

CHAPTER 8

FINANCIAL SUMMARY

8.1 INTRODUCTION

This chapter presents a plan for financing the operating and capital needs of the District's sewer system, given existing expenses as well as incremental costs associated with the projects identified in the Wastewater Comprehensive Plan. The completion of this master planning effort is a requirement of the Washington State Department of Health (DOH).

The District proactively manages the sewer utility's finances, internally reviewing the utility's financial status regularly and adjusting sewer rates as needed to cover costs. In addition, the District periodically initiates a more comprehensive study of utility rates and financial policies. The District's 2011-2012 rate study considered a variety of topics including:

- Balancing the need to stabilize utility revenue streams (in light of recent declines in water sales) with longer-term objectives such as promoting water conservation.
- Reviewing the District's progress in funding capital replacement needs by revisiting the benchmarks established in the 2006 Capital Reinvestment Study.
- Updating general facilities charges (GFCs) to recover an equitable share of system costs from growth, given the District's historical and planned investments in system infrastructure.

The financial plan developed as part of this Plan includes projected operating and capital costs of the system for the 6-year time horizon of 2013 to 2018. The revenues and expenses used in the financial plan were obtained from the District's 2014 Budget and escalated for future years; the capital costs contained within the financial plan utilize the Capital Improvement Plan (CIP) in Chapter 7 of this Plan. The financial plan evaluates the sufficiency of revenues at current rates to fund projected operating and capital needs, developing a strategy of rate adjustments needed to cover any costs in excess of available revenues. Note that this financial plan focuses on aggregate revenue needs, and does not address cost allocations between customer classes or rate design (aside from across-the-board adjustments to the current rate structure).

8.2 PAST FINANCIAL HISTORY

The past 5 years of financial information for the sewer utility were evaluated to gain an understanding of the past performance and current financial status of the utility.

Table 8-1 provides a summary of the 6-year financial history for the District’s sewer utility. The District has also used grants and loans (State and Federal), GFCs, developer extension agreements (DEAs), and utility local improvement districts (ULIDs) to construct projects identified in the District’s CIP.

TABLE 8-1

Summary of Operating Financial History (\$000s)

	2007	2008	2009	2010	2011	2012
Revenue						
Rate Revenue	\$2,425	\$2,458	\$2,746	\$2,737	\$3,164	\$3,968
Metro Revenue ⁽¹⁾	\$4,444	\$4,462	\$4,919	\$5,323	\$6,046	\$5,905
Other Revenue	\$625	\$590	\$372	\$367	\$298	\$435
Total	\$7,497	\$7,510	\$8,037	\$8,428	\$9,508	\$10,309
Expenses						
Metro Payments ⁽¹⁾	\$4,409	\$4,452	\$5,017	\$4,984	\$5,699	\$5,632
General O&M	\$1,468	\$1,782	\$1,776	\$1,773	\$2,158	\$3,040
Taxes	\$110	\$128	\$67	\$117	\$114	\$132
Debt Service	\$608	\$611	\$1,123	\$1,114	\$1,093	\$1,089
Total	\$6,594	\$6,973	\$7,984	\$7,988	\$9,064	\$9,893
Net Available for Capital/ Reserves	\$903	\$537	\$53	\$440	\$444	\$416

(1) Metro revenues and expenses are not equal to a lag (typical 3 to 6 months) between when the District collects Metro charges from its customers and when it is billed by Metro. There are also periodic billing adjustments.

Table 8-1 indicates that as a whole, the sewer utility has generally had adequate funding to pay for operating and debt service. In addition to these needs, the District has been funding capital reinvestment through rates based on a percentage of depreciation expense – given that the sewer utility has reported between \$2.3 million and \$2.5 million per year in annual depreciation over the last 6 years, Table 8-1 suggests that the sewer utility has not been able to fully fund its capital reinvestment policy. It is worth noting that the operating expenses shown for 2012 reflect the District’s reallocation of actual costs between its water and

sewer utilities under a new chart of accounts – that process resulted in an increase in the share of total costs allocated to the sewer utility.

In addition to the operating revenue shown above, the sewer utility also receives various revenues for capital projects. Aside from existing fund balances, the primary internal source of capital funding revenue is GFCs – new customers pay GFCs when connecting to the system as their fair share of the system infrastructure costs. GFC revenues are generally designated for growth-related capital improvements, but are also used to reimburse other funds for the cost of existing facilities with capacity available to serve growth. The District’s historical sewer GFC revenue collections have been relatively variable over the last six years, varying from a high of \$876,392 (2007) to a low of \$146,697 (2010). Due to economic conditions and reduced development, GFC revenues have fallen below projections and have not been able to fully cover costs attributable to growth; sewer rates have had to cover these costs.

8.3 REVIEW OF THE DISTRICT’S SEWER RATES

The District has adopted sewer rates to meet its financial requirements. As a result of the 2011 – 2012 rate study, single-family residences pay a flat monthly rate for sewer service. The District’s other sewer customers pay a fixed monthly charge and a consumption charge for water usage over 7.5 ccf (hundred cubic feet). Table 8-2 summarizes the current sewer rate structure as of April 1st, 2013.

TABLE 8-2

Overview of the District’s Sewer Rates (April 1, 2013)

	District ⁽¹⁾
Single-Family Residential (SRF)	
Monthly Flat Rate	\$29.20
Non-SRF	
Monthly Fixed Charge	\$33.25
Consumption Charge per ccf ⁽²⁾	\$3.6656

(1) District’s local charge; excludes Metro charges for wastewater treatment.

(2) Applies to water usage over 7.5 ccf per month.

As noted in Table 8-2, the District’s customers also pay Metro charges for wastewater treatment. Metro’s rate structure parallels the District’s structure in that single-family customers pay a flat rate for service (currently \$39.79 per month) while other customers pay a fixed monthly charge and consumption charge on

water usage over 7.5 ccf (currently \$39.79 plus \$5.3050 per ccf for water usage over 7.5 ccf per month).

The District also imposes general facilities charges (GFCs) and local facility charges (LFCs) on new customers connecting to the system and sewer main extensions, respectively. Table 8-3 summarizes the existing sewer GFC structure, which has been in place since August 6, 2013.

TABLE 8-3

Overview of the District’s Sewer GFCs and LFCs (August 6, 2013)

	Number of ERUs ⁽¹⁾	Charge
General Facilities Charge (GFC)		
3/4-Inch Meter	1.0	\$2,564
1-Inch Meter	2.5	\$6,410
1-1/2-Inch Meter	5.0	\$12,820
2-Inch Meter	8.0	\$20,512
3-Inch Meter	16.0	\$41,024
4-Inch Meter	25.0	\$64,100
6-Inch Meter	50.0	\$128,200
8-Inch Meter	80.0	\$205,120
10-Inch Meter	115.0	\$294,860
Local Facilities Charge (LFC) per Lineal Foot of Sewer Main		
Full Charge		\$444
Reduced Charge (Based on 50% share of Sewer Main)		\$222

(1) Based on meter flow equivalency factors established by the American Water Works Association (AWWA).

As shown in Table 8-3, the sewer GFCs increase with water meter size on the premise that water meter size is an indicator of potential water usage (and potential flows sent into the sewer system). Note that Table 8-3 does not include the capacity charge that new connections pay to King County Metro for a 15-year period, which is \$55.35 per residential customer equivalent (RCE) per month as of January 1, 2014.

8.4 DEVELOPMENT OF THE FINANCIAL ANALYSIS

The financial plan includes a forecast of sewer utility revenues and expenses from 2013 – 2018, which serves as the basis for evaluating the sufficiency of sewer revenues at existing rates. The District’s 2014 Budget serves as the initial basis for the forecast, as most revenues and expenses are based on an escalation of the

amounts budgeted for 2014. The escalation rates vary from 2 percent to 5 percent, depending on the type of cost (e.g., labor, electricity, chemicals, and other operating costs).

8.4.1 REVENUES AND EXPENSES

8.4.1.1 Revenues

The first component of the financial plan reviews the sources of funds for the sewer utility. Sources of operating revenues include:

- **Rate Revenues:** The 2014 Budget estimates that the District will receive about \$4.5 million in sewer rate revenue from its customers during 2013, and \$4.7 million during 2014 (at the rates shown in Table 8-2). To forecast future-year revenues at existing rates, sewer rate revenue is separated into fixed and variable components. Fixed charge revenue is assumed to grow with the customer base at about 1.1 percent per year, based on the recent historical growth experienced by the District. Variable charge revenue is assumed to change with projected billable volume, which is a composite of growth in the number of customers and changes in per-capita water demands. Based on an analysis of 2006 – 2013 trends in winter-average water demand, per-capita water demands are assumed to continue declining by 2 percent per year for the next several years. Given that the number of customers is assumed to grow at a rate of 1.1 percent per year during the same period, aggregate sewer flows are assumed to decrease by 0.8 percent to 0.9 percent per year through 2016. This analysis assumes a uniform customer and demand growth rate beyond 2016, recognizing the diminishing returns associated with regional water conservation programs.
- **Metro Revenues:** The 2014 Budget estimates that the District will collect about \$6.8 million in Metro charges from its customers. Similarly to the forecast of District rate revenue, this analysis splits Metro revenues into fixed and variable components, respectively, forecasting future revenue levels based on projected growth and water demand. In addition, both the fixed and variable Metro revenues are assumed to increase with King County’s planned rate adjustments. King County’s May 2013 forecast indicates that the single-family rate is expected to increase from its current level of \$39.79 per month to \$45.15 per month (a cumulative increase of 13.5 percent) by 2018.

- **Other Revenues:** Revenues from customer-related fees such as late charges and penalties are assumed to grow with the customer base at about 1.1 percent per year. Investment earnings are calculated on projected fund balances, using an assumed investment earnings rate that increases from 0.5 percent to 2.0 percent over the 6-year planning period. Miscellaneous revenues are kept at the level projected in the 2014 Budget.

Together, the total revenues available for the operating needs of the sewer system total \$11.7 million in 2013 and increase to \$13.4 million by 2018.

GFC and LFC revenue provide additional sources of revenue for the District's sewer system. As noted earlier, this revenue is generated from new customer connections to the system. GFCs are one-time charges assessed to new customers, typically on an ERU basis as defined by water meter size. LFCs are also charges assessed to new customers, but are typically based on characteristics of the property receiving service.

The GFC and LFC fees reflect the new customers' share of the infrastructure from which they are benefiting. The current fees are shown above in Table 8-3. This revenue is applied to capital projects and debt attributable to growth-related projects. Use of GFC revenue for debt service offsets the financial burden that rates would otherwise have to bear. These capital-related revenues are further discussed under the capital improvement section of this chapter.

8.4.1.2 Expenses

The second part of the financial plan is a review of the sewer utility's expenses, including:

- **Operation and Maintenance (O&M) Expenses:** The 2014 Budget serves as a starting point for the O&M forecast. Personnel-related expenses such as employee salaries and benefits are assumed to increase by 2.7 percent to 5.0 percent per year. Variable commodity costs such as electricity and chemicals are escalated with aggregate demand growth, which as previously noted is actually assumed to decrease slightly over the next several years. Other O&M costs are assumed to increase with inflation in the Consumer Price Index, which the State Economic and Revenue Forecast Council's forecast suggests will increase at a rate of 1.7 percent to 1.8 percent per year

through 2017 (the forecast reverts to a longer-term average rate of 3.0 percent per year beginning in 2018). As stated previously, escalation factors were applied to the values in the 2014 Budget to obtain projected costs for 2015 through 2018. To avoid overstating future operating costs, the forecast is adjusted to account for a short-term spike in administrative costs that are included in the 2014 Budget. No other extraordinary cost changes were assumed as part of the projected costs in future years. Excluding payments to Metro, O&M expenses are projected to range from \$3.2 million in 2013 to \$3.9 million in 2018.

- **Taxes:** The sewer utility is subject to State excise taxes on its revenues. As allowed by the Washington Administrative Code (WAC), rate revenue and other charges from existing customers are split into collection and transmission components (which are respectively taxed at 3.852 percent and 1.8 percent). Based on an excise tax review completed a few years ago, the District currently applies a split of 47 percent collection/53 percent transmission. The District's payments to King County Metro for wastewater treatment are deductible prior to the aforementioned split; revenue from GFCs, LFCs, late charges, inspection fees, and other miscellaneous charges are subject to taxation at 1.5 percent. With the revision of the District's chart of accounts in 2012, it no longer tracks taxes as a direct revenue requirement component; it applies the taxes as a direct mark-up to its rates and charges.
- **Debt Service:** The District currently has several outstanding revenue bonds, most recently issuing bonds in 2013 to refund a portion of its 2004 and 2005 Bonds and acquire funding for near-term capital needs. The sewer utility's share of annual debt service on existing revenue bonds is about 41 percent, or \$1.1 million - this cost is split between the sewer utility's funds based on an allocation prepared by District staff. The forecast of future debt service includes planned payments on existing debt as well as new debt service associated with additional debt issuance needed to fund the CIP.
- **Capital Reinvestment:** Per the recommendation of the 2006 Capital Reinvestment Study, the District has been transferring funds from the Operating Fund into the Capital Replacement Fund to fund infrastructure replacement needs. The recent rate study evaluated the District's progress in meeting the objectives established by the 2006 Study, and updated the annual funding benchmark to reflect



the District's current financial situation and inventory of fixed assets. Because the annual transfers are linked to the District's depreciation expense, the District recently re-evaluated the useful lives that it assigns to its infrastructure. As a result of that evaluation, the District plans to increase the assumed useful lives of certain assets to better reflect their expected service lives – this change decreases the District's depreciation expense and, all else equal, the annual transfers to the Capital Replacement Fund. This analysis uses the revised useful life assumptions to forecast future depreciation expense on both existing assets and new assets resulting from the CIP.

- **Reserve Funding:** The District has adopted a set of fiscal policies to promote long-term financial stability and flexibility. In addition to the capital reinvestment policy discussed above, the District has policies that establish minimum balance targets for some of the District's reserves. For the Operating Fund, the minimum balance is equal to 90 days (roughly 25 percent) of budgeted operating expense as "working capital" to accommodate differences in revenue and expense cycles along with other unforeseen variations in revenues or expenses. The District's recent bond covenants establish a Rate Stabilization Account to provide additional security to meet bond coverage requirements – the District has established a target balance for this account equal to 50 percent of annual debt service. In the event that either or both of these reserves fall below their minimum balance target, District policy provides for additional rate funding to replenish the balance(s). The recent rate study found that with the separation of water and sewer resources, revenues, and expenditures, the sewer utility is below its target balance (the minimum Operating Fund balance for the sewer utility is about \$3.0 million based on 2013 expenses; it began 2013 with a balance of about \$1.9 million). The rate study assumed that the water and sewer utilities are able to meet the minimum balance requirements jointly for the next several years; given that the longer-term goal is for the sewer utility to maintain its own 90-day balance of working capital, the near-term forecast includes additional reserve funding for the Operating Fund.
- **Capital Projects:** The 2013 – 2018 CIP includes \$21.6 million in project costs allocable to the sewer utility. This total excludes \$14.3 million for the North Diversion Project, which based on input

from District staff is assumed to be funded by King County. The most recent schedule for this project places it beyond the 2013 – 2018 planning period – however, the District’s CIP includes an investment of \$11.7 million (\$4.8 million from 2013 – 2018) in an interim project assuming a delay in construction by King County of the North Diversion Project.

Funding for the CIP will come from a mix of sources that include District reserves (including capital reinvestment funding), ULIDs and DEAs, GFCs, LFCs, and sewer rates. This combination of financing capital is appropriate and prudent, balancing funding of projects between existing and future customers as the improvements benefit both. Table 8-4 presents a summary of the projected capital expenditures.

TABLE 8-4

Summary of Sewer Capital Improvement Projects (\$000s)

Capital Projects (by Funding Type)	2013	2014	2015	2016	2017	2018	Total
Sewer Capital Replacement							
Control Structure Modifications		\$15	\$60	\$300			\$375
Interceptor and Transmission Main Projects			\$232		\$583	\$600	\$1,414
Collection System Projects							
Lift Station and Force Main Projects	\$99	\$52	\$10	\$10	\$68	\$71	\$310
Miscellaneous Projects	\$81	\$63	\$96	\$102	\$106	\$112	\$559
Grinder Pump Replacement Program	\$310	\$160	\$160	\$160	\$160		\$950
Total	\$489	\$290	\$557	\$572	\$917	\$783	\$3,608
Sewer Operating Fund/Rates							
Lift Station and Force Main Projects		\$48	\$126	\$15	\$15		\$204
Interceptor and Transmission Main Projects				\$247			\$247
Operation & Maintenance Projects	\$13	\$66	\$18	\$16			\$113
Miscellaneous Projects	\$261	\$889	\$783	\$83	\$73	\$75	\$2,164
Cities Overlay and Road Improvements	\$38	\$38	\$38	\$38	\$38	\$38	\$225
Total	\$312	\$1,040	\$965	\$399	\$125	\$113	\$2,953
Other District Funds (GFC, LFC)							
North Diversion Delay Project				\$1,395	\$1,700	\$1,751	\$4,846
Control Structure Modification		\$15	\$60	\$300			\$375
Interceptor and Transmission Main Projects			\$145	\$545			\$690
Collection System Projects	\$450						\$450
Critical Link Projects				\$281	\$580	\$1,194	\$2,055
Lift Station Force Main Projects	\$349	\$55	\$126	\$564	\$816	\$243	\$2,143
Miscellaneous Projects	\$135	\$15			\$49	\$451	\$650
Total	\$934	\$85	\$331	\$3,084	\$3,144	\$3,639	\$11,219

TABLE 8-4 – (continued)

Summary of Sewer Capital Improvement Projects (\$000s)

Capital Projects (by Funding Type)	2013	2014	2015	2016	2017	2018	Total
Other Outside Sources (DEA, ULID, King County)							
North Diversion Project							
Critical Link Projects					\$1,432	\$1,027	\$2,460
Collection System Projects		\$650	\$669				\$1,319
Total		\$650	\$669		\$1,432	\$1,027	\$3,779
Total Projected Expenditures (Inflated Dollars)	\$1,736	\$2,065	\$2,522	\$4,055	\$5,619	\$5,562	\$21,558
Planned Capital Funding Strategy							
Operating Fund	\$312	\$240	\$279	\$399	\$125	\$113	\$1,467
Capital Replacement Fund	\$489	\$290	\$557	\$572	\$917	\$783	\$3,608
General Facilities Charge Fund	\$882	\$85	\$331	\$1,935	\$97	\$37	\$3,367
Local Facilities Charge Fund	\$52			\$281	\$580	\$1,014	\$1,927
DEA/ULID		\$650	\$669		\$1,432	\$1,027	\$3,779
Existing Debt Proceeds and Interest Earnings		\$800	\$686				\$1,486
New Debt Proceeds and Interest Earnings				\$868	\$2,468	\$2,589	\$5,925
Total	\$1,736	\$2,065	\$2,522	\$4,055	\$5,619	\$5,562	\$21,558

The capital costs presented in Table 8-4 are in inflated dollars, assuming capital cost inflation at a rate of 3.0 percent per year. The capital funding strategy shown in Table 8-4 indicates that:

- Existing debt proceeds will be used to pay for part of the project costs. Almost \$1.5 million in proceeds of the “new money” portion of the 2013 Bond are assumed to fund the sewer utility’s share of the cost of expanding the District’s Headquarters site.
- Additional debt issuance will be necessary to fund the projects identified in the 6-year CIP. Table 8-4 shows that an additional \$5.9 million will be needed to fund the 6-year CIP, and it is worth noting that more debt issuance could be required to fund projects planned to occur within the next 10 years. Conversely, the District might be able to reduce future debt issuance if it does not have to build the North Diversion Delay project (because King County timely constructs the North Diversion). To more accurately reflect how the District might issue debt in the future, the financial forecast contemplates a 2015 bond issue providing \$5.8 million (to cover projected 2016 – 2018 needs) and a 2019 bond issue providing \$11.6 million (to cover projected 2019 – 2021 needs) in net proceeds. Assuming that the District issues 20-year bonds at 5.25 percent, these bond issues are expected to increase the sewer utility’s debt service by about \$519,000 and \$1.0 million, respectively. This analysis assumes level debt service payments, though it is worth noting that the District may have an opportunity to wrap future debt issues around the 2013 Bond, the refunding portion of which will be repaid by 2020.

As a result of using bonds for capital financing purposes, debt service payments have an impact on rates. However, by spreading the cost of these projects over time to existing as well as new customers, those customers benefiting from the improvements over the life of the improvements are also the ones who pay for those benefits.

The District uses money in the GFC Fund to pay for growth-related debt service, reducing the burden of debt payments on rates. However, because growth and related GFC revenues can vary considerably from year to year, it would be prudent for the District to consider limiting its reliance on GFCs to make debt service payments. The Rate Stabilization Reserve can provide additional security against the risk of lower-than-expected GFC revenues.

Note that approximately 24 percent of the anticipated investment of \$91,687,560 in the 20-year capital plan developed in Chapter 7 is anticipated to be completed in the first 6 years of the planning period. This reflects a fairly level allocation of projects over the term of the capital plan. Delaying projects through a less aggressive schedule could provide the District with additional flexibility to manage future rate adjustments.

8.4.2 INTERNAL SOURCES OF FUNDS

GFCs and LFCs provide funding for capital projects and related debt service. These charges are based on the cost of facilities that provide service – GFCs are based on the cost of facilities that provide a system-wide benefit, and LFCs are based on the cost of facilities with a more localized benefit. By paying these charges, new customers reimburse existing customers for a proportionate share of the investment made in existing infrastructure and contribute toward costs that the District is planning to incur to serve growth. The District maintains separate GFC and LFC Funds to ensure that these revenues are used for their intended purposes.

The District maintains several other funds for the sewer utility:

- **Operating Fund:** This is the sewer utility’s pool of unrestricted resources, and it derives funding from sewer rates and other operating revenues. District policy provides for a minimum “working capital” balance of 90 days (about 24.7 percent) of budgeted operating expenses to manage routine differences between revenue and expense cycles and unforeseen variations in revenues or expenses. Based on estimated 2013 operating expenses (including Metro), the policy results in a target Operating Fund balance of approximately \$2.4 million. Per District records, this fund began 2013 with a balance of \$1,592,719 – while this is below the target level, the financial forecast indicates that the Operating Fund will reach its minimum balance by the end of 2013.
- **Capital Replacement Fund:** Following the 2006 Capital Reinvestment Study, the District created this fund to set aside money for replacement projects as part of a long-term asset management strategy. District policy provides for annual rate-funded transfers into this fund, based on a percentage of annual depreciation expense. Depending on near-term capital investment needs, this fund may accrue a significant balance over time that can be drawn down

relatively quickly. Assuming that the District can (a) issue debt; (b) use money from other funds; or (c) defer capital projects, this analysis does not assume an explicit minimum balance for this fund. District records indicate a beginning 2013 balance of \$4,154,424 in this fund.

- **Rate Stabilization Fund:** The District’s bond covenants provide for a Rate Stabilization Account that allows the District to withdraw or deposit money that can be considered “Revenue of the System” for paying expenses and calculating bond coverage. Though not formally required, the District has set a goal of maintaining a balance of at least 50 percent of annual debt service in this account – based on 2013 debt service payments, the combined balance for the utilities would be \$1.5 million. As of the end of 2012, the Rate Stabilization Fund had a balance of \$694,550 (24 percent of annual debt service). The financial forecast assumes that the District increases funding in the Rate Stabilization Fund to meet its minimum balance target.
- **Bond Fund and Reserve Fund:** District bond covenants also discuss two reserves related to outstanding bonds. The District transfers money into the Bond Fund to make principal and interest payments on outstanding bonds; the covenants require that the District maintain a certain balance (generally based on annual revenue bond debt service) in the Reserve Fund to protect against repayment risk. Though these funds are restricted and are not available to fund capital costs, it is worth noting that the District can release the reserve associated with a given bond when that bond is fully repaid.

8.4.3 EXTERNAL SOURCES OF FUNDS

Because GFC and LFC revenue streams can be highly variable depending on the level of development occurring in the District’s service area, there are times when the GFC Fund and LFC Fund will not be able to fully fund the capital project costs and debt service assigned to them. In such cases, the District must consider delaying projects, tapping into its other reserves, and/or pursuing funding from external sources.

There are various grant and loan programs that can be used to fund a portion of the District’s CIP. These funding sources are listed and described below. It is important to note that these sources do not provide full funding of construction projects, and would require supplementary funding from the District’s cash

resources to fully fund the planned projects. Nevertheless, the District should monitor future opportunities to obtain these potential funding sources.

- **State Water Pollution Control Revolving Fund (WAC 173-98):** Managed by the Department of Ecology (Ecology), this program provides loan assistance to utilities for high-priority water quality projects consistent with the Clean Water Act. It is funded through federal capitalization grants, state matching funds, and principal and interest repayments. The program funds projects with a quantifiable water quality benefit, such as transitioning customers from septic to sewer.
- **Public Works Trust Fund (RCW 43.155):** The State Legislature established the Public Works Trust Fund (PWTF) to provide financial assistance to local governments in the form of low-cost loans for public works projects. Though the PWTF loan program has been suspended for the current biennium, future loans may be available at interest rates of 0.5 percent, 1.0 percent, and 2.0 percent, depending on the term of the loan (lower interest rates are offered for shorter repayment periods, which can vary from 10 to 30 years). The repayment term is based on the useful life of the project.
- **Community Economic Revitalization Board (RCW 43.160):** A federal program administered by the State Department of Community Trade and Economic Development, this program provides grants and loans for infrastructure improvements including utility projects. It prioritizes projects that create or retain jobs for low and moderate-income residents – because it is need-based and intended to be “last-resort” relative to other funding sources, the District may not qualify for assistance under this program.
- **Infrastructure Assistance Coordinating Council:** The Infrastructure Assistance Coordinating Council (Council) is comprised of state and local agencies whose function is to provide funding for infrastructure repair and development. Its purpose is to assist local governments in coordinating funding efforts for infrastructure improvements, and can be a valuable resource to provide awareness of any new funding opportunities.
- **Hazard Mitigation Grant Program (HMGP):** The HMGP is invoked in the event of a Presidential declaration of a major disaster. This

state-administered program is authorized by the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Section 404 of Public Law 93-288, as amended. HMGP funds mitigation planning initiatives and mitigation projects designed to reduce or eliminate the effects and costs of future disaster damage. Eligible applicants include state and local government and special districts.

Applicants must be jurisdictions that are participating and in good standing in the National Flood Insurance Program, and in compliance with State Growth Management Act requirements, or located in a community that is.

The grants are available to eligible applicants on a competitive basis on the following cost share: 75 percent federal and 25 percent non-federal (applicant and state may split this share, based on legislative approval). The amount available for the HMGP is based on a percentage of FEMA expenditures on disaster assistance, which may limit the size of projects and grant awards. All mitigation project proposals will be evaluated against federal and state program criteria and they must be cost-effective.

- **Revenue Bonds:** Revenue bonds are another external source of funding for capital projects, and are the most common source of funds for construction of major utility improvements. A key benefit of revenue bonds is the exemption of federal income tax – however, they are generally seen as less desirable than low-cost loans and grants due to their relatively higher interest rates. Revenue bonds also come with coverage requirements, where the utility has to generate a certain amount of “net revenue” (operating revenue net of operating expenses) to protect bondholders against repayment risk. District bond covenants define this amount as 125 percent of annual debt service, though the District targets coverage at 150 percent of annual debt service for planning purposes.

Similar to revenue bonds, other bond financing approaches include utility local improvement districts (ULIDs), special assessment districts (SADs) and other funding for projects that serve and benefit a limited service area within the District’s total service area. The costs of those improvements are shared only by those customers benefiting from those improvements. The District has funded some capital improvements previously through ULIDs. The District’s schedule of outstanding ULID assessments indicates a total

outstanding balance of about \$890,000 as of the end of 2012, which will be paid in annual installments through 2019.

- **Developer Contributions:** Some projects are identified in the capital improvement program with an expectation to be constructed by developer extension agreements (DEAs). Where possible and equitable, the District attempts to use DEAs to construct facilities in order to avoid charging its other customers for development-related projects of localized benefit.

While the above list of possible grant, loan and other funding opportunities for the District is not exhaustive, it does however, highlight the most probable outside funding sources available to the District for its capital improvements.

8.5 SEWER GENERAL FACILITIES CHARGE

General facilities charges (GFCs), a form of connection charge authorized in the Revised Code of Washington (RCW) 57.08.005 (11), are imposed as a condition of service on new customers connecting to the system. In addition to any other costs related to physically connecting a customer to the system, the GFC is typically based on a blend of historical and planned future capital investment in system infrastructure – its underlying premise is that growth (future customers) will pay for an equitable share of the costs that the utility has incurred (or will incur) to provide capacity to serve new customers.

While the RCW does not explicitly define a methodology for calculating GFCs, the GFC is generally calculated by dividing an allocable “cost of the system” by the applicable customer base served by the system to arrive at a cost per unit of capacity. The ensuing sections discuss the various aspects of the GFC calculation in further detail.

8.5.1 EXISTING COST BASIS

The GFC cost basis includes costs associated with existing assets to recognize that those assets will provide benefit to new customers. In addition to this documented cost of existing assets, RCW 57.08.005 (11) allows the District to recover a provision for interest accrued on assets. Conceptually, this interest provision (which is limited to ten years of interest accrual on each asset) attempts to account for opportunity costs that the District’s customers incurred by supporting investments in infrastructure rather than having the money available for investment or other uses. This cost basis is adjusted to reflect:

- **Construction Work In Progress:** The District has substantial investments in capital projects that are currently underway – these projects are not completed or booked as assets, but do represent an investment made by the District in the system. Consequently, the cost of construction work in progress is added to the GFC cost basis.
- **Contributed and ULID-Funded Assets:** Assets funded by developer extension agreements (DEAs) and utility local improvement districts (ULIDs) are excluded from the cost basis on the premise that the GFC should only recover costs actually incurred by the District. ULID-funded assets are left out of the GFC cost basis to avoid double charging customers for assets that they are paying for through ULID assessments.
- **Net Outstanding Debt Principal:** When a new customer connects to the District’s system and becomes a ratepayer, they will pay for a proportionate share of the annual debt service payments associated with the District’s outstanding debt. To recognize this and avoid double charging customers for assets through GFCs and rates, the cost basis reflects a deduction for outstanding debt principal net of available cash balances.

8.5.2 FUTURE COST BASIS

RCW 57.08.005 (11) allows the District to recover costs associated with future capital projects that it plans to undertake within a 10-year planning period, provided that they are part of an adopted comprehensive plan. The capital costs included in the future cost basis are generally based on the capital program summarized in Table 8-4, though inflation is backed out of the cost estimates (to account for inflation, the financial forecast assumes that the GFC is adjusted annually for construction cost inflation). The future cost basis also reflects several adjustments:

- **Grants/Contributions:** Projects funded by grants, developer extension agreements (DEAs), or utility local improvement districts (ULIDs) are excluded from the future cost basis on the grounds that the GFC intends to recover costs incurred by the District. The District has identified projects that will likely be funded through ULIDs and/or DEAs.

- **LFC-Funded Projects:** Assets funded by local facilities charges (LFCs) are excluded from the GFC cost basis to recognize that new customers will pay for them through their payment of the District’s LFC. While this adjustment primarily intends to avoid double charging customers for assets, it is also worth noting that the GFC intends to recover costs associated with facilities of general system benefit – to the extent that a project’s costs are assigned to the LFC cost basis, it is likely that that project is of localized benefit rather than general system benefit.

8.5.3 CUSTOMER BASE

The customer base is expressed in terms of equivalent residential units (ERUs), and is separable into:

- **Existing Customers:** Single-family residences are assigned 1 ERU per residence; ERUs are computed for other customers based on winter-average single-family water usage patterns.
- **Growth:** Growth in the customer base is projected based on a historical average of new connections per year, which suggest that the District has been experiencing a growth rate on the order of 1.1 percent per year.

8.5.4 GFC CALCULATION

The District’s GFC calculation is based on an “average cost” methodology, which computes a charge per ERU by dividing allocable costs by the applicable number of ERUs. The sewer GFC is split into three functional categories: mains, pumping, and general system assets. The GFC calculation considers growth over the expected useful life of the District’s assets, which varies for each category. Estimates prepared by District staff suggest an average useful life of 89 years for mains and 50 years for lift stations and grinder pumps; general system assets are assigned an average life of 10 years. For example, the “mains” component of the GFC calculation considers existing customers and growth over 89 years (or growth to buildout, whichever is less).

Table 8-5 summarizes the updated sewer GFC calculation.

TABLE 8-5

Updated Sewer GFC Calculation

Sewer GFC Calculation	Mains	Pumping	General	Total
Existing Cost Basis (\$000s)				
Plant-In-Service as of 12/31/12	\$86,731	\$15,309	\$5,593	\$107,633
Less: Contributed Assets	(\$59,875)	(\$9,712)	(\$21)	(\$69,607)
Plus: Interest Accrued on Utility-Funded Assets	\$12,097	\$2,812	\$2,732	\$17,641
Plus: Construction in Progress	\$22	\$383	\$651	\$1,056
Net Existing Cost Basis (\$000s)	\$38,974	\$8,792	\$8,956	\$56,722
Future Cost Basis (\$000s)				
2013-2023 CIP (Uninflated)	\$30,145	\$16,825	\$4,086	\$51,056
Less: DEA/ULID-Funded Projects	(\$7,747)	(\$2,613)		(\$10,360)
Less: LFC-Funded Projects	(\$3,067)	(\$2,728)		(\$5,794)
Net Future Cost Basis (\$000s)	\$19,332	\$11,484	\$4,086	\$34,902
Total Cost Basis (A)	\$58,306	\$20,276	\$13,042	\$91,624
Customer Base				
Existing ERUs	13,367	\$13,367	\$13,367	
Projected Growth Over Useful Life Assets ⁽¹⁾	14,242	8,175	1,526	
Sewer GFC per ERU (A/B x \$1,000)	\$2,112	\$941	\$876	\$3,929
Sewer GFC by Meter Size			Existing	Proposed
3/4-Inch Meter			\$2,564	\$3,929
1-Inch Meter			\$6,410	\$9,822
1-1/2-Inch Meter			\$12,820	\$19,644
2-Inch Meter			\$20,512	\$31,430
3-Inch Meter			\$41,024	\$62,860
4-Inch Meter			\$64,100	\$98,219
6-Inch Meter			\$128,200	\$196,437
8-Inch Meter			\$205,120	\$314,299
10-Inch Meter			\$294,860	\$451,805

(1) Useful Life of Assets: Mains: 89 Years; Pumping: 50 Years; General: 10 Years.

The District's GFC was most recently calculated in 2005 to be \$2,070 per ERU; the existing GFC (\$2,564 per ERU) reflects a series of inflationary adjustments. Table 8-5 shows an increase in the sewer GFC due to:

- The addition of assets to the existing asset base since 2005.
- The accrual of interest on existing assets since 2005.
- An increase of about \$4.3 million in the 10-year CIP (net of DEA/ULID/LFC-funded projects), relative to what was included in the 2003 Wastewater Comprehensive Plan and built into the prior calculation.

The financial forecast assumes that the District increases its sewer GFC from \$2,564 to \$3,929 per ERU in 2014, and increases the charge annually with construction cost inflation (assumed to be 3 percent per year).

8.6 SUMMARY OF THE FINANCIAL ANALYSIS

Table 8-6 provides a summary of the financial plan and resulting financial status of the sewer utility. This is an abbreviated summary of a more detailed analysis that was developed for the District, and provides a summary of the major elements of the District's analysis, along with the findings and conclusions. The detailed analysis can be found in Appendix L of this Plan.

TABLE 8-6

Summary of the District’s 6-Year Financial Plan (\$000s)

	2013	2014	2015	2016	2017	2018
Revenue						
Sewer Rate Revenue at Existing Rates	\$4,517	\$4,697	\$4,729	\$4,760	\$4,811	\$4,862
Metro Rate Revenue	\$6,690	\$6,757	\$7,238	\$7,284	\$7,730	\$7,924
Other Revenue	\$536	\$572	\$590	\$622	\$625	\$632
Total	\$11,743	\$12,025	\$12,557	\$12,667	\$13,166	\$13,418
Expenses						
Metro Payments	\$6,380	\$6,508	\$7,238	\$7,284	\$7,730	\$7,924
Other Operating Expenses	\$3,184	\$3,495	\$3,502	\$3,597	\$3,689	\$3,850
Total	\$9,564	\$10,003	\$10,739	\$10,882	\$11,419	\$11,775
Net Available for Debt Service and Capital	\$2,179	\$2,022	\$1,818	\$1,785	\$1,748	\$1,643
Annual Debt Service	\$1,115	\$1,155	\$1,152	\$1,159	\$1,675	\$1,816
Less: Use of Other Funds						
Assessment Income	(\$132)	(\$132)	(\$132)	(\$131)	(\$130)	(\$128)
GFC Fund	(\$430)	(\$491)	(\$489)	(\$493)	(\$491)	(\$552)
Bond Fund	(\$112)	(\$13)	(\$17)	(\$26)	(\$45)	(\$45)
Net Rate-Funded Debt Service	\$441	\$519	\$514	\$509	\$1,009	\$1,091
Net Available for Capital	\$1,738	\$1,503	\$1,303	\$1,276	\$739	\$552
Capital Reinvestment Transfer	\$473	\$500	\$865	\$1,301	\$1,531	\$1,613
Transfers to CIP Fund for Engineering Costs	\$17	\$17	\$18	\$33	\$34	\$35
Rate-Funded Capital Projects	\$312	\$240	\$279	\$399	\$125	\$113
Total Rate-Funded Capital Costs	\$802	\$758	\$1,161	\$3,232	\$1,690	\$1,761

TABLE 8-6 – (continued)

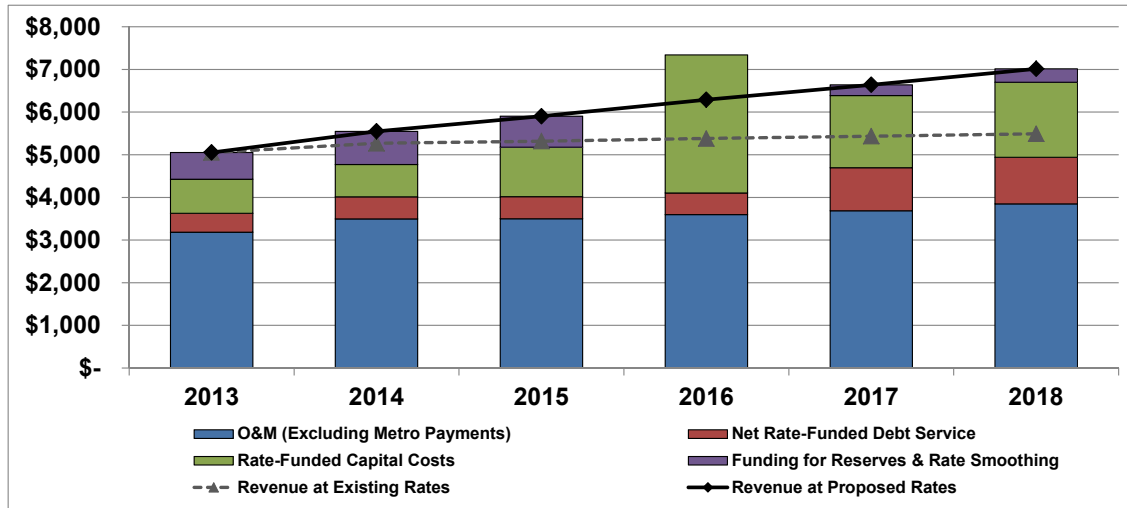
Summary of the District's 6-Year Financial Plan (\$000s)

	2013	2014	2015	2016	2017	2018
Financial Summary at Existing Sewer Rates⁽¹⁾						
Beginning Fund Balance	\$1,882	\$2,818	\$3,563	\$3,706	\$1,750	\$799
Net Cash Flow After O&M, Debt Service and Capital	\$936	\$746	\$142	(\$1,956)	(\$951)	(\$1,209)
Ending Fund Balance	\$2,818	\$3,563	\$3,706	\$1,750	\$799	(\$410)
Minimum Fund Balance Required	\$2,916	\$3,044	\$3,224	\$3,263	\$3,653	\$3,811
Surplus (Deficit)	(\$98)	\$519	\$418	(\$1,513)	(\$2,855)	(\$4,221)
Coverage Ratio Realized	2.82	2.15	2.18	2.19	1.60	1.41
Annual Sewer Rate Adjustment		6.0%	6.0%	6.0%	5.0%	5.0%
Cumulative Sewer Rate Adjustment		6.0%	12.4%	19.1%	25.1%	31.3%
Financial Summary After Rate Adjustment⁽¹⁾						
Sewer Rate Revenue	\$4,517	\$4,978	\$5,313	\$5,670	\$6,017	\$6,384
Beginning Fund Balance	\$1,882	\$2,818	\$3,845	\$4,572	\$3,525	\$3,780
Net Cash Flow After O&M, Debt Service and Capital	\$936	\$1,027	\$727	(\$1,046)	\$254	\$314
Ending Operating Fund Balance	\$2,818	\$3,845	\$4,572	\$3,525	\$3,780	\$4,093
Minimum Operating Fund Balance Required	\$2,916	\$3,044	\$3,224	\$3,263	\$3,653	\$3,811
Coverage Ratio Realized	2.82	2.40	2.68	2.97	2.32	2.24

(1) Includes the Operating Fund and Rate Stabilization Fund.

TABLE 8-6 - (continued)

Summary of the District's 6-Year Financial Plan (\$000s)



Note that the amounts shown in Table 8-6 for “Funding for Reserves & Rate Smoothing” are generally defined as the difference between projected revenues (after rate adjustments) and the sum of operating expenses, debt service, and rate-funded capital costs. The chart shown in Table 8-6 shows positive differences between revenues and expenses; this cash is assumed to be retained in the Operating Fund and used as needed to meet reserve funding objectives (such as maintaining the minimum Operating Fund balance) and manage future-year rate adjustments. It is worth noting that the assumed transfer of \$1.5 million to the GFC Fund in 2016 results in a cash flow deficit, and there is consequently no funding for reserves or rate smoothing in that year.

Table 8-6 indicates that at the rates shown in Table 8-2, the sewer utility’s revenues are expected to be sufficient to cover O&M and debt service. Considering the net amount available for capital after O&M and debt service have been funded, it also appears to be sufficient to cover engineering and capital project costs assigned to the Operating Fund through 2016 (note that to minimize future debt issuance, the 2016 capital cost projection includes \$1.5 million in funding for project costs allocated to the GFC Fund). Sewer revenue increases will be needed to achieve District policy goals including:

- Capital Reinvestment:** The 2012 Budget included a rate-funded transfer of \$1.1 million to the Capital Replacement Fund for 2012, which was decreased to about \$620,000 as part of the near-term financial strategy developed in November 2012 as part of the 2013

budgeting process. The 2012 update originally projected the sewer utility's capital reinvestment transfer increasing to about \$787,000 in 2013 – however, the District has since re-evaluated the useful lives that it uses to compute depreciation, decreasing the sewer utility's annual depreciation expense by almost 40 percent. With this change, the current financial strategy (shown in Table 8-6) reflects reduced capital reinvestment transfers for 2013 and 2014 on the order of \$473,000 – \$500,000. The amount of the annual transfers increases over several years to reach a level of funding (as a percent of depreciation expense) that is consistent with the water utility's capital reinvestment. Based on the 2006 Capital Reinvestment Study and subsequent updates, both utilities are transitioning toward funding capital reinvestment transfers equal to 125 percent of annual depreciation expense. The annual transfers increase to \$1.6 million over the planning period, contributing to the need for sewer revenue increases.

- **Reserve Funding:** As previously noted, the sewer utility began 2013 with a balance of \$1,592,719 in the Operating Fund. Given the sewer utility's projected 2013 operating expenses (including Metro payments), the District's minimum balance policy of 90 days of operating expenses corresponds to a minimum balance of \$2,357,588. In addition, the Rate Stabilization Fund began 2013 with a balance of \$694,550. The District's policy goal of maintaining a balance equal to 50 percent of annual debt service results in a target balance of about \$2,915,183. The proposed strategy of sewer revenue increases intends to enable the sewer utility to meet its minimum balance requirements given its projected cash flow.

Table 8-6 indicates that under the proposed revenue strategy, the Operating Fund will end 2018 with about \$4.3 million, which is above the minimum target balance of \$3.8 million.

Though the cash flow needs discussed above drive the need for the proposed rate increases, bond coverage could also become an issue if rates were kept at existing levels. Table 8-6 indicates that without any rate increases, the sewer utility's coverage ratio would fall below the District's policy goal of 1.50 by 2018 and would approach the minimum level of 1.25 required by the District's bond covenants. This apparent decrease in bond coverage is attributable to the increased coverage requirements that result from the planned debt issuance shown in Table 8-4. It is worth noting that bond coverage is less likely to drive future rate increases than cash flow needs, as it is officially evaluated jointly for both the water and sewer

utilities – in addition, the District can draw funds from the Rate Stabilization Reserve if necessary.

The proposed rate revenue strategy shown in Table 8-6 relies on a number of assumptions, including an assumption of near-term system growth. In the event that the assumed growth of about 1.1 percent (150 ERUs) per year is not realized, the resulting reductions in revenue from rates, GFCs, and LFCs may create a need for additional rate increases.

Note that adopting this comprehensive planning document does not bind the District to implement the proposed rate adjustments. This financial plan is advisory to the Department of Health and intends to show that the findings and recommendations within this Plan are affordable within the District’s service area. The District reviews its utility revenue needs regularly, and will determine the need for future rate adjustments prior to implementation.

8.7 RATE IMPACTS

In order to generate the appropriate level of revenue needed to fully meet operational and capital needs of the utility throughout the 6-year planning horizon, this analysis assumes that the revenue increases shown in Table 8-6 are applied across-the-board to the existing sewer rate structure. Table 8-7 shows the near-term sewer rate forecast.

TABLE 8-7

Sewer Rate Forecast

	2013	2014	2015	2016	2017	2018
Across-the-Board Rate Adjustment		6.00%	6.00%	6.00%	5.00%	5.00%
Single-Family⁽¹⁾						
Monthly Flat Rate	\$29.20	\$30.95	\$32.81	\$34.78	\$36.52	\$38.35
Non-Single-Family⁽¹⁾						
Monthly Fixed Charge	\$33.25	\$35.25	\$37.37	\$39.61	\$41.59	\$43.67
Volume Charge per ccf ⁽²⁾	\$3.6656	\$3.8855	\$4.1186	\$4.3657	\$4.5840	\$4.8132

(1) District’s local rates; excludes Metro charges for wastewater treatment.

(2) Applies to water usage over 7.5 ccf per month.

The Department of Health and the Department of Commerce’s Public Works Board use an affordability index to prioritize low-cost loan awards depending on whether sewer rates exceed 2.0 percent of the median household income for the service area. 2010 Census data indicates median household income levels of

\$135,432 in the City of Sammamish, \$87,038 in the City of Issaquah, and \$70,567 in King County – thus, depending on location within the District’s service area, the affordability threshold for the monthly sewer bill varies from \$117.61 to \$225.72. Adjusting for the current Metro rate of \$39.79 per month, the affordability threshold varies from \$77.82 to \$185.93. The monthly single-family sewer rate shown in Table 8-7 is expected to remain within this threshold during the 6-year planning period, suggesting that the District will be able to implement the planned capital projects while maintaining affordable sewer rates.

8.8 SUMMARY

The results presented in this chapter suggest that the sewer utility will require revenue increases to fund projected O&M, capital, and debt service requirements over the 6-year planning horizon. This chapter identifies the overall level of rate impact that may occur should the capital improvement plan provided in Chapter 7 move forward. It also suggests that the District would be justified in increasing its sewer GFC so that it recovers an equitable share of system costs from growth, as defined by current asset records and capital cost projections. While the District can adjust the GFC at its discretion, increasing the charge will improve the degree to which the Sewer GFC Fund can pay for its share of growth-related capital project and debt service costs (reducing reliance on existing ratepayers to cover those costs when growth does not occur as expected).

Again, it is important to remember that the capital project costs reflect an adjustment for inflation at 3.0 percent per year – as inflation and the schedule for executing projects changes in the future, the funding needed to fully fund District operations and capital needs in the future may change from the projections presented in this chapter. The District reviews the financial needs for its utilities as part of its annual budgeting process, occasionally conducting more comprehensive rate studies. Table 8-6 provides current projections of the near-term revenue adjustments, but on an annual basis the District will confirm or determine the actual revenue adjustments necessary to move forward with the adopted capital plan for each year. The District continues to have challenges funding certain infrastructure improvements, such as lift stations – it plans to consider alternative strategies for funding these improvements, which may impact the forecast of sewer rate revenue needs in the coming years.

The District has demonstrated its commitment to responsibly managing its utilities by past rate adjustments and by funding adequate levels of operations, capital, reserves, and capital funding from rates. Continued prudent fiscal management will enable the sewer utility to continue to operate on a financially sound basis.