

**APPENDIX A**

**CITY OF OLYMPIA**  
**FINANCIAL ANALYSIS**

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# City of Olympia

## Wastewater Management Plan

### Financial Analysis

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#### I. INTRODUCTION

The purpose of including financial planning as a significant chapter of the Master Plan is to determine with reasonable assurance that the City of Olympia (City) has and will have the financial ability to maintain and operate the Utility on an ongoing basis during the planning horizon. A second objective is to determine that the City has the financial capacity to obtain sufficient funds to construct the system improvements as identified in its Capital Improvements Plan (CIP).

The financial plan can only provide this qualified assurance if it considers the “total system” costs of providing service – both operating and capital. To meet these objectives, the Financial Chapter of the Master Plan includes the following elements:

- Historical Financial Performance
  - *Comparative Statements of Revenues, Expenditures and Changes in Fund Equity 2000–2005*
  - *Comparative Balance Sheets – 2000-2005*
- Discussion of Utility Financial Policies
- Funding Sources
- General Facilities Charge Analysis
- Capital Financing Plan
  - *6-Year CIP with revenue sources 2007-2012*
- Projected Financial Performance
  - *Revenue Requirement Forecast 2006-2011*
- Review of Retail Rates

## II. HISTORICAL FINANCIAL PERFORMANCE

The summary of historical financial performance includes 6 years of historical summaries taken from the City's financial statements, including the comparative Statements of Revenues, Expenditures and Change in Fund Equity and comparative Balance Sheets for years 2000-2005.

### Comparative Statement of Revenues, Expenditures and Change in Fund Equity 2000– 2005

	2000	2001	2002	2003	2004	2005
<b>OPERATING REVENUES:</b>						
Charges for Services	\$ 9,901,063	\$ 10,182,780	\$ 10,416,469	\$ 10,755,387	\$ 10,550,494	\$ 10,956,411
Intergovernmental Revenues	5,930	8,907	0	0	0	0
Miscellaneous Revenues	6,281	6,967	12,317	20,199	6,243	7,840
<b>Total Operating Revenues</b>	<b>9,913,274</b>	<b>10,198,654</b>	<b>10,428,786</b>	<b>10,775,586</b>	<b>10,556,737</b>	<b>10,964,251</b>
<b>OPERATING EXPENSES:</b>						
Operations & Maintenance	815,410	4,630,231	7,985,853	8,773,889	8,875,717	8,548,735
Administration & Overhead	784,475	628,259	738,867	730,066	73,682	72,682
Taxes	823,324	796,374	846,805	865,681	884,373	715,420
Compensated Absences	0	0	0	0	(52)	42,989
Depreciation & Amortization	876,639	932,871	940,282	947,508	962,027	1,005,338
<b>Total Operating Expenses</b>	<b>3,299,848</b>	<b>6,987,734</b>	<b>10,511,807</b>	<b>11,317,144</b>	<b>10,795,747</b>	<b>10,385,164</b>
<b>OPERATING INCOME (LOSS)</b>	<b>6,613,426</b>	<b>3,210,920</b>	<b>(83,021)</b>	<b>(541,558)</b>	<b>(239,010)</b>	<b>579,087</b>
<b>NON-OPERATING REVENUES (EXPENSES)</b>						
Investment Earnings	145,280	98,579	68,007	20,674	18,455	63,415
Loss on Plant	0	0	0	0	0	0
Interest Expense & Fiscal Charges	(1,176)	(13,847)	(8,067)	0	(2,875)	(2,465)
<b>Total Non-Operating Revenues (Expenses)</b>	<b>144,105</b>	<b>84,732</b>	<b>59,940</b>	<b>20,674</b>	<b>15,580</b>	<b>60,950</b>
<b>NET INCOME (LOSS) BEFORE OPERATING TRANSFERS</b>	<b>6,757,531</b>	<b>3,295,653</b>	<b>(23,081)</b>	<b>(520,884)</b>	<b>(223,430)</b>	<b>640,037</b>
Operating Transfers - In	0	0	135,396	3,026	2,010,346	1,398,508
Operating Transfers - Out	(8,115,806)	(3,570,115)	(900,708)	(1,174,120)	(566,912)	(1,000,750)
<b>NET INCOME (LOSS)</b>	<b>(1,358,275)</b>	<b>(274,462)</b>	<b>(788,393)</b>	<b>(1,691,978)</b>	<b>1,220,004</b>	<b>1,037,795</b>
<b>FUND EQUITY JANUARY 1</b>	<b>22,190,174</b>	<b>23,026,821</b>	<b>22,765,832</b>	<b>21,977,439</b>	<b>20,285,461</b>	<b>21,409,622</b>
Residual Equity Transfers - In	2,194,923	253,098				
Residual Equity Transfers - Out		(239,625)				
One time Loan Trsf					(95,843)	
<b>FUND EQUITY DECEMBER 31</b>	<b>\$ 23,026,821</b>	<b>\$ 22,765,831</b>	<b>\$ 21,977,439</b>	<b>\$ 20,285,461</b>	<b>\$ 21,409,622</b>	<b>\$ 22,447,417</b>

Operating income before depreciation and amortization expenses went from about \$7.5 million (\$6,613,426 + \$876,639) in 2000 to about \$1.6 million (\$579,087 + \$1,005,338) in 2005 with the lowest point at \$405,950 in 2003. Rates might have been set in 2000

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in preparation for the increase in the Operations and Maintenance line item expense from \$815,410 in 2000 to \$8 million by 2002 where it averaged \$8.5 million from 2002 through 2005. Initial increases were due in part to how the LOTT expense, the regional treatment provider, was classified and reported on the City's financial statements.

*Comparative Balance Sheets 2000– 2005*

	2000	2001	2002	2003	2004	2005
<b>ASSETS</b>						
Cash and Residual Investments	\$ 2,179,068	\$ 1,631,754	\$ 3,577,550	\$ 5,394,563	\$ 3,290,362	\$ 4,261,749
Deposits with Fiscal Agent/Trustee		11,183				
Investments, at Cost	2,238,169	3,353,981	1,510,625	0	2,371,874	1,400,000
Receivables (Net of Allowances):						
Customer Accounts	1,419,755	1,412,585	1,335,482	1,488,451	1,323,380	1,289,707
Accrued Interest and Penalty	23,477	13,940	15,304	0	10,587	203
Other Receivables	12,561	8,934	3,209	15,631	10,319	6,156
Due from Other Governmental Units						
Inventories					23,524	21,824
Other Current Assets						
Restricted Assets:						
Cash and Residual Investments						
Investments, at Cost						
Accrued Interest						
Capital Acquisition:						
Cash and Residual Investments						
Investments, at Cost						
Accrued Interest						
Long-Term Assets:						
Fixed Assets, Net of Depreciation:						
Land	5,774	5,774	5,774	5,774	5,774	5,774
Buildings and Structures	1,854,053	1,791,912	1,729,771	1,667,630	1,605,490	1,543,349
Other Improvements	17,413,459	16,861,153	16,184,536	15,372,440	16,552,641	17,073,835
Machinery and Equipment	378,019	364,677	343,447	338,682	314,386	292,850
Construction in Progress	293,883	397,314	1,407,043	2,200,716	1,346,633	1,515,181
Intangible Assets	846,512	801,613	776,690	730,712	684,185	637,658
Other Debits						
Deferred Charges	8,283	21,595	0	0	0	0
<b>TOTAL ASSETS</b>	<b>\$ 26,673,013</b>	<b>\$ 26,676,415</b>	<b>\$ 26,889,431</b>	<b>\$ 27,214,599</b>	<b>\$ 27,539,155</b>	<b>\$ 28,048,286</b>
<b>LIABILITIES AND FUND EQUITY</b>						
<b>LIABILITIES</b>						
Accounts Payable	\$ 126,638	\$ 71,786	\$ 40,490	\$ 55,123	\$ 703,327	\$ 102,587
Contracts Retainage Payable	34,273	56,458	43,928	80,071		
Due to Other Governments				589,345		
Matured Bonds Payable						
Matured Interest Payable						3,073
Other Current Liabilities					13,843	41,253
Interfund Loan Payable		153,360				
Custodial Accounts						
Revenue Bonds, Principal (Current)	23,359	4,277	31,584	32,571		
Revenue Bonds, Interest	3,777	22,367	3,702	3,508		
Deposits						
Long-Term Liabilities:						
Revenue Bonds	424,739	490,868	459,284	426,713	426,713	392,497
State of Washington Revolving Fund Loan						
Public Works Trust Fund Loan	136,919	123,227	109,535	95,843	82,151	68,459
Compensated Absences	33,463	38,683	39,717	53,076	53,023	96,012
Total Liabilities	783,167	961,025	728,241	1,336,250	1,279,057	703,881
<b>FUND EQUITY</b>						
Contributed Capital	11,807,129	12,299,258				
Retained Earnings:					26,260,098	27,344,404
Reserved						
Unreserved						
Total Fund Equity	14,082,717	13,416,133	26,161,191	25,878,349		
<b>TOTAL LIABILITIES AND FUND EQUITY</b>	<b>25,889,846</b>	<b>25,715,390</b>	<b>26,161,191</b>	<b>25,878,349</b>	<b>26,260,098</b>	<b>27,344,404</b>
<b>TOTAL LIABILITIES AND FUND EQUITY</b>	<b>26,673,013</b>	<b>26,676,415</b>	<b>26,889,431</b>	<b>27,214,599</b>	<b>27,539,155</b>	<b>28,048,286</b>

The Utility displays a strong, high quality balance sheet, with long-term debt as a percent of assets declining from 2.1% to 1.6% over the comparative period. In essence, this Utility has significant long-term borrowing capacity that might be used to finance future capital improvements if and when needed and appropriate.

### **III. FISCAL POLICIES**

The evaluation of the Utility's ability to fund the program outlined in the master plan is based on a set of financial "rules" which define the minimum financial criteria for the City of Olympia.

#### **1. The Utility as an Enterprise**

The Utility (Utility) is defined as an enterprise of the City. Under this structure, the Utility is fully self-sufficient, relying solely on its own revenues for its financial viability. It also makes payments to other City funds for services rendered, just as it might charge those funds when Utility resources are applied to other purposes.

In order to help ensure the financial independence and viability of the Utility, fiscal policies are identified which relate to: *cash management; capital funding strategy; financial performance; and rate equity.*

#### **2. Maintaining Cash and Investment Operating Reserves**

It is appropriate for any utility enterprise to maintain working capital and other reserves consistent with that particular utility's exposure to fluctuation in revenues and expenditures. The specific level appropriate for a given utility will depend on its specific cash flow patterns and trends as related to near-term revenue and payment cycles, seasonal revenue and expense patterns, and annual revenue risk. Also related to defining appropriate cash and investment operating reserves is the level of conservatism used in annual budgeting and forecasting.

The City Utility's reserve structure incorporates two reserve elements:

- The Operating Reserve target is to maintain a minimum operating fund balance equal to 10% of annual operating expenses. This addresses short-term and seasonal cash flow fluctuations and planned operating expense requirements. If used, the Utility would budget to replenish the operating reserve to its target level within 1 budget year.
- The Capital Contingency Reserve (CCR) is set to equal 5% of active capital appropriations. The CCR addresses the risk of capital cost overruns or acceleration of capital expenditures.

#### **3. Capital Funding Policies**

The City has established two major policies related to capital investment. First, City policy calls for an equitable financial contribution from all new development. Second, existing ratepayers will bear a cost commensurate with the full cost of providing service,

including the decline in useful life of existing infrastructure (essentially the recovery of annual depreciation expense in wastewater rates).

The Utility's General Facilities Charge (GFC) is a mechanism that promotes equity between existing and future customers. It establishes a pro rata share of capitalized system costs attributable to new development, and imposes that cost as a condition of service.

The Utility's existing customers are utilizing a total wastewater collection and treatment system (LOTT) that has been funded through a combination of sources. Over time, the useful life of facilities is consumed, and ultimately replacement must be funded. To the degree that the system cost is not fully reflected in current debt obligations (very little long-term debt left), the resulting rates would be below the true cost of service including system re-investment. While there are numerous approaches to defining a benchmark for appropriate reinvestment, the City established in 1996, and re-affirmed in this current planning effort, a standard which requires current rates to fund capital investment at a level commensurate with the annual depreciation of existing wastewater infrastructure assets. This funding is used as follows: first, to pay current Utility debt principal repayment obligations; and second as a source of future capital project funding. While this approach does not ensure full cash funding of system replacements, it provides a reasonable basis for equitably charging current customers for the use and decline in value of the system. It is consistent with standard accounting practices and is a commonly used benchmark in the industry. In most cases, it provides a major source of capital re-investment, which can be augmented with judicious use of debt financing to meet scheduling requirements.

For this planning horizon, capital funding under the above policies is committed to the identified capital program. The resources assumed to be generated through the above mechanisms should provide a reasonably predictable level of cash based (equity) funding. When capital needs exceed those resources, together with available balances, then the City would rely on long-term debt to meet the necessary funding level. Again, the Utility has very little long-term debt principal outstanding at this time, which provides ample capacity for new debt. While debt burdens of municipal utilities vary greatly, debt to asset ratios commonly range from 15-30% and often approach debt loads as high as 40% to 60% range. Debt options are outlined further below.

#### 4. Financial Performance Policies

The financial performance policies of the Utility define the minimum standards for annual financial performance. The City's budget process establishes a common municipal standard for a balanced budget. Beyond that minimum, the Utility budgeting process should also meet the minimum reserve requirements outlined above. In general, this standard results in an annual requirement for positive cash flow from operations. A possible short-term exception to this expectation might be when operating fund balances exceed requirements, and the Utility budgets for a planned reduction in those balances.

The second financial criterion relates to Utility debt. The Utility revenue bonds require a minimum annual debt service (principal + interest) coverage factor of 1.25. In brief, this

requires the City to set wastewater rates so that operating revenues, less cash operating expenses (before depreciation and amortization expenses), meet or exceed 1.25 times the annual revenue bond debt service. This determination also does not consider capital outlays, transfers to capital funds, or payment of City taxes as operating expenses. The coverage requirement must be met annually without considering the use of reserves.

In this revenue bond coverage test, all subordinate debt is excluded from the calculation, on the premise that such debt would hold a junior position and would only be repaid after revenue bond payments are satisfied. In practice, this could mean that a revenue bond coverage factor of 1.25 could actually result in negative cash flow after all debt service is paid. However, when applied to this Utility, the City has consistently exceeded its test threshold and is projected to continue to revise wastewater rates as needed to meet what remains of the current and future debt service coverage obligations.

#### **IV. CAPITAL FACILITIES PLAN FUNDING**

The City may choose to fund the capital improvement program from a variety of sources. In general, these future sources can be summarized as: 1) governmental grant and loan programs; 2) publicly issued long-term debt; and 3) cash and investment balance resources and net operating revenues. These alternative sources are described below.

Historically, federal and state grant programs were available to local utilities for capital funding assistance. However, these assistance programs have been mostly eliminated or replaced by loan programs. Remaining miscellaneous grant programs are generally lightly funded and heavily subscribed. Nonetheless, the benefit of even low-interest loans makes the effort of applying worthwhile. State programs identified as potential funding sources for the Utility improvements set forth in this Master Plan are summarized below.

##### **A. Governmental Programs**

**Public Works Trust Fund.** Historically the Public Works Trust Fund (PWTF) was a commonly applied for and used, low-cost revolving-loan fund established by the 1985 State Legislature to provide financial assistance to local governments for public works projects. Eligible projects have included repair, replacement, rehabilitation, reconstruction, or improvement of eligible public works systems to meet current standards for existing users. With recent revisions to the program, utility growth-related projects consistent with 20-year projected needs are now eligible. However, anticipated revisions to the PWTF program are that total funding of the program will continue to be reduced and qualifying projects will be limited to those that provide economic benefit, i.e. growth-related. Whether PWTF will exist for sewer and water utility funding is currently in question; the Washington State Legislature is looking at the option of totally revising public works financial assistance programs. It is possible that this program might be eliminated altogether. Regardless, until that possibility becomes a reality, PWTF loans continue to be a much sought after source of capital construction financing

that the Utility might pursue. The following discussion of PWTF is based upon its 2005 availability.

PWTF loans were available at interest rates of 0.5 percent, 1 percent, and 2 percent, with the lower interest rates given to applicants who pay a larger share of the total project costs. The loan applicant must pay a minimum of 5 percent towards the project cost to qualify for a 2 percent loan, 10 percent for a 1-percent loan, and 15 percent for a 0.5 percent loan. The useful life of the project determines the loan term up to a maximum of 20 years.

The applicant must be a local government, such as a city, county, or special purpose utility district, and have an approved long-term plan for financing its public works needs. Local governments must compete for PWTF dollars since more funds are requested each year than are available. The Public Works Board evaluates each application and transmits a prioritized list of projects to the legislature. The legislature then indicates its approval by passing an appropriation from the Public Works Assistance Account to cover the cost of the approved loans. Once the Governor has signed the appropriations bill into law, the local governments receiving the loans are offered a formal loan agreement with the appropriate interest rate and term, as determined by the Public Works Board.

**Community Economic Revitalization Board.** Managed by the Department of Community Trade and Economic Development, this program provides grants and loans to fund public facilities that result in specific private-sector development. Eligible projects include water, wastewater, roads, and bridges. There are current legislative efforts to increase State funding of this program, perhaps with a redesignation of PWTF funding similar to what has taken place in 2005 and 2006. In this case, grants and loans for sewer projects with defined economic development benefits might qualify for this type of financial assistance.

**Community Development Block Grant (CDBG) Program.** A federal government program administered by the State Department of Community Trade and Economic Development, the CDBG program provides grants and loans for infrastructure improvements, including utility projects, for business development that create or retain jobs for low and moderate-income residents.

**Department of Ecology.** The Department's Water Quality Financial Assistance Program sponsors 3 grant and loan programs: the Centennial Clean Water Fund (grant), Federal 319 Programs (grant), and the State Revolving Fund Loan (SRF). Most of the funding goes to wastewater programs. The Centennial Fund grants are available for projects serving 110% of existing capacity (limiting funding of growth) and the SRF is available to fund 20 years of growth (based on Growth Management Act-compliant comprehensive plans). The 2007 interest rate for SRF loan repayment periods ranging from 5 to 20 years is 2.6%.

Of these programs, the SRF and PWTF are the most attractive low cost financing programs for the City. However, given the level of competition for these funds and projections of the elimination of PWTF as a funding source for utilities, they should not

be relied on as a source of future funding for wastewater capital projects in financial projections.

## B. Public Debt

There are two common forms of publicly issued debt that the City might consider for funding wastewater projects: revenue bonds and general obligation bonds. Revenue bonds are commonly used to fund utility capital improvements. The bond debt is secured by the future revenues of the issuing utility, and the debt obligation or credit lien does not extend to other City revenue sources. With this limited commitment, revenue bonds typically require security conditions related to the maintenance of dedicated reserves (a bond reserve) and financial performance (annual bond debt service coverage discussed earlier). The City must agree to satisfy these requirements by ordinance as a condition of a bond sale. Even so, revenue bonds typically bear a premium in market interest rates as compared to general obligation backed bond debt.

Revenue bonds can be issued in Washington without a public vote. There is no bonding limit, except perhaps the practical limit of a utility's ability to generate sufficient "net revenue" to repay the debt and meet the annual minimum debt service coverage test.

General obligation (G.O.) bonds are secured by the full faith and credit of the City e.g., taxes. The City is authorized to issue general obligation debt to a limited degree without a public vote through the use of its councilmatic bonding capacity, with additional bonding capacity allowable subject to public vote. Included in the voted bonding capacity is an explicit provision for water and wastewater purposes.

Secured by the full financial strength of the City, G.O. debt typically does not require the additional stringent security conditions common for revenue bonds. In addition, the broader financial backing of all financial resources of the City makes G.O. bonds a more secure investment, a feature that is rewarded through a lower interest rate and an annual debt service coverage ratio of 1.0. Nonetheless, unless the City has sufficient non-voted G.O. bonding capacity to commit, the matter of getting an affirmative vote to sell the bonds remains problematic for most municipalities.

To the degree that the City relies on publicly issued debt, it is most likely to be revenue bond debt. Typically, competing uses for limited G.O. authority, especially for that which doesn't require a public vote, limit its accessibility to utilities. Further, the limitations on G.O. bonded indebtedness tend to inhibit the use for utilities, even when no current plans compete, simply due to the loss of flexibility which would occur. Therefore, as a conservative but likely assumption for this financial plan, we have assumed that all future debt financing will be via revenue bonds, with the commensurate security requirements and higher interest costs.

## C. Cash and Investment (Equity) Resources

As noted above, the City's fiscal policies include two elements that provide capital funding resources: *Growth generated GFCs and rate-funded depreciation*. Both of

these ongoing revenue sources, in addition to fund balances in excess of reserve targets, provide a source of funding for capital improvements.

#### D. Capital Improvement Program Funding Strategy

Based upon the fiscal policies outlined above, together with the projected level of resources available from rates and charges, the following table summarizes the capital funding strategy for the Utility. This strategy is contingent upon the adoption of recommendations, including GFCs, fiscal policies, and rate forecasts, contained within this chapter.

In aggregate, roughly 44% of the total capital program is projected to be cash funded, with about 56% funded through the issuance of revenue bonds.

In general, if the recommendations are only partially implemented, then the level of cash funding would decline and debt issuance would increase. Conversely, if capital projects are delayed, the level of cash funding would increase and issuance of future debt would decrease. *As seen in the accompanying table, no grants or low cost loans have been assumed in this forecast.*

#### Projected Funding of Capital Program for 2007 through 2012

*All costs escalated to year of expenditure and expressed in million dollars*

	2006	2007	2008	2009	2010	2011	2012	Total
<b>Annual Expenditures</b>								
Prior/Current Authorizations	\$ 3.6	\$ 2.5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6.1
CIP	-	5.1	6.3	5.7	2.3	1.6	3.3	24.4
<b>Total Capital Expenditures</b>	<b>\$ 3.6</b>	<b>\$ 7.7</b>	<b>\$ 6.3</b>	<b>\$ 5.7</b>	<b>\$ 2.3</b>	<b>\$ 1.6</b>	<b>\$ 3.3</b>	<b>\$ 30.5</b>
<b>Funding Sources</b>								
Reserves/GFC Funding	\$ 3.6	\$ 2.6	\$ 1.7	\$ 1.9	\$ 2.3	\$ 1.6	\$ 3.3	17.0
Revenue Bond Proceeds	-	5.1	4.6	3.8	-	-	-	13.5
<b>Total Capital Funding Sources</b>	<b>\$ 3.6</b>	<b>\$ 7.7</b>	<b>\$ 6.3</b>	<b>\$ 5.7</b>	<b>\$ 2.3</b>	<b>\$ 1.6</b>	<b>\$ 3.3</b>	<b>\$ 30.5</b>

This analysis establishes a “hierarchy” of capital funding as follows:

- 1) Available Cash and Investment Resources – Existing capital fund balances are used to directly fund project costs
- 2) Utility Equity Resources – ongoing revenues from general facilities charges are used to directly fund project costs. In addition, rate adjustments were assumed to be adopted in the future to ensure ongoing capital funding from rates (see Capital Funding Policies above). These cash resources further support project capital costs.
- 3) Grants and Loans – While the City will likely undertake a strategy to pursue appropriate grant or low cost loan opportunities, this analysis conservatively assumes no resources are obtained from these programs.
- 4) Revenue Bond Debt – New revenue bond debt issues are assumed to complete funding of the capital program, based on remaining financial

need. Corresponding debt service and revenue obligations are incorporated into the rate forecast.

- 5) Rates –increased operating costs associated with the capital program are recovered through rates, and assumed adjustment to rates in the future. Such costs are incorporated into the rate forecast.

As discussed, there might be lower cost CIP project financing options that have not been assumed due to the competitive environment for these funds. The forecast assumes the more conservative and higher-cost funding alternative of revenue bonds, and should thus ensure the City's ability to fund the program even if unsuccessful in pursuit of grants and loans. The following section discusses rate impacts due to the program based on this funding analysis.

## **V. REVENUE REQUIREMENTS FORECAST**

The revenue requirement analysis determined the amount of rate revenue needed in a given year to meet that year's expected financial obligations. The revenue requirement forecast has been based on the fiscal policies outlined above in Section III. Analytically, at least two separate conditions must be satisfied for each year of the analysis period in order for future rates to be sufficient: cash needs, including reserve and capital funding provisions must be met; and the minimum 1.25 debt service coverage requirement must be realized.

The following tables summarize the projected financial performance and rate requirements for 2006-2012. As shown, the plan can be implemented through a reasonable series of rate increases. However, it is important to note that reduction or deferral of annual increases would likely increase the level of long-term debt financing needed and would ultimately result in higher rates.

It is also important to note that the projected rate increases are based on the revenue increase that would apply to the City portion of the rates. The actual percentage impact to the customer bill is much lower since the LOTT regional treatment charges make up a large portion of a customer's total rate. A separate line shows the rate increase impact to all revenues including LOTT to approximate the actual customer bill impact. This forecast does not show any increases that LOTT might implement that would be in addition to the rate impact projections shown in this table.

These summaries show the full rate impact from the program CIP and the annual rate increases that are needed to meet these cash obligations and meet City policies related to depreciation reserves, minimum operating and capital fund reserves and revenue bond debt coverage and reserves.

The assumed escalation rates that are used in these forecasts are: general and construction inflation of 4%; customer growth ranges from 1.7% to 3.8% based on plan projections; and interest earnings of 4% on invested funds (the City has realized increased earnings from around 2% to around 4% in recent years). State and City Utility taxes have been included, with the additional tax payments factored into projected rate increases and the related increase in revenues.

There are two scenarios presented in the revenue needs projection. The base scenario represents the rate increases that would apply to the sewer rate for all customers. The second shows the rate increases that would apply to the sewer rate for all customers, after adding a \$13 monthly surcharge to the STEP (Septic Tank Effluent Pump) customers who make up currently about 6% of the total sewer customer base. As a charge based on added operational costs, this STEP surcharge is assumed to escalate with the general inflation rate of 4% used in this analysis.

**Base Rate Revenue Requirement Forecast for 2006– 2012**

	2006	2007	2008	2009	2010	2011	2012
<b>Revenue Available for Coverage</b>							
Sewer Service	\$3,734,170	\$3,797,927	\$3,871,824	\$3,962,467	\$4,076,615	\$4,219,492	\$4,364,521
LOTT Wholesale Revenue	7,379,450	7,800,625	8,264,427	8,788,482	9,393,194	10,098,135	10,849,144
Interest Earnings on All Funds	190,419	130,751	83,258	89,532	113,682	139,216	211,313
Other Revenues (Excluding Interest)	<u>72,000</u>	<u>74,880</u>	<u>77,875</u>	<u>80,990</u>	<u>84,230</u>	<u>87,599</u>	<u>91,103</u>
Total Revenues	\$11,376,039	\$11,804,183	\$12,297,384	\$12,921,470	\$13,667,721	\$14,544,442	\$15,516,080
<b>Reductions for Net Revenue of the System</b>							
Cash Operating Expenses	\$3,356,614	\$3,555,480	\$3,508,872	\$3,656,324	\$3,815,848	\$3,989,500	\$4,170,992
Lott Sewer Treatment Service	<u>7,379,450</u>	<u>7,800,625</u>	<u>8,264,427</u>	<u>8,788,482</u>	<u>9,393,194</u>	<u>10,098,135</u>	<u>10,849,144</u>
Total Expenses	\$10,736,064	\$11,356,105	\$11,773,300	\$12,444,806	\$13,209,042	\$14,087,635	\$15,020,136
Net Revenue of the System	\$639,975	\$448,078	\$524,085	\$476,665	\$458,679	\$456,807	\$495,944
Revenue Bond Debt Service	70,047	494,379	859,552	1,180,097	1,179,951	1,165,688	1,166,114
Coverage Realized	9.14	0.91	0.61	0.40	0.39	0.39	0.43
<b>Adjustments to Net Revenue for Operating Cash Flow Test</b>							
Less: Capital Fund Interest Earnings	(\$150,419)	(\$103,898)	(\$69,036)	(\$75,967)	(\$98,260)	(\$123,123)	(\$194,493)
Less: Depreciation Funding [1]	(571,870)	(617,534)	(650,774)	(667,917)	(701,745)	(717,913)	(773,974)
Less: Additions to Operating Reserves	0	0	(14,501)	(46,447)	(16,750)	(18,194)	(19,011)
Less: Debt Service	(70,047)						
Net: Use of reserves to levelize increases	<u>0</u>	<u>289,713</u>	<u>30,936</u>	<u>(208,118)</u>	<u>(142,905)</u>	<u>0</u>	<u>0</u>
Net Cash Flow	(\$152,362)	\$16,359	(\$179,291)	(\$521,785)	(\$500,980)	(\$402,424)	(\$491,534)
<b>Increases are on City Revenue/Rates Only (excludes LOTT pass-through)</b>							
<b>Increase Over Current City Rates</b>	<b>0.00%</b>	<b>13.00%</b>	<b>27.69%</b>	<b>44.29%</b>	<b>44.29%</b>	<b>44.29%</b>	<b>44.29%</b>
<b>Annual City Rate Increase</b>	<b>0.00%</b>	<b>13.00%</b>	<b>13.00%</b>	<b>13.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>
<b>Annual Rate Increase on Customer Bill</b>	<b>0.00%</b>	<b>4.26%</b>	<b>4.39%</b>	<b>4.53%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>
Net Revenue of the System After Increase	\$797,475	\$941,809	\$1,596,193	\$2,231,629	\$2,190,672	\$2,071,303	\$2,201,323
Net Cash Flow After Rate Increase	\$0	(\$289,713)	(\$16,434)	\$254,565	\$159,655	\$18,194	\$19,011
Annual City Rate Revenue After Increase	\$3,891,670	\$4,291,658	\$4,943,932	\$5,717,431	\$5,808,607	\$5,833,988	\$6,069,899
Annual Coverage After Rate Increase	11.38	1.91	1.86	1.89	1.86	1.78	1.89

[1] Depreciation Funding Policy: Depreciation Expense less Debt Principal.

Master Plan  
Financial Chapter

Rate Revenue Requirement Forecast with STEP Surcharge for 2006– 2012

	2006	2007	2008	2009	2010	2011	2012
<b>Revenue Available for Coverage</b>							
Sewer Service	\$3,734,170	\$3,797,927	\$3,871,824	\$3,962,467	\$4,076,615	\$4,219,492	\$4,364,521
STEP Surcharge Revenue	0	255,690	292,240	331,304	373,026	417,555	434,257
LOTT Wholesale Revenue	7,379,450	7,800,625	8,264,427	8,788,482	9,393,194	10,098,135	10,849,144
Interest Earnings on All Funds	190,419	130,751	88,541	91,633	112,040	131,990	204,007
Other Revenues (Excluding Interest)	<u>72,000</u>	<u>74,880</u>	<u>77,875</u>	<u>80,990</u>	<u>84,230</u>	<u>87,599</u>	<u>91,103</u>
Total Revenues	\$11,376,039	\$12,059,873	\$12,594,908	\$13,254,875	\$14,039,105	\$14,954,771	\$15,943,031
<b>Reductions for Net Revenue of the System</b>							
Cash Operating Expenses	\$3,356,614	\$3,573,379	\$3,529,329	\$3,679,515	\$3,841,959	\$4,018,729	\$4,201,390
Lott Sewer Treatment Service	<u>7,379,450</u>	<u>7,800,625</u>	<u>8,264,427</u>	<u>8,788,482</u>	<u>9,393,194</u>	<u>10,098,135</u>	<u>10,849,144</u>
Total Expenses	\$10,736,064	\$11,374,003	\$11,793,757	\$12,467,997	\$13,235,153	\$14,116,864	\$15,050,534
Net Revenue of the System	\$639,975	\$685,870	\$801,151	\$786,878	\$803,951	\$837,907	\$892,498
Revenue Bond Debt Service	70,047	494,379	848,649	1,167,558	1,167,412	1,153,149	1,153,575
Coverage Realized	9.14	1.39	0.94	0.67	0.69	0.73	0.77
<b>Adjustments to Net Revenue for Operating Cash Flow Test</b>							
Less: Capital Fund Interest Earnings	(\$150,419)	(\$103,898)	(\$74,248)	(\$76,749)	(\$96,525)	(\$115,793)	(\$187,070)
Less: Depreciation Funding [1]	(571,870)	(617,534)	(654,511)	(672,420)	(706,496)	(722,925)	(779,261)
Less: Additions to Operating Reserves	0	0	(14,757)	(15,785)	(17,042)	(18,506)	(19,128)
Less: Debt Service	(70,047)						
Net: Use of reserves to levelize increases	<u>0</u>	<u>157,626</u>	<u>(10,600)</u>	<u>(159,464)</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net Cash Flow	(\$152,362)	\$122,064	\$47,035	(\$137,540)	(\$16,111)	(\$19,317)	(\$92,962)
<b>Increases are on City Revenue/Rates Only (excludes LOTT pass-through)</b>							
Increase Over Current City Rates	0.00%	9.50%	19.90%	31.40%	31.40%	31.40%	31.40%
Annual City Rate Increase	0.00%	9.50%	9.50%	9.59%	0.00%	0.00%	0.00%
Annual Rate Increase on Customer Bill %	0.00%	3.25%	3.31%	3.41%	0.00%	0.00%	0.00%
Annual Rate Increase on Customer Bill \$	\$0.00	\$2.30	\$2.52	\$2.79	\$0.00	\$0.00	\$0.00
Net Revenue of the System After Increase	\$797,475	\$1,326,654	\$1,921,961	\$2,466,274	\$2,398,684	\$2,464,961	\$2,611,661
Net Cash Flow After Rate Increase	\$0	(\$157,626)	\$25,357	\$175,250	\$17,042	\$18,506	\$19,128
Annual City Rate Revenue After Increase	\$3,891,670	\$4,438,711	\$4,992,634	\$5,641,862	\$5,671,348	\$5,846,546	\$6,083,684
Annual Coverage After Rate Increase	11.38	2.68	2.26	2.11	2.05	2.14	2.26

[1] Depreciation Funding Policy: Depreciation Expense less Debt Principal.

The STEP charge is assumed to occur in the first year and so the STEP customers would realize a larger increase in year one and level percentage increases the remaining two years, while the rest of the customer base would realize three level annual percent increases.

Should the City implement a conversion program in the future (sewer the STEP customers), the City would then lose the corresponding surcharge revenue stream and system-wide rate increases may be necessary to make up the lost revenue. These analyses do not include impacts of a conversion program.

The assumed STEP ERU basis is 1,420 in 2006 growing to 2,200 in the next 5 years. The City does not intend to accept septic treatment for new customers, but the additional customers noted above are a result of prior agreements.

The results that are shown here represent the increase that would be applied to the base rate for all customers, in addition to the \$13 per month surcharge that would be imposed on STEP customers. The result is that rather than 13% annual increases 2007 through 2009 with no surcharge, the level increases to the base charge are 9.5% annually from 2007 through 2009.

## VI. RATES

The City of Olympia's rates are composed of charges for City costs and a portion of the rate that is treated as a pass-through for treatment charges from the regional treatment provider, LOTT.

### Base Scenario Rates – Projected 2006 through 2012 (bimonthly bill)

	2006	2007	2008	2009	2010	2011	2012
City Sewer Rate	\$24.26	\$27.41	\$30.98	\$35.00	\$35.00	\$35.00	\$35.00
2005 LOTT Charge (shown to remain at 2005 level)	<u>\$51.00</u>	<u>\$51.00</u>	<u>\$51.00</u>	<u>\$51.00</u>	<u>\$51.00</u>	<u>\$51.00</u>	<u>\$51.00</u>
Total Bill (City increases only)	\$75.26	\$78.41	\$81.98	\$86.00	\$86.00	\$86.00	\$86.00

### STEP Surcharge Scenario Rates – Projected 2006 through 2012 (bimonthly bill)

	2006	2007	2008	2009	2010	2011	2012
City Sewer Rate	\$24.26	\$26.56	\$29.09	\$31.88	\$31.88	\$31.88	\$31.88
2005 LOTT Charge (shown to remain at 2005 level)	<u>\$51.00</u>	<u>\$51.00</u>	<u>\$51.00</u>	<u>\$51.00</u>	<u>\$51.00</u>	<u>\$51.00</u>	<u>\$51.00</u>
Total Bill (City increases only)	\$75.26	\$77.56	\$80.09	\$82.88	\$82.88	\$82.88	\$82.88
STEP Surcharge [1]	\$0.00	\$27.04	\$28.12	\$29.25	\$30.42	\$31.63	\$32.90
Total Base Charge	<u>\$75.26</u>	<u>\$77.56</u>	<u>\$80.09</u>	<u>\$82.88</u>	<u>\$82.88</u>	<u>\$82.88</u>	<u>\$82.88</u>
Total STEP customer charges	\$75.26	\$104.60	\$108.21	\$112.12	\$113.29	\$114.51	\$115.78

[1] \$13 monthly calculated in 2006 - escalates annually with inflation.

The current issues the City is addressing related to rates are those surrounding the City's Septic Tank Effluent Pump (STEP) systems and private-owned on-site septic tanks. These rate issues have been explored and documented in a series of three (3) issue papers in conjunction with preparation of this plan. They include discussion of septic management, service availability and septic conversion financing.

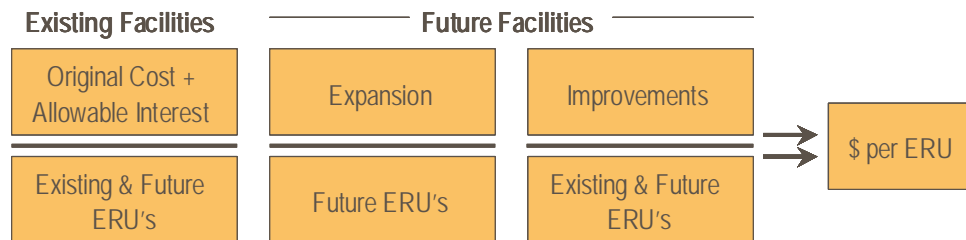
## VII. GENERAL FACILITIES CHARGES

### A. Description of Methodology

General Facilities Charges are a form of connection charge authorized in the Revised Code of Washington 35.92.025. GFCs are imposed on new customers connecting to the system as a condition of service, in addition to any other costs incurred to connect the customer. Typically, the basis for the GFC is the capital cost the Utility will incur or has incurred to provide the system. The underlying premise of the GFC is that growth (future customers) will pay for growth-related costs that would not have been necessary in the absence of the projected addition of new customers. In both the existing and future facilities portions of the charge, any contributed capital has been excluded from

the cost basis, recognizing that the Utility should not recover a cost it did not incur. The reduction of the total original cost of infrastructure by the amount of donated facilities and other forms of capital (contributions-in-aid-of construction or CIAC), is a conservative approach to calculating GFC's; the City may seek legal counsel opinion as to whether a more aggressive approach of including CIAC financed facilities can be used.

For this plan, the GFC analysis is an update of an earlier analysis and uses a similar methodology. The following schematic summarizes the analytical process:



1 ERU = 1 Equivalent Residential Unit (equivalent to a single family home). For water, the meter size and corresponding flow capacity defines the equivalency, with a 5/8x3/4 inch meter equal to 1 equivalent.

The following description expands on the GFC analytical method:

*Existing Cost Element*

- The total cost of the existing Utility system is established from the City's financial records.
- Assets funded by in-kind contributions or outside grants are deducted from the total.
- Interest for up to 10 years is added by applying 10 years of interest to all assets greater than 10 years old and the appropriate years of interest for newer additions.
- The resulting existing cost basis is divided by the current and projected customer base developing a unit cost for the existing Utility assets.

*Future Cost Element*

- The future facilities contained in the plan are allocated to 2 project types, expansions and replacements. Costs are based on current construction cost estimates, and not escalated to the anticipated year of construction.
- Expansion projects provide increased capacity needed for growth. The expansion project costs are divided by only projected customers (growth) to develop a corresponding unit cost. These are projects that would not be built in the absence of growth.
- Replacement projects are excluded from the GFC calculation, since they are not prompted by a need to expand the system, and until constructed, the existing cost of such assets should already be included in the existing assets.

*Resulting GFC*

- The sum of these components results in a total GFC that can be applied as a one-time charge to new customers on a per ERU basis.

Applying this approach, the 2006 calculation results in a GFC of \$2,267. This is roughly 28% higher than the current level of \$1,776. The following is a summary of the recommended GFC.

General Facilities Charge Calculations

**Total Allocable Costs**

Existing Facilities	\$ 50,132,907
Future Facilities (2007-2012 CIP)	
Expansion	7,589,850
Replacement	<u>excluded</u>
Total	\$ 57,722,757

**Customer Base for Allocation**

Existing Meter Equivalents (2006)	24,306
Projected Future Units (Projected to 2017)	<u>9,618</u>
Total Projected Units	33,924

**Pro Rata Connection Charge per ERU**

	Allocable Cost	ERUs Served	GFC
Existing Plant-in-Service (allocated to existing and future ERUs)	\$ 50,132,907	33,924	\$ 1,478
Future Expansion (allocated to future ERUs only)	7,589,850	9,618	789

<b>Total Connection Charge per ERU</b>	<b>\$ 2,267</b>
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Recommended Schedule of GFCs

5/8"	\$2,267
3/4"	\$3,400
1"	\$5,667
1 1/2"	\$11,335
2"	\$18,135
3"	\$36,271
4"	\$56,673
6"	\$113,347
8"	\$181,354

This increased charge was assumed for the preceding rate analyses.

Due to its unique basis, the GFC would not necessarily increase or decrease in tandem with rate adjustments. However, annual adjustments in the charge would be appropriate, even without an update of the analysis, as they reflect changes in cost basis. For example, the existing cost basis tends to increase due to the annual addition of further interest costs for facilities less than 10 years of age. The future cost basis tends to increase due to inflation of estimated construction costs for projects yet to be constructed, and introduction of annual interest costs for those, which are completed. Therefore, it would be appropriate to make annual adjustments to the charge and then conduct a full update upon update of the Master Plan.

For annual adjustments, some costs do not escalate, some increase with inflation, and some increase with interest charges, which almost uniformly exceed inflation. Based on these various factors, it would be reasonable to adjust the charge using an inflation cost escalation index. The ENR Construction Cost Index is a readily available and reasonable index related to the construction field, and is recommended for this adjustment.

## **VIII. SUMMARY AND CONCLUSIONS**

The City of Olympia Utility is in excellent financial condition and, through this document, has a financial plan which enables it to meet projected capital and operational requirements outlined in this plan and do so through a series of moderate rate increases. The financial plan includes the following key elements:

- Fiscal policies which provide for a stable and predictable level of ongoing capital funding from rates.
- A capital funding strategy which relies first on cash resources including reserves, GFC revenues and policy-based rate funding. Loans and revenue bonds would be relied on to augment the cash funding sources as needed.
- An increase in the GFC to \$2,267 to reflect the current pro rata share of system costs.
- A series of moderate rate increases which accommodate the projected operating and capital needs of the Utility, at 13% in 2007 through 2009. This results in a cumulative increase in rates of 44% from 2007 through 2012.

# Issue Paper #1

## Septic Management

### Issue:

The City of Olympia's (City) sewer utility funds a septic management program. Within the City are homes that are currently served by privately owned septic systems rather than the public City sewer system. The program costs include monitoring groundwater, and plan and policy development. The issue discussed in this paper is whether the sewer utility can charge these private septic system owners for the program costs related to managing septic systems within the City. The bottom line is whether they can be classified as customers of the utility so that the City may charge them for these costs or whether charges for these activities might be considered an unauthorized tax.

### Findings:

RCW 35.67.020 provides the authority for Cities to set rates and charges for sewer service and sets the parameters for classification of customers. The statute provides that "Every City and town [Initial CAP?] may construct, condemn and purchase, acquire, add to, maintain, conduct and operate systems of sewerage." The authority to "fix, alter, regulate, and control the rates and charges for their use" is only in relation to the facilities that are in the first reference. Since the City does not own, operate or service the septic systems, the authority to set rates and charges for the private septic systems is not given in this statute. The findings include no other statute that gives authority to set rates for privately owned septic systems.

Without the authority given in RCW 35.67.020, any billing of these septic system owners might be construed as a tax. There have been a series of successful court challenges of utility charges which have addressed this very issue, beginning with the striking down of the Seattle's street utility (Covell v. Seattle). However, it is not within the scope of financial or rate consultation to determine whether billing septic system owners would be a tax; that is an issue requiring a legal opinion and the City should seek legal counsel, perhaps from bond counsel, on this matter.

If the City were to develop a service relationship with the private septic systems (as it has with its STEP and other onsite septic owners) the following language is included in the same statute relating to City sewer utilities and septic system management. This language would apply to existing STEP and currently serviced on-site septic customers. [Courtney, use of quotes below – not sure if each numbered paragraph is a quote but if yes, need to edit.]

"(6) Under this chapter, after July 1, 1998, any requirements for pumping the septic tank of an on-site sewage system should be based, among other things, on actual measurement of accumulation of sludge and scum by a trained inspector, trained owner's agent, or trained

owner. Training must occur in a program approved by the state board of health or by a local health officer”.

“(7) Before adopting on-site inspection and maintenance utility services, or incorporating residences into an on-site inspection and maintenance or sewer utility under this chapter, notification must be provided, prior to the applicable public hearing, to all residences within the proposed service area that have on-site systems permitted by the local health officer. The notice must clearly state that the residence is within the proposed service area and must provide information on estimated rates or charges that may be imposed for the service.”

“(8) A city or town shall not provide on-site sewage system inspection, pumping services, or other maintenance or repair services under this section using city or town employees unless the on-site system is connected by a publicly owned collection system to the city or town's sewerage system, and the on-site system represents the first step in the sewage disposal process. Nothing in this section shall affect the authority of state or local health officers to carry out their responsibilities under any other applicable law.”

To summarize, (6) charges billed for sludge removal from septic systems must be based on a rate per measured unit of sludge, (7) preceding the sewer utility beginning a service relationship related to on-site inspection and maintenance with septic system owners, a notification and hearing process must be completed and (8) any service relationship must only be with septic systems that are connected to the sewer utility's collection system and must operate as the first step in the sewage disposal process. The City's STEP customers fall under these criteria as they are connected to the collection system. Other on-site septic systems that the City serves must be connected to the system for the City to serve them.

An alternative consideration to using the sewer utility as the basis and vehicle for cost recovery for the septic management program may be to look at the stormwater utility as a system with a more rational nexus or linkage to the service being provided. Like sewer, a mission of the stormwater utility is to protect public waters from degradation, through the control of the quantity and quality of urban run-off. A fee structure is in place premised on the estimated flow contribution from City properties. It might be viable to include in that consideration the contribution from septic systems, and the corresponding septic management cost, as a basis for distinction of a customer class and rate. In short, while conceptually a poor fit within the sewer utility, this program appears consistent with the mission and cost recovery structure of the stormwater utility, and offers a rational cost-based customer classification structure to equitably recover the related costs. Further, this customer class would be relatively simple to identify and separate, as they would be distinguished by the provision of one or more other services but absent sewer service.

## Options:

The City may choose,

- a) if legal counsel finds it defensible, to charge private septic system owners with no existing service relationship for the costs of the septic management program,
- b) and if it is not found defensible, to recognize that the utility benefits from a programmatic perspective and allow the program costs to remain as part of the costs of operating the sewer utility and be born by current customers,
- c) to establish a service relationship with these customers by connecting their septic system to the collection system and begin charging them a sewer rate, or
- d) with sufficient notice, to require those privately owned septic systems that are within 200 feet (or some other defensible threshold) of the City sewer system to dispose of the septic system and become sewer customers (see Issue paper #3 for details and financial options and recommendations) and begin extending service for those systems that are not within 200 feet. As a broader and less immediate policy, this would eliminate the need to manage septic systems when there are no more of them and reduce the cost as they become fewer in number.
- e) To move financial responsibility and cost recovery for the septic management program to the stormwater utility, and create a separate stormwater customer class with a higher rate that is designed to recover this cost.

## Recommendation:

We recommend that the City consider and evaluate option e), which could enable equitable recovery of program costs from appropriate customers through the stormwater program. This evaluation should include City or independent legal review as well as evaluation of the program. A legal opinion should be obtained.

In the event that transfer of program responsibility to the stormwater utility is not a valid option, we would recommend option b), that the City recognize that the utility benefits from a programmatic perspective and allow the program costs to remain as part of the costs of operating the sewer utility and be born by current customers.

We also recommend the City consider the long-term policy objective of converting all septic systems to sewer customers, beginning with those who are within the distance to be required to connect to the existing sewer system.

If the City decides it would like to pursue option a), we recommend first that the City seek legal counsel as to the classification of charges (service-based or tax) for a septic

management program to private septic system owners who are not connected to the City's collection system and who have no existing service relationship with the utility.

It should be noted within this issue discussion that WAC-272A-0015 lists OSS (on-site sewage system) management rules that may be in addition to action currently being taken by the City, and that are required for certain counties, including Thurston county by July 1, 2007. These requirements may increase the septic management program costs. The following link/address takes you directly to the language of the WAC.

<http://search.leg.wa.gov/pub/textsearch/ViewRoot.asp?Action=Html&Item=0&X=608095453&p=1>

### **Issue:**

The City of Olympia (City) provides sewer service to most developed property within the City and its urban growth boundary. However, there remain over 4,000 privately owned septic systems that are not connected to the City sewer system, discharging partially treated wastewater into the environment. Private septic systems, including single family, multi-family and community collection and disposal drainfields can be significant contributors to ground water pollution, especially failing septic systems. The City is considering further extension and expansion of the sewer system to fully sewer the City and eliminate or reduce septic systems as a form of sewer treatment and disposal within the City. There are significant costs related to the conversion of septic systems to City sewer customers including the infrastructure and proper disposal of the septic system. This paper addresses cost recovery and funding mechanisms that the City may consider for funding a septic conversion program.

### **Findings:**

Conversion of private septic systems to public sewer service impose two costs on the sewer utility: local facilities costs in the form of collection lines to connect to the property; and general facilities costs in the form of system capacity capable of conveying, treating and disposing of treated wastewater effluent.

For new development, most cities, including Olympia, provide general system capacity and recover such capacity costs through general facilities charges and through monthly rates. Typically, local sewer collection and transmission facilities are constructed by the developer and transferred to City ownership as a condition of service. This financial structure ultimately embeds a significant portion of the cost of sewer service in the cost and price of the residential or commercial development.

For septic conversion programs, the land development in question has already occurred, and the development, typically homes, have been or are already occupied. Further, local facilities are being installed in already developed areas, increasing costs as opposed to installation during initial development. The resulting financial burden of local and general capital facilities costs, if directly imposed on homeowners, can be substantial and cause financial affordability issues and perhaps hardship. While it is appropriate and, from a utility rate perspective, equitable to require septic conversions to directly bear a fair and equitable share of the City's investment in general and local facilities, the differing circumstances create obstacles to such a funding program. For the local property owner, the need and cost of connection to the sewer system is usually neither recognized nor anticipated. Since the home is already purchased and

financed, the timing is not such that the cost can be incorporated directly into initial home financing, and therefore usually paid for over 15, 20 or 30 years. Thus, septic conversion programs generally face stiff and vocal local opposition due to the up-front and ongoing cost of connecting to a public system, and often create financial hardship for the affected properties.

When sewer service is initially provided to a community or area, the possible use of assessment districts, such as Local Improvement Districts (LIDs) or Utility Local Improvement Districts (ULIDs), is often considered. This is especially true where property values actually increase due to the availability of sewer service. While a viable funding mechanism in some special situations, these are costly processes and prone to challenge. In part, the City would need to demonstrate special benefit, in the form of enhanced property value. For developed residential homes, this benefit can be difficult to document. For example, the City of Ocean Shores found that the special benefit of sewer availability was far lower for a developed home than for a neighboring undeveloped parcel. Many resulting assessments were thus less than the proportionate share of local system costs.

Given their unique situation and the water quality benefits realized by the utility policy of connecting septic systems, utilities often try to provide some mitigation of the financial impact in order to encourage septic owners to convert when it is their choice and to ease the burden when it becomes mandatory (see Issue Paper #3). For example, the City of Tacoma offers a Septic Amnesty Program which allows septic conversions to connect and pay half of the City's hook-up fee within two years of notification. Spokane County discounts the GFC for septic conversions by 25% and allows the option of paying upfront or in a 2-year surcharge on the sewer service rate. After doing so those customers are assumed to be invested in the sewer system on-par with other connected sewer utility customers and then they pay the standard sewer rate adopted by the County.

### **Options:**

The City might wish to consider some type of septic conversion amnesty program. Here are some of the options for how the City may charge septic conversions including how much and when conversions might fund their costs to connect beginning with the most burdensome to the conversion to the most cost borne by the utility:

- a) The full general facilities charge and a local facilities charge. These circumstances would likely result in less discretionary or optional conversions and might be a significant financial burden in the case that conversion becomes mandatory. A funding mechanism, such as a rate surcharge in lieu of up-front payment, may be necessary to enable such a charge structure.
- b) A reduced GFC (50-75%) and a rate surcharge that captures some or all of the cost of local facilities financed over 10 to 20 years. This option begins to take

into account that the utility could appropriately bear its share of costs related to a utility policy that will benefit the utility and the City. This approach mitigates the cost burden of the local facilities by allowing customers to pay through the rate surcharge over an extended period of time. A rate surcharge also creates a bondable revenue stream for the utility. This option might result in optional septic conversions.

- c) A full or reduced GFC (50-75%) and the utility bears the cost of the local facilities required to make service available. This approach would be based on a technical and/or political perspective that septic conversions for the sake of water quality is a City utility policy and the cost of making service available to these conversions can be classified as costs of the system and funded by general utility revenue resources. It also recognizes that the conversions will be benefiting from connecting to a system they have to neither maintain nor replace and can make a contribution toward the facilities as well as a share of the relative fixed costs of the operating and maintaining the sewer system. To encourage local participation and connection, the waiver of the local facilities cost could be offered for a limited timeframe, following which a rate surcharge or up-front payment would be required. This creates an incentive for timely connection consistent with the City objective to protect or improve water quality.

Under options b) and c), a portion of the septic conversion cost would become a general requirement of the sewer utility to fund. It would be appropriate to recognize this cost as a necessary cost to fulfill the sewer utility's mission to protect water resources, and to recover that share of the costs through normal rates and charges. The sewer **General Facilities Charge** would thus appropriately incorporate the City's capital cost share of the septic conversion program as a cost borne by both existing and future customers. Program costs would be budgeted through normal utility capital and operating budgets, and ultimately recovered, at least in part, through utility service rates. **[Note:** also refer to Issue Paper #1: Septic Management Program, for consideration of potential participation of the stormwater utility in funding septic management costs, as a similar logic could be used to suggest contribution toward the septic conversion program, or use of the enhanced funding to help support the planning stages of the conversion program.]

### **Recommendation:**

While septic conversion is optional to private septic system owners, the City might find option b) to be politically more palatable for implementation. The City sewer utility could notify customers that for a limited and defined period before conversion **may** become mandatory, they **may** connect to the sewer utility at a reduced GFC and begin paying the sewer rate, plus a surcharge that captures some of the cost of extending local facilities to serve them. The level of local facility cost recovery

would have to be policy-based by determining a level of reasonable affordability for such a surcharge.

This might need to be part of a greater policy decision to set a date when septic conversion will become mandatory within the City, because without there being a grace period, there might be no incentive to connect to the sewer system by choice. In all cases, septic conversions must still fund removal of the septic system from their property on top of charges from the utility.

### **Issue:**

The City of Olympia (City) is currently exploring options related to how to manage costs and policies regarding the approximately 4,000 privately owned septic systems owned and operated within the City and its approved urban growth boundary. As documented in Issue Papers #1 and #2, there are challenges related to capital and operating cost recovery while privately owned septic systems remain and also if and when those systems convert to City sewer customers. This issue paper deals from a non-legal, layperson's perspective with the relevant State of Washington statutes that appear to give or explicitly give the City authority to enforce a policy to extend and expand the sewer system to fully sewer the City and to eliminate septic systems as a form of sewer treatment and disposal within the City.

### **Findings:**

There are three references in statute (Revised Code of Washington or RCW) and rules (Washington Administrative Code or WAC) that give and limit the City's authority to require privately owned septic systems to connect to the sewer system. The text of these statutes is provided below and at the end of this paper with the relevant language highlighted.

The "Compulsory Use" section of RCW 35.67.190 states

"All property owners within the area served by such sewerage system shall be compelled to connect their private drains and sewers with such city or town system, under such penalty as the legislative body of such city or town may by ordinance direct. Such penalty may in the discretion of such legislative body be an amount equal to the charge that would be made for sewer service if the property was connected to such system. All penalties collected shall be considered revenue of the system."

This section appears to do three things: 1) compels property owners within the area served by the City sewer system to connect to the system, 2) allows the City to charge a penalty rate up to the amount of the charge for sewer service if the property owner does not connect, and 3) finally declares the penalty revenue to be revenue of the system, a bondable revenue security source.

What might be in question in the first point is the phrase "within the area served." A property owner might argue that they are not located "within the area served" if they are a certain distance from the City's system.

WAC 246-272B-07001 and 246-272A-0025 state specifically what the distance to the sewer service is that would compel connection, though these rules apply to a failing septic system, failing as defined in the text of the rule. Listed here is the shorter of the two rules, 272B-07001.

“(1) When adequate public sewer services are available within two hundred feet of the residence or facility, the local health officer upon the failure of an existing large on-site sewage system may:

(a) Require hook-up to a public sewer system; or

(b) Permit the repair or replacement of the OSS only if a conforming system can be designed and installed.

(2) Except as noted in subsection (1) of this section, the owner of a failure shall abandon the LOSS under WAC [246-272B-18501](#) and connect the residence or other facility to a public sewer system when:

(a) The distance between the residence or other facility and an adequate public sewer is two hundred feet or less as measured along the usual or most feasible route of access; and

(b) The sewer utility allows the sewer connection.

(3) Local boards of health may require a new development to connect to a public sewer system to protect public health”

This rule appears to be empowering for local health officials to cause failing septic system owner to connect to a sewer system. It is specific about the distance to sewer service availability being within 200 feet of the system, but requires it only for failing septic systems. It might be interpreted that the reasonable distance to sewer service is 200 feet according to state lawmakers and may apply to RCW 35.67.190 in determining the “area served”. The City might find through its legal counsel other appropriate statutory language that empowers the City to set its own distance threshold for requiring connection to the City sewer system. However, RCW 35.67.190 seems to give the City the authority to set its own rules in this regard. The logic issue is, should the City set a different distance than that which can be set by local health officers? Different thresholds might create confusion and even opportunities for successful challenge by owners of failed septic systems.

Finally, there is an exemption from RCW 35.67.190 for mobile home parks found in RCW 35.67.370.

“(1) Cities, towns, or counties may not require existing mobile home parks to replace existing, functional septic systems with a sewer system within the community unless the local board of

health determines that the septic system is failing.

(2) Cities, towns, and counties are prohibited from requiring existing mobile home parks to pay a sewer service availability charge, standby charge, consumption charge, or any other similar types of charges associated with available but unused sewer service, including any interest or penalties for nonpayment or enforcement charges, until the mobile home park connects to the sewer service. When a mobile home park connects to a sewer, cities, towns, and counties may only charge mobile home parks prospectively from the date of connection for their sewer service. Chapter 297, Laws of 2003 is remedial in nature and applies retroactively to 1993.”

This rule then exempts mobile home parks from compulsory use found in 35.67.190 but does not appear to exempt them from the two WAC 246-272 rules listed here relating to failing septic systems.

### **Options:**

The City has the apparent authority to require that all septic systems that are currently within 200 feet (more or less) of the City sewer system to connect to the sewer system, subject to all utility connection fees and rates (see Issue Paper #2 for options and recommendation regarding financing septic conversions).

If a septic system that is within the defined service area does not connect, the City **may** charge the septic property owner a penalty up to the regular sewer service rate. Any penalty rate revenue could be used toward funding any City share of septic conversion costs. Once the conversion occurs, the window between when LOTT begins charging the City for the additional ERU of wastewater treatment service and when the customer is connected and begins paying the full rate could also provide revenue toward any City-funded septic conversion costs.

The City may choose to build out the system to bring it within at least 200 feet of all septic systems, but that is part of a broader policy decision related to if and when septic systems will be eliminated and the City and its urban growth boundary fully sewerred.

This paper defines the apparent authority available to the City related to mandatory or compulsory septic conversions and sewer service. Issue Paper #2 provides guidance and policy choices related to septic system conversion financing options and recommends a broader septic conversion policy related to whether the City will require conversions, when, and what costs will the City bear and which will be left to the property owner.

## **Recommendation:**

We recommend that upon confirmation by and legal opinion from the City Attorney or independent legal counsel that the City can implement this policy, then the City should require connection to the public sewer system whenever sewer service is available within a reasonably defined distance from the connection point. This policy would be consistent with the water quality mission of the sewer utility and accomplishment of those goals. Consistent with legal authority and a separate legal opinion, the City should also impose penalties for non-compliance equal to the regular sewer rate. These funds could then be used as general resources of the sewer utility, or earmarked for supporting for sewer extensions for septic conversion.

Again, we urge the City to consult with its legal counsel before taking action on any compulsory sewer service or charges. When the City has developed septic system policies related to existing septic systems, plans for conversions, and financing, these statutes and rules might be useful to reference in the ordinance that codifies those policies.

### **Issue:**

The City of Olympia (City) is considering its policy options related to extending sewer service to outside its city limits but within its urban growth boundary in order to allow planned development to occur. In many cases when a developer is ready to build and connect homes and commercial buildings to a sewer or water utility, the developer might participate at some level in the construction of utility infrastructure in order to serve the developed properties and make them available for sale ahead of the utility schedule to extend service to the area. This paper evaluates the policy options related to when to extend service, who may participate in doing so (i.e. the City, developer or both) and what funding structure might be appropriate for these system extensions.

### **Findings:**

When evaluating the financial structure related to sewer system extensions, the costs must first be classified into general facilities, in the form of system capacity capable of conveying, treating and disposing of wastewater, and local facilities such as collection lines and services to connect to the property. General facilities are part of the cost basis of the General Facilities Charge (GFC) and should be included in the City's adopted Capital Improvement Plan (CIP). Local facilities usually are the responsibility of the property owner and often are developer-financed, designed and constructed and then turned over to the utility upon connection.

In most municipal sewer systems, the utility plans for the capacity-bearing infrastructure required to serve the planned service area. This would include expansion of existing general facilities (such as a treatment plant or major interceptor transmission lines) and construction of new general facilities, such as extensions of the transmission system or addition of new treatment facilities. It is normal and appropriate for the City to plan and construct the capacity-bearing infrastructure needed to serve its service area. Also, it is normal and appropriate for all such general facilities costs to be incorporated into the City's general facilities charge, net of course of any federal or state grant supplemental funding.

For many systems, the City's plans to gradually extend the system do not always coincide with developers' plans or designs for their properties. In such cases, it is normal for such developers to bear the primary burden to extend systems to and through their properties. While this provides the opportunity for timely development, it also creates potential inequity with respect to both the local and general facilities thus provided.

**Local Facilities** - When a developer constructs offsite improvements such as line extensions, some neighboring properties might earn a windfall benefit based on the availability of the sewer line, at the expense of the developer. Latecomer agreements (developer reimbursement agreements) are commonly put into place to recover local facilities costs from such properties on behalf of the developer. These agreements allow the City to recover and pass on to the developer payments collected from future benefited properties that connect to the constructed facilities. The agreements may last up to 15 years, and provide for direct recovery of the original construction cost, but without interest. Typically, these cost recovery mechanisms are imposed related to front footage, or possibly a modified front footage or area basis. They can only be imposed if the affected property wishes to connect to the system. They expire after the term of the agreement.

**General Facilities** – When a developer constructs a main extension in advance of City plans, a second benefit accrues to the utility in general in the form of the general facility benefit of the main extension. To address this part of the issue, utilities often participate in the cost of such projects or compensate the developer for expanded requirements over that necessary to serve the specific land development project.

Cities typically require the developer to bear the cost related to facilities that would be required to serve just that development. For example, if an 8-inch main is the minimum pipe size required, then the developer bears the cost of the 8-inch main. If a larger size is required or desired to meet other City system capacity needs, the City **may** require a more costly larger sized pipe and, then agree to compensate the developer for the incremental cost. This type of policy would provide general system capacity beyond the needs of the developer in question, and yet be consistent with the costs typically incorporated into the General Facilities Charge. This is commonly referred to as oversizing participation. The City could agree to compensate the developer for the cost incurred through one of two mechanisms:

- GFC credits provided to the developer for over-sizing the main (beyond the capacity required for the developer properties) to meet the total projected capacity to that service area.
- Direct financial compensation from the City for over-sizing the main.

City staff has noted that the real issue for sewer extension is whether the City's sewer utility should construct multi-million line extensions into relatively undeveloped portions of the UGA. Without such extension, perhaps smaller developments will not be able to financially pencil out connecting to the City's sewer system. We believe that the City can provide sewer mains to those areas and take the risk that development will come. But if the City makes that investment, then the concept of a latecomer fee does not apply. Again, latecomer agreements are a form of cost reimbursement mechanisms to provide developers an incentive to finance and construct over-sized or general facilities for the City. In essence, if the City invests in such facilities, it will have the ability to recover that investment with the collection of general facilities and perhaps local

facilities charges. However, if those collections fail to materialize, then the cost recovery risk will fall on the City's existing sewer customers as opposed to the developer taking that risk.

### **Recommendation:**

The City should plan for capacity-bearing system extensions as a part of its capital planning, subject to its own risk assessment concerning potential growth in the area to be served. The related costs would be incorporated into the sewer general facilities charge.

We also recommend that the City plan for and allow developer extension of such facilities, and establish reasonable compensation mechanisms for such projects. We do not think that the City is required to compensate developers for over-sizing local or general facilities, but can choose to agree to do so in order to provide incentives to construct such added capacity. This would include:

- Developer reimbursement agreements related to local benefits of offsite facilities. The latecomer payments established through such agreements would be based on an equitable share of the cost of local facilities that might be needed by such properties. The charges would be imposed during the term of the agreement if and when connection to the constructed facilities occurs.
- GFC credits provided to the developer for the incremental cost of over-sizing facilities based on City requirements that exceed those needed to serve the development in question. The credit would be for the lesser of the incremental over-sizing cost or the City's planned cost of the facility. Credits should only be offered when the developer is building a facility contemplated in the City's capital improvement program. The credits should be limited to the development in question (non-transferable) and only apply to sewer GFCs. They should also have a reasonable expiration date (e.g. 5 years).

With this program in place, it is also important to note that the City might substantially reduce its invested cost to provide general facilities. The GFC should therefore be periodically reviewed and adjusted to reflect this reduced cost, as well as any other changes that might occur.