

City of McMinnville Wastewater System Financial Plan Update

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1.0 Introduction

This technical memorandum presents an updated financial analysis of the City of McMinnville (the City) wastewater system for the period Fiscal Year (FY) 2012-13 through FY2022-23. The City's last financial plan was developed in 2011 as part of a rate equity review study that also included modification to the fixed and variable wastewater rates by customer class. As part of the current financial plan review, minor modifications have been made to the financial plan to reflect more current financial and customer data; however, the overall system revenue increases are consistent with the 2011 recommendation to maintain system average rate revenue increases of 2.8 percent in each year of the plan. Based on our analysis, these rate increases are needed to continue implementing the capital improvement plan (CIP) identified in the City's Sanitary Sewer Master Plan Updates¹, as well as to fund ongoing operation and maintenance costs and fund future capital reserves.

Financial Plan Assumptions

The building blocks of the financial plan are the projections of costs or revenue requirements (both operations and maintenance, and capital) that the City will incur during the planning period, and the revenues, under existing rates, which the City expects to generate during the same period. The financial plan is based on a set of overall assumptions related to customer growth, inflation, and other factors, as well as the specific phasing of the City's CIP. The following general assumptions were used in developing the plan:

- Customer growth will occur at an average rate of 1.5 percent annually.
 - 0.5% for residential through FY2013/14; 1.0% through FY2014/15 through FY2017/18², and 2.2% thereafter
 - 0.5% for commercial through FY2017/18; 1% thereafter
 - 0% for industrial³

¹ Master plan updates include the Conveyance System Master Plan and the Water Reclamation Facilities Plan (CH2M HILL and West Yost Associates (2009))

² The residential growth rates through FY2017/18 have been revised downward in this update (compared to the 2011 plan), reflecting more current trends, as indicated by data provided by McMinnville Water and Light.

³ Industrial flows have decreased slightly from the prior plan, reflecting industrial closures and relocations.

- Operation and maintenance costs will escalate at annual rates of 2-6 percent, based on projected inflation and system growth, and historical trends. Specific escalation factors used are:
 - Capital Costs - 3%
 - PS -- Salaries & Wages - 3%
 - PS - Benefits - 6%
 - Materials and Services - 4%
 - Insurance & Utilities - 5%
- Annual operating contingency equal to 45 days of average annual materials and services and personnel costs.
- Interest earnings accrue at an annual average rate of 0.5-1.5%⁴
- Annual SDC revenue: \$300,000 (consistent with recent actual revenues)
- Capital costs will increase at an annual rate of 3 percent to account for inflation.

The updated financial plan for the wastewater system, in the form of projected sources and uses of funds for each fund within the wastewater utility, is presented in **Attachment 1; Attachment 2** shows the projected operating results for the wastewater utility. Each component of the baseline financial projection is discussed in more detail below.

2.0 Revenue Requirements

The costs in the plan that are to be funded from annual revenues are referred to as 'revenue requirements' for rate-making purposes. Total requirements are composed of:

- Operations and maintenance (O&M) costs
- Annual capital improvement projects funded by rates and reserves
- Debt service expenditures
- Transfers to the City's general fund for indirect and direct services provided to the utility

In addition, annual requirements include operating contingencies equal to 45 days of O&M (personnel and materials and services) costs. However, 100 percent of annual contingencies are assumed to be unspent and roll forward to subsequent year beginning balances.

Revenue requirements were projected based on data provided by the City, including actual results from FY 2009/10 through FY 2011/12, and budgeted expenses for FY 2012/13.

⁴ Interest earnings rate assumptions have been reduced compared to the prior plan, reflecting continued downward pressure on interest rates.

Operation and Maintenance Costs

Operation and maintenance costs include all costs associated with operating and maintaining the wastewater system, including personnel, materials and services, routine capital outlays, and non-capital transfers. **Table 1** shows actual O&M costs for the wastewater system for FY2010/11 and FY 2011/12, as well as the amended budget for FY 2012/13.

Table 1

City of McMinnville, OR
Wastewater System Financial Plan
Operations and Maintenance Costs

Item	Actual FY 2010-11	Actual FY 2011-12	Budget FY 2012-13
Personal Service	\$1,500,271	\$1,580,533	\$1,653,694
Materials and Service	\$1,174,440	\$1,194,683	\$1,509,616
Other Expenditures			
Transfers Out, General Fund	\$203,445	\$224,628	\$217,148
Transfers Out, Information Systems	\$28,175	\$30,084	\$33,425
Contingencies	\$0	\$0	\$300,000
Subtotal Other	\$231,620	\$254,712	\$550,573
Capital Outlay			
Equipment	\$128,541	\$88,386	\$82,000
Capital Outlay Computer Charges, None	\$4,230	\$10,135	\$2,385
Building Improvements	\$24,964	\$218,677	\$0
Vehicles	\$362,210	\$6,194	\$0
Sanitary Sewer Replacements, Mainline	\$38,556	\$26,064	\$50,000
Sanitary Sewer Replacements, Lateral	\$24,959	\$34,463	\$0
Subtotal Capital Outlay	\$583,460	\$383,920	\$134,385
Total O&M Costs	\$3,489,791	\$3,413,848	\$3,848,268

Total O&M costs are budgeted to be \$3.8 million in FY2012/13, slightly lower than previously projected (in the prior plan) reflecting lower personnel and capital outlay costs. Part of the increase in materials and services costs in FY2012/13 (compared to the prior year) is due to a reclassification of some sewer replacements which had previously been budgeted in capital outlay.

Projections of O&M costs are shown in Attachments 1 and 2, and include general cost escalation discussed previously, as well as two additional technical staff over the forecast period (FY2014/15, and FY2021/22). Future equipment expenditures are shown in Table 2 (discussed in the following section).

Capital Costs

Capital expenditures are based on the CIP presented in the Master Plan Updates. The CIP identified approximately \$16.7 million (\$2008) in collection system improvements and \$41.1 million in water reclamation facility improvements through FY2022/23. In addition, about \$0.5 million in investigation and consultant services costs are projected, and \$4.75 million in equipment replacement. A detailed list of the projects contained in

the recommended CIP is provided in Table 2. The projects are necessary to maintain the current level of service that is provided by existing facilities, comply with state and federal regulations, and provide capacity to meet the needs of projected growth.

Table 2

City of McMinnville, OR
Wastewater System Financial Plan
Capital Improvement Plan through FY2022/23 (2008 dollars)

PROJECT	COST
Collection System	
Existing Rehabilitation	\$7,987,644
Buildout Rehabilitation	\$8,690,000
WRF – Liquids	
Headworks - Screen modifications	\$150,000
Headworks -Grit system expansion	\$2,000,000
Secondary Treatment - Orbal No. 3	\$7,000,000
Secondary Treatment - Orbal Nos. 1 and 2 CS Mods	\$284,775
Secondary Treatment - Clarifier No. 3 + RAS pumping expansion	\$6,600,000
Tertiary Treatment - Filtration system expansion	\$2,200,000
Administration Building	\$2,500,000
WRF – Solids	
New 1 MG Storage Tank and Mixer	\$4,300,000
Dewatering Process (Equipment and Building)	\$5,700,000
Dryer	\$9,400,000
Dry Biosolids Storage	\$700,000
Odor Control	\$250,000
Investigation and Consultant Services	\$458,002
Equipment Replacement	\$4,250,000
TOTAL	\$62,470,421

Based on the anticipated project schedules and an estimated annual capital cost escalation rate of 3 percent, the total, inflation adjusted CIP over the planning period is approximately \$73.8 million. Fortunately, the City has been transferring funds annually to its Capital Fund in anticipation of additional system expansion; as of FY2012/13, available capital reserves total approximately \$14.7 million. In addition, the City has existing debt services of about \$1.25 million. Furthermore, the City's existing debt will be fully retired in FY2013/14; in subsequent years, the \$2.9 million currently paid in annual debt service will be available to fund capital projects. The City's current favorable financial position should alleviate the need to issue additional debt during the planning period.

As shown in Attachments 1 and 2, in the near-term (through FY2015), the City will rely on capital transfers and existing fund balance and reserves to fund the almost \$21.5 million in anticipated improvements associated with expansion of the secondary treatment system and collection system rehabilitation. In the longer term, the financial

plan assumes rate increases sufficient to continue to cash fund the CIP, and rebuild the capital reserve to about \$7.0 million (consistent with previous City Council policy)⁵.

3.0 Revenues

As shown in Attachment 2, wastewater sales revenues based on existing rates are estimated to be about \$8.2 million in FY2012/13. This estimate is based on the City's existing rate schedule presented in **Table 3** and the current billing units (accounts and estimated billed water volumes) by customer class generated from the McMinnville Water and Light's billing system. The number of accounts in the billing system for FY 2011/12 is approximately 10,300. As the system grows, wastewater sales revenues at existing rates may increase to approximately \$9.5 million by FY2022/23. Recent year revenues reflect a modest decline in water usage, likely reflecting general conservation practices and the continued economic challenges. The forecast of revenue under existing rates assumes stable volumes in subsequent years.

Table 3 provides a summary the City's existing rate schedule and recommended rates for FY2013/14 based on a 2.8 percent revenue increase, and the recently completed Rate Equity Review⁶. Wastewater charges for residential customer and commercial customers are based on a fixed monthly charge (assessed per equivalent dwelling unit) and volume rate applied to billable water volumes (winter water use for all residential and some commercial customers). Industrial customers are charged based on volume and strength charges (\$ per pound of BOD and TSS).

Other operating revenues, including annual revenue from septage haulers (about \$42,000), interest income and property rental charges (about \$30,000) have also been projected for the study period. System development charges (SDCs) are also assumed to continue at current levels (about \$300,000) for most years of the plan. SDC revenues may only be spent on capital-related costs, including debt service.

TABLE 3
City of McMinnville
Wastewater System Plan
Existing and 2014 Rate Schedule

	Current (FY2012/13)		Equity (FY2013/14)	
	Customer Charge	Volume Charge	Customer Charge	Volume Charge
Residential Normal	\$17.05	\$4.77	\$17.25	\$4.94
Residential Flat	50.44		51.77	
Residential	17.05	4.77	17.25	4.94
Commercial Normal	17.05	5.89	17.25	6.13
Commercial Flat	17.05		17.25	
Commercial Winter Avg.	17.05	5.89	17.25	6.13
Industrial	17.05	5.89	17.25	6.13
	BOD	0.71		0.71
	TSS	0.51		0.54

⁵ The prior plan projected about \$7.3 million in reserves at the end of the period; however, the current plan uses more conservative growth and interest earning assumptions.

⁶ The customer charges shown in Table 3 for FY2013/14 have been increased slightly from the rates presented to the City Council on September 27, 2011 to reflect the reduced number of accounts projected (consistent with more current billing system data).

4.0 Rate Impacts

As discussed previously, this analysis assumes that the City will rely on 'pay-as-you-go' funding from wastewater rates and SDCs for the CIP costs. To the extent possible, rate increases are "smoothed" over the forecast period to avoid sudden, large increases in a single year. Projected annual rate increases in each year -- needed to meet the projected revenue requirements presented previously -- are 2.8 percent.

Attachment 2 shows the estimated total annual rate revenue based on the updated rate increase forecasts and projected revenue under existing rates. These rate increases have been established to allow the City to generate adequate fund balances and meet potential debt service coverage requirements (through retirement of the existing debt in FY2013/14).

Attachment 1

City of McMinnville, OR
Wastewater System Financial Plan
Sources and Uses of Funds

Item	Budget										
	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23
Sewer Fund											
Sources of Funds											
Beginning Fund Balance	\$2,545,248	\$2,693,900	\$1,405,065	\$1,427,377	\$1,444,083	\$1,461,541	\$1,479,785	\$1,498,854	\$1,518,787	\$1,539,626	\$1,570,002
Sewer User Charges	8,232,443	8,503,640	8,783,708	9,103,148	9,434,192	9,777,570	10,229,118	10,701,936	11,197,370	11,396,851	11,600,376
Septage Fees	42,000	43,176	44,385	45,628	46,905	48,219	49,569	50,957	52,383	53,850	55,358
Interest	11,200	13,469	14,051	21,411	21,661	21,923	22,197	22,483	22,782	23,094	23,550
Property Rentals, House	12,300	12,300	12,300	12,300	12,300	12,300	12,300	12,300	12,300	12,300	12,300
Property Rentals, Farm	6,926	6,926	6,926	6,926	6,926	6,926	6,926	6,926	6,926	6,926	6,926
Other Income, Workers' Comp Reimburs	-	-	-	-	-	-	-	-	-	-	-
Other Income, None	1,500	-	-	-	-	-	-	-	-	-	-
Transfers In, Insurance Services	16,950	-	-	-	-	-	-	-	-	-	-
Total Sources of Funds	\$10,868,568	\$11,273,411	\$10,266,435	\$10,616,790	\$10,966,068	\$11,328,479	\$11,799,894	\$12,293,455	\$12,810,548	\$13,032,648	\$13,268,512
Uses of Funds											
Personal Services	\$1,653,694	\$1,720,235	\$1,789,788	\$1,862,504	\$1,938,543	\$2,018,073	\$2,101,271	\$2,188,325	\$2,279,431	\$2,374,798	\$2,474,645
Materials & Services	1,509,616	1,565,294	1,623,435	1,684,147	1,747,546	1,813,753	1,882,894	1,955,100	2,030,509	2,109,264	2,191,516
Other Expenditures	250,573	260,045	269,876	280,082	290,677	301,675	313,091	324,943	337,245	350,017	363,275
Capital Outlay	134,385	97,083	108,796	160,560	87,376	89,998	92,698	95,478	98,343	101,293	104,332
Net New Facilities' Costs	-	-	53,281	55,358	57,517	59,761	62,091	64,513	67,029	139,286	144,718
Transfer to Capital Replacement	4,626,400	6,225,689	4,993,882	5,130,055	5,382,868	5,565,435	5,848,995	6,146,309	6,458,364	6,387,988	6,396,904
Ending Fund Balance	1,393,900	(0)	0	-	-	(0)	-	-	(0)	(0)	-
Contingency	300,000	405,065	427,377	444,083	461,541	479,785	498,854	518,787	539,626	570,002	593,122
Reserves	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Total Uses of Funds	\$10,868,568	\$11,273,411	\$10,266,435	\$10,616,790	\$10,966,068	\$11,328,479	\$11,799,894	\$12,293,455	\$12,810,548	\$13,032,648	\$13,268,512
Capital Projects Fund											
Sources of Funds											
Beginning Fund Balance	15,920,481	12,451,906	8,358,040	5,105,297	6,556,877	7,064,881	6,462,785	5,609,748	4,960,502	5,018,856	6,259,623
System Development Charges, None	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000
Interest	81,200	62,260	83,580	76,579	98,353	105,973	96,942	84,146	74,408	75,283	93,894
Private Sewer Lateral, Loan Repayment	10,000	-	-	-	-	-	-	-	-	-	-
Private Sewer Lateral, Penalty	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200
Other Income	-	-	-	-	-	-	-	-	-	-	-
Transfers In, Airport	70,000	70,000	-	-	-	-	-	-	-	-	-
Transfers In, Wastewater Services	4,626,400	6,225,689	4,993,882	5,130,055	5,382,868	5,565,435	5,848,995	6,146,309	6,458,364	6,387,988	6,396,904
Total Sources of Funds	\$21,010,281	\$19,112,054	\$13,737,703	\$10,614,132	\$12,340,298	\$13,038,489	\$12,710,922	\$12,142,403	\$11,795,474	\$11,784,326	\$13,052,621
Uses of Funds											
Capital Improvements	\$5,423,911	\$7,625,322	\$8,433,719	\$3,850,819	\$5,060,931	\$6,352,852	\$6,869,631	\$6,941,328	\$6,526,663	\$5,265,000	\$5,265,000
PSL Loans	10,000	-	-	-	-	-	-	-	-	-	-
Debt Service	2,940,413	2,937,463	-	-	-	-	-	-	-	-	-
Transfers to Other Funds	-	-	-	-	-	-	-	-	-	-	-
General Fund	184,051	191,229	198,687	206,436	214,487	222,852	231,543	240,573	249,955	259,704	269,832
Ending Fund Balance	5,558,906	7,858,040	4,605,297	6,056,877	6,564,881	5,962,785	5,109,748	4,460,502	4,518,856	5,759,623	7,017,789
Contingency	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000
Reserves/Designated Fund Balance	6,393,000	-	-	-	-	-	-	-	-	-	-
Revenue Bonds	1,225,000	-	-	-	-	-	-	-	-	-	-
WW Capital Reserve	5,168,000	-	-	-	-	-	-	-	-	-	-
Total Uses of Funds	\$21,010,281	\$19,112,054	\$13,737,703	\$10,614,132	\$12,340,298	\$13,038,489	\$12,710,922	\$12,142,403	\$11,795,474	\$11,784,326	\$13,052,621

Attachment 2

City of McMinnville, OR

Sewer Rate Study

Projected Operating Results

Item	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23
Beginning Operating Balance	\$2,545,248	\$2,693,900	\$1,405,065	\$1,427,377	1,444,083	1,461,541	1,479,785	1,498,854	1,518,787	1,539,626	1,570,002
Sewer Sales Revenue (existing rates)	\$8,232,443	\$8,272,023	\$8,311,734	\$8,379,388	8,447,579	8,516,583	8,667,213	8,820,852	8,977,825	9,137,764	9,300,947
Subtotal Additional Revenue	\$0	\$231,617	\$471,974	\$723,761	\$986,613	\$1,260,987	\$1,561,904	\$1,881,084	\$2,219,546	\$2,259,087	\$2,299,429
Total Sales Revenue	\$8,232,443	\$8,503,640	\$8,783,708	\$9,103,148	\$9,434,192	\$9,777,570	\$10,229,118	\$10,701,936	\$11,197,370	\$11,396,851	\$11,600,376
Other Revenue											
Other fees and charges	62,726	62,402	63,611	64,854	66,131	67,445	68,795	70,183	71,609	73,076	74,584
Interest Income	\$11,200	\$13,469	\$14,051	\$21,411	21,661	21,923	22,197	22,483	22,782	23,094	23,550
System Development Charges	\$300,000	\$300,000	\$300,000	\$300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000
Transfers	\$18,450	\$0	\$0	\$0	-	-	-	-	-	-	-
Total Resources	\$8,624,819	\$8,879,511	\$9,161,369	\$9,489,413	\$9,821,985	\$10,166,938	\$10,620,109	\$11,094,601	\$11,591,761	\$11,793,022	\$11,998,510
Revenue Requirements											
Operation and Maintenance Requirements	\$3,548,268	\$3,642,657	\$3,845,175	\$4,042,651	\$4,121,660	\$4,283,259	\$4,452,046	\$4,628,359	\$4,812,557	\$5,074,658	\$5,278,486
Net Revenue Avail. For Debt Service	\$5,076,551	\$5,236,855	\$5,316,194	5,446,761	5,700,325	5,883,679	6,168,064	6,466,242	6,779,204	6,718,364	6,720,024
Debt Service											
Senior Lien	\$2,940,413	\$2,937,463	\$0	0	0	0	0	0	0	0	0
Subordinate	\$0	\$0	\$0	0	0	0	0	0	0	0	0
Debt Service	\$2,940,413	\$2,937,463	\$0	0	0	0	0	0	0	0	0
Senior Lien Debt Service Coverage	1.73	1.78	na	na	na	na	na	na	na	na	na
Back out SDC funds	(300,000)	(300,000)	(300,000)	(300,000)	(300,000)	(300,000)	(300,000)	(300,000)	(300,000)	(300,000)	(300,000)
Other Expenditures											
Capital transfers (net of debt)	1,685,987	3,288,226	4,993,882	5,130,055	5,382,868	5,565,435	5,848,995	6,146,309	6,458,364	6,387,988	6,396,904
Total Requirements	\$8,174,668	\$9,868,346	\$8,839,057	\$9,172,706	\$9,504,527	\$9,848,694	\$10,301,040	\$10,774,668	\$11,270,922	\$11,462,646	\$11,675,390
Ending Operating Balance	2,695,400	1,405,065	1,427,377	1,444,083	1,461,541	1,479,785	1,498,854	1,518,787	1,539,626	1,570,002	1,593,122
Unreserved	\$1,395,400	\$0	\$0	\$0	(\$0)	\$0	(\$0)	\$0	\$0	\$0	\$0
Reserved (Contingency)	1,300,000	1,405,065	1,427,377	1,444,083	1,461,541	1,479,785	1,498,854	1,518,787	1,539,626	1,570,002	1,593,122