
Funding Strategy for the Strategic Initiatives from the 2012-2013 Puget Sound Action Agenda

Volume 1: Summary of Findings and Recommendations

**Final Report
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With corrections to shellfish funding information as of September 9, 2014

**Prepared for:
Puget Sound Partnership
Ecosystem Coordination Board Finance Subcommittee**



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Introduction and Summary of Findings

As part of the 2012-2013 Action Agenda, the Puget Sound Partnership prioritized three Strategic Initiatives:

- **Protect and restore habitat (Habitat Initiative);**
- **Prevent pollution from urban stormwater runoff (Stormwater Initiative); and**
- **Restore and re-open shellfish beds (Shellfish Initiative).¹**

The Puget Sound Partnership's Ecosystem Coordination Board (ECB), which represents the range of partner institutions to the recovery of Puget Sound, created a Finance Subcommittee to develop a strategy for long-term funding of the Strategic Initiatives. From January to July 2014, the ECB Finance Subcommittee (Subcommittee) worked with support staff combined with outreach to agency and topical experts to develop a funding strategy for the three Strategic Initiatives. This document (Volume 1: Summary of Findings and Recommendations) presents the summary findings and full descriptions of recommendations for a funding strategy for the three Strategic Initiatives in the 2012-2013 Action Agenda. Detailed data sources and analyses used to derive the cost, spending, and gap information in this report can be found in Volume 2: Technical Report, published under separate cover.

One of the most significant challenges faced in developing a funding strategy for the Strategic Initiatives has been the different levels of detail among the Initiatives. The Habitat Initiative is the most explicit and refined, having been the result of more than ten years of watershed-based salmon recovery planning. The Shellfish Initiative is also reasonably detailed. The Stormwater Initiative has been assumed to be very large in scope and, until very recently, has had little refinement beyond initial reconnaissance studies. Much of the work involved in developing this funding strategy has gone into clarifying actions associated with the Initiatives, particularly in the Stormwater Initiative.

Scope, Responsibilities, and Priorities for the Strategic Initiatives

Through the funding strategy development process, the Subcommittee has attempted to clarify three items for each Initiative: the **scope** of the proposed projects and programs (including likely costs), assumptions about **responsibilities for funding**, and **priorities** for immediate and long-term funding. Below are summary findings for each Strategic Initiative (see Volume 2: Technical Report for detailed information regarding these findings).

¹ For further information about the Strategic Initiatives, see the Puget Sound Partnership's report *Highlights of the 2012/2013 Action Agenda for Puget Sound*.

Findings on the Habitat Initiative

- Scope: With its nucleus in the watershed-level salmon recovery plans, the Habitat Initiative is explicit and refined, with a well-sorted \$196 million per year program that is likely to be accurate in the scale of costs, existing funding, and potential funding sources.² In the course of this project, emerging proposals for a \$50 to 70 million per year floodplain program (identified through the Floodplains by Design program funded in the 2013 state legislative session) and a culvert retrofit program of at least \$150 million per year have been added by the Subcommittee to the scope of the Initiative. Further refinement will be needed to fully integrate these programs into the Initiative.
- Funding Responsibilities: Most actions are assumed to be funded primarily by federal and state sources with local and tribal matching. Private responsibilities are less defined.
- Priorities: In its original scope (outlined in the 2012-2013 Action Agenda), funding sources sufficed to fund thirty to forty percent of needs with prioritization already completed at the Water Resource Inventory Area (WRIA) scale as part of salmon recovery plans and three-year action plans. However, as total costs have climbed to as much as \$400 million per year with the inclusion of more comprehensive floodplain and culvert retrofit programs, the majority of Subcommittee members now support prioritization of habitat needs to ensure that the most urgent and beneficial projects are funded first. Prioritization criteria have yet to be discussed and established. Recommendation Seven outlined later in this document discusses prioritization in greater detail.

Findings on the Stormwater Initiative

- Scope: In its original formulation in the Action Agenda, the Stormwater Initiative consisted of a very large (\$5 billion+) but not very detailed program focused principally on retrofits of older stormwater facilities and National Pollutant Discharge Elimination System (NPDES) compliance. The Subcommittee currently favors an early action program with a narrower scope, as discussed in “priorities” below.
- Funding Responsibilities: Historically, actions are assumed to be largely the responsibility of local stormwater utilities and private developers, with some state funding for road retrofits, NPDES administration, and (increasingly in recent years) grants to local governments. The Subcommittee recommends a continued strong investment by local governments through stormwater fees and private spending through the redevelopment of urban and suburban areas for stormwater funding, an increased focus on stormwater retrofits as part of transportation upgrades, and

² It should be noted that the Habitat Initiative is predominantly focused on habitat restoration needs and not other habitat requirements such as instream flow restoration and shoreline land use regulation.

additional state and federal funding for more pressing and higher priority stormwater needs.

- Priorities: The Subcommittee supports immediate action on high-efficiency street sweeping for pollutant and sediment removal, legacy loads,³ and high-priority retrofits—all thought to be highly cost-effective—with longer-term priorities subject to additional study and results of early action work.

Findings on the Shellfish Initiative

- Scope: Various actions make up the \$40 to \$55 million per year program. This program includes considerable detail on septic repair and replacement in shellfish basins due to years of studies and program development, but less detail in terms of addressing pollution from agricultural, wastewater treatment, and marina sources.
- Funding Responsibilities: Capital costs are assumed to be private with some state and federal assistance for below-market loans and limited grants. Counties and the state are responsible for nonpoint source characterization and management programs with support from some state grants.
- Priorities: There is strong programmatic emphasis on public health, septic systems, and Pollution Identification and Correction (PIC) programs, and there is likely no need for prioritization based on the current modest scope.

Current Spending on the Strategic Initiatives

Current spending on the Strategic Initiatives comes from a wide variety of funding sources, including local stormwater and wastewater utilities, federal and state grants and loans, dedicated revenue from state taxes and fees, dedicated revenues from special purpose districts, tribal sources, philanthropy, private spending, and general fund appropriations at every level of government. Common funding sources are listed in Table 1 later in this report, which categorizes twelve funding sources as principal, secondary, or tertiary sources based on their current contribution to funding needs in each Initiative. The following section summarizes current spending on each of the Initiatives. A caveat is necessary: a detailed estimate of total spending levels would require the analysis of budget information from dozens of governmental and private sources. In addition, spending information is categorized in many ways and it can be difficult to ascribe accounts to the Initiatives. Spending information is provided for the largest sources only and levels should be viewed as approximations. For detailed information regarding current spending on the Initiatives, see Volume 2: Technical Report.

³ Legacy loads are sediments deposited in stormwater pipes and facilities, which often contain pollutants.

Spending on the Habitat Initiative

The majority of spending on actions within the scope of the Initiative comes from federal and state sources. Major federal sources include the National Oceanic and Atmospheric Administration (NOAA) Pacific Coastal Salmon Recovery Fund (SRFB) and the Environmental Protection Agency (EPA) National Estuary and Geographic Programs. State spending comes via the Puget Sound Acquisition and Restoration (PSAR), SRFB, and numerous other grant and loan programs. State funding was augmented in 2013 with a new \$48 million Department of Ecology (Ecology) program focused on floodplain restoration. Local funding, assumed to be a smaller share than state and federal sources, has come principally from surface water utilities and general funds. A 2011 study, *Funding for Salmon Recovery in Washington State* (Evergreen Funding Consultants, 2011), estimated that total spending levels at that time were \$48 million per year in capital programs and \$5 million per year in non-capital, although this predated the more recent floodplains and EPA spending. An analysis of state funding conducted for this project (Sterling Associates, 2014) estimated state spending at approximately \$40 million per year for salmon-related programs but includes actions beyond the scope of the Initiative. For purposes of this analysis, total spending on actions within the Habitat Initiative is assumed to be in the range of \$50 to \$60 million per year in average spending over the last decade. For the 2013-2015 period, funding has increased to approximately \$75 to \$85 million per year due to the 2013 floodplains funding.

Spending on the Stormwater Initiative

Stormwater spending is dominated by funding raised and spent by local surface water management utilities around Puget Sound. An analysis conducted by ECONorthwest as part of this project identifies utility revenues at \$306 million per year among jurisdictions in the basin. Their analysis estimates Washington State Department of Transportation (WSDOT) spending at \$22 million for the 2011-2013 biennium, and Ecology spending at \$16 million for the 2013-2015 biennium, in addition to a new \$100 million program of state-funded stormwater grants to local governments through Ecology. Federal funding is estimated at approximately \$1 million via EPA. The analysis discussed at length in Volume 2: Technical Report identifies total stormwater spending at \$425 to \$575 million versus total costs of \$490 to \$690 million. The difference of \$100 to \$250 million per year has been identified as the gap needed to undertake the early actions – high-efficiency street sweeping for pollutant and sediment removal, legacy load removal, and high-priority road retrofits – proposed by the Subcommittee for the Stormwater Initiative.

Spending on the Shellfish Initiative

Spending levels are also difficult to estimate for the Shellfish Initiative, but for a different reason: most spending is by private landowners and not by governments. This Initiative is heavily focused on actions on private land, including repair and replacement of under-performing septic systems and control of nonpoint source pollution from farms in the region. Governmental responsibilities include detection of water quality issues through the PIC programs, administration of county health programs, enforcement of regulations, and cost-

sharing of private actions either through below-market loans (the tool of choice for septic systems), or cost-share grants and contracts with farmers for agricultural sources. Current spending includes \$4.5 million in EPA funding allocated through the Departments of Health and Ecology for PIC program implementation, septic management plans, and improvement in manure management; \$1.9 million per biennium for shellfish food safety; \$1.4 million per biennium in the Department of Natural Resource’s shellfish program; and \$6.5 million annually in county spending on management of shellfish-related public health programs. In addition, there are a variety of federal programs focused on conservation practices on farms – collectively known as the Farm Bill incentives programs – that are contributing an as-yet-undetermined amount of federal spending to agricultural Best Management Practices (BMPs) with shellfish benefits.

Table 1. Current Principal Strategic Initiative Funding Sources

Source	Habitat		Stormwater			Shellfish		
	3-Yr Habitat Plans	Floodplains	Retrofits	O & M	NPDES Compliance	Septic Repair/Replacement	PIC Funding	Agricultural BMPs
Federal Appropriations	P	P				P	P	
Federal Grants	T							P
Tribal	S							
State Appropriations	P				P		P	
State Grants		P	P	P	S	P		S
Local Appropriations	S						S	
Local Utility	S		P	P	P	S	S	S
Other Special Purpose District	T (CDs)	P (FCZDs)				S (LHDs)	P (LHDs)	P (CDs)
Private Redevelopment			P			P		
Private Permitting	T		S			P		
Private Philanthropic	T	T						T
Private Markets and Trading	T	T						T

Source: Evergreen Funding Consultants 2014

P = Principal funding source for program (provides majority of total program funding)
 S = Secondary funding source for program (provides substantial additional funding for program)
 T = Tertiary funding source for program (provides additional funding for program)
 CDs= Conservation Districts
 FCZDs= Flood Control Zone Districts
 LCDs= Local Health Districts

Funding Gaps

The following section discusses the funding gaps for each Strategic Initiative that the funding strategy will attempt to address.

Funding Gaps in the Habitat Initiative

Based on costs and the level of current spending, there is a nearly \$300 million gap in annual funding for the habitat program. The majority of this gap is in the funding needed for culvert repair and replacement under a federal court injunction issued in March 2013 that requires WSDOT to address 1,014 fish passage barriers on state roads and highways by 2030. Although, there are substantial shortfalls in the salmon habitat projects that form the nucleus of the Action Agenda program and in funding needed for the floodplains restoration identified in the current Floodplains by Design effort (authorized to identify and fund alternative strategies for flood hazard reduction and habitat restoration in the 2013 state legislative session). The salmon habitat gap is of concern because funding commitments are built into the federally approved 2005 Puget Sound Chinook salmon recovery plan.

It appears that the state and local governments in the region have been operating at a level significantly below funding levels proposed in the Chinook recovery plan. A 2011 review of the implementation of the salmon recovery plan concluded that “funding levels are also inadequate to fully implement short term actions proposed to address high priority restoration actions specified in the NMFS-approved recovery plan.”⁴

This is partially due to the other significant issue with the Habitat Initiative gap: the dependability of the funding strategy. While the consistency of federal and state funding in the first ten years of the salmon recovery effort has been laudable, this funding approach has depended on extraordinary political leadership in Olympia and Washington D.C. to ensure that salmon needs are included in annual federal and biannual state budgets. Building what is understood to be a 50- or 100-year commitment to salmon recovery on annual and biannual funding is a very vulnerable strategy. Greater dependability will also be needed in culvert funding to satisfy the 2013 court injunction.

The final gap in the Habitat Initiative is related to the local sources used to match state and federal funding for habitat projects and programs. One of the issues raised in the development of the 2005 Chinook recovery plan was that some of the most robust salmon populations are located in areas such as the Skagit watershed that have small human populations and limited urban development. Unfortunately, this also equates to low tax bases and very limited funding for local match for state and federal sources. This led to a recommendation in the 2008 Action Agenda to create a new, Sound-wide local jurisdiction with authority to raise revenue

⁴ National Marine Fisheries Service (NMFS); 2011 Implementation Status Assessment – Final Report.

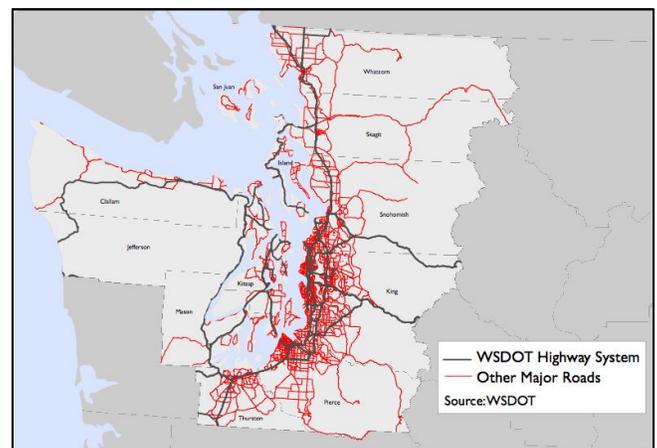
earmarked for use in cleanup, restoration, and protection actions recommended in the Action Agenda.

Funding Gaps in the Stormwater Initiative

As with the Habitat Initiative, there is a significant funding gap for meeting stormwater needs. The analysis completed for this project suggests that there is an annual gap of between \$100 and \$250 million in NPDES permit compliance (including high-efficiency street sweeping and legacy load removal) and highway retrofits. The highway retrofit program alone is projected to cost \$100 to \$120 million but only receives \$6 million in state funding and \$45 million in funding by local governments.

The second significant gap in the Stormwater Initiative is the regional variability of stormwater rates and revenue collections across jurisdictions. As indicated previously, stormwater efforts have relied very heavily on local government stormwater utilities and, to a lesser extent, on private funding associated with urban infill and redevelopment. Stormwater utility rates in Seattle and its suburbs are among the highest in the United States (Western Kentucky University, 2013). However, across the region rates vary from \$18 to \$214 per household per year. While rates tend to be higher in the more urban areas, there are many rapidly growing parts of the Puget Sound region, including SeaTac, Fife, Mill Creek, and Kitsap County, which have rates less than half of those in Seattle and Tacoma.

Figure 1. WSDOT Highways in Puget Sound Basin



Source: WSDOT

Funding Gaps in the Shellfish Initiative

The Shellfish Initiative is unlike the others in that there is a relatively small gap in the magnitude of funding needed – less than \$40 million per year - as befits a program that has a total public sector cost of less than \$55 million per year. However, many local governments lack a dedicated local funding source for long-term monitoring, inspection, and enforcement for on-site septic systems and rely heavily on highly variable state and federal grants. Alternatives for sustainable, reliable funding for this work is being studied in two Department of Health studies that are currently underway (on dedicated loan funding for septic improvements and funding for county health programs) that focus on more dependable revenues for these needs.

The most significant gap for the Shellfish Initiative is not purely financial and has to do with a heavy reliance on individual landowners to follow through on necessary improvements. Experience with septic loan and agricultural BMP programs suggests that many eligible

landowners will opt out of cost-share programs. However, there does not seem to be a simple way to address this without spending a great deal of money on private sector problems, a solution that the Subcommittee does not wish to pursue at this time.

Funding Gaps Across the Strategic Initiatives

Looking across the Initiatives, one of the critical gaps is the limited flexibility in current funding sources at all levels of government. This is an outgrowth of an approach to environmental regulation that treats every resource issue – loss of salmon habitat, deterioration in water quality, contamination of shellfish beds – as a unique problem with a unique set of solutions. One of the most encouraging concepts in funding is the idea of coordinated investment that is currently being pursued in the Floodplains by Design program. The concept is to seek solutions that solve multiple environmental problems in a more efficient way than would be possible through a focus on one resource or issue at a time.

Through the analysis completed for this project, a number of circumstances have been identified where actions related to one Initiative could also benefit others, such as:

- Floodplain restoration for habitat purposes that would benefit water quality in downstream shellfish beds;
- Low impact development techniques to reduce stormwater discharges that also restore streamside habitat and improve water quality; and
- Increased maintenance of septic systems in shellfish bays that results in lower nutrient levels and higher dissolved oxygen levels in salmon-bearing bays and inlets.

One of the lessons of this project is that more scrutiny is needed regarding the eligible activities under each of the major federal, state, and local funding sources used in the funding strategy to determine if they can be broadened to realize some of the synergies identified through this analysis.

Funding Strategy Recommendations

The following guiding principles have been used to develop the funding strategy:

- Strive for accuracy, not precision;
- Stay focused on actions that are most important to achieve desired outcomes;
- Don't shy away from the tough policy choices that arise out of the gap analysis and funding strategy;
- Ground the analysis in the Action Agenda, but make necessary assumptions about priorities and rate of investment; and
- Do not create new silos – aim for an integrated funding strategy.

The following actions are recommended to accomplish these goals, based on information collected through the funding strategy development process, and presented in this report.

1. The Puget Sound Partnership and partners should actively support the legislative approval of funding sources from the integrated water infrastructure package or similar alternative mechanisms that may arise, while ensuring that the package advances funding needs identified in this analysis.
2. The Puget Sound Partnership and partners should actively support the legislative approval of funding sources from the Department of Health's septic loan and septic management program funding initiatives.
3. The Puget Sound Partnership and partners should advocate for additional state funding for stormwater projects and support funding for high-efficiency street sweeping, removal of legacy sediment loads, and selective highway retrofits as immediate priorities, while continuing work on a long-term strategy for stormwater investments in the Puget Sound basin.
4. The Puget Sound Partnership and partners should consider options for collection and distribution of funds across jurisdictional boundaries at a watershed, multi-watershed, or Sound-wide scale in order to address differences in funding capacity among local governments in the region.
5. The Puget Sound Partnership and partners should support the continuation of federal and state funding sources that currently fund the implementation of the three Strategic Initiatives and the Action Agenda, with a particular emphasis on funding needed to implement the Habitat Initiative.
6. The Puget Sound Partnership and partners should seek increased funding for stormwater and other environmental improvements related to the state highway system in further negotiations on a state transportation package, as well as further alignment between environmental spending for highways and watershed and regional priorities for cleanup and restoration.

7. The Puget Sound Partnership and partners should advocate for the strategic prioritization of federal and state infrastructure funding based on economies of scale, advancement of the science, equity and social justice, agriculture and resource land protection, and workforce development.
8. The Puget Sound Partnership and partners should review and revise this funding strategy during the biannual updates of the Action Agenda.

Recommendation One: The Puget Sound Partnership and partners should actively support the legislative approval of funding sources from the integrated water infrastructure package or similar alternative mechanisms that may arise, while ensuring that the package advances funding needs identified in this analysis.

An integrated water infrastructure funding package currently under consideration by the state legislature could significantly advance the Subcommittee's strategy for filling funding gaps, and should be supported energetically. The package being considered by the House Capital Budget Committee and a coalition of water interests focuses on establishment of a large dedicated funding source for a mix of stormwater, water supply, and floodplain management needs. This integrated water package is developing considerable momentum and a growing list of supporters. The most likely strategy for implementing this appears to be the consideration of funding needs and options in the next legislative session followed by a referendum to the voters in the fall of 2015 to enact a funding source or set of sources.

The options under consideration in this effort focus entirely on developing additional state funding capacity for water infrastructure, including stormwater management, flood management, water quality improvement, and irrigation supply. The options include:

- Establishment of a statewide stormwater fee;
- Establishment of a real estate excise tax on all real estate transactions;
- Repealing the sales tax exemption for bottled water;
- Redirection of existing public utility tax revenues; and
- Added utility fees on natural gas or electric utility customers.

Several of these options could raise at least \$250 million per year in statewide funding under assumptions made by legislative staff. It appears likely that several of the sources would be packaged together in the ultimate proposal. In doing so, it will be important for the Puget Sound Partnership and supporting organizations and agencies to advocate for flexibility in use of the funds for projects with multiple benefits.

Bipartisan support for substantial new natural resource funding is a rarity and it is important that the Subcommittee and the Puget Sound Partnership take advantage of the opportunity by actively engaging in discussions about the proposal, seeking a prominent focus on funding needs from the three Strategic Initiatives and the Action Agenda, and participating in the drafting and vetting processes as the proposal is further defined. If this approach is successful, the infrastructure package has the potential to fill substantial gaps in the funding strategy for the Habitat and Stormwater Strategic Initiatives by providing a dependable funding source for floodplain management capital projects and stormwater retrofits, activities that will be challenging to fund otherwise.

In addition, related to the water infrastructure package, the Puget Sound Partnership and partners should also seek the adoption of a watershed approach similar to what has been used to great success in the salmon recovery efforts, in which watershed knowledge and capacity is applied within a framework of regional cleanup and recovery planning.

Recommendation Two: The Puget Sound Partnership and partners should actively support the legislative approval of funding sources from the Department of Health's septic loan and septic management program funding initiatives.

The Department of Health (DOH) is leading two priority projects of the Puget Sound Action Agenda to (1) assess the viability of establishing a unified, self-sustaining septic loan program in the Puget Sound region, and (2) identify ways to support the development and implementation of septic management programs by local health jurisdictions.

The loan program is intended to help property owners repair and replace failed or malfunctioning septic or on-site sewage systems (OSS) and better protect public health and water quality for shellfish harvesting and other important uses. The project is being conducted under the guidance of the Puget Sound Septic Financing Advisory Committee. The septic management program focuses on ensuring that local health jurisdictions have the funding necessary to implement septic management plans and comply with state requirements and targets related to septic systems.

Septic system repair and replacement is a priority in the Shellfish Initiative because malfunctioning systems can discharge pathogenic bacteria that contaminate downstream shellfish beds. Contaminated shellfish are a significant public health hazard and shellfish beds may be closed due to the presence of pathogens. There are more than 600,000 septic systems in Puget Sound. Private landowners are individually responsible for the performance of their systems, but local governments bear responsibility for permitting, monitoring, and enforcement activities. Funding of the loan program and the septic management program would address all of the funding needs in the Shellfish Initiative as it is currently scoped.

It is expected that the DOH will seek the approval of the state legislature for funding to support both programs. Given their importance to the success of the Shellfish Initiative, it is recommended that the Puget Sound Partnership and partner agencies and organizations strongly support the funding recommendations.

Recommendation Three: The Puget Sound Partnership and partners should advocate for additional state funding for stormwater projects and support funding for high-efficiency street sweeping, removal of legacy sediment loads, and selective highway retrofits as immediate priorities, while continuing work on a long-term strategy for stormwater investments in the Puget Sound basin.

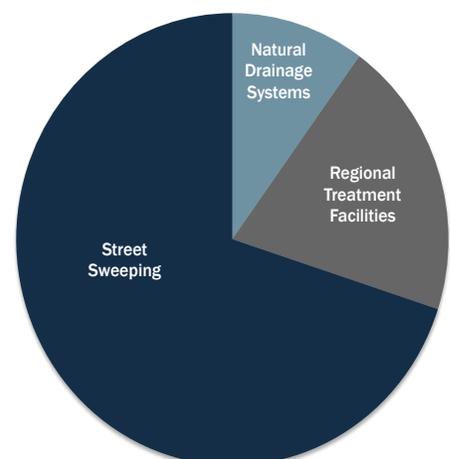
One of the priorities of this project has been the development of a justifiable short-term program for investments in stormwater needs in the Puget Sound region. Regional planning is not as advanced in stormwater management as it is in salmonid recovery or shellfish protection and restoration. The principal regional study, *Urban Stormwater Runoff Preliminary Needs Assessment Technical Memorandum* (Bissonnette Environmental Solutions and Parametrix, 2010), identifies a very large (\$5 billion+) but quite general assessment of stormwater needs in the region. The study advanced the understanding of needs a great deal but was not intended to serve as a blueprint for stormwater investment.

Since the 2010 study, several Puget Sound jurisdictions have continued to work on prioritization of stormwater management investments. A 2012 study in the Juanita Creek basin of King County (King County, 2012), and a 2014 study in the Green/Duwamish watershed (King County, 2014) evaluated the costs of a variety of stormwater treatments, including increased operations and maintenance, removal of legacy sediment loads from conveyance systems, and retrofits of urban areas and highways. Simultaneous studies in other cities in the region, particularly Seattle and Tacoma, have evaluated stormwater options in water quality planning and field-tested programs such as the City of Tacoma’s project, which cleaned 15 miles of stormwater pipeline and removed pollutants at an estimated cost of \$0.72 per pound (based on ECONorthwest calculations, see Volume 2 for more information).

These analyses suggest that high-efficiency street sweeping, removal of legacy loads, and retrofitting of older roads and highways are fairly straightforward but highly cost-effective activities in a stormwater management program.

The Puget Sound Partnership and partners should support funding for these activities in the 2015 budget proposal, with a focus on maintaining a dedicated funding source for stormwater grants of at least \$100 million per biennium for grants and specifically identified projects, maintaining flexibility in the types of project funding, and supporting stormwater needs in the development of the water infrastructure package cited previously (and in other funding initiatives).

Figure 2. Portion of Total Annual Pollutant Load Removed by Treatment Type, City of Seattle, 2013



Source: Seattle Public Utilities 2014

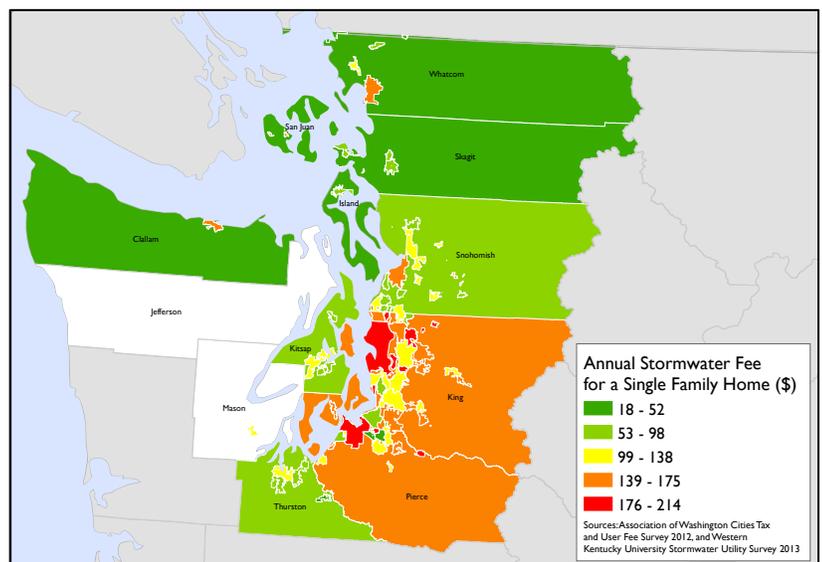
The Puget Sound Partnership and partners should also pursue state funding for a study that would enable the agency to continue working with local jurisdictions to identify a long-term strategy for stormwater improvements in the region, and particularly for retrofitting of older developments and infrastructure. The Juanita Creek and Green/Duwamish watershed studies previously referenced provide a useful template for evaluating options for stormwater retrofits in a developed landscape. This work should be scaled up to include urban and suburban areas throughout Puget Sound to identify priority areas for retrofitting of urban development, suburban subdivisions, and older highways and roads; assess costs and potential funding sources; and build political consensus on solutions. This would take the very useful Bissonnette/Parametrix study to the next level of refinement. This is particularly important because the scale of the retrofit problem is large and current funding sources are insufficient and concentrated in a few areas that have robust surface water management utilities. This concentration of resources is also addressed in Recommendation Four.

Recommendation Four: The Puget Sound Partnership and partners should consider options for collection and distribution of funds across jurisdictional boundaries at a watershed, multi-watershed, or Sound-wide scale in order to address differences in funding capacity among local governments in the region.

As indicated in the previous discussions of costs and funding sources, local stormwater funding has been the dominant source for the Stormwater Initiative and a very substantial source for the Habitat and Shellfish Initiatives. The \$306 million in local stormwater revenues cited in the current funding section of this report is far and away the largest source of funding for Puget Sound cleanup and restoration.

However, earlier sections also identify two limitations in the reliance on local stormwater funding: the variability in revenues across the region and the low levels of funding available in some areas where cleanup and restoration actions are most needed. Utility revenues track development patterns, with the greatest revenues in urban areas of the Puget Sound basin and far less funding available in urbanizing and rural areas. The concern about the adequacy of local funding is most acute in rapidly growing areas with lower stormwater rates and in rural areas that are priorities for investments in salmon recovery and nonpoint source control.

Figure 3. Annual Stormwater Fees per Household in Puget Sound Jurisdictions



Sources: Association of Washington Cities Tax and User Fee Survey 2012, and Western Kentucky University Stormwater Utility Survey 2013

The Puget Sound Partnership and partners should consider reviving the concept of a regional funding district that was advanced by Bill Ruckelshaus in the first Puget Sound Partnership funding strategy developed in 2008. The concept is to seek authority in the state legislature to establish multi-jurisdictional and multi-county districts with wide-ranging revenue options to address water and habitat needs consistent with Action Agenda priorities.

The authority should also establish performance standards for the participating jurisdictions to ensure that funding is used for actions that are sufficient in scale and concentration to deliver specific water quality, habitat, and other regional objectives. The benefits of this approach would be enhanced if participating jurisdictions were provided guidance, design standards, and support for building their capacity to address complicated regional issues such as removal of legacy loads and large-scale floodplain restoration.

If authority is granted by the legislature, the second step would be to enact the district through legislative action or a popular vote. One option that was discussed but not resolved by the Subcommittee would be to establish the entire region as the taxing district but have the Puget Sound Partnership serve as the governance structure for allocation of funding.

Recommendation Five: The Puget Sound Partnership and partners should support the continuation of federal and state funding sources that currently fund the implementation of the three Strategic Initiatives and the Action Agenda, with a particular emphasis on funding needed to implement the Habitat Initiative.

The implementation of the Strategic Initiatives and the Action Agenda as a whole is heavily reliant on several funding streams from the federal and state governments, and it is vitally important that the Puget Sound Partnership and partners support these sources in legislative and congressional budget processes.

On the federal side, these sources include the EPA Geographic Programs and National Estuary Program, the NOAA Pacific Coastal Salmon Recovery Fund, and numerous smaller contributors. State funding sources include the Puget Sound Acquisition and Restoration Fund, the Estuary and Salmon Restoration Program, the Floodplains by Design funding program, numerous water quality grant and loan programs provided through the Department of Ecology, and a variety of other state sources for habitat, stormwater, and shellfish needs.

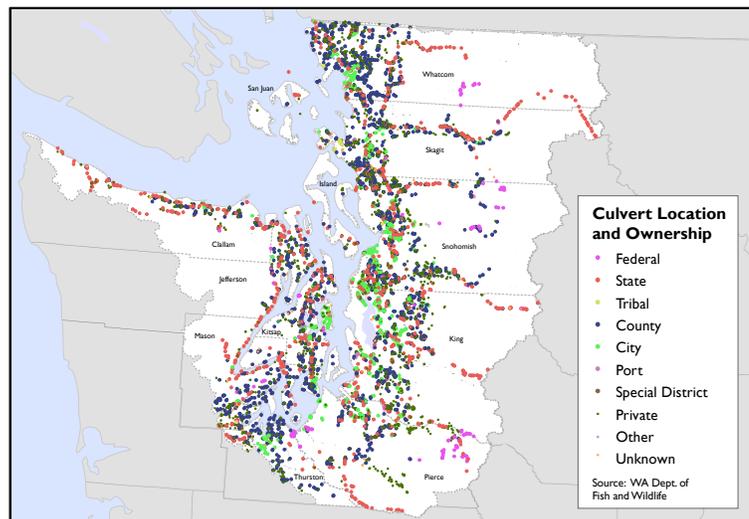
As part of the development and implementation of the Puget Sound Partnership's 2015 legislative strategy, the Subcommittee should identify funding levels for these programs that are necessary to maintain progress on the Strategic Initiatives and Action Agenda in the 2015-2017 biennium and actively advocate for these sources. Even if a water infrastructure package is framed to support implementation of the Strategic Initiatives and makes it on the 2015 ballot, stand-alone funding will be needed for this work in the 2015-2017 budget and must be a priority in the 2015 legislative session.

This recommendation is particularly important in maintaining an adequate supply of funding for the Habitat Initiative. Habitat restoration has long been heavily dependent on annual federal and biannual state budget requests. With the addition of the multi-objective projects from the Floodplains by Design program and the court-ordered requirements for culvert retrofits, the Habitat Initiative has grown substantially in cost and funding gap, and continuation of state and federal budget sources has grown even more important. It is recommended that the Puget Sound Partnership and partners put advocacy for these sources at the top of their federal and state legislative agendas.

Recommendation Six: The Puget Sound Partnership and partners should seek increased funding for stormwater and other environmental improvements related to the state highway system in further negotiations on a state transportation package, as well as further alignment between environmental spending for highways and watershed and regional priorities for cleanup and restoration.

Existing funding levels for stormwater and environmental improvements on state highways are falling far short of needs. Much of the state highway system in the Puget Sound basin was constructed prior to current standards for stormwater treatment and fish passage. Improvements are made when existing roads are reconstructed or expanded, but there are very substantial legacy needs that have far exceeded the availability of state funding for these problems. This was made plain in a court injunction in 2013 that requires the WSDOT to upgrade 1,014 culverts on state roads and highways that restrict fish passage. The total cost of retrofits to these culverts is estimated at \$2.4 billion or \$310 million per biennium. In the 2013-2015 biennium, only \$36 million was provided for stand-alone culvert projects. In addition to culverts on state highways, there are thousands of culverts on local and private roads that block passage.

Figure 4. Culverts Blocking Fish Passage in Puget Sound Basin



Source: Washington Department of Fish and Wildlife

Retrofits to stormwater systems are handled in a similar way, routinely as roads are newly built or reconstructed, but far less frequently when stormwater improvements are the principal focus of the project. Total needs are not estimated, but the state road system in the Puget Sound basin comprises 1,965 centerline miles, much of which were constructed before the mid-1990s when current stormwater standards were established. In preparation for a major stormwater retrofit initiative, WSDOT has completed an extensive stormwater retrofit prioritization effort on state highways within the Puget Sound basin. The three step prioritization process was developed collaboratively with Ecology, U.S. Fish and Wildlife Service, and NOAA Fisheries staff. As high priority highway segments are identified, WSDOT region staff are scoping these stormwater retrofit projects. WSDOT estimates this scoping process will identify \$40-50 million in projects which would retrofit all the highest-priority highway segments in Puget Sound. Current funding levels for stand-alone stormwater projects are very modest; in the 2013-2015 biennium, WSDOT requested \$8.0 million and received \$2.5 million for these projects. Increased funding for these needs is fundamental to implementing the Habitat and Stormwater Strategic Initiatives.

In addition, spending on highway stormwater and environmental needs should be further synchronized with watershed planning to ensure that investments are consistent with watershed cleanup and restoration priorities. This is best accomplished through coordination between WSDOT project managers and county and tribal watershed planners early and often as projects are being designed and permitted.

Recommendation Seven: The Puget Sound Partnership and partners should advocate for the strategic prioritization of federal and state infrastructure funding based on economies of scale, advancement of the science, equity and social justice, agriculture and resource land protection, and workforce development.

There are opportunities to accelerate environmental improvements and improve the cost-effectiveness of the funding strategy if linkages can be made across recommendations to help drive priorities. The following are several examples:

- Highway corridors often cross water courses and bisect urban communities. If upgrades to stormwater and passage barrier issues on state highways are implemented in association with habitat restoration, removal of legacy loads, and/or stormwater retrofits in adjoining communities, drainages along major transportation corridors could be significantly improved in a relatively short time, with state revenues augmenting local revenues.
- As survey and design work is completed for highway work, it might be possible to extend the survey work into cooperating jurisdictions to establish baseline linked inventories for entire drainage networks, often difficult to accomplish across jurisdictional boundaries.
- Mitigation sites will be needed to offset project impacts and some funding could be directed through permitting agencies to high priority local jurisdictions or WRIA-designated high priority salmon habitat, wetland, and other ecological restoration projects.
- Street sweeping services could be coordinated between state and local governments or jointly funded through private contracts, making it possible to reduce the overall costs of equipment purchase for increased numbers of street sweepers rented (or service contracts awarded).
- Certification and community college programs could train teams of staff to work on the ground (as part of operations and maintenance teams doing the work) with an understanding of the technical, legal, and tribal foundations needed to work in the intermingled natural and constructed systems that comprise stormwater and habitat, providing a cadre of individuals who understand the system and are at least conversant with the large issues at play. The creation of entry level and upper-end research jobs would create the possibilities of career paths for a variety of individuals at various stages of life and economic condition.
- In rural areas, linkages to failing septic systems and agricultural land preservation could potentially be made to ensure transportation improvements avoid agricultural lands, improve upstream culvert blockages, and where possible, serve as seed money to upgrade septic systems as parts of an overall watershed grant package.

Recommendation Eight: The Puget Sound Partnership and partners should review and revise this funding strategy during the biannual updates of the Action Agenda.

Over the course of this project, several people have commented on the similarities between today's circumstances and those facing the Puget Sound Partnership and partners when the 2008 Action Agenda and funding strategy were developed. Some issues have become more prominent while others have receded, but the underlying approach to raising funds is not dramatically different today than it was six years ago. On the plus side, this suggests that the approach developed in 2008 – heavily reliant on annual and biannual budget success in Olympia and Washington D.C., with match from local utilities and tribes – has been fairly successful. The Puget Sound Partnership and partners have continued to make substantial progress on the Action Agenda thanks to this approach.

However, some of the concepts discussed in the first funding strategy, including development of regional funding sources, use of markets and trading to steer investments, and development of dedicated state revenues, have not progressed as much. These options require concerted, multi-year work to implement, and this level of follow-through has been a challenge. Tying the review and revision of the funding strategy to the biannual update of the Action Agenda would help focus attention on these more complex multi-year needs.

It also appears that regular updates of the funding strategy are helpful in refining the actions proposed in the Action Agenda updates. As noted earlier in this report, the Subcommittee spent a great deal of time refining the medium- and long-term actions in each Initiative before developing the funding strategy. Cost estimates require a degree of precision in defining projects and programs, and a greater emphasis on funding is likely to add a useful discipline to the development of the Action Agenda.

Next Steps

The following immediate next steps are recommended in order to move the funding strategy forward.

1. Seek review, revisions, and approval of the funding strategy by the Puget Sound Partnership's Ecosystem Coordination Board and Leadership Council.
2. Adopt relevant sections of the funding strategy in the 2015 legislative agendas of the Puget Sound Partnership and partner organizations and agencies. Priorities are summarized below.
3. Advocate for Strategic Initiatives and other Action Agenda priorities in the development of the water infrastructure package and in federal and state budget deliberations in late 2014 and early 2015.
4. Pursue the development of regional strategies on setting priorities, supporting a Sound-wide study of stormwater needs, and evaluating options for multi-jurisdictional and multi-watershed funding beginning in 2015.
5. Integrate the review and revision of the funding strategy in the process for updating the Action Agenda.

Summary of Recommendations for the 2015 State Legislative Session

The following items should be integrated into the 2015 state legislative agendas of the Puget Sound Partnership and supporting partners.

1. Support for the water infrastructure package and advocacy for Action Agenda priorities in the package.
2. Support for the Department of Ecology capital budget requests for Floodplains by Design and Stormwater Financial Assistance grants.
3. Support for Department of Health bills seeking funding sources for the septic system loan and county septic management programs in all Puget Sound counties.
4. Advocacy for a Sound-wide study of stormwater needs, priorities, and funding strategies.
5. Support for a substantial increase in funding for stormwater and other environmental improvements on state highways.
6. Support for state grant and loan programs fundamental to the Action Agenda, including the Centennial Clean Water program, the Salmon Recovery Funding Board grants, the Washington Wildlife and Recreation Program, and many others.