Ecology will conduct an inventory of legal and known illegal dump sites and landfills (this will be broadly defined to include tire piles, woodwaste piles, etc.).
- Mason and Jefferson Counties will obtain GPS locations for inventoried dump sites and landfills and will tag them in their respective Tidemark databases.
- Mason and Jefferson Counties, in collaboration with the WRIA 16 Planning Unit, will prioritize inventoried dump sites and landfills for water quality monitoring.
- Mason and Jefferson Counties will apply for grant funding to compile and assess water quality data from dump and landfill sites.

#### Future Actions Required (2011 and beyond)

- \$ Ecology will conduct water quality monitoring of prioritized dump sites and landfills.
- \$ Mason and Jefferson Counties will prepare and implement clean up plans for prioritized dump sites and landfills, as needed.
- \$ Mason and Jefferson Counties will compile and assess water quality data from dump and landfill sites.

### 4.1.5 Continue monitoring the Webb Hill biosolids application site

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The Planning Unit recommends that Mason County and the Department of Ecology continue water quality monitoring efforts and initiate further investigations, as appropriate, at the Webb Hill biosolids application site to identify and assess impacts to surface and groundwater.

#### Current Implementation Actions (2008)

- Mason County hired Aspect Consulting to conduct a hydrogeologic investigation of groundwater flow direction and possible nitrate inputs; this was completed in fall 2007.

- Ecology requires quarterly water quality sampling of the on-site well and surface water, and annual soil sampling at the facility.
- The operator of the Webb Hill biosolids application site has drilled an additional monitoring well and is providing ongoing monitoring at the site.

#### **Immediate Actions Required (2009-2010)**

- Ecology will continue to oversee ongoing water quality monitoring in the Webb Hill area.
- \$ The Planning Unit may conduct further study to determine whether nitrate-rich groundwater from the Webb Hill area impacts water quality in the WRIA 16 Planning Area.
- The WRIA 16 technical committee will continue to provide advice on Webb Hill monitoring, as appropriate.

#### **Future Actions Required (2011 and beyond)**

- Further hydrogeologic investigations may need to be conducted at and around Webb Hill, depending on the results of studies and monitoring.

### **4.1.6 Encourage water quality and quantity measurements in individual wells**

The Planning Unit recommends that the Mason and Jefferson County health departments promote and encourage periodic voluntary measurement of water quality and water depth in individual wells. Water depth measurement should be conducted by a professional to protect the aquifer from contamination.

#### **Immediate Actions Required (2009-2010)**

- \$ Mason and Jefferson Counties will initiate a well-testing education program, providing sampling training, educational materials on well protection, and advice on follow-up sanitary surveys, as needed.
- Ecology will work with Mason and Jefferson Counties to provide well stewardship information to new well-owners.
- \$ Mason County will create a parcel-related data base for all water quality testing done for private wells and submitted to Mason County's laboratory.
- \$ Mason and Jefferson Counties will track and manage water quality and well-level data provided by citizens, and will use GIS to analyze source sensitivity, vulnerability, and susceptibility.

#### **Future Actions Required (2011 and beyond)**

- Immediate actions will be continued.

### **4.1.7 Determine impacts of septic systems on sensitive water bodies**

The Planning Unit recommends that the Mason and Jefferson county health departments continue to track studies and other efforts underway to determine the impacts of nutrient and pathogen loading from septic systems near sensitive water bodies, and work with the Planning Unit to consider appropriate options, alternatives, or standards that might be pursued.

#### **Current Implementation Actions (2008)**

- The Hood Canal Dissolved Oxygen Program (HCDOP) is evaluating nitrogen contributions from septic systems.

#### **Immediate Actions Required (2009-2010)**

- The Planning Unit will review the HCDOP study of nitrogen contributions from septic systems when it is complete.

#### **Future Actions Required (2011 and beyond)**

- Future actions will depend on the findings of the HCDOP study on nitrogen contributions from septic systems.

## On-site sewage systems

### 4.2.1 Implement septic system operation and maintenance programs

The Planning Unit recommends that Jefferson and Mason Counties continue and expand their efforts to implement septic system operation and maintenance (O&M) programs and encourages the two counties to work together to collect comparable data. The Planning Unit recommends that the counties compile an annual report on the results of the O&M program for the local boards of health, and that this report be available to the public. Finally, the Planning Unit recommends that septic system inspections be required on a regular basis (as appropriate based on location, type and age).

#### Current Implementation Actions (2008)

- Mason County currently generates O&M reports in its On-site Sewage Systems (OSS) database.
- New state laws require regular inspections of septic systems (a minimum of every 3 years for conventional gravity systems and annually for any system with a pump).

#### Immediate Actions Required (2009-2010)

- Mason and Jefferson Counties will report to the Planning Unit on the development of county septic system regulations, and will bring Planning Unit comments back to their relevant departments.
- The Planning Unit will recommend that the Partnership examine whether changes to state law regarding property access would significantly improve counties' efforts to identify and inspect septic systems.
- Mason and Jefferson Counties will implement O&M programs and require inspections as specified by their OSS management plans.
- Mason and Jefferson Counties will work together to ensure they are collecting comparable data on OSS status.
- Mason and Jefferson Counties will compile annual reports on their O&M programs to be presented to the local boards of health and made available to interested members of the public.

#### Future Actions Required (2011 and beyond)

- Future actions will depend on the results of the immediate actions.

### 4.2.2 Identify failing septic systems and notify owners

The Planning Unit recommends that Mason and Jefferson Counties continue to identify failing septic systems and notify landowners of the need for remedial actions.

#### Immediate Actions Required (2009-2010)

- Based on information from their respective OSS databases, Mason and Jefferson Counties will continue to send notices to OSS owners when inspections are needed and/or follow up in cases where remedial actions are required.

#### Future Actions Required (2011 and beyond)

- Immediate actions will be continued.

### **4.2.3 Assess sewers and other alternatives to septic systems in sensitive areas**

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The Planning Unit recommends that Mason and Jefferson Counties assess the feasibility and effectiveness of providing sewer or community septic systems in environmentally sensitive areas, particularly where nutrients and pathogens are a concern. The Planning Unit also recommends that, where appropriate, the counties and the Department of Health encourage alternative methods of septic waste management, including nutrient removal, non-discharging toilets, and greywater treatment systems.

#### **Current Implementation Actions (2008)**

- Mason and Jefferson Counties are currently assessing the feasibility and effectiveness of providing sewer or community systems in environmentally sensitive areas as an alternative to individual OSS.

#### **Immediate Actions Required (2009-2010)**

- The Planning Unit will send letters to the Legislature, DOH, Ecology, and local health offices encouraging DOH and Ecology to research and update regulations to encourage alternative methods of sewage management, particularly alternatives that rely on little or no water.

#### **Future Actions Required (2011 and beyond)**

- Future actions will depend on the results of current and immediate actions.

### **4.2.4 Consider funding options for septic upgrades along shorelines and in other sensitive areas**

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The Planning Unit recommends that Mason and Jefferson Counties consider a broad range of funding options to offset the costs of septic upgrades or conversion to community systems along shorelines or in other sensitive areas.

#### **Current Implementation Actions (2008)**

- ShoreBank Enterprises offers loans to assist OSS owners in replacing failing systems or funding upgrades.
- The US Department of Agriculture provides grants for low-income senior citizens which can be used to assist with on-site septic repairs or replacements.
- Jefferson County Environmental Health is incorporating information about community drainfields and the importance of upgrading individual septic systems in all homeowner education workshops.
- Jefferson County Environmental Health assists communities with research and data to support funding requests for community solutions.

#### **Immediate Actions Required (2009-2010)**

- The Planning Unit will send a letter to counties encouraging them to levy small assessments on OSS to fund OSS programs and to provide assistance to low income residents.

#### **Future Actions Required (2011 and beyond)**

- Mason and Jefferson Counties will consider additional funding sources for OSS upgrades or community systems if necessary.

#### **4.2.5 Require a septic system inspection upon the sale of a property**

The Planning Unit recommends that Mason County require a septic system inspection by a certified septic professional upon the sale or transfer of property and require pumping if appropriate. The Planning Unit also recommends that Jefferson County continue its current program and work to improve compliance.

##### **Current Implementation Actions (2008)**

- Currently, Jefferson County code requires septic system inspections at time of sale unless the system is noted as “current” on their inspection schedule.

##### **Immediate Actions Required (2009-2010)**

- Mason County will work to pass requirements for septic system inspections at the time of sale.
- The Planning Unit will provide support for the Counties’ septic system inspection requirements through public testimony and letters as needed.
- Jefferson County will implement suggested changes in its OSS Management Plan to improve compliance with its requirement for inspections at the time of sale.

##### **Future Actions Required (2011 and beyond)**

- Future actions will depend on the results of immediate actions.

#### **4.2.6 Encourage community wastewater treatment systems for new developments**

The Planning Unit recommends that Mason and Jefferson Counties encourage homeowner associations or private and public utilities to establish community wastewater treatment systems for appropriate new developments of four or more homes.

##### **Immediate Actions Required (2009-2010)**

- \$ Mason and Jefferson Counties will review other jurisdictions’ efforts to encourage community wastewater treatment systems.
- \$ Mason and Jefferson Counties will identify homeowner associations and private/public utilities within the WRIA 16 Planning Area which might be involved with administering wastewater treatment facilities for new developments, particularly those within Marine Recovery Areas.
- Mason and Jefferson Counties will encourage community wastewater treatment systems as appropriate.

##### **Future Actions Required (2011 and beyond)**

- Future actions will depend on the results of immediate actions.

## Animal Waste

### 4.3.1 Encourage farm plans and agricultural best management practices in critical areas

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The Planning Unit encourages those farms in or adjacent to critical areas of the WRIA to have a current farm plan. Farm plans should consider seasonal restrictions on animal pastures to protect streams and floodplains from manure. The Planning Unit also recommends that the Mason and Jefferson conservation districts seek funding to 1) prepare farm plans, 2) provide financial assistance to help landowners implement agricultural best-management-practices, and 3) evaluate how effectively the farm plans and best management practices are being implemented.

#### Immediate Actions Required (2009-2010)

- The Planning Unit will request that the Conservation Districts summarize the number of farms within the WRIA 16 Planning Area and how many have existing farm plans, as well as details on BMPs outlined in the plans, BMPs adopted, and numbers of livestock under management on each farm.
- Mason and Jefferson Conservation Districts will continue to seek funding for farm plans and implementation of best management practices. The Planning Unit will provide written support for these funding requests as appropriate.

#### Future Actions Required (2011 and beyond)

- Future actions will depend on the results of immediate actions.

### 4.3.2 Require manure management practices that protect floodwaters

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The Planning Unit recommends that Mason and Jefferson Counties require that manure in floodplains be managed in a manner that protects floodwaters from manure contamination.

#### Immediate Actions Required (2009-2010)

- The Planning Unit will invite representatives of the Washington Department of Agriculture (WDA), Ecology, DOH, the Conservation Districts, and Mason and Jefferson Counties to discuss what actions should be taken to minimize manure contamination of floodwaters, such as controlling pasturing or keeping animals indoors during the winter.
- The Planning Unit will provide support for manure management requirements and enforcement through letters to the Counties and to WDA, and will give public testimony, as needed.

#### Future Actions Required (2011 and beyond)

- Future actions will depend on the results of immediate actions.

### 4.3.3 Effectively manage pet waste in parks

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The Planning Unit recommends that, where appropriate, Mason and Jefferson Counties and the Washington State Parks Commission consider programs for the management of domestic animal waste at state and county parks in the WRIA.

#### Current Implementation Actions (2008)

- Many parks in Mason and Jefferson Counties have designated pet leash areas, while others do not allow pets.
- The Washington State Parks Commission (State Parks) has been working with Washington Sea Grant (Sea Grant) to implement pet waste management practices in the Hood Canal State parks.
- Sea Grant conducts outreach on pet waste management to residents in the WRIA 16 Planning Area.

#### Immediate Actions Required (2009-2010)

- The Planning Unit will ask Mason County to evaluate pet waste management improvements at Union and Foothills Parks, and at the Union public boat launch.
- The Planning Unit will re-evaluate the need for pet waste management programs and resources.
- The Planning Unit will continue to support ongoing education on pet waste management.

#### Future Actions Required (2011 and beyond)

- Future actions will depend on the results of immediate actions.

## Stormwater

### 4.4.1 Minimize impervious surface

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The Planning Unit encourages Mason and Jefferson Counties to ensure that County regulations minimize impervious surfaces and, to the extent feasible based on site conditions, maximize on-site infiltration, detention or reuse.

#### Current Implementation Actions (2008)

- A coalition of 12 local organizations, including Jefferson County Public Health, held a workshop on Low Impact Development (LID) in February 2008, with funding from Ecology.
- The Salmon and Steelhead Habitat Inventory and Assessment Program, Summer Chum Recovery Plan, and the Mid-Hood Canal Chinook Recovery Plan each have GIS coverages of regional impervious surfaces.

#### Immediate Actions Required (2009-2010)

- The Planning Unit will support expansion of LID provisions in the Mason County Marine Recovery Area.
- \$ Mason and Jefferson Counties will maintain and support strong GIS capabilities that include being able to track impervious surfaces. *This action will be implemented in coordination with Recommendation 6.6.2.*

#### Future Actions Required (2011 and beyond)

- \$ Mason and Jefferson Counties will devise strategies to implement LID Best Management Practices based on the Puget Sound Action Team LID Manual, the 2005 Department of Ecology Stormwater Manual and updates to their Shoreline Master Programs.
- Mason and Jefferson Counties will seek ongoing funding to implement LID regulations.
- GIS departments in Mason and Jefferson Counties will continue to track impervious surfaces in the WRIA 16 Planning Area.

### 4.4.2 Retain native vegetation

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The Planning Unit recommends that Mason and Jefferson Counties encourage retention of native vegetation throughout the WRIA. *This recommendation will be implemented in coordination with Recommendations 5.1.2 and 6.3.3.*

#### Current Implementation Actions (2008)

- Jefferson County is encouraging retention of native vegetation through implementation of its newly adopted Critical Areas Ordinance (CAO), its Shoreline Master Program (SMP), and through stormwater review.

#### Immediate Actions Required (2009-2010)

- The Planning Unit will advocate for and support the adoption of a clearing ordinance in Mason County.

- Jefferson County will continue to implement and enforce its newly adopted CAO with regard to vegetation clearing and buffers, and will report to the Planning Unit in 2010 on progress.
- \$ Mason and Jefferson Conservation Districts, WSU Extension, HCCC, Mason and Jefferson Counties, Mason PUD # 1, Sea Grant, and others will conduct ongoing education and outreach with landowners to encourage and support native vegetation retention.

#### Future Actions Required (2011 and beyond)

- Jefferson County will update its SMP and stormwater review (clearing and grading) process with respect to vegetation clearing and buffers.

### 4.4.3 Continue and expand stormwater management for state highways

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The Planning Unit recommends that the Legislature fully fund the Washington State Department of Transportation's stormwater management activities for state highways in the WRIA.

#### Immediate Actions Required (2009-2010)

- Ecology will host a meeting to discuss current activities related to Washington State Department of Transportation (DOT) stormwater management in the WRIA 16 Planning Area.
- The Planning Unit will write letters to the Legislature, the Partnership, and the Transportation Commission requesting funding for DOT's stormwater management and retrofit activities in the WRIA 16 Planning Area.
- The Planning Unit will support DOT in developing a complete culvert GIS layer for the WRIA 16 Planning Area. *This action will be implemented in coordination with Recommendation 6.1.7.*
- The Planning Unit will support comprehensive stormwater management training for state, county, and private contractors.

#### Future Actions Required (2011 and beyond)

- Future actions will depend on the results of immediate actions.

### 4.4.4 Implement best management practices for roadside ditches

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The Planning Unit recommends that Mason and Jefferson Counties, along with other appropriate agencies, pursue funding for best management practices along roadside ditches, including planting and vegetation retention, topsoil improvements, and installation and maintenance of filter strips to filter stormwater pollutants. *This recommendation will be implemented in coordination with Recommendation 4.5.1.*

#### Immediate Actions Required (2009-2010)

- \$ Sea Grant and other interested parties will conduct roadside ditch BMP trainings for Public Works staff and private contractors.
- The Planning Unit will request that Hood Canal Watershed Education Network (HCWEN) members put together a list of existing education programs for stormwater and ditch management.
- Mason and Jefferson Counties, DOT, the Skokomish Tribe, State Parks, and private land managers will report on current activities to manage roadside ditches at the WRIA 16 Planning Unit/DOT stormwater management meeting held by Ecology. *This action will be implemented in coordination with Recommendation 4.4.3.*
- The Planning Unit, in collaboration with Mason and Jefferson Counties, will identify areas for improvement in roadside ditch management.
- The Planning Unit, in collaboration with Mason and Jefferson Counties, will seek funding to make roadside ditch management improvements.

#### Future Actions Required (2011 and beyond)

- Future actions will depend on the results of immediate actions.

#### 4.4.5 Establish riparian buffers and road maintenance standards for forestland owners

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The Planning Unit encourages the Washington Forest Practices Board to establish riparian buffer regulations and road maintenance and abandonment planning criteria, based on best available science, for all forestland owners who are required to get a forest practices permit.

#### Immediate Actions Required (2009-2010)

- This recommendation has been implemented.

#### Future Actions Required (2011 and beyond)

- The Planning Unit will follow up on any evaluations of riparian buffer regulations and criteria.

#### 4.4.6 Expand County stormwater management programs

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The Planning Unit recommends that Mason and Jefferson Counties expand their stormwater management programs by adopting stormwater provisions, such as those in the current Puget Sound Conservation and Recovery Plan, including:

- Stormwater controls for appropriate new development and redevelopment;
- Stormwater site plan reviews;
- Stormwater control at construction sites;
- Proper operation and maintenance at stormwater facilities;
- Pollution source controls;
- Illicit discharges and water quality response;
- Problem identification and ranking;
- Low impact development; and
- Public education and outreach on stormwater.

#### Current Implementation Actions (2008)

- Jefferson County adopted Ecology's 2001 *Stormwater Management Manual for Western Washington* in 2002.

#### Immediate Actions Required (2009-2010)

- Mason County will adopt Ecology's 2001/2005 *Stormwater Management Manual for Western Washington*.

#### Future Actions Required (2011 and beyond)

- Future actions will depend on the results of the immediate actions.

#### 4.5.1 Implement Integrated Pest Management on publicly owned land

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The Planning Unit recommends that Mason and Jefferson Counties develop and implement a coordinated Integrated Pest Management program to minimize the use of pesticides (including herbicides and insecticides) on publicly owned land. *This recommendation will be implemented in coordination with Recommendation 4.4.4.*

##### Current Implementation Actions (2008)

- Jefferson County does not spray herbicides, and infrequently uses pesticides, on County roads or parks.

##### Immediate Actions Required (2009-2010)

- The Planning Unit will request a briefing from Mason and Jefferson Counties regarding ongoing activities, issues and concerns, and needs for expansion of Integrated Pest Management (IPM) practices.
- The Planning Unit will support the counties in pursuing grants to bolster their IPM efforts.
- Mason and Jefferson Conservation Districts, WSU Extension, HCCC, Mason and Jefferson Counties, Mason County PUD #1, Sea Grant, and others should coordinate to inform homeowners that they are able to request the County to refrain from spraying pesticides on adjacent public lands, and encourage them to do so.
- The Planning Unit will encourage Mason and Jefferson Counties to prioritize IPM efforts in Hood Canal drainages.

##### Future Actions Required (2011 and beyond)

- Future actions will depend on the results of the immediate actions.

#### 4.5.2 Address saltwater intrusion

---

The Planning Unit recommends that Mason County identify areas that are susceptible to seawater intrusion and consider adopting a program to address seawater intrusion. The Planning Unit also recommends that Jefferson County share information with Mason County on their saltwater intrusion program.

##### Current Implementation Actions (2008)

- Jefferson County addresses saltwater intrusion in its Unified Development Code.
- The Planning Unit's well monitoring program may provide relevant data on saltwater intrusion.

##### Immediate Actions Required (2009-2010)

- The Planning Unit will ask DOH and Ecology to coordinate a regional meeting on saltwater intrusion and invite County Commissioners and interested water purveyors to hear a review of other counties' saltwater intrusion plans (e.g., Jefferson, Island, San Juan, and/or Skagit Counties).
- The Planning Unit will ask DOH for a report from their database on indicators of saltwater intrusion, such as chloride, and will identify potential areas of concern.
- The Planning Unit will provide information received from DOH to Mason County water purveyors to assist them in addressing saltwater intrusion in updated water supply plans.

##### Future Actions Required (2011 and beyond)

- Future actions will depend on the results of the immediate actions.

# Habitat Recommendations

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## 5.1.1 Support existing salmon recovery and habitat conservation programs

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The Planning Unit supports the following ongoing activities and recommends that these programs and/or similar programs be continued:

- Efforts by all the groups and agencies working to implement salmon recovery plans and associated projects;
- Habitat acquisition programs or conservation easements funded or implemented by land trusts, the Salmon Recovery Funding Board, Lead Entity groups, the Shared Strategy for Puget Sound, and others.
- Efforts to revegetate riparian areas;
- Efforts to improve large woody debris in streams;
- Salmon recovery efforts to address floodplain connectivity, riparian degradation, and channel complexity;
- Floodwater management planning to be integrated with salmon recovery efforts;
- Efforts to reduce adverse sedimentation;
- Efforts by the Mason County Weed Board to control invasive species;
- Efforts by the Mason and Jefferson conservation districts to implement the Conservation Reserve Enhancement Program (CREP).

### Current Implementation Actions (2008)

- Jefferson County is implementing its Conservation Futures and Floodplain Acquisition and Restoration Programs to protect and restore key habitat and open space.
- Jefferson County is developing a Comprehensive Flood Hazard Management Plan for the Duckabush and Dosewallips Rivers to be integrated with salmon recovery efforts.

### Immediate Actions Required (2009-2010)

- The Planning Unit will support funding requests and provide other support for salmon recovery and habitat conservation programs as appropriate.
- \$ The Planning Unit, in cooperation with Mason County and the Mason County Weed Control Board, will seek funding to support knotweed eradication efforts in the watershed.
- The Planning Unit will work with the Partnership, Ecology, Washington Department of Natural Resources (DNR), and WDFW to implement additional habitat protection and restoration activities in the planning area.
- The Planning Unit will seek funds for the study and monitoring of habitat including biological monitoring.
- Mason and Jefferson Counties will identify opportunities for habitat restoration at county-owned parks and properties.
- Mason and Jefferson Counties and the Skokomish Tribe will make large wood from tree removal operations available to instream projects whenever possible.
- Mason and Jefferson Counties will identify active and historic channel migration zones and locations where floodplain connectivity and channel complexity can be restored or enhanced.

### Future Actions Required (2011 and beyond)

- Future actions will be developed in the 2011-2012 Work Plan.

## 5.1.2 Use vegetative management for danger trees in or near critical areas

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The Planning Unit recommends that Mason and Jefferson Counties adopt ordinances requiring or encouraging vegetative management as the first approach to danger trees in critical areas or their buffers. The Planning Unit also recommends that Mason and Jefferson Counties and the state Department of Natural Resources (DNR) develop and implement requirements that felled danger trees (as defined by the DNR) in critical areas or buffers must remain on site as large woody debris, as appropriate.

### Immediate Actions Required (2009-2010)

- Conservation districts, WSU Extension, HCCC, Mason and Jefferson Counties, Mason County PUD #1, Sea Grant, and others will conduct workshops and provide educational materials to inform landowners of vegetative management options.
- The Planning Unit, with Mason and Jefferson County staff as the lead, will develop model language on vegetative management options for ordinances and state requirements. *This action will be implemented in coordination with Recommendation 4.4.2.*
- The Planning Unit will send letters to Mason and Jefferson County Commissioners as well as the Commissioner of Public Lands requesting that proposed ordinance language on vegetative management be adopted.

### Future Actions Required (2011 and beyond)

- Mason and Jefferson Counties will consider updating or adopting ordinances to require or encourage vegetative management for danger trees in critical areas or their buffers. The ordinances would also include requirements that felled danger trees in critical areas or buffers must remain on site as large woody debris, as appropriate.
- DNR will consider requirements that felled danger trees in critical areas or buffers must remain on site as large woody debris, as appropriate.

## 5.1.3 Validate stream typing designations

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The Planning Unit recommends that the State Department of Natural Resources work with local entities to validate the stream typing designations in WRIA 16 with ground-truthing (i.e., field work) during seasonally appropriate times.

### Current Implementation Actions (2008)

- Wild Fish Conservancy has applied for a grant to conduct stream typing field work.

### Immediate Actions Required (2009-2010)

- The Skokomish Tribe will conduct training for County staff on stream typing.
- \$ Mason and Jefferson Counties will maintain a consistent hydrologic GIS data layer.
- \$ Mason and Jefferson Counties and the Skokomish Tribe will conduct stream typing validation studies.
- Mason and Jefferson County planners will submit the necessary paperwork to DNR to request stream type changes, as applicable.

### Future Actions Required (2011 and beyond)

- Depending on the status of stream typing work, the Planning Unit may request ongoing ground-truthing to validate stream typing designations.

### 5.1.4 Adopt the Forest and Fish Adaptive Management Program

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The Planning Unit encourages the State Forest Practices Board to swiftly adopt the Adaptive Management Program rule-making petitions presented by the Policy Committee of the Forest and Fish Program in accordance with WAC 222-12-045.

#### Immediate Actions Required (2009-2010)

- The Planning Unit will send a letter to the Forest Practices Board encouraging them to adopt the Adaptive Management Program rule-making petitions. Planning Unit members will use this letter as a template for letters sent on behalf of their agencies or entities.
- Planning Unit members will submit public comments and testimony to the Forest Practices Board in support of the adoption of the Adaptive Management Program.

#### Future Actions Required (2011 and beyond)

- The Planning Unit will continue to monitor the Adaptive Management Program rule-making process.

### 5.1.5 Consider land preservation programs for critical habitat

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The Planning Unit encourages Mason and Jefferson Counties to consider such tools as a Conservation Futures Program, the transfer of development rights, and mitigation banking to preserve critical habitat.

#### Current Implementation Actions (2008)

- Jefferson County has an existing Conservation Futures program and considered a Transfer of Development Rights (TDR) program but decided that other conservation efforts were more appropriate for the County.

#### Immediate Actions Required (2009-2010)

- The Planning Unit will host a meeting to discuss land preservation program options, including TDR, Conservation Futures, mitigation banking, conservation easements, and other relevant programs.
- The Planning Unit will decide whether to encourage the counties to embark on any new land preservation measures.

#### Future Actions Required (2011 and beyond)

- The Planning Unit will continue to work with the counties in developing and implementing land preservation programs.

## Other Recommendations

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### Hood Canal

#### 6.1.1 Implement the WRIA 16 Surface Water Quality Monitoring Strategy

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The Planning Unit recommends that the WRIA 16 Surface Water Quality Monitoring Strategy be implemented.

Actions to implement this recommendation are listed under Recommendation 4.1.1, page 15.

#### 6.1.2 Minimize the discharge of effluent into Hood Canal

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The Planning Unit recommends that, due to the special concerns in Hood Canal, the Department of Ecology consider including permit conditions requiring new wastewater treatment plants to include a water reuse/recharge component which eliminates the discharge of effluent into Hood Canal. The Planning Unit

also recommends that Ecology strongly consider options to minimize discharges into Hood Canal when permits are renewed.

#### **Current Implementation Actions (2008)**

- The Hoodspout waste water treatment plant is considering groundwater infiltration as an alternative to discharging directly to Hood Canal.

#### **Immediate Actions Required (2009-2010)**

- Ecology will coordinate a briefing on current practices and policies with respect to permitted discharges of effluent to Hood Canal.
- Ecology will inform the Planning Unit of any permit actions related to discharges into Hood Canal.
- The Planning Unit will participate in public comment on pending permits for Hood Canal discharges.

#### **Future Actions Required (2011 and beyond)**

- Future actions will depend on the results of the immediate actions.

### **6.1.3 Provide adequate toilet facilities at popular recreation sites**

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The Planning Unit recommends that the state Departments of Natural Resources and Fish and Wildlife, the Parks Commission, and the U.S. Forest Service provide an adequate number of toilets and soap dispensers at their popular fishing, camping or other highly-used recreation sites, where appropriate.

#### **Current Implementation Actions (2008)**

- Some private businesses provide porta-potties at popular fishing sites during fishing season.

#### **Immediate Actions Required (2009-2010)**

- The Planning Unit will invite interested parties to a meeting to develop a list of recreation sites lacking adequate toilet facilities.
- The Planning Unit will write letters to relevant jurisdictions requesting additional toilet facilities at popular recreation sites.
- The Planning Unit will support funding and resources for these facilities, including using volunteer programs or private sponsorship to improve maintenance of popular recreation sites.

#### **Future Actions Required (2011 and beyond)**

- Future actions will depend on the Planning Unit's review of the assessment and recommendations.

### **6.1.4 Assess and upgrade pump-out stations for recreational vehicles and boats**

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The Planning Unit recommends that Mason and Jefferson Counties consider partnering with other stakeholders (such as State Parks and the Interagency Committee on Outdoor Recreation) to assess the adequacy of campground and marine pump-out stations for recreation vehicles and boats and then upgrade the facilities where necessary, subject to available funding. *See also Recommendation 6.5.6.*

#### **Current Implementation Actions (2008)**

- Union Marina and the Port of Hoodspout are installing marine pump-out stations.

#### **Immediate Actions Required (2009-2010)**

- \$ Mason County, as lead for the Planning Unit, will coordinate an assessment of the adequacy of pump-out stations for recreational vehicles and boats as necessary, either with internal staff or through a contractor.

#### Future Actions Required (2011 and beyond)

- Future actions will depend on the results of immediate actions.

### 6.1.5 Use sewer systems instead of individual septic systems when necessary to protect public and environmental health

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The Planning Unit recommends that the State Legislature develop specific provisions that allow for sewer systems in an Aquatic Rehabilitation Zone when necessary to protect the environment from degradation. Sewer systems in such locations would only be appropriate if they are necessary to protect basic health and safety or the environment. These sewer systems must also be financially feasible at rural densities. *This recommendation will be implemented in coordination with Recommendation 6.1.6.*

#### Current Implementation Actions (2008)

- The Washington Department of Community, Trade, and Economic Development is examining potential amendments to the Growth Management Act which would allow for sewer systems in such cases.

#### Immediate Actions Required (2009-2010)

- No immediate actions are required.

#### Future Actions Required (2011 and beyond)

- The Planning Unit will review the need for additional GMA amendments regarding sewer systems.

### 6.1.6 Maintain zoning limits if new sewer systems are installed outside an Urban Growth Area

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The Planning Unit recommends that if sewer systems are installed outside an Urban Growth Area to alleviate septic impacts in Hood Canal, Mason and Jefferson Counties maintain the growth, density and build-out limits found within their respective Comprehensive Plan and development regulations. *This recommendation will be implemented in coordination with Recommendation 6.1.5.*

#### Immediate Actions Required (2009-2010)

- The Planning Unit will track proposals for new sewer systems outside UGAs, and, as appropriate, will advocate to the relevant BOCC that existing growth, density, and build-out limits be maintained in areas proposed for sewer systems.

#### Future Actions Required (2011 and beyond)

- The Planning Unit will advocate for stipulations in counties' Comprehensive Plan updates to maintain growth, density, and build-out limits in the event of installation of sewer systems outside UGAs.

### 6.1.7 Prioritize Department of Transportation stormwater projects that would improve Hood Canal

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The Planning Unit recommends that the Washington State Department of Transportation consider the sensitivity of Hood Canal in prioritizing stormwater projects.

#### Immediate Actions Required (2009-2010)

- The Planning Unit will request that the Partnership gather more data on highway impacts to Hood Canal, including testing for bio-accumulation of heavy metals in marine life.
- The Planning Unit will request that DOT work with the Partnership to prioritize stormwater projects for Hood Canal.

- The Planning Unit will support DOT in developing a complete culvert layer for the WRIA 16 Planning Area. *This action will be implemented in coordination with Recommendation 4.4.3.*

#### **Future Actions Required (2011 and beyond)**

- Future actions will be developed based on the result of initial discussions with DOT.

### **6.1.8 Provide education on pesticide- and fertilizer-reduction and promote alternatives**

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The Planning Unit recommends that Mason and Jefferson Counties, the Washington State University Extension offices in Mason and Jefferson Counties, Mason and Jefferson conservation districts, Washington Sea Grant, and the Hood Canal Coordinating Council pursue funding to educate homeowners and businesses on the need to minimize use of pesticides (including herbicides and insecticides) and fertilizers and encourage the use of natural, slow-release fertilizers such as compost. Due to the special concerns of excess nitrogen and phosphorous in Hood Canal, the use of fertilizers should be strongly discouraged in the proximity of water (i.e. lakes, rivers, streams or marine waters).

#### **Immediate Actions Required (2009-2010)**

- Mason and Jefferson Counties, WSU Extension, Mason and Jefferson Conservation Districts, Sea Grant, DNR, and HCCC will emphasize the importance of nitrogen and phosphorus reductions in existing educational programs, and will seek funding for expanded efforts.
- The Planning Unit will provide written support for funding requests made by relevant agencies for education programs.
- The Planning Unit will ask HCWEN members to inventory existing education programs regarding pest management and fertilization practices.

#### **Future Actions Required (2011 and beyond)**

- Future actions will depend on the results of the immediate actions.

### **6.1.9 Communicate results of low dissolved oxygen studies**

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The Planning Unit recommends that the Puget Sound Action Team<sup>3</sup>, the Hood Canal Coordinating Council, and other agencies implementing projects to address low dissolved oxygen, continue to track, publish and update measurable results from all funded projects so that this information can be easily shared and accessed by other participating entities and the general public.

#### **Immediate Actions Required (2009-2010)**

- The Partnership and HCCC should continue and improve on efforts to track, publish, and update results of low dissolved oxygen studies.
- The Partnership, HCDOP, or HCCC should identify an optimal location for a dissolved oxygen information clearinghouse. The entity chosen to house the clearinghouse should ensure that the data is published and updated in a manner that is accessible to the public.
- \$ The Partnership and HCCC should update the Hood Canal Low Dissolved Oxygen Preliminary Assessment and Corrective Action Plan, using validated, peer-reviewed scientific data.
- \$ HCDOP should add a blog feature to their website to encourage on-line dialogue.

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<sup>3</sup> The Puget Sound Partnership replaced the Puget Sound Action Team in July 2007, thus responsibility for implementing recommendations involving the Puget Sound Action Team will be given to the Partnership.

#### **Future Actions Required (2011 and beyond)**

- Future actions will depend on the results of the immediate actions.

### **6.1.10 Provide education on nitrogen and phosphorous reduction in household products**

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The Planning Unit recommends that Mason and Jefferson Counties expand existing education and outreach programs for residents to emphasize information on the benefits of avoiding nitrogen and phosphorous in household products, and to encourage retailers to offer these alternative products for sale in their stores.

#### **Current Implementation Actions (2008)**

- Mason and Jefferson Counties, WSU Extension, and Sea Grant currently conduct education and outreach on using alternative household products to minimize nitrogen and phosphorous inputs, such as the Clean and Simple workshops.

#### **Immediate Actions Required (2009-2010)**

- The Planning Unit will request that the Partnership and other appropriate entities provide ongoing funding for education and outreach programs that include information about nitrogen and phosphorous in household products.
- Mason and Jefferson Counties, WSU Extension, and Sea Grant will seek ongoing funding for outreach and education programs on nitrogen and phosphorous in household products.
- Mason and Jefferson Counties, WSU Extension, and Sea Grant will update their outreach and education programs at least once every two years to incorporate new information.

#### **Future Actions Required (2011 and beyond)**

- Immediate actions will be continued.

### **6.1.11 Involve Watershed Planning Units in the development of regional governance for Hood Canal**

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The Planning Unit recommends that, as specified in the coordinating requirements of RCW 90.88.030(1)(b), the Hood Canal Coordinating Council solicit participation from Watershed Planning Units in developing its regional governance study design, research, and recommendations. The Planning Unit's intent is to assist the Council in developing governance recommendations that will clarify the roles and responsibilities of the many agencies and organizations involved in Hood Canal efforts, eliminate duplication, and optimize service delivery efficiencies.

#### **Current Implementation Actions (2008)**

- The regional governance study was completed but did not include extensive recommendations on how to avoid duplication of efforts and optimize service delivery efficiencies.

#### **Immediate Actions Required (2009-2010)**

- The Planning Unit will encourage efforts towards effective regional governance.

#### **Future Actions Required (2011 and beyond)**

- Future actions will depend on the results of the immediate actions.

### 6.1.12 Revise Shoreline Master Programs and plans

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The Planning Unit recommends that Mason and Jefferson Counties review their respective Shoreline Master programs and development regulations, and revise them if necessary to minimize new structures on riparian habitat (as defined by RCW 79A.15.010 (7)). The Planning Unit recommends that Mason County pursue funding to revise its Shoreline Master Plan (SMP) to incorporate the recommendations of this watershed plan. The Planning Unit also recommends Ecology give high priority to funding this effort due to the designation of Hood Canal Aquatic Rehabilitation Zone One.

#### Current Implementation Actions (2008)

- Jefferson County is in the process of updating its SMP, and expects to have a new adopted SMP in 2010.

#### Immediate Actions Required (2009-2010)

- Mason and Jefferson County Planning staff will brief the Planning Unit on their SMPs and restrictions affecting new structures on riparian habitat.
- The Planning Unit will track the counties' SMP update schedules and provide comments as necessary.

#### Future Actions Required (2011 and beyond)

- The Planning Unit will continue to track SMP update schedules and provide comments as necessary.

### 6.1.13 Promote alternatives to bulkheads and other shoreline structures

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In updating Shoreline Master Programs, the Planning Unit recommends that Mason and Jefferson Counties consider: 1) initiating a public education program to educate the public about the impacts of shoreline structures and the need to move toward alternatives; 2) developing and implementing incentives for removing and replacing hard bulkheads and other shoreline structures that impede natural processes; and 3) adopting stringent restrictions on the installation of new hard bulkheads or other shoreline structures that impede natural processes, as well as encouraging soft-armoring or other non-structural alternatives where feasible. *This recommendation will be implemented in coordination with Recommendation 6.3.4.*

#### Current Implementation Actions (2008)

- Mason County discourages concrete bulkheads on saltwater due to erosion problems and lack of habitat value.
- Jefferson County conducts public education programs on the impacts of shoreline structures, and offers incentives for removing and replacing hard shoreline armoring.
- WDFW is developing an integrated shoreline protection manual that will include alternatives to hard armoring.
- Sea Grant has a program to educate homeowners on marine bulkheads.
- Jefferson County currently requires that shore defense works are designed and built to minimize disruption to shoreline processes. Property owners must rule out any "soft" armoring techniques before approval is given for a bulkhead, and approved bulkheads can be no larger than is necessary to adequately protect the property.

#### Immediate Actions Required (2009-2010)

- The Planning Unit will comment on Jefferson County's updates to the SMP during the public comment period.
- Mason and Jefferson Counties will identify existing educational materials with information on alternatives to bulkheads, and will modify the existing materials as necessary and begin distributing them with permits.
- The Planning Unit will invite Jefferson County, as well as Kitsap and Thurston Counties, to brief the Planning Unit on their bulkhead restrictions.
- Based on the briefing from other counties on bulkhead restrictions, the Planning Unit may make recommendations to Mason County for bulkhead restrictions.

#### **Future Actions Required (2011 and beyond)**

- Future actions will depend on the results of the immediate actions.

### **6.1.14 Consider marine drift cells and sediment dynamics when issuing land use permits**

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The Planning Unit recommends that Mason and Jefferson Counties consider the impacts to and protection of marine drift cells and source sediments in issuing shoreline and other land use permits.

#### **Immediate Actions Required (2009-2010)**

- The Planning Unit will review and comment on the counties' updates to their SMPs.
- Mason and Jefferson County Planning departments will continue to employ staff who are trained in shoreline dynamics to review shoreline permits.
- The Planning Unit will request that the Partnership provide information on model programs and ordinances in Western Washington for considering marine drift cells and sediment dynamics in relevant land use permits.
- Mason and Jefferson Counties will require shoreline developers to identify marine drift cells using the most current Coastal Atlas and other relevant sources and to address potential impacts of the development on drift cells.

#### **Future Actions Required (2011 and beyond)**

- Future actions will depend on the results of the immediate actions.

### **6.1.15 Establish local improvement districts to fund shoreline improvements**

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The Planning Unit recommends that Mason and Jefferson Counties encourage shoreline landowners to establish local improvement districts to fund the protection and restoration of shorelines.

#### **Immediate Actions Required (2009-2010)**

- The Planning Unit will host a panel of experts to discuss the use of local improvement districts to fund protection and restoration of shorelines.

#### **Future Actions Required (2011 and beyond)**

- Based on the results of the panel discussion, the Planning Unit may develop additional steps towards the establishment of local improvement districts to fund shoreline improvements.

### **6.1.16 Remove derelict gear and debris from Hood Canal and restore eelgrass beds**

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The Planning Unit recommends that the state Department of Natural Resources and tribes be fully funded to remove derelict or abandoned anchors, boats, floats, nets, treated pilings, and other debris in Hood Canal to improve and restore eelgrass beds and other natural habitat.

#### **Current Implementation Actions (2008)**

- The Skokomish Tribe, DNR, WDFW, Sea Grant, shellfish growers, land trusts, the Northwest Straits Commission and the Hood Canal Salmon Enhancement Group (HCSEG) are working on removing creosote pilings, derelict debris, and gear removal as well as eelgrass restoration.

#### **Immediate Actions Required (2009-2010)**

- The Planning Unit will closely follow efforts by the Skokomish Tribe, DNR, WDFW, Sea Grant, shellfish growers, land trusts, the Northwest Straits Commission, and HCSEG to remove derelict gear and debris from Hood Canal.

- If the Planning Unit believes ongoing derelict gear and debris removal efforts are insufficient, they will develop action steps to solicit additional funding.
- The Planning Unit will support grant requests, efforts, and coordination to remove derelict debris and to improve eelgrass in Hood Canal.
- The Planning Unit will request that counties and Ecology recognize the importance of Hood Canal in prioritizing litter control to keep litter out of marine environments.

#### **Future Actions Required (2011 and beyond)**

- Based on its assessment of ongoing activities, the Planning Unit may develop additional implementation steps.

### **6.1.17 Separate the South Shore Sub-basin from WRIA 14**

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The Planning Unit recommends that the Legislature separate WRIA 14 into two WRIsAs (14A and 14B) and that the south shore of Hood Canal (which is included in the WRIA 16 Planning Process under an agreement between WRIsAs 14 and 16) be designated as WRIA 14B. The Planning Unit also recommends that WRIA 14B continue to be administered as part of WRIA 16 during plan implementation.

#### **Current Implementation Actions (2008)**

- The Planning Unit proposed legislation to this effect, which was passed and signed into law in 2008.

#### **Immediate Actions Required (2009-2010)**

- No further actions are required.

### **6.1.18 Evaluate the impact of marine mammals on Hood Canal’s water quality**

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The Planning Unit supports an evaluation of marine mammals’ impacts on fecal and nutrient loading in Hood Canal.

#### **Immediate Actions Required (2009-2010)**

- The Planning Unit will continue to encourage and support scientific studies on the impacts of marine mammals on fecal and nutrient loading in Hood Canal.

#### **Future Actions Required (2011 and beyond)**

- If a study on impacts of marine mammals on fecal and nutrient loading is completed, the Planning Unit will share the results through its newsletter.

## **Funding**

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### **6.2.1 Fund the implementation of watershed plans through the State**

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The Planning Unit recommends that the Legislature provide stable, ongoing funding for the implementation of watershed plans.

#### **Immediate Actions Required (2009-2010)**

- The Planning Unit, in collaboration with the Partnership and other watershed groups, will send a letter to the Governor and legislative leaders requesting stable funding for the implementation of watershed plans.
- When appropriate, Planning Unit members will provide public comment and/or public testimony in support of stable, ongoing funding for watershed plans.
- Planning Unit members will encourage their lobbyists and/or associations to talk to the Legislature about stable, ongoing funding for watershed plans.

### Future Actions Required (2011 and beyond)

- The Planning Unit will continue to send letters to legislative leaders regarding stable ongoing funding for watershed plans in the 4th quarter of each calendar year.

## 6.2.2 Research other opportunities for funding watershed plan implementation

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The Planning Unit recommends that as part of its “Governance Study,” the Hood Canal Coordinating Council include considerations for creating a stable, on-going funding source to implement the recommendations of the watershed plan or similar programs.

### Current Implementation Actions (2008)

- The study has been completed.

### Immediate Actions Required (2009-2010)

- The Planning Unit will continue to work with HCCC and other agencies on funding issues for watershed plan implementation.

## Education and Outreach

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### 6.3.1 Provide education on alternatives to permit-exempt wells

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The Planning Unit recommends that the Department of Ecology work with the Planning Unit to develop and implement an ongoing education/outreach effort for current and future water users on state laws governing the use of permit-exempt groundwater withdrawals. The education and outreach program should encourage the development of small public water systems as an alternative to the proliferation of permit-exempt wells. The Planning Unit also recommends that the benefits of shared water systems for new development be advocated through existing outreach programs.

### Immediate Actions Required (2009-2010)

- Ecology will come to a Planning Unit meeting and discuss their current approach to permit-exempt wells and existing materials on alternatives to permit-exempt wells.
- Mason and Jefferson Counties, PUDs, and other water purveyors will distribute relevant materials to developers, realtors, and prospective buyers on alternatives to permit-exempt wells.

### Future Actions Required (2011 and beyond)

- Future actions will depend on the results of the immediate actions.

### 6.3.2 Provide education on septic system, pet waste, and livestock waste management

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The Planning Unit recommends that the Mason and Jefferson Counties continue to give information to realtors and homeowners on fecal coliform/pathogen and nutrient impacts and prevention strategies, including proper septic system inspection, operation and maintenance, and pet waste management. In addition, the Planning Unit recommends that conservation districts and Washington State University Extension offices continue to provide information about livestock waste management and best management practices. *This recommendation will be implemented in coordination with Recommendation 6.4.4.*

### Current Implementation Actions (2008)

- WSU Extension, Sea Grant, Mason and Jefferson Counties, and Mason and Jefferson Conservation Districts provide information on livestock waste management, pet waste management, and septic system management.

### Immediate Actions Required (2009-2010)

- The Planning Unit will coordinate a meeting of staff from Mason and Jefferson Counties, conservation districts, and WSU Extension offices to discuss what is currently being done to inform homeowners and realtors about fecal coliform/pathogen and nutrient impacts and prevention strategies, and what additional actions are needed.
- The Planning Unit will support current and new efforts to educate homeowners and realtors about human and animal waste management.

### Future Actions Required (2011 and beyond)

- \$ Mason and Jefferson Counties, conservation districts, Sea Grant, and/or WSU Extension offices may implement further education strategies based on identified gaps.

## 6.3.3 Encourage landowners to maintain native vegetation

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The Planning Unit recommends that Mason and Jefferson Counties initiate public education encouraging landowners to maintain native vegetative cover, which will improve stormwater infiltration. *This recommendation will be implemented in coordination with Recommendations 4.4.2 and 5.1.2.*

### Current Implementation Actions (2008)

- WSU Extension has many relevant educational materials but has a limited budget for distribution.
- Jefferson County is exploring incentives to encourage people to keep vegetative material on site
- Sea Grant's Blue Thumb and native plant education programs promote practices to increase stormwater infiltration and decrease water quality impacts.
- The Nearshore Partnership has conducted a literature review quantifying benefits of vegetative cover, including water retention.

### Immediate Actions Required (2009-2010)

- \$ Sea Grant will continue the Blue Thumb gardening program that focuses on water-quality-friendly practices.
- The Lower Hood Canal Watershed Coalition (LHCWC) will continue its stormwater lecture series.
- Mason and Jefferson Conservation Districts will continue native plant sales.

### Future Actions Required (2011 and beyond)

- Future actions will depend on the results of the immediate actions.

## 6.3.4 Provide permit applicants with information on alternatives to bulkheads

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The Planning Unit recommends that Mason and Jefferson Counties and the Washington Department of Fish and Wildlife provide all applicants for bulkhead or armoring permits educational materials that explain why bulkheads are discouraged and provide information on beneficial alternatives. *This recommendation will be implemented in coordination with Recommendation 6.1.13.*

### Immediate Actions Required (2009-2010)

- Mason and Jefferson Counties will identify existing educational materials with information on alternatives to bulkheads, and will modify the existing materials as necessary.
- Mason and Jefferson Counties will identify and implement appropriate means for distributing materials on alternatives to bulkheads (e.g., permit applicants, home buyers, or other alternatives).

### Future Actions Required (2011 and beyond)

- Immediate actions will be continued.

### 6.3.5 Produce a report card on the state of the watershed

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The Planning Unit recommends that the Planning Unit, with assistance from the Department of Ecology, develop a periodic report card on the state of the watershed and that this report be posted on the Department of Ecology web site.

#### Immediate Actions Required (2009-2010)

- The Planning Unit will develop a list of issues, data sources, and indicators specific to Hood Canal. *This action will be implemented in coordination with Recommendation 6.4.3.*
- The Planning Unit will work with the Partnership to determine how to coordinate the WRIA 16 Planning Area report card with the Partnership's report to the Legislature.
- \$ The Planning Unit will begin producing a WRIA 16 Planning Area report card.

#### Future Actions Required (2011 and beyond)

- \$ The Planning Unit will continue producing a WRIA 16 Planning Area report card.

## Enforcement

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### 6.4.1 Reduce illegal water withdrawals and water quality violations

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The Planning Unit recommends that the state legislature adequately fund the Department of Ecology's enforcement operations to stop egregious illegal water withdrawals and diversions as well as water quality violations. The Department of Ecology should also coordinate with appropriate Planning Unit members to prioritize and initiate actions to bring those who are illegally withdrawing water into compliance.

#### Current Implementation Actions (2008)

- Ecology's current enforcement and compliance efforts with respect to illegal water withdrawals, diversions, and water quality violations is complaint-driven.

#### Immediate Actions Required (2009-2010)

- The Planning Unit, and individual Planning Unit members, will send letters to the Legislature requesting increased funding for enforcement against illegal water withdrawals. This effort will be coordinated with other Planning Units with similar concerns.
- Mason and Jefferson Counties will refer local complaints regarding illegal water withdrawals and water quality violations to Ecology.
- Ecology will provide the Planning Unit with a regular report of water quantity and quality compliance and enforcement actions. *This action will be implemented in coordination with Recommendation 6.4.3.*

#### Future Actions Required (2011 and beyond)

- Future actions will depend on the results of the immediate actions.

### 6.4.2 Establish penalties for removing large woody debris from streams

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The Planning Unit recommends that state and local governments establish clear civil penalties to better enforce existing prohibitions to removing large woody debris from streams.

#### Immediate Actions Required (2009-2010)

- Mason and Jefferson Counties and other appropriate agencies will continue to educate the public on the importance of leaving large woody debris in the streams, and will brief the Planning Unit on their efforts annually.

- Mason and Jefferson Counties will consider establishing civil penalties for removal of large woody debris from streams.

#### Future Actions Required (2011 and beyond)

- Immediate actions will be continued.

### 6.4.3 Adequately fund compliance and enforcement activities for existing laws and regulations

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The Planning Unit recognizes that full compliance with existing laws and regulations would address many of the issues identified in this watershed plan. The Planning Unit recommends that the State Legislature and the Boards of County Commissioners for Mason and Jefferson Counties give high priority to adequately funding compliance and enforcement activities.

#### Immediate Actions Required (2009-2010)

- The Planning Unit will compile a list of compliance and enforcement actions which it would like to track. *This action will be implemented in coordination with Recommendation 6.3.5.*
- The Planning Unit will request an annual summary of compliance and enforcement activities in the watershed taken by Ecology, DNR, the Department of Agriculture, WDFW, and Mason and Jefferson Counties. *This action will be implemented in coordination with Recommendation 6.4.1.*
- The Planning Unit will send letters to the Governor, legislative leaders, and Mason and Jefferson BOCCs requesting additional funding for compliance and enforcement activities.

#### Future Actions Required (2011 and beyond)

- Immediate actions will be continued.

### 6.4.4 Enforce illegal grey-water and black-water discharges

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The Planning Unit recommends that Mason and Jefferson Counties increase enforcement of illegal grey-water and black-water discharges. *This recommendation will be implemented in coordination with Recommendation 6.3.2.*

#### Current Implementation Actions (2008)

- Mason and Jefferson Counties' current enforcement of illegal grey-water and black-water discharges is complaint-driven.
- Counties are enforcing grey-water and black-water violations if encountered during sanitary and shoreline surveys.

#### Immediate Actions Required (2009-2010)

- Mason and Jefferson Counties will keep a record of violations and enforcement actions regarding grey-water and black-water discharges.
- Mason and Jefferson Counties will meet with the Planning Unit to discuss resources and other needs to improve enforcement of illegal grey-water and black-water discharges.

#### Future Actions Required (2011 and beyond)

- Future actions will depend on the results of the meeting with the counties.

## Support for Ongoing Activities

### 6.5.1 Continue existing stormwater education and outreach programs

The Planning Unit recommends that the Puget Sound Action Team, Washington Sea Grant, and Washington State University Extension continue their stormwater education and outreach programs in the watershed.

No specific actions are required to implement this recommendation because it supports existing efforts. The Planning Unit will advocate for continuation of existing efforts and will support efforts to obtain necessary resources, including funding.

### 6.5.2 Revise critical areas ordinances to protect Hood Canal and the nearshore environment

The Planning Unit recommends that Mason and Jefferson Counties continue to revise their critical areas ordinances based on best available science to provide adequate buffers, require compliance with Habitat Management Plans, establish and enforce improved stormwater treatment and controls, and maintain undeveloped marine drift cells. The Planning Unit also recommends that each county develop a matrix of critical areas buffers and setbacks as a single, consolidated source of reference.

No specific actions are required to implement this recommendation because it supports existing efforts. The Planning Unit will advocate for continuation of existing efforts and will support efforts to obtain necessary resources, including funding.

### 6.5.3 Minimize the number of new docks and stream crossings

The Planning Unit also recommends that Mason and Jefferson Counties continue to encourage multiple-user docks and stream crossings to minimize the number of structures that impair habitat.

No specific actions are required to implement this recommendation because it supports existing efforts. The Planning Unit will advocate for continuation of existing efforts and will support efforts to obtain necessary resources, including funding.

### 6.5.3 Revise development regulations to ensure consistency with the State's fish passage guidelines

The Planning Unit recommends that Mason and Jefferson Counties continue to revise their development regulations to ensure they are consistent with the Washington Department of Fish and Wildlife's fish passage guidelines (<http://wdfw.wa.gov/hab/engineer/habeng.htm>).

No specific actions are required to implement this recommendation because it supports existing efforts. The Planning Unit will advocate for continuation of existing efforts and will support efforts to obtain necessary resources, including funding.

### 6.5.4 Continue Master Gardener focus on minimizing pesticides and fertilizers

The Planning Unit recommends the Master Gardener curriculum continue to focus on minimizing the use of pesticides (including herbicides and insecticides) and fertilizers and emphasizing alternatives.

No specific actions are required to implement this recommendation because it supports existing efforts. The Planning Unit will advocate for continuation of existing efforts and will support efforts to obtain necessary resources, including funding.

### **6.5.5 Assess adequacy of marine pump-out stations**

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The Planning Unit supports the Hood Canal Coordinating Council's efforts to assess whether the number of marine septic pumping stations are adequate to serve recreational boating in Hood Canal. The assessment should determine if the existing sites are adequately maintained and whether new sites are needed in specific areas. The assessment should also include recommendations for public education. *See also Recommendation 6.1.4.*

No specific actions are required to implement this recommendation because it supports existing efforts. The Planning Unit will advocate for continuation of existing efforts and will support efforts to obtain necessary resources, including funding.

### **6.5.6 Participate in efforts to address low dissolved oxygen in Hood Canal**

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The Planning Unit supports the activities of the Hood Canal Dissolved Oxygen Program and recommends that Planning Unit members continue participating in this and other regional efforts to address low dissolved oxygen issues. The Planning Unit also encourages HCDOP to address the impacts of low dissolved oxygen on ecological communities as well as on entire ecosystems.

No specific actions are required to implement this recommendation because it supports existing efforts. The Planning Unit will advocate for continuation of existing efforts and will support efforts to obtain necessary resources, including funding.

### **6.5.7 Support water clean-up efforts**

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The Planning Unit supports water resource clean-up efforts in the watershed, including TMDLs and shellfish protection districts.

No specific actions are required to implement this recommendation because it supports existing efforts. The Planning Unit will advocate for continuation of existing efforts and will support efforts to obtain necessary resources, including funding.

## **Information Gathering**

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### **6.6.1 Conduct follow-up studies to fill information gaps**

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The Planning Unit recommends that the following studies be completed, as funding allows. The Planning Unit recommends that Planning Unit members and other appropriate entities cooperatively pursue funding to complete these studies:

- A study of the comparative impact on impaired rivers and streams of withdrawing water from deeper confined aquifers as opposed to withdrawing water from shallow, unconfined aquifers thought to be in more direct hydraulic continuity with streams.
- A modeling or research effort to predict more specifically the stream flow impacts from climate change on WRIA 16 streams;
- Preparation of a groundwater quality monitoring strategy;

- Preparation of a groundwater quantity monitoring strategy;
- Exploring additional water storage opportunities; and
- GPS mapping and typing of wetlands by trained staff on routine site visits.

#### Current Implementation Actions (2008)

- The Planning Unit is preparing a groundwater monitoring strategy that will address both water quality and quantity.

#### Immediate Actions Required (2009-2010)

- \$ The Planning Unit will prioritize impaired rivers and streams and work to obtain grant monies to study the impact of aquifer withdrawal location (deep and confined or shallow and unconfined) on these streams.
- The Planning Unit will review the updated data from the University of Washington Climate Impacts Group and promote the WRIA 16 Planning Area as a priority area for a study to examine climate change trends on streamflows and Hood Canal water level fluctuations.
- WDFW will keep the Planning Unit apprised of their findings on climate change impacts to streams and fish.
- \$ The Planning Unit will seek funding for a storage feasibility analysis, including assessing opportunities for storage of Class A reclaimed water. *This action will be implemented in coordination with Recommendation 3.3.6.*
- Mason and Jefferson Counties will pursue funding to conduct GIS mapping and typing of wetlands.
- Mason and Jefferson Counties will consider requiring GIS mapping and typing of wetlands for development applications.
- \$ The Planning Unit will contract for a hydrogeologic characterization and assess groundwater- surface water interactions in the WRIA 16 Planning Area.

#### Future Actions Required (2011 and beyond)

- The Planning Unit will continue to seek money to study the impact of aquifer withdrawals in specific locations on prioritized streams.
- \$ Mason and Jefferson Counties, the Skokomish Tribe, water purveyors and other entities will monitor groundwater quality and quantity according to the groundwater monitoring strategy. *This action will be implemented in coordination with Recommendations 3.1.1 and 4.1.2.*
- \$ Mason and Jefferson County staff will evaluate the best methods to map and type wetlands and implement as funding allows.
- Ecology, when developing an instream flow rule for the WRIA 16 Planning Area, will consider the cumulative impact of permit-exempt wells on stream flows.

### 6.6.2 Develop a shared database of water-related data

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The Planning Unit recommends that the Department of Ecology provide technical assistance to the Planning Unit to prepare a plan for the development of a shared database of water-related data, including GIS data sets. The plan will assign responsibilities to various Planning Unit members for data gathering, entry and maintenance of the database.

#### Immediate Actions Required (2009-2010)

- The Planning Unit will meet with Ecology and other state agencies to discuss how to develop a shared database of water-related data. The participants will develop a list of desired data, note who currently maintains this data, and discuss how to best compile the data and how to interface with Ecology's Environmental Information Management (EIM) database.

### **Future Actions Required (2011 and beyond)**

- The Planning Unit will prepare a plan for the development of a shared database of water-related data.
- \$ Identified Planning Unit members will implement the database plan.

### **6.6.3 Develop a clearinghouse of data and information on Hood Canal**

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The Planning Unit recommends that the Legislature create and fund a clearinghouse for all data and information gathered on Hood Canal. The information should be housed at a single location (such as the State Library) and made easily accessible to the public.

#### **Current Implementation Actions (2008)**

- The Sound Access database contains data for the years 1900-1993, but was not maintained post-1993.

#### **Immediate Actions Required (2009-2010)**

- The Planning Unit will write a letter to the Legislature requesting creation and funding of a Hood Canal data clearinghouse.
- The Planning Unit will ask the Partnership to address the need for a data clearinghouse and information source for the entire Puget Sound, and recommend that provision for such a clearinghouse be included in the Action Agenda.

#### **Future Actions Required (2011 and beyond)**

- Future actions will depend on the results of the immediate actions.

### **6.6.4 Archive studies on Hood Canal within the Timberland Library System**

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The Planning Unit recommends that copies of all publications and documents regarding Hood Canal be given to the Timberland Library System for easy access by local residents.

#### **Immediate Actions Required (2009-2010)**

- Planning Unit member agencies will provide hard copies of relevant documents regarding the Hood Canal watershed to libraries in Mason, Kitsap and Jefferson Counties.
- Planning Unit member agencies will provide the Planning Unit a list of the documents submitted to libraries. The Planning Unit will maintain a cumulative list of these documents.

#### **Future Actions Required (2011 and beyond)**

- Future actions will depend on the results of the immediate actions.

## Plan Implementation

### 6.7.1 Improve coordination and communication among water quality and water resource staff at both Mason and Jefferson Counties

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The Planning Unit recommends that Mason and Jefferson Counties implement mechanisms to improve coordination and communication between water quality and water resource staff (including land use, public works and environmental health staff). This could range from improved channels of communication to consolidating these staff into a single department.

#### Immediate Actions Required (2009-2010)

- The Planning Unit will ask Mason and Jefferson Counties for a briefing on the status of cross-departmental coordination and communication.
- The Planning Unit will make recommendations to the Counties on how to improve coordination and communication between departments.

#### Future Actions Required (2011 and beyond)

- Future actions will depend on the results of the immediate actions.

### 6.7.2 Incorporate Watershed Plan recommendations into local Comprehensive Plans

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The Planning Unit encourages Mason and Jefferson Counties to incorporate the watershed plan recommendations, where appropriate, into the local Comprehensive Plan, including resource ordinances and development regulations.

#### Current Implementation Actions (2008)

- Cascadia Consulting Group is conducting research on areas of overlap and discrepancies between the WRIA 16 Watershed Management Plan and relevant Mason and Jefferson County land use plans and ordinances.

#### Immediate Actions Required (2009-2010)

- During scheduled update processes, the Planning Unit will advocate for changes to relevant plans, ordinances, and regulations in Mason and Jefferson Counties, based on the analysis conducted by Cascadia Consulting Group.
- The Planning Unit will hold a meeting with Mason and Jefferson County land-use staff on how to incorporate Planning Unit review and comment on significant development proposals. They will also discuss methods to notify the Planning Unit of upcoming amendments or revisions to land-use policies, including amendments to the Comprehensive Plans, resource ordinances or development regulations.
- The Planning Unit will brief Mason and Jefferson Planning Commissions on the Watershed Plan and the need to integrate the plan recommendations into land-use decision-making.
- The Planning Unit will make an annual recommendation to the Mason and Jefferson County Commissioners on prioritized amendments to land use plans and ordinances.

#### Future Actions Required (2011 and beyond)

- The Planning Unit will continue to advocate, as necessary to implement the Watershed Management Plan, for changes to relevant plans, ordinances, and regulations in Mason and Jefferson Counties during scheduled update processes.

## II. Implementation Considerations

### Introduction

The Watershed Planning Act (RCW 90.82.043) requires specific details to be included in Detailed Implementation Plans. These requirements include

- strategies to provide sufficient water for: (a) production agriculture; (b) commercial, industrial, and residential use; and (c) instream flows;
- timelines to achieve these strategies and interim milestones to measure progress;
- coordination and oversight responsibilities; and
- any needed interlocal agreements, rules, or ordinances or state or local administrative approvals and permits.

Tables summarizing these components are found on the following pages. The WRIA 16 Planning Unit will provide the needed oversight and coordination to implement all 84 recommendations.

### Regulatory Changes/Legislative Actions Needed

State or local administrative approvals, new legislation, or other regulatory actions at the state or county level are needed to fully implement some of the recommendations from the WRIA 16 Watershed Management Plan (see RCW 90.82.043(3)). Please note that progress can be made on implementing many of these recommendations without the regulatory actions outlined below.

Recommendation	Regulatory Actions Needed to Fully Implement
3.2.5, Review alternative sewage and greywater regulations	Ecology and DOH – revise sewage and greywater regulations
3.3.5, Allow rainwater capture below a certain threshold	Legislature – enact new legislation on rainwater capture
4.2.1, Implement septic system operation and maintenance programs	Counties – develop septic system regulations
4.2.3, Assess sewers and other alternatives to septic systems in sensitive areas	DOH and Ecology – update regulations on alternative sewage management
4.2.5, Require a septic system inspection upon the sale of a property	Mason County – pass an ordinance on OSS inspections
4.4.2, Retain native vegetation	Mason County – adopt an ordinance on vegetation clearing
4.4.6, Expand County stormwater management programs	Mason County – adopt the 2001/2005 <i>Stormwater Management Manual for Western Washington</i>
5.1.2, Use vegetative management for danger trees in or near critical areas	Counties – adopt or revise ordinances regarding vegetative management for danger trees
5.1.4, Adopt the Forest and Fish Adaptive Management Program	Forest Practices Board – adopt Adaptive Management Program rule-making petitions
6.4.2, Establish penalties for removing large woody debris from streams	Counties – establish civil penalties for removal of large woody debris from streams
6.7.2, Incorporate <i>Watershed Plan</i> recommendations into local Comprehensive Plans	Counties – integrate recommendations into Comprehensive Plans and implementing ordinances

## Performance Indicators/Deliverables Checklist

Tracking the completion of performance indicators and deliverables will enable the Planning Unit to monitor implementation of the group's recommendations, note whether assigned actions are being implemented, and consider whether responsibilities should be shifted or particular activities modified. No performance indicators or deliverables are shown for recommendations which have already been implemented or which support existing efforts.

Recommendation	Performance Indicator	Timeline	Status
3.1.1, Prioritize water-quantity monitoring activities and pursue funding	Monitoring needs prioritized	2009	
	Funding obtained for monitoring	Ongoing	
3.2.1, Support and encourage tiered water rate structures	Additional water purveyors offer tiered rate structures	Review annually	
3.2.2, Offer rebates for low-flow fixtures and appliances	Mason County rebate program expanded	2010	
	Jefferson County water conservation program initiated	2010	
	Water conservation benefits of rebate program assessed	2011 and beyond	
3.2.3, Offer water meters and encourage voluntary water metering	Additional water purveyors offer water meters for sale	Review annually	
3.2.4, Encourage golf courses to conserve water and minimize use of chemicals	Golf courses have adopted water management plans	Review annually	
3.2.5, Review alternative sewage and greywater regulations	Invite DOH/Ecology to Planning Unit meeting	2010	
	Planning Unit work with DOH/Ecology on review	Review annually	
3.3.1, Encourage small public water systems over new permit-exempt wells	Information distributed on rationale for public water systems	2009	
3.3.2, Determine future water needs of domestic and public water systems	Determination of water supply needs made	2009	
3.3.3, Implement water trusts and water banking	Feasible water banking/water trust options identified	2010	
	Identified options implemented	2011 and beyond	
3.3.4, Involve local parties in review of applications to remove water from the watershed	Local parties are briefed on, and have an opportunity to comment on, out-of-basin water transfer application	Review annually	
3.3.5, Allow rainwater capture below a certain threshold	Rainwater capture legislation proposed to the Legislature	Review annually	
3.3.6, Investigate winter water storage to enhance summer water supply	RFP/RFO issued for multi-purpose storage feasibility study	2009	
	Review conducted of storage options in Washington	2009	

Recommendation	Performance Indicator	Timeline	Status
4.1.1, Implement the WRIA 16 Surface Water Quality Monitoring Strategy			
	Funding secured to implement the Strategy	2009	
	Monitoring needs updates made to Strategy	2009	
	Strategy implemented	Review annually	
4.1.2, Continue consistent and coordinated water-quality monitoring			
	Meeting held between all entities monitoring water quality	2009	
	Compilation of water quality data produced	Review annually	
4.1.3, Better coordinate the State's water quality monitoring			
	Letter sent to DOH and Ecology requesting coordination	2009	
	Request made to Partnership to improve coordination	2009	
	DOH/Ecology presentation to Planning Unit	2009	
4.1.4, Inventory and monitor dump sites and landfills			
	Inventory completed of dump sites and landfills in the WRIA 16 Planning Area	2010	
	GPS locations obtained for dump sites and landfills, sites noted in County databases	2010	
	Water quality monitoring needs identified	2010	
	Funding obtained to compile and assess water quality data	2010	
	Water quality monitoring conducted	2011 and beyond	
	Clean up plans prepared and implemented at selected sites	2011 and beyond	
	Water quality data compiled and assessed	2011 and beyond	
4.1.5, Continue monitoring the Webb Hill biosolids application site			
	Water quality monitoring continued	Review annually	
	Need for further study assessed	Review annually	
4.1.6, Encourage water quality and quantity measurements in individual wells			
	Residential well testing program initiated	2009	
	Well stewardship information provided to new owners	Review annually	
	Water quality and well-level data tracked and compiled	Review annually	
4.1.7, Determine impacts of septic systems on sensitive water bodies			
	HCDOP study of septic systems' nitrogen contributions reviewed	2009	
4.2.1, Implement septic system operation and maintenance programs			
	Counties report on OSS regulations	2009	
	Recommendation made to Partnership on state law review	2009	
	O&M and inspection programs implemented by counties	2009	
	Counties present annual reports on O&M programs	Review annually	
	Counties coordinate on OSS data collection	Review annually	
4.2.2, Identify failing septic systems and notify owners			
	Owners of failing OSS notified	Review annually	

Recommendation	Performance Indicator	Timeline	Status
4.2.3, Assess sewers and other alternatives to septic systems in sensitive areas	Letters sent to DOH and Ecology encouraging updates for OSS alternatives	2009	
4.2.4, Consider funding options for septic upgrades along shorelines and in other sensitive areas	Letters sent to counties supporting OSS assessments	2009	
	Alternative OSS funding options sought as needed	2011 and beyond	
4.2.5, Require a septic system inspection upon the sale of a property	Requirements passed in Mason County for OSS inspections at time of sale	2009	
	Changes made in Jefferson County to improve compliance	2009	
4.2.6, Encourage community wastewater treatment systems for new developments	Other community wastewater system efforts reviewed	2009	
	Water providers for new developments identified	2009	
	Support built for community wastewater treatment systems	Review annually	
4.3.1, Encourage farm plans and agricultural best management practices in critical areas	Funding sought for implementation of farm plans and BMPs	Review annually	
	Summary complete of WRIA 16 Planning Area farms with farm plans	2009	
4.3.2, Require manure management practices that protect floodwaters	Meeting held to discuss manure management approaches	2009	
4.3.3, Effectively manage pet waste in parks	Pet waste management improvements and needs evaluated	2009	
4.4.1, Minimize impervious surfaces	Counties have GIS capabilities to track impervious surfaces	2009	
	Strategies identified to implement LID BMPs	2011 and beyond	
	Funding obtained to implement LID regulations	2011 and beyond	
4.4.2, Retain native vegetation	Support stated for clearing ordinance in Mason County	2009	
	Vegetation clearing and buffer elements of CAO implemented and enforced in Jefferson County	2010	
	SMP and stormwater review process updated in Jefferson County	2011 and beyond	
	Outreach and education programs conducted	Review annually	
4.4.3, Continue and expand stormwater management for state highways	Letters sent regarding funding for DOT	2009	
	Stormwater management meeting held with Ecology	2009	

Recommendation	Performance Indicator	Timeline	Status
4.4.4, Implement best management practices for roadside ditches			
	List compiled of existing relevant education programs	2009	
	Ditch management discussed at stormwater meeting	2009	
	Areas identified for improvement in ditch management	2009	
	Funding obtained to implement ditch BMPs	2009	
	Trainings held on roadside ditch BMPs	2010	
4.4.5, Establish riparian buffers and road maintenance standards for forestland owners			
	<i>This recommendation has been implemented</i>		✓
4.4.6, Expand County stormwater management programs			
	Mason County adopts 2001/2005 <i>Stormwater Manual</i>	2009	
4.5.1, Implement Integrated Pest Management on publicly owned land			
	Outreach to homeowners regarding 'no-spray' option	2009	
	Briefing held on counties' IPM activities and issues	2010	
4.5.2, Address saltwater intrusion			
	Meeting held on other counties' saltwater intrusion plans	2010	
	Report from DOH on indicators of saltwater intrusion	2010	
	Saltwater intrusion addressed in water supply plan updates	Review annually	
5.1.1, Support existing salmon recovery and habitat conservation programs			
	Opportunities identified for habitat restoration	2010	
	Channel migration zones identified for restoration or enhancement	2010	
	Funding obtained for habitat study and monitoring	Review annually	
	Funding obtained for knotweed eradication	Review annually	
5.1.2, Use vegetative management for danger trees in or near critical areas			
	Model language on vegetative management developed	2009	
	Educational workshops and materials developed	2009	
	Letters on vegetative management sent to Commissioners	2010	
	DNR requirements on vegetative management considered	2011 and beyond	
	County ordinances on vegetative management considered	2011 and beyond	
5.1.3, Validate stream typing designations			
	Training conducted on stream typing	2009	
	Hydrologic GIS data layer maintained by counties	2009	
	Stream typing validation conducted	2010	
	Stream type changes requested from DNR as applicable	Review annually	
5.1.4, Adopt the Forest and Fish Adaptive Management Program			
	Letters, public comment, and testimony submitted	2009	

Recommendation	Performance Indicator	Timeline	Status
5.1.5, Consider land preservation programs for critical habitat.			
	Meeting held on land preservation program options	2009	
	Decision made on support for new preservation approaches	2009	
6.1.1, Implement the WRIA 16 Surface Water Quality Monitoring Strategy			
	<i>See recommendation 4.1.1</i>		
6.1.2, Minimize the discharge of effluent into Hood Canal			
	Briefing held on Ecology's discharge practices and policies	2010	
	Planning Unit informed of any applications related to discharge to Hood Canal	Review annually	
	Participation in public comment on pending permits	Review annually	
6.1.3, Provide adequate toilet facilities at popular recreation sites.			
	List developed of sites lacking adequate facilities	2010	
	Letters sent to relevant jurisdictions requesting facilities	2010	
6.1.4, Assess and upgrade pump-out stations for recreational vehicles and boats			
	Assessment made of adequacy of pump-out stations	2011 and beyond	
6.1.5, Use sewer systems instead of individual septic systems when necessary to protect public and environmental health			
	Need reviewed for relevant GMA amendments	2011 and beyond	
6.1.6, Maintain zoning limits if new sewer systems are installed outside an Urban Growth Area.			
	Response made to proposals for new sewer systems	2010	
	Zoning limits advocated for Comprehensive Plan updates	2011 and beyond	
6.1.7, Prioritize Department of Transportation stormwater projects that would improve Hood Canal			
	Request made to prioritize stormwater projects	2009	
	Request made to Partnership on data needs	2009	
6.1.8, Provide education on pesticide- and fertilizer-reduction and promote alternatives.			
	Inventory conducted of existing education programs	2009	
	Nitrogen and phosphorus reductions emphasized in current programs	2009	
	Request made for educational funding	Review annually	
6.1.9, Communicate results of low dissolved oxygen studies.			
	Dissolved oxygen studies are tracked and updated	2009	
	Hood Canal dissolved oxygen plan is updated	2009	
	Dissolved oxygen information clearinghouse established	2009	
	Blog feature added to HCDOP's web page	2010	
6.1.10, Provide education on nitrogen and phosphorus reduction in household products.			
	Outreach and education programs updated biannually	Review annually	
	Ongoing funding obtained	2009	
6.1.11, Involve Watershed Planning Units in the development of regional governance for Hood Canal			
	Efforts towards regional governance encouraged	2009	

Recommendation	Performance Indicator	Timeline	Status
6.1.12, Revise Shoreline Master Programs and plans			
	Briefing held on counties' SMPs	2010	
	Comments made on counties' SMPs as applicable	Review annually	
6.1.13, Promote alternatives to bulkheads and other shoreline structures			
	Comments made on Jefferson County's SMP	2009	
	Educational materials on bulkheads distributed with permits	2009	
	Briefing held on other counties' bulkhead restrictions	2009	
6.1.14, Consider marine drift cells and sediment dynamics when issuing land use permits			
	Developers required to identify marine drift cells and address potential impacts	2009	
	Request made to Partnership for information on model programs and ordinances regarding marine drift cells	2010	
	Comments made on counties' SMPs as applicable	Review annually	
	Staff trained in shoreline dynamics review shoreline permits	Review annually	
6.1.15, Establish local improvement districts to fund shoreline improvements			
	Panel discussion held regarding the use of local improvement districts	2009	
6.1.16, Remove derelict gear and debris from Hood Canal and restore eelgrass beds.			
	Request made to prioritize litter control around Hood Canal	2009	
	DNR, Skokomish Tribe, and HCSEG activities followed	Ongoing	
	Additional activities and funding developed if necessary	Ongoing	
6.1.17, Separate the South Shore Sub-basin from WRIA 14			
	<i>This recommendation has been implemented</i>		✓
6.1.18, Evaluate the impact of marine mammals on Hood Canal's water quality			
	Support and publicity given to proposed studies on marine mammal impacts to water quality	Ongoing	
6.2.1, Fund the implementation of watershed plans through the State			
	Letters sent requesting stable, ongoing funding	2011 and beyond	
	Public testimony given on need for stable, ongoing funds	Ongoing	
	Lobbyists encouraged to discuss funding needs	Ongoing	
6.2.2, Research other opportunities for funding watershed plan implementation.			
	<i>This recommendation has been implemented</i>		✓
6.3.1, Provide education on alternatives to permit-exempt wells			
	Briefing held on Ecology's permit-exempt well approach	2009	
	Materials distributed on alternatives to permit-exempt wells	2009	
6.3.2, Provide education on septic system, pet waste, and livestock waste management			
	Meeting held on existing and needed efforts	2009	
	Implement identified needed educational programs	2011 and beyond	

Recommendation	Performance Indicator	Timeline	Status
6.3.3, Encourage landowners to maintain native vegetation			
	Blue Thumb gardening program continued	Review annually	
	LHCWC lecture series continued	Review annually	
	Conservation District native plant sales continued	Review annually	
6.3.4, Provide permit applicants with information on alternatives to bulkheads.			
	Materials on bulkheads identified and created as needed	2009	
	Materials distributed	2009	
6.3.5, Produce a report card on the state of the watershed			
	Hood Canal issues, indicators, and data sources identified	2010	
	Coordination strategy developed with Partnership	2010	
	Report card produced	2010	
6.4.1, Reduce illegal water withdrawals and water quality violations			
	Letters sent to Legislature requesting enforcement funds	2009	
	Local complaints of violations are referred to Ecology	Review annually	
	Annual report on Ecology's water quality and quantity compliance and enforcement	Review annually	
6.4.2, Establish penalties for removing large woody debris from streams			
	Public education efforts on large woody debris continued	Review annually	
	Civil penalties considered for removing large woody debris	2009	
6.4.3, Adequately fund compliance and enforcement activities for existing laws and regulations			
	List compiled of activities to track	2009	
	Letters sent requesting compliance and enforcement funds	2009	
	Requests made for annual summaries of compliance and enforcement activities	2010	
6.4.4, Enforce illegal greywater and black-water discharges			
	Meeting with counties to discuss resources and other needs	2009	
	Records kept of violations and enforcement actions	Review annually	
6.5.1 – 6.5.8: <i>These recommendations support existing efforts; no performance indicators/deliverables needed</i>			

Recommendation	Performance Indicator	Timeline	Status
6.6.1, Conduct follow-up studies to fill information gaps.			
	Prioritization of impaired rivers and streams	2010	
	WRIA 16 Planning Area promoted to Climate Impacts Group for studies on climate impacts	2009	
	Hydrogeologic characterization project contracted	2010	
	Funding sought for storage feasibility analysis	2010	
	Funding sought for GIS mapping and typing of wetlands	Ongoing	
	Wetlands mapping and typing approach identified	2011 and beyond	
	Funding sought to study impacts of aquifer withdrawals	2011 and beyond	
	Groundwater quality and quantity monitored	2011 and beyond	
	Permit exempt well impacts considered in instream flow rule	2011 and beyond	
6.6.2, Develop a shared database of water-related data			
	Approach identified to develop a shared database	2009	
	Database plan developed and implemented	2011 and beyond	
6.6.3, Develop a clearinghouse of data and information on Hood Canal			
	Letter sent to Legislature requesting data clearinghouse	2009	
	Request made to Partnership for data clearinghouse	2009	
6.6.4, Archive studies on Hood Canal within the Timberland Library System			
	Hard copies of relevant documents provided to libraries.	Review annually	
6.7.1, Improve coordination and communication among water quality and water resource staff at both Mason and Jefferson counties			
	Briefing requested on status of interdepartmental coordination and communication	2009	
	Recommendations made on improving communication and coordination	2009	
6.7.2, Incorporate Watershed Plan recommendations into local Comprehensive Plans			
	Meeting with county staff on incorporating Planning Unit review	2009	
	Briefing held for Planning Commissions on Watershed Plan	2009	
	Relevant changes requested during scheduled updates	Review annually	
	Recommendation made on amendments to land use plans and ordinances	Review annually	

## Strategies to Provide Sufficient Water

Under RCW 90.82.043(2), planning units are obligated to address in their Detailed Implementation Plan “strategies to provide sufficient water for: (a) Production agriculture; (b) commercial, industrial, and residential use; and (c) instream flows”. “Instream flows,” in this case, is interpreted to mean strategies that augment stream flow, with the specific purpose of aiding instream uses. These may include improving habitat for fish and other aquatic biota, as well as recreational and aesthetic uses.

The WRIA 16 Planning Unit made many recommendations which address conserving water, enhancing stream flows, and/or providing additional water for agricultural, commercial, industrial, or residential uses. Those expected to most directly benefit the needs outlined above are summarized below.

Recommendation	Recommendation benefits...	
	Agricultural, commercial, industrial, residential uses	Stream flow
3.1.1, Prioritize water-quantity monitoring activities and pursue funding.	✓	✓
3.2.1, Support and encourage tiered water rate structures	✓	✓
3.2.2, Offer rebates for low-flow fixtures and appliances	✓	✓
3.2.3, Offer water meters and encourage voluntary water metering	✓	✓
3.2.4, Encourage golf courses to conserve water and minimize use of chemicals	✓	✓
3.2.5, Review alternative sewage and greywater regulations	✓	✓
3.3.1, Encourage small public water systems over new permit-exempt wells	✓	
3.3.2, Determine future water needs of domestic and public water systems	✓	
3.3.3, Implement water trusts and water banking		✓
3.3.4, Involve local parties in review of applications to remove water from the watershed	✓	✓
3.3.5, Allow rainwater capture below a certain threshold	✓	✓
3.3.6, Investigate winter water storage to enhance summer water supply	✓	✓
6.3.1, Provide education on alternatives to permit-exempt wells	✓	
6.4.1, Reduce illegal water withdrawals and water quality violations	✓	✓

### III. Inchoate<sup>4</sup> Water Rights in the WRIA 16 Planning Area

Under RCW 90.82.048(1), adopted by the Legislature in 2003, Detailed Implementation Plans “must address the planned future use of existing water rights for municipal water supply purposes, as defined in RCW 90.03.015, that are inchoate, including how these rights will be used to meet the projected future needs identified in the watershed plan, and how the use of these rights will be addressed when implementing instream flow strategies identified in the watershed plan”. On June 11, 2008, a judge in King County Superior Court ruled in a lawsuit regarding the Municipal Water Law that the definition used in RCW 90.03.015 was unconstitutional (*U.S. ex rel Lummi Indian Nation v. Washington, King County Superior Court, Cause No. 06-2-40103-4 SEA. Pet. for Dir. Rev. filed July 3, 2008*). The State of Washington submitted an appeal of this decision on July 7, 2008.

This ruling was issued when the WRIA 16 inchoate water rights assessment was substantially complete. Because of this ruling and the uncertainty of its implications, the WRIA 16 Planning Unit elected not to include the assessment in the final Detailed Implementation Plan. The completed assessment, based on the statutes that existed prior to the court ruling, is available as a separate document.

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<sup>4</sup> “Inchoate” in Washington water law generally means the amount of water in a water right that is not being used.

## Appendix A: 2009-2010 Workplan

This workplan is designed to phase out the implementation of all immediate actions over the course of 2009 and 2010. Each immediate action is designated as occurring in a given year and quarter based on best approximations of workloads and appropriate timing for particular tasks. It is expected that actions which are not completed, or not even begun, in designated quarters will be carried over to the subsequent quarter. Quarters are defined as January – March, April – June, July – September, and October – December.

### First Quarter (January – March), 2009

- 3.1.1 The Planning Unit will prioritize surface water quantity monitoring needs based on the list of current activities.
- 3.1.1 The Planning Unit will prioritize groundwater monitoring needs based on the groundwater monitoring plan.
- 3.3.1 DOH or Ecology will provide Mason and Jefferson Counties and water purveyors with information on the rationale for the use of public water systems instead of use of exempt wells.
- 3.3.5 Ecology will continue to support any appropriate proposed legislation on rainwater catchment.
- 3.3.5 The Planning Unit will hold a meeting with Ecology to discuss options for rainwater catchment.
- 3.3.5 The Planning Unit will support appropriate legislation on rainwater capture by writing letters and testifying in favor of the bill(s).
- 3.3.6 \$ The Planning Unit will issue a Request for Proposals (RFP) or Request for Qualifications (RFQ) for a feasibility study of multi-purpose storage projects. The study will evaluate existing natural storage (wetlands, etc.). The analysis will estimate the rate of loss of wetlands and assess the impacts of ongoing loss. The analysis will also examine options to direct stormwater back into aquifers and decrease the amount draining directly into Hood Canal.
- 4.1.1 Mason County, with input from the Planning Unit, will develop a list of needed surface water quality monitoring activities and the estimated costs.
- 4.1.1 \$ Mason and Jefferson Counties will seek both state and local funding, and work with the Puget Sound Partnership (Partnership) for additional resources and partnerships, to expand monitoring as necessary to fully implement the Surface Water Quality Monitoring Strategy.
- 4.1.1 Mason County, with support and funding from the Planning Unit, will update the parameters and sites included in the Surface Water Quality Monitoring Strategy based on the Partnership's Action Agenda and other new information, including biological habitat monitoring.
- 4.1.2 The Planning Unit will request that Ecology, the Partnership, or the Hood Canal Coordinating Council (HCCC) hold a meeting of all water-quality monitoring entities within Hood Canal to discuss activities and upcoming plans and coordinate on water quality parameters monitored and frequency and timing of monitoring.

**First Quarter (January – March), 2009 , continued**

- 4.1.2 The Planning Unit will request that Ecology, the Partnership, or HCCC provide annual compilations of Hood Canal water quality data.
- 4.1.3 The Planning Unit will write a letter to DOH and Ecology encouraging better coordination between the departments' water quality monitoring and related regulatory efforts.
- 4.2.1 Mason and Jefferson Counties will report to the Planning Unit on the development of county septic system regulations, and will bring Planning Unit comments back to their relevant departments.
- 4.2.1 Mason and Jefferson Counties will implement O&M programs and require inspections as specified by their OSS management plans.
- 4.2.1 Mason and Jefferson Counties will work together to ensure they are collecting comparable data on OSS status.
- 4.2.4 The Planning Unit will send a letter to counties encouraging them to levy small assessments on OSS to fund OSS programs and to provide assistance to low income residents.
- 4.2.5 Mason County will work to pass requirements for septic system inspections at the time of sale.
- 4.2.5 Jefferson County will implement suggested changes in its OSS Management Plan to improve compliance with its requirement for inspections at the time of sale.
- 4.3.1 The Planning Unit will request that the Conservation Districts summarize the number of farms within WRIA 16 and how many have existing farm plans, as well as details on BMPs outlined in the plans, BMPs adopted, and numbers of livestock under management on each farm.
- 4.4.4 The Planning Unit will request that Hood Canal Watershed Education Network (HCWEN) members put together a list of existing education programs for stormwater and ditch management.
- 5.1.4 The Planning Unit will send a letter to the Forest Practices Board encouraging them to adopt the Adaptive Management Program rule-making petitions. Planning Unit members will use this letter as a template for letters sent on behalf of their agencies or entities.
- 5.1.4 Planning Unit members will submit public comment and testimony to the Forest Practices Board in support of the adoption of the Adaptive Management Program.
- 6.1.7 The Planning Unit will request that DOT work with the Partnership to prioritize stormwater projects for Hood Canal.
- 6.1.8 Mason and Jefferson Counties, WSU Extension, Mason and Jefferson Conservation Districts, Sea Grant, DNR, and HCCC will emphasize the importance of nitrogen and phosphorus reductions in existing educational programs, and will seek funding for expanded efforts.
- 6.1.9 The Partnership and HCCC should continue and improve on efforts to track, publish, and update results of low dissolved oxygen studies.
- 6.1.9 The Partnership, HCDOP, or HCCC should identify an optimal location for a dissolved oxygen information clearinghouse. The entity chosen to house the clearinghouse should ensure that the data is published and updated in a manner that is accessible to the public.

First Quarter (January – March), 2009 , continued

- 6.1.10 Mason and Jefferson Counties, WSU Extension, and Sea Grant will seek ongoing funding for outreach and education programs on nitrogen and phosphorous in household products.
- 6.1.10 The Planning Unit will request that the Partnership and other appropriate entities provide ongoing funding for education and outreach programs that include information about nitrogen and phosphorous in household products.
- 6.1.11 The Planning Unit will encourage efforts towards effective regional governance.
- 6.1.13 The Planning Unit will comment on Jefferson County's updates to the SMP during the public comment period.
- 6.1.16 The Planning Unit will request that counties and Ecology recognize the importance of Hood Canal in prioritizing litter control to keep litter out of marine environments.
- 6.3.1 Ecology will come to a Planning Unit meeting and discuss their current approach to permit-exempt wells and existing materials on alternatives to permit-exempt wells.
- 6.4.1 The Planning Unit, and individual Planning Unit members, will send letters to the Legislature requesting increased funding for enforcement of illegal water withdrawals. This effort will be coordinated with other Planning Units with similar concerns.
- 6.4.3 The Planning Unit will compile a list of compliance and enforcement actions which it would like to track. *This action will be implemented in coordination with Recommendation 6.3.5.*
- 6.4.3 The Planning Unit will send letters to the Governor, legislative leaders, and Mason and Jefferson BOCCs requesting additional funding for compliance and enforcement activities.
- 6.4.4 Mason and Jefferson Counties will keep a record of violations and enforcement actions regarding grey-water and black-water discharges.
- 6.6.1 WDFW will keep the Planning Unit apprised of their findings on climate change impacts to streams and fish.
- 6.6.2 The Planning Unit will meet with Ecology and other state agencies to discuss how to develop a shared database of water-related data. The participants will develop a list of desired data, note who currently maintains this data, and discuss how to best compile the data and how to interface with Ecology's Environmental Information Management (EIM) database.
- 6.6.3 The Planning Unit will write a letter to the Legislature requesting creation and funding of a Hood Canal data clearinghouse.
- 6.6.3 The Planning Unit will ask the Partnership to address the need for a data clearinghouse and information source for the entire Puget Sound, and recommend that provision for such a clearinghouse be included in the 2020 Action Agenda.

## Second Quarter (April – June), 2009

- 3.2.4 Mason County PUD #1 and Mason County will contact Alderbrook and Cushman Golf Courses to encourage them to adopt a golf course management plan.
- 3.2.4 Jefferson County will implement a development agreement with the proposed Blackpoint Golf Course that includes required Best Management Practices.
- 3.3.1 Mason and Jefferson Counties and water purveyors will share information on the rationale for public water systems instead of exempt wells with permit applicants and other persons expressing interest in development.
- 3.3.6 The Planning Unit (either with staff or through a consultant) will gather and review other relevant multi-purpose storage feasibility studies (nationally and internationally) to ensure that they are building on the existing state-wide knowledge of storage options and feasibility.
- 4.1.3 The Planning Unit will invite managers from DOH and Ecology to present on water quality monitoring at a Planning Unit meeting.
- 4.3.2 The Planning Unit will invite representatives of the Washington Department of Agriculture (WDA), Ecology, DOH, the Conservation Districts, and Mason and Jefferson Counties to discuss what actions should be taken to minimize manure contamination of floodwaters, such as controlling pasturing or keeping animals indoors during the winter.
- 4.3.3 The Planning Unit will ask Mason County to evaluate pet waste management improvements at Union and Foothills Parks, and at the Union public boat launch.
- 4.4.2 The Planning Unit will advocate for and support the adoption of a clearing ordinance in Mason County.
- 4.4.3 Ecology will host a meeting to discuss current activities related to Washington State Department of Transportation (DOT) stormwater management in the WRIA 16 Planning Area.
- 4.4.4 Mason and Jefferson Counties, DOT, the Skokomish Tribe, State Parks, and private land managers will report on current activities to manage roadside ditches at the WRIA 16 Planning Unit/DOT stormwater management meeting held by Ecology. *This action will be implemented in coordination with Recommendation 4.4.3.*
- 4.4.6 Mason County will adopt Ecology's 2001/2005 Stormwater Management Manual for Western Washington.
- 5.1.2 The Planning Unit, with Mason and Jefferson County staff as the lead, will develop model language on vegetative management options for ordinances and state requirements. *This action will be implemented in coordination with Recommendation 4.4.2.*
- 5.1.3 The Skokomish Tribe will conduct training for County staff on stream typing.
- 6.1.7 The Planning Unit will request that the Partnership gather more data on highway impacts to Hood Canal, including testing for bio-accumulation of heavy metals in marine life.
- 6.1.8 The Planning Unit will ask HCWEN members to inventory existing education programs regarding pest management and fertilization practices.

**Second Quarter (April – June), 2009, continued**

- 6.1.9     \$     The Partnership and HCCC should update the Hood Canal Low Dissolved Oxygen Preliminary Assessment and Corrective Action Plan, using validated, peer-reviewed scientific data.
- 6.1.13     Mason and Jefferson Counties will identify existing educational materials with information on alternatives to bulkheads, and will modify the existing materials as necessary and begin distributing them with permits.
- 6.1.13     The Planning Unit will invite Jefferson County, as well as Kitsap and Thurston Counties, to brief the Planning Unit on their bulkhead restrictions.
- 6.1.14     Mason and Jefferson Counties will require shoreline developers to identify marine drift cells using the most current Coastal Atlas and other relevant sources and to address potential impacts of the development on drift cells.
- 6.3.1     Mason and Jefferson Counties, PUDs, and other water purveyors will distribute relevant materials to developers, realtors, and prospective buyers on alternatives to permit-exempt wells.
- 6.3.2     The Planning Unit will coordinate a meeting of staff from Mason and Jefferson Counties, conservation districts, and WSU Extension offices to discuss what is currently being done to inform homeowners and realtors about fecal coliform/pathogen and nutrient impacts and prevention strategies, and what additional actions are needed.
- 6.3.4     Mason and Jefferson Counties will identify existing educational materials with information on alternatives to bulkheads, and will modify the existing materials as necessary.
- 6.4.4     Mason and Jefferson Counties will meet with the Planning Unit to discuss resources and other needs to improve enforcement of illegal grey-water and black-water discharges.
- 6.6.1     The Planning Unit will review the updated data from the University of Washington Climate Impacts Group and promote the WRIA 16 Planning Area as a priority area for a study to examine climate change trends on streamflows and Hood Canal water level fluctuations.
- 6.7.2     The Planning Unit will hold a meeting with Mason and Jefferson County land-use staff on how to incorporate Planning Unit review and comment on significant development proposals. They will also discuss methods to notify the Planning Unit of upcoming amendments or revisions to land-use policies, including amendments to the Comprehensive Plans, resource ordinances or development regulations.

Third Quarter (July – September), 2009

- 3.3.3 Ecology will present options for water trusts and water banking to the Planning Unit.
- 3.3.5 The Planning Unit will work within the rule-making process to ensure there is consideration of local differences in proposed rainwater catchment legislation (e.g. often the goal is to decrease stormwater in urban areas, while in rural areas it is to capture potable or irrigation water).
- 4.1.3 The Planning Unit will ask the Partnership to make improving coordination of state water quality monitoring efforts a high priority.
- 4.1.6 Ecology will work with Mason and Jefferson Counties to provide well stewardship information to new well-owners.
- 4.1.7 The Planning Unit will review the HCDOP study of nitrogen contributions from septic systems when it is complete.
- 4.2.1 The Planning Unit will recommend that the Partnership examine whether changes to state law regarding property access would significantly improve counties' efforts to identify and inspect septic systems.
- 4.2.3 The Planning Unit will send letters to the Legislature, DOH, Ecology, and local health offices encouraging DOH and Ecology to update regulations to encourage alternative methods of sewage management, particularly alternatives that rely on little or no water.
- 4.2.6 \$ Mason and Jefferson Counties will identify homeowner associations and private/public utilities within the WRIA 16 Planning Area which might be involved with administering wastewater treatment facilities for new developments, particularly those within Marine Recovery Areas.
- 4.2.6 Mason and Jefferson Counties will encourage community wastewater treatment systems as appropriate.
- 4.4.3 The Planning Unit will write letters to the Legislature, the Partnership, and the Transportation Commission requesting funding for DOT's stormwater management and retrofit activities in WRIA 16.
- 4.4.4 The Planning Unit, in collaboration with Mason and Jefferson Counties, will identify areas for improvement in roadside ditch management.
- 4.5.1 Mason and Jefferson Conservation Districts, WSU Extension, HCCC, Mason and Jefferson Counties, Mason County PUD #1, Sea Grant, and others should coordinate to inform homeowners that they are able to request the County to refrain from spraying pesticides on adjacent public lands, and encourage them to do so.
- 5.1.2 Conservation districts, WSU Extension, HCCC, Mason and Jefferson Counties, Mason County PUD #1, Sea Grant, and others will conduct workshops and provide educational materials to inform landowners of vegetative management options.
- 5.1.5 The Planning Unit will hold a meeting to discuss land preservation program options, including TDR, Conservation Futures, mitigation banking, conservation easements, and other relevant programs.
- 6.1.7 The Planning Unit will support DOT in developing a complete culvert GIS layer for WRIA 16. *This action will be implemented in coordination with Recommendation 4.4.3.*
- 6.1.15 The Planning Unit will host a panel of experts to discuss the use of local improvement districts to fund protection and restoration of shorelines.

**Third Quarter (July – September), 2009, continued**

- 6.2.1 The Planning Unit, in collaboration with the Partnership and other watershed groups, will send a letter to the Governor and legislative leaders requesting stable funding for the implementation of watershed plans.
- 6.3.4 Mason and Jefferson Counties will identify and implement appropriate means for distributing materials on alternatives to bulkheads (e.g., permit applicants, home buyers, or other alternatives).
- 6.6.1 Mason and Jefferson Counties will consider requiring GIS mapping and typing of wetlands for development applications.
- 6.7.1 The Planning Unit will ask Mason and Jefferson Counties for a briefing on the status of cross-departmental coordination and communication.
- 6.7.2 The Planning Unit will brief Mason and Jefferson Planning Commissions on the Watershed Plan and the need to integrate the plan recommendations into land-use decision-making.
- Intro The Planning Unit will review the Watershed Plan and consider proposed amendments.

**Fourth Quarter (October – December), 2009**

- 3.3.2 \$ Mason and Jefferson Counties and water purveyors will analyze water system plans, capacities, and needs within the WRIA 16 Planning Area as part of the consistency determination of GMA.
- 4.1.6 \$ Mason and Jefferson Counties will initiate a well-testing education program, providing sampling training, educational materials on well protection, and advice on follow-up sanitary surveys, as needed.
- 4.3.3 The Planning Unit will re-evaluate the need for pet waste management programs and resources.
- 4.4.1 \$ Mason and Jefferson Counties will maintain and support strong GIS capabilities that include being able to track impervious surfaces. *This action will be implemented in coordination with Recommendation 6.6.2.*
- 4.4.4 The Planning Unit, in collaboration with Mason and Jefferson Counties, will seek funding to make roadside ditch management improvements.
- 5.1.3 \$ Mason and Jefferson Counties will maintain a consistent hydrologic GIS data layer.
- 5.1.5 The Planning Unit will decide whether to encourage the counties to embark on any new land preservation measures.
- 6.1.10 Mason and Jefferson Counties, WSU Extension, and Sea Grant will update their outreach and education programs at least once every two years to incorporate new information.
- 6.4.2 Mason and Jefferson Counties and other appropriate agencies will continue to educate the public on the importance of leaving large woody debris in the streams, and will brief the Planning Unit on their efforts annually.
- 6.4.2 Mason and Jefferson Counties will consider establishing civil penalties for removal of large woody debris from streams.
- 6.7.1 The Planning Unit will make recommendations to the Counties on how to improve coordination and communication between departments.
- 6.7.2 The Planning Unit will make an annual recommendation to the Mason and Jefferson County Commissioners on prioritized amendments to land use plans and ordinances.

First Quarter (January – March), 2010

- 3.2.1 The Planning Unit, with Mason County PUD #1 as the lead, will contact Group A water purveyors in the Mason County portion of the WRIA 16 Planning Area to encourage them to adopt tiered rate structures if they do not already employ such pricing methods.
- 3.2.1 Jefferson County PUD #1 will communicate with Group A water purveyors through the Water Utility Coordinating Council to encourage them to adopt tiered water rate structures.
- 3.2.3 The Planning Unit will contact Group A water purveyors in WRIA 16 to encourage them to sell water meters.
- 3.2.5 The Planning Unit will host a meeting and invite representatives of DOH and Ecology to update the Planning Unit on alternative sewage and greywater treatment systems.
- 4.2.1 Mason and Jefferson Counties will compile annual reports on their O&M programs to be presented to the local boards of health and made available to interested members of the public.
- 4.5.2 The Planning Unit will ask DOH and Ecology to coordinate a regional meeting on saltwater intrusion and invite County Commissioners and interested water purveyors to hear a review of other counties' saltwater intrusion plans (e.g., Jefferson, Island, San Juan, and/or Skagit Counties).
- 4.5.2 The Planning Unit will ask DOH for a report from their database on indicators of saltwater intrusion, such as chloride, and will identify potential areas of concern.
- 5.1.2 The Planning Unit will send letters to Mason and Jefferson County Commissioners as well as the Commissioner of Public Lands requesting that proposed ordinance language on vegetative management be adopted.
- 6.1.4 \$ Mason County, as lead for the Planning Unit, will coordinate an assessment of the adequacy of pump-out stations for recreational vehicles and boats as necessary, either with internal staff or through a contractor.
- 6.1.13 Based on the briefing from other counties on bulkhead restrictions, the Planning Unit may make recommendations to Mason County for bulkhead restrictions.
- 6.3.5 The Planning Unit will develop a list of issues, data sources, and indicators specific to Hood Canal. *This action will be implemented in coordination with Recommendation 6.4.3.*
- 6.3.5 The Planning Unit will work with the Partnership to determine how to coordinate the WRIA 16 Planning Area report card with the Partnership's report to the Legislature.
- 6.4.1 Ecology will provide the Planning Unit with a regular report of water quantity and quality compliance and enforcement actions. *This action will be implemented in coordination with Recommendation 6.4.3.*
- 6.4.3 The Planning Unit will request an annual summary of compliance and enforcement activities in the watershed taken by Ecology, DNR, the Department of Agriculture, WDFW, and Mason and Jefferson Counties. *This action will be implemented in coordination with Recommendation 6.4.1.*

### Second Quarter (April – June), 2010

- 3.2.5 The Planning Unit will request that DOH and Ecology conduct a review of alternative sewage and greywater treatment systems and assess regulatory revisions to expand use of these approaches.
- 3.3.3 The Planning Unit will work with Ecology to identify the most feasible water trust and/or water banking options.
- 4.1.4 \$ Ecology will conduct an inventory of legal and known illegal dump sites and landfills (this will be broadly defined to include tire piles, woodwaste piles, etc.)
- 4.1.6 \$ Mason County will create a parcel-related data base for all water quality testing done for private wells and submitted to Mason County's laboratory.
- 4.5.2 The Planning Unit will provide information received from DOH to Mason County water purveyors to assist them in addressing saltwater intrusion in updated water supply plans
- 5.1.1 Mason and Jefferson Counties will identify opportunities for habitat restoration at county-owned parks and properties.
- 5.1.1 Mason and Jefferson Counties will identify active and historic channel migration zones and locations where floodplain connectivity and channel complexity can be restored or enhanced.
- 5.1.3 \$ Mason and Jefferson Counties and the Skokomish Tribe will conduct stream typing validation studies.
- 6.1.14 The Planning Unit will request that the Partnership provide information on model programs and ordinances in Western Washington for considering marine drift cells and sediment dynamics in relevant land use permits.

### Third Quarter (July – September), 2010

- 3.2.2 Mason County PUD #1 will expand their existing program of rebates for water-efficient devices to water customers.
- 3.2.2 Jefferson County PUD #1 will develop a water conservation program that will consider rebates on water-efficient devices.
- 4.1.4 Mason and Jefferson Counties will obtain GPS locations for inventoried dump sites and landfills and will tag them in their respective Tidemark databases.
- 4.1.4 Mason and Jefferson Counties, in collaboration with the WRIA 16 Planning Unit, will prioritize inventoried dump sites and landfills for water quality monitoring.
- 4.4.2 Jefferson County will continue to implement and enforce its newly adopted CAO with regard to vegetation clearing and buffers, and will report to Planning Unit in 2010 on progress.
- 4.5.1 The Planning Unit will request a briefing from Mason and Jefferson Counties regarding ongoing activities, issues and concerns, and needs for expansion of Integrated Pest Management (IPM) practices.
- 6.1.2 Ecology will coordinate a briefing on current practices and policies with respect to permitted discharges of effluent to Hood Canal.
- 6.3.5 \$ The Planning Unit will begin producing a WRIA 16 Planning Area report card.
- 6.6.1 \$ The Planning Unit will prioritize impaired rivers and streams and work to obtain grant monies to study the impact of aquifer withdrawal location (deep and confined or shallow and unconfined) on these streams.
- 6.6.1 \$ The Planning Unit will contract for a hydrogeologic characterization and assess groundwater – surface water interactions in the WRIA 16 Planning Area.

#### Fourth Quarter (October – December), 2010

- 3.3.2     \$     Mason County, working with water purveyors, will begin an analysis of water supply availability for the Mason County portion of the WRIA 16 Planning Area. The analysis will rely on the water supply needs identified by the Counties and water purveyors.
- 4.1.4     Mason and Jefferson Counties will apply for grant funding to compile and assess water quality data from dump and landfill sites.
- 4.4.4     \$     Sea Grant and other interested parties will conduct roadside ditch BMP trainings for Public Works staff and private contractors.
- 4.5.1     The Planning Unit will encourage Mason and Jefferson Counties to prioritize IPM efforts in Hood Canal drainages.
- 6.1.3     The Planning Unit will invite interested parties to a meeting to develop a list of recreation sites lacking adequate toilet facilities.
- 6.1.3     The Planning Unit will write letters to relevant jurisdictions requesting additional toilet facilities at popular recreation sites.
- 6.1.3     The Planning Unit will support funding and resources for these facilities, including using volunteer programs or private sponsorship to improve maintenance of popular recreation sites.
- 6.1.9     \$     HCDOP should add a blog feature to their website to encourage on-line dialogue.
- 6.1.12    Mason and Jefferson County Planning staff will brief the Planning Unit on their SMPs and restrictions affecting new structures on riparian habitat.
- Intro     The Planning Unit will develop and adopt a new 2-year Work Plan

#### In Progress

- 3.3.6     The Planning Unit will apply for grant funds to conduct a feasibility study of non-dam storage in the Skokomish basin.
- 4.1.5     \$     The Planning Unit may conduct further study to determine whether nitrate-rich groundwater from the Webb Hill area impacts water quality in the WRIA 16 Planning Area.
- 4.1.5     The WRIA 16 technical committee will continue to provide advice on Webb Hill monitoring, as appropriate
- 6.6.1     \$     The Planning Unit will seek funding for a storage feasibility analysis, including assessing opportunities for storage of Class A reclaimed water. *This action will be implemented in coordination with Recommendation 3.3.6.*

#### Ongoing

- 3.1.1     Planning Unit members will continue to pursue funding for surface and groundwater quantity monitoring based on prioritized needs.
- 3.2.3     Mason and Jefferson County PUDs will continue to sell surplus meters to interested water users as available.
- 3.3.4     If Ecology begins to review or process any applications for out-of-basin water transfers, it will: a) brief the Planning Unit; b) offer Planning Unit members opportunities to provide input and comments on the applications; and c) respond to the comments, both in writing and at a meeting with the Planning Unit, before making a final decision on the application.

Ongoing (continued)

- 4.1.1 \$ Mason and Jefferson Counties will implement the Surface Water Quality Monitoring Strategy.
- 4.1.5 Ecology will continue to oversee ongoing water quality monitoring in the Webb Hill area.
- 4.1.6 \$ Mason and Jefferson Counties will track and manage water quality and well-level data provided by citizens, and will use GIS to analyze source sensitivity, vulnerability, and susceptibility.
- 4.2.2 Based on information from their respective OSS databases, Mason and Jefferson Counties will continue to send notices to OSS owners when inspections are needed and/or follow up in cases where remedial actions are required.
- 4.2.5 The Planning Unit will provide support for the Counties' septic system inspection requirements through public testimony and letters as needed.
- 4.2.6 \$ Mason and Jefferson Counties will review other jurisdictions' efforts to encourage community wastewater treatment systems.
- 4.3.1 Mason and Jefferson Conservation Districts will continue to seek funding for farm plans and implementation of best management practices. The Planning Unit will provide written support for these funding requests as appropriate.
- 4.3.2 The Planning Unit will provide support for manure management requirements and enforcement through letters to the Counties and to WDA, and will give public testimony, as needed.
- 4.3.3 The Planning Unit will continue to support ongoing education on pet waste management.
- 4.4.1 The Planning Unit will support expansion of LID provisions in the Mason County Marine Recovery Area.
- 4.4.2 \$ Mason and Jefferson Conservation Districts, WSU Extension, HCCC, Mason and Jefferson Counties, Mason PUD # 1, Sea Grant, and others will conduct ongoing education and outreach with landowners to encourage and support native vegetation retention.
- 4.4.3 The Planning Unit will support DOT in developing a complete culvert GIS layer for the WRIA 16 Planning Area. *This action will be implemented in coordination with Recommendation 6.1.7.*
- 4.4.3 The Planning Unit will support comprehensive stormwater management training for state, county, and private contractors.
- 4.5.1 The Planning Unit will support the counties in pursuing grants to bolster their IPM efforts.
- 5.1.1 Mason and Jefferson Counties and the Skokomish Tribe will make large wood from tree removal operations available to instream projects whenever possible.
- 5.1.1 The Planning Unit will work with the Partnership, Ecology, DNR, and WDFW to implement additional habitat protection and restoration activities in the planning area.
- 5.1.1 The Planning Unit will seek funds for the study and monitoring of habitat including biological monitoring.
- 5.1.1 \$ The Planning Unit, in cooperation with Mason County and the Mason County Weed Control Board, will seek funding to support knotweed eradication efforts in the watershed.
- 5.1.1 The Planning Unit will support funding requests and provide other support for salmon recovery and habitat conservation programs as appropriate.
- 5.1.3 Mason and Jefferson County planners will submit the necessary paperwork to DNR to request stream type changes, as applicable.
- 6.1.2 Ecology will inform the Planning Unit of any permit applications related to discharges into Hood Canal.
- 6.1.2 The Planning Unit will participate in public comment on pending permits for Hood Canal discharges.

Ongoing (continued)

- 6.1.6 The Planning Unit will track proposals for new sewer systems outside UGAs, and, as appropriate, will advocate to the relevant BOCC that existing growth, density, and build-out limits be maintained in areas proposed for sewer systems.
- 6.1.8 The Planning Unit will provide written support for funding requests made by relevant agencies for education programs.
- 6.1.12 The Planning Unit will track the counties' SMP update schedules and provide comments as necessary.
- 6.1.14 The Planning Unit will review and comment on the counties' updates to their SMPs.
- 6.1.14 Mason and Jefferson County Planning departments will continue to employ staff who are trained in shoreline dynamics to review shoreline permits.
- 6.1.16 The Planning Unit will closely follow efforts by the Skokomish Tribe, DNR, WDFW, Sea Grant, shellfish growers, land trusts, the Northwest Straits Commission, and HCSEG to remove derelict gear and debris from Hood Canal.
- 6.1.16 If the Planning Unit believes ongoing derelict gear and debris removal efforts are insufficient, they will develop action steps to solicit additional funding.
- 6.1.16 The Planning Unit will support grant requests, efforts, and coordination to remove derelict debris and to improve eelgrass in Hood Canal.
- 6.1.18 The Planning Unit will continue to encourage and support scientific studies on the impacts of marine mammals on fecal and nutrient loading in Hood Canal.
- 6.2.1 When appropriate, Planning Unit members will provide public comment and/or public testimony in support of stable, ongoing funding for watershed plans.
- 6.2.1 Planning Unit members will encourage their lobbyists and/or associations to talk to the Legislature about stable, ongoing funding for watershed plans.
- 6.3.2 The Planning Unit will support current and new efforts to educate homeowners and realtors about human and animal waste management.
- 6.3.3 \$ Sea Grant will continue the Blue Thumb gardening program that focuses on water-quality-friendly practices.
- 6.3.3 LHCWC will continue its stormwater lecture series.
- 6.3.3 Mason and Jefferson Conservation Districts will continue native plant sales.
- 6.4.1 Mason and Jefferson Counties will refer local complaints regarding illegal water withdrawals and water quality violations to Ecology.
- 6.6.1 Mason and Jefferson Counties will pursue funding to conduct GIS mapping and typing of wetlands.
- 6.6.4 Planning Unit member agencies will provide hard copies of relevant documents regarding the Hood Canal watershed to libraries in Mason, Kitsap and Jefferson Counties.
- 6.6.4 Planning Unit member agencies will provide the Planning Unit a list of the documents submitted to libraries. The Planning Unit will maintain a cumulative list of these documents.
- 6.7.2 During scheduled update processes, the Planning Unit will advocate for changes to relevant plans, ordinances, and regulations in Mason and Jefferson Counties, based on the analysis conducted by Cascadia Consulting.

## Appendix B: Actions to be Implemented by Each Party

Rec #	Funding	Actions to be Implemented by Mason and Jefferson Counties	Timeline
3.3.1		Mason and Jefferson Counties and water purveyors will share information on the rationale for public water systems instead of exempt wells with permit applicants and other persons expressing interest in development.	Immediate
3.3.2	\$	Mason and Jefferson Counties and water purveyors will analyze water system plans, capacities, and needs within the WRIA 16 Planning Area as part of the consistency determination of GMA.	Immediate
3.3.2		Mason and Jefferson Counties will present written summaries of the results of their water supply analyses to the respective BOCC for each county, as well as to the Planning Unit.	Future
4.1.1	\$	Mason and Jefferson Counties will seek both state and local funding, and work with the Partnership for additional resources and partnerships, to expand monitoring as necessary to fully implement the Surface Water Quality Monitoring Strategy.	Immediate
4.1.1	\$	Mason and Jefferson Counties will implement the Surface Water Quality Monitoring Strategy.	Immediate & Future
4.1.4		Mason and Jefferson Counties will obtain GPS locations for inventoried dump sites and landfills and will tag them in their respective Tidemark databases.	Immediate
4.1.4		Mason and Jefferson Counties, in collaboration with the WRIA 16 Planning Unit, will prioritize inventoried dump sites and landfills for water quality monitoring.	Immediate
4.1.4		Mason and Jefferson Counties will apply for grant funding to compile and assess water quality data from dump and landfill sites.	Immediate
4.1.4	\$	Mason and Jefferson Counties will prepare and implement clean up plans for prioritized dump sites and landfills, as needed.	Future
4.1.4	\$	Mason and Jefferson Counties will compile and assess water quality data from dump and landfill sites.	Future
4.1.6	\$	Mason and Jefferson Counties will initiate a well testing education program, providing sampling training, educational materials on well protection, and advice on follow-up sanitary surveys, as needed.	Immediate
4.1.6	\$	Mason and Jefferson Counties will track and manage water quality and well-level data provided by citizens, and will use GIS to analyze source sensitivity, vulnerability, and susceptibility.	Immediate
4.2.1		Mason and Jefferson Counties will report to the Planning Unit on the development of county septic system regulations, and will bring Planning Unit comments back to their relevant departments.	Immediate
4.2.1		Mason and Jefferson Counties will implement O&M programs and require inspections as specified by their OSS management plans.	Immediate
4.2.1		Mason and Jefferson Counties will work together to ensure they are collecting comparable data on OSS status.	Immediate

Rec #	Actions to be Implemented by Mason and Jefferson Counties	Timeline
4.2.1	Mason and Jefferson Counties will compile annual reports on their O&M programs to be presented to the local boards of health and made available to interested members of the public.	Immediate
4.2.2	Based on information from their respective OSS databases, Mason and Jefferson Counties will continue to send notices to OSS owners when inspections are needed and/or follow up in cases where remedial actions are required.	Immediate
4.2.4	Mason and Jefferson Counties will consider additional funding sources for OSS upgrades or community systems if necessary.	Future
4.2.6	Mason and Jefferson Counties will review other jurisdictions' efforts to encourage community wastewater treatment systems.	Immediate
4.2.6	Mason and Jefferson Counties will identify homeowner associations and private/public utilities within the WRIA 16 Planning Area which might be involved with administering wastewater treatment facilities for new developments, particularly those within Marine Recovery Areas.	Immediate
4.2.6	Mason and Jefferson Counties will encourage community wastewater treatment systems as appropriate.	Immediate
4.4.1	Mason and Jefferson Counties will maintain and support strong GIS capabilities that include being able to track impervious surfaces.	Immediate
4.4.1	Mason and Jefferson Counties will devise strategies to implement LID BMPs based on the Puget Sound Action Team LID Manual, the 2005 Department of Ecology Stormwater Manual and updates to their Shoreline Master Programs.	Future
4.4.1	Mason and Jefferson Counties will seek ongoing funding to implement LID regulations.	Future
4.4.1	GIS departments in Mason and Jefferson Counties will continue to track impervious surfaces in the WRIA 16 Planning Area.	Future
4.4.2	Mason and Jefferson Conservation Districts, WSU Extension, HCCC, Mason and Jefferson Counties, Mason County PUD #1, Sea Grant, and others will conduct ongoing education and outreach with landowners to encourage and support native vegetation retention.	Immediate
4.4.4	Mason and Jefferson Counties, DOT, the Skokomish Tribe, State Parks, and private land managers will report on current activities to manage roadside ditches at the WRIA 16 Planning Unit/DOT stormwater management meeting held by Ecology.	Immediate
4.5.1	Conservation districts, WSU Extension, HCCC, Mason and Jefferson Counties, Mason County PUD #1, Sea Grant, and others should coordinate to inform homeowners that they are able to request the County to refrain from spraying pesticides on adjacent public lands, and encourage them to do so.	Immediate
5.1.1	Mason and Jefferson Counties will identify opportunities for habitat restoration at county-owned parks and properties.	Immediate
5.1.1	Mason and Jefferson Counties and the Skokomish Tribe will make large wood from tree removal operations available to instream projects whenever possible.	Immediate

Rec #	Actions to be Implemented by Mason and Jefferson Counties	Timeline
5.1.1	Mason and Jefferson Counties will identify active and historic channel migration zones and locations where floodplain connectivity and channel complexity can be restored or enhanced.	Immediate
5.1.2	Conservation districts, WSU Extension, HCCC, Mason and Jefferson Counties, Mason County PUD #1, Sea Grant, and others will conduct workshops and provide educational materials to inform landowners of vegetative management options.	Immediate
5.1.2	Mason and Jefferson Counties will consider updating or adopting ordinances to require or encourage vegetative management for danger trees in critical areas or their buffers. The ordinances would also include requirements that felled danger trees in critical areas or buffers must remain on site as large woody debris, as appropriate.	Future
5.1.3	Mason and Jefferson Counties and the Skokomish Tribe will conduct stream typing validation studies.	Immediate
5.1.3	Mason and Jefferson County planners will submit the necessary paperwork to DNR to request stream type changes, as applicable.	Immediate
5.1.3	Mason and Jefferson Counties will maintain a consistent hydrologic GIS data layer.	Immediate
6.1.8	Mason and Jefferson Counties, WSU Extension, Mason and Jefferson conservation districts, Sea Grant, DNR, and HCCC will emphasize the importance of nitrogen and phosphorus reductions in existing educational programs, and will seek funding for expanded efforts.	Immediate
6.1.10	Mason and Jefferson Counties, WSU Extension, and Sea Grant will seek ongoing funding for outreach and education programs on nitrogen and phosphorus in household products.	Immediate
6.1.10	Mason and Jefferson Counties, WSU Extension, and Sea Grant will update their outreach and education programs at least once every two years to incorporate new information.	Immediate
6.1.12	Mason and Jefferson County Planning staff will brief the Planning Unit on their SMPs and restrictions affecting new structures on riparian habitat.	Immediate
6.1.13	Mason and Jefferson Counties will identify existing educational materials with information on alternatives to bulkheads, and will modify the existing materials as necessary and begin distributing them with permits.	Immediate
6.1.14	Mason and Jefferson County Planning departments will continue to employ staff who are trained in shoreline dynamics to review shoreline permits.	Immediate
6.1.14	Mason and Jefferson Counties will require shoreline developers to identify marine drift cells using the most current Coastal Atlas and other relevant sources and to address potential impacts of the development on drift cells.	Immediate
6.3.1	Mason and Jefferson Counties, PUDs, and other water purveyors will distribute relevant materials to developers, realtors, and prospective buyers on alternatives to permit-exempt wells.	Immediate

Rec #	Actions to be Implemented by Mason and Jefferson Counties	Timeline
6.3.2	\$ Mason and Jefferson Counties, conservation districts, Sea Grant and/or WSU Extension offices may implement further education strategies based on identified gaps.	Future
6.3.4	Mason and Jefferson Counties will identify existing educational materials with information on alternatives to bulkheads, and will modify the existing materials as necessary.	Immediate
6.3.4	Mason and Jefferson Counties will identify and implement appropriate means for distributing materials on alternatives to bulkheads (e.g., permit applicants, home buyers, or other alternatives).	Immediate
6.4.1	Mason and Jefferson Counties will refer local complaints regarding illegal water withdrawals and water quality violations to Ecology.	Immediate
6.4.2	Mason and Jefferson Counties and other appropriate agencies will continue to educate the public on the importance of leaving large woody debris in the streams, and will brief the Planning Unit on their efforts annually.	Immediate
6.4.2	Mason and Jefferson Counties will consider establishing civil penalties for removal of large woody debris from streams.	Immediate
6.4.4	Mason and Jefferson Counties will keep a record of violations and enforcement actions regarding grey-water and black-water discharges.	Immediate
6.4.4	Mason and Jefferson Counties will meet with the Planning Unit to discuss resources and other needs to improve enforcement of illegal grey-water and black-water discharges.	Immediate
6.6.1	Mason and Jefferson Counties will pursue funding to conduct GIS mapping and typing of wetlands.	Immediate
6.6.1	Mason and Jefferson Counties will consider requiring GIS mapping and typing of wetlands for development applications.	Immediate
6.6.1	Mason and Jefferson Counties, the Skokomish Tribe, water purveyors and other entities will monitor groundwater quality and quantity according to the groundwater monitoring strategy.	Future
6.6.1	Mason and Jefferson County staff will evaluate the best methods to map and type wetlands and implement as funding allows.	Future
<i>Also see Actions to be Implemented by Mason and Jefferson Counties Separately</i>		

Rec #	Funding	Actions to be Implemented by Jefferson County	Timeline
3.2.4		Jefferson County will implement a development agreement with the proposed Blackpoint Golf Course that includes required Best Management Practices.	Immediate
3.3.2	\$	Jefferson County will begin an analysis of water supply availability after instream flows are adopted.	Future
4.2.5		Jefferson County will implement suggested changes in its OSS Management Plan to improve compliance with its requirement for inspections at the time of sale.	Immediate
4.4.2		Jefferson County will continue to implement and enforce its newly adopted CAO with regard to vegetation clearing and buffers, and will report to the Planning Unit in 2010 on progress.	Immediate
4.4.2		Jefferson County will update its SMP and stormwater review (clearing and grading) process with respect to vegetation clearing and buffers.	Future
<i>Also see Actions to be Implemented by both Mason and Jefferson County</i>			

Rec #	Funding	Actions to be Implemented by Mason County	Timeline
3.2.4		Mason County PUD #1 and Mason County will contact Alderbrook and Cushman Golf Courses to encourage them to adopt a golf course management plan.	Immediate
3.3.2	\$	Mason County, working with water purveyors, will begin an analysis of water supply availability for the Mason County portion of the WRIA 16 Planning Area. The analysis will rely on the water supply needs identified by the Counties and water purveyors.	Immediate
4.1.1		Mason County, with input from the Planning Unit, will develop a list of needed surface water quality monitoring activities and the estimated costs.	Immediate
4.1.1		Mason County, with support and funding from the Planning Unit, will update the parameters and sites included in the Surface Water Quality Monitoring Strategy based on the Partnership's Action Agenda and other new information, including biological habitat monitoring.	Immediate
4.1.6	\$	Mason County will create a parcel-related data base for all water quality testing done for private wells and submitted to Mason County's laboratory.	Immediate
4.2.5		Mason County will work to pass requirements for septic system inspections at the time of sale.	Immediate
4.4.6		Mason County will adopt Ecology's 2001/2005 Stormwater Management Manual for Western Washington.	Immediate
6.1.4	\$	Mason County, as lead for the Planning Unit, will coordinate an assessment of the adequacy of pump-out stations for recreational vehicles and boats as necessary, either with internal staff or through a contractor.	Immediate
<i>Also see Actions to be Implemented by both Mason and Jefferson County</i>			

Rec #	Funding	Actions to be Implemented by the Mason County PUD #1	Timeline
3.2.1		The Planning Unit, with Mason County PUD #1 as the lead, will contact Group A water purveyors in the Mason County portion of the WRIA 16 Planning Area to encourage them to adopt tiered rate structures if they do not already employ such pricing methods.	Immediate
3.2.2		Mason County PUD #1 will expand their existing program of rebates for water-efficient devices to water customers.	Immediate
3.2.3		Mason and Jefferson County PUDs will continue to sell surplus meters to interested water users as available.	Immediate
3.2.4.		Mason County PUD #1 and Mason County will contact Alderbrook and Cushman Golf Courses to encourage them to adopt a golf course management plan.	Immediate
3.3.1		Mason and Jefferson Counties and water purveyors will share information on the rationale for public water systems instead of exempt wells with permit applicants and other persons expressing interest in development.	Immediate
3.3.2	\$	Mason and Jefferson Counties and water purveyors will analyze water system plans, capacities, and needs within the WRIA 16 Planning Area as part of the consistency determination of GMA.	Immediate
6.3.1		PUDs, Mason and Jefferson Counties, and other water purveyors will distribute relevant materials to developers, realtors, and prospective buyers on alternatives to permit-exempt wells.	Immediate
6.6.1	\$	Mason and Jefferson Counties, the Skokomish Tribe, water purveyors and other entities will monitor groundwater quality and quantity according to the groundwater monitoring strategy.	Future

Rec #	Funding	Actions to be Implemented by the Skokomish Tribe	Timeline
4.4.4		Mason and Jefferson Counties, DOT, the Skokomish Tribe, State Parks, and private land managers will report on current activities to manage roadside ditches at the WRIA 16 Planning Unit/DOT stormwater management meeting held by Ecology.	Immediate
5.1.1		Mason and Jefferson Counties and the Skokomish Tribe will make large wood from tree removal operations available to instream projects whenever possible.	Immediate
5.1.3		The Skokomish Tribe will conduct training for County staff on stream typing.	Immediate
5.1.3	\$	Mason and Jefferson Counties and the Skokomish Tribe will conduct stream typing validation studies.	Immediate
6.6.1	\$	Mason and Jefferson Counties, the Skokomish Tribe, water purveyors and other entities will monitor groundwater quality and quantity according to the groundwater monitoring strategy.	Future

Rec #	Funding	Actions to be Implemented by the Jefferson County PUD #1	Timeline
3.2.1		Jefferson County PUD #1 will communicate with Group A water purveyors through the Water Utility Coordinating Council to encourage them to adopt tiered water rate structures.	Immediate
3.2.2		Jefferson County PUD #1 will develop a water conservation program that will consider rebates on water-efficient devices.	Immediate
3.2.3		Mason PUD #1 and Jefferson County PUD #1 will continue to sell surplus meters to interested water users as available.	Immediate
3.3.1		Mason and Jefferson Counties and water purveyors will share information on the rationale for public water systems instead of exempt wells with permit applicants and other persons expressing interest in development.	Immediate
3.3.2	\$	Mason and Jefferson Counties and water purveyors will analyze water system plans, capacities, and needs within the WRIA 16 Planning Area as part of the consistency determination of GMA.	Immediate
6.3.1		PUDs, counties, and other water purveyors will distribute relevant materials to developers, realtors, and prospective buyers on alternatives to permit-exempt wells.	Immediate
6.6.1	\$	Mason and Jefferson Counties, the Skokomish Tribe, water purveyors and other entities will monitor ground water quality and quantity according to the ground water monitoring strategy.	Future

Rec #	Funding	Actions to be Implemented by the Mason and Jefferson Conservation Districts	Timeline
4.3.1		Mason and Jefferson Conservation Districts will continue to seek funding for farm plans and implementation of best management practices. The Planning Unit will provide written support for these funding requests as appropriate.	Immediate
4.4.2	\$	Mason and Jefferson Conservation Districts, WSU Extension, HCCC, Mason and Jefferson Counties, Mason County PUD #1, Sea Grant, and others will conduct ongoing education and outreach with landowners to encourage and support native vegetation retention.	Immediate
4.5.1		Mason and Jefferson Conservation Districts, WSU Extension, the HCCC, Mason and Jefferson Counties, Mason County PUD #1, Sea Grant, and others should coordinate to inform homeowners that they are able to request the County to refrain from spraying pesticides on adjacent public lands, and encourage them to do so.	Immediate
6.1.8		Mason and Jefferson Counties, WSU Extension, Mason and Jefferson Conservation Districts, Sea Grant, DNR, and HCCC will emphasize the importance of nitrogen and phosphorus reductions in existing educational programs, and will seek funding for expanded efforts.	Immediate
6.3.2	\$	Mason and Jefferson Counties, Mason and Jefferson Conservation Districts, and/or WSU Extension offices may implement further education strategies based on identified gaps.	Future
6.3.3		Mason and Jefferson Conservation Districts will continue native plant sales.	Immediate

Rec #	Funding	Actions to be Implemented by the State Caucus (DOH, DOT, DNR, Ecology, Partnership, Sea Grant, State Parks, WDFW)	Timeline
3.3.1		DOH or Ecology will provide Jefferson and Mason Counties and water purveyors with information on the rationale for the use of public water systems instead of use of exempt wells.	Immediate
3.3.3		Ecology will present options for water trusts and water banking to the Planning Unit.	Immediate
3.3.3	\$	Depending on the results of their previous work identifying water trust and/or water banking options, Planning Unit members will work with Ecology to implement feasible options.	Future
3.3.4		If Ecology begins to review or process any applications for out-of-basin water transfers, it will: a) brief the Planning Unit; b) offer Planning Unit members opportunities to provide input and comments on the applications; and c) respond to the comments, both in writing and at a meeting with the Planning Unit, before making a final decision on the application.	Immediate
3.3.4		Ecology will continue to provide opportunities for the Planning Unit to comment on out-of-basin water transfers.	Future
3.3.5		Ecology will continue to support any appropriate proposed legislation on rainwater catchment.	Immediate
4.1.4	\$	Ecology will conduct an inventory of legal and known illegal dump sites and landfills (this will be broadly defined to include tire piles, woodwaste piles, etc.).	Immediate
4.1.4	\$	Ecology will conduct water quality monitoring of prioritized dump sites and landfills.	Future
4.1.5		Ecology will continue to oversee ongoing water quality monitoring in the Webb Hill area.	Immediate
4.1.6		Ecology will work with Mason and Jefferson Counties to provide well stewardship information to new well-owners.	Immediate
4.4.2	\$	Mason and Jefferson Conservation Districts, WSU Extension, HCCC, Mason and Jefferson Counties, Mason County PUD #1, Sea Grant, and others will conduct ongoing education and outreach with landowners to encourage and support native vegetation retention.	Immediate
4.4.3		Ecology will host a meeting to discuss current activities related to DOT stormwater management in the WRIA 16 Planning Area.	Immediate
4.4.4	\$	Sea Grant and other interested parties will conduct roadside ditch BMP trainings for Public Works staff and private contractors.	Immediate
4.4.4		Mason and Jefferson Counties, DOT, the Skokomish Tribe, State Parks, and private land managers will report on current activities to manage roadside ditches at the WRIA 16 Planning Unit/DOT stormwater management meeting held by Ecology.	Immediate
4.5.1		Mason and Jefferson Conservation Districts, WSU Extension, HCCC, Mason and Jefferson Counties, Mason County PUD #1, Sea Grant, and others should coordinate to inform homeowners that they are able to request the County to refrain from spraying pesticides on adjacent public lands, and encourage them to do so.	Immediate

Rec #	Funding	Actions to be Implemented by the State Caucus (DOH, DOT, DNR, Ecology, Partnership, Sea Grant, State Parks, WDFW)	Timeline
5.1.2		The DNR will consider requirements that felled danger trees in critical areas or buffers must remain on site as large woody debris, as appropriate.	Future
5.1.2		Mason and Jefferson Conservation Districts, WSU Extension, HCCC, Mason and Jefferson Counties, Mason County PUD #1, Sea Grant, and others will conduct workshops and provide educational materials to inform landowners of vegetative management options.	Immediate
6.1.2		Ecology will coordinate a briefing on current practices and policies with respect to permitted discharges of effluent to Hood Canal.	Immediate
6.1.2		Ecology will inform the Planning Unit of any permit actions related to discharges into Hood Canal.	Immediate
6.1.8		Mason and Jefferson Counties, WSU Extension, Mason and Jefferson Conservation Districts, Sea Grant, DNR, and HCCC will emphasize the importance of nitrogen and phosphorus reductions in existing educational programs, and will seek funding for expanded efforts.	Immediate
6.1.9		The Partnership and HCCC should continue and improve on efforts to track, publish, and update results of low dissolved oxygen studies.	Immediate
6.1.9	\$	The Partnership and HCCC should update the Hood Canal Low Dissolved Oxygen Preliminary Assessment and Corrective Action Plan, using validated, peer-reviewed scientific data.	Immediate
6.1.9		The Partnership, HCDOP, or HCCC should identify an optimal location for a dissolved oxygen information clearinghouse. The entity chosen to house the clearinghouse should ensure that the data is published and updated in a manner that is accessible to the public.	Immediate
6.1.10		Mason and Jefferson Counties, WSU Extension, and Sea Grant will seek ongoing funding for outreach and education programs on nitrogen and phosphorous in household products.	Immediate
6.1.10		Mason and Jefferson Counties, WSU Extension, and Washington Sea Grant will update their outreach and education programs at least once every two years to incorporate new information.	Immediate
6.3.1		Ecology will come to a Planning Unit meeting and discuss their current approach to permit-exempt wells and existing materials on alternatives to permit-exempt wells.	Immediate
6.3.3	\$	Sea Grant will continue the Blue Thumb gardening program that focuses on water-quality-friendly practices.	Immediate
6.4.1		Ecology will provide the Planning Unit with a regular report of water quantity and quality compliance and enforcement actions.	Immediate
6.6.1		WDFW will keep the Planning Unit apprised of their findings on climate change impacts to streams and fish.	Immediate
6.6.1		Ecology, when developing an instream flow rule for the WRIA 16 Planning Area, will consider the cumulative impact of permit-exempt wells on stream flows.	Future

Rec #	Funding	Actions to be Implemented by the Planning Unit	Timeline
3.1.1		The Planning Unit will prioritize surface water quantity monitoring needs based on the list of current activities.	Immediate
3.1.1		The Planning Unit will prioritize groundwater monitoring needs based on the groundwater monitoring plan.	Immediate
3.1.1		Planning Unit members will continue to pursue funding for surface and groundwater quantity monitoring based on prioritized needs.	Immediate
3.1.1		The Planning Unit will review the prioritized list of surface and groundwater quantity needs at least once every two years and revise as necessary.	Future
3.1.1		The Planning Unit will work with other agencies to encourage coordinated monitoring efforts and to pursue funding on an ongoing basis.	Future
3.1.1		The Planning Unit will annually track and report monitoring results for water quantity monitoring. The report will summarize funding sources and/or staff time used for the monitoring.	Future
3.2.1		The Planning Unit, with Mason County PUD #1 as the lead, will contact Group A water purveyors in the Mason County portion of the WRIA 16 Planning Area to encourage them to adopt tiered rate structures if they do not already employ such pricing methods.	Immediate
3.2.1		The Planning Unit will continue to encourage tiered rate systems indefinitely.	Future
3.2.2		The Planning Unit will review programs offering rebates for water-efficient devices after 3-5 years to assess water conservation benefits.	Future
3.2.3		The Planning Unit will contact Group A water purveyors in the WRIA 16 Planning Area to encourage them to sell water meters.	Immediate
3.2.4		The Planning Unit will continue to work with golf courses on development and implementation of golf course management plans, and to update or revise the plans as new information becomes available.	Future
3.2.5		The Planning Unit will host a meeting and invite representatives of DOH and Ecology to update the Planning Unit on alternative sewage and greywater treatment systems.	Immediate
3.2.5		The Planning Unit will request that DOH and Ecology conduct a review of alternative sewage and greywater treatment systems and assess regulatory revisions to expand use of these approaches.	Immediate
3.2.5		The Planning Unit will continue to work with DOH and Ecology on reviewing alternative sewage and greywater treatment systems until new regulations allowing greater use of these methods are adopted.	Future
3.3.1		The Planning Unit will continue to encourage the development and/or consolidation of small public water systems.	Future
3.3.3		The Planning Unit will work with Ecology to identify the most feasible water trust and/or water banking options.	Immediate
3.3.3	\$	Depending on the results of their previous work identifying water trust and/or water banking options, Planning Unit members will work with Ecology to implement feasible options.	Future

Rec #	Funding	Actions to be Implemented by the Planning Unit	Timeline
3.3.5		The Planning Unit will hold a meeting with Ecology to discuss options for rainwater catchment.	Immediate
3.3.5		The Planning Unit will support appropriate legislation on rainwater catchment by writing letters and testifying in favor of the bill(s).	Immediate
3.3.5		The Planning Unit will work within the rule-making process to ensure there is consideration of local differences in proposed rainwater catchment legislation (e.g. often the goal is to decrease stormwater in urban areas, while in rural areas it is to capture potable or irrigation water).	Immediate
3.3.5		If rainwater catchment legislation is not enacted during 2009-10, the Planning Unit will encourage Ecology's continued support for similar legislation in 2011.	Future
3.3.6		The Planning Unit will apply for grant funds to conduct a feasibility study of non-dam storage in the Skokomish basin.	Immediate
3.3.6	\$	The Planning Unit (either with staff or through a consultant) will gather and review other relevant multi-purpose storage feasibility studies (nationally and internationally) to ensure that they are building on the existing state-wide knowledge of storage options and feasibility.	Immediate
3.3.6	\$	The Planning Unit will issue an RFP or RFQ for a feasibility study of multi-purpose storage projects. The study will evaluate existing natural storage (wetlands, etc.). The analysis will estimate the rate of loss of wetlands and assess the impacts of ongoing loss. The analysis will also examine options to direct stormwater back into aquifers and decrease the amount draining directly into Hood Canal.	Immediate
4.1.2		The Planning Unit will request that Ecology, the Partnership, or HCCC hold a meeting of all water quality monitoring entities within Hood Canal to discuss activities and upcoming plans and coordinate on water quality parameters monitored and frequency and timing of monitoring.	Immediate
4.1.2		The Planning Unit will request that Ecology, the Partnership, or HCCC provide annual compilations of Hood Canal water quality data.	Immediate
4.1.3		The Planning Unit will write a letter to DOH and Ecology encouraging better coordination between the departments' water quality monitoring and related regulatory efforts.	Immediate
4.1.3		The Planning Unit will invite managers from DOH and Ecology to present on water quality monitoring at a Planning Unit meeting.	Immediate
4.1.3		The Planning Unit will ask the Partnership to make improving coordination of state water quality monitoring efforts a high priority.	Immediate
4.1.5	\$	The Planning Unit may conduct further study to determine whether nitrate-rich groundwater from the Webb Hill area impacts water quality in the WRIA 16 Planning Area.	Immediate
4.1.5		The WRIA 16 technical committee will continue to provide advice on Webb Hill monitoring, as appropriate.	Immediate
4.1.7		The Planning Unit will review the HCDOP study of nitrogen contributions from septic systems when it is complete.	Immediate

Rec #	Funding	Actions to be Implemented by the Planning Unit	Timeline
4.2.1		The Planning Unit will recommend that the Partnership examine whether changes to state law regarding property access would significantly improve counties' efforts to identify and inspect septic systems.	Immediate
4.2.3		The Planning Unit will send letters to the Legislature, DOH, Ecology, and local health offices encouraging DOH and Ecology to research and update regulations to encourage alternative methods of sewage management, particularly alternatives that rely on little or no water.	Immediate
4.2.4		The Planning Unit will send a letter to counties encouraging them to levy small assessments on OSS to fund OSS programs and to provide assistance to low income residents.	Immediate
4.2.5		The Planning Unit will provide support for the Counties' septic system inspection requirements through public testimony and letters as needed.	Immediate
4.3.1		The Planning Unit will request that the Conservation Districts summarize the number of farms within the WRIA 16 Planning Area and how many have existing farm plans, as well as details on BMPs outlined in the plans, BMPs adopted, and numbers of livestock under management on each farm..	Immediate
4.3.2		The Planning Unit will invite representatives of WDA, Ecology, DOH, the Conservation Districts, and Mason and Jefferson Counties to discuss what actions should be taken to minimize manure contamination of floodwaters, such as controlling pasturing or keeping animals indoors during the winter.	Immediate
4.3.2		The Planning Unit will provide support for manure management requirements and enforcement through letters to the Counties and to WDA, and will give public testimony, as needed.	Immediate
4.3.3		The Planning Unit will ask Mason County to evaluate pet waste management improvements at Union and Foothills Parks, and at the Union public boat launch.	Immediate
4.3.3		The Planning Unit will re-evaluate the need for pet waste management programs and resources.	Immediate
4.3.3		The Planning Unit will continue to support ongoing education on pet waste management.	Immediate
4.4.1		The Planning Unit will support expansion of LID provisions in the Mason County Marine Recovery Area.	Immediate
4.4.2		The Planning Unit will advocate for and support the adoption of a clearing ordinance in Mason County.	Immediate
4.4.3		The Planning Unit will write letters to the Legislature, the Partnership, and the Transportation Commission requesting funding for DOT's stormwater management and retrofit activities in the WRIA 16 Planning Area.	Immediate
4.4.3		The Planning Unit will support comprehensive stormwater management training for state, county, and private contractors.	Immediate
4.4.3, 6.1.7		The Planning Unit will support DOT in developing a complete culvert GIS layer for the WRIA 16 Planning Area.	Immediate
4.4.4		The Planning Unit will request that HCWEN members put together a list of existing education programs for stormwater and ditch management.	Immediate

Rec #	Funding	Actions to be Implemented by the Planning Unit	Timeline
4.4.4		The Planning Unit, in collaboration with Mason and Jefferson Counties, will identify areas for improvement in roadside ditch management.	Immediate
4.4.4		The Planning Unit, in collaboration with Mason and Jefferson Counties, will seek funding to make roadside ditch management improvements.	Immediate
4.4.5		The Planning Unit will follow up on any evaluations of riparian buffer regulations and criteria.	Future
4.5.1		The Planning Unit will request a briefing from Mason and Jefferson Counties regarding ongoing activities, issues and concerns, and needs for expansion of IPM practices.	Immediate
4.5.1		The Planning Unit will support the counties in pursuing grants to bolster their IPM efforts.	Immediate
4.5.1		The Planning Unit will encourage Mason and Jefferson Counties to prioritize IPM efforts in Hood Canal drainages.	Immediate
4.5.2		The Planning Unit will ask DOH and Ecology to coordinate a regional meeting on saltwater intrusion and invite County Commissioners and interested water purveyors to hear a review of other counties' saltwater intrusion plans (e.g., Jefferson, Island, San Juan, and/or Skagit Counties).	Immediate
4.5.2		The Planning Unit will ask DOH for a report from their database on indicators of saltwater intrusion, such as chloride, and will identify potential areas of concern.	Immediate
4.5.2		The Planning Unit will provide information received from DOH to Mason County water purveyors to assist them in addressing saltwater intrusion in updated water supply plans.	Immediate
5.1.1		The Planning Unit will support funding requests and provide other support for salmon recovery and habitat conservation programs as appropriate.	Immediate
5.1.1		The Planning Unit will work with the Partnership, Ecology, DNR, and WDFW to implement additional habitat protection and restoration activities in the WRIA 16 Planning Area.	Immediate
5.1.1		The Planning Unit will seek funds for the study and monitoring of habitat including biological monitoring.	Immediate
5.1.1	\$	The Planning Unit, in cooperation with Mason County and the Mason County Weed Control Board, will seek funding to support knotweed eradication efforts in the watershed.	Immediate
5.1.2		The Planning Unit will send letters to Jefferson and Mason County Commissioners as well as the Commissioner of Public Lands requesting that proposed ordinance language on vegetative management be adopted.	Immediate
5.1.3		Depending on the status of stream typing work, the Planning Unit may request ongoing ground-truthing to validate stream typing designations.	Future
5.1.4		The Planning Unit will send a letter to the Forest Practices Board encouraging them to adopt the Adaptive Management Program rule-making petitions. Planning Unit members will use this letter as a template for letters sent on behalf of their agencies or entities.	Immediate

Rec #	Funding	Actions to be Implemented by the Planning Unit	Timeline
5.1.4		Planning Unit members will submit public comments and testimony to the Forest Practices Board in support of the adoption of the Adaptive Management Program.	Immediate
5.1.4		The Planning Unit will continue to monitor the Adaptive Management Program rule-making process.	Future
5.1.5		The Planning Unit will host a meeting to discuss land preservation program options, including TDR, Conservation Futures, mitigation banking, conservation easements, and other relevant programs.	Immediate
5.1.5		The Planning Unit will decide whether to encourage the counties to embark on any new land preservation measures.	Immediate
5.1.5		The Planning Unit will continue to work with the counties in developing and implementing land preservation programs.	Future
6.1.2		The Planning Unit will participate in public comment on pending permits for Hood Canal discharges.	Immediate
6.1.3		The Planning Unit will invite interested parties to a meeting to develop a list of recreation sites lacking adequate toilet facilities.	Immediate
6.1.3		The Planning Unit will write letters to relevant jurisdictions requesting additional toilet facilities at popular recreation sites.	Immediate
6.1.3		The Planning Unit will support funding and resources for these facilities, including using volunteer programs or private sponsorship to improve maintenance of popular recreation sites.	Immediate
6.1.5		The Planning Unit will review the need for additional GMA amendments regarding sewer systems.	Future
6.1.6		The Planning Unit will track proposals for new sewer systems outside UGAs, and, as appropriate, will advocate to the relevant BOCC that existing growth, density, and build-out limits be maintained in areas proposed for sewer systems.	Immediate
6.1.6		The Planning Unit will advocate for stipulations in counties' Comprehensive Plan updates to maintain growth, density, and build-out limits in the event of installation of sewer systems outside Urban Growth Areas.	Future
6.1.7		The Planning Unit will request that the Partnership gather more data on highway impacts to Hood Canal, including testing for bio-accumulation of heavy metals in marine life.	Immediate
6.1.7		The Planning Unit will request that DOT work with the Partnership to prioritize stormwater projects for Hood Canal.	Immediate
6.1.8		The Planning Unit will provide written support for funding requests made by relevant agencies for education programs.	Immediate
6.1.8		The Planning Unit will ask HCWEN members to inventory existing education programs regarding pest management and fertilizer practices.	Immediate
6.1.10		The Planning Unit will request that the Partnership and other appropriate entities provide ongoing funding for education and outreach programs that include information about nitrogen and phosphorous in household products.	Immediate
6.1.11		The Planning Unit will encourage efforts towards effective regional governance.	Immediate

Rec #	Funding	Actions to be Implemented by the Planning Unit	Timeline
6.1.12		The Planning Unit will track the counties' SMP update schedules and provide comments as necessary.	Immediate
6.1.13		The Planning Unit will comment on Jefferson County's updates to the SMP during the public comment period.	Immediate
6.1.13		The Planning Unit will invite Jefferson County, as well as Kitsap and Thurston Counties, to brief the Planning Unit on their bulkhead restrictions.	Immediate
6.1.13		Based on the briefing from other counties on bulkhead restrictions, the Planning Unit may make recommendations to Mason County for bulkhead restrictions.	Immediate
6.1.14		The Planning Unit will review and comment on the counties' updates to their SMPs.	Immediate
6.1.14		The Planning Unit will request that the Partnership provide information on model programs and ordinances in Western Washington for considering marine drift cells and sediment dynamics in relevant land use permits.	Immediate
6.1.15		The Planning Unit will host a panel of experts to discuss the use of local improvement districts to fund protection and restoration of shorelines.	Immediate
6.1.15		Based on the results of the panel discussion, the Planning Unit may develop additional steps towards the establishment of local improvement districts to fund shoreline improvements.	Future
6.1.16		The Planning Unit will closely follow efforts by the Tribes, DNR, WDFW, Sea Grant, shellfish growers, land trusts, the Northwest Straits Commission, and HCSEG to remove derelict gear and debris from Hood Canal.	Immediate
6.1.16		If the Planning Unit believes ongoing derelict gear and debris removal efforts are insufficient, they will develop action steps to solicit additional funding.	Immediate
6.1.16		The Planning Unit will support grant requests, efforts, and coordination to remove derelict debris and to improve eelgrass in Hood Canal.	Immediate
6.1.16		The Planning Unit will request that counties and Ecology recognize the importance of Hood Canal in prioritizing litter control to keep litter out of marine environments.	Immediate
6.1.18		The Planning Unit will continue to encourage and support scientific studies on the impacts of marine mammals on fecal and nutrient loading in Hood Canal.	Immediate
6.1.18		If a study on impacts of marine mammals on fecal and nutrient loading is completed, the Planning Unit will share the results through its newsletter.	Future
6.2.1		The Planning Unit, in collaboration with the Partnership and other watershed groups, will send a letter to the Governor and legislative leaders requesting stable funding for the implementation of watershed plans.	Immediate
6.2.1		When appropriate, Planning Unit members will provide public comment and/or public testimony in support of stable, ongoing funding for watershed plans.	Immediate
6.2.1		Planning Unit members will encourage their lobbyists and/or associations to talk to the Legislature about stable, ongoing funding for watershed plans.	Immediate
6.2.1		The Planning Unit will continue to send letters to legislative leaders regarding stable ongoing funding for watershed plans in the 4th quarter of each calendar year.	Future

Rec #	Funding	Actions to be Implemented by the Planning Unit	Timeline
6.2.2		The Planning Unit will continue to work with HCCC and other agencies on funding issues for watershed plan implementation.	Immediate
6.3.2		The Planning Unit will coordinate a meeting of staff from Mason and Jefferson Counties, conservation districts, and WSU Extension offices to discuss what is currently being done to inform homeowners and realtors about fecal coliform/pathogen and nutrient impacts and prevention strategies, and what additional actions are needed.	Immediate
6.3.2		The Planning Unit will support current and new efforts to educate homeowners and realtors about human and animal waste management.	Immediate
6.3.5		The Planning Unit will develop a list of issues, data sources, and indicators specific to Hood Canal.	Immediate
6.3.5		The Planning Unit will work with the Partnership to determine how to coordinate the WRIA 16 Planning Area report card with the Partnership's report to the Legislature.	Immediate
6.3.5	\$	The Planning Unit will produce a WRIA 16 Planning Area report card.	Immediate & Future
6.4.1		The Planning Unit, and individual Planning Unit members, will send letters to the Legislature requesting increased funding for enforcement against illegal water withdrawals. This effort will be coordinated with other Planning Units with similar concerns.	Immediate
6.4.3		The Planning Unit will compile a list of compliance and enforcement actions which it would like to track.	Immediate
6.4.3		The Planning Unit will request an annual summary of compliance and enforcement activities in the watershed taken by Ecology, DNR, the Department of Agriculture, WDFW, and Mason and Jefferson Counties.	Immediate
6.4.3		The Planning Unit will send letters to the Governor, legislative leaders, and Mason and Jefferson BOCCs requesting additional funding for compliance and enforcement activities.	Immediate
6.6.1	\$	The Planning Unit will prioritize impaired rivers and streams and work to obtain grant monies to study the impact of aquifer withdrawal location (deep and confined or shallow and unconfined) on these streams.	Immediate
6.6.1		The Planning Unit will review the updated data from the University of Washington Climate Impacts Group and promote the WRIA 16 Planning Area as a priority area for a study to examine climate change trends on streamflows and Hood Canal water level fluctuations.	Immediate
6.6.1	\$	The Planning Unit will seek funding for a storage feasibility analysis, including assessing opportunities for storage of Class A reclaimed water.	Immediate
6.6.1		The Planning Unit will continue to seek money to study the impact of aquifer withdrawals in specific locations on prioritized streams.	Future
6.6.1	\$	The Planning Unit will contract for a hydrogeologic characterization and assess groundwater-surface water interactions in the WRIA 16 Planning Area.	Immediate

Rec #	Funding	Actions to be Implemented by the Planning Unit	Timeline
6.6.2		The Planning Unit will meet with Ecology and other state agencies to discuss how to develop a shared database of water-related data. The participants will develop a list of desired data, note who currently maintains this data, and discuss how to best compile the data and how to interface with Ecology's EIM database.	Immediate
6.6.2		The Planning Unit will prepare a plan for the development of a shared database of water-related data.	Future
6.6.2	\$	Identified Planning Unit members will implement the database plan.	Future
6.6.3		The Planning Unit will write a letter to the Legislature requesting creation and funding of a Hood Canal data clearinghouse.	Immediate
6.6.3		The Planning Unit will ask the Partnership to address the need for a data clearinghouse and information source for the entire Puget Sound, and recommend that provision for such a clearinghouse be included in the Action Agenda.	Immediate
6.6.4		Planning Unit member agencies will provide hard copies of relevant documents regarding the Hood Canal watershed to libraries in Mason, Kitsap and Jefferson Counties.	Immediate
6.6.4		Planning Unit member agencies will provide the Planning Unit a list of the documents submitted to libraries. The Planning Unit will maintain a cumulative list of these documents.	Immediate
6.7.1		The Planning Unit will ask Mason and Jefferson Counties for a briefing on the status of cross-departmental coordination and communication.	Immediate
6.7.1		The Planning Unit will make recommendations to the Counties on how to improve coordination and communication between departments.	Immediate
6.7.2		During scheduled update processes, the Planning Unit will advocate for changes to relevant plans, ordinances, and regulations in Mason and Jefferson Counties, based on the analysis conducted by Cascadia Consulting.	Immediate
6.7.2		The Planning Unit will hold a meeting with Mason and Jefferson County land-use staff on how to incorporate Planning Unit review and comment on significant development proposals. They will also discuss methods to notify the Planning Unit of upcoming amendments or revisions to land-use policies, including amendments to the Comprehensive Plans, resource ordinances or development regulations.	Immediate
6.7.2		The Planning Unit will brief Mason and Jefferson Planning Commissions on the Watershed Plan and the need to integrate the plan recommendations into land-use decision-making.	Immediate
6.7.2		The Planning Unit will make an annual recommendation to the Mason and Jefferson County Commissioners on prioritized amendments to land use plans and ordinances.	Immediate
6.7.2		The Planning Unit will continue to advocate, as necessary to implement the Watershed Management Plan, for changes to relevant plans, ordinances, and regulations in Mason and Jefferson Counties during scheduled update processes.	Future

Rec #	Funding	Actions to be Implemented by Washington State University Extension	Timeline
4.4.2	\$	Mason and Jefferson Conservation Districts, WSU Extension, HCCC, Mason and Jefferson Counties, Mason County PUD #1, Sea Grant, and others will conduct ongoing education and outreach with landowners to encourage and support native vegetation retention.	Immediate
4.5.1		Mason and Jefferson Conservation Districts, WSU Extension, HCCC, Mason and Jefferson Counties, Mason County PUD #1, Sea Grant, and others should coordinate to inform homeowners that they are able to request the County to refrain from spraying pesticides on adjacent public lands, and encourage them to do so.	Immediate
5.1.2		Mason and Jefferson Conservation Districts, WSU Extension, HCCC, Mason and Jefferson Counties, Mason PUD #1, Sea Grant, and others will conduct workshops and provide educational materials to inform landowners of vegetative management options.	Immediate
6.1.8		Mason and Jefferson Counties, WSU Extension, Mason and Jefferson Conservation Districts, Sea Grant, DNR, and HCCC will emphasize the importance of nitrogen and phosphorus reductions in existing educational programs, and will seek funding for expanded efforts.	Immediate
6.1.10		Mason and Jefferson Counties, WSU Extension, and Sea Grant will seek ongoing funding for outreach and education programs on nitrogen and phosphorous in household products.	Immediate
6.1.10		Mason and Jefferson Counties, WSU Extension, and Sea Grant will update their outreach and education programs at least once every two years to incorporate new information.	Immediate
6.3.2	\$	Mason and Jefferson Counties, Mason and Jefferson Conservation Districts, and/or WSU Extension offices may implement further education strategies based on identified gaps.	Future

Rec #	Funding	Actions to be Implemented by the Hood Canal Dissolved Oxygen Program (HCDOP)	Timeline
6.1.9		The Partnership, HCDOP, or HCCC should identify an optimal location for a dissolved oxygen information clearinghouse. The entity chosen to house the clearinghouse should ensure that the data is published and updated in a manner that is accessible to the public.	Immediate
6.1.9	\$	HCDOP should add a blog feature to their website to encourage on-line dialogue.	Immediate

Rec #	Funding	Actions to be Implemented by the Hood Canal Coordinating Council (HCCC)	Timeline
4.4.2	\$	Mason and Jefferson Conservation Districts, WSU Extension, HCCC, Mason and Jefferson Counties, Mason County PUD #1, Sea Grant, and others will conduct ongoing education and outreach with landowners to encourage and support native vegetation retention.	Immediate
4.5.1		Mason and Jefferson Conservation Districts, WSU Extension, HCCC, Mason and Jefferson Counties, Mason County PUD #1, Sea Grant, and others should coordinate to inform homeowners that they are able to request the County to refrain from spraying pesticides on adjacent public lands, and encourage them to do so.	Immediate
5.1.2		Mason and Jefferson Conservation Districts, WSU Extension, HCCC, Mason and Jefferson Counties, Mason County PUD #1, Sea Grant, and others will conduct workshops and provide educational materials to inform landowners of vegetative management options.	Immediate
6.1.8		Mason and Jefferson Counties, WSU Extension, Mason and Jefferson Conservation Districts, Sea Grant, DNR, and HCCC will emphasize the importance of nitrogen and phosphorus reductions in existing educational programs, and will seek funding for expanded efforts.	Immediate
6.1.9		The Partnership and HCCC should continue and improve on efforts to track, publish, and update results of low dissolved oxygen studies.	Immediate
6.1.9	\$	The Partnership and HCCC should update the Hood Canal Low Dissolved Oxygen Preliminary Assessment and Corrective Action Plan, using validated, peer-reviewed scientific data.	Immediate
6.1.9		The Partnership, HCDOP, or HCCC should identify an optimal location for a dissolved oxygen information clearinghouse. The entity chosen to house the clearinghouse should ensure that the data is published and updated in a manner that is accessible to the public.	Immediate

Rec #	Funding	Actions to be Implemented by the Lower Hood Canal Watershed Coalition (LHCWC)	Timeline
6.3.3		LHCWC will continue its stormwater lecture series.	Immediate