Council Meeting Date: July 11, 2005 Agenda Item: **10(b)**

CITY COUNCIL AGENDA ITEM
CITY OF SHORELINE, WASHINGTON

AGENDA TITLE:	Surface Water Master Plan
DEPARTMENT:	Public Works
PRESENTED BY:	Paul Haines, Public Works Director Jesus Sanchez and Jerry Shuster, Operations Division

EXECUTIVE SUMMARY

The purpose of the Surface Water Master Plan is to 1) Identify surface water issues, 2) Prioritize issues, and 3) Develop long-term solutions that meet regulatory requirements, and reflect the community's priorities. The many activities that make up a surface water management program can be expressed in three basic areas of service: 1) Provide flood protection, 2) Protect water quality, and 3) Preserve stream habitat. During deliberations on the Comprehensive Plan update process, Council has modified several goals and polices from the 1998 Comprehensive Plan and added new ones are the basis for these service areas.

Based on past flooding incidents, current and anticipated regulatory requirements, initial basin characterization reports, and a field reconnaissance, a list of potential capital projects, (CPs) and operation & maintenance (O&M) activities were developed. The CPs were prioritized to best use the limited resources projected to be available over the next 20 years.

The recommended plan is composed of a financial scenario for funding the proposed 20-year programs and projects by balancing increases to the Surface Water Management (SWM) utility fee paid by property owners with obtaining outside financing. O&M costs, including minor on-going repair and replacement of aging infrastructure, are paid for by SWM fees. Based on the assumed funding scenario in the recommended plan:

- 100% of the Priority 1 CPs would be implemented in years 1 through 6 (O&M associated with these CPs would be implemented in years 1-20)
- 100% of the Priority 2 CPs would be implemented in years 7 through 20 (O&M associated with these CPs would be implemented in years 7-20)
- This assumed funding scenario could not commit resources for Priority 3 projects.

Aside from SWM fees and loans, additional funding for CPs may be available through grants, local improvement districts (LID) or partnering with other government and non-government entities (the recommended plan assumes no additional funding sources).

STAFF RECOMMENDATION

Staff recommends to Council passing the resolution to adopt the current version of the Surface Water Master Plan.

Approved By: City Manager DT30 City Attorney FPC

I. INTRODUCTION

The purpose of the Surface Water Master Plan (SWMP) is to guide the City's surface water management program in identifying surface water needs, prioritizing these needs, and develop program and project solutions that meet regulatory requirements, reflect the community's priorities, and implement City-adopted policies. This document contains planning level estimates of project and program needs. The project list will be revisited each year during the public capital improvement project (CIP) selection process and detailed project scopes and budgets will be developed during the annual budget process. The project list will be reviewed annually as part of the CIP development process to ensure the list is current to the known requirements and needs.

The City's surface water infrastructure is aging, undersized, and generally not conducive to contemporary demands for today's urban density. In addition, new residential and commercial development must be implemented in a way that meets regulatory requirements, enhances the City's system, and does not exacerbate existing problems. This plan is intended to guide the City's surface water management activities over the next 20 years.

II. BACKGROUND

The basis for the City's current surface water management activities was established in the 1998 Shoreline Comprehensive Plan. The plan contained policies to accomplish goals that include accommodating growth, promoting compatible development, protecting the natural environment, and making effective and efficient use of public funds. The goals and policies that have driven the current surface water management program are summarized in Chapter 4 of the SWMP. This master plan was developed in concert with the City's 2004 update to its 1998 Comprehensive Plan. The surface water–related Comprehensive Plan goals and policies are listed in Chapters 5, 6, and 7 of the SWMP. The up-to-date versions of those policies are found in *City of Shoreline, Comprehensive Plan, City Council Recommendation, June 3, 2005.* Land use policies ENe (related to stormwater detention) and ENf (related to pursuing access to public drainage systems on private property) were added to the this update of Comprehensive Plan.

The first step of developing the SWMP was the identification of problem areas using information from several sources:

- Public comment from two open houses held on September 24 and 25, 2003
- Guidance from the Shoreline Planning Commission's Stormwater and Environment Workgroup
- Goals and policies from 2004 Shoreline Comprehensive Plan update
- Review of existing reports and other information

From this information, the project team sorted the problem areas into three main areas of service:

- Flood Protection
- Water Quality

- Habitat

Flood protection involves preventing flood damage to property and disruption of mobility and critical services. This is accomplished primarily through the planning, design, implementation, and maintenance of channels, pipes, roadside ditches, curbs, catch basins, culverts, detention ponds, and open water courses.

The water quality program area involves preventing pollution through public education and involvement, maintenance, and capital projects. This includes monitoring pollutant levels in water bodies throughout the City, addressing sources of pollution, constructing treatment facilities, and maintaining the City's stormwater drainage systems through street sweeping, catch basin cleaning, and other activities as well as inspections and code enforcement of commercial facilities.

The stream habitat program area involves identifying and preserving existing habitat, enforcing development standards that prevent development in critical areas such as stream and wetland buffers, providing public education, and coordinating public efforts to protect or enhance habitat.

Next, potential capital projects (CPs) and programmatic activities for the City's Surface Water and Environmental Services Division (included in the operation and maintenance [O&M] costs) were evaluated to address the identified problems, to meet regulatory requirements, and reflect the community's priorities.

The CPs and programmatic activities were assigned priority levels. These priority levels, which will be used to make decisions on the timing of projects and the expenditure of limited resources, are defined as follows:

	Priority Level 1	**Priority Level 2**	**Priority Level 3**
Flood Protection	Prevent or minimize structure damage and flooding of principal, minor, and collector arterials	Further increase public mobility by ensuring residential streets are passable during flood events and prevent or minimize flooding and damage of yards, driveways.	Further prevent or minimize flooding and damage of yards, driveways, and on residential streets
Water Quality	Meet minimum regulatory requirements (NPDES Phase II)	Enhance the ability of the City's surface water management system to improve water quality	Provide additional water quality enhancement
Habitat	To protect and preserve existing habitat	Enhance and expand habitat in areas where wild anadromous fish are present	Enhance and expand habitat in areas where other wild fish are present.

Note: NPDES – National Pollution Discharge Elimination Program administered by the Washington Department of Ecology

As a utility funded with user fees, it was assumed that the SWM utility, as is the norm in utility management, is 100 percent responsible for the costs associated with storm water management, liability, and regulatory compliance. This assumption is key to any rate setting and resource projections.

A financial analysis was included in the draft SWMP that reviewed the existing surface water management (SWM) fee structure, compared the City's current SWM fee with those of other neighboring jurisdictions, and presented a planning-level projection of long-term SWM utility fees to fund the recommended expenses and activities over the next 20-year period. The costs included assumed repair and replacement [R&R] costs of the aging system, O&M (including programmatic activities), and estimated CP costs.

III. DISCUSSION

The purpose of this section is to present the Planning Commission's recommended plan.

Recommended Plan & Capital Project Lists

When all needs were assembled and assumed accomplished in 20 years, the analysis projected SWM utility fee for a single-family residence exceeding $350/year by 2024 to fully fund all the R&R, O&M, and CPs (inflation-adjusted dollars) (Figure 9-3 [p. 97] in the SWMP public review draft). This greater than 3.5-fold increase in the utility fee from its current rate over the next 20 years seemed excessive. City staff reviewed the R&R and O&M spending assumptions in the draft SWMP and recommended changes to them. No changes were made in the cost of the CPs from those in the public review draft. (Note that all assumptions will be revisited in 5 to 7 years when this SWMP is revised.)

R&R assumptions were refined based on actual expenditures plus the need to perform a system-wide condition assessment (see Chapter 9). This refined set of assumptions resulted in a substantial reduction in R&R costs. This refined level of R&R spending will cover the necessary fixes to keep the current system functioning while providing a rational basis for prioritizing R&R expenditures in years 7 through 20.

The O&M assumptions were refined in the following areas (see Chapter 9 for details).

- Type and frequency of street sweeping practices
- Change in water quality sampling frequency and intensity
- Change in the number of private stormwater systems added to the City's O&M program

The refinements allowed reduced estimates while providing the required actions to comply with current and future (assumed) environmental requirements.

Once the changes to the R&R and O&M assumptions were made, City staff assumed a SWM fee structure that supports the majority of the priority CPs (see Chapter 9 for details).

By combining the new assumed SWM fee structure with the refined R&R and O&M costs resulted in the following:

- 100% of the Priority 1 CPs would be implemented in years 1 through 6 (O&M associated with these CPs would be implemented in years 1-20)
- 100% of the Priority 2 CPs would be implemented in years 7 through 20 (O&M associated with these CPs would be implemented in years 7-20)
- This assumed SWM fee structure could not fund the Priority 3 projects
- R&R and O&M not associated with CPs would be implemented in years 1-20.

The proposed CPs are those that were included in the Capital Facilities Plan adopted by Council on May 2, 2005. These CPs are subject to Council review and approval on an annual basis.

The following table details the CP spending in the recommended plan:

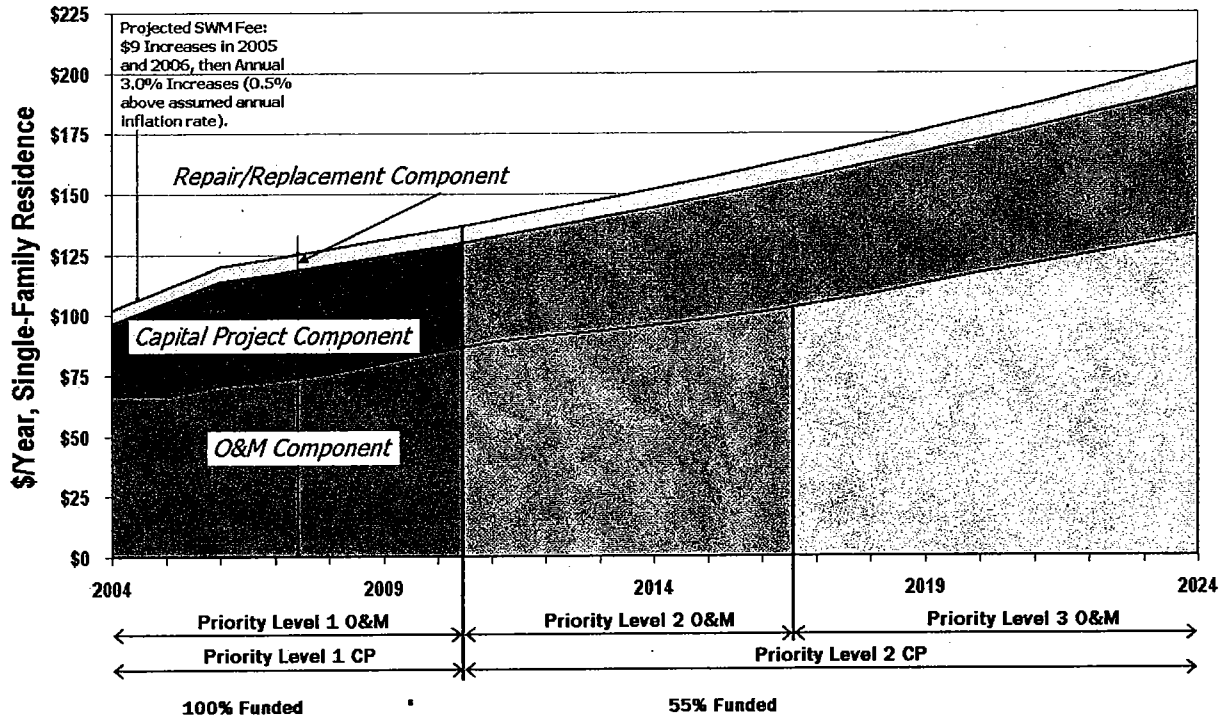
Recommended SWMP Capital Spending (Millions, 2004 dollars)

Type of Improvement	Priority Level 1 (2005–2010)	Priority Level 2 (2011–2024)	Priority Level 3 (Not Affordable)	Total	Reference
Flood Protection	$11.787	$7.544	$0.0	$19.331	Chapter 5 SWMP
Water Quality	0.388	2.020	0.0	2.408	Chapter 6 SWMP
Stream Habitat	4.016	1.527	0.0	5.543	Chapter 7 SWMP
Total	**$16.191[a]**	**$11.091[b]**	**$0.0**	**$27.282**	

[a] Includes $2.08M in SWM Funding Transportation Projects and $0.10M SWM Funding Parks Projects
[b] Includes $5.95M in SWM Funding Transportation Projects and $0.35M SWM Funding Parks Projects

The types of capital projects funded include flood protection, water quality, and stream habitat projects, and contributions by the SWM program to transportation and parks improvements. Because transportation and parks improvements include the installation of SWM infrastructure, the SWM program is being assigned 10 percent of the cost of pedestrian projects, 20 percent of the cost of road and intersection projects, and 10 percent of the cost of parks projects. The figure below shows the 20-year financial projection of SWM fees using the new assumed SWM utility fee structure.

This graph represents one possible strategy to provide increased flood protection, water quality, and stream habitat services. This strategy is subject to public review and City Council approval. The Priority 3 capital projects (CPs) could be completed if additional funding is obtained. Possible funding sources include grants, impact fees, local improvement districts (LID), additional SWM fee increases, or some combination thereof. Analysis includes 2.5% annual inflation.



The graph shows the relative distribution of spending on R&R, O&M, and CPs. This projection indicates that approximately 35 percent of the current SWM fee pays for capital projects and repair and replacement. Over time, the O&M component increases due to inflation, added O&M activities associated with the completed CPs, and the costs to comply with assumed new regulatory requirements (i.e., NPDES Phase II).

The preliminary draft NPDES Phase II permit was released by Ecology on May 16, 2005. This permit is scheduled to be in force in early 2006. The additional costs to comply with this permit are reflected in the O&M costs in the Surface Water Master Plan. Water Quality Priority Level 1 was defined as activities needed to be implemented to meet minimum regulatory requirements. Table 8-2 of the draft Surface Water Master Plan indicates that the annual financial impact to meet minimum regulatory requirements is $157,000 per year in 2004 dollars. The Phase II Permit is also expected to impact other City Departments. Perhaps most notably, the first preliminary draft Phase II Permit contains requirements related to "controlling stormwater runoff from new development, redevelopment, and construction sites" that may impact the community though development permit issued by the City. Financial impacts to City departments other than the Stormwater Utility were not part of our analysis for the Surface Water Master Plan.

The capital project component reflects cash-financed capital improvements and debt service payments on debt-financed capital improvements. The early assumption of debt financing allows us to look at a rate-leveled analysis that more easily reflects the

utility rate consequences of growing service demand. Repair and replacement projects are cash-funded without issuance of debt. The projected amount of capital improvements funded by debt from 2004 through 2024 is approximately 70%. The assumed sources of this funding are revenue bond proceeds and loans from the Public Works Trust Fund.

The ability of the SWM program to finance CPs depends in part on the level of SWM fees. If SWM fees higher than those described above were implemented, additional capital improvements could be funded. Conversely, if SWM fees are not raised to the levels described above, fewer capital improvements could be funded.

The following additional factors could also facilitate completion of a greater amount of capital improvements:

- Receipt of additional low interest rate loans (the recommended plan assumes loans would be obtained with a 5.0 percent interest rate)
- Loans with longer payback periods (the recommended plan assumes a 20-year payback period)
- Receipt of grants (the recommended plan assumes no grant funding is received)
- Use of other, non-SWM funding sources such as impact fees, local improvement districts (LID) or partnering with other government and non-government entities on projects (the recommended plan assumes no additional funding sources)

A major factor affecting the SWM program is the contents of the upcoming NPDES stormwater permit (a first draft is expected from Ecology in Fall 2004). If permit requirements are less extensive than what has been anticipated in this plan, then the City could choose either to (1) defer projected SWM fee increases, or (2) construct additional capital improvements.

List of issues ahead of us:

- System-wide Condition Assessment
- Detailed Basin Hydraulic Models & Plans
- Periodic Rate Adjustments
- Regional Partnering to Achieve Water Quality and Habitat Improvements

IV. RECOMMENDATION

Staff suggests that the Council pass the resolution to adopt the current version of the Surface Water Master Plan.

RESOLUTION NO. 235

A RESOLUTION OF THE CITY OF SHORELINE, WASHINGTON, ADOPTING THE SURFACE WATER MASTER PLAN

WHEREAS, the City's first Comprehensive Plan was adopted on November 23, 1998; and

WHEREAS, in 2003 City Council directed staff to undertake development of master plans for Parks Recreation and Open Space (PROS), Transportation (TMP), and Surface Water (SWMP) in conjunction with the Major Update of the Comprehensive Plan to take advantage of coordinated process and review; and

WHEREAS, an extensive public participation process was conducted to develop and review the SWMP in conjunction with the Comprehensive Plan Update and development of the other master plans. This included four phases:

1. Listen and Learn, September 2003 to December 2003 – Purpose of phase was public input on technical information and staff listens to community values.

2. Writing, October 2003 to April 2004 – Purpose of phase was for staff to work with Planning Commission workgroups to draft plans and identify needed revisions based on updated data and current community values.

3. Public Review, May 2004 to November 2004 – Purpose of phase was to provide multiple opportunities for public review and input on the draft plans, and opportunities for the Planning Commission to hear and respond to public comment.

4. Adoption, December 2004 to June 2005 – Purpose of the phase was for continued public input opportunities and Council review and adoption of the plans; and

WHEREAS, a SEPA Determination of Non-significance was issued on September 14, 2004 for the adoption of the SWMP; and

WHEREAS, the Planning Commission conducted a Public Hearing on the Updated Comprehensive Plan, PROS Plan, TMP, and SWMP on September 28, 29, 30, 2004; and

WHEREAS, the Planning Commission unanimously recommended approval of the Updated Comprehensive Plan, PROS Plan, TMP, and SWMP on November 4, 2004; and

WHEREAS, the City Council conducted a public hearings on the Updated Comprehensive Plan, PROS Plan, , PROS Plan, TMP, and SWMP on December 13,

WHEREAS, a SEPA Determination of Non-significance was issued on September 14, 2004 for the adoption of the SWMP; and

WHEREAS, the Planning Commission conducted a Public Hearing on the Updated Comprehensive Plan, PROS Plan, TMP, and SWMP on September 28, 29, 30, 2004; and

WHEREAS, the Planning Commission unanimously recommended approval of the Updated Comprehensive Plan, PROS Plan, TMP, and SWMP on November 4, 2004; and

WHEREAS, the City Council conducted a public hearings on the Updated Comprehensive Plan, PROS Plan, TMP, and SWMP on December 13, 2004, January 10, 2005, and February 14, 2005; and

WHEREAS, the City Council adopted the Major Update to the Comprehensive Plan on June 13, 2005 by Ordinance No. 388, which included a Capital Facilities Element that contained all the six and twenty-year capital projects that are identified in the PROS Plan, TMP, and SWMP; and

WHEREAS, the SWMP is consistent with the Comprehensive Plan, including the Capital Facilities Element.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SHORELINE, WASHINGTON AS FOLLOWS:

Section 1. Plan Adopted. The Surface Water Master Plan, published November 2004 and filed in the City Clerk's Office under Clerk's Receiving Number 3480, is hereby adopted.

ADOPTED BY THE CITY COUNCIL ON JULY 11, 2005.

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Mayor Ron Hansen

ATTEST:

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Scott Passey
City Clerk