Council Meeting Date: August 8, 2011 **Agenda Item:** 8(a)

CITY COUNCIL AGENDA ITEM

CITY OF SHORELINE, WASHINGTON

AGENDA TITLE:	Surface Water Master Plan Update – Level of Service and Associated Surface Water Utility Rates
DEPARTMENT:	Public Works
PRESENTED BY:	Mark Relph, Public Works Director Jesus Sanchez, Operations Manager Brian Landau, Surface Water Manager
ACTION:	____Ordinance ____Resolution ____Motion _X_Discussion

PROBLEM/ISSUE STATEMENT:

The City's original Surface Water Master Plan (SWMP) was developed in 2004 and adopted in 2005. It included the development of a Capital Improvement Program (CIP), a fee or rate study, and a maintenance and operations plan to support the City's Surface Water Utility. The 2005 SWMP established a prioritization of capital projects that focused on flooding issues, water quality and habitat restoration. The 2011 update will evaluate the currently planned CIP, future surface water maintenance and operation needs, and determine an appropriate fee schedule to support the utility for the next six years.

The update to the SWMP will be coordinated with the City's Comprehensive planning process. Eventually, the SWMP and the designated projects will be integrated with the Capital Facilities Element of the Comprehensive Plan.

The Council last discussed the SWMP update on May 2, 2011 (**http://cosweb.ci.shoreline.wa.us/uploads/attachments/cck/Council/Staffreports/2011/staffreport050211-7a.pdf**.) The May 2nd discussion focused on key policy issues that are being used to complete the 2011 update. This evening's discussion will be focused on the recommended level of service and the associated rate structure for the utility. The recommended level of service incorporates impacts from additional regulatory requirements and a higher level of emphasis on operations and maintenance. A higher investment in operations and maintenance can be accomplished, in part, through an asset inventory, asset management program and basin planning for all drainage basins within the City.

The Council is scheduled to have another discussion on the SWMP update on September 6th which will focus on surface water management on private property. A public hearing on the SWMP update is scheduled for September 26th with adoption of the plan scheduled for October 10, 2011.

RESOURCE/FINANCIAL IMPACT:
Given that the City's surface water utility is legally accounted for as an "enterprise activity," the revenue generated from the SWM utility fee must be adequate to cover the cost of operation, maintenance, and capital needs of the utility. The 2011 SWMP update includes a proposed six year rate structure (2012-2017) to support costs related to additional regulatory compliance, recommended levels of operations and maintenance, and the capital program recently adopted by the City Council in the 2012-2017 Capital Improvement Program (CIP).

Included in these costs is a recommended increase in staff resources of 1.5 Full Time Equivalents (FTE) over the next three to four years. The recommended rate structure allows the utility to retain a minimum fund balance in compliance with the City's adopted financial policies. The following table provides the recommended rate structure for a single family parcel for the next six years.

	2012	2013	2014	2015	2016	2017
Proposed Rate	$133	$137	$141	$146	$151	$159
Increase from previous year	$3 (2.5%)	$4 (3%)	$4 (3%)	$5 (3%)	$5 (4%)	$8 (5%)

The average annual increase is $5.80 (3.4%) and the estimated average annual inflation rate is 2.5%.

RECOMMENDATION

Staff has provided recommendations regarding the level of service and rate structure for the utility and would like Council's feedback for incorporation into the draft 2011 Surface Water Master Plan update.

Approved By: City Manager City Attorney

INTRODUCTION

The goals of the Surface Water Utility include flood reduction, water quality protection, and aquatic habitat protection and restoration. To achieve these goals, the Surface Water Utility manages, operates, and maintains the City's surface water infrastructure and natural drainage channels through the practice and promotion of sound environmental stewardship. The 2011 Surface Water Master Plan (SWMP) update will acknowledge the accomplishments of the City's 2005 SWMP. Likewise, the update provides a greater emphasis on meeting future regulatory compliance and addressing future operation and maintenance needs. The higher reinvestment in operations and maintenance will be accomplished in part with the new asset inventory and management program.

BACKGROUND

The City's original SWMP was developed in 2004 and adopted in 2005. It included the development of a Capital Improvement Program (CIP), a fee or rate study, and a maintenance and operations plan to support the City's Surface Water Utility. The 2005 SWMP focused on short and long-term needs for the utility's storm water programs. The initial and critical needs were to address public safety, reduce damage caused by flooding, and meet legal mandates prescribed by federal and state laws such as the Clean Water Act, plus provide habitat restoration.

Major federal regulatory drivers that helped guide the initial SWMP were the Endangered Species Act, the Clean Water Act – which includes the National Pollution Discharge Elimination System (NPDES) Phase II rule and the Washington State Department of Ecology's Basic and Comprehensive Stormwater Program.

The City is subject to regulation under the Western Washington Phase II Municipal Stormwater Permit administered by the Washington State Department of Ecology (DOE). The permit was created by the Department of Ecology to fulfill federal Environmental Protection Agency (EPA) NPDES Requirements governing stormwater. By complying with the permit, the City of Shoreline is allowed to discharge stormwater to waters of the state (i.e. local lakes, streams and Puget Sound) if it takes certain actions to prevent stormwater pollution. .

The permit requires the City to create and implement a Stormwater Management Program (MP). The MP outlines the City's plan to develop and implement the following programs and processes:

- Public education and outreach
- Public involvement and participation
- Illicit discharge detection and elimination
- Controlling stormwater run-off from construction sites
- Operations and maintenance of stormwater facilities after construction

The existing permit is in effect until August 2013, at which time a new permit and its associated requirements will be in effect (the 2012-2017 NPDES permit is effective from

August 2013 to August 2018). It is anticipated that the new permit will have additional requirements that will increase the maintenance and operation costs of the City's utility. Attachment B, Regulatory Compliance section, includes the anticipated enhanced program elements.

Since 2005, a number of changes have affected the Surface Water Utility's programs. Some of these include:

- Completion of several capital improvements that have substantially reduced the number of flooding issues, and consequently the number of flooding complaints.
- Institution of educational programs focused on water quality such as the environmental mini-grant programs, recycling and natural yard care, and the Neighborhood Environmental Stewardship Program (NEST).
- Real-time experience in complying with National Pollution Elimination Discharge System (NPDES) stormwater permit compliance, helping staff to more clearly understand the costs associated with the program and the anticipated increases in permit requirements with the next permit cycle in 2013.
- Construction of additional surface water management infrastructure that requires a higher level of maintenance (e.g., Aurora Avenue).
- Greater regional and local emphasis on sustainability, water quality, and habitat restoration.

These factors have heavily influenced the development of this update. Specifically, the 2011 Surface Water Master Plan update includes consideration in the following areas:

- The Surface Water Utility has addressed critical needs identified in the 2005 Master Plan (i.e. major flooding problems and compliance with new regulations), and now it needs to set a new direction for future maintenance and capital replacement requirements.
- New infrastructure systems and the related future maintenance impacts as a result of capital improvments (e.g. Aurora Project).
- The utility's aging drainage pipes and facilities and the future replacement needs.
- Enhanced emphasis on sustainability, water quality, and aquatic protecition and restoration.
- A rate structure that supports the recommended level of service of the utility for the next six years.

DISCUSSION

Levels of Service

The Surface Water Utility has three basic goals as noted below, each depicted with a symbol, later referenced in Attachment A. The goals include:

1. Flood reduction 
2. Water quality protection 
3. Aquatic Habitat Protection and Restoration 

These goals are achieved through a number of programs, which are further described in Attachment A. These programs include:

- administration and management;
- regulatory compliance;
- operations and maintenance;
- basin planning;
- capital program;
- public outreach and education;
- technical assistance and code enforcement; and
- monitoring and research.

The 2011 SWMP update recommends enhancing many of these programs and adding another major program, asset inventory and management. The diagram in Attachment A provides a summary of current utility programs as well as those that are recommended to be implemented as part of the 2011 SWMP update. Council can differentiate between current programs (standard print) and recommended/required enhancements (bold and italicized) by the type of print.

The proposed asset inventory and management program will provide a higher level of efficiency in managing the stormwater infrastructure. Asset management is an effective model to improve service and increase productivity, while reducing costs and risk. The elements of the program include:

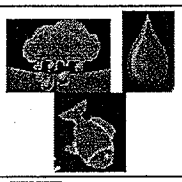
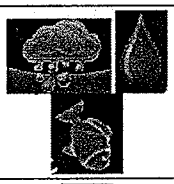
- Acquiring asset management software.
- Incorporating the existing drainage inventory into the City's GIS and asset management software. The City has invested millions in new stormwater assets and these facilities need to be inventoried in an appropriate database that allows for efficient maintenance of the facilities in the future.
- Condition assessment of the existing infrastructure (pipes and catch basins) would occur with the basin plans. Condition assessment allows for the identification of high risk areas (i.e. cracked and failing pipes, undersized pipes,

etc.) of the City's aging infrastructure. This assessment allows for the strategic planning of infrastructure repair and replacement based on risk of failure and other factors. This data will also be incorporated and managed through the asset management software.

Projected changes in level of service are also driven by the anticipated NPDES permit requirements for the new 2012-2017 permit cycle. Anticipated changes include low impact development requirements, which are already in place. Specifically, the new permit may require stormwater monitoring and inspections of LID facilities.

The proposed program enhancements reflect Council direction from the policy discussion on May 2, 2011, **http://cosweb.ci.shoreline.wa.us/uploads/attachments/cck/Council/Staffreports/2011/staffreport050211-7a.pdf**. Table 1 provides a summary of the policy direction from Council with the programs and implementation strategies recommended to support the utility goals.

Table 1. Relationship between Policies, Programs, and Utility Goals

Policy (as discussed with Council May 2, 2011)	Program	Implementation Strategy	Utility Goal
Emphasis on Repair and Replacement over Capital Projects	Operations and Maintenance, Asset Inventory and Management	Inventory condition assessment as part of basin planning process; Update asset inventory and management resources (software and staff)	
Low Impact Development (LID) Incentives/Rate Issues	Public Outreach, Administration and Management	Provide LID incentives (discounted rain barrels, grant programs, etc.) to residents • Study rate class structure for residential surface water fees • Audit of King County billing system	
Management on Private Property	Regulatory Compliance, Capital Improvement Program	Development of a formal policy that affects management actions on private property	
Car wash permits	Public Outreach and Education, Technical Assistance, and Code Enforcement	Develop a formal permit for non-commercial car wash activities	

Alternatives Analyzed

In drafting the SWMP update staff evaluated three levels of service (LOS):

- Current Levels of Service
- Level of Service 1 (LOS 1) – Includes current level of service plus program enhancements related to the anticipated additional requirements dictated by the 2012-2017 NPDES permit and the implementation of the asset inventory and management program.
- Level of Service 2 (LOS 2) – Includes LOS 1 with additional program enhancements related to the 2012-2017 NPDES permit requirements.

Service levels are intended to address the anticipated regulatory requirements of the 2012-2017 NPDES permit, meet utility goals, and address recent policy direction from the Council. Table 2 is a summary of the alternatives analyzed. Attachment B provides the details of the alternatives and the additional program elements considered for LOS 1 and LOS 2.

Table 2. Comparison of Level of Service Alternatives

Current Surface Water Utility Services	Level of Service 1 (recommended)	Level of Service 2
• Focus on fixing drainage problems • Operations and Maintenance to meet current regulatory requirements • Reactive approach to repairs	• Meet anticipated changing regulations (NPDES 2012) • More emphasis on Asset Management (per Council direction) • Less emphasis on capital construction (per Council direction) • Implementation: - Staff resource impact (1.5 FTE) - Moderate, annual SWM fee increases	Exceed regulatory requirements to further improve water quality • More street sweeping, public education, technical assistance, water quality monitoring • More comprehensive basin planning • Implementation: - Greater staff resource impact than LOS 1 (3.0 FTE) - Moderate annual SWM fee increases
• $ 21,488,051 Total (2012-2017 Budget) • 10.86 Total FTE	• $ 22,828,678 Total (2012-2017 Budget) • 12.36 Total FTE	• $ 25,675,278 Total (2012-2017 Budget) • 15.56 Total FTE

Staff is recommending that the City Council adopt LOS 1 in the 2011 SWMP.

Both LOS 1 or 2 alternatives may affect the capital expenditures that were recently adopted in the 2012-2017 CIP. The impacts will include the following:

Asset Inventory and Management

LOS 1 has more emphasis on asset management than the adopted CIP. The anticipated LOS 1 costs for a citywide surface water asset inventory and condition assessment are approximately $1.5 million over six years compared to the $525,000 projected in the adopted 2012-2017 CIP.

Capital Construction

Both LOS 1 and the adopted CIP include capital construction, but LOS 1 may require deferral of some construction projects from early in the 6-year period to later in the 6-year period. Once basin planning and the asset inventory are underway, staff will determine the exact impact to the adopted 2012-2017 CIP. Given that the impacts would not be until 2013 or later any recommended changes would be brought to Council during the 2013-2018 CIP process.

LOS 2

LOS 2 has the same capital construction and asset inventory and management as LOS 1, except for "enhanced" basin planning that includes more sustainable elements to be included in the plans (See Attachment B).

Rate Structure:

Utility fees provide the required revenue to fund the operation, maintenance, and capital needs of the Surface Water Utility. The level of service determination and the rate structure must be considered simultaneously. A level of service that results in increased costs will result in a higher revenue requirement, thus requiring an increase in utility rates. On the other hand, a level of service that results in reduced costs will lower revenue requirements and thus may result in lower utility rates.

The SWMP update includes a review of the proposed utility rate structure for the next six years. Currently, 64% of the utility revenue comes from residential parcels and the other 36% from commercial parcels (Table 3). The current rate structure is divided into residential parcels and commercial parcels, and is shown in Attachment F as part of the City's 2011 adopted budget. The residential parcels are currently charged a flat annual fee per parcel. The commercial fees are charged per acre based on the percentage of impervious surface on the commercial property. The City's current rate model is based off of the King County surface water rate model.

Table 3. Surface Water Utility Revenue by Rate Class

Rate Class	Revenue	% Revenue	Parcels
Residential	$2,061,525	64%	15,871
Commercial (less than 10% Impervious Surface)	$2,346	<1%	22
Commercial (11% - 20% Impervious Surface)	$20,844	1%	15
Commercial (21% - 45% Impervious Surface)	$164,107	5 %	106
Commercial (46% - 65% Impervious Surface	$135,921.	4 %	158
Commercial (less than 66% - 85% Impervious Surface)	$250,327	8 %	198
Commercial (86% - 100% Impervious Surface)	$564,147	18 %	380
TOTAL	**$3,199,217.**	**100%**	**16,750**

Currently, the City's surface water fee/rate for a single family residential parcel is $130/year. This rate is the median rate in a rate comparison of 22 other local jurisdictions in Snohomish and King County (Attachment D).

Staff evaluated the costs for LOS 1 and LOS 2 and the associated rates to support those levels of service for residential parcels. Tables 4a and 4b provide the rate structure required to support the specific LOS. Each table also includes the rate structure that was used when developing the 2012-2017 adopted CIP. Attachment E is a graphical representation of the rate structure required for LOS 1, LOS 2, and the projected rates that were presented in the 2012-2017 CIP.

Table 4a. Level of Service 1 Rates and Revenue

YEAR	2012	2013	2014	2015	2016	2017
2012-2017 CIP Projected Rate	$133	$137	$141	$146	$150	$154
LOS 1 Proposed Rate	$133	$137	$141	$146	$151	$159
LOS 1 Rate Increase from previous year	$3 (2.5%)	$4 (3%)	$4 (3%)	$5 (3%)	$5 (4%)	$8 (5%)
Total Additional SWM Fee Revenue as compared to 2011 revenue	$80,000	$179,000	$282,090	$387,330	$570,600	$757,840

The average annual increase over the six year period is $5.80 (3.4%) and the estimated annual inflation rate is 2.5%.

Table 4b. Level of Service 2 Rates and Revenue

YEAR	2012	2013	2014	2015	2016	2017
2012-2017 CIP Projected Rate	$133	$137	$141	$146	$150	$154
LOS 2 Proposed Rate	$138	$147	$158	$169	$177	$177
LOS 2 Rate Increase from previous year	$8 (6%)	$9 (6%)	$11 (7%)	$11 (7%)	$8 (5%)	$0 (0%)
Total Additional SWM Fee Revenue as compared to 2011 revenue	$192,000	$432,000	$678,500	$965,550	$1,176,110	$1,180,810

The annual average increase over the six year period is $7.80 (5.2%) and the estimated annual inflation rate is 2.5%.

Staff proposes further review of the residential rate structure be completed in the 2012-2013 SWMP work plan. This review will evaluate different methods that could be used to create residential rate fee classes (i.e. lot size, impervious area, etc.) that result in an overall revenue neutral position for the Surface Water Utility. The City will also conduct an audit of the King County billing system to ensure the City is billing all current tax parcels in the City at the appropriate rates. This would involve a comparison of the most recent assessor parcel data with the parcel data in the billing system.

PUBLIC OUTREACH

In February 2011 staff conducted an open house to present the Surface Water Utility issues to the public and receive feedback on program priorities. In addition, a Surface Water Master Plan webpage was added to the City's website that provided information on the SWMP update and allows residents to submit comments. The issues of greatest concern to those providing feedback in order of priority were 1) water quality, 2) flooding, and 3) aging drainage pipes/facilities and aquatic habitat (tied). Attachment C shows a scoring and summary of the prioritization from the open house.

COUNCIL GOAL(S) ADDRESSED

The 2011 Surface Water Master Plan is consistent with Council Goal 2: "Provide safe, efficient, and effective infrastructure to support our land use, transportation, and surface water plans."

RECOMMENDATION

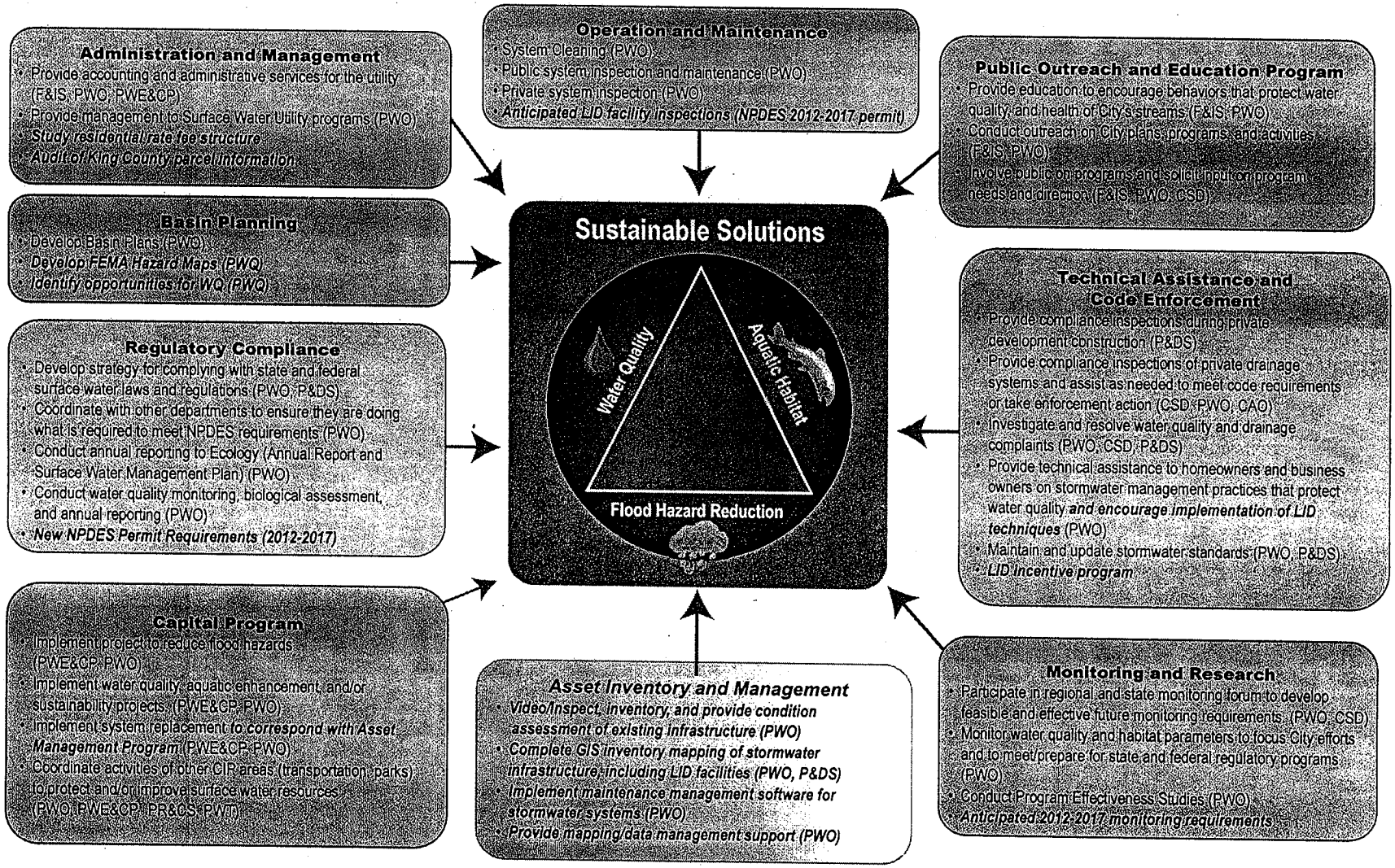
Staff has provided recommendations regarding the level of service and rate structure for the utility and would like Council's feedback for incorporation into the draft Surface Water Master Plan update.

ATTACHMENTS

Attachment A – Figure displaying relationship between Surface Water Utility programs and goals
Attachment B – Levels of Service Alternatives – details for each program and estimated costs and staff resource impacts
Attachment C – Public priorities of the Surface Water Utility Goals and programs
Attachment D – Comparison of surface water rates between Shoreline and other regional jurisdictions
Attachment E – Graph of surface water rate comparisons between Level of Service 1 and Level of Service 2
Attachment F – 2011 Surface Water Management Rate Table

Attachment A

Existing and Proposed Surface Water Relationship Between Utility Goals, Programs, and City Departments



Legend:

CAO – City Attorney's Office
CCO – City Clerk's Office
CMO – City Manager's Office
CSD – Community Service Division
F&IS – Financial and Information Services
PR&CS – Parks Recreation & Cultural Services
P&DS – Planning & Development Services
PWT – Public Works - Transportation
PWE&CP – Public Works – Engineering & Capital Projects
PWO – Public Works – Operations (includes Surface Water Utility, Fleet & Property Management and Roads Maintenance)

* Bold - Indicates new proposed programs and/or activities from 2005 plan

Note: For each activity, contributing departments are shown in parentheses.

Attachment B. Surface Water Utility Level of Service Alternatives (DRAFT)

LOS 1 - Current Level of Service Plus Meet Anticipated Future Regulatory Requirements and Increased Emphasis on Asset Management (i.e., take additional steps to preserve investment in existing system)	LOS 2 - Exceed Future Regulatory Requirements and Expand Utility Programs to Provide a Higher Level of Service
Operations and Maintenance	
Current Program: Maintain current O&M program including: • Annual city owned catch basin inspection & maintenance. (approximately 1/3 of system per year) • Ditch inspection & maintenance (16,000 lineal feet /year) • Street sweeping (about 3000 lane miles/year) currently 0.6 FTE • Water quality facilities: Inspection/maintenance to meet current regulatory requirements • Maintain new infrastructure as it is constructed ***Additional Program Elements:*** • **Update maintenance practices/frequencies to meet future NPDES requirements (note that these are not yet fully defined because the permit is in draft language form)** • **Update existing asset inventory software to meet identified conditions assessment and maintenance schedule needs (cost estimated at $200k – one-time cost for software purchase and implementation that is paid for by Ecology Capacity Grant)** • **Develop inspection and maintenance practices to meet new LID facility requirements (vegetation management, soil replacement)** • **Increase efficiency of pipe cleaning program resulting from video inspection program element of Asset Inventory Management and additional inspection above.** • **Develop sustainable approaches for minimizing maintenance** • **Develop and maintain telemetry for all pump stations (5 new ones for a total of 7 with a one-time cost of $50k)** **Staffing:** No increase in staffing. Increase program with existing resources.	LOS 1 plus the following elements: • Increase street sweeping from 0.6 to 1.0 FTE (add 0.4 FTE, no new equipment • Update condition assessment and analysis every 10 years ($90k/year) **Staffing:** Add 0.4 FTE (maintenance staff)

LOS 1 - Current Level of Service Plus Meet Anticipated Future Regulatory Requirements and Increased Emphasis on Asset Management (i.e., take additional steps to preserve investment in existing system)	LOS 2 - Exceed Future Regulatory Requirements and Expand Utility Programs to Provide a Higher Level of Service
Public Outreach and Education	
Current program includes several public outreach and education elements that help educate Citizens about stormwater, including; • Maintain Surface Water and Environmental Services Website • Earth Day Every Day/Natural Yard Care Event • "Environmental Mini-grant" Program ($20k SW fund –native replanting, volunteering; $15k General Fund) • Storm Drain Stenciling Program • Clean and Green Car Wash Program • NPDES Construction Stormwater General Permit informational Focus Sheet available via the City's stormwater website and through flyers at the Planning and Community Development front counter • Source control technical assistance – booths and displays at various special and ongoing events • City Hall tour of the facility's Stormwater Low Impact Development facilities. Added or enhanced program elements include: • Adopt-a-storm-drain program • Pet Waste Program – Increased program on business outreach on BMPs (mostly source control) • Increased program on business outreach on BMPs (mostly source control) • Develop program to encourage and promote stewardship along improved rights-of-way • Promote tree preservation and retention as stormwater management • Collaboration with Shoreline Community College and Shoreline School District related to monitoring on Boeing Creek. ***Additional Program Elements:*** • **LID Incentive Programs (e.g., pay for permits where applicant wants to implement LID, pay for portion of rain barrels, etc) (estimated at a non-labor limit of $20k (assumes sharing funds from Surface Water Environmental mini-grant program ($20K program))** **Staffing:** No increase in staffing. Increase program with existing resources.	LOS 1 plus the following additional or enhanced elements: • LID Incentive Programs (e.g., pay for permits where applicant wants to implement LID, pay for portion of rain barrels) (need cost of rain barrel program) (estimated at a non-labor limit of $50k) • Develop other tours of LID facilities including Greenworks, Green Streets, and other City owned facilities (parks, schools, trails) • Increase education on tree retention and preservation; include resources for increasing tree canopy related to stormwater management • Increase outreach of flood risks and flood insurance to flood vulnerable areas • Develop basin specific outreach and education programs. These would be implemented as basin plans completed. An example is implementing a "community planting program" where high temperature is a water quality concern and there is a lack of riparian shade. • Increase environmental mini-grant annual allocation for water quality and surface water related projects from $20k to $40k. **Staffing:** Add 0.65 FTE to make one full time Utility funded staff.

LOS 1 - Current Level of Service Plus Meet Anticipated Future Regulatory Requirements and Increased Emphasis on Asset Management (i.e., take additional steps to preserve investment in existing system)	**LOS 2** - Exceed Future Regulatory Requirements and Expand Utility Programs to Provide a Higher Level of Service
Technical Assistance and Code Enforcement	
Maintain current program. Current program contains elements designed to meet NPDES requirements. Some of these elements include: • Adopting surface water design standards to meet regulatory requirements • Training and outreach to the public, including engineers and developers on the new codes, processes and procedures • Internal staff training of revised regulations • Code enforcement activities (currently reactive to complaints or problems) • Private drainage system inspection and technical assistance • Plan review of public works projects (with private projects reviewed by PADS) • Responding to questions and providing assistance related to questions on private drainage • Update drainage standard plan designs • Update City Engineering Design Guidelines and Special Provisions Note: the majority of these services are currently performed by the City's Planning and Community Development Department using funds from outside the SWM Utility. ***Additional program elements:*** • **Provide technical training and materials to PADS/Parks/Transportation on LID and sustainable design (consultant)** • **Anticipate additional staff time for public and private LID inspections/training as more LID systems come on line** • **Additional staff time to provide technical assistance to citizens/businesses about LID** **Staffing:** Additional 0.50 FTE (Surface Water Technician)	LOS 1 plus the following elements: • Strengthen code enforcement (by increasing inspections for development projects and commercial facilities) • Additional staff with GIS expertise to respond to City/developer requests • Develop guidelines for best uses of right-of-way to enhance water quality and habitat (including private utilities as franchise agreements renewed) • Incentive program to encourage business to implement maintenance programs (for the ones not currently required)(estimate costs up to $50k in non-labor costs) **Staffing:** Additional 0.25 to 0.5 FTE (Surface Water Engineer) above LOS 1

LOS 1 - Current Level of Service Plus Meet Anticipated Future Regulatory Requirements and Increased Emphasis on Asset Management (i.e., take additional steps to preserve investment in existing system)	LOS 2 - Exceed Future Regulatory Requirements and Expand Utility Programs to Provide a Higher Level of Service
Monitoring and Research	
Maintain current program. Elements include: • Participation in regional and state monitoring forum to develop feasible and effective future monitoring requirements • Identified two outfalls for future monitoring • Water quality annual reporting to meet regulatory requirements. • Miscellaneous water quality monitoring of surface waters. • Coordination with School District and Shoreline Community College for monitoring programs • Conduct Program Effectiveness Studies ***Added or enhanced program elements would include:*** • **NPDES permit required Regional Water Quality Monitoring efforts (estimated at $21k for 2013 and 2014 and $52k annually thereafter).** **Staffing:** No increase in staffing. Increase program with existing resources.	LOS 1 plus the following elements: • Develop pilot program for LID techniques that are not widely used in Shoreline (commercial green roofs, stormwater reuse) • Coordinate with School District and Shoreline Community College for LID research projects • Incorporate a monitoring program for various LID techniques on private and public property (estimated at $20k/year for consultant costs) • Expand IDDE source tracking of problems • Flow monitoring gages of major streams (North Fork Thornton, Boeing, MacAleer, and Ballinger Creek) • Automated water quality monitoring (i.e. temperature, etc), expected to provide additional data for the same amount of effort. **Staffing:** Additional 0.5 FTE (Surface Water Engineer)

LOS 1 - Current Level of Service Plus Meet Anticipated Future Regulatory Requirements and Increased Emphasis on Asset Management (i.e., take additional steps to preserve investment in existing system)	LOS 2 - Exceed Future Regulatory Requirements and Expand Utility Programs to Provide a Higher Level of Service
Capital Program	
Current proposed program focused on solving critical flooding problems, and to a much lesser extent water quality problems, and stream/wetland enhancements. ***The change from the current program would include a reduced annual capital program CIP spending to reflect that many of the major flooding problems have been corrected and future CIPs will not get identified until completion of basin plans. This LOS would include:*** • **Reduce level of spending on major flooding projects and spend more on small works flooding, with overall result in reducing spending** • **Maintain current level of spending on water quality projects** • **Maintain current level of spending on aquatic enhancement projects as part of other projects.** **Staffing:** No increase in staffing.	Enhance capital program to increase level of service in all areas of flood protection, water quality and stream/wetland enhancement. This LOS would include; • Increased level of funding to solve flooding problems. Since many of the major flooding problems have been addressed, this may include improvements to address flooding problems that are less severe • Increased level of funding for stand-alone water quality and/or sustainability type projects (Green Streets/Greenworks) • Increased level of funding for stand-alone aquatic stream/wetland enhancement projects where stormwater has impacted stream • Initiate proactive program for loans/grants (additional staff time and training) • Added staff time/skill set (design) for implementing CIPs and LID projects • Increased focus on system replacement to correspond to Asset Management program (until an asset condition assessment is completed) **Staffing:** Additional 1.0 FTE (Surface Water Engineer)

LOS 1 - Current Level of Service Plus Meet Anticipated Future Regulatory Requirements and Increased Emphasis on Asset Management (i.e., take additional steps to preserve investment in existing system)	**LOS 2** - Exceed Future Regulatory Requirements and Expand Utility Programs to Provide a Higher Level of Service
Asset Inventory and Management	
Current program includes reactive and/or opportunistic replacement of infrastructure (e.g., reactive to failure or opportunistic to replace infrastructure as part of other public works projects) ***Additional program elements would include:*** **Initiate a data collection program over the next five years as part of basin plans to position the City to implement Asset Management program for the entire trunk drainage system. Include the following elements:** • **Inventory and condition assessment including TV storm drains 12 inches and larger and all pipes arterials ($800-900K; assume to occur over five-year period)** • **Update GIS inventory mapping including LID facilities** • **Conduct software analysis to select and implement updated maintenance management software (including training)** • **Add staff to focus on updating mapping and asset inventory database and begin interpreting data (specialized expertise/skill set), including update hydraulic models** • **Add staff time with specialized expertise in asset management/finance** • **Add GIS mapping expertise associated with any new FTE** • **Improve system of updating mapping/records from development and capital projects** **Staffing:** Additional 1.0 FTE (Surface Water Engineer or Sr Surface Water Specialist)	LOS 1 plus the following elements: • Maintain and update tree canopy information **Staffing:** No increase above LOS 1. Additional effort would be covered with the 1.0 FTE in LOS 1.

LOS 1 - Current Level of Service Plus Meet Anticipated Future Regulatory Requirements and Increased Emphasis on Asset Management (i.e., take additional steps to preserve investment in existing system)	LOS 2 - Exceed Future Regulatory Requirements and Expand Utility Programs to Provide a Higher Level of Service
Regulatory Compliance	
The current program has met the current regulatory requirements (i.e., the current NPDES permit) through a number of its program elements (listed above) as well as the following elements: • Illicit Discharge and Detection Elimination System (IDDE) • Investigating illegal discharges into city drainage systems, creeks, and streams. • Annual Reporting • Training ***Added or enhanced program elements would be needed to meet future NPDES Phase II requirements (note that these are not yet fully defined because the permit is in draft language form) including:*** • **Review incorporation of LID into City codes and design standards (Consultant – one-time costs of $20k)** • **Begin to address barriers to LID (e.g., existing codes, lack of design standards, staff resources)** • **Advance policies encouraging development projects toward exceeding current regulatory standards** • **Additional training for staff** • **Additional staff time to ensure that other departments are meeting NPDES requirements** **Staffing:** No increase in staffing. Increase program with existing resources.	No LOS 2 is proposed for this program area.

LOS 1 - Current Level of Service Plus Meet Anticipated Future Regulatory Requirements and Increased Emphasis on Asset Management (i.e., take additional steps to preserve investment in existing system)	LOS 2 - Exceed Future Regulatory Requirements and Expand Utility Programs to Provide a Higher Level of Service
Basin Planning	
The current program includes conducting basin plans as resources and funds are available, estimated at one basin plan every two years +/-. ***Change from current program would include completing the Basin Plans on a more aggressive schedule (remaining basins in 4 years) and expanding the scope of the basin plans. The Basin Plans should include:*** • **Asset Inventory (as discussed above)** • **Public Involvement** • **Hydrologic/Hydraulic modeling** • **FEMA floodplain modeling of select stream reaches** • **Problem identification (flooding, water quality, aquatic habitat)** • **Identify locations for Greenworks/LID projects, retrofit opportunities and opportunities with Parks and Transportation** • **Capital and program identification** **Staffing:** The additional work would be accomplished by the proposed new 1.0 FTE for Asset Management. This 1.0 FTE would initially manage basin plan development in next few years then transition to Asset Management in subsequent years. ***Financial impact: $150,000 per year (Consultants) (over existing current spending of approximately $150k/yr for a total of $300k/yr).***	Under this LOS, City would conduct basin plans for all basins over next 4 years as well as increase the effort to identify and evaluate sustainability/Green opportunities • Tree canopy analysis including inventory in each basin. • Incorporate LID facilities in Basin Hydrologic/Hydraulic modeling. • Identify locations to expand the Greenworks and Green Streets programs beyond coordinating with Parks and Transportation. • Identify measures to sustain existing resources in each basin (open space, tree canopy, ditch and swale system) **Staffing:** No increase in staffing. Same as LOS 1. ***Financial Impact: Estimated at $100k/yr basin over LOS 1.***

Attachment C. Public Open House (January 19, 2011) prioritization of program elements and utility goals

Public attendees placed dots to show their priority:

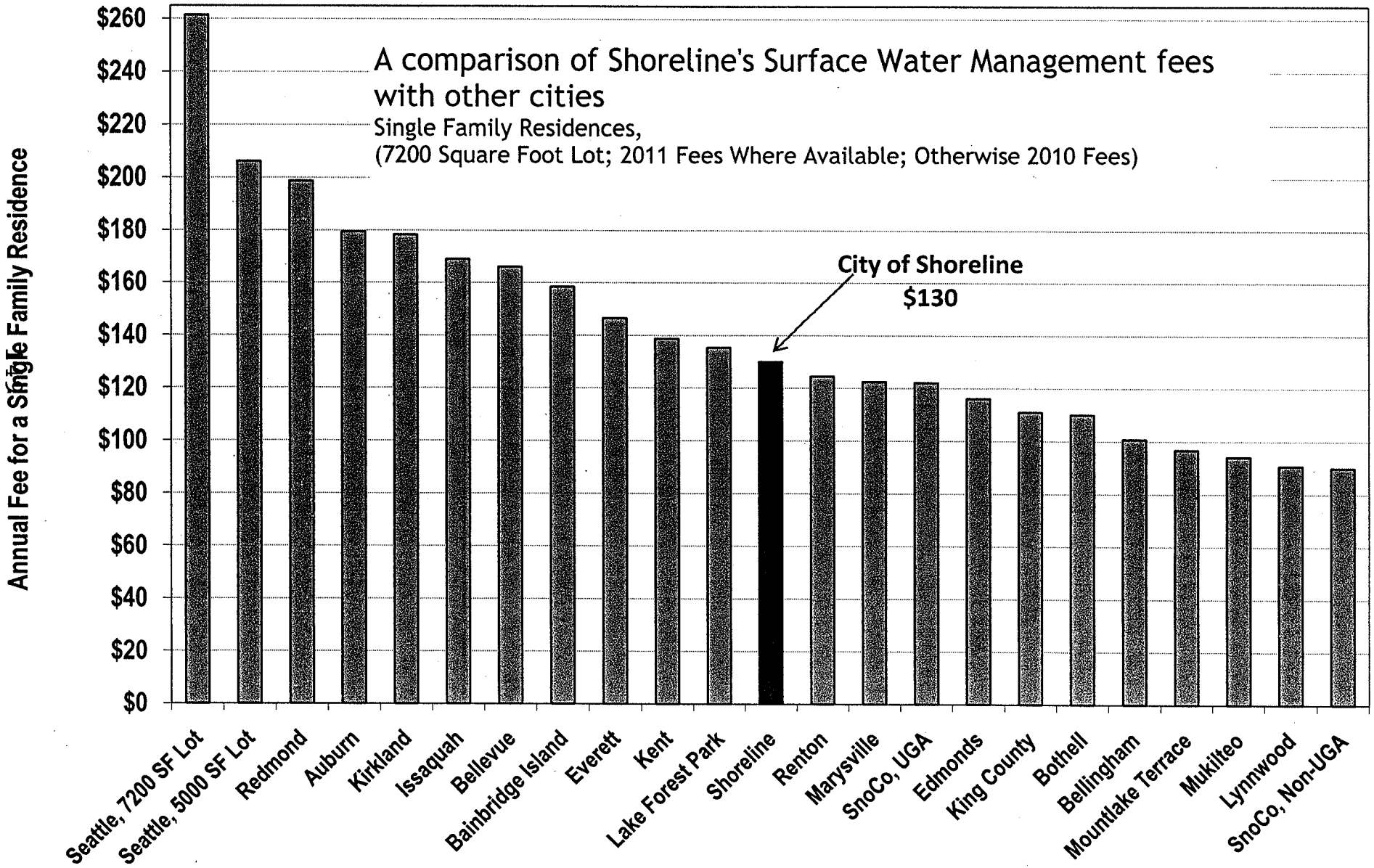
1st priority - Blue (3 points)
2nd priority - Red (2 points)
3rd priority - Green (1 points)

The **Total Points** column provides the priority rating based on the number of dots of each color multiplied by the color's number of points.

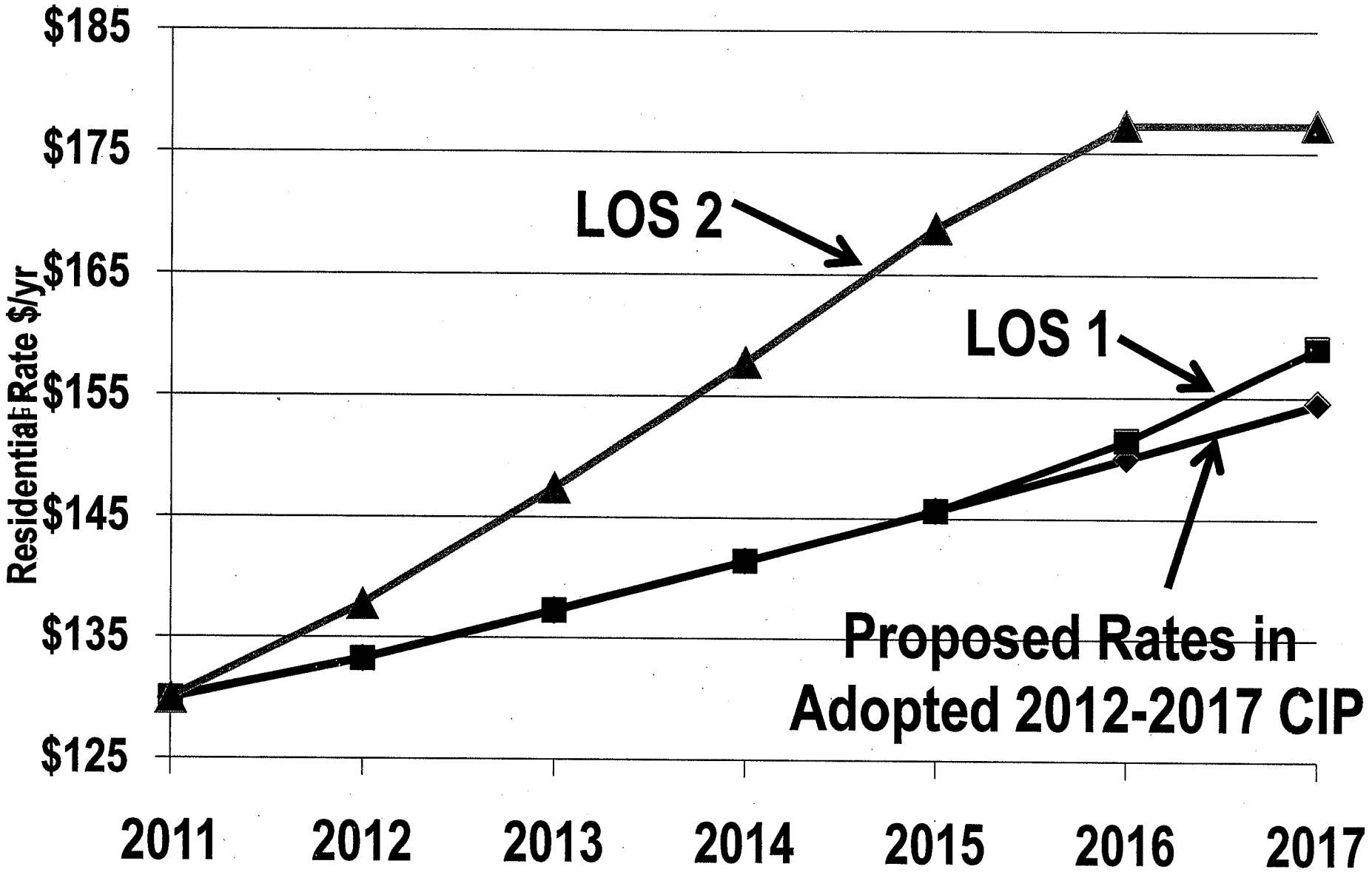
We Want to Hear From You –
What are your highest priorities?

	Public Input Columns			Summary	
Items	1st Priority (3 points each)	2nd Priority (2 points each)	3rd Priority (1 point each)	Total Points	Ranking
Flooding	6	1	1	21	2
Water Quality	6	3	1	25	1
Aging Drainage Pipes/Facilities	1	3	2	11	3 (tie)
System Maintenance	1	1	3	8	5
Keep Rates Affordable	1	1	1	6	6
Aquatic (Streams/Wetlands) Habitat	1	3	2	11	3 (tie)
Public Outreach			1	1	7
Sustainability		3	4	10	4

Attachment D. Comparison of surface water rates between Shoreline and other regional jurisdictions



Attachment E. Comparison of Proposed Rates for Level of Service 1 (LOS 1) and Level of Service 2 (LOS 2)



Attachment F

2011 Surface Water Management Rate Table (Page 1 of 1)

Rate Category	Percent Impervious Surface	2011 Annual Service Charge	Per Unit	6% Utility Tax	Fee + Utility Tax
Residential: Single-family home		$130	Parcel	$7.81	$138.01
Very Light	Less than or equal to 10%	$130	Parcel	$7.81	$138.01
Light	More than 10%, less than or equal to 20%	$302	Acre	$18.14	$320.54
Moderate	More than 20%, less than or equal to 45%	$625	Acre	$37.49	$662.24
Moderately Heavy	More than 45%, less than or equal to 65%	$1,212	Acre	$72.70	$1,284.40
Heavy	More than 65%, less than or equal to 85%	$1,535	Acre	$92.11	$1,627.21
Very Heavy	More than 85%, less than or equal to 100%	$2,011	Acre	$120.65	$2,131.40
Minimum Rate		$130		$7.81	$138.01

There are two types of service charges: The flat rate and the sliding rate.

* The flat rate service charge of $130 a year applies to single family homes and parcels with less than 10% impervious surface.
* The sliding rate service charge applies to all other properties in the service area. The sliding rate is calculated by measuring the amount of impervious surface on each parcel and multiplying the appropriate rate by total acreage

Several special rate categories will automatically be assigned to those who qualify.

* An exemption for any home owned and occupied by a low income senior citizen determined by the assessor to qualify under RCW 84.36.381.
* A discount for any parcel served by a City approved retention/detention (R/D) facility maintained by the owner.
* A discount for any parcel, or part parcel officially designated as open space.

Categories with Retention/Detention Facilities The following categories are eligible for reduced rates if they have an approved retention/detention facility.

Rate Category	Discount	2011 Annual Service Charge	Per Unit	6% Utility Tax	Fee + Utility Tax
Residential: Single-Family Home	50%	$65	Parcel	$3.91	$69.01
Very Light	50%	$65	Parcel	$3.91	$69.01
Light	50%	$151	Acre	$9.07	$160.27

Alternative Mobile Home Park Charge

* Mobile Home Park Assessment can be the lower of the appropriate rate category or the number of mobile home spaces multiplied by the single-family residential rate.

Rate Adjustments: Any person receiving a bill may file a request for a rate adjustment within two years of the billing date. (Filing a request will not extend the payment period).

Property owners should file a request for a change in the rate assessed if:

* The property acreage is incorrect;
* The measured impervious surface is incorrect;
* The property is charged a sliding fee when the fee should be flat;
* The person or property qualifies for an exemption or discount; or
* The property is wholly or in part outside the service area.