

WATER POLLUTION CONTROL FUND

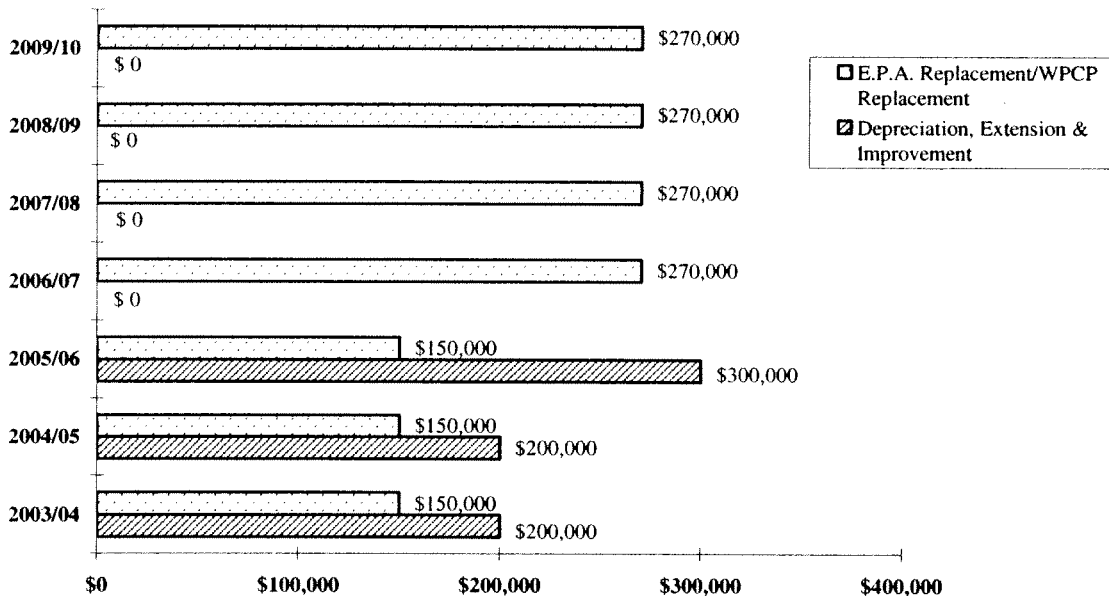
GENERAL INFORMATION:

The Water Pollution Control Fund currently consists of one reserve fund, one bond sinking fund and five (5) operating activities. In order to provide a comprehensive picture of the financial status as an enterprise function, it is necessary to review the reserve fund and each of the activities within the Water Pollution Control Fund.

RESERVE FUNDS

In prior years there were two reserve funds associated with the Water Pollution Control Fund. These were the Depreciation, Extension and Improvement Reserve and the E.P.A. Replacement Reserve. The Depreciation, Extension and Improvement Reserve was transferred to the Collection and Drainage Fund as of June 30, 2006. Following is a chart showing annual transfers to these reserves for the last five fiscal years, the revised estimate for 2008/2009 and the budgeted amount for 2009/2010. The E.P.A. Replacement Reserve, has been renamed the Water Pollution Control Plant Replacement Reserve.

Sewer Reserve Funding Transfers



1. Depreciation, Extension and Improvement Reserve Fund

In years through 2005/2006, this reserve fund was used to fund extraordinary maintenance and improvement costs associated with the construction or extension of the sanitary and storm sewer system and facilities. The annual contribution to this fund varied over the last several years as shown in the table above (funds are derived from sewer charges). As noted previously, this reserve is now part of the Collection and Drainage fund.

2. Water Pollution Control Plant (WPCP) Replacement Reserve

This reserve was known as the E.P.A. Replacement Reserve through the 2006/2007 year. The reserve fund was originally required under the terms and conditions of the receipt of federal funds for the construction of the Water Pollution Control Plant in 1976. The reserve is used to fund the replacement of equipment at the plant. According to the terms of the original agreement between the EPA and the City, a transfer of \$90,000 annually was required to be made from the Water Pollution Control Operating Fund. Over the last five years the City's contributions to the fund have fluctuated as shown on the table on the previous page depending on sewer revenues and equipment replacement needs at the plant. The funding transfers for 2003/2004 through 2005/2006 were \$150,000. The transfers for 2006/2007, 2007/2008, 2008/2009 and 2009/2010 have each been set at \$270,000.

In 2006/2007 funds from this reserve were used for the Water Pollution Control Plant Roughing Filter project in the amount of \$1,081,918. No funds have been designated to be used from this reserve in 2008/2009. An estimated \$300,000 has been budgeted in 2009/2010 to upgrade or replace the Slough/Sunset Park lift station in conjunction with the Hershey Area Sewer Improvement Project. It is also planned that \$2 million will be used as part of the overall financing of the upcoming Water Pollution Control Comprehensive Plant Improvement Project. The primary funding source for this project will be a State Revolving Fund Loan in the amount of \$16,500,000 with the \$2,000,000 from this reserve used to reduce the overall debt financing for this project. The contract for this project was awarded in the fall of 2008.

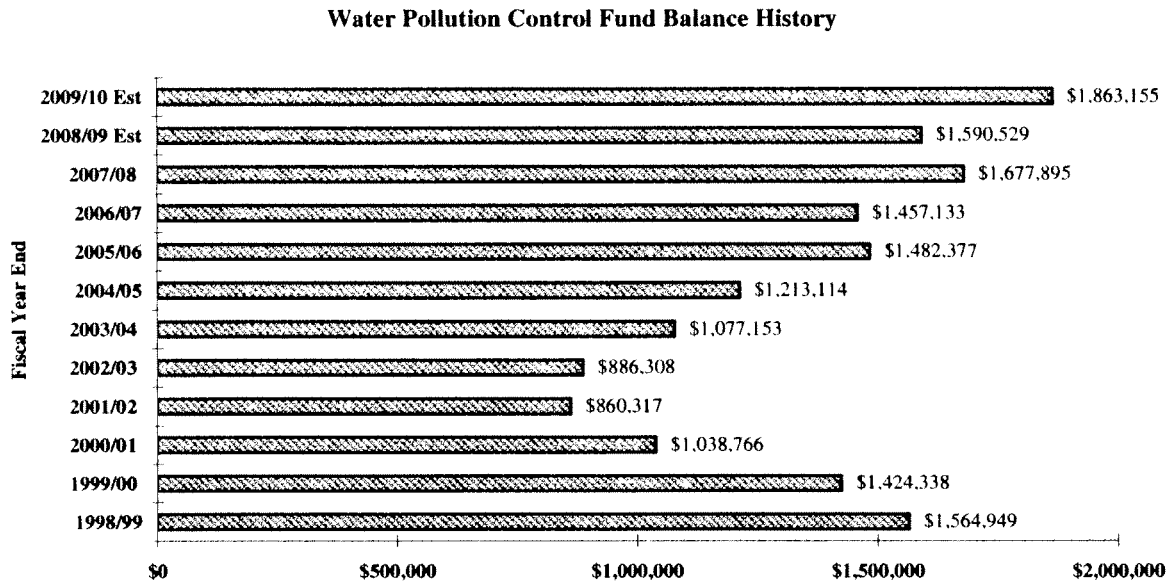
CONSTRUCTION FUNDS

The existing Water Pollution Control Plant was completed in the fall of 1976. A renovation project was initiated in 1984 and completed in 1989, which included major rehabilitation of the plant equipment and major changes in both the wet process and the sludge disposal program. The total cost of the project was \$8.9 million. Funding was provided from a combination of existing reserve funds, user fees and general obligation bonds. A Plant Modifications Project was completed in 1999. This project included construction of a new grit facility for grit removal, cleaning and storage. This portion of the project was funded from a June 1, 1999 bond issue (\$3,650,000) and available fund balance (\$500,000). Related projects included construction of the Sampson Street Pumping Station and electrical switch gear replacement at the plant. The switch gear replacement was funded from the EPA Replacement Reserve and the Sampson Street Pumping Station from Local Option Sales Tax revenue. As part of the Southend Sewer Extension Projects, three new pumping stations were added to the sewer system in 2001. Funding for the Southend Sewer Projects was primarily from the Local Option Sales Tax, with some funding from Southend tax increment funds. Additionally, as part of the Northwest Sewer Extension, a pumping station was constructed on Tipton Road. The Northwest Sewer Project was funded from the Depreciation, Extension and Improvement Reserve.

A comprehensive plant review was completed in 2006. Recommendations from this review included reconstruction of existing processes with upgrades directed toward process optimization through equipment upgrades, operational flexibility, and maximizing energy utilization. The estimated total cost of these improvements is \$18.5 million with \$2 million to be funded from the WPCP Replacement Reserve and \$16,500,000 from the State Revolving Fund Loan program. Construction on this project began in December, 2008 and it is scheduled to be completed in May, 2011.

WATER POLLUTION CONTROL OPERATING FUND

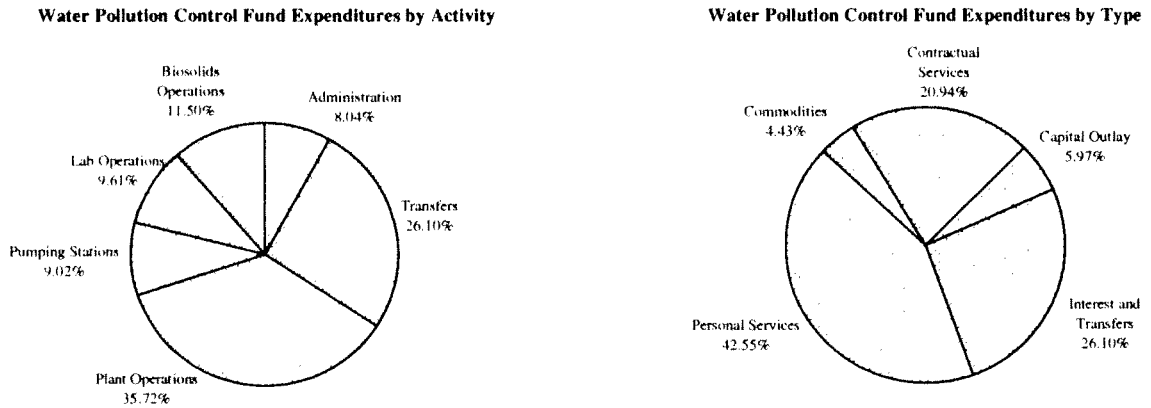
As the Muscatine Water Pollution Control Plant is substantially dependent on the waste from its major industrial customers, their economic growth substantially impacts the fund balance of this fund. The following chart shows the Water Pollution Control fund balance history.



The fund balances listed above fluctuated partially as a result of variable volumes received from industrial customers. In addition, the City increased rates during this time period to cover inflationary cost increases. The budgets for 2001/2002 and 2002/2003 included overall rate increases for most customers. Due to reduced waste volumes, however, these increases did not generate the sewer revenues projected.

In 2002 the City contracted for consultant services to assist in developing a new sewer rate structure. One component of the new rate structure was a multi-year contract with the City's major industrial sewer customer which provides a guaranteed minimum of industrial sewer revenue. Another component was to provide for a separate "Collection and Drainage" charge as part of all residential and commercial customer sewer bills. With the implementation of the new rate structure, the Collection and Drainage activity, formerly accounted for within the Water Pollution Control Fund, is now accounted for as a separate fund. The rate structure adopted in 2003 also included rate adjustments to be effective July 1, 2004 and July 1, 2005. Sewer rates were also adjusted for the 2006/2007 year. This was a single year rate change since the results of the plant review were not yet known. Rates were set for a two-year period for 2007/2008 and 2008/2009 based on the preliminary cost estimate for plant improvements. As part of the financing of the Water Pollution Control Comprehensive Plant Facilities Improvement Project, rates are recommended to increase by approximately 5% per year in each of the next four years.

The Water Pollution Control Fund consists of five different activities, including administration, plant operations, pumping stations, laboratory operations, and biosolids operations. Full-time equivalent employees for these five activities total 23.25 for 2009/2010. The specific employee allocations are detailed in each of the five (5) activity budgets. The following charts show the distribution of budgeted expenditures by activity and by type for 2009/2010:



The WPCP Fund currently has one outstanding debt issue that will be retired in June of 2009. This was the \$3,650,000 bond issue dated June 1, 1999 for the Plant Modifications Project. Debt requirements for 2008/2009 total \$425,005 which will retire this issue. The City is using the State Revolving Fund (SRF) Loan program to finance the Comprehensive Plant Facilities Improvement Project. Under this program, funds will be drawn down as needed during the construction of this project. Interest is at an effective rate of 3.25%. Under the SRF Loan program, the City is required to transfer funds on a monthly basis into the Sewer Bond Sinking Fund. Transfers to this fund in 2008/2009 and 2009/2010 are \$232,161 and \$495,474, respectively. Interest payments are estimated at \$94,093 in 2008/2009 and \$271,154 in 2009/2010. Actual interest payments will be based on the timing of the amounts the City draws down during construction. The first principal payment on this loan will be due on June 1, 2011.

The past fiscal years have been challenging times for the City in operating its water pollution control system. Major changes have taken place in the operation of the facility, the character of the waste being treated and the volume of waste received. In addition, with the reconstruction and equipment upgrades planned for the next few years, the city is striving to further increase operating efficiency and flexibility as well as maximizing energy utilization at the plant. With careful planning and financial management, the City has provided and will continue to provide an excellent facility which will treat wastewater and meet Federal and State regulations at a reasonable cost.

CURRENT TRENDS AND ISSUES:

The 2008/2009 revised estimate expenditures are over the budgeted amount by \$558,386. This is primarily due to the \$505,500 increase in the pumping station budget. A large portion of this increase is for repairs to the Papoose Pump Station caused by the 2008 floods. These repairs include \$340,000 to replace the bar screen in this pump station and \$108,000 for dredging the tunnel from the station to the river. These costs are expected to be funded from FEMA. A total of \$53,000 is also included in the 2008/2009 revised estimate for repairs to the Bond and Schley Lift Stations. These funds were carried forward from the 2007/2008 budget. There was also a \$53,386 increase in the Administration budget due to the required transfers to the Sewer Bond Sinking Fund.

The 2009/2010 budgeted expenditures of \$3,466,474 are \$107,406 (3.0%) less than the 2008/2009 budget. This decrease is primarily due to reductions in capital outlay allocations since many capital items normally included in the operating budget are being completed as part of the Comprehensive Facilities Improvement Project.

As noted previously, sewer rates are budgeted to increase by 5% for 2009/2010. This is the first of four expected annual 5% increases in rates needed as part of the Comprehensive Facilities Improvement Project financing.

GOAL STATEMENT:

To operate the Muscatine Water Pollution Control Operations in a manner to assure that all residential, commercial and industrial wastewater is treated in an environmentally sound, efficient and cost effective manner to meet the requirements established by Federal and State regulatory agencies.

PERFORMANCE MEASURES:

Fiscal Year Measures		Actual 2005/2006	Actual 2006/2007	Actual 2007/2008	Estimated 2008/2009	Estimated 2009/2010
Million Cubic Feet of Wastewater Treated		173.38	208.27	279.68	255.81	250.00*
Carbonaceous Biological Oxygen Demand Treated (1,000 lbs/yr.)		1,922.20	1,581.20	1,495.53	1,887.43	1,600.00
Total Suspended Solids Treated (1,000 lbs/yr.)		2,728.5	2,935.90	3,192.13	3,735.36	3,200.00
Number of Customer Bills	Industrial	96	96	96	96	96
	Non-Industrial	105,519	107,138	107,828	109,648	109,650
	Total	105,615	107,234	107,924	109,744	109,746

* 2009/2010 numbers may change with one additional lift station, all of Ripley's Development (400 mobile homes), and some other residential sewage pumped to the Water Pollution Control Plant.

PERFORMANCE MEASURES:

Calendar Year Measures	Actual 2005	Actual 2006	Actual 2007	Actual 2008	Estimated 2009
Gallons of Biosolids/Number of Acres	5,529,202/ 578	4,482,097/ 528	5,143,571/ 620	4,349,789/ 504	4,400,000/ 500
Lift Station Preventive Maintenance Tasks	7,145	6,828	8,035	8,035	8,050
Lift Station Corrective Work Orders	92	60	92	53	65
Plant Preventive Maintenance Tasks	17,360	15,080	16,686	16,766	16,800
Plant Corrective Work Orders	325	237	715	209	300

RECENT ACCOMPLISHMENTS:

The following are highlights of activities within the Water Pollution Control Plant (WPCP).

The operations group successfully kept “band aids” on most of the equipment that will be eliminated or upgraded with the new WPCP Improvements Project. A majority of the past year has been spent working with the V&K Engineering firm on design and reviewing equipment for the new plant. Also a tremendous amount of time was spent with flood-related issues and cleanup. The bar screen and the tunnel were damaged at the Papoose Lift Station. FEMA has authorized and will fund the replacement of the screen and cleanup of the lift station.

Through 11 months of 2008, the operations group experienced 211 hours of sick leave as compared to 112 hours during the same time period in 2007. Added to the 640 hours of available vacation time, overtime was held to 151 hours to cover absences due to sick leave and vacations.

Sick leave for all 24 of the plant’s employees totaled 574 hours, down from 674 hours in 2007 and 2,141 hours in 2005. The old safety record was broken, and as of December 30, 2008, the WPCP operation has had 2,678 days without a lost time accident.

The operations, maintenance, lift stations, and biosolids staff completed 25,646 preventative work orders and reduced the corrective work orders to a record 317. This program is directed at preventing mechanical failures by following good preventative maintenance techniques.

Under the pretreatment program, the Environmental Coordinator position was vacant for most of the calendar year but existing staff was able to continue the responsibility for the Industrial Pretreatment Program. The Chemist was able to inspect and monitor the 13 significant industrial users. There were 14 commercial septic tank cleaner permits issued.

For the pumping stations, upgrades at the lift stations continued in 2008. The telemetry upgrade was completed at the Bond and Schley stations. The flood created an enormous amount of work for the lift station staff. Over 400 sandbags were placed in the Papoose Station. The bar screen was damaged and the flood gates were wedged open with logs and sand. Staff was able to patch the bar screen back together; however, FEMA has authorized the purchase of a new screen and dredging of the river and tunnel. The flood had a great effect on most of the lift stations, and the amount of sand pumped to and through the plant required many hours of manual labor.

The laboratory continues to meet the analytical needs of the WPCP. It performs analytical analysis for the WPCP, biosolids program, pretreatment programs, Muscatine County Sanitary Landfill, local industries, and some nearby area communities. The lab has successfully completed certification by the State of Iowa for E. Coli testing. The Chemist spent a great deal of time assisting with the Industrial Pretreatment Program and the monitoring of the waste haulers.

The biosolids program had another outstanding season. A total of 4,349,789 gallons of biosolids were applied to 504 acres of land. There were 18 soil samples collected and analyzed by lab staff. Staff spends a great deal of time preparing and maintaining equipment to minimize mechanical down time during the season. In the non-application season, the staff provides valuable assistance to other departments at the WPCP.

WPCP staff continues to mow about 200 acres at the municipal airport. The equipment used is getting old and replacements will be needed soon. The WPCP provides the tractor but not the mower. The WPCP department supplies labor at no cost to other departments as needed and continues to work together and accomplishes a great deal that would normally be contracted out to others.

OBJECTIVES TO BE ACCOMPLISHED IN 2009/2010:

- * To work with the engineer and contractor to coordinate the plant renovation project (City Council Ongoing Priority #1).
- * To complete the upgrades and renovation of the Bond and Schley pump stations before July 1, 2009 (delayed due to flood work).
- * To conduct in-depth review and training of all staff for the maintenance and operation of the new WPCP.
- * To review the wastewater rate structure and prepare a resolution establishing rates through 2012.
- * To implement asset management as a working program for the WPCP.
- * To closely monitor the Hershey Avenue Project as needed (City Council Ongoing Priority #4).
- * To continue support of succession planning and also strongly back the need for additional staff training and education (City Council Organizational Effectiveness Goal #2).
- * To continue to support storm water issues including sewers, funding, mitigation and regulation (City Council Ongoing Priority #4).

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STATEMENT OF BOND AND INTEREST REQUIREMENTS

**General Obligation Refunding Bonds
Refunding of Water Pollution Control Plant Modifications Project
\$3,650,000 of \$3,910,000 Issue Dated June 1, 1999
\$412,626 of \$6,560,000 Refunding Issue Dated June 1, 2008 (Series B)**

<u>Fiscal Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total Requirements</u>
2008/09	<u>\$ 412,626</u>	<u>\$ 12,379</u>	<u>\$ 425,005</u>

Principal and interest payments are made from the Debt Service Fund. A transfer from the Water Pollution Control Fund is made to fund principal and interest payments as they become due for this portion of the bond issue.