

# ENVIRONMENTAL HEALTH

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**Winston-Salem**

# SANITATION

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## MISSION STATEMENT

The mission of the Sanitation Division is to ensure an aesthetically pleasant, healthy, and safe environment for the citizens of Winston-Salem by providing economical and effective collection of refuse, yard waste, and recyclables and by transporting these materials to state-approved disposal sites.

## PROGRAM DESCRIPTIONS

### Residential Refuse Collection

- Provides weekly backyard collection or voluntary curbside collection to single-family residences, multi-family residences, and small businesses that generate the same amount of trash as a residential unit
- Administers the voluntary curbside garbage collection program. Residents who participate in the program are issued a 96-gallon rollout cart at no charge and agree to haul the cart to and from the curb each week.

### Central Business District Services

- Provides refuse collection six nights per week for businesses and residences in the central business district. Crews assigned to this program also clean sidewalks, empty trash receptacles, and maintain other common areas around downtown.
- Provides clean-up services for downtown special events (e.g., Alive After Five, Fourth Street Jazz, Summers on Trade, parades, etc.)

### Bulk Container Collection

- Provides mechanized collection to businesses, churches, non-profit organizations, schools, multi-family residential developments, city departments, and the Housing Authority of Winston-Salem on a schedule designed to meet customers' needs
- Charges its customers annually based on the size of the container and the frequency of collection
- Includes the collection of cardboard from the city's nine drop-off sites and the transportation of the material to a processing facility

### Curbside Collection

- Collects brush every 10 working days, except during leaf collection months
- Provides loose leaf collection from November 1 through January 15
- Includes the annual curbside bulky item collection from March through August

### Yard Waste Cart Collection

- Provides weekly curbside collection of containerized yard waste to residential units year round. Residents purchase the 96-gallon rollout carts and pay an annual fee for the service.

### Curbside/Multi-Family Recycling

- Administers a contract for weekly residential curbside recycling and multi-family cart collection. Materials collected include: newspaper, magazines, junk mail, telephone books, chipboard, aluminum, steel, all plastics, cardboard, and glass (clear, brown, and green). Contract costs and related program expenditures are covered in full by a transfer from the solid waste disposal fund.

### County Recycling

- Administers a contract for the operation of two drop-off sites to serve the unincorporated areas of the county. These costs also are covered by a transfer from the solid waste disposal fund.

### Sanitation Code Enforcement

- Enforces the city's sanitation ordinances, including the regulation of refuse storage, improperly containerized yard waste, and illegal distribution of handbills and advertisements

### Sanitation Administration

- Provides leadership, planning, employee safety training and enforcement, and fiscal stewardship for all sanitation programs

# SANITATION

<b>EXPENDITURES BY PROGRAM</b>	<b>Actual FY 05-06</b>	<b>Amended FY 06-07</b>	<b>Requested FY 07-08</b>	<b>Adopted FY 07-08</b>	<b>Percent Change</b>
Residential Refuse Collection	\$6,433,481	\$7,274,790	\$7,556,230	\$7,568,690	4.0%
Central Business District Services	403,124	428,420	429,110	431,270	0.7%
Bulk Container Collection	1,580,237	1,817,640	1,846,120	1,855,660	2.1%
Curbside Collection	3,562,918	4,127,680	4,909,160	4,838,620	17.2%
Yard Waste Cart Collection	980,285	949,130	1,001,060	986,610	3.9%
Curbside/Multi-Family Recycling	2,072,634	2,309,910	2,671,790	2,493,670	8.0%
County Recycling	96,553	131,640	128,190	128,190	-2.6%
Sanitation Code Enforcement	130,751	132,230	151,000	150,570	13.9%
Sanitation Administration	647,749	687,200	759,730	697,280	1.5%
<b>Total Expenditures by Program</b>	<b>\$15,907,732</b>	<b>\$17,858,640</b>	<b>\$19,452,390</b>	<b>\$19,150,560</b>	<b>7.2%</b>

## OBJECTIVES AND ACHIEVEMENTS

- Monitor refuse collection to ensure that residences and bulk container customers are not missed. *In FY 05-06, the Sanitation Division reported 1.1 missed collections per 1,000 collections for households and 0.39 for bulk container customers. For FY 06-07, the division estimates 1.2 missed collections per 1,000 collections for households and 0.36 missed collections for bulk container customers. The same rates are projected for FY 07-08.*
- Increase recycling activity by promoting the curbside recycling program and encouraging greater participation. *In FY 05-06, 89% of the city's households participated in the curbside recycling program. The Sanitation Division estimates that 89% will participate in the program in FY 06-07. A participation rate of 90% is projected for FY 07-08.*
- Respond to increased participation in the weekly yard waste cart collection program. *In FY 05-06, the Sanitation Division serviced 13,500 yard waste carts per week. The division estimates that it will service 13,600 carts in FY 06-07 and 13,900 carts in FY 07-08.*
- Respond to the expected growth in the number of tons of leaves collected from November to January. *In FY 05-06, the Sanitation Division collected 11,200 tons of loose leaves. For FY 06-07, the division collected 12,000 tons and projects that it will collect the same number of tons in FY 07-08.*
- Monitor the voluntary curbside garbage collection program. *Currently, the Sanitation Division has issued 35,500 carts to residents who wish to participate in the program. The division estimates that 5,000 additional carts will be issued in FY 07-08. The division will continue to evaluate its routes to determine whether increased efficiencies can be realized from the number of curbside volunteers.*

# SANITATION

<b>EXPENDITURES BY TYPE</b>	<b>Actual FY 05-06</b>	<b>Amended FY 06-07</b>	<b>Requested FY 07-08</b>	<b>Adopted FY 07-08</b>	<b>Percent Change</b>
Personnel	\$6,915,790	\$7,440,080	\$7,781,100	\$7,754,380	4.2%
Supplies and Services	7,944,376	9,130,910	9,792,420	9,517,310	4.2%
Equipment Leasing Expense	1,047,566	1,287,650	1,878,870	1,878,870	45.9%
<b>Total Expenditures by Type</b>	<b>\$15,907,732</b>	<b>\$17,858,640</b>	<b>\$19,452,390</b>	<b>\$19,150,560</b>	<b>7.2%</b>
<b>RESOURCES BY TYPE</b>					
Bulk Container Service Charges	\$1,510,775	\$1,529,310	\$1,659,890	\$1,585,800	3.7%
Yard Waste Cart Collection Fee	669,680	665,000	715,000	715,000	7.5%
Other Charges for Service	49,414	43,840	46,490	46,490	6.0%
Proceeds from Cart Sales	37,797	73,000	50,250	50,250	-31.2%
Miscellaneous Revenues	3,275	0	0	0	0%
Transfer from Solid Waste Disposal Fund	2,168,332	2,441,550	2,800,020	2,621,860	7.4%
Transfer from Stormwater Fund	1,150,287	1,331,580	1,606,520	1,559,920	17.1%
Other General Fund Resources	10,318,173	11,774,360	12,574,220	12,571,240	6.8%
<b>Total Resources by Type</b>	<b>\$15,907,732</b>	<b>\$17,858,640</b>	<b>\$19,452,390</b>	<b>\$19,150,560</b>	<b>7.2%</b>
<b>Positions</b>					
Full-Time	193	215	216	215	0
Part-Time (FTE's)	21.6	22.6	18.6	18.6	-4

## BUDGET HIGHLIGHTS

- The amended FY 06-07 budget includes \$1,641,560 for new personnel, supplies, disposal costs, equipment, and economic loss payments related to providing services to the areas annexed on September 30, 2006 for nine months of the fiscal year. The adopted FY 07-08 budget reflects a full year of these costs, an increase of \$623,380. If all annexation costs are excluded from both years' budgets, the FY 07-08 budget is increased by \$668,540, or 4.1%.

### Refuse Collection

- To date, the Sanitation Division has issued 35,000 carts to households participating in the voluntary curbside garbage collection program. This level of participation represents 47% of the 73,700 households served each week. Due to continuing interest in the program, the adopted FY 07-08 budget includes the purchase of an additional 5,000 carts, with an annual lease payment of \$52,000.
- The adopted budget includes the replacement of five rear loader packers with three rear loaders and two side loaders (+\$212,000 in annual lease payments). These trucks are over ten years old and incurring higher maintenance costs due to years of heavy use. The Sanitation Division plans to use the two side loaders to realize additional efficiencies from increased participation in the voluntary curbside garbage collection program. The automated trucks would enable the division to extend routes and operate a route with a one-person crew rather than a three-person crew. Because delivery of the replacement trucks will take approximately 12 months, any budgetary impact from these efficiencies would not be realized until FY 08-09.

# SANITATION

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## BUDGET HIGHLIGHTS—Continued

The division currently uses a side loader to service eight routes each week with one three-person crew and a one-person crew, reducing the number of personnel needed from six to four. As a result, the division has reduced the number of temporary laborers that it uses to fully staff crews each day. The adopted budget includes a reduction in the number of temporary laborers from 29 to 23 per day, a savings of \$93,320.

- The adopted budget includes the final year of economic loss payments for private solid waste haulers that formerly served the areas annexed on September 30, 2006. Because one hauler elected to receive full payment in FY 06-07, the budgeted payment for FY 07-08 totals \$330,260, a reduction of \$80,480.

### **Bulk Container Collection**

- Expenditures are increased by \$38,020, 2.1%, primarily due to increases in vehicle maintenance and repair costs (+\$17,190), fuel expenditures (+\$13,770), and the replacement of one front-loading truck (+\$44,000). These increases are partially offset by a reduction in disposal costs based on projected tonnage (-\$28,000) and overtime (-\$13,330).
- Bulk container collection fees are increased by \$56,490, or 3.7%, due to a projected increase in the number of customers. These fees would cover 85% of the cost of this program. The adopted budget does not include any adjustments to the fees.

### **Curbside Collection**

- For the 2007 leaf collection season, the Sanitation Division plans to implement a new strategy for seasonal leaf collection. The city would be divided into four zones with each zone being serviced with all sanitation forces. In previous seasons, sanitation forces were deployed citywide. Under the new strategy, the entire city would receive three collections. To increase the rate of collection, the Sanitation Division would extend the work day for full-time and temporary employees by one hour every day, including weekends. In addition, the division would increase the number of temporary laborers from 46 to 48. As a result, the adopted budget includes increases in overtime and temporary costs (+\$40,840). The new strategy would incur additional postage costs for a citizen mailing that would be sent three weeks prior to collection in each zone (+22,500).
- The adopted budget also includes the replacement of five leaf loaders and the addition of two loaders that would be use as spares (+\$23,660 in lease payments). The spare equipment would enable the division to reduce downtime on the routes when equipment breaks down.
- At its May 14, 2007 meeting, the City-County Utility Commission approved an increase in yard waste disposal from \$24 per ton to \$27. In addition, the Utilities Division anticipates that the cost of leaf disposal will increase from \$3.87 per cubic yard to \$4.04. Both of these increases are due to the opening of the new Forum 52 Yard Waste Facility to serve the northern areas of the city. As a result, disposal costs for brush and leaf collection are increased by \$271,210.
- The transfer from the stormwater management fund is increased by \$228,340 to cover 100% of the cost of seasonal leaf collection. The increase is primarily due to the costs associated with the new collection strategy, leaf disposal, and the purchase of equipment.

### **Yard Waste Cart Collection**

- Expenditures are increased by \$37,480, or 3.9%, primarily due to increased vehicle operating and maintenance costs (\$29,510) and yard waste disposal fees (+\$16,330). The increase in disposal costs reflects an increase in the yard waste disposal fee from \$24 per ton to \$27.

# SANITATION

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## **BUDGET HIGHLIGHTS**–Continued

- Estimated revenues from yard waste cart collection fees are increased by \$50,000 based on a projected increase in the number of customers from 13,300 to 14,300. Excluding the cost of carts, these fees would cover 76% of the cost of this program.

### **Curbside/Multi-Family Recycling**

- The adopted budget for curbside/multi-family recycling is increased by \$183,760, or 8%, primarily due to increased contract costs. A new recycling contract went into effect on April 1, 2007. The estimated cost for FY 07-08 reflects anticipated growth in the number of households receiving service, as well as price adjustments based on the Consumer Price Index. The estimated cost does not include an allowance for the fuel price surcharge. The contract provides for an increased level of service by adding the collection of all plastic bottles, reducing the bundling requirements for corrugated cardboard, and returning 28% (up from 25%) of the proceeds from the sale of recycled commodities.

# WATER AND SEWER SYSTEM

## PROGRAM DESCRIPTIONS

### Water Treatment

- Operates three conventional water treatment plants—the R.W. Neilson plant, the R.A. Thomas plant, and the Northwest plant—with a combined capacity of 97 million gallons per day (MGD)
- Operates and maintains 14 tanks and eight (8) distribution pump stations for distributing water throughout the distribution system

### Water Distribution

- Provides potable water to residential, commercial, and industrial customers
- Maintains a distribution system consisting of approximately 2,016 miles of water mains
- Installs water connections at the request of customers, services and changes water meters, and performs cut-ons and cut-offs at the request of customers and/or the billing office
- Oversees the backflow prevention program

### Wastewater Collection

- Provides wastewater collection to residential, commercial, and industrial customers
- Maintains a collection system consisting of approximately 1,459 miles of sewer mains
- Installs sewer connections, cleans and repairs sewer mains, clears utility right-of-ways, and constructs sewer mains

### Wastewater Treatment

- Operates two wastewater treatment plants, the Archie Elledge plant and the Muddy Creek

- plant, and 52 wastewater lift stations with a combined capacity of 51 million gallons per day
- Manages two programs that impact its treatment facilities:

**Biosolids Disposal:** Disposes of wastewater treatment plant biosolids in a manner that is considered beneficial reuse. Facilities will begin operation in FY 07-08 that will allow the focus to shift from land application of biosolids to farmland to marketing of a biosolid pellet for use as a soil amendment or fertilizer filler.

**Industrial Waste Control:** Regulates commercial and industrial discharges to the wastewater system, determines surcharge bills for commercial and industrial customers, and enforces discharge permits that protect the wastewater treatment facilities

### Utilities Customer Service

- The Utility Billing and Customer Service function is integrated with the City of Winston-Salem’s Revenue Collections Division. The Utilities Administration section coordinates customer service issues with the Revenue Collections Division and serves as liaison between the City-County Utility Commission and the Revenue Collections Division.

### Utilities Administration

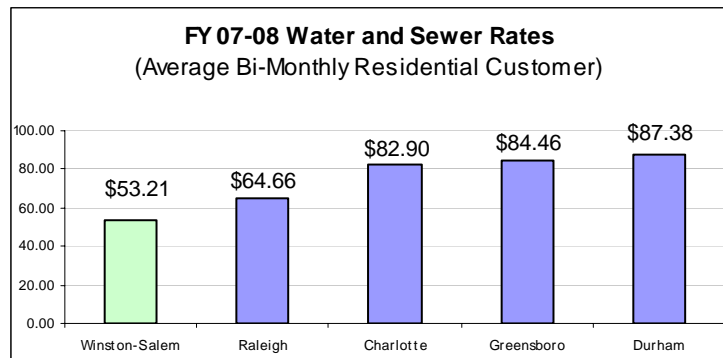
- Provides leadership, planning, and fiscal stewardship for the Utilities Division

	<b>Actual</b>	<b>Amended</b>	<b>Requested</b>	<b>Adopted</b>	<b>Percent</b>
<b>EXPENDITURES BY PROGRAM</b>	<b><u>FY 05-06</u></b>	<b><u>FY 06-07</u></b>	<b><u>FY 07-08</u></b>	<b><u>FY 07-08</u></b>	<b><u>Change</u></b>
Water Treatment	\$7,719,204	\$8,206,340	\$8,281,850	\$8,407,460	2.5%
Water Distribution	7,131,927	7,473,150	8,086,280	8,126,170	8.7%
Wastewater Collection	4,692,708	4,726,740	5,304,280	5,323,140	12.6%
Wastewater Treatment	11,200,912	12,226,100	14,158,050	14,297,410	16.9%
Utilities Customer Service	3,749,451	3,548,430	3,317,910	3,317,910	-6.5%
Utilities Administration	1,332,024	1,631,860	1,544,530	1,614,860	-1.0%
Non-Program Debt Service	20,866,910	20,891,580	21,601,860	21,601,860	3.4%
<b>Total Expenditures by Program</b>	<b>\$56,693,135</b>	<b>\$58,704,200</b>	<b>\$62,294,760</b>	<b>\$62,688,810</b>	<b>6.8%</b>

# WATER AND SEWER SYSTEM

## OBJECTIVES AND ACHIEVEMENTS

➤ Maintain residential water and sewer rates that are in the lowest 10% of public systems serving at least 20,000 customers in the Southeast. *Based on the average bi-monthly residential consumption of water and sewer services, Winston-Salem has the lowest combined water/sewer rates of the five major North Carolina cities.*



➤ Provide sufficient treated water to meet the daily demands of customers. *In FY 05-06, the Thomas, Neilson, and Northwest water plants pumped an average of 41.0 million gallons per day. For FY 06-07, the Utilities Division estimates that the plants will pump an average of 40.5 million gallons per day. The division projects that output will increase to 41.5 million gallons per day in FY 07-08. Over the last two years, average daily demand has used approximately 43% of the system's capacity.*

➤ Provide necessary treatment of the wastewater stream generated by the system's customers. *In FY 05-06, the Elledge and Muddy Creek wastewater treatment plants treated an average of 33.4 million gallons per day. For FY 06-07, the Utilities Division estimates that the plants will treat 34.5 million gallons per day. The division projects that 35.0 million gallons of wastewater will be treated per day during FY 07-08. Over the last two years, average daily demand has used approximately 69% of the system's capacity.*

➤ Provide necessary treatment of the wastewater stream generated by the system's customers. *In FY 05-06, the Elledge and Muddy Creek wastewater treatment plants treated an average of 33.4 million gallons per day. For FY 06-07, the Utilities Division estimates that the plants will treat 34.5 million gallons per day. The division projects that 35.0 million gallons of wastewater will be treated per day during FY 07-08. Over the last two years, average daily demand has used approximately 69% of the system's capacity.*

➤ Maintain a 100% compliance rate with federal and state water and wastewater treatment standards. *During FY 05-06 there were three violations of the plants' NPDES permits. All of these violations occurred at the Muddy Creek plant's 002 discharge point as a result of flood conditions. Facilities are currently under construction that will prevent future permit violations due to flood waters backing up into the plant from the Yadkin River.*

➤ Minimize the rate of misread bills. *In FY 05-06, the Utilities Division determined that one out of every 100 bills was misread. The same rate is expected to be incurred in FY 06-07 and FY 07-08.*

<b>EXPENDITURES BY TYPE</b>	<b>Actual FY 05-06</b>	<b>Amended FY 06-07</b>	<b>Requested FY 07-08</b>	<b>Adopted FY 07-08</b>	<b>Percent Change</b>
Personnel Services	\$15,015,227	\$15,937,460	\$17,112,670	\$17,440,770	9.4%
Supplies and Services	20,810,998	21,834,870	23,539,830	23,605,780	8.1%
<b>Subtotal</b>	<b>\$35,826,225</b>	<b>\$37,772,330</b>	<b>\$40,652,500</b>	<b>\$41,046,550</b>	<b>8.7%</b>
Capital Outlay	\$0	\$20,290	\$16,000	\$16,000	-21.1%
Debt and Lease Expense	20,866,910	20,891,580	21,601,860	21,601,860	3.4%
Transfer to General Fund	0	20,000	24,400	24,400	22.0%
<b>Total Expenditures by Type</b>	<b>\$56,693,135</b>	<b>\$58,704,200</b>	<b>\$62,294,760</b>	<b>\$62,688,810</b>	<b>6.8%</b>

# WATER AND SEWER SYSTEM

<b>RESOURCES BY TYPE</b>	<b>Actual FY 05-06</b>	<b>Amended FY 06-07</b>	<b>Requested FY 07-08</b>	<b>Adopted FY 07-08</b>	<b>Percent Change</b>
Water Charges	\$27,438,192	\$29,100,160	\$30,171,440	\$31,036,390	6.7%
Sewer Charges	21,212,775	25,125,420	22,678,650	23,702,410	-5.7%
Charges for Service	5,983,512	4,579,510	5,559,240	5,617,150	22.7%
Assessments to Benefit Property	736,314	510,000	1,250,000	1,250,000	145.1%
Interest Income	6,120,446	1,699,110	1,700,000	1,700,000	0.1%
Miscellaneous Revenues	84,397	0	0	0	0%
Fund Balance Appropriation	0	0	935,430	0	0%
Added to Capital Reserves	-4,882,501	-2,310,000	0	-617,140	73.3%
<b>Total Resources by Type</b>	<b>\$56,693,135</b>	<b>\$58,704,200</b>	<b>\$62,294,760</b>	<b>\$62,688,810</b>	<b>6.8%</b>
<b>Positions</b>					
Full-Time	311	314	327	327	+13
Part-Time (FTEs)	6.9	6.4	6.4	6.4	0

## BUDGET HIGHLIGHTS

- By the end of FY 06-07, two of the largest users of the water and sewer system will cease operations, resulting in revenue losses of over \$1,500,000. To offset these losses and provide sufficient revenues to meet the system's debt service coverage ratio requirements for recently approved revenue bonds, the City-County Utility Commission approved the following adjustments to water and sewer rates on May 14, 2007:
  - 7% increase in water rates
  - 9% increase in sewer rates
  - 50% decrease in the volume rate discount for large quantity irrigation customers
  - Increased consumption requirement in rate tier structure from 10,000 cubic feet per month to 20,000 cubic feet per month before users receive the volume rate discount

These adjustments are projected to increase water, sewer, and industrial waste charges by \$1,946,620. The average increase for a city residential customer will be \$3.92 per bi-monthly bill. Winston-Salem's rates will remain the lowest of the five major North Carolina cities (see chart above). The rate changes will become effective on October 1, 2007.

- The overall adopted budget for the water and sewer system is increased by \$3,984,610, or 6.8%. This increase primarily is due to the start-up of a new biosolids dryer facility at the Elledge Wastewater Treatment Plant in February 2008. As the amount of farmland for sludge disposal has diminished, the Utilities Division has evaluated alternatives for disposal. The biosolids dryer facility provides an environmentally safe alternative by converting dewatered biosolids into dried pellets. The Utilities Division may be able to market this product to fertilizer companies or other potential users. The adopted budget for this facility totals \$3,096,250, of which \$1,749,550 represent new costs. Thirteen (13) positions will be required to operate this facility; eleven (11) of the positions are new (overall salary and benefits of \$637,220). If the new costs of this facility are excluded, the overall budget is increased by 3.8%.
- The adopted FY 07-08 budget also includes the addition of two full-time instrumentation technicians—one at the Northwest Water Treatment Plant and one at the Muddy Creek Wastewater Treatment Plant (+\$82,040 in salaries and benefits). With the addition of the Northwest Water Treatment Plant and other system upgrades, the number of instrumentation devices that require monitoring has increased from 180 in 1994 to

## **WATER AND SEWER SYSTEM**

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over 1,300 today. A workload study showed that additional staffing is needed to manage the increased number of devices.

- The adopted budget also includes pay adjustments related to the recently completed study of one-third of the city's position classifications (+\$324,830 in salaries and benefits). These adjustments would apply primarily to operations and supervisory positions at the water and wastewater treatment plants.
- Other increases in supplies and services expenditures include increased contract costs for sewer easement and other preventive maintenance needs (+\$475,000), increased information systems charges for a work order management system and hand held computers for meter reading (+\$224,720), and an increased indirect cost allocation for city services (+\$182,390).
- The adopted budget includes \$91,820 in new lease payments for the replacement of equipment and the purchase of new equipment needed to perform preventive maintenance on the water distribution and wastewater collection systems. A complete list of this equipment can be found in the supplemental information section of the budget document.

# SOLID WASTE DISPOSAL

## MISSION STATEMENT

The mission of the Solid Waste Disposal Division is to provide, as an enterprise, environmentally and economically acceptable means of solid waste disposal (excluding hazardous, infectious, and radioactive wastes) for current and future wastes generated in Forsyth County.

## PROGRAM DESCRIPTIONS

### Municipal Solid Waste Disposal

- Operates a state-permitted, active municipal solid waste landfill at Hanes Mill Road
- Maintains closed sanitary landfills on Ebert Street, Overdale Road, and Link Road

### Construction and Demolition Waste Disposal

- Operates a state-permitted, active construction and demolition landfill for construction and demolition materials on Old Salisbury Road
- Maintains the closed Overdale Landfill facility

### Leaf Composting and Yard Waste Processing

- Operates a leaf transfer facility on Shorefair Drive, a leaf compost facility located off Reynolds Park Road, and a yard waste processing facility located off Overdale Road
- Plans to open a new yard waste processing facility located off Highway 65 in the Forum 52 Industrial Park in fall 2007

### Household Hazardous Waste Management

- Provides for the recycling or disposal of hazardous materials including paints, pesticides, oxidizers, used oil, and solvents

### Disposal of Other Wastes

- Provides recycling of “white goods” (refrigerators, stoves, etc.) and tires through private contractors

### Financing for Collection of Household Recyclables

- Provides financing for Winston-Salem and Forsyth County residential recycling efforts

### Solid Waste Disposal Administration

- Provides leadership, planning, workplace safety training and enforcement, and fiscal stewardship for the Solid Waste Disposal Division

	<b>Actual</b>	<b>Amended</b>	<b>Requested</b>	<b>Adopted</b>	<b>Percent</b>
<b>EXPENDITURES BY PROGRAM</b>	<b><u>FY 05-06</u></b>	<b><u>FY 06-07</u></b>	<b><u>FY 07-08</u></b>	<b><u>FY 07-08</u></b>	<b><u>Change</u></b>
Municipal Solid Waste Disposal	\$5,807,629	\$6,162,070	\$5,583,110	\$5,590,740	-9.3%
Construction and Demolition Waste Disposal	811,031	983,770	1,822,950	1,822,950	85.3%
Leaf Composting/Yard Waste Processing	798,728	867,540	1,428,730	1,427,690	64.6%
Financing for Household Recycling	2,265,219	2,608,250	3,049,490	3,049,490	16.9%
Solid Waste Disposal Administration	506,689	484,780	496,730	495,460	2.2%
Non-Program Debt Service	2,164,390	2,336,220	2,416,710	2,416,710	3.4%
<b>Total Expenditures by Program</b>	<b>\$12,353,685</b>	<b>\$13,442,630</b>	<b>\$14,797,720</b>	<b>\$14,803,040</b>	<b>10.1%</b>

## OBJECTIVES AND ACHIEVEMENTS

- Manage the Hanes Mill Road and Old Salisbury Road landfills in compliance with state regulations, ensuring that no violations are cited during state inspections. *The NC Division of Waste Management issued no “Notice of Violations” (NOV’s) for FY 05-06. The city anticipates no NOV’s for FY 06-07 or FY 07-08.*

# SOLID WASTE DISPOSAL

## OBJECTIVES AND ACHIEVEMENTS-Continued

- Manage operations and set rates based on a projected total of 409,470 tons of waste per year. *In FY 05-06, a total of 368,561 tons of solid waste was received and disposed at the Hanes Mill Road and Old Salisbury Road landfills. For FY 06-07, the Solid Waste Disposal Division estimates that 368,561 tons will be received at these facilities. The division similarly projects that these facilities will receive 368,561 tons in FY 07-08. The opening of private transfer/disposal facilities in the region continues to influence tonnage received, and makes forecasts more challenging.*
  
- Implement waste management methods and policies that increase the life of the landfills while maintaining a sound solid waste disposal fund. *The Solid Waste Disposal Division continues to support reducing waste at the landfill through recycling and waste reduction programs, yet maintaining sufficient waste stream revenues to support operations. (See table below.)*

### Waste Tonnage by Type

	<b>Actual FY 05-06</b>	<b>Estimated FY 06-07</b>	<b>Projected FY 07-08</b>
Leaves and Yard Waste	42,087	42,169	44,658
Household Hazardous Waste	198	194	194
Appliances/White Goods	1,227	1,175	1,175
Tires	5,844	6,184	5,887
<b>Total (tons)</b>	<b>49,356</b>	<b>49,722</b>	<b>51,914</b>

<b>EXPENDITURES BY TYPE</b>	<b>Actual FY 05-06</b>	<b>Amended FY 06-07</b>	<b>Requested FY 07-08</b>	<b>Adopted FY 07-08</b>	<b>Percent Change</b>
Personnel Services	\$1,739,048	\$1,750,920	\$1,860,160	\$1,863,160	6.4%
Supplies and Services	6,281,915	6,913,940	7,898,990	7,901,310	14.3%
<b>Subtotal</b>	<b>\$8,020,964</b>	<b>\$8,664,860</b>	<b>\$9,759,150</b>	<b>\$9,764,470</b>	<b>12.7%</b>
Debt and Lease Expense	\$2,164,390	\$2,336,220	\$2,416,710	\$2,416,710	3.4%
Transfer to General Fund for Recycling	2,168,332	2,441,550	2,621,860	2,621,860	7.4%
<b>Total Expenditures by Type</b>	<b>\$12,353,685</b>	<b>\$13,442,630</b>	<b>\$14,797,720</b>	<b>\$14,803,040</b>	<b>10.1%</b>

# SOLID WASTE DISPOSAL

<b>RESOURCES BY TYPE</b>	<b>Actual FY 05-06</b>	<b>Amended FY 06-07</b>	<b>Requested FY 07-08</b>	<b>Adopted FY 07-08</b>	<b>Percent Change</b>
Service Charges	\$8,306,238	\$8,312,690	\$9,105,790	\$9,105,790	9.5%
Charges to City Departments	3,150,524	3,349,510	3,598,320	3,598,320	7.4%
Proceeds from Sale of Recyclables	273,996	289,730	267,740	267,740	-7.6%
North Carolina Department of Transportation	486,500	473,140	467,760	467,760	-1.1%
Other Resource Recovery	124,232	100,820	149,950	149,950	48.7%
Rentals	44,546	42,420	35,800	35,800	-15.6%
Miscellaneous Revenues	230	0	0	0	0%
Interest Income	1,607,379	427,640	700,000	700,000	63.7%
Proceeds from Sale of Surplus Property	774,141	0	0	0	0%
Fund Balance Appropriation	0	446,680	472,360	477,680	6.9%
Added to Capital Reserves	-2,414,100	0	0	0	0%
<b>Total Resources by Type</b>	<b>\$12,353,685</b>	<b>\$13,442,630</b>	<b>\$14,797,720</b>	<b>\$14,803,040</b>	<b>10.1%</b>

## Positions

Full-Time	34	34	35	35	+1
Part-Time (FTEs)	5.5	6.5	7.5	7.5	+1.0

## BUDGET HIGHLIGHTS

- The overall adopted budget for solid waste disposal is increased by \$1,360,410, or 10.1%. This increase primarily is due to the opening of the Forum 52 Yard Waste Facility (+\$394,100) and a new regulatory requirement for setting aside funds for closure at the Old Salisbury Road Construction and Demolition Landfill (+\$730,500). The adopted budget for the new yard waste facility includes the addition of a full-time weighmaster position (+\$34,720). If these new costs are excluded, the overall budget is increased by 1.8%.
- On May 15, 2007, the City-County Utility Commission approved the following increases in the tipping fees at its disposal facilities:

<b>Facility</b>	<b>Current Fee</b>	<b>Adopted Fee</b>	<b>Increase</b>
Hanes Mill Road Landfill			
Base Rate	\$34/ton	\$34/ton	\$0
Large Volume Rate	\$28/ton	\$30/ton	+\$2
Yard Waste Facilities			
Yard Waste	\$24/ton	\$27/ton	+\$3
Leaf Processing	\$2.43/CY	\$2.54/CY	+\$0.11
Old Salisbury Road C&D Landfill	\$27/ton	\$28/ton	+\$1

These adjustments are projected to increase tipping fee revenues by \$1,041,910, or 8.9%. The following table compares the tipping fees for public disposal facilities in the five major North Carolina cities.

# SOLID WASTE DISPOSAL

## BUDGET HIGHLIGHTS-Continued

### Solid Waste Tipping Fee Comparison of Public Facilities

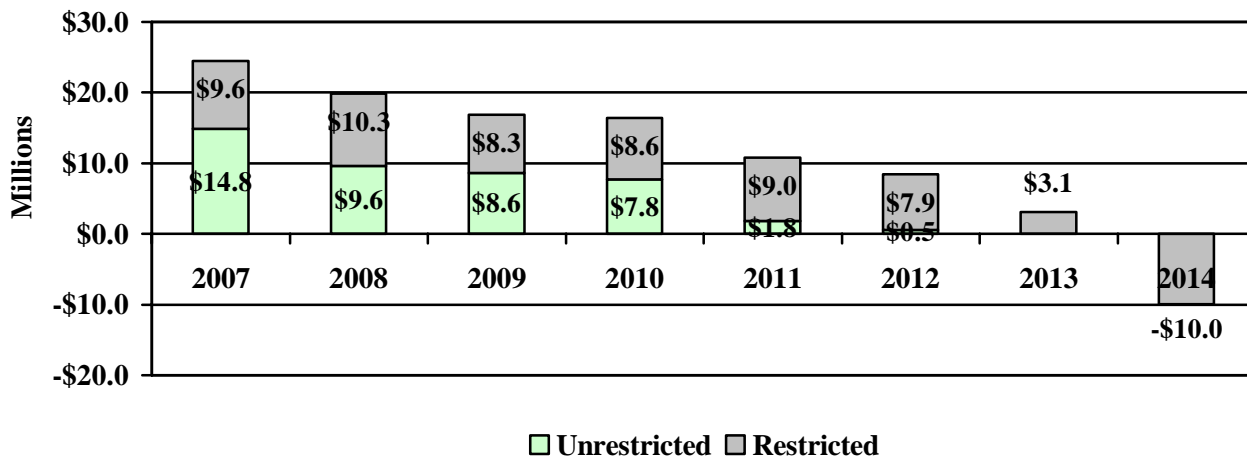
<u>Jurisdiction</u>	<u>Municipal Solid Waste</u>	<u>Construction &amp; Demolition</u>
Durham (Transfer Station)	\$39.50	NA <sup>1</sup>
High Point	\$36.00	NA <sup>2</sup>
Charlotte (Mecklenburg County)	\$25.00	\$35.00
Greensboro	\$36.00	\$22.00
Raleigh (Wake County)	\$25.00	NA <sup>2</sup>
Winston-Salem	\$34 / \$30	\$28

1 – Accepts C&D only from City of Durham; no posted gate rate

2 – No publicly operated facility

- Financing for household recycling is increased by \$441,240, or 16.9%, primarily due to the increased cost of the city’s curbside/multi-family recycling program. The adopted budget for this service is increased by \$183,760, or 8%, primarily due to increased contract costs. The remaining increases are related to the operation of the three county recycling drop-off sites, school recycling, and other waste diversion programs.
- The fund balance for the solid waste disposal fund consists of restricted and unrestricted reserves. The unrestricted reserves will provide resources for future landfill cell construction, the development of a new construction and demolition landfill, and other capital improvements during the next 15 years. The restricted reserves are set aside for closure and post closure care activities at closed landfill cells in compliance with state environmental regulations. The following chart provides a projection of solid waste disposal fund balance, both unrestricted and restricted reserves.

Solid Waste Disposal Fund Balance



# STORMWATER MANAGEMENT

## MISSION STATEMENT

The mission of the Stormwater Management Program is to restore, protect, and preserve the surface waters within the City of Winston-Salem and to maintain, repair, map, and evaluate drainage systems within the street rights-of-way.

## PROGRAM DESCRIPTIONS

### Stormwater Monitoring and Administration

- Manages the day-to-day operations of the Stormwater Management Program
- Implements the requirements of the city's Municipal Separate Storm Sewer System (MS4) permit
- Performs watershed master planning by developing maps and inventories of the entire drainage system within the city
- Monitors stormwater run-off as part of the program's efforts to improve water quality
- Provides educational programming to increase public awareness of water quality issues

- Monitors stormwater billings for residential and non-residential customers in conjunction with the city's Revenue Division
- Reviews and approves stormwater management plans

### Drainage Maintenance

- Repairs, replaces, and upgrades the city's drainage system within street rights-of-way
- Provides for drainage system repairs on private property through the 60/40 program in which the city covers 60% of the cost for qualified projects
- Removes debris from culverts and bridge abutments with many streams and creeks

<b>EXPENDITURES BY PROGRAM</b>	<b>Actual FY 05-06</b>	<b>Amended FY 06-07</b>	<b>Requested FY 07-08</b>	<b>Adopted FY 07-08</b>	<b>Percent Change</b>
Monitoring and Administration					
Administration	\$1,164,986	\$1,124,850	\$1,205,720	\$1,205,720	7.2%
Water Quality Monitoring	684,198	798,060	958,800	958,800	20.1%
Support for Seasonal Leaf Collection	1,150,287	1,331,580	1,606,520	1,559,920	17.1%
<b>Subtotal Monitoring and Administration</b>	<b>\$2,999,472</b>	<b>\$3,254,490</b>	<b>\$3,771,040</b>	<b>\$3,724,440</b>	<b>14.4%</b>
Drainage Maintenance	\$2,341,448	\$2,678,070	\$2,804,950	\$2,804,950	4.7%
<b>Total Expenditures by Program</b>	<b>\$5,340,920</b>	<b>\$5,932,560</b>	<b>\$6,575,990</b>	<b>\$6,529,390</b>	<b>10.1%</b>

# STORMWATER MANAGEMENT

## OBJECTIVES AND ACHIEVEMENTS

- Inspect and clean, as needed, all city catch basins twice per year. *In FY 05-06, 21,833 basins were inspected throughout the city. The division expects to accomplish 22,000 basin inspections in FY 06-07, and the division estimates that 22,000 basins will be inspected in FY 07-08.*
- Investigate water quality problems from citizen reports. *In FY 05-06, 102 calls were received and investigated. The division expects to receive and investigate 140 calls in FY 06-07, and 175 are anticipated for FY 07-08.*

<b>EXPENDITURES BY TYPE</b>	<b>Actual FY 05-06</b>	<b>Amended FY 06-07</b>	<b>Requested FY 07-08</b>	<b>Adopted FY 07-08</b>	<b>Percent Change</b>
Personnel Services	\$1,693,166	\$1,859,060	\$2,091,900	\$2,091,900	12.5%
Supplies and Services	1,930,526	2,345,210	2,484,670	2,484,670	5.9%
<b>Subtotal</b>	<b>\$3,623,692</b>	<b>\$4,204,270</b>	<b>\$4,576,570</b>	<b>\$4,576,570</b>	<b>8.9%</b>
Capital Outlay	\$31,551	\$0	\$18,600	\$18,600	NA
Debt and Lease Expense	535,390	376,710	349,900	349,900	-7.1%
Transfer to General Fund (Leaf Collection)	1,150,287	1,331,580	1,606,520	1,559,920	17.1%
Transfer to General Fund (Vector Control)	0	20,000	24,400	24,400	22.0%
<b>Total Expenditures by Type</b>	<b>\$5,340,920</b>	<b>\$5,932,560</b>	<b>\$6,575,990</b>	<b>\$6,529,390</b>	<b>10.1%</b>
<b>RESOURCES BY TYPE</b>					
Stormwater Fees: Residential	\$2,700,955	\$2,911,030	\$3,735,660	\$3,735,660	28.3%
Stormwater Fees: Non-Residential	2,496,586	3,784,090	4,865,400	4,865,400	28.6%
Private Drainage Projects	42,000	10,000	25,000	25,000	150.0%
Miscellaneous Revenues	30,674	5,000	0	0	-100.0%
Interest Income	34,817	0	0	0	0%
Fund Balance Appropriation	35,888	0	0	0	0%
Added to Capital Reserve	0	-777,560	-2,050,070	-2,096,670	-169.6%
<b>Total Resources by Type</b>	<b>\$5,340,920</b>	<b>\$5,932,560</b>	<b>\$6,575,990</b>	<b>\$6,529,390</b>	<b>10.1%</b>

### Positions

Full-Time	43	43	47	47	+4
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## BUDGET HIGHLIGHTS

- During budget discussions in 2006, the City Council directed staff to review the current stormwater fee structure and develop a proposal that would create tiered rates for residential property owners and would provide a revenue distribution that reflects the amount of residential and non-residential impervious area. The stormwater management staff hired a consultant in December 2006, to assist with the development of this new fee structure. The stormwater management staff, working with the consultant, has determined that the city's impervious area is 57% non-residential and 43% residential.

# STORMWATER MANAGEMENT

## BUDGET HIGHLIGHTS-Continued

The Stormwater Management Program has experienced an increase in its federally mandated responsibilities and has identified over \$24 million in drainage system capital needs. As a result, the adopted FY 07-08 budget includes additional staffing to meet these federal requirements and increased resources for drainage maintenance to respond to the most urgent drainage problems. The adopted 2008-2013 Capital Plan includes the issuance of revenue bonds for the first time to update the city's inventory of public and private drainage systems and to begin work on the \$24 million in drainage system needs.

To provide sufficient revenues to fund these operating and capital needs, the following fee structure is adopted for FY 07-08:

### Tiered Residential Fees

Area (Sq.Ft.)		Scaling Factor	Bi-Monthly Fees		%
			Current	Adopted	Change
1	2,000	0.95	\$8.50	\$8.50	0%
2,001	4,000	1.00	\$8.50	\$9.00	5.9%
4,001	6,000	1.50	\$8.50	\$13.50	58.8%
> 6,000		2.00	\$8.50	\$18.00	111.8%

The average square footage of impervious area for a residential property is 3,462 square feet. This amount of impervious area is considered to be the equivalent residential unit (ERU). In the table above, the ERU is between 2,001 and 4,000 square feet. Forty-three percent (43%) of the residential impervious area is included in this range. The annual stormwater bill, based on an ERU, would increase from \$51 to \$54.

### Non-Residential Fee

Bi-Monthly Fee		%
Current	Adopted	Change
\$81.17	\$138.50	70.6%

The annual stormwater bill would increase from \$487 to \$831.

Estimated revenues from the residential and non-residential fees reflect projected collection rates of 95% and 85%, respectively. In order to maintain the revenue distribution between residential and non-residential property, the fee for non-residential is increased by a greater percentage in order to offset the lower collection rate. As a result of these adjustments, estimated revenues from stormwater fees are increased by \$1,905,940, or 28.5%.

### Monitoring and Administration

- The adopted FY 07-08 budget includes the addition of four full-time positions: a civil engineer, a special projects coordinator, an inspector, and an office assistant. These positions are needed to implement the requirements from a federal audit of the program. These requirements include the following:
  - Create an inventory of private drainage systems throughout the city
  - Provide more timely response to drainage complaints on private property
  - Increase inspections of stormwater controls for businesses and industry
  - Review stormwater management plans for new development and redevelopment projects to ensure adequate facilities
  - Develop stormwater pollution prevention plans for city facilities

The cost of these positions totals \$195,290 in salaries and benefits.

- Supplies and services expenditures include an increase in the contract cost for street sweeping (+\$84,470) and increases for water quality studies in the newly annexed areas (+\$20,000). The increase in the street

# STORMWATER MANAGEMENT

## BUDGET HIGHLIGHTS-Continued

sweeping contract is due to an increase in the number of curb miles related to annexation and new developments.

- The transfer to the general fund for seasonal leaf collection is increased by \$228,340, or 17.1%. This increase is primarily due to the new leaf collection strategy, increased leaf disposal costs, and the replacement of equipment.

### Drainage Maintenance

- Supplies and services expenditures include an increase in supplies costs due to increased prices and to address drainage issues in the newly annexed areas (+\$50,000).
- The adopted budget includes the purchase of a new track hoe for one of the program's drainage repair crews (lease payment of \$45,900). Currently, the division uses three crews for drainage repairs, each varying in size from seven (7) to ten (10) people. Two of the crews have track hoes to perform major excavation work. The division is renting a third track hoe to equip the third repair crew. From March 2006 through October 2006, the division spent over \$39,000 on renting this equipment. The new equipment will ensure a timely response to drainage issues within the existing city and the newly annexed areas.
- The adopted budget also includes debt and lease expenses for replacement of the following equipment: a broom tractor (\$11,480), two crew trucks (\$15,300), a backhoe (\$17,850), and two remote rollers (\$7,650).

### 2008-2013 Capital Plan

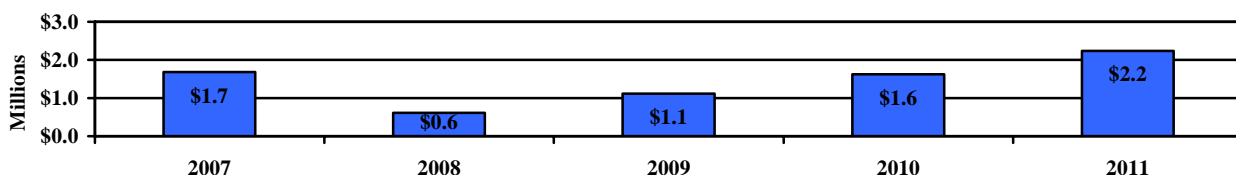
- On June 18, 2007, the City Council adopted the FY 07-08 budget, providing \$900,000 from stormwater capital reserves for drainage improvements on private property that meet the criteria of the revised 70/30 policy.
- The adopted FY 07-08 capital budget includes the issuance of \$10.7 million in revenue bonds to fund updates to the program's basin studies, new studies for the newly annexed areas, and stormwater infrastructure improvements. Descriptions of these projects can be found in the 2008-2013 Capital Plan document. The debt service to retire these bonds currently is not included in the adopted budget. Once the bonds are approved, a budget amendment will be submitted to the City Council to appropriate a portion of the capital reserves created by the fee increases.

In addition to revenue bonds, the FY 07-08 capital budget includes \$1.3 million in pay-as-you-go funding for additional infrastructure improvements and the development of municipal stormwater pollution prevention plans.

### Fund Balance Projection

- The following chart provides a projection of stormwater management fund balance. Because the city plans to issue revenue bonds, the stormwater fees will need to generate sufficient revenues to meet the debt coverage ratios that will be part of the bond covenants. As a result, the fund balance is projected to increase. These reserves would be available for future infrastructure needs, including city participation in the cost of drainage improvements on private property.

**Stormwater Management Fund Balance**



# CEMETERIES

## MISSION STATEMENT

The mission of the city’s Cemetery Division is to provide requested burial-related services and products to families on an at-need or pre-need basis while maintaining the beauty and dignity of the cemetery properties in a cost-effective manner.

## PROGRAM DESCRIPTION

- The Cemetery Division provides year-round maintenance for two city-owned cemeteries - New Evergreen, a 48-acre cemetery located on New Walkertown Road and Woodland, a 27-acre cemetery located at the intersection of Reynolds Boulevard and Indiana Avenue – while daily preparing individual gravesites for interment and routinely installing markers and monuments at the request of property owners. The Division maintains historical records of all interments in city-owned cemeteries and ensures financial accountability for cemetery operations and perpetual care.



## OBJECTIVES AND ACHIEVEMENTS

- The objectives of the Cemetery Division are to maintain cemetery properties that meet the expectations of both the property owners and the general public. The division continues to promote the pre-need purchase of cemetery services by offering optional payment plans.
- Staff is continuing to develop a long-range strategy for cemetery operations that ensures adequate funding for the perpetual care of the City’s cemeteries while minimizing long-term dependence on the General Fund.
- During the FY 06-07 budget year, City Council appropriated \$ 65,000 from the General Fund for a memorial wall to be erected in New Evergreen Cemetery to honor the memory of outstanding local citizens. The project is currently in the design phase. Completion of the project is anticipated during the FY 07-08 budget year.
- During FY 07-08, considerable emphasis will be given to landscaping at Woodland Cemetery, including the planting of many ornamental trees and reseeded of certain areas. There will also be substantial emphasis placed on monument and marker maintenance and repair of deteriorating garden walls.

<b>EXPENDITURES BY TYPE</b>	<b>Actual FY 05-06</b>	<b>Amended FY 06-07</b>	<b>Requested FY 07-08</b>	<b>Adopted FY 07-08</b>	<b>Percent Change</b>
Personnel	\$285,487	\$301,510	\$330,850	\$307,110	1.9%
Supplies and Services	262,421	250,640	243,720	249,940	-0.3%
Equipment Leasing Expense	51,789	34,110	32,760	32,760	-4.0%
Transfer for Perpetual Care	15,750	0	0	0	0%
<b>Total Expenditures by Type</b>	<b>\$615,446</b>	<b>\$586,260</b>	<b>\$607,330</b>	<b>\$589,810</b>	<b>0.6%</b>

<b>RESOURCES BY TYPE</b>	<b>Actual FY 05-06</b>	<b>Amended FY 06-07</b>	<b>Requested FY 07-08</b>	<b>Adopted FY 07-08</b>	<b>Percent Change</b>
Service Charges	\$516,377	\$454,920	\$478,420	\$454,690	-0.1%
Transfer from General Fund	18,183	24,230	15,470	21,680	-10.5%
Contribution from Perpetual Care Fund	107,114	107,110	114,660	113,440	5.9%
<b>Total Resources by Type</b>	<b>\$641,674</b>	<b>\$586,260</b>	<b>\$608,550</b>	<b>\$589,810</b>	<b>0.6%</b>

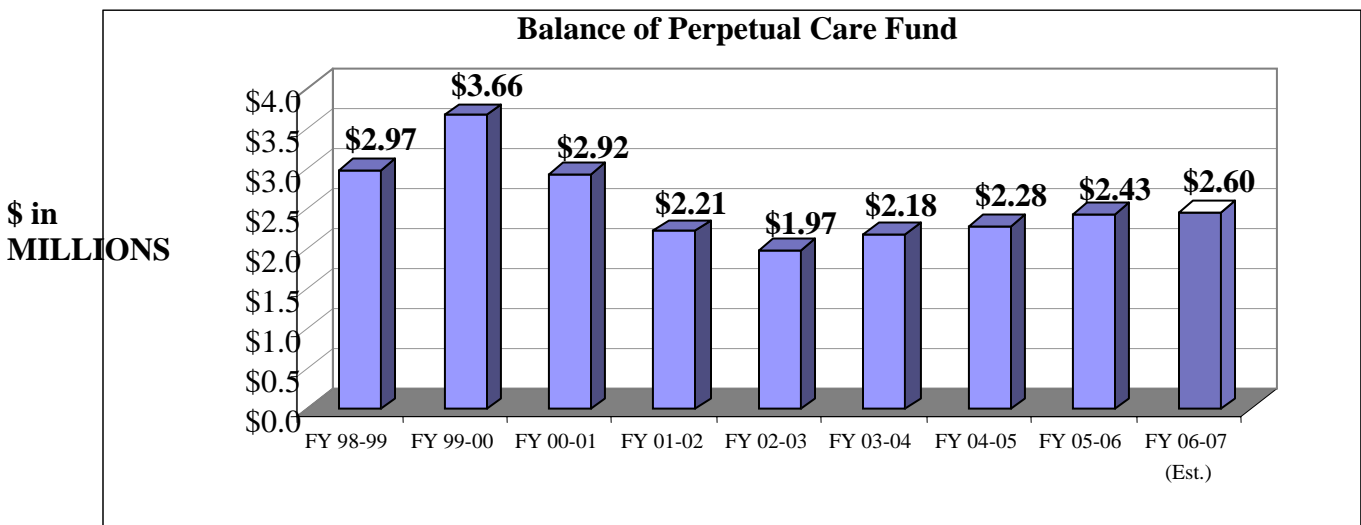
### Positions

Full-Time	7	7	8	7	0
Part-Time (FTEs)	3	3	3	3	0

# CEMETERIES

## BUDGET HIGHLIGHTS

- The adopted budget for Cemeteries continues existing funding and service levels. Supplies and services expenditures are decreased as a result of lower information system charges (-\$4,440) and reduced charges to the General Fund for indirect cost support (-\$6,670).
- As provided by City Code, \$50 from the purchase price of each grave space is appropriated to the Cemetery Perpetual Care Fund (PCF). It is projected that \$12,000 will be contributed from purchase fees to the PCF in FY 06-07 and \$16,250 will be contributed in FY 07-08. An annual appropriation from the fund, determined by a preexisting formula, is provided to cover maintenance expenses associated with those areas of the cemeteries that are occupied. The financial status of the perpetual care fund is provided below:



# **ENVIRONMENTAL HEALTH NON-DEPARTMENTAL**

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Listed below are the appropriations related to environmental health that are not included in any of the departmental budgets in this section of the document.

<b>Expenditures</b>	<b>Actual</b>	<b>Amended</b>	<b>Requested</b>	<b>Adopted</b>	<b>Percent</b>
<b>General Fund</b>	<b><u>FY 05-06</u></b>	<b><u>FY 06-07</u></b>	<b><u>FY 07-08</u></b>	<b><u>FY 07-08</u></b>	<b><u>Change</u></b>
To Cemeteries Fund	\$18,183	\$24,230	\$24,230	\$21,680	-10.5%
<b>Total Expenditures</b>	<b>\$18,183</b>	<b>\$24,230</b>	<b>\$24,230</b>	<b>\$21,680</b>	<b>-10.5%</b>
<b>Resources</b>					
<b>General Fund</b>					
Other General Fund Resources	\$18,183	\$24,230	\$24,230	\$21,680	-10.5%
<b>Total Resources</b>	<b>\$18,183</b>	<b>\$24,230</b>	<b>\$24,230</b>	<b>\$21,680</b>	<b>-10.5%</b>

# **ENVIRONMENTAL HEALTH CAPITAL PROJECTS**

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Listed below are the adopted appropriations for capital projects for the environmental health related funds and entities.

<b>EXPENDITURES</b>	<b>Adopted</b>
<b><u>Project Title</u></b>	<b><u>FY 07-08</u></b>
<b>Solid Waste Disposal:</b>	
Hanes Landfill Cell Construction	\$500,000
New Construction and Demolition Landfill Site Development	2,750,000
Old Salisbury Road Construction and Demolition Landfill Final Cover Construction	0
Hanes Landfill Gas System Construction	900,000
<b>Water and Wastewater Treatment:</b>	
Thomas Water Treatment Plant Modernization	\$6,531,540
Primary and Preliminary Treatment Upgrade at Wastewater Treatment Plants	3,000,000
Biosolids Management	10,347,890
Idol's Pump Station Rehabilitation	2,250,000
Wastewater Lift Station Rehabilitation	125,000
Nutrient Removal at Wastewater Treatment Plants	0
Odor Management	0
Miscellaneous Water and Wastewater Treatment Capital Projects	2,955,560
Water Tank Rehabilitation	1,162,500
Idol's Dam Improvements	1,454,230
Treatment Facilities Reliability	340,470
2" Water Main Replacement (In Winston-Salem only)	477,500
<b>Water Distribution and Wastewater Collection:</b>	
Annexation - Potential Petition Projects	\$10,000,000
Wastewater Collection System Improvements	3,000,000
Annexation - Major Mains and Five-Day Petitions	3,978,480
Water Distribution System Improvements	1,000,000
New Elevated Water Tanks	0
30-inch and 36-inch Feeder Mains to Proposed Union Cross Elevated Water Tank	0
Children's Home and Manhattan Outfall Rehabilitation	2,596,620
West End Sewer System Improvements	1,850,660
West End Water System Improvements	1,817,360
Construction and Maintenance Facilities Improvements	280,000
Polo Road Outfall Sewer Rehabilitation	125,000
Water and Sewer GIS/Work Order Management System	400,000
Kerners Mill Sewer System Improvements	1,079,730
Ardmore Branch Outfall	740,750

# ENVIRONMENTAL HEALTH CAPITAL PROJECTS

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## EXPENDITURES- Continued

<u>Project Title</u>	<u>Adopted FY 07-08</u>
Muddy Creek Find and Fix Project	\$461,300
Permanent Flow Monitoring	385,000
Ardmore Area Water and Sewer Rehabilitation	300,000
<b>Stormwater Management:</b>	
Stormwater Basin Studies - Existing Basin Updates	\$7,973,880
Stormwater Infrastructure Improvements	2,600,000
Stormwater Basin Studies - Annexation Areas	1,345,320
Drainage Improvements on Private Property	900,000
Municipal Stormwater Pollution Prevention Plans	108,800
<b>Total Expenditures</b>	<b>\$73,737,590</b>

## FUNDING SOURCES

### Bonds:

Revenue Bonds	\$63,449,230
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### Reserves:

Solid Waste Disposal Fund	\$4,150,000
Water and Sewer Fund Balance	3,955,560
Stormwater Management Fund	2,182,800

<b>Total Funding Sources</b>	<b>\$73,737,590</b>
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