



## 2007 – 2008 Proposed Budget --- Budget Summary Wastewater Services Fund – Water Reclamation Facility

### 2007 – 2008 Water Reclamation Facility Budget Highlights

✦ The Oregon Department of Environmental Quality (DEQ) is in the process of conducting a second Total Daily Maximum Loading (TMDL) evaluation on the South Yamhill River scheduled for completion in 2007. This TMDL evaluation will be focused on temperature, bacteria, and iron. To help the City determine potential impacts to the Water Reclamation Facility (WRF), West Yost and Associates and CH2M Hill will develop a technical memorandum during the WRF Facilities Plan Update to identify the regulatory challenges facing the WRF. This document will help the City determine what will ultimately impact the operation of the facility and how to plan for the future.

✦ This budget represents the second year of a sampling program necessary to complete the renewal requirements of the City's National Pollutant Discharge Elimination System (NPDES) permit. The NPDES permit expires in December 2008; however the permit application must be submitted to DEQ in June 2008. The sampling results will be used to perform the Reasonable Potential Analysis for Toxic Pollutants (RPA) and to recalculate the City's Local Limits. The RPA involves testing the effluent (treated wastewater) from the WRF for "priority pollutants". Each pollutant is then measured against water quality standards for a potential violation. DEQ requires performing three priority pollutant scans prior to submitting a permit application. The 1998 Local Limits are also being revised as a permit requirement. Local Limits are wastewater limitations that apply to commercial and industrial facilities that discharge to the treatment plant. The limits are necessary to protect the biological processes used at the treatment plant and to ensure the state and federal biosolids and water quality standards are met.

- ✦ New Programs, Projects, or Equipment:
- \$20,000 – Oxidation ditch gear box and motor replacement
  - \$40,000 – Two replacement aerators for the biosolids digestion system

### Full-Time Equivalents

	<u>2006 - 2007</u>	<u>Change</u>	<u>2007 - 2008</u>
FTE Adopted Budget	13.76		
WRF Plant Operator II		- 1.00	
WRF Plant Operator I		+ 1.00	
Extra Help - WRF		+ <u>0.15</u>	
FTE Proposed Budget		+ 0.15	13.91

### Short- and Long-Term Issues

#### WRF Operations:

##### ✦ Short-Term Issues

- Participate in the on-going facilities plan update for the WRF
- Develop strategy for alkalinity control during summer permit
- Complete NPDES permit renewal application
- Participate in South Yamhill River Total Maximum Daily Load (TMDL) process with DEQ

##### ✦ Long-Term Issues

- Evaluate the impacts to the WRF of the proposed TMDL process for the South Yamhill River.

The WRF treated  
2.2 billion gallons of  
wastewater in 2006.



In 2006, 6,900,000  
pounds of pollutants  
were removed  
from wastewater  
prior to being  
discharged into the  
South Yamhill River.

# **2007 – 2008 Proposed Budget --- Budget Summary**

## **Wastewater Services Fund – Water Reclamation Facility**

### **Short- and Long-Term Issues - Continued**

#### **WRF Maintenance:**

##### **↗ Short-Term Issues**

- Continue to rebuild and upgrade oxidation ditch equipment to improve reliability and energy efficiencies.
- Complete pump station control system upgrades for the older stations.
- Address small pump configuration at the Cozine pump station.

##### **↗ Long-Term Issues**

- Using the maintenance management system, identify equipment replacement or major rehab requirements and develop appropriate maintenance schedule.

#### **Pretreatment Program:**

##### **↗ Short-Term Issues**

- Follow up on survey results of all non-residential users to characterize their wastewater discharge.
- Revise local discharge limits as required by the National Pollutant Discharge Elimination System (NPDES) permit.

##### **↗ Long-Term Issues**

- Revise majority of Pretreatment Program procedures and documents, including Sewer Use Ordinance, Pretreatment Implementation Guide, and Enforcement Response Plan, addressing requirements of DEQ audit and federal streamlining regulation changes.
- Expand community outreach regarding stormwater management and Fats, Oils, and Grease (FOG) control.
- Complete objectives of the Sampling and Analysis Plan necessary to develop a data set for calculating revised local limits and performing the Reasonable Potential Analysis as required for the City's next NPDES permit application.

### **Laboratory**

##### **↗ Short-Term Issues**

- Update Standard Operating Procedures (SOPs) for all laboratory analysis to meet the National Laboratory Accreditation Certification (NELAP) protocols.
- Manage increased workload due to industrial sampling requirements of the Pretreatment Program during Local Limits development.

##### **↗ Long-Term Issues**

- Continue to develop laboratory protocol that meets the National Laboratory Accreditation Program requirements.
- Evaluate options for future data management requirements, including expansion of current operations database by adding a Laboratory Information Management module.

### **Core Services**

##### **↗ Operations**

- Provide cost effective and efficient operation of the WRF necessary to achieve NPDES permit requirements.
- Provide 24-hour per day alarm monitoring response for WRF and pump stations.



The WRF recycled 4.8 million gallons of biosolids (fertilizer) to agricultural land in 2006.

##### **↗ Maintenance**

- Perform predictive, preventative, and corrective maintenance required to keep equipment operational and minimize down time.
- Perform equipment repairs and upgrades that will extend the useful life of the WRF and pump station equipment.

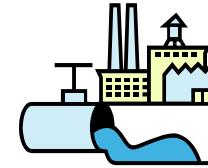
# 2007 – 2008 Proposed Budget --- Budget Summary

## Wastewater Services Fund – Water Reclamation Facility

### Core Services – Continued

#### **⚡ Pretreatment**

- Provide source control for the collection system and WRF to protect against illicit discharges and harmful wastes that impact the treatment processes or may be harmful to employees working in the collection system.
- Prepare and issue permits to industrial dischargers, provide public education on pretreatment programs and enforce the sewer user ordinance as required.



In 2006, the Pretreatment Program administered user charges for flow and extra strength wastewater totaling \$244,297.

#### **⚡ Laboratory**

- Perform required laboratory analysis per the NPDES permit.
- Maintain precision through extensive quality assurance and quality control measures.



WRF Laboratory received 2,349 samples and performed over 16,400 analyses last year.



Pretreatment mailed a survey to 481 businesses to gather information regarding their wastewater discharge.



## Wastewater Services Fund – Water Rec. Facility --- Historical Highlights

<b>1953</b>	McMinnville's first wastewater treatment facility begins operation on May 4, 1953. The construction cost totaled \$396,456.40 and was designed to serve a population of 8,000. The residential user fee was \$0.75 per month.	<b>1992</b>	City's Pretreatment Program is approved by DEQ on October 25, 1992.	<b>1999</b>	The Oregon Association of Clean Water Agencies (ACWA) presents WRF with Outstanding Member Agency Award for its contribution to improving water quality.
<b>1964</b>	First sewage treatment plant upgrade was completed in March adding a new 35' digester with mechanical mixing and upgraded digester heating system.	<b>1993</b>	City breaks ground on new Water Reclamation Facility (WRF).	<b>1999</b>	WRF added a third channel of ultraviolet (UV) lights, which is used to disinfect the effluent.
<b>1971</b>	Major expansion of the original trickling filter plant to an activated sludge treatment system to meet a growing population and changing water quality standards.	<b>1994</b>	City explores outsourcing WRF operations and management. City Council decides to retain direct operating control of WRF after considering cost analysis.	<b>2001</b>	A large screen was installed ahead of the raw sewage pump station to remove debris from the influent prior to being pumped to the WRF.
<b>1989</b>	Department of Environmental Quality (DEQ) conducts first Total Maximum Daily Loading (TMDL) evaluation on the South Yamhill River. River is water quality limited for phosphorus and ammonia.	<b>1996</b>	The \$28 million Water Reclamation Facility (WRF) begins operating on January 24, 1996, in response to new water quality standards and the City's growing population.	<b>2003</b>	A new pump station was built, which replaced 3 Mile Lane #1 pump station.
		<b>1998</b>	WRF receives two awards from The Pacific Northwest Pollution Control Association ---. Municipal Water Protection Award for WRFs contribution to clean water and George W. Burke Facility Safety award.	<b>2005</b>	WRF begins tenth year of operation in January 2005.
				<b>2005</b>	Sewer lines were relocated and 3 Mile Lane #2 pump station was eliminated.
				<b>2005</b>	A new pump station was added in the Autumn Ridge development.

## Wastewater Services Fund – Water Rec. Facility --- Historical Highlights

**2006** Pacific Northwest Clean Water Association (PNCWA) presents WRF with 2005 Compliance Award for no permit violations in calendar year 2005.

**2007** DEQ conducting second TMDL on Yamhill River addressing bacteria, temperature, and iron.

**2007** PNCWA presents WRF with 2006 project of the year award for the HVAC upgrade to the administration building.



Completed 500,000 kw/year HVAC  
energy saving project.

# WATER RECLAMATION FACILITY

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2007-08

11-Jul-07

ACTUAL 2004-05	ACTUAL 2005-06	BUDGET 2006-07		NUMBER OF EMPLOYEES	PROPOSED 2007-08	APPROVED 2007-08	ADOPTED 2007-08
<b>REQUIREMENTS</b>							
<b><u>PERSONAL SERVICES</u></b>							
77,037	79,476	81,674	<b>80245-00</b> WRF OPERATIONS MANAGER Ron Bittler	1.00	88,055	88,055	88,055
65,145	67,434	69,490	<b>80257-00</b> WRF OPERATIONS SUPERINTENDENT Ernie Strahm	1.00	71,349	71,349	71,342
43,464	46,872	50,586	<b>80298-00</b> WRF LABORATORY TECH - SENIOR Steve Covey	1.00	54,550	54,550	54,550
44,436	46,098	49,036	<b>80304-00</b> WRF LABORATORY TECHNICIAN Lora Lyons	1.00	50,759	50,759	50,754
42,951	32,983	46,097	<b>80304-05</b> WRF SR ENVIRONMENTAL TECH Rick Williams	1.00	55,926	55,926	55,926
35,074	31,639	38,465	<b>80305-00</b> WRF ENVIRONMENTAL TECH II Vacant Position	1.00	41,480	41,480	41,480
51,180	52,536	53,984	<b>80307-00</b> WRF OPERATOR - SENIOR Dave Gehring	1.00	55,418	55,418	55,418
130,911	137,154	143,238	<b>80308-00</b> WRF PLANT OPERATOR II Tim Munro Matthew Young	2.00	99,093	99,093	99,093
0	0	0	<b>80309-00</b> WRF PLANT OPERATOR I Roy Carter	1.00	44,745	44,745	44,745
93,384	96,054	99,488	<b>80323-00</b> WRF MECHANIC David Allen Leland Koester	2.00	102,900	102,900	102,900
12,338	0	0	<b>80341-00</b> FACILITIES MAINT SPECIALIST II	0.00	0	0	0
31,452	32,304	33,205	<b>80371-00</b> OFFICE SPECIALIST II Patti Buffett	1.00	35,142	35,142	35,142
10,637	12,693	13,500	<b>80385-00</b> EXTRA HELP - WRF	0.91	17,500	17,500	17,500
10,050	10,302	14,000	<b>80386-00</b> OVERTIME	0.00	13,500	13,500	13,500
0	0	0	<b>80388-00</b> FRINGE BENEFITS:	0.00	0	0	0
46,583	46,587	52,997	<b>80389-00</b> FICA	0.00	55,875	55,875	55,875
108,940	140,897	167,578	<b>80390-00</b> PERS - OPSRP - IAP	0.00	167,997	167,997	167,994

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ACTUAL 2004-05	ACTUAL 2005-06	BUDGET 2006-07			NUMBER OF EMPLOYEES	PROPOSED 2007-08	APPROVED 2007-08	ADOPTED 2007-08
86,155	90,178	90,144	<b>80391-00</b>	<b>MEDICAL INSURANCE</b>	0.00	106,680	106,680	109,704
932	868	897	<b>80392-00</b>	<b>LIFE INSURANCE</b>	0.00	897	897	897
14,299	17,704	26,649	<b>80393-00</b>	<b>WORKERS' COMPENSATION INS</b>	0.00	28,338	28,338	28,338
1,493	0	2,000	<b>80394-00</b>	<b>UNEMPLOYMENT</b>	0.00	2,500	2,500	2,500
3,587	3,518	3,792	<b>80395-00</b>	<b>DISABILITY INSURANCE</b>	0.00	3,987	3,987	3,987
<b>910,048</b>	<b>945,297</b>	<b>1,036,820</b>	<b>TOTAL PERSONAL SERVICES</b>		<b>13.91</b>	<b>1,096,691</b>	<b>1,096,691</b>	<b>1,099,700</b>

## MATERIALS & SERVICES

1,195	1,560	1,500	<b>80418-00</b>	<b>SAFETY TRAINING/OSHA</b>	0.00	1,500	1,500	1,500
				Expenditures required to conduct safety meetings, training films, posters, and handouts, etc.				
467	421	800	<b>80420-00</b>	<b>EMPLOYEE DEVELOPMENT</b>	0.00	1,000	1,000	1,000
				"In-house" presentations, seminars, and workshops providing continuing development for City employees.				
10,543	10,985	14,000	<b>80421-00</b>	<b>TRAVEL &amp; EDUCATION</b>	0.00	14,500	14,500	14,500
				Memberships and registrations to professional organizations, attendance at the Water Environment Federation National Conference; and reimbursements to employees for approved education programs and travel expenses incurred. Includes continuing education credits required for employee state certification.				
4,289	4,907	5,000	<b>80431-00</b>	<b>GAS - OIL - GREASE</b>	0.00	6,000	6,000	7,000
				Gas, oil, and grease used by vehicles, plant, and pump stations.				
306,315	334,959	336,300	<b>80441-00</b>	<b>FUEL &amp; POWER</b>	0.00	320,000	320,000	320,000
				200,000 Electrical and natural gas for WRF				
				58,000 Electrical and natural gas for Raw Sewage Pump Station				
				53,000 Electrical and natural gas for Cozine Pump Station				
				9,000 Electrical for all other pump stations				
				Budget Note: Power and fuel costs do not include any future rate adjustment or change in demand charge calculations by McMinnville Water & Light or NW Natural Gas.				
17,687	16,429	20,000	<b>80451-00</b>	<b>TELECOMMUNICATIONS</b>	0.00	20,700	20,700	20,700
				Telephone and fax usage, telemetry lease lines, pagers, and Nextel communication system charges.				
				Maintenance costs for the fiber connection to WRF for computer services.				
14,996	19,506	25,000	<b>80461-00</b>	<b>MATERIALS &amp; SUPPLIES</b>	0.00	25,000	25,000	25,000
				Department costs for employee protective clothing, general cleaning supplies, office supplies, garbage service, advertisement, printing, postage, and shipping costs.				
18,379	18,225	20,000	<b>80463-00</b>	<b>LAB EXPENSE</b>	0.00	30,900	30,900	30,900
				23,530 Materials and supplies				
				3,800 Water purification system filters and maintenance				
				2,770 Laboratory instrument maintenance agreements and equipment calibration service				
				400 Quality Assurance and Quality Control (QA/QC) EPA study				
				400 Hazardous waste disposal				

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ACTUAL 2004-05	ACTUAL 2005-06	BUDGET 2006-07		NUMBER OF EMPLOYEES	PROPOSED 2007-08	APPROVED 2007-08	ADOPTED 2007-08
22,810	23,830	30,475	<b>80469-00 PERMIT &amp; BASIN COUNCIL FEES</b>	0.00	32,100	32,100	32,100
			10,650 National Pollutant Discharge Elimination System (NPDES) annual base fee				
			6,900 US Geological Survey river monitoring station annual fee				
			4,000 Yamhill Basin Council support				
			3,570 DEQ population base fee				
			2,300 Pretreatment Program fee - includes significant industrial user fees				
			1,500 DEQ plan review fee				
			1,180 DEQ annual wastewater certification support fee				
			750 DEQ hazardous substance possession fee				
			500 Oregon Department of Consumer Services - compressor permits				
			500 DEQ Stormwater Program fee				
			250 Yamhill County annual electrical inspection fee				
0	0	0	<b>80472-99 REPAIRS &amp; MAINTENANCE:</b>	0.00	0	0	0
188,787	155,734	192,000	<b>80473-00 R&amp;M - EQUIPMENT</b>	0.00	110,000	110,000	122,000
			54,000 Routine mechanical and electrical - plant and pump stations				
			20,000 Oxidation ditch - gear box and motors				
			12,000 Admin Building wiring				
			10,000 Instrumentation and control repairs				
			5,000 Secondary clarifier #2 drive unit				
			5,000 HVAC control maintenance - Headworks & return building on WRF site; Raw Sewage Pump Station (RSPS); and Cozine Pump Station				
			5,000 UV bulb replacement				
			5,000 Biofilter maintenance				
			5,000 Rental equipment				
			1,000 Irrigation system maintenance				
2,320	2,352	5,000	<b>80477-00 R&amp;M - VEHICLES</b>	0.00	6,000	6,000	6,000
			Routine vehicle maintenance.				
20,506	21,387	25,000	<b>80481-00 R&amp;M - SUPPLIES</b>	0.00	23,000	23,000	25,000
			Repair and maintenance supplies such as HVAC filters, fasteners, packing, electrical components, brackets, paint, and PVC pipe fittings.				
2,878	3,100	4,200	<b>80493-00 R&amp;M - RENTAL PROPERTY</b>	0.00	17,000	17,000	17,000
			7,500 Exterior painting				
			7,000 Roof replacement				
			2,000 Property taxes				
			500 Property & liability insurance coverage				
67,100	64,500	65,400	<b>80511-00 INSURANCE-PROPERTY &amp; LIABILITY</b>	0.00	61,000	61,000	61,000
42,352	51,295	55,000	<b>80521-00 CHEMICALS</b>	0.00	62,500	62,500	62,500
			45,000 Aluminum chlorohydrate (ACH) alkalinity adjustment and alum				
			10,000 Polymer				
			4,000 Molasses and lime				
			3,500 Sodium hypochlorite				



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ACTUAL 2004-05	ACTUAL 2005-06	BUDGET 2006-07		NUMBER OF EMPLOYEES	PROPOSED 2007-08	APPROVED 2007-08	ADOPTED 2007-08
5,738	8,272	8,800	<b>80609-00 JANITORIAL SERVICES &amp; SUPPLIES</b>	0.00	8,800	8,800	8,800
			Janitorial contract for administration and headworks building.				
15,861	46,320	70,000	<b>80611-00 PROFESSIONAL SERVICES:</b>	0.00	49,200	49,200	49,200
			10,000 Local limits and reasonable potential evaluation				
			10,000 Engineering and technical support --- miscellaneous				
			10,000 Pretreatment Program development				
			10,000 Environmental legal fees				
			4,700 Audit fee allocation				
			3,500 Sewer rate brochure				
			600 Water & Light Department sewer billing fee - annual				
			400 Section 125 employee accounts administration fee				
33	0	2,400	<b>80611-05 PS - HUMAN RESOURCES</b>	0.00	0	0	0
0	23,031	10,000	<b>80611-21 PS - ADMIN BLDG ENERGY CONSV</b>	0.00	0	0	0
5,511	0	0	<b>80611-53 PS - EQUIPMENT STORAGE BLDG</b>	0.00	0	0	0
16,800	16,283	18,790	<b>80612-00 COMPUTER SERVICES - IS FUND</b>	0.00	24,380	24,380	24,380
			Shared network services cost - Network and PC support agreements, licenses, financial systems, internet connection etc.				
0	0	0	<b>80615-00 CONTRACT SERVICES:</b>	0.00	0	0	0
53,268	64,854	125,000	<b>80615-01 CS - BIOSOLIDS</b>	0.00	135,000	135,000	135,000
			Biosolids hauling from the WRF.				
21,069	29,457	40,000	<b>80615-02 CS - LAB</b>	0.00	86,000	86,000	86,000
			Outside laboratory services - semi-annual metals testing using "ultra clean" sampling techniques and permit requirement to perform bioassay (toxicity test) on effluent. Quarterly biosolids analysis. Complete local limits analysis and priority pollutants for conducting the reasonable potential analysis for toxics.				
8,581	26,401	23,200	<b>80631-00 MAINTENANCE &amp; RENTAL CONTRACTS</b>	0.00	23,900	23,900	27,000
			18,100 WRF landscape maintenance contract				
			3,000 Fire sprinkler maintenance, extinguishers, and backflow testing				
			3,000 Fire system inspections, testing, and repair - semi-annual				
			1,800 Elevator maintenance contract				
			600 Fire alarm monitoring and service calls				
			500 Tree spraying service				
7,070	5,558	6,100	<b>80633-00 SOFTWARE MAINTENANCE</b>	0.00	7,000	7,000	7,000
			Annual fees to cover the technical support agreements for the WRF control computer software, the computerized maintenance management, and the operations data management systems.				
			WRF Control System Software - Maintenance management software:				
			4,000 RS - Rockwell support				
			2,000 MP2 support				
			1,000 Ops 32 support				

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2007-08

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ACTUAL 2004-05	ACTUAL 2005-06	BUDGET 2006-07		NUMBER OF EMPLOYEES	PROPOSED 2007-08	APPROVED 2007-08	ADOPTED 2007-08
0	0	0	<b>80680-00 M&amp;S ASSETS:</b>	0.00	0	0	0
			Budget Note: Materials & supplies asset purchases, with values under \$4,999 and more than one-year useful life.				
0	0	0	<b>80681-00 M&amp;S EQUIPMENT:</b>	0.00	0	0	0
0	0	0	<b>80681-01 M&amp;S EQUIP - PLANT</b>	0.00	4,500	4,500	4,500
			Turbidimeter for secondary effluent				
0	0	0	<b>80681-03 M&amp;S EQUIP - PUMP STATIONS</b>	0.00	0	0	0
1,485	5,440	16,400	<b>80681-05 M&amp;S EQUIP - LAB</b>	0.00	3,200	3,200	3,200
			Wastewater sampler replacement parts				
452	14,934	18,000	<b>80681-07 M&amp;S EQUIP - WRF COMPUTERS</b>	0.00	4,000	4,000	4,000
			Process control computer replacement				
17,382	14,290	10,977	<b>80683-00 M&amp;S COMPUTERS - IS FUND</b>	0.00	13,011	13,011	13,011
			6,700 Department Computer Equipment				
			5,100 Replacement computers - 3				
			1,000 Color printer, replacement - 1				
			500 Black & white laser printer - 1				
			100 Memory upgrade - 1				
			6,311 M&S Equipment - IS Department Network Hardware and Software				
873,874	984,030	1,149,342	<b>TOTAL MATERIALS &amp; SERVICES</b>	0.00	1,090,191	1,090,191	1,108,291
<b><u>CAPITAL OUTLAY</u></b>							
14,368	24,135	0	<b>80701-00 EQUIPMENT</b>	0.00	40,000	40,000	40,000
			Two replacement aerators for the sludge digestion system (ATAD)				
0	0	0	<b>80704-00 EQUIPMENT COMPUTER - IS FUND</b>	0.00	0	0	0
0	0	0	<b>80704-99 EQUIPMENT COMPUTER - WRF</b>	0.00	0	0	0
0	17,943	99,565	<b>80731-00 VEHICLES</b>	0.00	0	0	0
0	0	0	<b>80771-00 BUILDING IMPROVEMENTS:</b>	0.00	0	0	0
0	118,500	85,000	<b>80771-21 BI - ADMIN BLDG ENERGY CONSRV</b>	0.00	0	0	0
329,974	0	0	<b>80771-53 BI - EQUIPMENT STORAGE BLDG</b>	0.00	0	0	0
0	0	0	<b>80773-00 LAND IMPROVEMENTS</b>	0.00	0	0	0
344,342	160,578	184,565	<b>TOTAL CAPITAL OUTLAY</b>	0.00	40,000	40,000	40,000
<b>2,128,264</b>	<b>2,089,905</b>	<b>2,370,727</b>	<b>TOTAL REQUIREMENTS</b>	13.91	<b>2,226,882</b>	<b>2,226,882</b>	<b>2,247,991</b>