

# Wastewater Management

Expenditures: 84,812,599

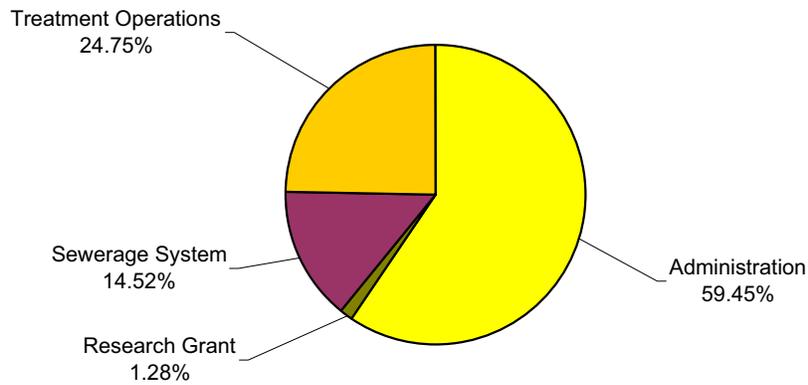
FTEs 506.5

Revenues: 98,953,602

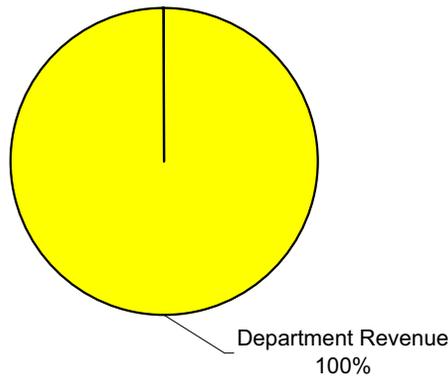
**Function Statement:** Protect the public health and environment in Pima County through the safe delivery, treatment, and reuse of wastewater.

**Mandates:** ARS Title 11, Chapter 2: Board of Supervisors, 11-264: Authority to operate a sewage system; liens; sewage system fees; Chapter 14: Sanitary Districts; and Pima County Code Title 7: Environmental Quality, 7.21: Liquid Waste

## Expenditures by Program



## Sources of All Funding



## Department Summary by Program

Department: WASTEWATER MANAGEMENT

<b>Expenditures by Program</b>	<b>FY2002/03 Actual</b>	<b>FY2003/04 Adopted</b>	<b>FY2004/05 Adopted</b>
ADMINISTRATION	38,126,788	38,170,719	50,424,056
RESEARCH GRANT	270,853	1,041,905	1,082,250
SEWERAGE SYSTEM	12,447,544	19,572,833	12,311,051
TREATMENT OPERATIONS	17,428,963	22,752,682	20,995,242
<b>Total Expenditures</b>	<b>68,274,148</b>	<b>81,538,139</b>	<b>84,812,599</b>

**Funding by Source**

**Revenues**

ADMINISTRATION	79,824,392	91,749,333	97,871,352
RESEARCH GRANT	304,435	1,041,905	1,082,250
SEWERAGE SYSTEM	204,466	0	0
TREATMENT OPERATIONS	200,062	0	0
<b>Total Revenues</b>	<b>80,533,355</b>	<b>92,791,238</b>	<b>98,953,602</b>
<b>Net Operating Transfers In/(Out)</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Other Funding Sources</b>	<b>9,746,000</b>	<b>0</b>	<b>9,700,000</b>
<b>Fund Balance Decrease/(Increase)</b>	<b>(22,005,207)</b>	<b>(11,253,099)</b>	<b>(23,841,003)</b>
<b>Total Program Funding</b>	<b>68,274,148</b>	<b>81,538,139</b>	<b>84,812,599</b>

**Staffing (FTEs) by Program**

ADMINISTRATION	79.0	93.5	98.7
RESEARCH GRANT	4.0	4.0	2.0
SEWERAGE SYSTEM	193.5	189.0	157.0
TREATMENT OPERATIONS	274.0	272.0	248.8
<b>Total Staffing (FTEs)</b>	<b>550.5</b>	<b>558.5</b>	<b>506.5</b>

Note: The increase in revenues over fiscal year 2003/04 is primarily due to increased sewer connection and sewer user fees. The decrease in FTEs from fiscal year 2003/04 is due to a temporary cash flow problem caused by the Speedway sinkhole. The increase in expenditures over fiscal year 2003/04 is primarily due to increases in depreciation and debt service, partially offset by the vacancy savings from the decreased number of FTEs.

## Program Summary

**Department: WASTEWATER MANAGEMENT**

**Program: ADMINISTRATION**

**Function**

Direct department operations and long term financial planning. Provide administrative services for the department and other Public Works departments. Develop and implement environmental policy, research, legislative, and capital planning programs for the department. Depreciate fixed asset and debt service costs. Identify sources and monitor the department's revenue. Collect and dispose of household hazardous chemicals and small business waste. Identify, secure and monitor non-bond funding for capital projects.

**Description of Services**

This program consists of the Director's, Support Services, Capital Development, Revenues and Debt Service Divisions. Supervise, monitor, and direct department operations and long term financial and capital improvement planning. Provide revenue, financial, payroll, and employment services for the department and other Public Works departments. Develop and coordinate capital planning for the five-year Capital Improvement Plan (CIP) and track CIP expenditures. Develop department financial plan and rate increase proposals, identify and secure alternative funding sources (such as grants or system development funds), and recommend bond sales. Prepare developer financed sewer agreements and intergovernmental agreements. Manage special projects and oversee research projects. Monitor and address legislative and research issues and represent the department with wastewater industry and research groups. Record and monitor annual depreciation charges related to fixed assets, debt service costs of current bonds and outstanding loans, and department revenue. Permit and inspect hazardous waste generators. Operate the Household Hazardous Waste (HHW) Program for collection and disposal of household chemicals. Educate the public concerning hazardous household chemical storage, use and disposal. Operate the Small Business Waste Assistance Program (SBWAP) for conditionally exempt small quantity generators. Provide system development funds for capital projects, monitor expenditures, and allocate and reconcile funds. Identify other funding sources for capital projects.

**Program Goals and Objectives**

- Provide effective, efficient and environmentally sound conveyance, treatment, and reuse or disposal of the wastewater tributary to Pima County's sanitary sewerage system
- Update and implement long range capital planning
- Allocate system development funds (SDF)
- Comply with CIP implementation plans
- Provide effective and efficient administrative, revenue collection, financial, and personnel services to the public works departments
- Develop and implement financial plans that sustain the operating budget and capital improvements
- Address research/legislative issues
- Control and reduce hazardous waste generated in Pima County
- Divert household chemicals from the County sewerage system and landfills
- Expand public awareness of household chemical hazards and encourage the safe use, storage, and disposal of household chemicals
- Reduce the introduction of kitchen grease into the sanitary sewer system through a proactive public education program
- Assist small businesses with hazardous waste disposal
- Conduct collections at least once a month at three outreach sites and in outlying neighborhoods when determined feasible
- Reduce disposal costs through recycling and efficient bulking and packing

<b>Program Performance Measures</b>	<b>FY2002/03 Actual</b>	<b>FY2003/04 Estimated</b>	<b>FY2004/05 Planned</b>
Advisory committee meetings held	8	12	12
Legislative bills/regulations reviewed	30	30	30
Pounds of household hazardous waste collected	1,200,000	1,320,000	1,286,000
Residents participating in the Household Hazardous Waste program	27,000	28,300	29,800
Frequency of system development funds allocations and reconciliations	quarterly	quarterly	quarterly
Delinquency rate of sewer user fees	6.7%	6.7%	6%
Personnel Action Forms processed	1,000	1,100	1,100
Invoices processed	15,028	16,000	16,000

<b>Program Expenditures by Object</b>	<b>FY2002/03 Actual</b>	<b>FY2003/04 Adopted</b>	<b>FY2004/05 Adopted</b>
PERSONAL SERVICES	4,648,648	3,794,235	5,484,716
SUPPLIES AND SERVICES	(23,471,429)	34,310,986	44,939,340
CAPITAL OUTLAY	56,949,569	65,498	0
<b>Total Program Expenditures</b>	<b>38,126,788</b>	<b>38,170,719</b>	<b>50,424,056</b>

## Program Summary

Department: **WASTEWATER MANAGEMENT**  
 Program: **ADMINISTRATION**

**Program Funding by Source**

<b>Revenues</b>			
LICENSES & PERMITS	14,639	16,700	16,700
CHARGES FOR SERVICES	65,844,168	71,673,833	77,672,385
FINES AND FORFEITS	76,385	58,800	58,800
INTEREST	965,093	0	123,467
MISCELLANEOUS	450,443	0	0
MEMO REVENUE	12,473,664	20,000,000	20,000,000
<b>Operating Revenue Sub-Total</b>	<b>79,824,392</b>	<b>91,749,333</b>	<b>97,871,352</b>
<b>Net Operating Transfers In/(Out)</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Other Funding Sources</b>	<b>9,746,000</b>	<b>0</b>	<b>9,700,000</b>
<b>Fund Balance Decrease/(Increase)</b>	<b>(51,443,604)</b>	<b>(53,578,614)</b>	<b>(57,147,296)</b>
<b>Total Program Funding</b>	<b>38,126,788</b>	<b>38,170,719</b>	<b>50,424,056</b>
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<b>Program Staffing (FTEs)</b>	<b>79.0</b>	<b>93.5</b>	<b>98.7</b>

## Program Summary

**Department: WASTEWATER MANAGEMENT**

**Program: RESEARCH GRANT**

**Function**

Conduct the Arid West Water Quality Research Project.

**Description of Services**

Manage scientific research on appropriate water quality criteria and standards for the arid west.

**Program Goals and Objectives**

- Improve the scientific basis for the regulation of water quality

<u>Program Performance Measures</u>	<u>FY2002/03 Actual</u>	<u>FY2003/04 Estimated</u>	<u>FY2004/05 Planned</u>
Research studies conducted	2	2	3
Scientific/regulatory meetings held	2	2	1
Request for Proposals prepared and advertised	4	2	1
Requests for reimbursement submitted	2	6	12

<u>Program Expenditures by Object</u>	<u>FY2002/03 Actual</u>	<u>FY2003/04 Adopted</u>	<u>FY2004/05 Adopted</u>
PERSONAL SERVICES	78,879	171,415	96,086
SUPPLIES AND SERVICES	191,974	870,490	986,164
<b>Total Program Expenditures</b>	<b>270,853</b>	<b>1,041,905</b>	<b>1,082,250</b>

<u>Program Funding by Source</u>	<u>FY2002/03 Actual</u>	<u>FY2003/04 Adopted</u>	<u>FY2004/05 Adopted</u>
<b>Revenues</b>			
INTERGOVERNMENTAL	303,934	989,810	1,036,262
INTEREST	26	0	0
MISCELLANEOUS	475	52,095	45,988
<b>Grant Revenue Sub-Total</b>	<b>304,435</b>	<b>1,041,905</b>	<b>1,082,250</b>
<b>Net Operating Transfers In/(Out)</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Other Funding Sources</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Fund Balance Decrease/(Increase)</b>	<b>(33,582)</b>	<b>0</b>	<b>0</b>
<b>Total Program Funding</b>	<b>270,853</b>	<b>1,041,905</b>	<b>1,082,250</b>

<b>Program Staffing (FTEs)</b>	<b>4.0</b>	<b>4.0</b>	<b>2.0</b>
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## Program Summary

**Department: WASTEWATER MANAGEMENT**

**Program: SEWERAGE SYSTEM**

**Function**

Provide wastewater facility planning, design, construction management, and inspection services. Provide the community with an environmentally sound, effective, and efficient sanitary sewage conveyance system.

**Description of Services**

This program consists of the Sewerage Systems (Engineering) and Field Operations Divisions. Provide mapping, records, computer network and Blue Stake services; flow monitoring; and wastewater facility planning, design, construction management, and inspection services to repair, rehabilitate and/or construct sanitary sewage collection, conveyance, treatment, disposal or reuse, and odor control facilities that provide optimum maintenance opportunities without affecting, impacting or violating federal, state, and local regulatory requirements; with specific emphasis on the National Pollution Discharge Elimination System (NPDES) and Arizona National Pollution Discharge Elimination System (AZNPDES), sanitary sewerage overflow (SSO), aquifer protection, storm water, air pollution, endangered species, critical habitat, the Sonoran Desert Conservation Plan, and Section 401 and 404 requirements. Operate a proactive, comprehensive preventive maintenance program for the sanitary sewage conveyance system. This includes inspection, cleaning, and systematic vector (roach) control and odor mitigation programs for more than 3,080 miles of public gravity sanitary sewers and 37 public wastewater pumping systems, throughout the 350 square mile public sewerage service area of eastern Pima County.

**Program Goals and Objectives**

- Provide planning, design, and construction services to develop, augment, repair, rehabilitate and/or replace the public sanitary sewerage system infrastructure to collect, convey, treat, reuse and/or dispose of sanitary sewage and related effluent and biosolids in an effective, efficient and environmentally sound manner that is in compliance with federal, state, and local statutes, laws, rules, ordinances and policies
- Plan, design, and install new sanitary sewage conveyance facilities such that the involved manholes are placed within the paved portions of roads and streets, to achieve both visual and vehicular accessibility to the maximum degree possible
- Develop a Maintenance Protocol Plan to help achieve a balance between habitat issues and achieving viable vehicular access to system manholes for maintenance
- Complete departmental capital projects in accordance with Pima County Ordinance No. 1997-35, Truth-in-Bonding
- Provide public sewage conveyance facilities (gravity and pumping systems) that are reliable and adequate to minimize the possibility of unintended/unauthorized releases of sewage to the environment (sanitary sewage overflows)
- Respond efficiently and effectively to requests for mapping, sewer records, computer network, and Blue Stake services
- Respond to requests for flow monitoring, hydraulic flow model, system capacity, and related information
- Operate the sanitary sewage conveyance system (gravity sewers and pumping systems) effectively, efficiently, and in compliance with federal and state mandates and regulations
- Minimize offensive sewer odors
- Implement a chemical root control program
- Improve the availability rate of assigned maintenance vehicles and reduce staff time to transport vehicles for maintenance

**Program Performance Measures**

	<b>FY2002/03 Actual</b>	<b>FY2003/04 Estimated</b>	<b>FY2004/05 Planned</b>
Conveyance system receiving active maintenance	36%	36%	36%
Value of construction change orders as percent of contract amount	3.4%	2%	2%
Sewer line-contractor "hits"	8	8	8
Blue Stake locates performed	85,000	90,000	90,000

**Program Expenditures by Object**

	<b>FY2002/03 Actual</b>	<b>FY2003/04 Adopted</b>	<b>FY2004/05 Adopted</b>
PERSONAL SERVICES	7,646,203	11,530,097	8,305,426
SUPPLIES AND SERVICES	4,096,119	7,552,843	3,934,425
CAPITAL OUTLAY	705,222	489,893	71,200
<b>Total Program Expenditures</b>	<b>12,447,544</b>	<b>19,572,833</b>	<b>12,311,051</b>

**Program Funding by Source**

<b>Revenues</b>			
MISCELLANEOUS	204,466	0	0
<b>Operating Revenue Sub-Total</b>	<b>204,466</b>	<b>0</b>	<b>0</b>
<b>Net Operating Transfers In/(Out)</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Other Funding Sources</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Fund Balance Decrease/(Increase)</b>	<b>12,243,078</b>	<b>19,572,833</b>	<b>12,311,051</b>
<b>Total Program Funding</b>	<b>12,447,544</b>	<b>19,572,833</b>	<b>12,311,051</b>

<b>Program Staffing (FTEs)</b>	<b>193.5</b>	<b>189.0</b>	<b>157.0</b>
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## Program Summary

**Department: WASTEWATER MANAGEMENT**

**Program: TREATMENT OPERATIONS**

**Function**

Protect the public health and environment through the operation of wastewater treatment facilities that comply with federal and state standards. Provide technical and regulatory compliance support services for wastewater treatment facilities.

**Description of Services**

This program consists of the Treatment and Technical Services Divisions. Operate and maintain wastewater treatment facilities to treat over 60 million gallons of sanitary sewage daily, including associated biosolids facilities.

Permit, inspect, sample, and enforce the approved industrial pretreatment program. Collect samples and prepare requisite reports and submittals in accordance with federal and state permit requirements. Implement the EPA-mandated industrial pretreatment program. Operate a state-licensed laboratory to test samples for regulatory compliance. Conduct investigations and studies on treatment-related issues and concerns.

**Program Goals and Objectives**

- Treat over 60 million gallons of sanitary sewage daily in compliance with federal and state standards
- Exceed mandated biochemical oxygen demand removal rate of 85%
- Effectively administer the industrial pretreatment program
- Effectively operate the treatment facility to ensure that permit limits are met and to prevent pass through, interference, and upset at the Publicly Owned Treatment Works (POTW)
- Obtain over 20,000 quality assured regulatory compliance data points in the environmental laboratory
- Exceed the mandated biochemical oxygen demand removal rate of 85%
- Provide assurance that federal and state permit reporting requirements for wastewater treatment facilities are met

<u>Program Performance Measures</u>	<u>FY2002/03 Actual</u>	<u>FY2003/04 Estimated</u>	<u>FY2004/05 Planned</u>
Biochemical oxygen demand removal rate	93%	93%	93%
No discharge interference or upset at POTW	yes	yes	yes
Permit reporting requirements met	100%	100%	100%
Cubic feet of methane converted to energy	309 million	313 million	313 million
Gallons of wastewater treated	23.7 billion	24 billion	24 billion

<u>Program Expenditures by Object</u>	<u>FY2002/03 Actual</u>	<u>FY2003/04 Adopted</u>	<u>FY2004/05 Adopted</u>
PERSONAL SERVICES	11,207,289	15,134,826	12,138,097
SUPPLIES AND SERVICES	5,436,024	7,530,456	8,841,645
CAPITAL OUTLAY	785,650	87,400	15,500
<b>Total Program Expenditures</b>	<b>17,428,963</b>	<b>22,752,682</b>	<b>20,995,242</b>

**Program Funding by Source**

<b>Revenues</b>			
INTEREST	12,866	0	0
MISCELLANEOUS	187,196	0	0
<b>Operating Revenue Sub-Total</b>	<b>200,062</b>	<b>0</b>	<b>0</b>
<b>Net Operating Transfers In/(Out)</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Other Funding Sources</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Fund Balance Decrease/(Increase)</b>	<b>17,228,901</b>	<b>22,752,682</b>	<b>20,995,242</b>
<b>Total Program Funding</b>	<b>17,428,963</b>	<b>22,752,682</b>	<b>20,995,242</b>

<b>Program Staffing (FTEs)</b>	<b>274.0</b>	<b>272.0</b>	<b>248.8</b>
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