

Kitsap County

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**SURFACE & STORMWATER MANAGEMENT  
PERFORMANCE AUDIT**

**FINAL REPORT**

*October 31, 2005*

Prepared by



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October 31, 2005

Mr. Ben Holland, Director  
Department of Administrative Services  
614 Division Street MS-7  
Port Orchard, Washington 98366

Subject: Surface & Storm Water Management Performance Audit

Dear Mr. Holland:

FCS Group, Inc. is pleased to submit our final report summarizing the results of our performance audit of the Surface & Storm Water Management (SSWM) Program. The study involved meeting with the staff from the participating SSWM departments and agencies, reviewing and analyzing financial data and other documents, surveying other county programs in Clark, Pierce, and Snohomish counties, and touring SSWM facilities. The report focuses on answering the key questions and issues identified by the scope of work. Please do not hesitate to contact me (425) 867-1802 ext. 228 if you have any questions.

Very truly yours,

Peter Moy  
Senior Project Manager

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## EXECUTIVE SUMMARY

As part of its proposed budget for 2005, the Kitsap County Surface and Stormwater Management (SSWM) Program in the County's Department of Public Works proposed an increase in its rates. After a review of the proposed rate increases, the County Board of Commissioners determined that a comprehensive performance audit was needed to determine if the SSWM Program functions in a way that is consistent with applicable laws, regulations, and policies and to determine whether the stormwater utility is operating effectively, efficiently and economically. The County Board of Commissioners identified the following specific tasks to be conducted:

- Review SSWM program activities for consistency with policy direction provided by the County's Board of Commissioners,
- Compare Kitsap SSWM fees and expenses to other like stormwater utilities,
- Determine required and discretionary programs,
- Review opportunities for outsourcing/privatization,
- Conduct a fiscal review, and
- Review performance measures.

### SSWM Program & Policies

The legislation establishing the SSWM Program's purposes and program elements has not changed since the Program's inception. The SSWM Program remains broad in its purposes and has developed a comprehensive set of programs and activities that address the concerns of the legislation. The planning for Water Resource Inventory Area (WRIA) 15 is an activity where additional policy guidance might be useful. Because the Board of Commissioners approves the inter-local agreements with the Conservation and Health Districts, more specific policy guidance is adopted through the scopes of work approved with the agreements. These more specific policies and guidelines can change as the scopes of work change. In contrast, the scopes of work for Public Works and Community Development do not go through a formal process to be approved by the Board of Commissioners. We recommend the following:

- The SSWM Program scopes of work for County departments should be reviewed and adopted as part of the Board of Commissioner's budget process.
- To resolve the appropriateness of the funding used to support the WRIA 15 planning, Community Development should show specifically how such planning relates to the purposes of the SSWM Program and unincorporated residents, how much estimated time is needed to fulfill any programmatic and monitoring role, and how much estimated time is needed to administer and coordinate the planning effort.
- If grant funds are not able to cover the WRIA 15 administrative costs, the County should identify other funding sources (including funding from other jurisdictions) that may be more appropriate than SSWM funding. If the County's SSWM Program participates, it should only, however, bear its fair share of the administrative costs.

## Fee Comparisons

Kitsap County has not raised its annual \$45 SSWM fee for 10 years, and its 2005 increase to \$47.50 per year represented a 5.6% increase. At the same time inflation in the Seattle area for the past ten years increased prices by almost 28%. Because of inflation, the current fee has only 83% of the buying power that the fee had when the program initially started, and because the fee revenues are the primary source of funding for the SSWM program, the real value of program expenditures have also been reduced over time. Even if the fee had kept pace with inflation, Kitsap County's SSWM fee would still be one of the lowest in the Puget Sound Region. To assure that SSWM fee revenue keeps pace with the program and capital costs, we recommend the following:

- The SSWM Program should continue to develop a five year financial forecast and propose rates that will support the programs, activities, and projects during the five year period. The Board of Commissioners should review the forecast and adopt rates and expenditures for the five year period.

## Operating Cost Comparisons

Because Kitsap County's SSWM program includes program elements not funded by other counties, cost comparisons are difficult to make. However, Kitsap County's SSWM Program has the second lowest cost per capita, and if the cost is adjusted for the costs related to the Conservation and Health Districts' programs, Kitsap County has the lowest cost per capita of the four counties. For overhead and maintenance costs, Kitsap County has the lowest percentage of overhead costs compared to its total budget, while its percentage of maintenance costs to its total costs are the second highest of the four counties. Pierce and Snohomish Counties do not have as high a percentage of maintenance costs because their road departments fund maintenance for either catch basins, ponds, and/or swales.

## Capital Cost Comparisons

Based on five sample projects, the capital construction processes for Kitsap County's SSWM Program have resulted in an effective bidding process, reliable engineering estimates, few significant change orders, and on time and on budget construction. Compared to the other counties, Kitsap County has had less variation among its engineering estimates, bids, and construction costs, and fewer change orders.

## Mandatory Versus Discretionary Programs

The SSWM Program has made progress in implementing the R.W. Beck study regarding its NPDES permit, but until the final permit is actually issued, the SSWM Program does not know what other improvements or actions may be required. The SSWM Program's broad purposes contained in its originating ordinance as well as other requirements from the Puget Sound Water Quality Management Plan add program elements that are not necessarily required by the NPDES permit. Most of the discretionary program elements are performed by the Conservation District and the Health District. While a number of program elements are not mandatory, the SSWM

Program's comprehensiveness puts the program in a much better position to meet the NPDES permit requirements. The County's SSWM Program is an award winning program and has been recognized for its comprehensiveness. However, the Board of Commissioners may want to revisit its previous purposes and program elements.

If the Board of Commissioners wishes to reduce the level of SSWM Program-related expenditures and it decides to approach this issue strictly from the perspective of compliance with State and Federal regulations, there are two general options it could pursue.

- It could choose to reduce the level of activities undertaken within many of the Program elements. This option pursues a strategy that would still ensure a "passing" grade (i.e., a "D" or "D-" grade) as opposed to striving for a higher grade (i.e., an "A" or "B" grade). Although there are a number of existing SSWM program elements that are not required by the NPDES Phase II Permit regulations, the SSWM Program is certainly doing more in a number of areas than other stormwater programs. This is a direct result of past decisions made by the Board and SSWM Program staff based upon the objectives that have been established and the desire to "do the job well." Efforts could be scaled back and the Program could still meet the minimum requirements of the federal and state regulations.
- The second option involves removing elements from the SSWM Program that typically are not part of stormwater management programs and having them reside elsewhere. This strategy would not eliminate any of these program elements since they are required by Kitsap County Code, but rather, it would establish separate management and funding mechanisms for these program elements. This strategy would not reduce the total expenditures incurred by the County (in fact, it might lead to an increase in total expenditures) but it would reduce the overall level of expenditures directly associated with the SSWM Program.

### **Infrastructure Condition & Investment**

The SSWM Program's capital investments are managed through established processes that identify and rank the Program's capital needs, and once built, the Program also has sufficient processes that assess and inventory the operational and physical condition of the Program's facilities. There are, however, some improvements needed in inspecting and recording private facilities and in developing funding for replacing and renovating SSWM facilities.

- The SSWM Program should build upon its project prioritization process to answer the question, "when is enough, enough?" The SSWM Program's existing project prioritization process ranks projects based principally on their benefits. A number of these benefits are not quantifiable, nor can they really be monetized. The conceptual benefit-cost profile is often thought to be based only on dollars, but the concept is just as applicable if one includes both quantitative as well as qualitative benefits and costs. The key issue is to determine the threshold below which the SSWM Program should delay or not pursue projects. One alternative is to have a separate cost or cost benefit ranking that has more of an equal weight with the programmatic rankings.

- The Board of County Commissioners and SSWM Program personnel should give consideration to developing specific level of service objectives. These objectives could be a useful element in addressing the benefit-cost issue.
- The SSWM Program should consider conducting a survey of County businesses and residents to determine their overall level of satisfaction with the program elements being delivered by the SSWM Program. The results of this survey can also be used to help determine the appropriate levels of services for the Program.
- The SSWM Program should determine if there is another type of civil penalty or fine that can be levied on owners of private SSWM facilities that are not maintaining their systems. In addition, to avoid the lengthier process of sending such cases to the code enforcement officers, the County should consider whether the inspectors can be authorized to act as code enforcement officers. If these alternatives are not viable, the SSWM Program may want to re-evaluate how maintenance should be handled on private systems and whether the transfer process and bond requirements are sufficient.
- The SSWM Program needs to establish a more formal process for the transferring of assets from private owners to the County and complete a reconciliation of the engineering inventory of assets with the accounting inventory.
- The funding of the depreciation base of the assets should be revisited for SSWM facilities, and the County should also determine whether SSWM funding should be used to support private and Road Fund facilities needing replacement or major repairs.

### **Outsourcing & Privatization**

The SSWM Program and its participating agencies already contract out for many goods and services, and contracting out is well established for capital projects. Specific bidding and competitive processes exist for capital project work, and the County's purchasing guidelines dictate other types of procurement. Several private contractors offer vector services, and based on preliminary hourly rates and costs per catch basin, their costs compared to the SSWM costs may offer an opportunity to reduce costs. Before determining whether contracting out is desired, criteria are needed to assess whether or not such a practice meets the programmatic needs of the Program as well as cost reduction needs. Because the SSWM Program already contracts for many goods and services, the SSWM Program might consider contracting catch basin cleaning and pond maintenance as a viable alternative to providing services in-house. We recommend the following:

- The SSWM Program should develop criteria for determining whether contracting out is a viable alternative to keeping or providing services in-house. Key issues include current labor agreements, work performed by the staff for other County divisions and departments, other indirect costs associated with contracting out, preliminary estimates from private contractors, and opportunities to incrementally test the contracting out approach.

- The SSWM Program should consider contracting out catch basin cleaning and pond maintenance if there is an opportunity to reduce costs and if there are no legal barriers preventing such contracting. Specific scopes of work need to be developed as well as more complete cost data on the in-house cost of service for each activity. The SSWM Program could contract out all or some of the work and also allow the in-house staff to compete.
- Based on the criteria it develops, the SSWM program should review its retrofit operations to determine if contracting out is viable. Key issues involve the preparation and quality control costs of contracting out, the added time necessary for formal bid processes, and the contracting/bid process (e.g. one bid for all projects or separate bids for each retrofit project).
- The SSWM Program should identify cost effective opportunities to contract with the Health District for lab tests.

### **Financial Forecasts**

The SSWM Program developed a six-year financial forecast that is based on an annual fee increase to \$50 starting in 2006 and remaining constant until 2010. The expenditures in the forecast represent a status quo scenario that is inflated over time by inflation rates that are consistent with historical and forecasted inflation. The forecast shows that given the fee level and the inflated expenditures for the forecast period, even a status quo scenario is not sustainable in the future and will require that the SSWM Program take action to increase revenues or reduce expenditures in 2008. To keep the status quo sustainable, three future fee increases would be needed starting in 2008 at .3%, 23% in 2009, and 2% in 2010. The annual fee in 2010 would be \$63. If expenditures are reduced rather than increasing fees, an \$18,000 reduction is necessary in 2008, and reductions of \$1.2 million and \$115,000 are needed in 2009 and 2010, respectively. The County faces the challenge of determining whether to increase its fee in the future to maintain existing services or whether to decrease its services and programs to avoid future fee increases.

Although a status quo scenario is used, there may be additional costs that the SSWM Program might incur that could increase the need for fee adjustments or offsetting expenditure reductions. Changes to the status quo could include increasing the facilities maintenance costs because more stormwater ponds will continue to be added to the SSWM Program's infrastructure, increasing the facilities maintenance costs to meet service level guidelines concerning stormwater pond maintenance, increasing the funding for watershed assessments, revising the capital project funding needs based on more analysis of the benefits and priorities, and responding to NPDES permit requirements.

Based on the fiscal review of the SSWM Program's historical financial trends and the six-year forecast, we recommend that the County do the following:

- The SSWM Program should first re-evaluate its financial forecast and establish specific financial policies regarding the use of fund balance, the amount of unreserved fund balance needed to meet cash flow and reserve requirements, and the method of financing for capital projects (e.g. pay as you go, combination of cash and debt, funding depreciation, etc). Such policies should be adopted by the Board of Commissioners.
- The SSWM Program should determine if the levels of service for its programs and its partner's programs are still appropriate and are consistent with any proposed changes adopted by the Board of Commissioners. Priorities for its non-mandated programs should also be developed based on a set of criteria that considers health and public safety concerns, cost, and program effectiveness. Priorities for capital projects as recommended in Chapter VII should also be incorporated.
- Once financial policies, service level reviews, and priorities have been established, the SSWM Program should then prepare another forecast or rate study that provides alternative scenarios for the Board of Commissioners to consider.

## **Performance Measurement**

The SSWM Program has identified performance criteria for all the program elements, but the performance measurement process could be improved. There are too many performance criteria, limited data, few performance criteria for effectiveness or efficiency, and no performance measures or benchmarks. In addition, to highlight the water quality efforts, the annual report could be improved by describing activities on a watershed basis in addition to the department and agency format.

Because of the type of performance criteria and limited data, using the existing performance data as a tool to identify trends and assess future fiscal impacts has limited value. Future resources needed are not necessarily based on past performance and can be related to other variables, such as the amount of development occurring in the unincorporated areas of the County. To improve the performance measurement process we recommend the following:

- The SSWM Program should identify specific performance measures for each program element, eliminate unnecessary performance criteria, and limit other data requests to what is needed for monitoring each department's or agency's activities.
- The SSWM Program should include as part of its annual report a section on activities by each department and agency in specific watersheds to help the public understand the status of the watershed and how SSWM Program funding is helping to change the watershed's water quality. Another section should show the performance measures and the SSWM Program's performance against those measures.
- The SSWM Program should use other SSWM resources and data in conjunction with performance measures to determine the future fiscal impacts.

## I. INTRODUCTION

As part of its proposed budget for 2005, the Kitsap County Surface and Stormwater Management (SSWM) Program in the County's Department of Public Works proposed an increase in its rates. After a review of the proposed rate increases, the County Board of Commissioners determined that a comprehensive performance audit was needed to determine if the SSWM Program functions in a way that is consistent with applicable laws, regulations, and policies and to determine whether the stormwater utility is operating effectively, efficiently and economically. The County Board of Commissioners identified the following specific tasks to be conducted:

- Review SSWM program activities for consistency with policy direction provided by the County's Board of Commissioners,
- Compare Kitsap SSWM fees and expenses to other like stormwater utilities,
- Determine required and discretionary programs,
- Review opportunities for outsourcing/privatization,
- Conduct a fiscal review, and
- Review performance measures.

To gather information and conduct analyses to assess the County's SSWM Program, the consultant team did the following:

- Interviewed management and staff from Kitsap County's Public Works and Community Development Departments, the Kitsap Conservation District, and the Kitsap County Health District,
- Conducted two SSWM stakeholder meetings,
- Reviewed Kitsap County codes and regulations related to the SSWM program,
- Reviewed and analyzed financial data and budgets, program documents and reports, annual reports, SSWM literature, and agreements between the SSWM program and other County departments and other agencies,
- Conducted a survey of SSWM programs in Pierce, Snohomish, and Clark Counties to compare fees, operating costs, and capital costs, and
- Toured facilities maintained, improved, and regulated by the SSWM program.

### **Background On SSWM Program**

Kitsap County's SSWM program is the combined effort of two County departments (i.e. Public Works and Community Development), the Kitsap Conservation District (KCD), and the Kitsap County Health District (KCHD). The Puget Sound Action Team recently published a case study about the County's SSWM program that noted that the County's program is an "excellent model of a cooperative partnership" that fulfills the goals of developing a comprehensive stormwater management program and of taking action to correct sources of non-point pollution that harm Puget Sound. The program has received awards for Excellence in Environmental Health in 1996 and for Innovative Programs in 1998.

Kitsap County's Public Works Department is the lead department and has overall responsibility for the management of the SSWM Program and for coordinating the efforts of the other three

departments/agencies. Exhibit 1 shows the participating departments/agencies and their current and past program elements and activities.

**Exhibit 1**  
**Participating Departments/Agencies and Program Elements**

<b>Department/Agency</b>	<b>Program Elements</b>
Public Works	<ul style="list-style-type: none"> <li>• Public outreach, education, and involvement</li> <li>• Signing</li> <li>• GIS mapping and maintaining and updating GIS of existing stormwater facilities</li> <li>• Drainage system inspection program</li> <li>• Facilities maintenance</li> <li>• Retrofit of existing stormwater facilities</li> <li>• Stormwater system maintenance waste processing facility operation</li> <li>• Stormwater impact monitoring and water quality response</li> <li>• Capital facilities planning</li> <li>• Capital project construction</li> <li>• Program administration</li> </ul>
Community Development	<ul style="list-style-type: none"> <li>• Education and outreach</li> <li>• Stream Team</li> <li>• Watershed management</li> </ul>
Kitsap Conservation District	<ul style="list-style-type: none"> <li>• Education and outreach</li> <li>• Agricultural property inventory</li> <li>• Agricultural farm planning</li> <li>• Agricultural best management practice (BMP) design</li> <li>• Agricultural BMP installation</li> <li>• Agricultural BMP inspection and maintenance</li> <li>• Referral response</li> </ul>
Kitsap County Health District	<ul style="list-style-type: none"> <li>• Pollution identification and correction (PIC) program</li> <li>• Surface water quality monitoring program</li> <li>• On-site sewage system complaint response program</li> <li>• Operation and maintenance program for on-site sewage systems</li> <li>• Financial assistance program for on-site sewage system repairs</li> <li>• Recreational shellfish program</li> <li>• Wellhead protection program</li> <li>• Marina sewage control program</li> </ul>

The SSWM program is primarily supported by the fee charged to property owners in unincorporated Kitsap County. Exhibit 2 shows the 2005 budgeted revenues and expenditures for the SSWM program by department/agency and by program element.

**Exhibit 2**  
**2005 SSWM Program Revenues and Expenditures**

	<b>2005 Budget</b>
<b>PROGRAM REVENUE</b>	
Beginning Fund Balance	\$3,984,407
Storm Drainage Fees & Charges	4,866,556
Interest Earnings	100,000
Interest On Del Accounts	30,000
Misc. Revenue	<u>41,500</u>
<b>Total SSWM Fund Revenues</b>	<b>\$9,022,463</b>
<b>PROGRAM EXPENDITURES</b>	
<b>2005 Budget</b>	
<b>Public Works Department</b>	
Program Administration	\$725,327
Engineering Capital Program	270,162
Engineering Retrofit Program	103,629
Capital Fund & Debt Transfer	827,691
Stormwater Facilities Maintenance	896,531
Stormwater Facilities Retrofitting	699,287
Decant Facility Operations	297,222
Drainage System Inspection	227,916
Stormwater Facilities GIS	84,664
Signing Program	6,200
General Outreach	85,604
Stormwater Water Quality Monitoring	<u>316,572</u>
Total Public Works	\$4,540,805
<b>Department Of Community Development</b>	
General Outreach	\$54,005
Watershed Plan Implementation	98,140
Stream Team	<u>112,959</u>
Total Community Development	\$265,104
<b>Kitsap County Health District</b>	
Wellhead Protection Program	\$ 22,726
Pollution Identification/Correct	475,220
Monitoring Program	<u>326,378</u>
Total Kitsap County Health District	\$824,324
<b>Kitsap Conservation District</b>	
Agricultural Program	\$305,680
Total Kitsap Conservation District	\$305,680
<b>Total Expenditures</b>	<b>\$5,935,913</b>

We want to acknowledge the cooperation and assistance provided by the staff from the various departments and agencies participating in the review, especially David Tucker, the SSWM Program manager. The following chapters discuss our observations, analyses, conclusions, and recommendations.

## II. SSWM PROGRAMS AND POLICIES

In 1993, Kitsap County established its SSWM Program to begin to address the impacts and management of inadequate drainage controls. As indicated in the SSWM 1993 ordinance, the Board of Commissioners was concerned about the impacts of runoff on unstable slopes and intrusion on adjacent properties, increased sedimentation in ponds, creeks, and streams, degradation of water quality and shellfish habitat, excess water runoff that posed a safety hazard to lives and property, and cooperation among adjacent jurisdictional areas. To meet their concerns about these issues, the Commissioners established the following specific purposes that guide the SSWM Program.

- To promote and protect the public health, safety, and welfare by establishing a comprehensive approach to surface and storm water management,
- To protect life and property from storm, waste, flood, or surplus surface waters,
- To protect water quality by preventing siltation, contamination, and erosion of the county's waterways,
- To protect aquifers,
- To provide shellfish protection,
- To assure compliance with federal and state surface water management and water quality regulations and legislation,
- To increase public education and citizen involvement, and
- To encourage the preservation of natural drainage systems.

As part of the ordinance, the Board of Commissioners also identified the following specific program elements and activities that were to be included as part of the SSWM Program.

- Basin and watershed planning
- Education
- Capital Improvements
- Operations and Maintenance.
- Monitoring
- Source Control
- Shellfish Protection

The SSWM Program's policy direction has not changed since 1993 when Ordinance 156 established the Program.

**Observation:** *The SSWM Program has funded programs and activities that are generally consistent with the purposes and program elements established by either Kitsap County code, inter-local agreements, or interdepartmental agreements. However, there is some question regarding whether work on the planning activities for the Water Resource Inventory Area (WRIA) 15 is appropriate.*

The scope and activities of the current SSWM Program are still very consistent with the original vision that was established by the Board of County Commissioners when the Program was

originally established in 1993 and summarized in the document, *Kitsap County Comprehensive Surface and Stormwater Management Program Plan*. Most of the current Program elements were included in the original Program Plan, while others have evolved or been eliminated because they have been accomplished.

Every year the SSWM Program develops scopes of work for each of the participating County departments and agencies, and the scopes of work for the Kitsap Conservation District and the Kitsap County Health District are reviewed and adopted by the Board of Commissioners. Public Works has always prepared a scope of work, while Community Development has only recently developed scopes of work since 2002. The scopes of work for Public Works and Community Development are internal documents and are not formally adopted by the Board.

For the program elements identified by the original legislation, Exhibit 3 shows the program/activity and the responsible department or agency. As noted previously, the following abbreviations apply to the different departments and agencies shown in the Exhibit.

Department of Public Works – PW  
Department of Community Development – DCD  
Kitsap County Health District – KCHD  
Kitsap Conservation District - KCD

**Exhibit 3**  
**Original Program Elements, Implementing Programs, and Responsible Department/Agency**

<b>SSWM Program Element</b>	<b>Program/Agency</b>
<u>Basin and Watershed Planning</u> <ul style="list-style-type: none"> <li>Develop, coordinate, and implement basin and watershed action plans</li> </ul>	Watershed Planning/DCD
<u>Education</u> <ul style="list-style-type: none"> <li>Educate the public about land use and human activities that impact water quality and surface water</li> <li>Develop citizen involvement programs to monitor streams and implement restoration programs</li> </ul>	Ed. & Outreach/DCD, PW, KCD, KCHD Signing/PW  Stream Team/DCD
<u>Capital Improvements</u> <ul style="list-style-type: none"> <li>Develop 5 year capital improvement program</li> </ul>	Capital Facilities Planning, Project Construction/PW
<u>Operations and Maintenance</u> <ul style="list-style-type: none"> <li>Develop and implement an operations and maintenance program</li> <li>Assure that all public and private drainage and stormwater control facilities are functional and effective</li> <li>Perform operations and maintenance on all county owned facilities</li> <li>Coordinate the transfer of maintenance responsibility for privately maintained residential stormwater facilities from homeowners associations to the County</li> </ul>	Facilities Maintenance/PW  Drainage Inspection, Retrofit of Facilities, Facilities Maintenance /PW  Facilities Maintenance/PW  Drainage System Inspection, Program Administration/PW
<u>Monitoring</u> <ul style="list-style-type: none"> <li>Develop and implement a program to monitor the ambient water quality of rivers, streams, lakes, and wetlands</li> <li>Communicate results of monitoring activities to residents, agencies, and other interested parties</li> </ul>	Pollution ID & Correction, Water Quality Monitoring/KCHD, Water Quality Impact, Response Monitoring/PW, Stream Team/DCD  Pollution ID & Correction, Water Quality

SSWM Program Element	Program/Agency
	Monitoring/KCHD, Water Quality Impact, Response Monitoring/PW
<p><u>Source Control</u></p> <ul style="list-style-type: none"> <li>• Reduce herbicide and pesticide usage</li> <li>• Strengthen on-site sewage system correction, moderate risk waste control, and wellhead protection programs</li> <li>• Strengthen use of BMP's</li> <li>• Implement a boat waste control program</li> <li>• Provide financial assistance for restoration of streams, repair of on-site sewage disposal systems, and agricultural practice improvements</li> </ul>	<p>Agricultural BMP/KCD</p> <p>On-site Sewage System Complaint Response, Wellhead Protection/KCHD</p> <p>Agricultural BMP/KCD</p> <p>Marina Sewage Control/KCHD</p> <p>Stream Team/DCD, Financial Asst. Program/KCHD, Agricultural BMP Installation /KCD,</p>
<p><u>Shellfish Protection</u></p> <ul style="list-style-type: none"> <li>• Develop and implement shellfish protection elements</li> <li>• Coordinate program elements that provide increased shellfish protection with other counties, municipalities, or special purpose districts that may establish shellfish protection programs</li> </ul>	<p>Recreational Shellfish Program/KCHD</p> <p>Recreational Shellfish Program/KCHD</p>

To implement these program elements, the SSWM Program has established a number of other programs and supporting activities (See Exhibit 2 in Chapter I) that are either consistent with the legislation's purposes or good management practices.

The watershed planning element is one area where a question has been raised about using SSWM revenues to support the Water Resource Inventory Area (WRIA) 15 watershed plan. Because it is considered a regional project that also includes cities and non-stormwater issues, a stakeholder group believes that it is inappropriate to use SSWM funding to support County staff time on the project. We did not specifically audit the WRIA 15 planning process or the timekeeping process, but the following provides a context to determine if such spending is inappropriate.

- The purposes of the SSWM Program are very broad, and to the extent that WRIA 15 planning efforts relate to any of the SSWM purposes, staff time could be considered appropriate if the issues relate to watersheds affecting the County's unincorporated residents. Key purposes are protecting life and property from storm, waste, flood or surplus surface waters; protecting water quality from siltation, contamination, and erosions; protecting aquifers; and complying with federal and state surface water management and water quality regulations and legislation. In the 1996 Value Analysis Study performed for the SSWM Program, one of the value analysis concepts was to coordinate planning and develop partnerships with the groundwater management plan, state basin assessment program, watershed action plans, and others. According to the study, such coordination would eliminate duplication and or enhance the results of all plans and programs. Key questions are whether the Board of County Commissioners still considers such planning consistent with the purpose of protecting aquifers and whether the SSWM Program would send a representative to monitor the meetings and participate even if the County was not the lead agency in this effort.
- The use of SSWM funding and Community Development's role as it relates to the WRIA 15 planning has been documented in the Department's scope of work since 2002. Two of the objectives in the scope for watershed planning are to participate in the WRIA 15 planning process and to coordinate the different watershed planning efforts.
- Not all the time of SSWM funded staff and WRIA 15 costs are paid for by SSWM fees. As lead agency for the project, the County received a grant to pay some of its costs for coordinating the planning and conducting various studies. In 2004 the costs charged to the grant totaled \$161,514. Staff costs charged for salaries and benefits were \$13,500, while about \$147,800 was charged for consulting and professional services. In 2005 the costs charged as of the end of August were \$71,107 with only about \$1,800 charged to salaries and benefits. Concerning SSWM expenditures for watershed planning in 2004, salaries and benefits costs were less than budgeted at 74% and for 2005, the salaries and benefits costs are running at 86% for the year. We did not determine what the appropriate time allocation should have been.
- If the discussions and watershed planning efforts affect unincorporated County residents, the fact that cities are involved in a project does not necessarily mean that SSWM funds

are not being appropriately used. We were told that cities also had representatives participating in process. Watersheds cross jurisdictional boundaries, and as stated in the SSWM legislation, “cooperation among adjacent jurisdictional areas is critical to effective implementation of SSWM programs”.

## **Conclusions and Recommendations**

The legislation establishing the SSWM Program’s purposes and program elements has not changed since the Program’s inception. The SSWM Program remains broad in its purposes and has developed a comprehensive set of programs and activities that address the concerns of the legislation. The planning for WRIA 15 is an activity where additional policy guidance might be useful. Because the Board of Commissioners approves the inter-local agreements with the Conservation and Health Districts, more specific policy guidance is adopted through the scopes of work approved with the agreements. These more specific policies and guidelines can change as the scopes of work change.

In contrast, the scopes of work for Public Works and Community Development do not go through a formal process to be approved by the Board of Commissioners. We recommend the following:

- The SSWM Program scopes of work for County departments should be reviewed and adopted as part of the Board of Commissioner’s budget process.
- To resolve the appropriateness of the funding used to support the WRIA 15 planning, Community Development should show specifically how such planning relates to the purposes of the SSWM Program and unincorporated residents, how much estimated time is needed to fulfill any programmatic and monitoring role, and how much estimated time is needed to administer and coordinate the planning effort.
- If grant funds are not able to cover the WRIA 15 administrative costs, the County should identify other funding sources (including funding from other jurisdictions) that may be more appropriate than SSWM funding. If the County’s SSWM Program participates, it should only, however, bear its fair share of the administrative costs.

### III. FEE COMPARISONS

This performance audit was initiated partly because the SSWM Program's proposed 2005 fee increase raised questions concerning the fee amount and the need for additional revenue. As part of the specific tasks identified for this audit by the Board of Commissioners, the scope of work included an analysis of the County's SSWM fee compared to inflation and other comparable SSWM programs.

**Observation:** *The SSWM fee has not kept pace with an inflation rate of 28% over the past ten years. In 2005 the SSWM fee was increased by 5.6%, which was the first fee increase since the program's inception in 1995. The comparison counties have also had few changes in their fees over the past ten years, but except for Pierce County, their increases during the same period have been much greater than inflation.*

For 2005 Kitsap County increased its SSWM fee by \$2.50 per year for a 5.6% increase. The increase was the first in the SSWM program's history and raised the fee from \$45 to \$47.50 per year. In contrast, the Seattle Consumer Price Index as of April 2005 had increased by a cumulative 27.8% since 1996 and by 8.5% since 2001. Because the fee has not kept pace with inflation, there is a significant difference between the current fee and the fee level needed to keep pace with inflation. If the original \$45 fee were adjusted for inflation, the current fee would be about \$57.50. Although the fee remained unchanged until 2005, total fee revenues as reported in the County's Comprehensive Annual Financial Report did, however, increase 8% from 1996 through 2003. The current fee only has 83% of the buying power that it had when the program initially started, and because the fee revenues are the primary source of funding for the SSWM program, the real value of program expenditures have also been reduced over time.

Pierce, Clark, and Snohomish Counties have also changed their fees infrequently during the past ten years. Clark County has adjusted its Clean Water Fee only once in the past 10 years when it also expanded to a countywide fee. Pierce County increased its fees with a revised rate structure in 1998 and reduced those fees after 8 years by \$5. Snohomish County has not adjusted its Rural Surface Water Management fee for four years, but had annual increases for the five previous years. Snohomish County's Urban Growth Area fee has been adjusted six times in the past nine years, but has not had a fee increase in the past two years.

Compared to Kitsap County's 2005 fee increase, the fee increases implemented by Clark and Snohomish Counties have substantially exceeded the inflation rate over the past ten years. Kitsap County's fee has increased only 5.6% over the past 10 years. In contrast Snohomish County's Rural fee has increased 50% and its Urban Growth Area fee has increased 196%, both from an initial \$22. Comparing as a whole Clark County's Burnt Bridge Creek fee of \$15 and its more recent countywide fee of \$33 shows a ten-year cumulative increase of 120%. Finally, a ten-year comparison is not available for Pierce County given a substantial change in its fee structure. Over the past five years, Pierce County's individual fees have decreased from a range of -4% to -16%. Snohomish County's Rural fee has not changed, while its Urban Growth Area fee has increased 97% in the past five years.

Rate histories for Kitsap County as well as Pierce, Clark, and Snohomish Counties are shown in Exhibit 4.

### Exhibit 4 County Comparisons of SSWM Fee Changes

Year	Kitsap SSWM [1]		Clark County [2]		Pierce County [3]							Snohomish County [4]	
	Annual Fee per ESU	Inflation Adjusted	BBC [5]	Countywide Fee	Group 1	Group 2	Group 3	Group 4	Group 5	UGAs	Rural	SWM Fee Rural	SWM Fee UGA
1996	\$ 45.00	\$ 45.00	\$ 15.00							\$ 40.00	\$ 10.00	\$ 22.00	\$ 22.00
1997	45.00	46.57	15.00							40.00	10.00	26.00	26.00
1998	45.00	47.91	15.00		31.00	40.00	101.00	92.00	124.00			30.00	30.00
1999	45.00	49.37	15.00		31.00	40.00	101.00	92.00	124.00			30.87	30.87
2000	45.00	51.20		33.00	31.00	40.00	101.00	92.00	124.00			31.77	31.77
2001	45.00	53.06		33.00	31.00	40.00	101.00	92.00	124.00			33.01	33.01
2002	45.00	54.09		33.00	31.00	40.00	101.00	92.00	124.00			33.01	33.01
2003	45.00	54.94		33.00	31.00	40.00	101.00	92.00	124.00			33.01	65.00
2004	45.00	55.63		33.00	26.00	35.00	96.00	87.00	119.00			33.01	65.00
2005	47.50	57.51		33.00	26.00	35.00	96.00	87.00	119.00			33.01	65.00
<b>Cumulative 10 Year % Change</b>	<b>5.6%</b>	<b>27.8%</b>		<b>120.0%</b>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<b>50.0%</b>	<b>195.5%</b>
<b>Cumulative 5 Year % Change</b>	<b>5.6%</b>	<b>8.4%</b>		<b>0.0%</b>	<b>-16.1%</b>	<b>-12.5%</b>	<b>-5.0%</b>	<b>-5.4%</b>	<b>-4.0%</b>			<b>0.0%</b>	<b>96.9%</b>

Notes:

- [1] 2005 projected fee revenue = \$5,107,991.
- [2] 2005 projected fee revenue = \$4,750,000.
- [3] 2004 actual fee revenue = \$12,140,186.37.
- [4] 2005 projected fee revenue = \$8,415,940.32.
- [5] Rate applied only in Burnt Bridge Creek Watershed.

**Observation:** *Kitsap County's SSWM fee is one of the lowest in the Puget Sound region compared to other counties and to cities in the region.*

Compared to twenty-six 2005 fees from nineteen stormwater utilities in the Puget Sound area, only three stormwater utilities have an annual fee lower than Kitsap County's \$47.50. Fees by jurisdiction are shown in Exhibit 5.

## Exhibit 5 Comparison of Annual Residential Stormwater Fees in the Puget Sound Region

<u>Agency</u>	<u>Residential Rate</u>
Island County -- Marshall Drainage Basin only	\$ 285
University Place	148
Seattle	122
Pierce County	
<i>Group 5 - Base Service and CIP Level II</i>	119
<i>Group 3 - Base, CIP Level I, and River Maint.</i>	96
<i>Group 4 - Base Service and River Maintenance</i>	87
<i>Group 2 - Base Service and CIP Level I</i>	35
<i>Group 1 - Base Service</i>	26
Olympia	114
King County	102
Mukilteo	91
Poulsbo	90
Edmonds	86
Marysville	84
Federal Way	79
Bainbridge Island	78
Lacey	78
Bremerton	72
Stanwood	72
Everett	69
Snohomish County	
<i>Urban Growth Areas</i>	65
<i>Snohomish and South County Watersheds</i>	33
<i>Stillaguamish Clean Water District</i>	33
Tacoma	59
<b>Kitsap County</b>	<b>48</b>
Thurston County	38

### Conclusions and Recommendations

Kitsap County has not raised its annual \$45 SSWM fee for 10 years, and its 2005 increase to \$47.50 per year represented a 5.6% increase. At the same time inflation in the Seattle area for the past ten years increased prices by almost 28%. Because of inflation, the current fee has only 83% of the buying power that the fee had when the program initially started, and because the fee revenues are the primary source of funding for the SSWM program, the real value of program expenditures have also been reduced over time. Even if the fee had kept pace with inflation, Kitsap County's SSWM fee would still be one of the lowest in the Puget Sound Region.

Although changes in the fee should not be solely related to inflation, the fee revenue needed to sustain a set level of service will eventually need to increase. To assure that SSWM fee revenue keeps pace with the program and capital costs, we recommend the following:

- The SSWM Program should continue to develop a five year financial forecast and propose rates that will support the programs, activities, and projects during the five year period. The Board of Commissioners should review the forecast and adopt rates and expenditures for the five year period.

## IV. OPERATING COST COMPARISONS

In addition to comparing the SSWM fees charged by the three other counties (Pierce, Clark, and Snohomish), the SSWM operating costs were also analyzed and compared to the three other counties. The cost comparison included three key areas.

- Overall cost per capita,
- Overhead costs, and
- Maintenance expenses.

**Observation:** *Despite significant costs for other agencies that are not incurred by the three other comparison counties, Kitsap County's SSWM Program has the second lowest per-capita cost compared to programs in Clark, Pierce, and Snohomish County.*

Kitsap County's SSWM program has a per capita cost of approximately \$36.00 compared to Clark County's \$28.00, Pierce County's \$55.50, and Snohomish County's \$46.75 per capita. Included in Kitsap County's total is approximately \$8.50 per-capita cost for activities conducted by the Department of Community Development, the Kitsap County Health District, and the Kitsap Conservation District. Clark County's stormwater utility does not fund comparable activities. Removing the \$8.50 per-capita cost from Kitsap County's expenses lowers its overall per-capita cost to \$27.50, which is less than Clark County's cost.

Pierce County's stormwater program utility does contribute funds for its County's Health Department, but does not fund any of the Conservation District's activities. Meanwhile, Snohomish County does the reverse: it contributes funding to its Conservation District but does not fund the Health District. As a result, the equivalent per-capita cost of the Pierce and Snohomish stormwater utilities would be higher than \$55.50 and \$46.75, respectively. For example, in place of stormwater funding, the Pierce Conservation District has an annual assessment of \$5 per parcel.

**Observation:** *As a percentage of total expenses, overhead costs charged to the Kitsap County SSWM program are consistent, with those charged to two of the three other Puget Sound stormwater utilities.*

For the year 2005, the Kitsap County SSWM program is to be charged \$200,000 for its allocation of County Administration costs, which is approximately 3.5% of its \$5.9 million in budgeted expenses; Clark County is charged \$205,000, which is approximately 4% of its \$5.2 million budget; and Snohomish County is charged approximately \$830,000, which is approximately 5.75% of its \$14.5 million budget. A budgeted amount for allocated indirect cost was not available for Pierce County.

Kitsap County's SSWM program is allocated indirect costs from several county departments, based on SSWM's number of vouchers, checks, cash receipts, positions, and total budget. Comparable allocation information was provided by Clark County only. Clark County's indirect costs are similarly allocated using a variety of methods, as well as through service charges assessed by individual county departments.

**Observation:** *Kitsap County's SSWM maintenance expenses represent a higher percentage of the total SSWM expenditures compared to Pierce and Snohomish Counties, but Kitsap County's SSWM Program includes costs not funded by these two county's SSWM programs.*

Kitsap County's SSWM maintenance budget for 2005 is approximately \$822,500 compared to Clark County's \$1,041,600 maintenance budget, Pierce County's \$1,627,800, and Snohomish County's is \$801,000. Kitsap County's maintenance budget represents almost 14% of the total budget, while Clark, Pierce, and Snohomish Counties spend 20%, 8.6% and 5.5%, respectively.

When comparing expenditures, the different levels of service supported by each SSWM program must be considered. Snohomish County spends the least amount on its maintenance program, but the vast majority of comparable maintenance activities, such as cleaning catch basins, are funded and performed by other county departments (for example, the Roads Division). Likewise, Pierce County's expenditures for maintenance costs are relatively low on a percentage basis because its Roads Department maintains a significant amount of the stormwater facilities. Clark County's stormwater maintenance program is quite similar to Kitsap County's, but includes ditches and culvert maintenance. Our analysis shows that it is spending a higher percentage of its budget on maintenance activities compared to Kitsap County.

As shown in Exhibit 6, Kitsap County annually spends approximately \$534 per pond, Clark spends \$488 per pond, and Pierce spends \$2,551 per pond.

**Exhibit 6  
 Comparison of SSWM Maintenance Costs**

<b>2005 Maintenance Cost Category</b>	<b>Kitsap County Costs</b>	<b>% of Total Budget</b>	<b>Clark County Costs</b>	<b>% of Total Budget</b>	<b>Pierce County Costs</b>	<b>% of Total Budget</b>	<b>Snohomish County Costs</b>	<b>% of Total Budget</b>
2005 Budgeted Expenses	\$5,935,913	100%	\$5,214,277	100%	\$18,861,820	100%	\$14,457,753	100%
Ponds	258,600	4.4%	229,254	4.4%				
Catch Basins (including Decant)	563,891	9.5%						
Maintenance Tracking			1,539	0.0%				
Ditches / Culverts			385,364	7.4%				
Spill Response -- Ponds & Streets			11,093	0.2%				
Swales			155,670	3.0%				
Creek maintenance			213,022	4.1%	194,430	1.0%		
Lakes management					0			
Plat pond maintenance					400,580	2.1%		
Regional pond maintenance					400,580	2.1%		
Small works					542,130	2.9%		
Work on private land					90,000	0.5%		
Private Facility Inspect.			45,620	0.9%				
Drainage maintenance							800,998	5.5%
<b>Total Maintenance Expenses</b>	<b>\$822,491</b>	<b>13.9%</b>	<b>\$1,041,562</b>	<b>20.0%</b>	<b>\$1,627,720</b>	<b>8.6%</b>	<b>\$800,998</b>	<b>5.5%</b>

<b>Facility</b>	<b>Kitsap Co.</b>	<b>Clark Co.</b>	<b>Pierce Co.</b>	<b>Snohomish</b>
Storm Water Ponds	484	470	314	Road & Other
Catch Basins	9,905	9,623	Roads Dept	Road Division
Bio-Filtration Swales	79	1,122	Roads Dept	
Oil/Water Separators	183	36	Few	
Manhole Control Structures	262	389	250	
Lineal Feet of Piping	1,180,118	2,384,000	Roads Dept	
Drywells		900		
<b>Expense Per Pond</b>	<b>\$534.30</b>	<b>\$487.78</b>	<b>\$2,551.46</b>	<b>N/A</b>
<b>Expense Per Catch Basin</b>	<b>\$56.93</b>		<b>N/A</b>	<b>N/A</b>

**Conclusions and Recommendations**

Because Kitsap County’s SSWM program includes program elements not funded by other counties, cost comparisons are difficult to make. However, Kitsap County’s SSWM Program has the second lowest cost per capita, and if the cost is adjusted for the costs related to conservation and health district programs, Kitsap County has the lowest cost per capita of the four counties. For overhead and maintenance costs, Kitsap County has the lowest percentage of overhead costs compared to its total budget, while its percentage of maintenance costs to its total costs are the second highest of the four counties. Pierce and Snohomish Counties do not have as high a percentage of maintenance costs because their road departments fund maintenance for either catch basins, ponds, or swales.

## V. CAPITAL COST COMPARISONS

In addition to the fee and operating cost comparisons, the SSWM program’s capital construction costs were also compared to the three counties. The methodology for comparing the capital construction costs involved reviewing the bid tabs for selected projects and requesting information on comparable capital projects completed by the three other county programs.

Five projects were selected for comparison because they were representative of the variety of capital projects that have been completed by the SSWM Program over the past five years. The following five projects are referred in the report as the “Focus Projects”.

Project Name/(Year)	Project Type
Alaska Avenue Regional Detention Pond (2002)	Conveyance and Flood Control
North Street/Richards Avenue Conveyance System Improvements (2002)	Conveyance and Flood Control
Cool Creek Culvert Replacement (2001)	Fish Passage/ Water Quality Enhancement
Grata Creek Culvert Replacement (2001)	Fish Passage/ Water Quality Enhancement
Indianola Outfall Conveyance Improvements (2002)	Conveyance and Flood Control

To compare construction costs, key elements in the construction process were used as benchmarks to evaluate construction costs and the SSWM Program’s project management. These key elements were the following:

- Construction Bidding,
- Total Construction Costs,
- Construction Change Orders,
- Construction Schedule, and
- Construction Claims.

Obtaining comparable information is always difficult because it is a challenge to identify projects that are similar enough to provide useful comparisons. Pierce County provided information on three projects that are comparable to the five Focus Projects: a conveyance improvement project, a detention pond, and a culvert replacement. Clark County provided information on one project that involved the construction of a wetland and detention area that was designed and constructed by County personnel. Snohomish County provided information on five projects: two projects were drainage improvement projects, two projects involved detention pond retrofits, and the fifth project was a culvert replacement.

**Observation:** *The SSWM Program’s procurement procedures and established construction bidding process appear to be effective and, as a result, the County benefits from receiving a set of competitive bids for its capital projects.*

Appendix A provides the results of the bidding process for each of the five Focus Projects. This exhibit shows that the SSWM program has been successful in securing bids from multiple construction firms for each of these projects. In fact, one of the five Focus Projects resulted in 10 competitive bids and, on average, SSWM has received more than six bids (6.2) per project. This is similar to the information provided by Snohomish County which averaged slightly less

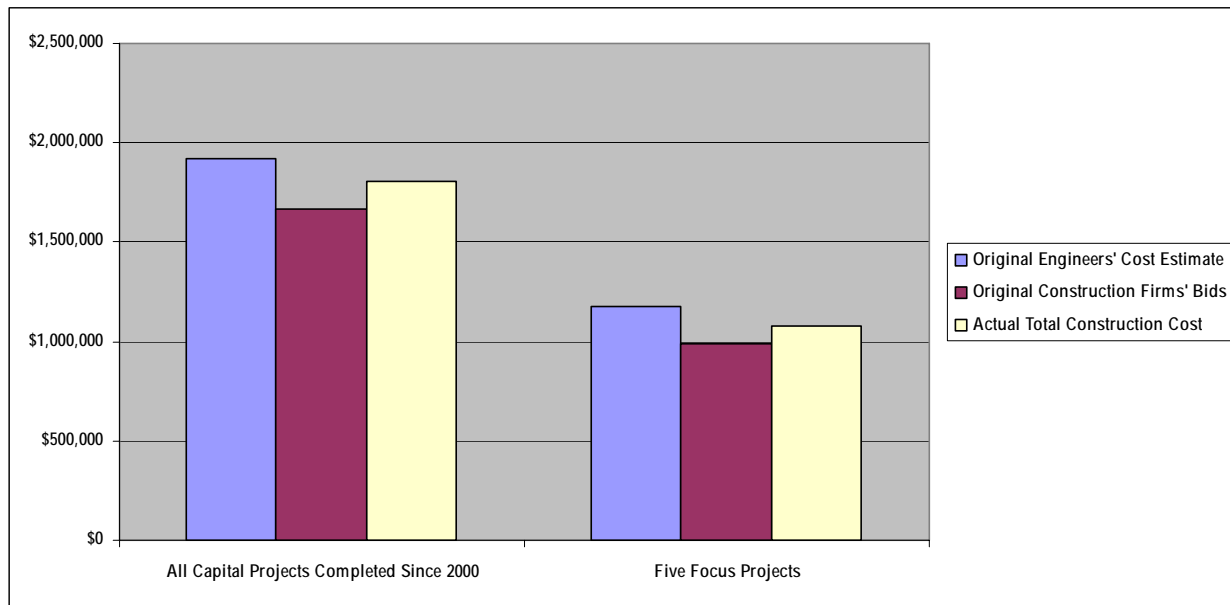
than seven bids (6.8) per project. The average number of bids received by Pierce County projects was 13.3, but this average is high because one project received 23 bids. When this project is not included, the average number of bids received by Pierce County was 8.5.

The selected construction firm bids were also below the original engineer’s costs estimate for each of the Focus Projects. In each case, the lowest bid was selected except for the Grata Creek Culvert Replacement Project. In that case, the firm with the lowest bid was not selected because the bid was determined to be irregular as the bidder failed to submit prices for a number of the bid items and improperly filled out the bid documents. Therefore, the bid was rejected, consistent with public bid requirements and sound fiscal policy.

**Observation:** *The construction cost information shows that the SSWM Program has an established program for developing engineering cost estimates for its capital projects, and as a result, the SSWM program has delivered its projects at or slightly below the original engineers’ cost estimates.*

In analyzing the construction costs, the actual construction costs were compared to the original engineer’s estimates and the original construction bids. The total actual construction costs for all SSWM projects completed from 2000 to 2003 (\$1.81 million) was above the total of the original selected construction firms’ bids (\$1.67 million) by about 8.2%. The total actual construction costs, however, were below the total of the original engineers’ cost estimates (\$1.92 million) by approximately 6.1%. Exhibit 7 graphically shows these comparisons.

**Exhibit 7**  
**Total Construction Costs – Actual Versus Estimated**  
**(Projects Completed From 2000 to 2003)**



Typical industry “rules of thumb” for construction projects are as follows:

- Low bids should be within 10% of the original engineer’s estimate, and
- Actual construction costs should be within 5% of the original bid

For the 11 completed projects, total actual construction costs averaged 13.2% below the original engineer’s estimates; actual construction costs for eight of the projects were below the original engineer’s estimate and three projects were greater. If the Cool Creek Culvert Replacement Project is removed from this set of projects for comparison purposes due to the significantly changed site conditions as discussed in the next section, the total actual construction costs for the remaining 10 projects were 10.7% below the total of the original engineers’ estimates.

In terms of actual construction costs versus the original bid, five of the 11 projects were above the original bid; two of these five projects were within 10% of the bid. In total for all 11 projects, the total actual construction costs were 8.2% above the total of the original bids; however, when the Cool Creek Project is eliminated from the set of projects for comparison purposes, total actual construction costs for the 10 remaining projects was only 1.4% greater than the total of the original construction bids.

Also shown in the graphic above is the total construction cost figures associated with the five Focus Projects. Similar to the results for all projects completed from 2000 to 2003, total actual construction costs (\$1.08 million) are greater than the total of the original selected construction firms’ bids (\$0.99 million) by about 9.4%, but less than the total of the original engineers’ cost estimates (\$1.18 million) by approximately 8.4%.

For comparison purposes, we evaluated Pierce County’s experience relative to the three comparable projects for which it provided information. The sum of the total actual construction costs for these three projects were approximately 36% below the total of the original engineers’ cost estimates, and about 24% below the sum of the original selected construction firms’ bids. The sum of the total construction costs for the five Snohomish County projects were approximately 21.1% below the total of the original engineers’ cost estimates and 1.3% below the sum of the selected construction firm’s bids. In the case of Clark County’s one project, actual construction costs were 28% below the original engineer’s estimate, but because this project was constructed using Clark County personnel, there is no comparison of actual construction costs relative to the original construction bid.

**Observation:** *Except for the Cool Creek project, change orders for the five Focus Projects have not had a significant impact on project construction costs.*

With the exception of the Cool Creek Culvert Replacement Project, the Focus Projects have had a limited number of change orders, and these change orders did not have any significant cost impacts. One project did not have any change orders, two projects had one change order, and the other two projects had two change orders each. Change orders in total for the five Focus Projects have averaged about 12.9% of the original construction bids. However, when the effect of the

Cool Creek Project is removed, change orders average only about 0.9% of the total original construction bids.

Exhibit 8 summarizes the change order results for each of the Focus Projects.

**Exhibit 8  
 Change Order Summary**

<b>Project</b>	<b>Change Order Number</b>	<b>Amount</b>	<b>% of Original Construction Bid</b>	<b>Reason</b>
North Street/Richards Avenue Conveyance Improvements	1	(\$3,000)	--	Change in material
	2	\$2,376	--	Additional work
	Subtotal	(\$624)	(0.5%)	--
Indianola Outfall and Conveyance Improvements	1	\$2,535	--	Additional work
	2	\$768	--	Additional work
	Subtotal	\$3,303	2.1%	--
Alaska Avenue Regional Detention Pond	1	\$3,383	1.1%	Additional work
Cool Creek Culvert Replacement	1	\$121,268	42.2%	Additional work and material
Grata Creek Culvert Replacement	None	--	--	--
<b>Totals</b>	--	\$127,330	12.9%	--

With regard to the Cool Creek Culvert Replacement Project, SSWM anticipated that the existing fill material was suitable for backfill if staged at the site during the excavation process. Because Kitsap County Public Works and its contractor placed the material when the original culvert was installed, SSWM believed that it could be re-used, but during construction the material was found to be unsuitable fill material. Weather may have played a factor in making the material unsuitable since there were a few days of rain while the excavation took place.

Even with these change order figures included, total actual construction costs for each of the Focus Projects, with the exception of the Cool Creek Project, have been below the original engineer's costs.

Snohomish County was the only agency that provided information on change orders. On the five projects for which they provided information, there were a total of 10 changes orders; in total, these change orders averaged 4.8% of the total original construction bids.

**Observation:** *Relative to schedule performance, the data provided for the Focus Projects indicates that the SSWM Program has demonstrated the ability to complete projects on time.*

Each of the five Focus Projects was completed consistent with the construction schedule that was established prior to the beginning of construction. Pierce, Clark and Snohomish Counties reported similar results for their projects.

**Observation:** *There were no claims filed for any of the five Focus Projects. This is also true for the Pierce, Clark, and Snohomish County projects.*

Construction-related claims can pose significant challenges and risks for agencies. The competitive bidding process sets the stage for pricing and compensation issues. Public works projects by nature put the parties at odds and contract disputes are relatively common. The integrity of an agency's engineering planning and bid documents are critical in avoiding conflicts and mitigating threats.

### **Conclusions and Recommendations**

Based on the five focus projects, the capital construction processes for Kitsap County's SSWM Program showed that there were an effective bidding process, reliable engineering estimates, few significant change orders, and on time and on budget construction. Compared to the other counties, Kitsap County had less variation between its engineering estimates and bids and construction costs, and it had fewer change orders.

## VI. MANDATORY VERSUS DISCRETIONARY PROGRAMS

In addition to the County's SSWM policies and programs, the County's SSWM program must meet a variety of federal and state laws. As part of the review of the SSWM program, an analysis was performed to identify what programs are mandatory and discretionary. The analysis consisted of two parts:

- Assess progress made by the SSWM Program in implementing the recommendations contained in the 2003 R.W. Beck report resulting from a project during which it assisted SSWM Program personnel develop a National Pollutant Discharge Elimination System (NPDES) Phase II Permit application, and
- Determine which program elements are mandated by State and Federal laws or rules, and which are discretionary.

### NPDES Phase II Stormwater Program

Congress changed the Clean Water Act to regulate stormwater in 1987. Under these revisions, NPDES permits are required for municipal stormwater discharges to surface waters. The Environmental Protection Agency (EPA) developed rules to implement the new stormwater requirements in two phases:

- Phase I - In 1990, EPA issued NPDES Phase I rules for cities and counties with populations greater than 100,000. In Washington, the Phase I requirements apply to Snohomish, King, Pierce and Clark counties, as well as the cities of Seattle and Tacoma, and WSDOT facilities within those jurisdictions, and
- Phase II - In 1997, the EPA issued NPDES Phase II rules regulating municipally-owned separate storm sewer systems within census-defined urban areas. Kitsap County is covered by the still draft Phase II requirements.

Both Phase I and Phase II rules require publicly-owned stormwater systems located within census-defined urbanized areas to obtain NPDES permits for their stormwater discharges. The EPA rules also require operators of municipal separate storm sewer systems (MS4s) to develop and implement a stormwater management program that:

- Reduces the discharge of pollutants to the "maximum extent practicable",
- Protects water quality, and
- Satisfies appropriate requirements of the Clean Water Act.

The following six measures are identified by EPA rules as minimum requirements:

- Public education and outreach,
- Public participation/involvement,
- Illicit discharge detection and elimination,
- Construction site runoff control,

- Post-construction runoff control, and
- Pollution prevention/good housekeeping.

The federal rules delegate several Phase II program actions and decisions to the states. Specifically, the federal Phase II regulations require the State Department of Ecology (DOE) to:

- Develop a process and criteria for designating which small MS4s must be covered under Phase II,
- Apply those criteria to any small MS4 located outside an urban area serving a population greater than 10,000 with a density of greater than 1,000 people per square mile,
- Designate and regulated any small MS4 that meets the criteria by December 9, 2002,
- For general permits, develop a menu of BMPs to assist regulated MS4s in implementing stormwater programs which will protect water quality, and
- Issue permits to all regulated MS4s.

The DOE has tentatively identified the regulated MS4s to be covered by the Phase II Permit requirements. It has also decided that there will be two general permits: one for eastern Washington and the second for western Washington. It issued a draft of the Phase II Permit requirements for western Washington earlier in 2005, and it is in the process of receiving public comments. It plans to finalize the permit for western Washington by the spring of 2006.

The draft western Washington Phase II Permit requirements include the following components for a stormwater management program:

- Public education and outreach,
- Public involvement and participation,
- Illicit discharge detection and elimination,
- Controlling stormwater runoff from new development, redevelopment, and construction sites, and
- Pollution prevention for municipal operations.

The draft permit also specifies other requirements that would be applicable to the SSWM Program including requirements related to TDML monitoring and compliance, reporting, and monitoring spill response planning and notification.

**Observation:** *The SSWM Program has made progress in partially or fully implementing several of the recommendations identified in the R.W. Beck Study. Efforts to implement other recommendations are on hold until the final Phase II Permit is released by the DOE.*

In 2003, R.W. Beck was retained by the SSWM Program to assist it in developing an application for coverage under the anticipated DOE NPDES Phase II Permit. The scope of services for this project included:

- Review of current and anticipated regulations,
- Review of existing SSWM Program,
- Completion of a gap analysis, comparing the existing SSWM Program to the current and anticipated regulations,
- Development of Program recommendations, and
- Completion of a financial analysis.

The R.W. Beck Study identified several modifications to the SSWM Program, summarized in Exhibit 9, which would be necessary to meet the current and anticipated regulations:

**Exhibit 9**  
**R.W. Beck Study Recommendations**

<b>Potential Program Gap</b>	<b>Possible Future Requirement</b>	<b>Possible Financial Impact to SSWM Program</b>	<b>Notes</b>
Define BMPs and Measurable Goals for All Six Minimum Control Measures	To be determined following publication of general NPDES Phase II Permit	None	Assumed completed using existing SSWM resources
Dry-Weather Outfall Inspections	Five-year inspection cycle of marine and creek outfalls	\$18,000 - \$105,000 per year	Lower impact: implementation in permit coverage area only; higher impact: implementation over entire SSWM service area
Construction and Post Construction Gaps	Adoption of the 2001 Ecology Manual (or equivalent)	\$80,000 per year	If adoption of the 2001 Ecology Manual is not required, then fiscal impact may be \$0
Written Operations and Maintenance (O&M) Plan	To be determined following publication of general NPDES Phase II Permit	None	Assumed completed using existing SSWM resources
Expanded Employee Training	To be determined following publication of general NPDES Phase II Permit	None	Assumed completed using existing SSWM resources
Catch Basin Cleaning	Annual cleaning	\$160,000 - \$230,000 per year	Lower impact: implementation in permit coverage area only; higher impact: implementation over entire SSWM service area
Pollution Prevention Plans	One-time requirement to prepare these plans	None after 2003	Updates after 2003 would be completed by existing SSWM staff
Street Sweeping	Monthly sweeping of curbed streets	\$160,000 per year	Road Maintenance Division function
Facilities, Parks and Recreation Department Impacts	Pollution prevention/good housekeeping	No impact to SSWM Program	Estimated \$35,000 per year impact to the County Facilities, Parks, and Recreation Department

The following narrative summarizes the status of the SSWM Program's efforts to implement the above recommendations:

- **Define BMPs and Measurable Goals for All Six Minimum Control Measures** - As part of its application for coverage under the DOE Phase II Permit, the SSWM Program identified some BMPs and measurable goals for each minimum control measure. This

application was submitted in 2003. R.W. Beck recommended that the Program revise these BMPs and measurable goals as necessary to be consistent with the Phase II Permit requirements. Since the R.W. Beck Study was completed, the DOE has issued its draft Phase II Permit which actually includes a series of BMPs and measurable goals for each of the six areas that will need to be met by each covered agency. The SSWM Program plans to simply adopt these BMPs and measurable goals once the Permit is finalized.

- ***Dry-Weather Outfall Inspections*** - R.W. Beck recommended that the SSWM Program complete inspections of all salt water and fresh water outfalls. According to SSWM Program personnel, they have completed inspection of all of its salt water outfalls and approximately 25% of its fresh water outfalls. The Program hired a summer intern this year who was dedicated to completing fresh water outfall inspections. Program personnel plan to have all fresh water outfall inspections completed by the end of 2006.
- ***Construction and Post Construction Gaps*** - The key contingency related to this recommendation concerns whether the DOE will require agencies to adopt the 2001 Ecology Manual or an equivalent document. This manual was updated in 2005 and the draft DOE Phase II Permit requires adoption of the 2005 Manual. The 2005 manual maintenance guidelines do not require more maintenance than the current Kitsap County Stormwater Manual guidelines. The 2005 guidelines cover additional BMPs, but are nearly equivalent in intensity and frequency. The Board of County Commissioners has indicated its opposition to this requirement because it believes that the associated costs outweigh the potential benefits. As such, the Department of Community Development has not acted on this recommendation to date.
- ***Written O&M Plan*** - This R.W. Beck recommendation was based on an assumption that the Phase II Permit would require the SSWM Program to prepare a written O&M plan. Such a requirement is included in the draft Phase II Permit. The Program has completed O&M plans for its decant facilities and developed Stormwater Pollution Prevention Plans (SWPPPs) for the light industrial areas that the County owns and operates. SSWM Program personnel are currently awaiting further data to determine the most appropriate frequency for its overall inspection and O&M activities. A number of other O&M-related procedures are in place but not fully documented at this time.
- ***Expanded Employee Training*** - R.W. Beck recommended that the SSWM Program expand its employee training programs based upon the requirements of the Phase II Permit. The SSWM has implemented several changes related to employee training since the R.W. Beck Study was completed. The SSWM field personnel have completed the Regional Road Maintenance Endangered Species Act (ESA) Training Program, and the University of Washington has requested that the DOE certify this program under the Phase II Permit; if such certification is obtained, the SSWM Program plans to expand this training opportunity to include other employees. Program personnel indicated that approximately 75% of the Program's field staff has been certified under the Associated General Contractors of America's Erosion and Sediment Control Program. The Program also conducts regular safety and cross training programs.

- **Catch Basin Cleaning** - R.W. Beck recommended that the Program conduct annual cleaning of all catch basins. The Program has actually cleaned more than 100% of its catch basins in each of the last two years (cleaning has been required for certain catch basins more frequently than once a year). Program personnel report that the costs associated with satisfying this recommendation has been less than the amount assumed by R.W. Beck.
- **Pollution Prevention Plans** - R.W. Beck recommended that the SSWM Program develop Pollution Prevention Plans for County-owned facilities. These plans have been completed.
- **Street Sweeping** - R.W. Beck recommended monthly sweeping of all curbed streets. This activity is the responsibility of the County Roads Department. During winter months, the current goal is to pick up sand within two weeks of its application. During the summer months, streets are swept on an as-needed basis. It is not expected that the Phase II Permit will require a change in the County's current street sweeping frequency.
- **Facilities, Parks and Recreation Department Impacts** - The Phase II Permit would require that maintenance of stormwater facilities in County parks also be performed in accordance with the pollution prevention minimum control measure requirements. This would be the responsibility of the County Facilities, Parks, and Recreation Department. SSWM Program personnel report that they have completed some work on behalf of the Facilities, Parks, and Recreation Department and other County departments, and as a result a somewhat better working relationship has developed.

**Observation:** *There are a number of SSWM program elements that are not required by the NPDES permit, but Kitsap County has other state requirements and its own requirements that it fulfills through its SSWM program.*

To determine what SSWM program elements are required versus those that are discretionary, the program elements were compared to the NPDES requirements. As noted in Chapter II, the Board of Commissioners established the SSWM Program for a broad number of purposes that are not solely related to the NPDES permit requirements. As a result, there are a number of SSWM program elements and certain tasks of other program elements that are not required by the draft NPDES Phase II Permit requirements (i.e., these program elements go beyond the minimum requirements of the Phase II Permit). Exhibit 10 shows the SSWM program elements by department/agency and shows what program elements are required and discretionary. A more detailed analysis is in Appendix B.

**Exhibit 10  
 Required and Discretionary Program Elements**

Department/Agency	Required	Discretionary
Public Works	<ul style="list-style-type: none"> <li>• Public outreach, education, and involvement</li> <li>• Signing</li> <li>• GIS mapping and maintaining and updating GIS of existing stormwater facilities</li> <li>• Drainage system inspection program</li> <li>• Facilities maintenance</li> <li>• Retrofit of existing stormwater facilities</li> <li>• Stormwater system maintenance waste processing facility operation</li> <li>• Stormwater impact monitoring and water quality response</li> <li>• Program administration</li> </ul>	<ul style="list-style-type: none"> <li>• Capital facilities planning</li> <li>• Capital project construction</li> </ul>
Community Development	<ul style="list-style-type: none"> <li>• Education and outreach</li> <li>• Stream Team</li> </ul>	<ul style="list-style-type: none"> <li>• Watershed management</li> </ul>
Kitsap Conservation District	<ul style="list-style-type: none"> <li>• Education and outreach</li> </ul>	<ul style="list-style-type: none"> <li>• Agricultural property inventory</li> <li>• Agricultural farm planning</li> <li>• Agricultural best management practice (BMP) design</li> <li>• Agricultural BMP installation</li> <li>• Agricultural BMP inspection and maintenance</li> <li>• Referral response</li> </ul>
Kitsap County Health District	<ul style="list-style-type: none"> <li>• Pollution identification and correction (PIC) program</li> <li>• Surface water quality monitoring program</li> </ul>	<ul style="list-style-type: none"> <li>• On-site sewage system complaint response program</li> <li>• Operation and maintenance program for on-site sewage systems</li> <li>• Financial assistance program for on-site sewage system repairs</li> <li>• Recreational shellfish program</li> <li>• Wellhead protection program</li> <li>• Marina sewage control program</li> </ul>

Except for capital project planning and construction and watershed management, most of the discretionary program elements are performed by the Conservation District and the Health District. These program elements include:

- Agricultural property inventory
- Agricultural farm planning
- Agricultural BMP design
- Agricultural BMP installation

- Agricultural BMP inspection and maintenance
- Referral response
- On-site sewage system complaint response program
- Operation and maintenance program for on-site sewage systems
- Financial assistance program for on-site sewage system repairs
- Recreational shellfish program
- Wellhead protection program
- Marina sewage control program

Although these program elements are not necessary to meet the NPDES permit requirements, they meet other requirements, such as those required in the Puget Sound Water Quality Management Plan and those identified in the ordinance establishing the SSWM Program. In 1996, the Washington State Legislature enacted the Puget Sound Water Quality Protection Act that established the Puget Sound Water Quality Action Team and Puget Sound Council and made them responsible for the Puget Sound Water Quality Management Plan (PSWQMP), Washington State's long-term strategy for protecting and restoring Puget Sound. The Plan provides the framework for managing and protecting the Sound and coordinating the roles and responsibilities of Federal, State, tribal and local governments.

The PSWQMP guides the efforts of Federal and State agencies as well as tribal and local governments in Clallam, Island, Jefferson, King, Kitsap, Mason, Pierce, San Juan, Skagit, Snohomish, Thurston and Whatcom counties. The management plan gives governmental entities specific assignments based on the nature of their missions and authority. These governments work with businesses, community organizations and citizen groups to achieve the goals of reducing pollution and protecting biological resources in Puget Sound.

Every two years, the Action Team and Council develop a Puget Sound Water Quality Work Plan to identify actions to maintain and improve Puget Sound's health during the next two-year State funding cycle. Work plan actions are guided by the Plan's long-term goals for restoring and protecting the Sound.

The PSWQMP directs each city and county to develop and implement a comprehensive stormwater management program and specified what those programs are to include. The specific requirements for such stormwater management programs, including:

- Stormwater controls for new development and redevelopment
- Stormwater site plan review
- Inspection of construction sites
- Maintenance of permanent facilities
- Source control
- Illicit discharges and water quality response
- Identification and ranking of problems
- Public education and involvement
- Low impact development practices
- Watershed or basin planning

While the above SSWM Program elements go beyond the minimum requirements of the draft NPDES Phase II Permit, they are required by either the Kitsap County Code and/or the PSWQMP, or they are consistent with good management practice. Exhibit 11 shows the program elements and the basis for the program.

**Exhibit 11  
 Compliance of SSWM Program Elements With Other Requirements**

<b>Program Element</b>	<b>Other Requirements or Good Management Practice</b>
Agricultural property inventory Agricultural farm planning Agricultural BMP design Agricultural BMP installation Agricultural BMP inspection and maintenance	<ul style="list-style-type: none"> <li>• Kitsap County Code</li> </ul>
Watershed management	<ul style="list-style-type: none"> <li>• Kitsap County Code</li> <li>• PSWQMP</li> </ul>
On-site sewage system complaint response program Operation and maintenance program for on-site sewage systems Financial assistance program for on-site sewage system repairs	<ul style="list-style-type: none"> <li>• Kitsap County Code</li> </ul>
Recreational shellfish program	<ul style="list-style-type: none"> <li>• Kitsap County Code</li> <li>• PSWQMP</li> </ul>
Wellhead protection program	<ul style="list-style-type: none"> <li>• Kitsap County Code</li> </ul>
Marina sewage control program	<ul style="list-style-type: none"> <li>• Kitsap County Code</li> </ul>
Referral response	<ul style="list-style-type: none"> <li>• Good management practice</li> </ul>
Capital facilities planning	<ul style="list-style-type: none"> <li>• Kitsap County Code</li> <li>• Appropriate activity to achieve SSWM Program objectives</li> </ul>
Capital project construction	<ul style="list-style-type: none"> <li>• Kitsap County Code</li> <li>• Appropriate activity to achieve SSWM Program objectives</li> </ul>

**Conclusions and Recommendations**

The SSWM Program has made progress in implementing the R.W. Beck study regarding its NPDES permit, but until the final permit is actually issued, the SSWM Program does not know what other improvements or actions may be required. The SSWM Program’s broad purposes contained in its originating ordinance as well as other requirements from the Puget Sound Water Quality Management Plan add program elements that are not necessarily required by the NPDES permit. Most of the discretionary program elements are performed by the Conservation District and the Health District. While a number of program elements are not mandatory, the SSWM Program’s comprehensiveness puts the program in a much better position to meet the NPDES

permit requirements. As noted earlier, the County's SSWM Program is an award winning program and has been recognized for its comprehensiveness. As discussed in Chapter II, the Board of Commissioners may want to revisit its previous purposes and program elements.

If the Board of Commissioners wishes to reduce the level of SSWM Program-related expenditures and it decides to approach this issue strictly from the perspective of compliance with State and Federal regulations, there are two general options it could pursue.

- It could choose to reduce the level of activities undertaken within many of the Program elements. This option pursues a strategy that would still ensure a "passing" grade (i.e., a "D" or "D-" grade) as opposed to striving for a higher grade (i.e., an "A" or "B" grade). Although there are a number of existing SSWM Program elements that are not required by the NPDES Phase II Permit regulations, the SSWM Program is certainly doing more in a number of areas than other stormwater programs. This is a direct result of past decisions made by the Board and SSWM Program staff based upon the objectives that have been established and the desire to "do the job well." Efforts could be scaled back and the Program could still meet the minimum requirements of the federal and state regulations.
- The second option involves removing elements from the SSWM Program that typically are not part of stormwater management programs and having them reside elsewhere. These elements include the following:
  - Agricultural property inventory
  - Agricultural farm planning
  - Agricultural BMP design
  - Agricultural BMP installation
  - Agricultural BMP inspection and maintenance
  - Referral response
  - On-site sewage system complaint response program
  - Operation and maintenance program for on-site sewage systems
  - Financial assistance program for on-site sewage system repairs
  - Recreational shellfish program
  - Wellhead protection program
  - Marina sewage control program
  - Watershed management
  - Capital facilities planning
  - Capital project construction

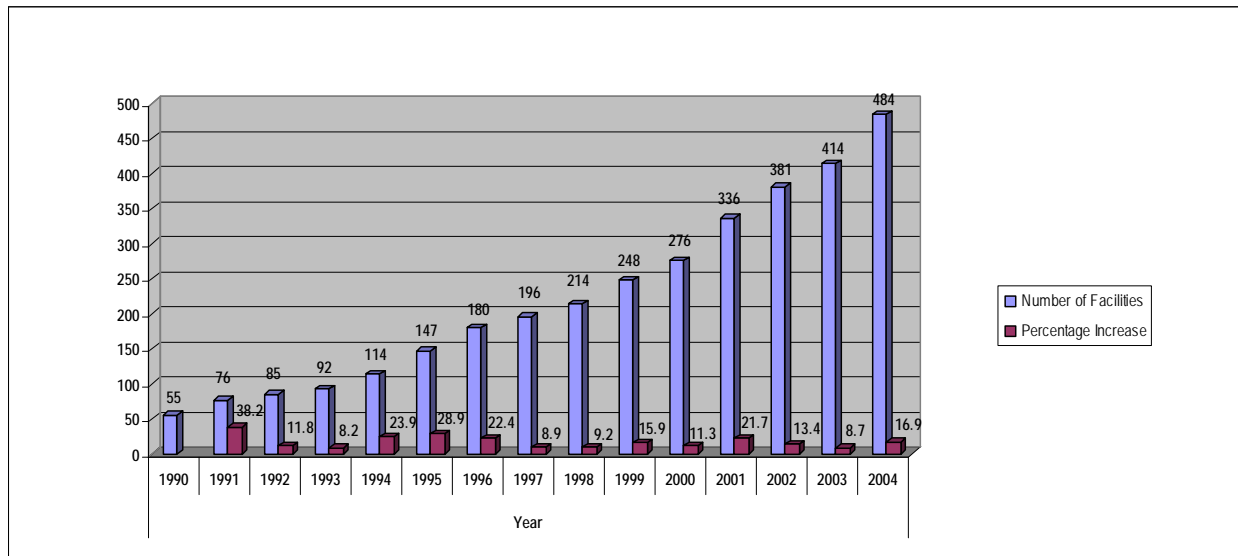
This strategy would not eliminate any of these Program elements since they are required by Kitsap County Code, but rather, it would establish separate management and funding mechanisms for these program elements. This strategy would not reduce the total expenditures incurred by the County (in fact, it might lead to an increase in total expenditures) but it would reduce the overall level of expenditures directly associated with the SSWM Program. The primary result of this strategy would be to make the level

of SSWM Program-related expenditures more directly comparable to the level of expenditures for other stormwater management programs.

## VII. INFRASTRUCTURE CONDITION AND INVESTMENT

As part of the scope of work, the SSWM Program’s processes for making capital investments and assessing the condition of its infrastructure were reviewed. Since its inception, the SSWM program’s infrastructure has been growing annually and now represents a substantial investment in facilities to control stormwater and to protect water quality, property, and public safety. For example, the number of stormwater ponds, vaults, and related treatment systems maintained by the SSWM program has grown from 55 in 1990 to 484 in 2004, a total increase of 880% over the 14-year period or 16.8% per year. Since 2000 the total number of these facilities maintained has increased a total of 75%, or 15.1% per year.

**Exhibit 12**  
**Stormwater Ponds, Vaults and Related Treatment Systems**  
**Maintained by SSWM Program**



The totals shown above include five vaults and 48 detention tanks, which are facilities difficult to maintain. Besides the ponds, vaults, and related treatment systems, other SSWM assets include the following:

**Exhibit 13**  
**Pipes, Trenches and Culverts (feet)**

Size	Pipes	Infiltration Trenches	Culverts
4 - 10 inch	70,160	1,470	--
12 inch	751,040	3,300	3,300
13 - 17 inch	58,310	--	100
18 inch	194,790	90	14,820
20 - 24 inch	48,560	--	6,600
26+ inch	31,260	--	19,380

### Catch Basins

Type	Number
Catch Basin Type I	8,574
Catch Basin Type II	1,419
Control Manhole Structure	270
Oil Water Separator Type I	22
Oil Water Separator Type II	78

There are two key elements that affect the SSWM program's infrastructure: new capital projects and retrofit projects. The SSWM Program's annual fund allocation to the capital improvement program budget was approximately 24% of its annual revenue in 2004; 34% with retrofit projects included. SSWM funding for capital projects has averaged \$1.02 million per year between 1998 and 2002. The size of projects have ranged from numerous smaller scale retrofit projects with a material cost of less than \$50,000, to the Cool Creek Culvert Replacement Project with a project cost of \$414,000. The Department has been able to fund capital improvement projects at a rate nominally twice the annual revenue source from reserves built in the initial years of the SSWM program.

In addition to capital projects, SSWM has increasingly undertaken more retrofit projects each year. This increasing retrofit project activity is a direct result of the significant increase in the number of stormwater ponds, vaults, and related treatment systems that are maintained by the SSWM Program, as previously noted.

**Observation:** *The SSWM Program has an established process for identifying and ranking its capital investment needs. Projects are identified through SSWM Program inspections and by citizen requests. Priorities are established based on criteria related to health, safety, and welfare as well as public stewardship.*

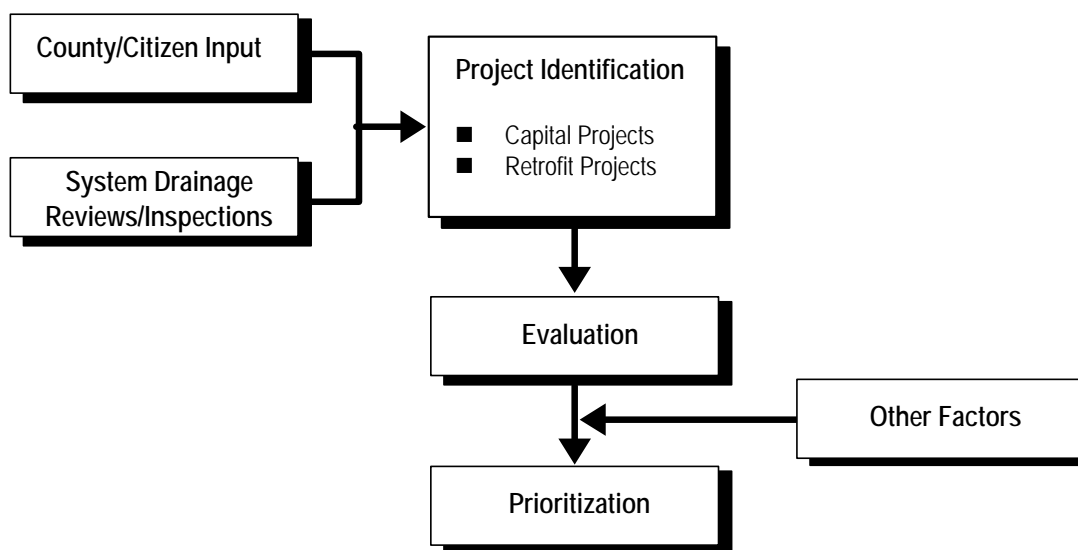
The initial projects completed by the SSWM Program were those driven by solving immediate and visible problems. The construction of these projects resulted in low cost, high benefit investments, directly noticeable improvements and solutions to drainage problems. For the most part, these projects were initiated as a direct response to flooding or other related problems observed by SSWM personnel. Several of the projects were initiated as a result of Requests for Action (RFAs) initiated by Kitsap County residents who advised the Department of local problems. As the SSWM program has completed projects with easily recognizable results, they needed to develop a process to identify and rank capital improvement projects that would be pre-emptive rather than reactive to drainage issues.

The nature of the recent capital improvement projects developed by the SSWM Program has evolved to those that will provide long-term improvements to the basins rather than direct immediate solutions to drainage problems. The projects have been developed as a result of either flood control or environmental drivers. Specific basin studies have been initiated by the SSWM Program as a response to either flood control or environmental issues. The SSWM Program generally prioritizes studies for basins impacted by the Growth Management Act due to the significant impact of urbanization on the system. These studies have been completed by a

combination of outsourced consulting firms and SSWM staff. The studies range from field investigations, water quality testing, field verification of conditions by County personnel during high rainfall events, and hydrologic modeling. The SSWM engineering staff analyzes the studies and develops projects to address the identified deficiencies.

Exhibit 14 summarizes the process by which the SSWM program identifies and prioritizes potential projects.

**Exhibit 14**  
**Project Identification and Evaluation Process**



Because projects included in the capital improvement plan provide perhaps less immediate and noticeable results, the SSWM Program has developed a ranking system in order to evaluate each project on several criteria. The SSWM Program developed a Project Priority Rating Form in support of a process that would allow each project to be evaluated on criteria that would support the goals of the SSWM Program. The projects are ranked by weighted criteria in two categories: health, safety and welfare and public stewardship. The health safety and welfare category is weighted about 80% more than the public stewardship category. Projects are selected based on a systematic methodology that involves an annual review and a numerical ranking applied to each project. Projects are developed in response to inspections completed by SSWM staff, other Program staff (KCD, KCD CD, and KCHD), information provided by the general public through RFAs and other contacts and observations by the County Roads Department personnel.

In the initial stages of developing the project ranking system the SSWM Program recognized that flood control projects routinely ranked ahead of environmental projects. Accordingly, the SSWM Program has since better balanced project ranking between flood and environmental issues. SSWM staff report that they conduct periodic project updates in order to confirm the integrity of the proposed scope and confirmation of the project need. As the projects move closer to funding, additional confirmation of the scope and budget are conducted.

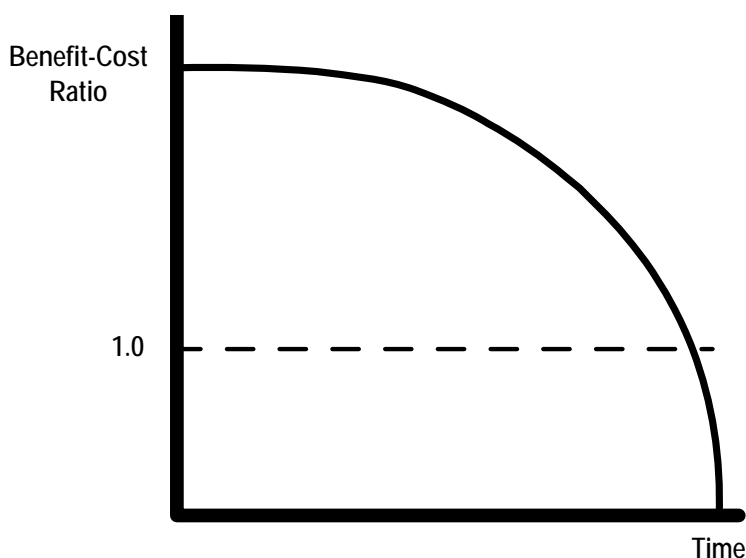
The SSWM Program provides an annual recommendation on projects to be funded to the Board of County Commissioners. The list of recommended projects is based upon the relative rankings of identified projects and the level of funding available to complete capital projects. The final determination of projects to be funded is made by the Board as a result of its decisions regarding overall SSWM Program funding.

**Observation:** *Although there is a systematic method for ranking projects, the process does not include a specific analysis of the financial costs and benefits of funding a project. Because the amount of capital project funding has been related to the amount of funding available after operating costs are funded, the capital projects are based on how far down the list the available funding can support.*

SSWM Program staff indicated that they have not carefully evaluated the question of how far down the list of potential projects the SSWM Program should go. A mature and exceptionally well-managed capital program balances the competing issues of rates, capital investments, and the levels of service provided by the utility. As a capital program continues to mature, they begin to critically evaluate the issue of balancing capital investments against appropriate levels of service. While the SSWM Program does an excellent job of developing and prioritizing projects, it has not yet reached a level of resolving such questions as “when is enough, enough?”

As with any capital project program, the relative benefit-cost ratio of projects tends to decrease over time as the easier, low cost, high benefit projects are completed and a program is left with larger, more expensive and often more complicated projects are left. This relationship is depicted in the following graphic.

**Exhibit 15**  
**Conceptual Benefit-Cost Profile**



SSWM Program staff acknowledged that its program has had a similar experience. As the SSWM Program moves from drainage projects (which tend to be smaller, less expensive and more immediate benefit) to longer term improvements to the basins (which tend to be bigger, more expensive and more complex), the relative benefit-cost ratio of projects has been and will continue to decrease over time. They further stated that they have not evaluated where the breakeven point is after which projects are no longer cost-effective. They are confident that they have not reached that point yet, but they cannot say when that point in time will occur.

Although the project rating sheet includes a cost benefit element as part of the ranking, the cost benefit element is not a true cost benefit analysis and does not represent a major factor in determining the project's ranking. The cost benefit element is worth less than 5% of the total possible points, and the cost benefit point factor is based on the project's relative cost compared to similar projects, not all projects. As a result, programmatic impacts have a much more significant weight than costs.

On a related point, SSWM Program staff indicated that specific service level standards have not been established and that the citizens of Kitsap County have not been formally surveyed to determine their level of satisfaction relative to the projects being completed by the SSWM Program.

**Observation:** *The SSWM Program has a well established process for assessing and inventorying the operational and physical condition of its infrastructure.*

The SSWM staff estimates that within the last five years a very high percentage of its facilities have been inventoried, inspected, and mapped in the County's GIS system. The responsibility for inspecting facilities is divided between SSWM and the Road Maintenance Division. SSWM personnel are responsible for any pipe within the right-of-way greater than 48 inches diameter or with more than 10 feet of fill. SSWM personnel are also responsible for structures, pipes outside of the right-of-way, water quality facilities such as pollution control structures ponds, and detention facilities. The Road Maintenance Division inspects all pipes within the right-of-way except as noted, as well as ditches and cross culverts. The SSWM Program currently does annual inspections of all facilities.

The SSWM Program applies a well established process of ranking the condition of its assets. The SSWM Program adopted the method developed by the Federal Highway Administration's (FHWA) Culvert Inspection Manual, Supplement to the Bridge Inspector's Manual. The FHWA rating system provides a numerical method to characterize the condition of the asset and track the trend of decline as the asset ages or is damaged. The inspector assigns a numerical score to the asset that is defined in the method as the "Maintenance Urgency Index (MUI)". The scale ranks the asset on a scale of 0 to 9. An associated maintenance immediacy schedule and course of action are associated with each numerical score. SSWM staff has consolidated this rating system to a scale of 1 to 5. Road Department personnel inspect all drainage facilities within the rights-of-way except as noted. The SSWM Program currently does annual inspections of all facilities for which it has responsibility.

The SSWM Program is currently assessing the viability of inspecting some facilities on a longer cycle, such as every two or three years. The SSWM Program has collected sufficient data to categorize their facilities into those which need annual assessment versus those that can safely be evaluated every two or even three years. SSWM personnel do note that there have been a few selected spots that require maintenance more than once per year. SSWM personnel also report that they occasionally discover assets that have been previously unrecorded, although instances of this have dropped dramatically since implementation of concerted inventory and mapping efforts. If previously unrecorded assets are discovered, they are reported to the Engineering Group for mapping and inventory.

**Observation:** *There are opportunities to improve the SSWM Program for inspecting the condition and recording private SSWM facilities.*

Private improvements are designed and constructed to the County's standards. Department of Community Development staff conduct field inspections during construction and at the end of the two-year maintenance bond period to ensure that the system is still sound. This is critical for system reliability. SSWM staff will also maintain private drainage systems in private roadways serving residential subdivisions (Plats and PUDs), but will not accept any responsibility or cost burden for road surface repair or asset replacement. While this practice may be unconventional in the industry, it is a sound practice in that many of the public systems rely upon the integrity of down stream private systems. According to SSWM staff, many private facilities are not being regularly maintained. Inspection records of private facilities show that since July 2004 about 100 private SSWM facilities need system maintenance and that the SSWM Program has taken action to notify the owners. SSWM staff believe that it is difficult to get owners to comply. After notifications have been issued, if the owner still hasn't complied, the case is referred to the County's code enforcement officers for action. According to the SSWM staff, code enforcement may or may not pursue civil action to force compliance and institute penalties.

The SSWM Program has a systematic process for transferring ownership of facilities that are constructed under either the retrofit or design/bid/build project delivery methods. Tracking the transfer of ownership and value of the asset is critical in order to have current values of plant in the utility for management of O&M budgeting and depreciation. Upon completion of a contract project, Engineering enters the asset in GIS, and the accounting department books the asset.

The Department does not have a process for managing the inventory of privately constructed system improvements that are transferred to the County. Engineering enters the facilities in the County's GIS and maintenance inventory; accounting does not, however, book the asset. This results in under-reporting the overall asset base of the utility.

**Observation:** *Although there is an established process for identifying and ranking new projects for funding, the SSWM Program does not have a funding mechanism to replace and renovate its existing facilities.*

Currently, the SSWM Program does not fund depreciation or any other sinking fund to replace degrading infrastructure. Approximately one-fourth of the annual budget is directed at new capital projects, but none of the budget is directed at a comprehensive replacement program. While this strategy is effective in keeping annual fee levels and costs lower, the SSWM Program

is delaying funding requirements for extensive infrastructure replacements, and as a result, there may be a need for significant future increases in the SSWM fee. By funding depreciation, funding requirements are amortized over time and help decrease large fluctuations in rates over time. According to the County's 2003 Comprehensive Annual Financial Report, depreciation was about \$144,000.

While the useful life of storm facilities is debatable and highly dependent on several factors such as material type, workmanship, maintenance, water chemistry and load factors such as cyclic loading on heavy traffic areas, the SSWM Program may well expect to be faced with replacement of its existing facilities. Failures in storm systems may have significant ancillary damage related to flooding, breach of water quality facilities or damage to structures or road surfaces. Sinkholes resulting from storm failures in road systems represent a potentially serious safety hazard to the County.

Besides the County's SSWM facilities, replacement and major maintenance for Road Fund and privately owned facilities might also be an issue in the future. The vast majority of ponds maintained are not on County owned property and are therefore not County assets. Only about 70 tanks and ponds are on County owned property or within the public road right of way. Approximately half of these are within the road right of way. The remainder of the infrastructure is either on County-owned land or within the road right of way. SSWM Program or Road Fund ownership of the infrastructure in the right of way is not clear. Like SSWM-owned facilities, the funding for future replacement needs should be addressed (i.e. SSWM support, private owners, or Road Fund).

## Conclusions and Recommendations

The SSWM Program's capital investments are managed through established processes that identify and rank the Program's capital needs, and once built, the Program also has sufficient processes that assess and inventory the operational and physical condition of the Program's facilities. There are, however, some improvements needed in inspecting and recording private facilities and in developing funding for replacing and renovating SSWM facilities.

- The SSWM Program should build upon its project prioritization process to answer the question, "when is enough, enough?" The SSWM Program's existing project prioritization process ranks projects based principally on their benefits. A number of these benefits are not quantifiable, nor can they really be monetized. The conceptual benefit-cost profile discussed earlier is often thought to be based only on dollars, but the concept is just as applicable if one includes both quantitative as well as qualitative benefits and costs. The key issues is to determine the threshold below which the SSWM Program should delay or not pursue projects. One alternative is to have a separate cost or cost benefit ranking that has more of an equal weight with the programmatic rankings.
- The Board of County Commissioners and SSWM Program personnel should give consideration to developing specific level of service objectives. These objectives could be a useful element in addressing the benefit-cost issue.

- The SSWM Program should consider conducting a survey of County businesses and residents to determine their overall level of satisfaction with the program elements being delivered by the SSWM Program. The results of this survey can also be used to help determine the appropriate levels of services for the Program.
- The SSWM Program should determine if there is another type of civil penalty or fine that can be levied on owners of private SSWM facilities that are not maintaining their systems. In addition, to avoid the lengthier process of sending such cases to the code enforcement officers, the County should consider whether the inspectors can be authorized to act as code enforcement officers. If these alternatives are not viable, the SSWM Program may want to re-evaluate how maintenance should be handled on private systems and whether the transfer process and bond requirements are sufficient.
- The SSWM Program needs to establish a more formal process for the transferring of assets from private owners to the County and complete a reconciliation of the engineering inventory of assets with the accounting inventory.
- The funding of the depreciation base of the assets should be revisited for SSWM facilities, and the County should also determine whether SSWM funding should be used to support private and Road Fund facilities needing replacement or major repairs.

## VIII. OUTSOURCING AND PRIVATIZATION

Outsourcing and privatization can provide opportunities in certain situations for the SSWM Program to reduce costs. As defined in the scope of work, outsourcing and privatization also include using other public agencies as well as private contractors. The SSWM Program has already been recognized by the Puget Sound Action Team as a program that is an “excellent model of a cooperative partnership”. The Program already contracts with the Kitsap Conservation District and the Kitsap County Health District to provide services and also has an interdepartmental agreement with the Department of Community Development to provide watershed planning, education and outreach, and “stream team” support and coordination.

The SSWM Program has also leveraged project funds by coordinating projects with other agencies. For example, for the Augusta Avenue Conveyance Improvements Project completed in 2002, the County entered into an Interlocal Agreement with the Suquamish Tribe for a joint project. The Tribe secured grants from the Bureau of Indian Affairs and provided Lead Agency services, permits and easement acquisition for the project. The SSWM Program funded the storm drainage conveyance improvements and constructed the improvements within the umbrella of the roadway project. Accessing other agency resources allowed the SSWM Program to leverage funds for cost savings in administration and restoration costs for the upgrade of the stormwater system. The Conservation and Health District have used their SSWM supported activities to leverage SSWM funding by obtaining grant and other funding for District projects.

Outsourcing or contracting out is slightly different than privatization. Outsourcing or contracting out is the hiring of private sector firms or non-profit organizations to provide a good or service for the government. Under this approach the government remains the financier and has management responsibility for the type and quality of services provided. Privatization is a process designed to shift functions from the public sector to the private sector. It can include both contracting and transfer of assets. For the most part, we have identified areas where the SSWM Program contracts for services rather than privatizing the services.

**Observation:** *The SSWM Program has an established process for using private contractors for its capital project work, and as part of its operations uses private contractors or other agencies to provide services and support.*

Spending on capital projects in 2004 represented about 24% of the annual revenue. As a public organization, the SSWM Program is required by Washington State R.C.W. Title 39, to use competitive bidding of public works projects. Projects with a cost greater than \$50,000 or presenting a level of complexity beyond the capability of the SSWM Program staff are completed by the conventional design/bid/build competitive process. The bid documents are prepared either by SSWM engineering staff or an outside engineering consulting service. The SSWM Program then coordinates the bid process through the County’s Procurement Office, which handles the bid procurement process and contracting. Once the bid procurement process is complete, the SSWM Program assumes responsibility for construction services. The SSWM Program also attempts to include any proposed SSWM capital improvement projects with County road improvement projects to help leverage its funding.

When capital projects are less than \$50,000 of material cost and require less than three weeks of SSWM crew time, these projects are completed by SSWM staff under the Program's retrofit program. The SSWM engineering staff will develop the plans and provide construction support to the SSWM retrofit crews. The Department procures materials through local suppliers via guidelines in the County's purchasing ordinance. The SSWM Program gets three to five quotes for supplies anticipated within the next quarter per its guidelines. According to SSWM Program staff, vendors in the area will not give annual purchase price quotes unless the SSWM Program purchases all of the product at one time due to fluctuations in oil and transport costs. The SSWM Program sole sources concrete structures from the Shoppe Company to ensure consistency, and lids are sole sourced from Olympic Foundry because it is the only manufacturer in the area. Everything else over \$2,500 is purchased via the quote process according to the County's purchasing ordinance. The SSWM Program then utilizes its staff and equipment to construct the project.

The SSWM staff have access to three engineering staff and related support services. The SSWM Program utilizes these resources on a case-by-case basis in the development of engineering designs and contract documents in support of capital projects. The SSWM Program may expand these resources in support of retrofit or publicly bid design/bid/build projects.

The SSWM Program utilizes a broad base of outsourced services. Firms, such as R. W. Beck, Parametrix, and Entranco, are examples of engineering firms providing services to the SSWM Program. The selection of the engineering firm is conducted on a project-by-project basis. The County solicits statements-of-qualifications and interest from professional service firms, and qualifying firms are retained on one of the following four engineering-related rosters:

- Civil engineering roster
- Engineering general construction roster
- Highway and streets engineering services roster
- Engineering professional roster

SSWM staff members conduct an initial screening of the County's roster to determine the firms who offer the necessary expertise and experience to provide project-specific services. The staff then conducts interviews with up to three firms. A panel of SSWM Program staff members ranks each firm on pre-determined criteria; the independent rankings are compiled; and the firm with the highest ranking is selected to negotiate a contract for services. The County's Procurement Office leads the contracting process for all outside services, and once the contract is signed, the SSWM Program then coordinates the efforts of the consultant.

There are a number of examples where the SSWM Program and its partners contract for services with other agencies, and private businesses.

- The Conservation District uses a private consultant to develop farm plan specifications and provide engineering assistance.
- The SSWM staff use the Road Division's sign shop for its signing program, use the Public Works' graphics staff, contract printing for education and outreach literature,

develop and use volunteers to implement programs (e.g. Stream Team projects, car wash program).

- For the Health District about 3-4% of its SSWM revenues are used for professional service contracts.

**Observation:** *There are some operating functions that could be outsourced, but more analysis needs to be done to determine if the level of service and cost effectiveness can be maintained and improved.*

Most of the SSWM operating programs are performed by employees of the four departments and agencies. To help the SSWM Program assess whether contracting for services is an option that should be pursued, criteria need to be developed to provide a framework for such an analysis. The Washington County (Oregon) Auditor conducted a study on contracting out, and through a literature review a number of criteria were identified. Appendix C provides a copy of the criteria and decision factors identified by the study. The following are the criteria:

- Market situation,
- Potential savings,
- Operational efficiency,
- Risk,
- Quality/effectiveness of service,
- Legal barriers,
- Management control, and
- Strategic/political sensitivity.

Many of the SSWM programs are regulatory in nature or provide specialized staff services where there is no private sector counterpart or where professional service fees for full time work would be very expensive on an ongoing basis. However, there are several areas where the SSWM Program might want to review and assess whether contracting out would benefit the SSWM Program.

- SSWM facilities maintenance is an area where there may be opportunities for outsourcing. Pond maintenance and catch basin cleaning are the two maintenance services where outsourcing might be appropriate. For example, the City of Federal Way contracts out its vector service, and according to its 2004 budget, the City expected that it could reduce its budget for this service by 20%. Because of the larger number of catch basins and greater area covered, a thorough analysis of contracting out would need to be conducted. As noted in Chapter IV, the SSWM Program's cost per catch basin was about \$47. These costs provide a benchmark for determining whether a private contractor would be more cost effective. We also contacted a couple of private operators on the County's roster and found that they charge a range from \$125 to \$175 per hour for vector services. According to the SSWM Utilities Maintenance Supervisor, it costs the SSWM program about \$88 an hour for two employees and another \$36 for the vector replacement charge for a total of \$124 an hour. The SSWM hourly rate, however, does not include administrative overhead or other non labor costs associated with the

operation. The private operators also mentioned that depending on the scope of work, their hourly rate might be lower. On a cost per catch basin, the private contractors had varying estimates. One indicated a cost of \$20-\$40, while another contractor \$40-\$85.

- For pond maintenance the SSWM maintenance staff are not maintaining all of the ponds as set forth by the SSWM maintenance guidelines. As noted in Chapter IV, the SSWM Program's maintenance cost per pond was about \$534. A 2005 post-season assessment done by the Utilities Maintenance Supervisor found that over 80% of the ponds were in good maintenance condition and that the other ponds required some debris removal or an additional cut. This might be an opportunity to see if private contractors can perform in a cost effective manner. Other opportunities might involve work on private facilities in residential subdivisions that have an agreement with the SSWM Program to perform pond maintenance.
- The retrofit construction area is another program that might be reviewed to determine if contracting out improves services and lowers costs. As mentioned previously, SSWM's retrofit staff work on projects that are less than \$50,000 and require less than three weeks of time. Because retrofits are done in-house, there is currently more of an informal design process working with the retrofit staff. If each of the retrofit projects were contracted out, more formal procedures and specifications would need to be developed and the process would be more like the current bid process for the projects over \$50,000. This will take additional time and effort and potential savings on projects might be offset by the cost and time for design and the bidding process. In the past two years, the SSWM Program has added two operations staff to increase its in-house capabilities to construct retrofit projects. As a result, the SSWM Program is able to do more work using its own staff and, thus, rely less heavily on outside engineering and construction firms. In fact, SSWM Program staff indicated that they are able to handle all retrofit projects in-house except in rare cases where specialized equipment is required. Because each of the retrofit projects may be different, there are no specific costs to compare between the SSWM program and private contractors unless both groups bid on a specific project.
- The Health District and the SSWM Program both have water quality labs. The Health District's lab is certified, while the SSWM lab located in the Public Works Annex is not certified. The SSWM lab is used to support field activities that include outfall, street waste, and stormwater flow monitoring. The lab is used to calibrate instruments and to conduct simple tests. The SSWM program also uses a private lab for specific tests that require more sophisticated equipment than what is available at the County and the Health District. The Health District recently completed an analysis of whether it should close its lab and contract out for its lab work. The study found that it was more cost effective to keep the District's lab than to contract with the lab used in the comparison. Because both the District and the SSWM program have labs, the SSWM Program should assess whether it would be more cost effective to send some types of samples to the District's lab. The District's proposed fees range from \$8.69 to \$25. The SSWM Program estimates that if the Health District lab is used for fecal coliform testing, it will save about \$2,600 per year.

## Conclusions and Recommendations

The SSWM Program and its participating agencies already contract out for many goods and services, and contracting out is well established for capital projects. Specific bidding and competitive processes exist for capital project work, and the County's purchasing guidelines dictate other types of procurement. Several private contractors offer vector services, and based on preliminary hourly rates and costs per catch basin, their costs compared to the SSWM costs may offer an opportunity to reduce costs. Before determining whether contracting out is desired, criteria are needed to assess whether or not such a practice meets the programmatic needs of the Program as well as cost reduction needs. Because the SSWM Program already contracts for many goods and services, the SSWM Program might consider contracting catch basin cleaning and pond maintenance as a viable alternative to providing services in house. We recommend the following:

- The SSWM Program should develop criteria for determining whether contracting out is a viable alternative to keeping or providing services in-house. Key issues include current labor agreements, work performed by the staff for other County divisions and departments, other indirect costs associated with contracting out, preliminary estimates from private contractors, and opportunities to incrementally test the contracting out approach.
- The SSWM Program should consider contracting out catch basin cleaning and pond maintenance if there is an opportunity to reduce costs and if there are no legal barriers preventing such contracting. Specific scopes of work need to be developed as well as more complete cost data on the in-house cost of service for each activity. The SSWM Program could contract out all or some of the work and also allow the in-house staff to compete.
- Based on the criteria it develops, the SSWM program should review its retrofit operations to determine if contracting out is viable. Key issues involve the preparation and quality control costs of contracting out, the added time necessary for formal bid processes, and the contracting/bid process (e.g. one bid for all projects or separate bids for each retrofit project).
- The SSWM Program should identify cost effective opportunities to contract with the Health District for lab tests.

## IX. FINANCIAL FORECASTS AND TRENDS

As part of its proposed fee increase for 2005, the SSWM Program prepared a financial forecast to determine the impacts of a fee increase to \$50 in 2006 through 2010. The financial forecast is shown in Appendix D. The performance audit scope of work included a review of the forecast assumptions, the impacts of outsourcing and capital projects, and the financial results compared to historical trends. One of the “best budgeting practices” recommended by the National Advisory Council on State and Local Budgeting is that governments should have a financial planning process that assesses long term financial implications of current and proposed policies, programs, and assumptions and that develops strategies to achieve its goals.

**Observation:** *The financial forecast revenue assumptions are generally consistent with the 2005 and 2006 planned fee increases and the historical growth rate from 1999-2004. By not assuming a fee increase after 2006, the forecast represents a conservative estimate of the SSWM Program revenues because it is not based on the cost of service.*

The SSWM Program receives rate revenues from two primary sources: private property owners and County road rights of way. The six-year revenue projection forecasts these rate revenues separately. For private property owner revenues in 2005, the forecast shows an increase of 7.7%, which is higher than the 5.6% rate increase to \$47.50. In addition, the overall average growth in revenues from 1999-2004 has been only about 1%. However, in 2006 the forecast shows a slightly lower increase at 4.9%, even though the fee is forecast to increase by 5.3% to \$50. For years 2007 through 2010, the annual revenue growth is assumed at 1% which is consistent with the 1999-2004 period.

SSWM’s projection for revenues from County road rights of way assumes that 2005 revenues will be 5.2% higher than 2004 because of the adopted fee increases to \$47.50 from \$45.00 per equivalent service unit for County roads and to \$14.25 from \$13.50 for state roads. The forecast also assumes a 5.3% increase to \$50 in 2006, and as a result, 2006 revenues are projected to increase 5.2% over 2005. Although the fee remains unchanged in 2007, revenues from road rights of way are forecast to increase by .4%, and no revenue increases are forecast from 2008 through 2010.

For 2005, total fee revenues are estimated at \$4,866,556, and by 2010 total fee revenues are forecast at \$5,262,128, an overall 8.1% increase. Although 2005 starts with about \$6.2 million in fund balance, there will be no available fund balance remaining by 2009.

**Observation:** *The operating expenditure forecast represents a status quo scenario with no increase in services except in 2005. Expenditure growth is based on inflation rates that are generally close to historical and forecasted inflation rates. Forecasted capital expenditures are expected to decline significantly from 2005.*

The expenditure forecast is based on a status quo scenario where operating expenditure growth is based on inflation. The forecast uses two inflation rates depending on the type of expenditure. A 3% inflation rate is used to increase salaries and benefits as well as expenditures for the partner departments and agencies. For supplies and services, the forecast uses a 2% inflation

rate. These inflation rates are above and below historical inflation rates, respectively. The five-year average annual inflation rate, as measured by Seattle's Consumer Price Index, is 2.36%, and the nine-year average annual inflation rate is 2.77%. For 2006 and 2007, the Washington State Office of the Forecast Council is projecting inflation rates of 2.7% and 2.2%, respectively.

For capital expenditures, debt service is about the same amount every year, but capital project expenditures significantly decrease over time. For 2005, capital project expenditures are forecast at \$1.8 million, but are expected to decline to \$600,000 by 2010.

Overall, total expenditures in 2005 are forecast at \$7,150,947, and by 2010, expenditures are expected to decrease to \$6,576,285.

**Observation:** *Because of the early start-up costs and past program growth, the historical expense and revenue performance in the SSWM program differs in almost every area with the assumptions used for the six-year projections. However, the lack of consistency in the annual financial reports makes comparisons difficult.*

As part of the fiscal review, an analysis of the revenue and expenditure history of the SSWM Program was performed. The analysis is based on data from the County's Comprehensive Annual Financial Reports for 1996 through 2003 and from SSWM financial reports from 1996 through 2004. Over the eight to nine years covered by these various reports, it should be noted that the SSWM Program has evolved and grown over the years and that revenue and expenditure trends reflect historical service changes and growth. The status quo forecast projects the revenues and services as they are today and assumes that they will continue "as is" in the future. Because the program has matured and now has few "start-up costs", there are some considerable differences in how the SSWM Program spent its funds in the past compared to how it plans to spend its funds in the future.

Using 1996 financial performance as the basis for the first year of full service, operating expenses increased by a total of 79% from 1996 through 2003, while total rate revenues increased by 8% for the same period. From 1996 through 2003, total operating expenses increased from \$2.4 million to \$4.3 million, while total rate revenues increased from \$4.2 million to \$4.5 million. Thus, the share of rate funding available for capital purposes has decreased significantly from \$1.8 million in 1996 to only \$200,000 in 2003. According to SSWM staff, the original capital program was funded at an average of \$425,000 per year, and it was known that the amount was not sufficient to accomplish what the program envisioned. At the time, it was agreed that unexpended funds collected during start-up would be set aside to implement a more aggressive capital program and that capital funding would be addressed in the future.

The increase in operating expenditures is a direct result of increases in some very specific program activities. Based on SSWM financial data for the SSWM program activities, Exhibit 16 shows where some of the major increases have occurred.

**Exhibit 16**  
**List of Major Program Activity Expenditure Changes**

<b>Program Activity</b>	<b>1996 Expenditures</b>	<b>2004 Expenditures</b>	<b>Percent Change</b>
Facilities Maintenance	\$298,400	\$774,900	160%
Drainage System Inspection	\$102,200	\$199,200	95%
Stormwater Impact Monitoring	\$7,200	\$157,900	2,093%
Pollution Identification and Correction (1997)	\$151,100	\$507,800	236%
Engineering Retrofit Program (1998)	\$1,114	\$78,480	6,945%
Decant Station	\$19,600	\$94,600	383%

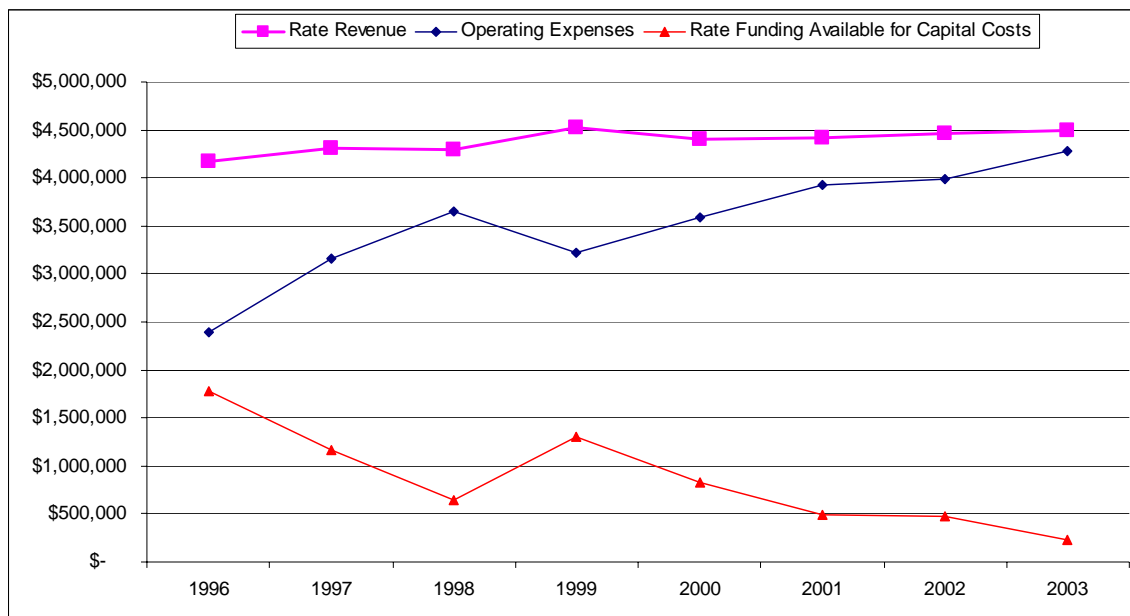
From 1996 through 2003, total operating expenses have grown at an annual compound growth rate of 8.7%. This growth rate is not consistent with the SSWM Program's six-year forecast, whose highest inflation factor for expenses is 3%. Overall, the annual compound growth rate of total projected expenditures is 2.1% from 2004 through 2010.

For some of the more specific operating expenditures the following discusses trends in their expenditure levels.

- From 1997 through 2003, the Personal Services expenditures exhibit an annual compound growth rate of 8%. This is one of the line items in the Comprehensive Annual Financial Report with the most complete information.
- According to the CAFR, the annual growth of SSWM fee revenues also fluctuates relatively significantly over the ten-year period. The annual growth rate ranges from - 2.7% to 5.3%. Moreover, between any two years, the growth rate itself changes by as much as 7.9% (e.g. the 1999 revenue growth is 5.3%, while the 2000 growth rate is - 2.7%).
- Overall, from 1995 through 2003, Charges for Services exhibits annual compounded growth of 0.8%. In comparison, the 0.7% to 0.85% total revenue growth assumed in the six-year projection appears reasonable.

Because the SSWM fee did not change until 2005, rate revenues have only grown as a result of the growth in the number of accounts. As operating expenditures have increased significantly over time, less funding has become available for capital projects and fund balance reserves. Exhibit 17 illustrates this trend.

### Exhibit 17 Comparison of Operating and Capital Expenses to SSWM Rate Revenue



In 1996, 43% of the annual revenue was available for capital projects, but by 2003, the funding available for capital projects decreased to 5% of the annual revenue. This trend also occurs in the financial forecast where 2005 capital project funding represents about 38% of the fee revenues, but by 2010 available capital project funding decreases to 14% of the fee revenues.

The importance of the difference in the historical growth of operating expenditures and the inflation rates used to forecast future expenditures depends on the state of the SSWM program. If it is assumed that the Program’s operating expenditures will maintain their high growth rate, the inflation rates used in the forecast are low, but if it is assumed that the SSWM Program’s level of activity has stabilized, including those activities caused by external factors, such as regulations and assumption of private facility maintenance, the inflation rates used in the forecast appear adequate.

**Observation:** *Based on the revenue forecast, a status quo operating expenditure scenario, and a declining capital expenditure forecast, the financial forecast shows that operating expenditures will be greater than annual fee revenues every year and that the fund balance will have to be used to offset operating losses and capital expenditures through 2008 when there will be little or no fund balance available at the end of the year. Without either revenue or expenditure changes, the current levels of service do not appear to be sustainable after three years.*

The projected annual fee revenues in the SSWM forecast are insufficient to fund operating expenses in every year of the analysis. Accordingly, SSWM fund balances are expended each year through 2008, and by 2009 the SSWM Program will no longer have any fund balance available and will not be able to sustain itself without revenue increases or expenditure reductions.

The 2006 fee increase to \$50 is the only fee increase indicated during the forecast period. If the SSWM Program expects to continue without expenditure and service level reductions, three future fee increases would be necessary: 0.3% in 2008, 23.1% in 2009 and 2.1% in 2010. The large fee increase is necessary in 2009 because, until that time, an average of \$1.2 million of SSWM reserve funds will need to be used to meet total expenditures each year. If SSWM fees are not increased by 2008 and thereafter, an \$18,000 cost reduction will be necessary in 2008, and additional cost reductions of \$1.2 million and \$115,000 will be necessary in 2009 and 2010, respectively. To achieve such reductions, the scope of the current SSWM program expenditures would need to be evaluated.

Although these types of potential fee and expenditure changes are needed in a status quo scenario, there could be additional costs that would increase the need to make additional revenue or expenditure adjustments.

- Over the past five years, the number of ponds maintained by the SSWM Program has increased at an average of 14% per year. It is not clear in the forecast whether such a yearly increase has been accounted for. As noted previously, the facilities maintenance costs have dramatically increased over time concurrently with the number of ponds that are maintained by the SSWM Program.
- For pond maintenance, the SSWM Program is not meeting its pond maintenance guidelines. In 2005 80% of the ponds were maintained according to the guidelines.
- There is a backlog of priority watershed assessments, and additional funding would allow the Health District to conduct more assessments and complete them sooner.
- If contracting for some services is found to be cost effective, maintenance costs might be reduced in the future.
- Although there is funding for capital projects, the benefits and the extent of the capital program have not been established besides a list of ranked projects. After determining the benefits, cost effectiveness, and priority of the projects as recommended in Chapter VII, the need for capital project funding may change, and the revenue and use of fund balance for such projects could alter the status quo financial forecast.
- Once the SSWM Program has an approved NPDES permit, any unfunded requirements or conditions would need to be added to the forecast.

In terms of the other expenditure parameters like inflation or expenditure growth, the SSWM Program fees will increase at an even higher rate. The following are examples of such scenarios.

- If general inflation is forecasted at 5%, 8% for salaries and benefits, and the same 2% for supplies and services, the 2010 funding shortfall increases to nearly \$2.1 million and the necessary SSWM fee becomes \$72.00. Assuming that required revenue is achieved through a gradual rate increase of 5.0% annually from 2007 through 2009, a 2010 increase of 4.8% would be sufficient. It should be noted that even this apparently

aggressive approach to fee increases still results in a fund reserve of \$0 at the end of year 2010.

- If \$500,000 in additional expenses were added in 2010 to the status quo forecast, a 9.5% rate increase would be required and would raise the estimated 2010 fee to approximately \$69.10 from \$63.10. In 2006, a \$500,000 increase in expenses funded by fees would necessitate a 9.8% increase of the 2006 \$50 fee.

## Conclusions and Recommendations

The SSWM Program developed a six-year financial forecast that is based on an annual fee increase to \$50 starting in 2006 and remaining constant until 2010. The expenditures in the forecast represent a status quo scenario that is inflated over time by inflation rates that are consistent with historical and forecasted inflation. The forecast shows that given the fee level and the inflated expenditures for the forecast period, even a status quo scenario is not sustainable in the future and will require that the SSWM Program take action to increase revenues or reduce expenditures in 2008. Operating expenditures exceed annual fee revenues, and fund balance must also be used to support capital project expenditures. To keep the status quo sustainable, three future fee increases would be needed starting in 2008 at .3%, 23% in 2009, and 2% in 2010. The annual fee in 2010 would be \$63. If expenditures are reduced rather than increasing fees, an \$18,000 reduction is necessary in 2008, and reductions of \$1.2 million and \$115,000 are needed in 2009 and 2010, respectively. The County faces the challenge of determining whether to increase its fee in the future to maintain existing services or whether to decrease its services and programs to avoid future fee increases.

Compared to historical trends, the forecast uses lower growth rates for expenditures than the actual growth rates that have occurred since 1996. However, the higher growth rates in the past reflect service changes and the shift in costs from capital projects to operating and program activities as the SSWM Program grew. Although the SSWM Program is not ramping up its programs, the six year forecast shows the same trend where capital project funding is significantly reduced over time as operating expenditures increase faster than the fee revenue.

Although a status quo scenario is used, there may be additional costs that the SSWM Program might incur that could increase the need for fee adjustments or offsetting expenditure reductions. Changes to the status quo could include increasing the facilities maintenance costs because more stormwater ponds will continue to be added to the SSWM Program's infrastructure, increasing the facilities maintenance costs to meet service level guidelines concerning stormwater pond maintenance, increasing the funding for watershed assessments, revising the capital project funding needs based on more analysis of the benefits and priorities, and responding to NPDES permit requirements.

Based on the fiscal review of the SSWM Program's historical financial trends and the six-year forecast, we recommend that the County do the following:

- The SSWM Program should first re-evaluate its financial forecast and establish specific financial policies regarding the use of fund balance, the amount of

unreserved fund balance needed to meet cash flow and reserve requirements, and the method of financing for capital projects (e.g. pay as you go, combination of cash and debt, funding depreciation, etc). Such policies should be adopted by the Board of Commissioners.

- The SSWM Program should determine if the levels of service for its programs and its partner's programs are still appropriate and are consistent with any proposed changes adopted by the Board of Commissioners. Priorities for its non-mandated programs should also be developed based on a set of criteria that considers health and public safety concerns, cost, and program effectiveness. Priorities for capital projects as recommended in Chapter VII should also be incorporated.
- Once financial policies, service level reviews, and priorities have been established, the SSWM Program should then prepare another forecast or rate study that provides alternative scenarios for the Board of Commissioners to consider.

## X. PERFORMANCE MEASURES

Performance measures can be an important tool in assessing the results and the effectiveness of the SSWM Program. The Government Finance Officers Association (GFOA) recommended in 2002 that program and service performance measures be developed and used as an important component of long term strategic planning and decision making. GFOA encourages all governments to use performance measures as an integral part of the budget process. When used in the long term planning and goal setting process and when linked to an organization's mission, goals, and objectives, GFOA believes that meaningful performance measures assist government officials and citizens identify financial and program results, help evaluate past resource decisions, and facilitate qualitative improvements in future decisions regarding resource allocation and service delivery. The National Advisory Council on State and Local Budgeting also recommends the following budget practices regarding performance measures:

- Develop and utilize performance measures for functions, programs, and/or activities,
- Periodically evaluate the performance of the programs and services it provides, and
- Performance measures, including efficiency and effectiveness measures, should be presented in basic budget materials, including the operating budget document.

There are three types of performance measures as shown below.

- **Output** - The volume, amount, and quantity of services provided.
- **Outcome/Effectiveness**- The quantifiable impact on customers, the extent that goals and objectives are achieved, a measure of the amount and frequency of occurrences, or results that happen because a service is provided.
- **Efficiency** – The cost or resources per unit of service.

Good performance measures have several key characteristics that make them useful and allow them to be integrated with the budget process. Performance measures must be:

- Relevant,
- Understandable,
- Comparable,
- Timely,
- Consistent, and
- Reliable.

**Observation:** *The SSWM program identifies performance criteria for each major program element in the scopes of work that are prepared for its partner departments and agencies, but the criteria have not always been consistent from year to year and data is not always provided in the annual reports.*

Performance criteria for each program element are included in the annual scope of work prepared for each department or agency. The SSWM Program has established many performance criteria for all the departments and agencies involved in the Program, and in 2004 over 230 performance

criteria were established for the four departments and agencies. Exhibit 18 shows the number of criteria by department and agency.

**Exhibit 18**  
**Number of Performance Criteria By Department/Agency in 2004**  
**And the Highest And Lowest Number of Criteria Between 1995-2004**

<b>Department/Agency</b>	<b>Number of 2004 Performance Criteria</b>	<b>Highest Number of Performance Criteria</b>	<b>Lowest Number of Performance Criteria</b>
SSWM/Public Works	111	190	111
Health District	63	85	52
Conservation District	32	34	2
Community Development	25	34	25
<b>Total</b>	231		

As shown in Exhibit 18 the number of criteria has changed over time for each department and agency. For example, only 39% of the criteria for the Public Works SSWM program elements were included in the scopes of work for all five years from 2000-2004. The lack of consistency in the criteria is partially a result of the evolution and elimination of some program elements. Exhibit 19 shows the percentage of criteria compared to the number of years included in the scope of work for Public Works.

**Exhibit 19**  
**Percentage of Criteria Included in the Scope of Work By Number of Years**  
**2000-2004**

<b>Number of Years Included As Criteria</b>	<b>Percent of Criteria</b>
5	39%
4	3%
3	21%
2	30%
1	6%

Even when the performance criteria are included in the scopes of work, the data is not always collected or reported. For example, an analysis of the Health District's performance criteria and the data provided in the annual reports shows that data was not always provided for the District's performance measures over the past 10 years. Exhibit 20 provides data on the District's reporting by program element.

**Exhibit 20**  
**Average Data Reporting Percentage By Health District Program Element**  
**1995-2004**

<b>Program Element</b>	<b>Average Percentage of Years With Data</b>
Pollution Identification & Correction	89%
Surface Water Quality Monitoring	74%
Recreational Shellfish Program	87%
Wellhead Protection Program	81%
Boat Waste Control Program	58%
Water Quality Revolving Fund	76%
Business Pollution	70%
Onsite Sewage System Complaint Response.	75%
O&M Program for On-site Sewage Disposal Systems	73%
Industrial Wastewater	90%
Financial Assistance Program	100%

**Observation:** *Although the SSWM program identifies performance criteria for each major program element in the scopes of work, no actual performance measures or benchmarks have been established to identify what level of service is being funded and to determine whether a department or agency is effective in meeting its goals and objectives.*

As noted previously, performance measures can provide a means to help evaluate past resource decisions and make decisions regarding resource allocation and service delivery. The SSWM Program has always had an emphasis on performance criteria, but needs to take the next step to establish specific, quantifiable performance measures that provide a benchmark for a program element’s output, effectiveness, or efficiency. Such measures or benchmarks help to answer key policy and budget issues concerning how much service is provided, what is the service accomplishing, and how much does the service cost.

After reviewing the performance criteria, we found that most of the criteria are oriented toward output measures or completion of certain tasks and are not designed to measure effectiveness or efficiency. In addition, there are no specific or quantifiable measures associated with the criteria. As a result, there is no expectation of how much service will be provided and what results are expected. The criteria generate data that can be used for management and documentation of the work or service provided, but some of the data can also be used to develop performance measures that indicate how effective or how efficient a service is provided. The following are examples of where data is collected, but there are no performance measures:

- The SSWM program element for facilities maintenance has criteria for the number of catch basins for which the SSWM Program has maintenance responsibility and for the number maintained. Separately these data categories are not very useful as performance measures, but when the number maintained divided by the total number of catch basins is used, a performance measure can be established for the percentage of catch basins cleaned. In fact, the SSWM Program has kept track of this percentage since 2002 and

uses this measure in its annual report. Although not reported, the SSWM Program calculates the cost per basin to provide an efficiency measure. For catch basin cleaning, 100% might be an appropriate performance measure to establish as a target and basis for budgeting the level of service. According to Environmental Protection Agency guidelines catch basins should be inspected at least once per year to determine if cleaning is needed.

- In contrast to catch basin cleaning, pond maintenance has the same type of performance criteria, but the SSWM operations and maintenance guidelines establish a performance measure for such maintenance. For 2004, the percentage of ponds maintained was greater than 100% at about 129%, and although this percentage means that some ponds were maintained twice, the performance measures in the guidelines were not met for all ponds.
- The Health District has performance criteria for the Pollution Identification and Correction Program that involve the number of failing on-site sewage systems and the number of failing systems corrected. As a performance measure, the percentage of corrected systems would be a measure of effectiveness.
- For the surface water quality monitoring program, one of the performance criteria is the number of stream, marine water, and lake water quality stations monitored. If a performance measure is established for the number of stations monitored, the measure could be used to determine what resources should be allocated to this aspect of the program.
- As part of the farm planning program element for the Conservation District, the performance criteria includes the number of landowners contacted and offered services as well as the number of farm plans prepared. A performance measure could again be based on a percentage of farm plans prepared. To tie this program to the Health District's Pollution Identification and Correction Program, a performance measure could include the number of landowners contacted in the Health District's high priority watersheds. Besides the number of farm plans prepared, another performance measure might be the percentage of plans implemented.

When performance criteria data is collected, performance measures can be established using data that is already available. As noted previously, the criteria have changed and not all the data is being collected or reported in the annual reports. To use performance measures, a data collection system needs to be established that provides timeliness, reliability, and consistency.

**Observation:** *The annual report provides an overall summary of the program elements by department and agency, there are no performance measures, and it is difficult to understand how the program elements in each department and agency contribute together to improve water quality in priority watersheds.*

The annual report summarizes the activities and work completed by each department and agency by program element. Because the report format discusses each department and agency

separately, the relationship of joint efforts that are often made to improve water quality in various watersheds is not readily apparent. Each year the Health District identifies a priority area work list as part of the pollution identification and correction program. To show what work in priority areas all the departments and agencies are performing, a summary of the status of the watershed (e.g. historical fecal levels) and the activities by all the SSWM partner departments and agencies would help the public and key stakeholders understand how the SSWM resources are affecting the water quality in priority areas. For example, both the Health District and the Conservations District are working in the Yukon Harbor watershed.

**Observation:** *Because data is not consistently provided in the annual reports, trends are difficult to identify and to relate to future fiscal impacts. However, the expenditure trends in Chapter IX are indicators of the trends occurring in some of the program elements. There may be other data besides the existing performance data that more appropriately identifies funding needs.*

As noted in previous observations, the data and performance criteria have not been consistent over the past ten years, and as a result, identifying trends concerning all program elements cannot be done. However, Exhibit 16 in Chapter IX identifies program activities with large expenditure changes during the past eight years. Based on the data available, there are two key trends that have affected the maintenance, retrofit, and inspection program elements as well as their expenditure increases over the past ten years.

- The number of ponds maintained has increased from 180 in 1996 to 484 in 2004, a 168% increase.
- The number of commercial/industrial SSWM facilities has increased from 1,350 in 2000 to 1,457 in 2004, an 8% increase.
- The number of inspections of public and private facilities has grown from 859 in 1996 to 1,405 in 2004.

For the Health District, several trends have occurred.

- The annual number of watershed areas assessed has remained about the same.
- On-site sewage system complaints and the number of failed systems increased from 1999 to 2002, but have decreased since 2002.
- The number of educational materials and presentations regarding the operations and maintenance program for on-site sewage systems has dramatically declined since 2001, but in 2004 the Health District published a new homeowners manual and kicked off its “E Access” program.
- The number of shellfish beaches monitored has remained about the same, and since 2000 the number of warning signs for shellfish beaches has been increasing.

- The number of pollution sources identified for the wellhead protection program has been declining since 1996 because the District's primary focus is on using GIS to locate wells and prevent contamination instead of conducting surveys.

For the Conservation District, the following trends have occurred.

- The annual number of farm plans prepared has remained about the same.
- The number of agriculture designs is slightly higher than in the late 1990's, while implementing agricultural best management practices has been both very high and about average during the past five years.
- Educational activities have been increasing over the past ten years with its peak in 2004.
- Grant applications have been increasing and are at a higher level than in the late 1990's.
- There have been over 1,000 landowner contacts every year since 1999.

Program data for the participating departments and agencies have been limited, but data on the SSWM's physical assets have been more available. Thus, it is difficult to determine what fiscal impact performance trends will have in the future. It should also be noted that the programs operate within the constraints of their budget, and just because no increase occurs in the performance data, it does not necessarily mean that a program could not be expanded to increase its performance. For example, the Health District prepares its priority area work list and makes recommendations to fund assessments based on the staff available. As noted above, the number of assessments has remained about the same. The list for 2003-2004 identified 39 survey areas, but only four new assessments were to be initiated. An additional seven assessments were continuing projects. If additional resources were provided, the Health District believes that more assessments could be performed.

## **Conclusions and Recommendations**

The SSWM Program has identified performance criteria for all the program elements, but the performance measurement process could be improved. There are too many performance criteria, limited data, few performance criteria for effectiveness or efficiency, and no performance measures or benchmarks. In addition, to highlight the water quality efforts, the annual report could be improved by describing activities on a watershed basis in addition to the department and agency format.

Because of the type of performance criteria and limited data, using the existing performance data as a tool to identify trends and assess future fiscal impacts has limited value. Future resources needed are not necessarily based on past performance and can be related to other variables, such as the amount of development occurring in the unincorporated areas of the County.

To improve the performance measurement process we recommend the following:

- The SSWM Program should identify specific performance measures for each program element, eliminate unnecessary performance criteria, and limit other data requests to what is needed for monitoring each department's or agency's activities.
- The SSWM Program should include as part of its annual report a section on activities by each department and agency in specific watersheds to help the public understand the status of the watershed and how SSWM Program funding is helping to change the watershed's water quality. Another section should show the performance measures and the SSWM Program's performance against those measures.
- The SSWM Program should use other SSWM resources and data in conjunction with performance measures to determine the future fiscal impacts.

## **APPENDIX A**

### Focus Projects Bidding Results

Project	Original Engineer's Estimate	Bids Received		Selected Firm	Selected Firm's Bid as % of Original Engineer's Estimate	High Bid as % of Low Bid
		Firm	Amount			
North Street/Richards Avenue Conveyance Improvements	\$133,010	Ace Paving, Inc.	\$121,806	X	92%	116%
		Stan Palmer Construction, Inc.	\$136,868			
		Sound Excavation	\$141,162			
Indianola Outfall and Conveyance Improvements	\$192,951	Lydel Construction	\$154,775	X	80%	156%
		Emerald Services, Inc.	\$174,701			
		Ace Paving, Inc.	\$176,284			
		Sound Excavation	\$197,427			
		Harlow Construction	\$241,990			
Alaska Avenue Regional Detention Pond	\$359,312	RV & Associates	\$319,557	X	89%	187%
		Ace Paving, Inc.	\$355,901			
		Grade, Inc.	\$403,571			
		Stan Palmer Construction, Inc.	\$513,971			
		Pape & Sons	\$596,334			
Cool Creek Culvert Replacement	\$375,280	SiteWorks, Inc.	\$287,284	X	77%	154%
		Stellar Construction	\$288,745			
		Glacier Construction	\$336,399			
		Jansen, Inc.	\$366,608			
		Sound Excavation	\$372,712			
		Talmo, Inc.	\$373,279			
		Lance Harvey Trucking	\$417,180			
		Stan Palmer Construction, Inc.	\$442,920			
Grata Creek Culvert Replacement	\$119,336	Celon Corp.	\$32,534		87%	537%
		Ace Paving, Inc.	\$104,104	X		
		Talmo, Inc.	\$110,925			

### Focus Projects Bidding Results

Project	Original Engineer's Estimate	Bids Received		Selected Firm	Selected Firm's Bid as % of Original Engineer's Estimate	High Bid as % of Low Bid
		Firm	Amount			
		Stellar Construction	\$125,783			
		Harlow Construction	\$133,172			
		Sound Excavation	\$133,830			
		Lance Harvey Trucking	\$137,728			
		Pape & Sons	\$140,919			
		Jansen Construction	\$174,409			
		Strouder Construction	\$174,613			

## **APPENDIX B**

Required Versus Discretionary Program Element Analysis

Program Element	Element Objectives	Responsible Department	Beyond Minimum Requirements	Fully or Partially Compliant	NPDES Section Reference	Comments
<b>PUBLIC EDUCATION AND OUTREACH</b>						
Public Outreach and Education	Coordinate SSWM Public Outreach and Education Programs with other agencies and groups involved in Water Quality Education in Kitsap County	KCPWD		X	S7.C.1	<p>The NPDES Permit requirements pertaining to public education and outreach include the initiation of a program that:</p> <ol style="list-style-type: none"> <li>Provides educational opportunities for all audiences about the importance of improving water quality, reducing impervious surfaces and protecting beneficial uses of waters of the State, about potential impacts caused by stormwater discharges, and methods for avoiding, minimizing, reducing and/or eliminating the adverse impacts of stormwater runoff.</li> <li>Provides and encourage participation in environmental stewardship activities including information on local stream teams and other groups devoted to water quality improvement and protection.</li> <li>Provides information to the general public and others about actions individuals can take to improve water quality and reduce impervious surfaces (e.g., lawn care with less fertilizer and pesticides, more use of native vegetation for landscaping, proper disposal of pet wastes, etc.).</li> <li>Provides information to the general public and others on the proper use and disposal of pesticides, herbicides, and fertilizers.</li> <li>Provides information to engineers, construction contractors, developers, development review staff, and land use planners on technical standards, the development of stormwater site plans and erosion control plans, and stormwater best management practices for reducing adverse impacts from stormwater runoff from development sites.</li> <li>Provides information to engineers, contractors, developers, and the public on land development practices and non-structural BMPs such as low impact development practices that eliminate, avoid, or minimize adverse stormwater impacts.</li> <li>Provides information to businesses and others on illicit discharges, including what constitutes an illicit discharge and the impacts of illicit discharges.</li> <li>Provides information to the public, businesses and others promoting the proper management and disposal of toxic materials (e.g. used oil, batteries, vehicle fluids, home chemicals.).</li> <li>Each Permittee shall develop and implement a public education and outreach program designed to reach 100% of the target audiences.</li> </ol> <p>KCC 12.36.050 (2) – Defines SSWM program elements to include education and public involvement; SSWM shall develop and implement a program to educate the public about land use and human activities which impact water quality and surface water management. SSWM shall also develop citizen involvement programs to monitor streams and implement restoration programs consistent with approved basin and watershed action plans.</p>
	Develop a variety of educational tools for providing information to the public	KCPWD		X	S7.C.1	
	Enlighten citizens as to the impacts of land use and land-based activities on water quality	KCPWD		X	S7.C.1	
Signing	Identify locations of stream crossings, watershed boundaries, and valuable habitat areas warranting the installation of signs	KCPWD		X	S7.C.1	<p>The <i>Puget Sound Water Quality Management Plan (PSWQMP)</i> includes the following requirement related to public education and outreach:</p> <ol style="list-style-type: none"> <li>The Plan directs local government to educate and involve citizens, businesses, elected officials, site designers, developers, builders and other members of the community to build awareness and understanding of stormwater and water quality issues. Local governments are to provide practical alternatives to actions that degrade water quality and biological resources.</li> </ol>
	Identify constructed stormwater facilities and habitat enhancements warranting the installation of signs to enhance the public's awareness of their location and/or function	KCPWD		X	S7.C.1	
	Install and maintain signs at identified locations	KCPWD		X	S7.C.1	
Drainage Inspection Program	Work with owners of privately maintained stormwater systems in order to ensure that their systems are maintained to meet the requirements of the Puget Sound Water Quality Management Plan and County Code 12.36	KCPWD		X	S7.C.1	
Stormwater System Maintenance Waste Processing Facility Operation	Coordinate with the Public Outreach and Education Program Element on the development and distribution of relevant, up-to-date information on maintenance wastes, their disposal, and the County facilities/programs available	KCPWD		X	S7.C.5	
					S7.C.1	
Stormwater Impact Monitoring/Water Quality Response	Coordinate the development and distribution of up-to-date information relating to stormwater BMPs for business owners and individual citizens	KCPWD		X	S7.C.1	
Education	Maintain a District public relations program	KCD		X	S7.C.1	

Required Versus Discretionary Program Element Analysis

Program Element	Element Objectives	Responsible Department	Beyond Minimum Requirements	Fully or Partially Compliant	NPDES Section Reference	Comments
	Maintain a District agricultural and natural resource educational program	KCD		X	S7.C.1	
Education and Outreach	Provide education and outreach support for watershed management efforts	KCDCD		X	S7.C.1	
	Convene and facilitate meetings that promote information sharing among community groups and members and SSWM agency programs including any SSWM Advisory Committee meetings	KCDCD		X	S7.C.1	
	Establish partnerships to develop, fund and implement education and outreach programs related to local natural resources	KCDCD		X	S7.C.1	
	Provide outreach and education support to salmon recovery efforts and SSWM programs	KCDCD		X	S7.C.1	
Pollution Identification and Correction Program (PIC)	Disseminate information to property owners regarding proper OSS operation and maintenance and recommended animal waste management practices	KCHD		X	S7.C.1	

**Required Versus Discretionary Program Element Analysis**

Program Element	Element Objectives	Responsible Department	Beyond Minimum Requirements	Fully or Partially Compliant	NPDES Section Reference	Comments
<b>PUBLIC INVOLVEMENT AND PARTICIPATION</b>						
Public Outreach and Education	Enlighten citizens as to the impacts of land use and land-based activities on water quality	KCPWD		X	S7.C.2	The NPDES Permit requirements pertaining to public involvement and participation require ongoing opportunities for public involvement through advisory councils, watershed committees, participation in developing rate-structures, stewardship programs, environmental activities, and other similar activities. Requirements also include: 1. No later than one year from the effective date of this permit, all Permittees shall create opportunities for the public to participate in the decision making processes involving the development, implementation and update of the Permittees entire SWMP. 2. Each Permittee must make their SWMP, related documentation, and all submittals required by this permit, including the Permittees' annual reports available to the public on the Permittees' website and submitted in electronic format to the Department for posting on the Department's website.
Stream Team	Provide training, funding, and other technical and/or logistical support for landowners and community volunteers, wishing to perform appropriate stream rehabilitation and education projects	KCDCD		X	S7.C.2	KCC 12.36.050 (2) – Defines SSWM program elements to include education and public involvement; SSWM shall develop and implement a program to educate the public about land use and human activities which impact water quality and surface water management. SSWM shall also develop citizen involvement programs to monitor streams and implement restoration programs consistent with approved basin and watershed action plans.
	Provide coordination, training, and funding for monitoring of stream health and productivity to raise the awareness of volunteers and the public and to augment the monitoring efforts of agency staff	KCDCD		X	S7.C.2	The PSWQMP includes the following requirement related to public involvement: 1. The Plan directs local government to educate and involve citizens, businesses, elected officials, site designers, developers, builders and other members of the community to build awareness and understanding of stormwater and water quality issues. Local governments are to provide practical alternatives to actions that degrade water quality and biological resources.
	Coordinate volunteer involvement in restoration and rehabilitation projects sponsored by County agencies	KCDCD		X	S7.C.2	
	Structure Stream Team administration to accommodate increasing demands and diversity of services including securing an award annually for one Washington Conservation Corps Internship Placement	KCDCD		X	S7.C.2	
	Participate in public outreach and education activities and committees and on various technical advisory committees related to salmonid recovery such as the WRIA 15 Lead Entity - East Kitsap Technical Advisory Group	KCDCD		X	S7.C.2	

**Required Versus Discretionary Program Element Analysis**

Program Element	Element Objectives	Responsible Department	Beyond Minimum Requirements	Fully or Partially Compliant	NPDES Section Reference	Comments
<b>ILLCIT DISCHARGE DETECTION AND ELIMINATION</b>						
Stormwater Impact Monitoring/Water Quality Response	Assist with site inspections and collect samples to meet NPDES requirements at three KCPW sand and gravel mines and Wildcat Quarry	KCPWD		X	S7.C.3.c	NPDES Permit requirements include: 1. Effectively prohibit all types of non-stormwater discharges into the MS4 operated by the Permittee other than: those authorized under a separate NPDES permit. 2. Develop and implement an ongoing program which will effectively detect and address non-stormwater discharges and illegal dumping into the Permittee's municipal separate storm sewer system. 3. Upon discovery or upon receiving a report of a suspected illicit connection, Permittees shall initiate an investigation within 21 days, to determine the source of the connection, the nature and volume of discharge through the connection, and the responsible party for the connection.  4. Upon confirmation of the illicit nature of a storm drain connection, Permittees shall ensure termination of the connection within 180 days, using enforcement authority as needed. 5. Provide appropriate training for municipal field staff on the identification and reporting of illicit discharges into municipal separate storm sewers.  KCC 12.36.050 (5) – Defines SSWM program elements to include monitoring; SSWM shall develop and implement a program to monitor the ambient water quality of rivers, streams, lakes and wetlands, to evaluate the effectiveness of source controls and BMP's implemented under the basin and watershed action plans. Water quality monitoring activities shall be coordinated between agencies within the county, and the results of monitoring activities shall be communicated to residents, agencies and other interested persons.  The PSWQMP includes the following requirement related to monitoring: 1. The Plan directs local government to monitor program implementation and environmental conditions and trends over time to measure the effectiveness of program activities. Local governments are directed to periodically share monitoring results with local and state agencies, citizens and others.  The PSWQMP includes the following requirement related to illicit discharges: 1. Local governments are directed to adopt ordinances to prohibit dumping and illicit discharges and to carry out activities to detect, eliminate and prevent illicit discharges, and respond to spills and water quality violations.
	Provide technical assistance including review and revision of the Stormwater Pollution Prevention Plan for each site	KCPWD		X	S7.C.3.c	
	Respond to citizen and agency water quality complaints by performing an initial screening; if a complaint involves an immediate threat to human health, it will be forwarded to the appropriate agency	KCPWD		X	S7.C.3.c and G3	
	Establish short- or long-term monitoring projects to assess water quality	KCPWD		X	S7.C.3.c	
	Identify stormwater outfalls carrying runoff from residential industrial and commercial areas and screen them for evidence of illicit discharges and to conduct follow-up investigations in upland areas where problems have been identified	KCPWD		X	S7.C.3.c	
Drainage Inspection Program	Provide inspection support for verification and updating of GIS base maps	KCPWD		X	S7.C.3.a	Not specifically addressed by NPDES Permit requirement, but consistent with the "spirit" of those requirements.
	Assist the County Road Department with identification and evaluation of existing cross culverts within the county road system	KCPWD		X	S7.C.3.a	
	Provide citizens with prompt courteous responses to their requests for information as well as their stormwater and water quality concerns	KCPWD	X		S7.C.3.c	
Stormwater System Maintenance Waste Processing Facility Operation	Sponsor periodic training sessions for private contractors, WSDOT, and others regarding the use of the County's maintenance waste processing facilities	KCPWD		X	S7.C.5	

**Required Versus Discretionary Program Element Analysis**

Program Element	Element Objectives	Responsible Department	Beyond Minimum Requirements	Fully or Partially Compliant	NPDES Section Reference	Comments
Maintain and Update GIS of Existing Stormwater Facilities	Research and place all new system, system retrofits, as-built drawings, and drainage-related information onto a single set of base maps	KCPWD		X	S7.C.3.a	<p>NPDES Permit requirements related to mapping include:</p> <p>1. A municipal storm sewer system map shall be developed no later than 4 years from the effective date of this permit. Municipal storm sewer system maps shall be periodically updated, and shall include the following information:</p> <ul style="list-style-type: none"> <li>- The location of all known municipal separate storm sewer outfalls and receiving waters; and structural stormwater BMPs owned, operated, or maintained by the Permittee;</li> <li>- Tributary conveyance systems, associated tributary drainage areas, and land uses, of all municipal separate storm sewer outfalls with a 24 inches nominal diameter or larger, or an equivalent cross-sectional area for non-pipe systems, and indicate type, material, and size where known;</li> <li>- All known and new connections to the Permittee's MS4 authorized or approved by the Permittee; and</li> <li>- Areas served by the Permittee's MS4 that discharge stormwater to groundwater.</li> </ul>
	Coordinate with SSWM inspection personnel to perform field	KCPWD		X	S7.C.3.a	
	Use inspection program records to assess system condition and coordinate with SSWM inspection personnel to perform condition assessments	KCPWD		X	S7.C.3.a	
	Maintain and update an electronic database(s) to store and access inspection, maintenance, and supplementary information on all stormwater system components	KCPWD		X	S7.C.3.a	
	Convert the working set of drainage system maps to digital format and incorporate this information in the County GIS	KCPWD		X	S7.C.3.a	
	Make the GIS drainage system maps and associated database information available to other SSWM program agencies, other County departments, and to the engineering community and the general public	KCPWD		X	S7.C.3.a	
Kitsap County Codes	Illicit discharge issues are addressed by County code	All	N/A	N/A		<p>NPDES Permit requirements include:</p> <p>1. Each Permittee shall develop and implement an ordinance or other regulatory mechanism to effectively prohibit non-stormwater, illegal discharges, and/or dumping into the Permittee's municipal separate storm sewer system to the maximum extent allowable under State law.</p> <p>Kitsap County Codes includes the following provisions related to illicit discharges and connections:</p> <p>KCC 12.20.050 – Illicit discharges, as described in Section 12.30.020, or illicit connections to a storm water drainage system, as described in Section 12.30.030, are prohibited.</p> <p>KCC 12.30.020 – Illicit discharges to storm water drainage systems are prohibited.</p> <p>KCC 12.30.030 – The storm water system of Kitsap County, natural and artificial, may only be used to convey storm water runoff. No person shall use this system, directly or indirectly, to dispose of any solid or liquid matter other than storm water. No person shall make or allow any connection to the storm water system which could result in the discharge of polluting matter. Connections to the storm water system from the interiors of structures are prohibited. Connections to the storm water system for any purpose other than to convey storm water or groundwater are prohibited and shall be eliminated.</p> <p>KCC 12.30.040 – Owners and operators of oil/water separators, wet ponds, biofiltration/biofilter facilities, sediment and erosion control systems, infiltration systems and any other pollution control devices shall operate and maintain such control devices to assure that performance meets the intended level of pollutant removal.</p> <p>KCC 12.36.050 (6) – Defines SSWM program elements to include source control: SSWM shall develop and implement a source control program to improve water quality. The source control program shall reduce herbicide and pesticide usage, strengthen the on-site sewage system correction, moderate risk waste control and wellhead protection programs, strengthen the use of BMP's and implement a boat waste control program.</p>

**Required Versus Discretionary Program Element Analysis**

Program Element	Element Objectives	Responsible Department	Beyond Minimum Requirements	Fully or Partially Compliant	NPDES Section Reference	Comments
<b>CONTROLLING STORM RUN-OFF FROM NEW DEVELOPMENT, REDEVELOPMENT AND CONSTRUCTION SITES</b>						
Drainage Inspection Program	Support the Capital and Retrofit program elements by performing inspections on SSWM construction projects and by gathering field data and performing research of records	KCPWD		X	S7.C.4	<p>NPDES Permit requirements related to controlling stormwater runoff from new development, redevelopment, and construction sites include:</p> <p>1. Each Permittee shall develop, implement, and enforce a program, to reduce pollutants in stormwater runoff to a regulated small MS4 from new development, redevelopment and construction site activities; at a minimum, this program shall be applied to all sites that disturb a land area 1 acre or greater, including projects less than one acre that are part of a larger common plan of the development or sale and it shall include the following elements:</p> <ul style="list-style-type: none"> <li>- An ordinance or other enforceable mechanism that addresses runoff from new development, redevelopment, and construction site projects.</li> <li>- The program must include a process of permits, plan review, inspections and enforcement capability to meet standards for both private and public projects, using qualified personnel (staff or qualified contractors).</li> <li>- An ordinance or other enforceable mechanism to ensure adequate long-term operation and maintenance (O&amp;M) of post-construction stormwater facilities/BMPs that are permitted and constructed.</li> <li>- A procedure for keeping records of inspections and enforcement actions by staff, including inspection reports, warning letters, notices of violations, and other enforcement records.</li> <li>- A process to make available copies of the "Notice of Intent for Construction Activity" and/or copies of the "Notice of Intent for Industrial Activity" to representatives of proposed new development and redevelopment.</li> <li>- Adequate training for staff involved in Controlling Stormwater Runoff from New Development, Redevelopment, and Construction Sites, including permitting, plan review, construction site inspections, O&amp;M, and enforcement to carry out the provision of this program component.</li> </ul>
Kitsap County Codes	Development, redevelopment and construction-related issues are addressed principally by County code	All	N/A	N/A		<p>Kitsap County Codes includes the following provisions related to development activities:</p> <p>KCC 12.08.010 (39) - "Major development" means any new development or any redevelopment activity that:</p> <ul style="list-style-type: none"> <li>(a) includes the creation or cumulative addition of five thousand square feet or greater of impervious surface area from the pre-development conditions; or</li> <li>(b) includes land disturbing activity of one acre or greater; or</li> <li>(c) includes grading involving the movement of five thousand cubic yards or more of material.</li> </ul> <p>KCC 12.10.010 - Proposed site development activities shall be reviewed by the Kitsap County department of community development to determine the permits required.</p> <p>KCC12.01.030 - A site development activity permit, issued by the Kitsap County department of community development, shall be required for a number of specified activities</p> <p>KCC 12.10.110 - All final drainage, grading, clearing or other site development plans requiring acceptance from the Kitsap County department of public works shall include a plan for the control of erosion and sedimentation as required in Sections 12.14.010 and 12.14.020, for the period beginning with the commencement of site development activity and continuing without interruption until permanent site stabilization is achieved. No clearing, grubbing, grading or other construction activity may take place on a project site until an erosion and sedimentation control plan has been approved by the department of public works.</p> <p>KCC 12.14.030 - Compliance with the erosion and sedimentation control requirements of Section 12.14.040 shall be demonstrated through the implementation of an approved erosion and sedimentation control plan.</p> <p>KCC 12.14.040 – Specifies major development erosion and sedimentation control minimum requirements.</p> <p>KCC 12.14.050 – Facilities designed for the control of erosion and sedimentation shall be designed for the erosion and sedimentation control design storm event, defined as the two-year, twenty-four-hour duration storm.</p> <p>KCC 12.20.030 – Specifies minimum requirements for storm water quantity control related to all land developments that meet the definition of a major development.</p> <p>KCC 12.20.080 – Specifies minimum requirements for storm water quality control related to all land developments that meet the definition of a major development.</p> <p>KCC 12.20.090 – All proposed developments must provide on-site storm water conveyance facilities having sufficient capacity to convey, without flooding or otherwise damaging existing or proposed structures, the post-development peak storm water runoff rate resulting from a one-hundred-year, twenty-four-hour duration storm event, plus any existing upstream runoff that will be conveyed through the development site.</p> <p>KCC 12.30.030 – The storm water system of Kitsap County, natural and artificial, may only be used to convey storm water runoff. Connections to the storm water system for any purpose other than to convey storm water or groundwater are prohibited and shall be eliminated.</p> <p>KCC 12.32 - Provides for enforcement authority, including the use of the Civil Enforcement Ordinance and inspections.</p> <p>KCC 12.36.050 (6) – Defines SSWM program elements to include source control; SSWM shall develop and implement a source control program to improve water quality. The source control program shall reduce herbicide and pesticide usage, strengthen the on-site sewage system correction, moderate risk waste control and wellhead protection programs, strengthen the use of BMP's and implement a boat waste control program.</p> <p>Kitsap County Codes includes the following provisions related to redevelopment activities:</p> <p>KCC 12.20.010 – Redevelopment activities. Where redevelopment activities meet the definition of a major development, the requirements of this chapter shall apply to that portion of the site that is being redeveloped. In addition, where one or more of the following conditions exist, the requirements of this chapter shall apply, to the maximum extent practicable, for the entire site, including adjoining parcels, if they are part of the project:</p> <ul style="list-style-type: none"> <li>(1) Existing sites greater than one acre in size with fifty percent or more impervious surface</li> <li>(2) Sites that discharge to a receiving water that has a documented water quality problem</li> <li>(3) Sites where the need for additional storm water control measures have been identified through a basin plan, watershed ranking process, or through Growth Management Act planning</li> </ul> <p>The PSWQMP includes the following requirement related to new development, redevelopment and construction:</p>

**Required Versus Discretionary Program Element Analysis**

Program Element	Element Objectives	Responsible Department	Beyond Minimum Requirements	Fully or Partially Compliant	NPDES Section Reference	Comments
						<ol style="list-style-type: none"> <li>1. Local governments are directed to adopt ordinances that require the use of best management practices (BMPs) to control stormwater flows, provide treatment, and prevent erosion and sedimentation from all new development and redevelopment projects. They are also directed to adopt and require the use of Ecology's stormwater technical manual (or an approved alternative manual) to meet these objectives. All new development in the basin, particularly new development sited outside of urban growth areas, are to seek to achieve no net detrimental change in natural surface runoff and infiltration.</li> <li>2. Local governments are directed to review new development and redevelopment projects to ensure that stormwater control measures are adequate and consistent with local requirements.</li> <li>3. Local governments are directed to regularly inspect construction sites and to adopt ordinances to ensure clear authority to inspect construction sites, to require maintenance of BMPs, and to enforce violations. They are also directed to provide local inspectors with training on erosion and sediment control practices.</li> <li>4. Local governments are directed to develop and implement a program to control sources of pollutants from new development and redevelopment projects and from existing developed lands, using BMPs from Ecology's stormwater technical manual, or an equivalent manual. Source control activities are to include pollution from roadways and landscaping activities. Integrated pest management practices are to be used to manage roadside vegetation.</li> <li>5. Local governments are directed to adopt ordinances that allow and encourage low impact development practices. These are practices that infiltrate stormwater (using proper safeguards to protect ground water) on-site rather than collecting, conveying and discharging stormwater off-site. The goals of low impact development practices are to enhance overall habitat functions, reduce runoff, recharge aquifers, maintain historic instream flows and reduce maintenance costs.</li> </ol>

**Required Versus Discretionary Program Element Analysis**

Program Element	Element Objectives	Responsible Department	Beyond Minimum Requirements	Fully or Partially Compliant	NPDES Section Reference	Comments
<b>POLLUTION PREVENTION AND OPERATION AND MAINTENANCE FOR MUNICIPAL OPERATIO</b>						
Drainage Inspection Program	Lessen the frequency of flood-related damage and to improve water quality through thorough and routine inspections of county and privately maintained stormwater facilities	KCPWD		X	S7.C.5.b	<p>Kitsap County Codes includes the following provisions related to inspections:                      KCC 12.24.050 – The director is authorized to develop an inspection program for privately owned and maintained storm water facilities in Kitsap County. The purpose of this inspection program shall be to determine if the storm water facilities, conveyance structures and water quality facilities are in good working order and are properly maintained, and to ensure that storm water quality BMP's are in place and that non-point source pollution control is being implemented.</p> <p>Not specifically addressed by NPDES Permit requirements, but consistent with KCC 12.36.</p>
	Work with owners of privately maintained stormwater systems in order to ensure that their systems are maintained to meet the requirements of the Puget Sound Water Quality Management Plan and County Code 12.36	KCPWD		X	S7.C.5.b	
	Incorporate stormwater facilities within residential subdivisions, exclusive of short subdivisions, that meet the requirements of County Code Chapter 12.36 into SSWM's maintenance program	KCPWD	X		S7.C.5.b	
	Provide support to SSWM Program Administration through impervious surface measurement of commercial sites	KCPWD		X	S7.C.5.b	
	Incorporate outreach and educational materials into the inspection program that will aid operators of stormwater facilities in identification and correction of system deficiencies	KCPWD		X	S7.C.1	
Facilities Maintenance	Provide maintenance services for enclosed conveyance, retention/detention, and water quality enhancement facilities serving residential plats	KCPWD		X	S7.C.5.a	<p>NPDES Permit requirements related to maintenance includes:</p> <p>1. Each Permittee shall develop and implement an operations and maintenance (O&amp;M) program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. At a minimum, this program shall include:</p> <ul style="list-style-type: none"> <li>- Adoption of maintenance standards that are as protective or more protective than those specified in Chapter 4 of Volume V of the Stormwater Management Manual for Western Washington (2005).</li> <li>- Inspection of all municipally owned or operated stormwater treatment and flow control facilities annually and taking appropriate maintenance actions in accordance with the adopted maintenance standards.</li> <li>- Conducting spot checks of potentially damaged treatment and flow control facilities after major storm events.</li> </ul> <p>- Inspection of all catch basins and inlets owned or operated by the Permittee at least once before the end of the permit term.</p> <p>- Compliance with the inspection requirements shall be determined by the presence of an established inspection program designed to inspect all sites.</p> <ul style="list-style-type: none"> <li>- Establishment and implementation of practices to reduce stormwater impacts associated with runoff from public streets, public parking lots, public roads, highways, and public road maintenance activities.</li> <li>- Establishment and implementation of policies and procedures to reduce pollutants in discharges from all lands owned or maintained by the Permittee, including but not limited to: parks, open space, road right-of-way, maintenance yards, and at stormwater treatment and flow control facilities.</li> <li>- Training for appropriate employees of the Permittee whose construction, operations, or maintenance job functions may impact stormwater quality.</li> </ul>
	Provide maintenance of enclosed conveyance systems and water quality enhancement facilities located within Kitsap County's publicly maintained rights-of-way	KCPWD		X	S7.C.5.a	

**Required Versus Discretionary Program Element Analysis**

Program Element	Element Objectives	Responsible Department	Beyond Minimum Requirements	Fully or Partially Compliant	NPDES Section Reference	Comments
	Provide maintenance services for stormwater facilities located beyond road rights-of-way when the Board of County Commissioners has decreed by resolution that SSWM do so	KCPWD		X	S7.C.5.a	<p>- Development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the Permittee, that are not covered under the Industrial Stormwater General permit.</p> <p>- Record keeping of inspections and maintenance or repair activities conducted by the Permittee.</p> <p>Kitsap County Codes includes the following provisions related to maintenance:                      KCC 12.24.010 – Maintenance of storm water facilities by owners.                      (a) Any person or persons holding title to a nonresidential property for which storm water facilities and BMP's have been required by Kitsap County shall be responsible for the continual operation, maintenance and repair of the storm water facilities and BMP's in accordance with the provisions of this title.                      KCC 12.24.020 – Maintenance covenant required for privately maintained drainage facilities.                      (a) Prior to the beneficial use of a development constructed under a site development activity permit, the owner shall record a maintenance covenant which guarantees Kitsap County that the storm water facilities shall be properly operated, maintained and inspected. The restrictions set forth in such covenant shall be included in any instrument of conveyance of the subject property and shall be recorded with the Kitsap County auditor.                      KCC 12.24.030 – The county may accept for maintenance those new residential storm water facilities constructed under an accepted site development activity permit that meet certain conditions.                      KCC 12.24.040 – Kitsap County may accept for maintenance those storm water facilities for residential developments existing prior to the effective date of the ordinance codified in this chapter that meet certain conditions.                      KCC 12.36.050 (4) – Defines SSWM program elements to include operations and maintenance; SSWM shall develop and implement an operations and maintenance program, including inspection and enforcement, to assure that all public and private drainage and storm water control facilities in the county are functional and effective. SSWM shall perform the operations and maintenance of all county-owned storm water control facilities. SSWM shall coordinate the transfer of county maintenance responsibility for private residential storm water control facilities under existing covenants, dedications or resolutions to the SSWM program.</p> <p>The PSWQMP includes the following requirement related to pollution control and maintenance:                      1. Local governments are directed to develop and implement a program to control sources of pollutants from new development and redevelopment projects and from existing developed lands, using BMPs from Ecology's stormwater technical manual, or an equivalent manual. Source control activities are to include pollution from roadways and landscaping activities. Integrated pest management practices are to be used to manage roadside vegetation.                      2. The Plan directs local government to identify and rank existing problems that degrade water quality, aquatic species and habitat, and natural hydrologic processes. Local governments may choose to achieve this through watershed or basin planning or another process. Local governments are directed to conduct a hydrologic analysis and map stormwater drainages, outfalls, and impervious surfaces by watershed and to develop plans and schedules and identify funding to fix the problems.                      3. Local governments are directed to adopt ordinances that require all permanent stormwater facilities to be regularly maintained to ensure performance. They are also directed to develop necessary provisions, such as agreements or maintenance contracts, to ensure that facilities on private land (e.g., residential subdivisions and commercial complexes) are maintained. The Plan directs local government to provide training for professionals who maintain stormwater facilities.</p>
Retrofit of Existing Stormwater Facilities	Use inspection, public input, and evaluation and monitoring data as a basis for determining the potential benefit of retrofit projects in areas where flooding or water quality is a concern	KCPWD		X	S7.C.5.a	See directly above for NPDES Permit requirements related to maintenance, as well as Kitsap County Code and PSWQMP requirements.
	Prioritize retrofit projects in a manner that gives projects the greatest benefit for the dollars spent, the highest priority	KCPWD		X	S7.C.5.a	
	Construct/install system retrofits after they have been identified, prioritized, designed, permitted, and funded	KCPWD		X	S7.C.5.a	
Stormwater System Maintenance Waste Processing Facility Operation	Operate in a manner that is consistent with the maintenance waste disposal guidelines established by the KCHD	KCPWD		X	S7.C.5	See directly above for NPDES Permit requirements related to maintenance, as well as Kitsap County Code and PSWQMP requirements.

Required Versus Discretionary Program Element Analysis

Program Element	Element Objectives	Responsible Department	Beyond Minimum Requirements	Fully or Partially Compliant	NPDES Section Reference	Comments
	Coordinate with the Stormwater Impact Monitoring/Water Quality Program Element to determine the safest and most cost-effective method(s) of disposal	KCPWD		X	S7.C.5	Not specifically addressed by NPDES Permit requirements, but consistent with good management practices.
Stormwater Impact Monitoring/Water Quality Response	Coordinate the acquisition of water quantity data needed for basin-planning efforts and capital facility projects	KCPWD		X	S7.C.5	
	Evaluate the success of stormwater treatment systems proposed or installed in Kitsap County by comparing literature values with vendor claims or monitoring installed systems	KCPWD	X		S7.C.5	
	Sample and analyze maintenance wastes as necessary to determine the safest and most cost-effective method of disposal	KCPWD		X	S7.C.5	
	Sample street wastes and provide recommendations for the proper disposal when requested by the KCPW Road Maintenance Division	KCPWD		X	S7.C.5	
	Investigate situations involving the discharge of contaminants to the County's stormwater drainage system	KCPWD		X	S7.C.3.c	
	Meet, as appropriate, with agencies responsible for spill response for the purpose of orienting them to system maps and providing information on the connection between natural and constructed drainage systems	KCPWD		X	S7.C.3.c-d	
Agricultural Property Inventory Element	Identify agriculturally related property in Kitsap County	KCD	X			Not specifically addressed by NPDES Permit requirements.
	Prioritize inventoried agricultural properties based on their potential to pollute	KCD	X			Kitsap County Codes includes the following provisions related to agricultural source control: KCC 12.36.050 (6) - SSWM shall develop and implement a source control program to improve water quality. The source control program shall reduce herbicide and pesticide usage, strengthen the on-site sewage system correction, moderate risk waste control and wellhead protection programs, strengthen the use of BMP's and implement a boat waste control program. SSWM may provide financial assistance through low-interest loans, grants and cost sharing for the restoration of streams, repair on-site sewage disposal systems and agricultural practice improvements.
	Maintain a GIS database of agricultural properties	KCD	X			
Agricultural Farm Planning Element	Provide technical services to agricultural landowners in Kitsap County	KCD	X			
	Facilitate federal, state and local incentive programs	KCD	X			

Required Versus Discretionary Program Element Analysis

Program Element	Element Objectives	Responsible Department	Beyond Minimum Requirements	Fully or Partially Compliant	NPDES Section Reference	Comments	
Agricultural BMP Design Element	Design Best Management Practices (BMPs) that meet NRCS standards and specifications	KCD	X				
	Seek out or develop alternative cost-effective BMPs that are suitable to a specific site's needs and landowner's financial capabilities	KCD	X				
Agricultural BMP Installation Element	Provide technical and planning services to cooperators for implementation of farm management practices	KCD	X				
	Offer Washington Conservation Corps (WCC) labor forces for implementation of BMPs	KCD	X				
	Coordinate with other agencies for joint implementation efforts	KCD	X				
Agricultural BMP Inspection and Maintenance	Monitor the operation and maintenance of BMPs installed	KCD	X				
	Provide follow-up assistance to landowners	KCD	X				
	Demonstrate BMPs to other agencies, groups or individuals	KCD	X				
Pollution Identification and Correction Program (PIC)	Maintain an ongoing PIC program that locates FC pollution sources in prioritized areas identified in the Health District's PIC Program Priority Area Work List	KCHD		X	S7.C.3.c		<p>Kitsap County Codes includes the following provisions related to source control:                      KCC 12.36.050 (6) - SSWM shall develop and implement a source control program to improve water quality. The source control program shall reduce herbicide and pesticide usage, strengthen the on-site sewage system correction, moderate risk waste control and wellhead protection programs, strengthen the use of BMP's and implement a boat waste control program. SSWM may provide financial assistance through low-interest loans, grants and cost sharing for the restoration of streams, repair on-site sewage disposal systems and agricultural practice improvements.</p>
	Accomplish the correction of identified FC pollution sources in prioritized areas identified in the Health District's PIC Program Priority Area Work List	KCHD		X	S7.C.3.c		
	Coordinate PIC activities, results, and other related information with community groups and local and state agencies	KCHD		X	S7.C.3.c		
	Respond to sewage spills affecting unincorporated Kitsap County by implementing "Sewage Spill Reporting and Response Procedures"	KCHD		X	S7.C.3.c		
Surface Water Quality Monitoring Program	Collect water quality data to characterize and assess water quality conditions in Kitsap County marine waters, streams, and lakes; determine long-term water quality trends for streams, marine waters and lakes	KCHD		X	G9	<p>NPDES Permit requirements related to monitoring include:                      1. Samples and measurements taken to meet the requirements of this permit shall be representative of the volume and nature of the monitored discharge, including representative sampling of any unusual discharge or discharge condition, including bypasses, upsets, and maintenance-related conditions affecting effluent quality.</p>	

**Required Versus Discretionary Program Element Analysis**

Program Element	Element Objectives	Responsible Department	Beyond Minimum Requirements	Fully or Partially Compliant	NPDES Section Reference	Comments
						<p>2. The Permittee shall retain records of all monitoring information.</p> <p>3. For each measurement or sample taken, the Permittee shall record the following information: (1) the date, exact place and time of sampling; (2) the individual who performed the sampling or measurement; (3) the dates the analyses were performed; (4) who performed the analyses; (5) the analytical techniques or methods used; and (6) the results of all analyses.</p> <p>4. All sampling and analytical methods used to meet the monitoring requirements specified in the approved stormwater management program shall conform to the Guidelines Establishing Test Procedures for the Analysis of Pollutants.</p> <p>5. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges.</p> <p>6. Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit</p>
	Use FC data for streams and marine waters, and nutrient data for lakes, to prioritize water bodies for pollution identification and correction, and determine the effectiveness of pollution identification and correction projects	KCHD		X	G9	<p>Kitsap County Codes includes the following provisions related to monitoring:                      KCC 12.36.050 (5) - SSWM shall develop and implement a program to monitor the ambient water quality of rivers, streams, lakes and wetlands, to evaluate the effectiveness of source controls and BMP's implemented under the basin and watershed action plans. Water quality monitoring activities shall be coordinated between agencies within the county, and the results of monitoring activities shall be communicated to residents, agencies and other interested persons.</p>
	Protect public health by issuing advisories related to surface water quality and responding to public complaints in a timely fashion	KCHD		X	G9	
	Maintain a monitoring and education program for lake swimming beaches and public access areas in Kitsap County	KCHD		X	G9	
	Coordinate with and assist, to the extent possible, other water quality monitoring, planning, protection, and restoration efforts in Kitsap County	KCHD		X	G9	
On-Site Sewage System Complaint Response Program	Operate and maintain an efficient and effective OSS complaint response program	KCHD	X			<p>Not specifically addressed by NPDES Permit requirements.</p> <p>Kitsap County Codes includes the following provisions related to on-site sewage systems:                      KCC 12.36.050 (6) - SSWM shall develop and implement a source control program to improve water quality. The source control program shall reduce herbicide and pesticide usage, strengthen the on-site sewage system correction, moderate risk waste control and wellhead protection programs, strengthen the use of BMP's and implement a boat waste control program. SSWM may provide financial assistance through low-interest loans, grants and cost sharing for the restoration of streams, repair on-site sewage disposal systems and agricultural practice improvements.</p>
	Inform and educate property owners with failing OSS about repairs and necessary correction steps	KCHD	X			<p>Bremerton-Kitsap County Board of Health Ordinance No. 1995-14, Section 8.E includes the following provision related to on-site sewage systems:                      "The Kitsap County Department of Public Works will oversee the maintenance and operation of community systems within the county's sewer boundaries."</p>
	Continue to coordinate with OSS industry representatives on the administration of the "Self Help" OSS Repair Program	KCHD	X			
Operation and Maintenance Program for On-Site Sewage Systems	Maintain Health District Operation and Maintenance (O&M) regulations that are consistent with Health District mandates, and that meet the requirements of the State Board of Health Rules and Regulations Governing On-Site Sewage	KCHD	X			

Required Versus Discretionary Program Element Analysis

Program Element	Element Objectives	Responsible Department	Beyond Minimum Requirements	Fully or Partially Compliant	NPDES Section Reference	Comments
	Ensure compliance for those properties subject to local O&M regulations.	KCHD	X			
	Promote and provide education on the use of OSS to homeowners and the OSS industry	KCHD	X			
	Utilize collected data to evaluate current practices, modify noted deficiencies and establish new practices that will in turn lower OSS failure rates	KCHD	X			
Financial Assistance Program for On-Site Sewage System Repairs	Establish a sustainable financial assistance program to assist low-income property owners in repairing or replacing failing on-site sewage systems	KCHD	X			
Recreational Shellfish Program	Provide continued support for a marine biotoxin monitoring program using trained citizen volunteers	KCHD	X			Not specifically addressed by NPDES Permit requirements.
	Supplement the marine biotoxin monitoring program with additional health risk monitoring where needed, public information and education, and emergency response and investigation of marine biotoxin in public recreational shellfish areas	KCHD	X			KCC 12.36.050 (7) – Defines SSWM program elements to include shellfish protection; SSWM shall develop and implement shellfish protection program elements to accomplish the proposes outlined in RCW Chapter 90.72. SSWM shall coordinate the implementation of program elements that provide increased shellfish protection with other counties, municipalities or special purpose districts that may establish shellfish protection programs or districts through interlocal agreements; however, this chapter shall not be construed to establish a shellfish protection district.
Wellhead Protection Program	Identify and plot potential sources of ground water contamination from man-made sources	KCHD	X			Not specifically addressed by NPDES Permit requirements.  Kitsap County Codes includes the following provisions related to wellhead protection: KCC 12.36.050 (6) - SSWM shall develop and implement a source control program to improve water quality. The source control program shall reduce herbicide and pesticide usage, strengthen the on-site sewage system correction, moderate risk waste control and wellhead protection programs, strengthen the use of BMP's and implement a boat waste control program. SSWM may provide financial assistance through low-interest loans, grants and cost sharing for the restoration of streams, repair on-site sewage disposal systems and agricultural practice improvements.
	Prioritize the relative risks of the potential sources of ground water contamination within wellhead protection areas	KCHD	X			
	Inspect decommissioned wells and respond to complaints to prevent ground water contamination from surface sources	KCHD	X			
	Provide assistance to other local and state agencies that have responsibilities and requirements for wellhead protection	KCHD	X			

**Required Versus Discretionary Program Element Analysis**

Program Element	Element Objectives	Responsible Department	Beyond Minimum Requirements	Fully or Partially Compliant	NPDES Section Reference	Comments
Marina Sewage Control Program	Ensure compliance with the Health District's Marina Sewage Regulations that require 1) applicable marinas to provide boat sewage control facilities or services, and 2) boaters to comply with existing federal marine sanitation device regulations	KCHD	X			<p>Not specifically addressed by NPDES Permit requirements.</p> <p>Kitsap County Codes includes the following provisions related to marina sewage:                      KCC 12.36.050 (6) - SSWM shall develop and implement a source control program to improve water quality. The source control program shall reduce herbicide and pesticide usage, strengthen the on-site sewage system correction, moderate risk waste control and wellhead protection programs, strengthen the use of BMP's and implement a boat waste control program. SSWM may provide financial assistance through low-interest loans, grants and cost sharing for the restoration of streams, repair on-site sewage disposal systems and agricultural practice improvements.</p>

**Required Versus Discretionary Program Element Analysis**

Program Element	Element Objectives	Responsible Department	Beyond Minimum Requirements	Fully or Partially Compliant	NPDES Section Reference	Comments
<b>OTHER ELEMENTS</b>						
Program Administration	Oversee and evaluate SSWM agency program development and implementation	KCPWD	X			Not specifically required by the NPDES Permit requirements but element is a required component of any stormwater management program.
	Coordinate the efforts of SSWM program agencies through establishment of Interlocal Agreements in order to achieve a comprehensive approach to surface and stormwater management	KCPWD	X			Not specifically required by the NPDES Permit requirements but element is a required component of any stormwater management program
	Work with other County agencies and the public to ensure that SSWM billings are accurate and in accordance with terms of the implementing ordinances	KCPWD	X			Not specifically required by the NPDES Permit requirements but element is a required component of any stormwater management program  The PSWQMP requires: 1. The Plan directs local government to create local funding capacity, such as a utility, to ensure adequate, ongoing funding for program activities and to provide funding to contribute to regional stormwater projects.
	Equip and house the Public Works SSWM program staff, develop and update the SSWM organizational chart	KCPWD	X			Not specifically required by the NPDES Permit requirements but element is a required component of any stormwater management program
	Remain current with federal, state and local regulations regarding non-point source pollution	KCPWD	X			Not specifically required by the NPDES Permit requirements but element is a required component of any stormwater management program
	Develop, forecast, track and report program activities in a clear and concise format	KCPWD		X	S9.A-B	The NPDES Permit requires: 1. Each Permittee, Co-permittee and Secondary Permittee shall submit, no later than March 31 of each year beginning in the year 2007, an annual report. The annual report shall include the following information: - Status of compliance with the conditions of this permit, including the status of implementing the components of the stormwater management program, and the implementation schedule. - Notification of any recent or proposed annexations or incorporations resulting in an increase or decrease in permit coverage area, and implications for the stormwater management program. - Expenditures for the reporting period, with a breakdown for the components of the stormwater management program. - A summary describing compliance activities, including the nature and number of official enforcement actions, inspections, and types of public education activities. - Results of information collected and analyzed, including monitoring data, if any, during the reporting period. (As defined at 40 CFR - An assessment of the appropriateness of the BMPs identified by the Permittee for each component of the SWMP.
Capital Facilities Planning	Identify and prioritize specific areas where capital facilities planning for stormwater infrastructure are most needed	KCPWD	X			Not specifically required by the NPDES Permit requirements but element is an appropriate program activity.  KCC 12.36.050 (3) – Defines SSWM program elements to include capital improvements; SSWM shall develop a five-year capital improvement program which defines the program's activities related to the acquisition, construction, replacement or renovation of capital facilities or equipment needed to address the surface and storm water management program objectives of the county.
	Identify and prioritize capital project to meet both short-range (6-year) and long-range facilities needs	KCPWD	X			
Capital Project Construction	Prepare final plans, specifications, and cost estimates for construction of high-priority projects identified in the Capital Planning Program Element	KCPWD	X			Not specifically required by the NPDES Permit requirements but element is an appropriate program activity.

**Required Versus Discretionary Program Element Analysis**

Program Element	Element Objectives	Responsible Department	Beyond Minimum Requirements	Fully or Partially Compliant	NPDES Section Reference	Comments
						KCC 12.36.050 (3) – Defines SSWM program elements to include capital improvements; SSWM shall develop a five-year capital improvement program which defines the program's activities related to the acquisition, construction, replacement or renovation of capital facilities or equipment needed to address the surface and storm water management program objectives of the county.
	Apply for external funding for those projects that can reasonably be expected to attract such funding	KCPWD	X			
	Complete construction of Capital Facilities	KCPWD	X			
Education	Seek grant or other funding sources in order to provide District services to landowners countywide	KCD	X			Not specifically required by the NPDES Permit requirements; however, good management practice.
Referral Response Element	Respond to referrals from state and local agencies	KCD	X			Not specifically required by the NPDES Permit requirements; however, good management practice.
	Respond to all requests for assistance within unincorporated Kitsap County	KCD	X			Not specifically required by the NPDES Permit requirements; however, good management practice.
Watershed Management	Provide Best Available Science regarding local watershed conditions to land use planners, other agencies, and SSWM Capital Facilities Planning staff to support development of policies, regulations, and facilities that will result in improved watershed conditions	KCDCD	X			Not specifically required by NPDES Permit requirements.
	Coordinate the implementation of watershed-related efforts, including watershed plans, Kitsap County's Comprehensive Plan, SSWM's Capital Facilities Plans, and salmon recovery efforts	KCDCD	X			KCC 12.36.050 (1) – Defines SSWM program elements to include basin and watershed planning; SSWM shall develop, coordinate and implement basin and watershed action plans to control surface and storm water runoff in the county.
	Participate in the HB2514 Watershed Planning process and its attempts to manage water resources in a more comprehensive way	KCDCD	X			The PSWQMP includes the following requirements related to watershed management: 1. The Plan directs local government to identify and rank existing problems that degrade water quality, aquatic species and habitat, and natural hydrologic processes. Local governments may choose to achieve this through watershed or basin planning or another process. Local governments are directed to conduct a hydrologic analysis and map stormwater drainages, outfalls, and impervious surfaces by watershed and to develop plans and schedules and identify funding to fix the problems. 2. The Plan directs local government to participate in watershed or basin planning processes, such as planning under Chapter 400-12 WAC or Chapter 90.82 RCW. The objective is to coordinate efforts, pool resources, ensure consistent methodologies and standards, maintain and restore watershed health, and protect and enhance natural hydrology and processes - including natural surface runoff, infiltration and evapotranspiration. Basin plans are to address water quality, aquatic habitat, ground water recharge and water re-use. Basin plans may prescribe stronger stormwater management measures to protect sensitive resources in a certain basin or sub-basin. Stormwater management measures in all basins are to at least meet the minimum requirements of Ecology's technical manual. Cities and counties are directed to incorporate recommendations from watershed or basin plans and specific requirements from Total Maximum Daily Load (TMDL) Water Cleanup Plan processes into their stormwater programs, land use comprehensive plans and site development ordinances.
	Review progress in the implementation of Watershed Action Plans	KCDCD	X			
	Coordinate and develop grant applications and when appropriate provide grant administration services for grants that support implementation of Watershed Action Plan activities	KCDCD	X			
Education and Outreach	Provide education and outreach support for watershed management efforts	KCDCD	X			Not specifically required by NPDES Permit requirements since it relates to watershed management.  Watershed planning activities are required by the Kitsap County Code and PSWQMP as discussed above.

## **APPENDIX C**

**Washington County, Oregon  
Review of Contracting Out of County Services**

Contracting Out Criteria (from literature review)	Decision Factors Reported by County Managers <sup>12</sup>	
	Contracting Favorable If:	In-House Favorable If:
<p><b>Market situation</b>– Is the private sector able and interested in providing the service? Are there likely to be at least two competitive bids for this service? Can the private sector make a profit providing this service? Has this service been successfully contracted out before, by the County or by other entities?</p>	<ul style="list-style-type: none"> <li>▪ Community/provider capacity to provide service is good (or can be developed with limited effort); vendors have demonstrated capability. (A, B, D)</li> <li>▪ Market has already invested in equipment and/or physical plant to supply service. (D)</li> <li>▪ Market offers services or commodities at competitive prices. (F)</li> <li>▪ Several larger experienced vendors are available to compete for services. (G)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Services are not available in the community, nor easily developed, because of lack of interest or resources in the private sector. (A, B, D)</li> <li>▪ Existing community/provider capacity is inadequate to meet needs, either because service is not profitable or because service is too new to generate market interest. (B)</li> <li>▪ Work offers low profit margin for vendors/erratic cash flow. (E)</li> </ul>
<p><b>Potential for savings</b> – Is there sufficient information to determine comparative costs? What is the probability that costs can be reduced through contracting this service, assuming no reduction in the level or quality of service? Are private firms' compensation and benefits likely to be the same or lower than those of County employees? Can private firms make use of part-time employees? Do private sector staffing levels appear to be lower than the County's? Will the contract allow the County to avoid a significant capital investment? Are there any hidden costs related to contract administration and/or use of public facilities and equipment? Are high contracting transaction costs likely to outweigh benefits of the contract itself?</p>	<ul style="list-style-type: none"> <li>▪ Cost-prohibitive investment in capital equipment or physical plant is required. (D)</li> <li>▪ Private sector is able to provide services more timely and cost-effectively. (E)</li> </ul>	<ul style="list-style-type: none"> <li>▪ County could provide services of better quality, in a more cost-effective manner. (A, D, E)</li> <li>▪ Technology could enable County to perform services as quickly and cheaply as competitive sources. (C)</li> </ul>

<sup>12</sup> Parentheses indicate the category of service where County managers reported consideration of the indicated factor, as follows: (A) social, health, housing or educational service delivered directly to clients of the public; (B) other service delivered directly to clients or the public, including public safety; (C) professional services (not direct public services); (D) public works; (E) maintenance of County facilities, grounds, or fleet; (F) ancillary (support) services; and (G) information technology.

**Washington County, Oregon  
Review of Contracting Out of County Services**

<b>Contracting Out Criteria (from literature review)</b>	<b>Decision Factors Reported by County Managers <sup>12</sup></b>	
	<b>Contracting Favorable If:</b>	<b>In-House Favorable If:</b>
<p><b>Operational efficiency</b> – Will contracting out this service help to improve the efficient use of government assets? Is the service performed during hours or days that regular staff resources are not normally available? Are required service locations geographically dispersed? Is the service so specialized and so limited in volume that County staff would be underutilized if they performed it? Or, is there excess staff capacity that could be used to provide this service?</p>	<ul style="list-style-type: none"> <li>▪ Workload does not justify full-time County staff. (A, B)</li> <li>▪ Need for expertise is situational, making internal staffing difficult. (B, C)</li> <li>▪ Required service hours and availability would be difficult for the County to provide given standard staff schedules. (B)</li> <li>▪ Service is delivered in many locations throughout county. (B)</li> <li>▪ Work is seasonal and/or relatively short duration. (B)</li> <li>▪ Volume of work is heavy and exceeds County convenience capabilities. (F)</li> <li>▪ Vendor is more convenient than County for a given project. (F)</li> <li>▪ Specialized equipment is required, and work volume doesn't justify purchase. (F)</li> </ul>	<ul style="list-style-type: none"> <li>▪ County has excess capacity (equipment and staff) to do work; and new work won't impact scheduled work and/or service levels. (D, E)</li> <li>▪ Drop-off/pick-up convenience is more important than cost or order timeliness. (F)</li> </ul>
<p><b>Risk</b> – Will contracting for this service expose the County to hazards, liabilities, or service failures? Is this a core service (service delivered directly to the public) or one that involves making policy? Are the contractors likely to stay in business? Would a contract compromise the security of sensitive information or facilities? Do the risks of service failure outweigh the benefits of contracting? Have there been any notable instances of corruption where others have contracted the service?</p>	<ul style="list-style-type: none"> <li>▪ Contracting would allow county to off-load some or all of the legal liability for professional services. (A)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Service is critical. Risk of service failure outweighs any advantages gained by contracting. (A, B, D)</li> <li>▪ Services require County government to ensure continuity of care, stability, and adequate follow-up for specific clientele. (A)</li> <li>▪ Security of sensitive information or facilities could be compromised. (E)</li> </ul>

**Washington County, Oregon  
Review of Contracting Out of County Services**

Contracting Out Criteria (from literature review)	Decision Factors Reported by County Managers <sup>12</sup>	
	Contracting Favorable If:	In-House Favorable If:
<p><b>Quality/effectiveness of service</b> – Is there sufficient information to compare in-house quality and effectiveness to that of contractors? What is the likelihood that competition for the contract will have a favorable impact on the effectiveness, timeliness or thoroughness of the service? Does the County have sufficient staff, equipment and other resources to provide this service without impacting the timely delivery or quality of other services? Is special expertise required to provide this service that is not readily available internally? Is special independence and/or outside credibility required for this service or work?</p>	<ul style="list-style-type: none"> <li>▪ It is difficult to recruit and retain (or remove) appropriate professional staff. (A)</li> <li>▪ Rapid start-up is required in response to grant money availability. (A)</li> <li>▪ Opportunities for enhanced supplemental funding are greater. (A)</li> <li>▪ Special independence, outside credibility, or validation is required. (C)</li> <li>▪ Special expertise is required. (C)</li> <li>▪ Private providers have the ability to improve service delivery, increase County revenue opportunities, or provide exceptional financial controls. (B)</li> <li>▪ An outside vendor can provide greater access to rapidly changing technologies than can the County. (G)</li> <li>▪ An outside vendor can provide faster access to qualified resources at a more reasonable price than could the County. (G)</li> <li>▪ Timeliness/delivery time is critical. (F)</li> </ul>	<ul style="list-style-type: none"> <li>▪ County could provide services of better quality, in a more cost-effective manner. (A, D, E)</li> </ul>
<p><b>Legal barriers</b> – Will contracting for this service comply with all applicable laws and regulations? Is there greater legal flexibility for operations associated with either in-house or contracted delivery?</p>	<ul style="list-style-type: none"> <li>▪ Contracting allows responsiveness to programming needs that may be hindered by staffing and operating the program in-house, because of civil service hiring requirements, purchasing regulations or capital construction limits, etc. (A)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Services have the potential to infringe on a client's civil rights or require a high degree of public accountability. (A, B)</li> <li>▪ County has a specific legal responsibility that could be compromised by a contract. (B)</li> </ul>

**Washington County, Oregon  
Review of Contracting Out of County Services**

<b>Contracting Out Criteria (from literature review)</b>	<b>Decision Factors Reported by County Managers <sup>12</sup></b>	
	<b>Contracting Favorable If:</b>	<b>In-House Favorable If:</b>
<p><b>Management control</b> – Can service performance (quantity and quality) be measured? Will the County be able to oversee the provision of the contracted service (does the County have the capability to monitor contract performance and is it possible to draft appropriate contract specifications)? Does this service require special County oversight or control? Could the service be reasonably transitioned back in-house if the County chose to do so?</p>	<ul style="list-style-type: none"> <li>▪ Service quality measures are well-defined, and service can be monitored. (A)</li> <li>▪ Work doesn't require any special County supervision. (F)</li> </ul>	<ul style="list-style-type: none"> <li>▪ It would be difficult to preserve County oversight of/accountability for services delivered by a contract provider. (A, B)</li> <li>▪ Active participation in or control over some or all of the order or service is important. (F)</li> <li>▪ County control of or participation in information technology strategic planning is/would be hindered by the contract. (G)</li> <li>▪ Contract monitoring is unduly onerous to the County. (G)</li> </ul>
<p><b>Strategic/political sensitivity</b> – Is this service community-sensitive and/or high profile? How does the service fit with the County's/department's core mission? How strong is the opposition to contracting this service from the public, users of the service, interest groups, or public officials? How will employees be affected by contracting out this service? What level of employee group opposition will the decision to contract generate?</p>	<ul style="list-style-type: none"> <li>▪ Services are ancillary to core public services (for example, polygraph, drug testing). (B)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Project or service is significant, community-sensitive. (C)</li> </ul>

## **APPENDIX D**

## 2005-2010 Financial Forecast

### Summary of Projected Expenditures & Revenue

#### Surface & Storm Water Management Program

NPDES Mandated

Non-Mandated

	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
	<b>Expenditures</b>						
<b>SSWM Program Administration</b>							
Salaries & Benefits	\$ 184,853	\$ 252,924	\$ 264,016	\$ 271,936	\$ 280,095	\$ 288,497	\$ 297,152
Supplies & Services	329,767	189,265	112,515	114,765	117,061	119,402	121,790
Intergovernmental	55,000	81,000	114,064	117,486	121,010	124,641	128,380
Capital Expenditures	5,500						
Inter-Fund Charges	218,940	202,138	205,318	211,478	217,822	224,357	231,087
<b>Sub-Total</b>	<b>\$ 794,060</b>	<b>\$ 725,327</b>	<b>\$ 695,913</b>	<b>\$ 715,665</b>	<b>\$ 735,988</b>	<b>\$ 756,897</b>	<b>\$ 778,409</b>
<b>Drainage System Inspection</b>							
Salaries & Benefits	\$ 232,043	\$ 206,246	\$ 217,519	\$ 224,045	\$ 230,766	\$ 237,689	\$ 244,820
Supplies & Services	7,050	3,650	3,750	3,825	3,902	3,980	4,059
Capital Expenditures							
Inter-Fund Charges	2,000	18,020	19,100	19,673	19,673	20,263	20,871
<b>Sub-Total</b>	<b>\$ 241,093</b>	<b>\$ 227,916</b>	<b>\$ 240,369</b>	<b>\$ 247,543</b>	<b>\$ 254,340</b>	<b>\$ 261,932</b>	<b>\$ 269,750</b>
<b>Facilities Maintenance</b>							
Salaries & Benefits	\$ 445,518	\$ 476,641	493,706	508,517	508,517	523,773	539,486
Supplies & Services	105,810	77,150	81,150	82,773	84,428	86,117	87,839
Capital Expenditures							
Inter-Fund Charges	296,240	342,740	360,020	370,821	370,821	381,945	393,404
<b>Sub-Total</b>	<b>\$ 847,568</b>	<b>\$ 896,531</b>	<b>\$ 934,876</b>	<b>\$ 962,111</b>	<b>\$ 963,766</b>	<b>\$ 991,835</b>	<b>\$ 1,020,729</b>
<b>Facilities Retrofit</b>							
Salaries & Benefits	\$ 414,148	\$ 475,186	\$ 494,610	\$ 509,448	\$ 524,732	\$ 540,474	\$ 556,688
Supplies & Services	117,325	136,040	139,575	142,367	145,214	148,118	151,080
Capital Expenditures	9,750	400	4,250	4,378	4,509	4,644	4,783
Inter-Fund Charges	30,000	170,840	181,760	187,213	192,829	198,614	204,572
<b>Sub-Total</b>	<b>\$ 571,223</b>	<b>\$ 782,466</b>	<b>\$ 820,195</b>	<b>\$ 843,405</b>	<b>\$ 867,284</b>	<b>\$ 891,850</b>	<b>\$ 917,124</b>
<b>Decant Operations</b>							
Salaries & Benefits	\$ 52,236	\$ 50,405	\$ 58,486	\$ 60,241	\$ 62,048	\$ 63,909	\$ 65,827
Supplies & Services	184,235	220,232	186,017	189,737	193,532	197,403	201,351
Inter-Fund Charges	372	20,860	22,300	22,969	23,658	24,368	25,099
<b>Sub-Total</b>	<b>\$ 236,843</b>	<b>\$ 291,497</b>	<b>\$ 266,803</b>	<b>\$ 272,947</b>	<b>\$ 279,238</b>	<b>\$ 285,680</b>	<b>\$ 292,276</b>
<b>Stormwater Facility Mapping</b>							
Salaries & Benefits	\$ 63,452	\$ 69,064	\$ 71,930	\$ 74,088	\$ 76,311	\$ 78,600	\$ 80,958
Supplies & Services	5,700	15,600	8,600	8,772	8,947	9,126	9,309
<b>Sub-Total</b>	<b>\$ 69,152</b>	<b>\$ 84,664</b>	<b>\$ 80,530</b>	<b>\$ 82,860</b>	<b>\$ 85,258</b>	<b>\$ 87,726</b>	<b>\$ 90,267</b>
<b>Education &amp; Outreach</b>							
Salaries & Benefits	\$ 61,988	\$ 63,234	64,754	66,697	68,698	70,758	72,881
Supplies & Services	24,030	24,030	24,030	24,511	25,001	25,501	26,011
Inter-Fund Charges		4,540	4,900				
<b>Sub-Total</b>	<b>\$ 86,018</b>	<b>\$ 91,804</b>	<b>\$ 93,684</b>	<b>\$ 91,207</b>	<b>\$ 93,698</b>	<b>\$ 96,259</b>	<b>\$ 98,892</b>
<b>Facility Monitoring</b>							
Salaries & Benefits	\$ 124,240	\$ 222,138	240,346	247,556	247,556	254,983	262,633
Supplies & Services	75,935	82,285	78,385	79,953	81,552	83,183	84,846
Inter-Fund Charges		4,504	4,900				
<b>Sub-Total</b>	<b>\$ 200,175</b>	<b>\$ 308,927</b>	<b>\$ 323,631</b>	<b>\$ 327,509</b>	<b>\$ 329,108</b>	<b>\$ 338,166</b>	<b>\$ 347,479</b>

	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
Department of Community Development							
Outreach	\$ 52,432	\$54,005	\$ 55,625	\$ 57,294	\$ 59,013	\$ 60,783	\$ 62,606
Watershed Planning	95,282	98,140	101,084	104,117	107,240	110,457	113,771
Stream Team	109,669	112,959	116,348	119,838	123,433	127,136	130,951
<b>Sub-Total</b>	<b>\$ 257,383</b>	<b>\$ 265,104</b>	<b>\$ 273,057</b>	<b>\$ 281,249</b>	<b>\$ 289,686</b>	<b>\$ 298,377</b>	<b>\$ 307,328</b>

Bremerton-Kitsap County Health District							
Wellhead Protection	\$ 22,064	\$22,726	\$ 23,408	\$ 24,110	\$ 24,834	\$ 25,579	\$ 26,346
Pollution Identification	461,379	475,220	489,477	504,161	519,286	534,865	550,911
Monitoring Program	316,872	326,378	336,169	346,254	356,642	367,341	378,361
<b>Sub-Total</b>	<b>\$ 800,315</b>	<b>\$ 824,324</b>	<b>\$ 849,054</b>	<b>\$ 874,526</b>	<b>\$ 900,761</b>	<b>\$ 927,784</b>	<b>\$ 955,618</b>

Capital & Debt Service Contribution							
Capital Projects	970,200	1,840,684	1,224,330	904,830	604,830	604,830	593,178
Building Debt	233,367	235,861	234,062	234,021	235,451	234,388	234,388
<b>Sub-Total</b>	<b>\$ 1,203,567</b>	<b>\$ 2,076,545</b>	<b>\$ 1,458,392</b>	<b>\$ 1,138,851</b>	<b>\$ 840,281</b>	<b>\$ 839,218</b>	<b>\$ 827,566</b>

<b>Capital Program Engineering</b>							
Salaries & Benefits	\$ 184,996	\$ 265,322	\$ 281,189	\$ 289,625	\$ 298,313	\$ 307,263	\$ 316,481
Supplies & Services		\$ 400	\$ 2,100				
Inter-Fund Charges		\$ 4,440	\$ 4,800				
<b>Sub-Total</b>	<b>\$ 184,996</b>	<b>\$ 270,162</b>	<b>\$ 288,089</b>	<b>\$ 289,625</b>	<b>\$ 298,313</b>	<b>\$ 307,263</b>	<b>\$ 316,481</b>

Kitsap Conservation District							
Agricultural Program	\$ 296,777	\$ 305,680	\$ 314,850	\$ 324,296	\$ 334,024	\$ 344,045	\$ 354,366
<b>Sub-Total</b>	<b>\$ 296,777</b>	<b>\$ 305,680</b>	<b>\$ 314,850</b>	<b>\$ 324,296</b>	<b>\$ 334,024</b>	<b>\$ 344,045</b>	<b>\$ 354,366</b>
<b>Total</b>	<b>\$ 5,789,170</b>	<b>\$ 7,150,947</b>	<b>\$ 6,639,443</b>	<b>\$ 6,451,792</b>	<b>\$ 6,271,746</b>	<b>\$ 6,427,031</b>	<b>\$ 6,576,285</b>

**2005 Additions:**

\$18,000 Water Quality - NPDES Outfall Monitoring  
 \$31,000 Waste Disposal  
 \$33,064 NPDES Permit (Annual Fee)

<b>SSWM Revenue:</b>							
	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
County Road ROW	1,329,480	1,398,115	1,470,750	1,477,200	1,477,200	1,477,200	1,477,200
Private Property	3,221,648	3,468,441	3,637,241	3,673,613	3,710,350	3,747,453	3,784,928
Beginning Fund Balance		\$6,206,109	\$3,921,718	\$2,390,266	\$1,089,287	\$5,091	(\$1,197,287)
<b>Total Revenue</b>		<b>11,072,665</b>	<b>9,029,709</b>	<b>7,541,079</b>	<b>6,276,837</b>	<b>5,229,744</b>	<b>4,064,840</b>
<b>Ending Fund Balance</b>		<b>3,921,718</b>	<b>2,390,266</b>	<b>1,089,287</b>	<b>5,091</b>	<b>(1,197,287)</b>	<b>(2,511,445)</b>