

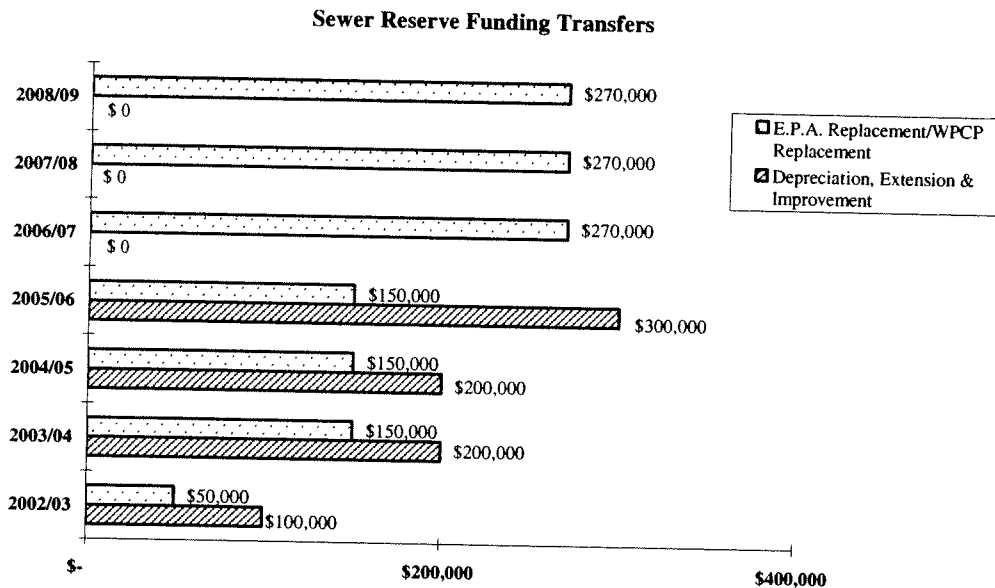
WATER POLLUTION CONTROL FUND

GENERAL INFORMATION:

The Water Pollution Control Fund currently consists of one reserve 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 2007/2008 and the budgeted amount for 2008/2009. The E.P.A. Replacement Reserve, has been renamed the Water Pollution Control Plant Replacement Reserve.



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). The transfer for 2002/2003 was \$100,000. With the new rate structure implemented July 1, 2003, sufficient funds were available to increase the transfers for 2003/2004 and 2004/2005 to \$200,000. The transfer increased to \$300,000 for 2005/2006. As noted previously, this reserve is now part of the Collection and Drainage fund.

In 2002/2003 this reserve funded \$73,976 of capital items in the Water Pollution Control operating fund; \$17,637 for sewer improvements on Cedar Street and Iowa Avenue; \$27,606 to close out the Northwest Sewer Project; and \$17,936 for engineering services for the Tipton Road Sewer Extension Project. In 2003/2004 \$470 was transferred for engineering costs related to the sewer improvements on Cedar Street and Iowa Avenue; \$20,641 for the Logan Street Bank Stabilization Project; and \$23,214 for additional engineering costs for the Tipton Road Sewer Extension Project. In 2004/2005, \$8,034 was transferred for capital items in the Water Pollution Control Fund, \$128,780 for construction of the Tipton Road Sewer, \$106,712 for construction costs for improvements at the Mad Creek, Hershey, Papoose and Canon pumping stations, and \$158,452 for the Pine Ridge Sewer Extension Project.

In 2005/2006 \$61,178 was transferred for capital items in the Water Pollution Control Fund, \$724,668 for improvements at the Mad Creek, Hershey, Papoose and Canon pumping stations, \$24,167 for the Cleveland Street Sewer Extension, \$1,007 for final costs of the Tipton Road Sewer Project, \$1,835 for final costs of the Pine Ridge Sewer Extension, and \$3,909 for engineering costs for Cedar Street sewer improvements. A portion of the funds in this reserve (\$50,876) was transferred to the E.P.A. Reserve (now named the Water Pollution Control Plant Replacement Reserve) as of June 30, 2006 leaving the balance in this fund of \$76,314. This amount was transferred to the new Sewer Extension and Improvement Reserve in 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 transfer for 2002/2003 was \$50,000. With the rate increase implemented July 1, 2003, revenues were available to increase the transfer to \$150,000 in 2003/2004 through 2005/2006. The transfers for 2006/2007, 2007/2008 and 2008/2009 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 either 2007/2008 or 2008/2009. It is, however, planned that \$2 million will be used as part of the overall financing of the upcoming \$15 to \$16 million comprehensive plant improvement project. Engineering design for these improvements is in progress and will be completed in the spring 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.

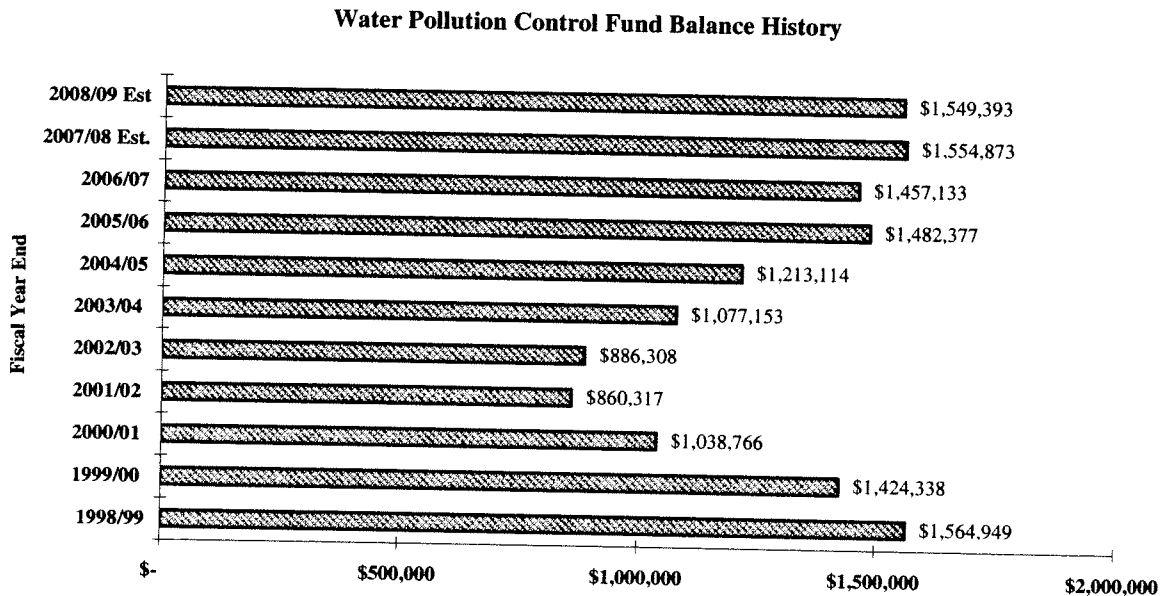
A Plant Modifications Project was completed in 1999. This project included construction of a new grit facility for grit removal, cleaning and storage. This portion of the project was funded from a June 1, 1999 bond issue (\$3,650,000) and available fund balance (\$500,000). Related projects included 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 include 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 \$15 to \$16 million with \$2 million to be funded from the WPCP Replacement Reserve and \$13 to \$14 million from the State Revolving Fund Loan program. Engineering design work is currently in progress with construction expected to begin in 2008.

WATER POLLUTION CONTROL OPERATING FUND

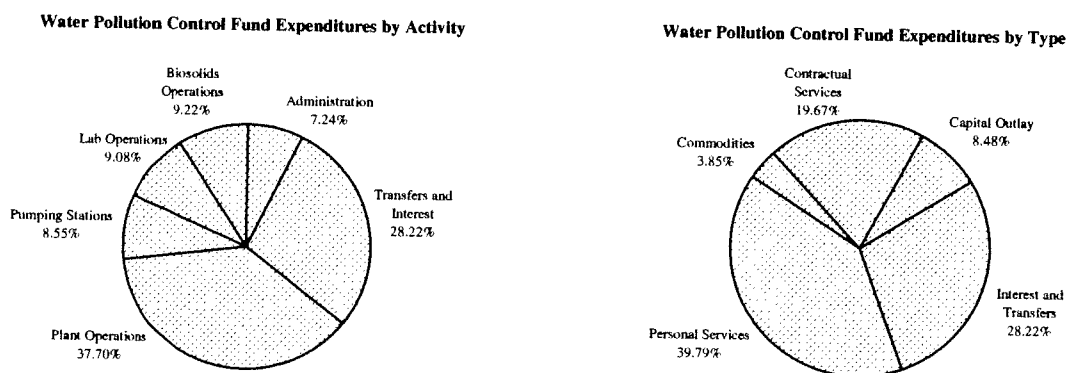
As the Muscatine Water Pollution Control Plant is substantially dependent on the waste from its major industrial customers, their economic growth substantially impacts the fund balance of this fund. The following chart shows the Water Pollution Control fund balance history.



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. Rates will again be reviewed when the final cost estimate for the Comprehensive Plant Facilities Improvement Project is available.

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 2008/2009. 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 2008/2009:



The WPCP Fund currently has one outstanding debt issue. This is the \$3,650,000 bond issue on June 1, 1999 for the Plant Modifications Project. Debt requirements for 2007/2008 total \$456,960 and for 2008/2009 total \$438,480 which will retire this issue. The City will be using the State Revolving Fund Loan program to finance the upcoming Comprehensive Plant Facilities Improvement Project. Under this program, funds can be drawn down as needed during the engineering design and during construction. Interest is at an effective rate of 3.25% and begins to accrue after completion of the design work. The 2008/2009 budget includes an estimated \$130,000 in interest on this loan. A final loan repayment schedule will be determined as this project proceeds.

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 2007/2008 revised estimate expenditures are over the budgeted amount by \$64,000. This is primarily due to increased personal services costs in the Administration budget. The former Director retired as of December 31, 2007 and his retirement benefits as well as the overlap in employment with the new Director account for this increase.

The 2008/2009 budgeted expenditures of \$3,573,880 are \$295,720 (9.0%) more than the 2007/2008 budget. This increase is primarily due to interest on the State Revolving Fund Loan estimated at \$130,000, increased capital outlay (\$129,800), and increased personal services costs (\$35,500).

As noted previously, sewer rates are budgeted to increase for 2008/2009 as part of the two year rate resolution adopted by City Council in 2007. A rate study will again be completed in 2008/2009 for rates to be effective in 2009/2010. This will be done 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 2004/2005	Actual 2005/2006	Actual 2006/2007	Estimated 2007/2008	Estimated 2008/2009
Million Cubic Feet of Wastewater Treated		183.18	173.38	208.27	219.80	220.00
Carbonaceous Biological Oxygen Demand Treated (1,000 lbs/yr.)		1,655.9	1,922.20	1,581.20	1,357.90	1,400.00
Total Suspended Solids Treated (1,000 lbs/yr.)		2,508.3	2,728.5	2,935.90	2,852.20	2,900.00
Number of Customer Bills	Industrial	96	96	96	96	96
	Non-Industrial	<u>105,230</u>	<u>105,519</u>	<u>107,138</u>	<u>107,844</u>	<u>108,554</u>
	Total	105,326	105,615	107,234	107,940	108,640

PERFORMANCE MEASURES:

Calendar Year Measures	Actual 2005	Actual 2006	Estimated 2007	Estimated 2008	Estimated 2009
Gallons of Biosolids/Number of Acres	5,529,202/578	4,482,097/528	5,143,571/620	4,500,000/500	5,000,000/570
Lift Station Preventive Maintenance Tasks	7,145	6,828	7,764	7,700	7,700
Lift Station Corrective Work Orders	92	60	176	80	80
Plant Preventive Maintenance Tasks	17,360	15,080	16,686	16,650	16,650
Plant Corrective Work Orders	325	237	715	400	400

RECENT ACCOMPLISHMENTS:

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

The administrative activity of the Water Pollution Control Plant saw the retirement of the former Director at the end of December, 2007 and a successful transition to the new Director. An overlap period of approximately six weeks assisted in this transition.

The operations group successfully completed the renovation of the roughing filter including the overhaul of two filter pumps and 40 new air gates. Some of the interior process piping in the grit removal building had to be replaced. The Operations group is attempting to do only necessary maintenance on most of the equipment that will be eliminated or upgraded with the upcoming plant improvement project.

Through 11 months of 2007, the operations group experienced 257 hours of sick leave compared to 112 hours during the same time period in 2006. Overtime was held to 303 hours to cover absences due to sick leave and vacations. The entire plant sick leave for 24 employees totaled 947 hours which is up from 674 hours in 2006 but still down from 2,141 hours in 2005. The safety record continues to climb and as of December 2007, the plant had 2,311 days without a lost time accident.

The operations and maintenance staff completed 16,686 preventative work orders and 715 corrective work orders. This program is directed at preventing mechanical failures by following good preventative maintenance techniques.

Under the Pretreatment Program, the Environmental Coordinator continued to administer the Industrial Pretreatment Program. There were 13 significant industrial users inspected and monitored throughout the year. Fourteen commercial septic tank cleaner permits were issued and some troubleshooting of potential pollution from non-permitted industrial contributors was conducted. Progress with the Fats, Oil and Grease Program moved forward with 15 new grease discharge permits issued and 59 food service establishments inspected.

Pumping station upgrades continued in 2007. Telemetry upgrades were completed at the Progress Park, Tipton, Houser and Tanglefoot pump stations. New water services were connected at 57th Street and Tipton Road. A new cedar fence was installed at the Papoose station as well as upgrades to a valve and force main. All new piping has been purchased and will be installed in the spring of 2008.

The laboratory continues to meet the analytical needs of the Water Pollution Control Plant. The lab performs analytical analysis for the plant, biosolids program, pretreatment program, Muscatine County Sanitary Landfill, local industries and some nearby communities. The lab has successfully completed certification by the State of Iowa for soil testing and staff has also had training for E. Coli testing.

The biosolids program had another outstanding season. A total of 5,143,571 gallons of biosolids were applied to 620 acres of land. A total of 18 soil samples were collected to be 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, staff provides valuable assistance to other divisions of the Water Pollution Control Plant.

Staff continues to mow about 220 acres of grass at the airport and works together to accomplish a great amount of work that would normally be contracted out to others.

OBJECTIVES TO BE ACCOMPLISHED IN 2008/2009:

- * To successfully complete the WPCP Comprehensive Facilities Improvement Project design phase and begin the construction phase by the fall of 2008. (City Council Ongoing Priority)
- * To complete the upgrades and renovation of the Bond and Schley pump stations before December 2008.
- * To conduct an in-depth review and training of all staff in the maintenance and operation of the new plant.
- * To resolve issues related to the disposal of solid waste generated by the sewer vacuum program.
- * To implement asset management as a working program for the WPCP.

WATER POLLUTION CONTROL FUND
STATEMENT OF BOND AND INTEREST REQUIREMENTS

General Obligation Corporate Purpose Bonds
Water Pollution Control Plant Modifications Project
\$3,650,000 of \$3,910,000 Issue Dated June 1, 1999

<u>Fiscal Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total Requirements</u>
2007/08	\$ 420,000	\$ 36,960	\$ 456,960
2008/09	<u>420,000</u>	<u>18,480</u>	<u>438,480</u>
Total	<u>\$ 840,000</u>	<u>\$ 55,440</u>	<u>\$ 895,440</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.