

# Environmental Health

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## ENVIRONMENTAL HEALTH

Project Title	Budget Year 2007-2008	Planning Year 2008-2009	Planning Year 2009-2010	Planning Year 2010-2011	Planning Year 2011-2012	Planning Year 2012-2013	Total Planned
<b>Solid Waste Disposal:</b>							
Hanes Landfill Cell Construction	\$500,000	\$3,250,000	\$0	\$0	\$1,311,100	\$0	\$5,061,100
New Construction and Demolition Landfill Site Development	2,750,000	1,250,000	0	0	0	0	4,000,000
Old Salisbury Road Construction and Demolition Landfill Final Cover Construction	0	2,700,000	0	0	0	0	2,700,000
Hanes Landfill Gas System Construction	900,000	0	0	0	750,000	0	1,650,000
<b>Water and Wastewater Treatment:</b>							
Thomas Water Treatment Plant Modernization	\$6,531,540	\$22,190,000	\$20,940,000	\$4,455,000	\$0	\$0	\$54,116,540
Primary and Preliminary Treatment Upgrade at Wastewater Treatment Plants	3,000,000	8,800,000	10,800,000	10,800,000	450,000	3,498,500	37,348,500
Biosolids Management	10,347,890	0	0	0	0	0	10,347,890
Idol's Pump Station Rehabilitation	2,250,000	0	222,000	4,778,000	0	0	7,250,000
Wastewater Lift Station Rehabilitation	125,000	0	0	550,000	5,539,500	0	6,214,500
Nutrient Removal at Wastewater Treatment Plants	0	0	0	0	501,180	4,642,900	5,144,080
Odor Management	0	0	0	0	326,480	2,746,520	3,073,000
Miscellaneous Water and Wastewater Treatment Capital Projects	2,955,560	0	0	0	0	0	2,955,560
Water Tank Rehabilitation	1,162,500	1,162,500	0	0	0	0	2,325,000
Idol's Dam Improvements	1,454,230	0	0	0	0	0	1,454,230
Treatment Facilities Reliability	340,470	949,160	0	0	0	0	1,289,630
2" Water Main Replacement (In Winston-Salem only)	477,500	650,000	0	0	0	0	1,127,500
<b>Water Distribution and Wastewater Collection:</b>							
Annexation - Potential Petition Projects	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$60,000,000
Wastewater Collection System Improvements	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	18,000,000
Annexation - Major Mains and Five-Day Petitions	3,978,480	3,168,360	0	0	0	0	7,146,840
Water Distribution System Improvements	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	6,000,000
New Elevated Water Tanks	0	0	0	0	2,600,000	2,600,000	5,200,000
30-inch and 36-inch Feeder Mains to Proposed Union Cross Elevated Water Tank	0	0	0	3,695,840	0	0	3,695,840
Children's Home and Manhattan Outfall Rehabilitation	2,596,620	0	0	0	0	0	2,596,620
West End Sewer System Improvements	1,850,660	0	0	0	0	0	1,850,660
West End Water System Improvements	1,817,360	0	0	0	0	0	1,817,360
Construction and Maintenance Facilities Improvements	280,000	1,130,000	0	0	0	0	1,410,000
Polo Road Outfall Sewer Rehabilitation	125,000	1,175,000	0	0	0	0	1,300,000
Water and Sewer GIS/Work Order Management System	400,000	400,000	483,380	0	0	0	1,283,380
Kerners Mill Sewer System Improvements	1,079,730	0	0	0	0	0	1,079,730
Ardmore Branch Outfall	740,750	0	0	0	0	0	740,750
Muddy Creek Find and Fix Project	461,300	0	0	0	0	0	461,300
Permanent Flow Monitoring	385,000	0	0	0	0	0	385,000
Ardmore Area Water and Sewer Rehabilitation	300,000	0	0	0	0	0	300,000

## ENVIRONMENTAL HEALTH Continued

Project Title	Budget Year 2006-2007	Planning Year 2007-2008	Planning Year 2008-2009	Planning Year 2009-2010	Planning Year 2010-2011	Planning Year 2011-2012	Total Planned
<b>Stormwater Management:</b>							
Stormwater Infrastructure Improvements	\$2,600,000	\$0	\$0	\$7,000,000	\$0	\$0	\$9,600,000
Stormwater Basin Studies - Existing Basin Updates	7,973,880	0	0	0	0	0	7,973,880
Drainage Improvements on Private Property	900,000	500,000	500,000	500,000	500,000	500,000	3,400,000
Stormwater Basin Studies - Annexation Areas	1,345,320	0	0	0	0	0	1,345,320
Municipal Stormwater Pollution Prevention Plans	108,800	108,800	108,800	0	0	0	326,400
<b>Cemeteries:</b>							
Phase I Development - Old Walkertown Road Cemetery	\$0	\$389,560	\$0	\$0	\$0	\$0	\$389,560
<b>Total Expenditures</b>	<b>\$73,737,590</b>	<b>\$61,823,380</b>	<b>\$47,054,180</b>	<b>\$45,778,840</b>	<b>\$25,978,260</b>	<b>\$27,987,920</b>	<b>\$282,360,170</b>
<b>Funding Sources</b>							
<b>Bonds:</b>							
Revenue Bonds	\$63,449,230	\$52,625,020	\$45,445,380	\$44,278,840	\$22,417,160	\$26,487,920	\$254,703,550
<b>Reserves:</b>							
Solid Waste Disposal Fund	\$4,150,000	\$7,200,000	\$0	\$0	\$2,061,100	\$0	\$13,411,100
Stormwater Management Fund	2,182,800	608,800	608,800	500,000	500,000	500,000	4,900,400
Water and Sewer Fund Balance	3,955,560	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	8,955,560
<b>Other:</b>							
North Carolina Municipal Leasing Corporation	\$0	\$389,560	\$0	\$0	\$0	\$0	\$389,560
<b>Total Funding Sources</b>	<b>\$73,737,590</b>	<b>\$61,823,380</b>	<b>\$47,054,180</b>	<b>\$45,778,840</b>	<b>\$25,978,260</b>	<b>\$27,987,920</b>	<b>\$282,360,170</b>

<b>PROJECT TITLE</b> Hanes Landfill Cell Construction	<b>DEPARTMENT/DIVISION</b> Utilities / Solid Waste
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project provides for the future construction of cells for the disposal of municipal solid waste at Hanes Landfill. For this planning period, the project includes all cells in Phase 1 and a portion of Phase 2.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$688,900	\$500,000	\$250,000	\$0	\$0	\$200,000	\$0	\$1,638,900
Construction	7,000,000	0	3,000,000	0	0	1,111,100	0	11,111,100
<b>Total Project Expenditures</b>	<b>\$7,688,900</b>	<b>\$500,000</b>	<b>\$3,250,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,311,100</b>	<b>\$0</b>	<b>\$12,750,000</b>
<b>Funding Sources</b>								
Solid Waste Disposal Fund	\$7,688,900	\$500,000	\$3,250,000	\$0	\$0	\$1,311,100	\$0	\$12,750,000
<b>Total Project Funding Sources</b>	<b>\$7,688,900</b>	<b>\$500,000</b>	<b>\$3,250,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,311,100</b>	<b>\$0</b>	<b>\$12,750,000</b>

<b>PROJECT TITLE</b> New Construction and Demolition Landfill Site Development	<b>DEPARTMENT/DIVISION</b> Utilities / Solid Waste
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project includes the land purchase, rezoning, site development, permitting, and construction of a new construction and demolition landfill located off of U.S. Highway 311, north of Walkertown.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$350,000	\$250,000	\$0	\$0	\$0	\$0	\$0	\$600,000
Land/Right-of-Way Acquisition	2,000,000	0	1,250,000	0	0	0	0	3,250,000
Construction	3,000,000	2,500,000	0	0	0	0	0	5,500,000
<b>Total Project Expenditures</b>	<b>\$5,350,000</b>	<b>\$2,750,000</b>	<b>\$1,250,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$9,350,000</b>
<b>Funding Sources</b>								
Solid Waste Disposal Fund	\$5,350,000	\$2,750,000	\$1,250,000	\$0	\$0	\$0	\$0	\$9,350,000
<b>Total Project Funding Sources</b>	<b>\$5,350,000</b>	<b>\$2,750,000</b>	<b>\$1,250,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$9,350,000</b>

<b>PROJECT TITLE</b> Old Salisbury Road Construction & Demolition Landfill Final Cover Construction	<b>DEPARTMENT/DIVISION</b> Utilities / Solid Waste
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project provides for the partial construction of the final cover and gas system on the Old Salisbury Road Construction and Demolition Landfill. New federal and state rules impose more stringent requirements for closure of construction and demolition landfills.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$0	\$0	\$200,000	\$0	\$0	\$0	\$0	\$200,000
Construction	0	0	2,500,000	0	0	0	0	2,500,000
<b>Total Project Expenditures</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,700,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,700,000</b>
<b>Funding Sources</b>								
Solid Waste Disposal Fund	\$0	\$0	\$2,700,000	\$0	\$0	\$0	\$0	\$2,700,000
<b>Total Project Funding Sources</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,700,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,700,000</b>

<b>PROJECT TITLE</b> Hanes Landfill Gas System Construction	<b>DEPARTMENT/DIVISION</b> Utilities / Solid Waste
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project provides for the on-going construction of various components of a system to extract landfill gas from existing lined cells. Current environmental regulations require the construction of gas extraction systems for sanitary waste landfills.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$240,000	\$100,000	\$0	\$0	\$0	\$50,000	\$0	\$390,000
Construction	1,000,000	800,000	0	0	0	700,000	0	2,500,000
<b>Total Project Expenditures</b>	<b>\$1,240,000</b>	<b>\$900,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$750,000</b>	<b>\$0</b>	<b>\$2,890,000</b>
<b>Funding Sources</b>								
Solid Waste Disposal Fund	\$1,240,000	\$900,000	\$0	\$0	\$0	\$750,000	\$0	\$2,890,000
<b>Total Project Funding Sources</b>	<b>\$1,240,000</b>	<b>\$900,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$750,000</b>	<b>\$0</b>	<b>\$2,890,000</b>

<b>PROJECT TITLE</b> Thomas Water Treatment Plant Modernization	<b>DEPARTMENT/DIVISION</b> Utilities / Water and Wastewater Treatment
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**PROJECT DESCRIPTION/JUSTIFICATION**

The Thomas Water Treatment Plant has been a reliable water treatment facility for over 80 years. Recently an engineering evaluation of the Thomas Plant was conducted to determine if it was feasible to modernize the plant to current standards or decommission the plant and add capacity elsewhere in the system. The results of the evaluation revealed that it was equally cost effective to modernize the Thomas Plant to a 24 MGD facility as compared to decommissioning the plant and adding capacity at one of the other two treatment facilities. This modernization project would be a complete remodel of the plant's control and filter building, basin complex, chemical feed and storage facilities, electrical components, and waste handling system. Upon completion, the plant would again be a reliable facility for the next 50 years.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$1,944,800	\$1,426,540	\$520,000	\$520,000	\$390,000	\$0	\$0	\$4,801,340
Construction	0	5,000,000	21,250,000	20,000,000	3,750,000	0	0	50,000,000
Contingency	0	105,000	420,000	420,000	315,000	0	0	1,260,000
<b>Total Project Expenditures</b>	<b>\$1,944,800</b>	<b>\$6,531,540</b>	<b>\$22,190,000</b>	<b>\$20,940,000</b>	<b>\$4,455,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$56,061,340</b>
<b>Funding Sources</b>								
Revenue Bonds	\$1,944,800	\$6,531,540	\$22,190,000	\$20,940,000	\$4,455,000	\$0	\$0	\$56,061,340
<b>Total Project Funding Sources</b>	<b>\$1,944,800</b>	<b>\$6,531,540</b>	<b>\$22,190,000</b>	<b>\$20,940,000</b>	<b>\$4,455,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$56,061,340</b>

<b>PROJECT TITLE:</b> Primary and Preliminary Treatment Upgrade at Wastewater Treatment Plants	<b>DEPARTMENT/DIVISION</b> Utilities / Water and Wastewater Treatment
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project provides for the replacement of the primary and preliminary treatment facilities at the Elledge Wastewater Treatment Plant, the replacement of 1,600 feet of Salem outfall, and improvements in grit and primary sludge removal facilities at the Muddy Creek Wastewater Treatment Plant. Headworks facilities at the Elledge plant have been in service since 1956, and the structures are deteriorating due to corrosion. These facilities are also prone to flooding from nearby Salem Creek. Improvements are needed at the Muddy Creek Plant to replace outdated traveling bridge sludge collectors and to improve grit removal. The Elledge Plant portion of this project is being accelerated due to recent engineering results indicating probable structural failure. The Muddy Creek portion will be scheduled with future nutrient removal projects starting in FY 2011-2012 and extending until 2013-2014 with \$1.99 million not shown in year 2013-2014.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$0	\$3,000,000	\$500,000	\$500,000	\$500,000	\$450,000	\$210,000	\$5,160,000
Construction	0	0	8,300,000	9,500,000	9,500,000	0	3,110,000	30,410,000
Contingency	0	0	0	800,000	800,000	0	178,500	1,778,500
<b>Total Project Expenditures</b>	<b>\$0</b>	<b>\$3,000,000</b>	<b>\$8,800,000</b>	<b>\$10,800,000</b>	<b>\$10,800,000</b>	<b>\$450,000</b>	<b>\$3,498,500</b>	<b>\$37,348,500</b>
<b>Funding Sources</b>								
Revenue Bonds	\$0	\$3,000,000	\$8,800,000	\$10,800,000	\$10,800,000	\$450,000	\$3,498,500	\$37,348,500
<b>Total Project Funding Sources</b>	<b>\$0</b>	<b>\$3,000,000</b>	<b>\$8,800,000</b>	<b>\$10,800,000</b>	<b>\$10,800,000</b>	<b>\$450,000</b>	<b>\$3,498,500</b>	<b>\$37,348,500</b>

<b>PROJECT TITLE:</b> Biosolids Management	<b>DEPARTMENT/DIVISION</b> Utilities / Water and Wastewater Treatment
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project provides for the construction of a biosolids drying facility needed to produce a Class A biosolids product for both wastewater treatment plants. This quality of product is necessary to provide the treatment plants the variety of disposal options needed to ensure the timely disposal/recycling of biosolids produced as part of the wastewater treatment process. This project includes the construction of a facility equipped with dryer and the associated equipment. It also includes an upgrade to the existing sludge dewatering building at the Elledge Plant, and it includes construction of a five-mile long pipeline so that liquid sludge produced at the Muddy Creek Plant can be pumped to the Elledge Plant for dewatering and subsequent drying.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$3,720,400	\$813,140	\$0	\$0	\$0	\$0	\$0	\$4,533,540
Construction	11,376,470	7,060,030	0	0	0	0	0	18,436,500
Equipment & Furnishings	5,040,030	1,775,720	0	0	0	0	0	6,815,750
Contingency	0	699,000	0	0	0	0	0	699,000
<b>Total Project Expenditures</b>	<b>\$20,136,900</b>	<b>\$10,347,890</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$30,484,790</b>
<b>Funding Sources</b>								
Revenue Bonds	\$20,136,900	\$10,347,890	\$0	\$0	\$0	\$0	\$0	\$30,484,790
<b>Total Project Funding Sources</b>	<b>\$20,136,900</b>	<b>\$10,347,890</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$30,484,790</b>
<b>OPERATING IMPACT:</b>								
Personal Services		\$637,210	\$656,330	\$676,020	\$696,300	\$717,190	\$738,710	\$4,121,760
Supplies and Services		2,459,030	2,532,800	2,608,780	2,687,040	2,767,650	2,850,680	15,905,980
Capital Outlay/Lease Payments		6,630	6,340	6,060	5,770	5,490	0	30,290
(Less Operating Revenues)		-15,000	-30,000	-31,500	-33,080	-34,730	-36,470	-180,780
<b>Total Net Expenditures</b>		<b>\$3,087,870</b>	<b>\$3,165,470</b>	<b>\$3,259,360</b>	<b>\$3,356,030</b>	<b>\$3,455,600</b>	<b>\$3,552,920</b>	<b>\$20,058,030</b>

<b>PROJECT TITLE</b> Idol's Pump Station Rehabilitation	<b>DEPARTMENT/DIVISION</b> Utilities / Water and Wastewater Treatment
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**PROJECT DESCRIPTION/JUSTIFICATION**

The Idol's Pump Station plays a vital part in the Winston-Salem/Forsyth County water system by supplying water to two of our three water plants. Although the infrastructure of the building is sound, the pumping and electrical equipment in this building is approaching 30 years in age. This project proposes to install updated, energy efficient electrical motors on each pump. This project also proposes upgrading the electrical motor control centers (MCC's) for each pumping unit and incorporating soft starters. Under this project, a diesel emergency generator system would be installed of sufficient size to operate two pumps simultaneously at the station. This project also would incorporate new control instrumentation and communications equipment to operate the station remotely from the Neilson Plant.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$388,950	\$100,000	\$0	\$222,000	\$100,000	\$0	\$0	\$810,950
Construction	0	600,000	0	0	1,000,000	0	0	1,600,000
Equipment & Furnishings	0	1,500,000	0	0	3,500,000	0	0	5,000,000
Contingency	0	50,000	0	0	178,000	0	0	228,000
<b>Total Project Expenditures</b>	<b>\$388,950</b>	<b>\$2,250,000</b>	<b>\$0</b>	<b>\$222,000</b>	<b>\$4,778,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$7,638,950</b>
<b>Funding Sources</b>								
Revenue Bonds	\$388,950	\$2,250,000	\$0	\$222,000	\$4,778,000	\$0	\$0	\$7,638,950
<b>Total Project Funding Sources</b>	<b>\$388,950</b>	<b>\$2,250,000</b>	<b>\$0</b>	<b>\$222,000</b>	<b>\$4,778,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$7,638,950</b>

<b>PROJECT TITLE:</b> Wastewater Lift Station Rehabilitation	<b>DEPARTMENT/DIVISION</b> Utilities / Water and Wastewater Treatment
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**PROJECT DESCRIPTION/JUSTIFICATION**

Originally, this project scheduled to begin in FY 2006-2007, has been delayed until FY 2009-2010. The scope of the project also has been modified to provide for the construction of a single pumping station designed to allow flow to be diverted from the Muddy Creek Wastewater Treatment Plant to the Elledge Wastewater Treatment Plant and to provide for the ability to accept development along the Salem Creek corridor downstream of the Elledge Plant. The Muddy Creek Plant is expected to reach 80% of its permitted flow capacity in FY 2009-2010. Once this point is reached, state regulations require that the City-County Utility Commission begin a design initiative to either increase the plant's permitted flow capacity or reduce the average day flow. The most cost effective way to comply with this regulatory mandate is to divert flow to the Elledge Plant, which has adequate hydraulic capacity.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$0	\$100,000	\$0	\$0	\$550,000	\$330,000	\$0	\$980,000
Construction	0	0	0	0	0	4,890,000	0	4,890,000
Equipment & Furnishings		25,000	0	0	0	75,000	0	100,000
Contingency	0	0	0	0	0	244,500	0	244,500
<b>Total Project Expenditures</b>	<b>\$0</b>	<b>\$125,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$550,000</b>	<b>\$5,539,500</b>	<b>\$0</b>	<b>\$6,214,500</b>
<b>Funding Sources</b>								
Revenue Bonds	\$0	\$125,000	\$0	\$0	\$550,000	\$5,539,500	\$0	\$6,214,500
<b>Total Project Funding Sources</b>	<b>\$0</b>	<b>\$125,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$550,000</b>	<b>\$5,539,500</b>	<b>\$0</b>	<b>\$6,214,500</b>

<b>PROJECT TITLE:</b> Nutrient Removal at Wastewater Treatment Plants	<b>DEPARTMENT/DIVISION</b> Utilities / Water and Wastewater Treatment
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project provides the facilities necessary for the wastewater treatment plants to meet phosphorus limits that are expected to be implemented for both plants once nutrient management models are completed for High Rock Lake and the Yadkin Watershed. This project has been postponed by three years due to the expectation that Lake Total Maximum Daily Loads will not be developed until January 2012. Adopted appropriations for this planning period total \$5,144,080, but expected expenditures during FY 2014 will bring the project total to \$13,427,520.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$0	\$0	\$0	\$0	\$0	\$501,180	\$732,440	\$1,233,620
Construction	0	0	0	0	0	0	3,231,820	3,231,820
Contingency	0	0	0	0	0	0	678,640	678,640
<b>Total Project Expenditures</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$501,180</b>	<b>\$4,642,900</b>	<b>\$5,144,080</b>
<b>Funding Sources</b>								
Revenue Bonds	\$0	\$0	\$0	\$0	\$0	\$501,180	\$4,642,900	\$5,144,080
<b>Total Project Funding Sources</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$501,180</b>	<b>\$4,642,900</b>	<b>\$5,144,080</b>

<b>PROJECT TITLE:</b> Odor Management	<b>DEPARTMENT/DIVISION</b> Utilities / Water and Wastewater Treatment
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project provides for the control of nuisance odors from the wastewater treatment plants. This project would be structured so as to coordinate with other capital improvements planned for the treatment plants. Projects for the Muddy Creek Plant include replacing the existing gravity thickener with a thickening belt facility and covering and scrubbing the offgas from anaerobic selectors that would be constructed as part of the nutrient removal capital project. Projects planned for the Elledge Plant include covering and scrubbing anoxic and anaerobic contact zones in the activated sludge basins. Previous work to cover and scrub the existing primary clarifiers and headworks area at the Elledge Plant has been canceled due to the decision to accelerate the replacement of these portions of the plant due to their age and condition. Funding for this project through FY 2013 is \$3,073,000, but the total cost for this project, ending in FY 2014, will be \$7,913,080.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$0	\$0	\$0	\$0	\$0	\$326,480	\$471,280	\$797,760
Construction	0	0	0	0	0	0	1,842,180	1,842,180
Contingency	0	0	0	0	0	0	433,060	433,060
<b>Total Project Expenditures</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$326,480</b>	<b>\$2,746,520</b>	<b>\$3,073,000</b>
<b>Funding Sources</b>								
Revenue Bonds	\$0	\$0	\$0	\$0	\$0	\$326,480	\$2,746,520	\$3,073,000
<b>Total Project Funding Sources</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$326,480</b>	<b>\$2,746,520</b>	<b>\$3,073,000</b>

<b>PROJECT TITLE</b> Miscellaneous Water and Wastewater Treatment Capital Projects	<b>DEPARTMENT/DIVISION</b> Utilities / Water and Wastewater Treatment
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project provides for general building , grounds, and equipment maintenance at the various utility plants. The project also provides for the purchase of costly replacement parts and repairs that are needed for the continuous operation and maintenance of the utility plants.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Construction	\$0	\$2,680,560	\$0	\$0	\$0	\$0	\$0	\$2,680,560
Contingency	0	275,000	0	0	0	0	0	275,000
<b>Total Project Expenditures</b>	<b>\$0</b>	<b>\$2,955,560</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,955,560</b>
<b>Funding Sources</b>								
Revenue Bonds	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Water and Sewer Fund Balance	0	2,955,560	0	0	0	0	0	2,955,560
<b>Total Project Funding Sources</b>	<b>\$0</b>	<b>\$2,955,560</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,955,560</b>

<b>PROJECT TITLE</b> Water Tank Rehabilitation	<b>DEPARTMENT/DIVISION</b> Utilities / Water and Wastewater Treatment
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project consists of structural repairs, lead paint abatement, and coating replacement for two additional elevated tanks. The work on the tanks is being spread out over a five-year period. Each of the tanks included in this project has been in service at least 30 years. An engineering firm that specializes in tank maintenance has inspected all of the tanks included, and this repair program is based on its recommendations. The goal of the project is to maximize the service life of these structures and to bring them into compliance with current Occupational Safety and Health Administration (OSHA) and American Water Works Association (AWWA) requirements. The rehabilitation of the Wake Forest and Graves Street (exterior only) elevated tanks is scheduled for the 2006-2007 fiscal year.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$0	\$150,000	\$150,000	\$0	\$0	\$0	\$0	\$300,000
Construction	0	923,750	923,750	0	0	0	0	1,847,500
Contingency	0	88,750	88,750	0	0	0	0	177,500
<b>Total Project Expenditures</b>	<b>\$0</b>	<b>\$1,162,500</b>	<b>\$1,162,500</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,325,000</b>
<b>Funding Sources</b>								
Revenue Bonds	\$0	\$1,162,500	\$1,162,500	\$0	\$0	\$0	\$0	\$2,325,000
<b>Total Project Funding Sources</b>	<b>\$0</b>	<b>\$1,162,500</b>	<b>\$1,162,500</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,325,000</b>

<b>PROJECT TITLE</b> Idol's Dam Improvements	<b>DEPARTMENT/DIVISION</b> Utilities / Water and Wastewater Treatment
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project provides for the planning, design, and construction of improvements to Idol's Dam. Improvements to the dam will reduce the City's liability and protect the City's ability to draw raw water from the Yadkin River with the purpose of producing potable water at its water treatment facilities. The remaining portion of the sluicing system and old power generation station has deteriorated to the point that it is a safety hazard for employees to access. A qualified engineering firm has been hired and is working on specific areas to be addressed for the dam improvements.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$517,670	\$125,390	\$0	\$0	\$0	\$0	\$0	\$643,060
Construction	1,594,300	1,063,100	0	0	0	0	0	2,657,400
Contingency	0	265,740	0	0	0	0	0	265,740
<b>Total Project Expenditures</b>	<b>\$2,111,970</b>	<b>\$1,454,230</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,566,200</b>
<b>Funding Sources</b>								
Revenue Bonds	\$2,111,970	\$1,454,230	\$0	\$0	\$0	\$0	\$0	\$3,566,200
<b>Total Project Funding Sources</b>	<b>\$2,111,970</b>	<b>\$1,454,230</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,566,200</b>

<b>PROJECT TITLE:</b> Treatment Facilities Reliability	<b>DEPARTMENT/DIVISION</b> Utilities / Water and Wastewater Treatment
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project provides for the replacement of critical equipment and infrastructure at the Archie Elledge Wastewater Treatment Plant that have been damaged by chronic exposure to corrosive gases or that have become outdated. This project reflects significant modifications to the scope of work described in prior year submittals. This project includes the replacement of the Elledge Plant's digester gas compressors and the electrical motor control centers in the old and new digesters. Previous work to refurbish the plant's intermediate pump station and to replace some underground lines has been deleted. Replacement of like equipment will not result in any impact to operating costs.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$204,000	\$116,080	\$51,600	\$0	\$0	\$0	\$0	\$371,680
Construction	70,000	185,700	742,800	0	0	0	0	998,500
Contingency	0	38,690	154,760	0	0	0	0	193,450
<b>Total Project Expenditures</b>	<b>\$274,000</b>	<b>\$340,470</b>	<b>\$949,160</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,563,630</b>
<b>Funding Sources</b>								
Revenue Bonds	\$274,000	\$340,470	\$949,160	\$0	\$0	\$0	\$0	\$1,563,630
<b>Total Project Funding Sources</b>	<b>\$274,000</b>	<b>\$340,470</b>	<b>\$949,160</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,563,630</b>

<b>PROJECT TITLE</b> 2" Water Main Replacement (In Winston-Salem only)	<b>DEPARTMENT/DIVISION</b> Utilities / Water and Wastewater Treatment
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project has been updated to include newly identified areas of existing 2" water main in approximately 30 locations within the city. These lines are undersized and no longer provide adequate domestic flow or fire flow to the areas they serve. The project consists of replacing the 2" water mains with 6" or 8" water mains so that adequate domestic flow and fire flow will be provided.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$161,821	\$65,000	\$100,000	\$0	\$0	\$0	\$0	\$326,821
Construction	759,179	375,000	500,000	0	0	0	0	1,634,179
Contingency	0	37,500	50,000	0	0	0	0	87,500
<b>Total Project Expenditures</b>	<b>\$921,000</b>	<b>\$477,500</b>	<b>\$650,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,048,500</b>
<b>Funding Sources</b>								
Revenue Bonds	\$921,000	\$477,500	\$650,000	\$0	\$0	\$0	\$0	\$2,048,500
<b>Total Project Funding Sources</b>	<b>\$921,000</b>	<b>\$477,500</b>	<b>\$650,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,048,500</b>

<b>PROJECT TITLE</b> Annexation - Potential Petition Projects	<b>DEPARTMENT/DIVISION</b> Utilities / Water Distribution and Wastewater Collection
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project involves the construction of water and sewer mains to serve new residential and commercial customers in the areas annexed by the City of Winston-Salem in 2006, in accordance with state law. This project includes both the City of Winston-Salem's and the property owner's share of line extensions.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$0	\$1,456,360	\$1,456,360	\$1,456,360	\$1,456,360	\$1,456,360	\$1,456,360	\$8,738,160
Land/Right-of-Way Acquisition	0	290,960	290,960	290,960	290,960	290,960	290,960	1,745,760
Construction	0	7,427,410	7,427,410	7,427,410	7,427,410	7,427,410	7,427,410	44,564,460
Contingency	0	825,270	825,270	825,270	825,270	825,270	825,270	4,951,620
<b>Total Project Expenditures</b>	<b>\$0</b>	<b>\$10,000,000</b>	<b>\$10,000,000</b>	<b>\$10,000,000</b>	<b>\$10,000,000</b>	<b>\$10,000,000</b>	<b>\$10,000,000</b>	<b>\$60,000,000</b>
<b>Funding Sources</b>								
Revenue Bonds	\$0	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$60,000,000
<b>Total Project Funding Sources</b>	<b>\$0</b>	<b>\$10,000,000</b>	<b>\$10,000,000</b>	<b>\$10,000,000</b>	<b>\$10,000,000</b>	<b>\$10,000,000</b>	<b>\$10,000,000</b>	<b>\$60,000,000</b>

<b>PROJECT TITLE</b> Wastewater Collection System Improvements	<b>DEPARTMENT/DIVISION</b> Utilities / Water Distribution and Wastewater Collection
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project provides multi-year funding for inspection, evaluation, design, and construction of sanitary sewer rehabilitation projects throughout the system. In many areas of the sewer system, the pipes and manholes have reached ages that exceed 60, 70, and 80 years and have exceeded their life design. Manholes have deteriorated and pipes have cracked and broken. These problems cause backups, cavities/voids under ground, flow problems, and allow water to infiltrate/inflow into the sewer system causing sanitary sewer overflows (SSOs) and extra cost at the plants to treat.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$3,150,000
Construction	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	15,750,000
Contingency	300,000	300,000	300,000	300,000	300,000	300,000	300,000	2,100,000
<b>Total Project Expenditures</b>	<b>\$3,000,000</b>	<b>\$3,000,000</b>	<b>\$3,000,000</b>	<b>\$3,000,000</b>	<b>\$3,000,000</b>	<b>\$3,000,000</b>	<b>\$3,000,000</b>	<b>\$21,000,000</b>
<b>Funding Sources</b>								
Revenue Bonds	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$21,000,000
<b>Total Project Funding Sources</b>	<b>\$3,000,000</b>	<b>\$3,000,000</b>	<b>\$3,000,000</b>	<b>\$3,000,000</b>	<b>\$3,000,000</b>	<b>\$3,000,000</b>	<b>\$3,000,000</b>	<b>\$21,000,000</b>

<b>PROJECT TITLE</b> Annexation - Major Mains and Five-Day Petitions	<b>DEPARTMENT/DIVISION</b> Utilities / Water Distribution and Wastewater Collection
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project involves the construction of major water transmission mains and sewer outfalls to serve new residential and commercial customers in the areas annexed by the City of Winston-Salem in 2004, in accordance with State law. This project includes both the City of Winston-Salem's and the property owner's share of line extensions. This project also includes the costs associated with all five day petitions received for service.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$0	\$413,030	\$309,770	\$0	\$0	\$0	\$0	\$722,800
Land/Right-of-Way Acquisition	0	0	120,160	0	0	0	0	120,160
Construction	0	3,241,310	2,430,990	0	0	0	0	5,672,300
Contingency	0	324,140	307,440	0	0	0	0	631,580
<b>Total Project Expenditures</b>	<b>\$0</b>	<b>\$3,978,480</b>	<b>\$3,168,360</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$7,146,840</b>
<b>Funding Sources</b>								
Revenue Bonds	\$0	\$3,978,480	\$3,168,360	\$0	\$0	\$0	\$0	\$7,146,840
<b>Total Project Funding Sources</b>	<b>\$0</b>	<b>\$3,978,480</b>	<b>\$3,168,360</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$7,146,840</b>

<b>PROJECT TITLE</b> Water Distribution System Improvements	<b>DEPARTMENT/DIVISION</b> Utilities / Water Distribution and Wastewater Collection
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project provides multi-year funding for water distribution improvements throughout the city and county. This project would fund unanticipated miscellaneous projects that arise throughout the fiscal year such as projects for rehabilitating portions of the water system, chlorination booster projects, structure adjustments, system-wide asset replacement planning, and other miscellaneous water system improvements.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$1,050,000
Construction	800,000	800,000	800,000	800,000	800,000	800,000	800,000	5,600,000
Contingency	50,000	50,000	50,000	50,000	50,000	50,000	50,000	350,000
<b>Total Project Expenditures</b>	<b>\$1,000,000</b>	<b>\$1,000,000</b>	<b>\$1,000,000</b>	<b>\$1,000,000</b>	<b>\$1,000,000</b>	<b>\$1,000,000</b>	<b>\$1,000,000</b>	<b>\$7,000,000</b>
<b>Funding Sources</b>								
Water and Sewer Fund Balance	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$6,000,000
<b>Total Project Funding Sources</b>	<b>\$1,000,000</b>	<b>\$1,000,000</b>	<b>\$1,000,000</b>	<b>\$1,000,000</b>	<b>\$1,000,000</b>	<b>\$1,000,000</b>	<b>\$1,000,000</b>	<b>\$7,000,000</b>

<b>PROJECT TITLE</b> New Elevated Water Tanks	<b>DEPARTMENT/DIVISION</b> Utilities / Water Distribution and Wastewater Collection
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project would fund the construction of two new elevated storage tanks in the system. The current recommendations from Pitometer & Associates indicate the need for additional storage in the Clemmons and Kernersville service areas to meet demand projections for 2015. A new 1.5 million gallon storage tank would be needed in Clemmons and an additional 1.0 million gallon storage tank needed in Kernersville.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$0	\$0	\$0	\$0	\$0	\$250,000	\$250,000	\$500,000
Land/Right-of-Way Acquisition	156,400	0	0	0	0	0	0	156,400
Construction	0	0	0	0	0	2,250,000	2,250,000	4,500,000
Contingency	0	0	0	0	0	100,000	100,000	200,000
<b>Total Project Expenditures</b>	<b>\$156,400</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,600,000</b>	<b>\$2,600,000</b>	<b>\$5,356,400</b>
<b>Funding Sources</b>								
Revenue Bonds	\$156,400	\$0	\$0	\$0	\$0	\$2,600,000	\$2,600,000	\$5,356,400
<b>Total Project Funding Sources</b>	<b>\$156,400</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,600,000</b>	<b>\$2,600,000</b>	<b>\$5,356,400</b>

<b>PROJECT TITLE</b> 30-inch & 36-inch Feeder Mains to Proposed Union Cross Elevated Water Tank	<b>DEPARTMENT/DIVISION</b> Utilities / Water Distribution and Wastewater Collection
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project involves the construction of 35,900 feet (approximately 6.8 miles) of 30-inch and 36-inch water mains to transmit water to the Union Cross Elevated Water Tank and improve water flow throughout the eastern portion of the 1060 pressure level. The 30-inch main leaves the Thomas Water Plant and meets the 24-inch main at Ridgewood Road and the 36-inch main leaves Ridgewood and proceeds to the tank site near the intersection of Union Cross and Glenn High.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$266,750	\$0	\$0	\$0	\$26,140	\$0	\$0	\$292,890
Land/Right-of-Way Acquisition	70,000	0	0	0	0	0	0	70,000
Construction	1,875,410	0	0	0	3,072,700	0	0	4,948,110
Contingency	0	0	0	0	597,000	0	0	597,000
<b>Total Project Expenditures</b>	<b>\$2,212,160</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,695,840</b>	<b>\$0</b>	<b>\$0</b>	<b>\$5,908,000</b>
<b>Funding Sources</b>								
Revenue Bonds	\$2,212,160	\$0	\$0	\$0	\$3,695,840	\$0	\$0	\$5,908,000
<b>Total Project Funding Sources</b>	<b>\$2,212,160</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,695,840</b>	<b>\$0</b>	<b>\$0</b>	<b>\$5,908,000</b>

<b>PROJECT TITLE</b> Children's Home and Manhattan Outfall Rehabilitation	<b>DEPARTMENT/DIVISION</b> Utilities / Water Distribution and Wastewater Collection
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**PROJECT DESCRIPTION/JUSTIFICATION**

These project locations were selected based on a history of sanitary sewer overflows. The problems varied from blockages in the main, inflow and infiltration overloading the system, and collapses of pipe. The Children's Home project consists of two lines crossing the Children's Home property and also includes a small residential area that contributes flow through these lines. The project would involve replacement and rehabilitation of the residential and outfall sections. The Manhattan Outfall consists of lines that must be upsized to accommodate existing capacity needs. The majority of this project would include replacement of the existing main. The two project areas have a combined total footage of approximately 30,000 feet of main. These improvements are also required under the new Collection System Permitting system created by the North Carolina Department of Environment and Natural Resources.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$101,000	\$163,940	\$0	\$0	\$0	\$0	\$0	\$264,940
Land/Right-of-Way Acquisition	266,400	0	0	0	0	0	0	266,400
Construction	1,131,340	2,262,680	0	0	0	0	0	3,394,020
Contingency	0	170,000	0	0	0	0	0	170,000
<b>Total Project Expenditures</b>	<b>\$1,498,740</b>	<b>\$2,596,620</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$4,095,360</b>
<b>Funding Sources</b>								
Revenue Bonds	\$1,498,740	\$2,596,620	\$0	\$0	\$0	\$0	\$0	\$4,095,360
<b>Total Project Funding Sources</b>	<b>\$1,498,740</b>	<b>\$2,596,620</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$4,095,360</b>

<b>PROJECT TITLE</b> West End Sewer System Improvements	<b>DEPARTMENT/DIVISION</b> Utilities / Water Distribution and Wastewater Collection
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project provides for the replacement of the West End sewer system. Due to the age and current condition of the sewer system, the potential for problems is great. An evaluation of the sewer system revealed that a majority of the sewer mains are undersized and cannot be accessed by closed circuit television equipment. For the lines that could be evaluated, many cracked and broken pipe segments were found and misaligned joints discovered. Improvements necessary for this area would include dig and replace, pipe bursting, and slip lining technologies. This project will be constructed in conjunction with the West End water system replacement project.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$66,700	\$133,300	\$0	\$0	\$0	\$0	\$0	\$200,000
Construction	798,680	1,597,360	0	0	0	0	0	2,396,040
Contingency	0	120,000	0	0	0	0	0	120,000
<b>Total Project Expenditures</b>	<b>\$865,380</b>	<b>\$1,850,660</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,716,040</b>
<b>Funding Sources</b>								
Revenue Bonds	\$865,380	\$1,850,660	\$0	\$0	\$0	\$0	\$0	\$2,716,040
<b>Total Project Funding Sources</b>	<b>\$865,380</b>	<b>\$1,850,660</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,716,040</b>

<b>PROJECT TITLE</b> West End Water System Improvements	<b>DEPARTMENT/DIVISION</b> Utilities / Water Distribution and Wastewater Collection
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project provides for the replacement of the West End water system, specifically the portions contained within the sewer rehabilitation area. Due to the age and current condition of the West End water system, it is inevitable that the improvements made to the sewer system will have a direct impact on many parts of the water system. With cast iron pipe and galvanized steel connections, nearby disruptions required to improve the sewer system will result in damage and potential disruption of the water supply to this area. This project will be constructed in conjunction with the sanitary sewer rehabilitation project.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$223,850	\$100,000	\$0	\$0	\$0	\$0	\$0	\$323,850
Construction	798,680	1,597,360	0	0	0	0	0	2,396,040
Contingency	0	120,000	0	0	0	0	0	120,000
<b>Total Project Expenditures</b>	<b>\$1,022,530</b>	<b>\$1,817,360</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,839,890</b>
<b>Funding Sources</b>								
Revenue Bonds	\$1,022,530	\$1,817,360	\$0	\$0	\$0	\$0	\$0	\$2,839,890
<b>Total Project Funding Sources</b>	<b>\$1,022,530</b>	<b>\$1,817,360</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,839,890</b>

<b>PROJECT TITLE</b> Construction and Maintenance Facilities Improvements	<b>DEPARTMENT/DIVISION</b> Utilities / Water Distribution and Wastewater Collection
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project addresses space limitations currently facing the Construction and Maintenance operation. Due to changes in responsibility and a shift to more technical personnel, more office space is needed to accommodate this staff. Within the current facility, additional offices have been built by dividing larger spaces into smaller areas, but a critical point is being reached where there is no longer room to have employees sharing some office space. In addition to office space, there is a need for more usable shop and storage space for the meter shop. Additional space is needed for temporary storage of meters being used in the change-out program. There is also a need for more room to accommodate rebuilding of meters taking place inside the shop area. With the recent purchase of an adjacent office and warehouse building, both needs of office space and shop space can be accommodated. Some modifications to the office and warehouse building would be necessary, and funding for these modifications is included in this project.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$0	\$0	\$30,000	\$0	\$0	\$0	\$0	\$30,000
Construction	157,030	280,000	1,000,000	0	0	0	0	1,437,030
Contingency	0	0	100,000	0	0	0	0	100,000
<b>Total Project Expenditures</b>	<b>\$157,030</b>	<b>\$280,000</b>	<b>\$1,130,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,567,030</b>
<b>Funding Sources</b>								
Revenue Bonds	\$157,030	\$280,000	\$1,130,000	\$0	\$0	\$0	\$0	\$1,567,030
<b>Total Project Funding Sources</b>	<b>\$157,030</b>	<b>\$280,000</b>	<b>\$1,130,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,567,030</b>

<b>PROJECT TITLE</b> Polo Road Outfall Sewer Rehabilitation	<b>DEPARTMENT/DIVISION</b> Utilities / Water Distribution and Wastewater Collection
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project would include inspection and rehabilitation of approximately 8,300 feet of 8-inch sanitary sewer line. In addition, easement clearing and/or acquisition would be a significant part of this project. It is unknown how much of the sewer line is inside of an existing sewer easement, but it is clear that much of the property around it has developed and limited or blocked access. Construction of new houses near the line and fences across the line have contributed to access issues making it very difficult in some areas and impossible in other areas to access the main. To further complicate matters, the line borders multiple small lakes in the area, potentially allowing a situation that could be damaging to the environment if a major overflow were to occur. Work would include an unspecified type of rehabilitation to the main, connections and manholes, as a comprehensive improvement. Also, this project would most likely include acquisition of easements for future access. Staff recognizes that public education in the form of providing information to property owners along the project limits will be critical to the success of this project.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$0	\$125,000	\$75,000	\$0	\$0	\$0	\$0	\$200,000
Construction	0	0	1,000,000	0	0	0	0	1,000,000
Contingency	0	0	100,000	0	0	0	0	100,000
<b>Total Project Expenditures</b>	<b>\$0</b>	<b>\$125,000</b>	<b>\$1,175,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,300,000</b>
<b>Funding Sources</b>								
Revenue Bonds	\$0	\$125,000	\$1,175,000	\$0	\$0	\$0	\$0	\$1,300,000
<b>Total Project Funding Sources</b>	<b>\$0</b>	<b>\$125,000</b>	<b>\$1,175,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,300,000</b>

<b>PROJECT TITLE</b> Water & Sewer GIS/Work Order Management System	<b>DEPARTMENT/DIVISION</b> Utilities / Water Distribution and Wastewater Collection
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project would create a new Geographical Information System (GIS) mapping and database of the water and sewer system. The GIS mapping would utilize Global Positioning System (GPS) technology to tie existing mains and manholes to a current GIS datum. Phase 1 of this project would involve charges by the Information Systems Department for the following services: functional design, detailed and database design, hardware/software applications, integration with other systems (i.e., Work Order Management System), documentation of maintenance procedures and functionality, and training/support. Phase 2 of the project would include the cost to collect data on the water and sewer system. Request for proposals would be solicited from firms who would collect geographic coordinates on the major appurtenances of the water and sewer systems. Once completed, the database would be used for capital improvements planning, maintenance planning and scheduling, and storing information on existing systems. The systems would combine data from other agencies (e.g., Tax Office, Planning, Engineering, etc.), which would allow maps to overlay other various facets of information on top of the water and/or sewer system.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$1,566,620	\$300,000	\$300,000	\$304,380	\$0	\$0	\$0	\$2,471,000
Contingency	150,000	100,000	100,000	179,000	0	0	0	529,000
<b>Total Project Expenditures</b>	<b>\$1,716,620</b>	<b>\$400,000</b>	<b>\$400,000</b>	<b>\$483,380</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,000,000</b>
<b>Funding Sources</b>								
Revenue Bonds	\$1,716,620	\$400,000	\$400,000	\$483,380	\$0	\$0	\$0	\$3,000,000
<b>Total Project Funding Sources</b>	<b>\$1,716,620</b>	<b>\$400,000</b>	<b>\$400,000</b>	<b>\$483,380</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,000,000</b>

<b>PROJECT TITLE</b> Kerners Mill Sewer System Improvements	<b>DEPARTMENT/DIVISION</b> Utilities / Water Distribution and Wastewater Collection
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project provides for planning and construction of sewer rehabilitation projects, inflow and infiltration investigations, and flow monitoring in the Kerners Mill sewer system. The project should decrease the amount of inflow and infiltration entering the system and increase its long-term capacity.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$420,280	\$100,000	\$0	\$0	\$0	\$0	\$0	\$520,280
Construction	1,500,000	889,730	0	0	0	0	0	2,389,730
Contingency	0	90,000	0	0	0	0	0	90,000
<b>Total Project Expenditures</b>	<b>\$1,920,280</b>	<b>\$1,079,730</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,000,010</b>
<b>Funding Sources</b>								
Revenue Bonds	\$1,920,280	\$1,079,730	\$0	\$0	\$0	\$0	\$0	\$3,000,010
<b>Total Project Funding Sources</b>	<b>\$1,920,280</b>	<b>\$1,079,730</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,000,010</b>

<b>PROJECT TITLE</b> Ardmore Branch Outfall	<b>DEPARTMENT/DIVISION</b> Utilities / Water Distribution and Wastewater Collection
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project provides for the construction of a parallel outfall in the Ardmore area of the City of Winston-Salem. This project should reduce the problems experienced in the area with sewer backups and overflows.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$318,150	\$71,100	\$0	\$0	\$0	\$0	\$0	\$389,250
Land/Right-of-Way Acquisition	137,500	0	0	0	0	0	0	137,500
Construction	2,000,000	515,000	0	0	0	0	0	2,515,000
Other (Engineering Division Charges)	66,100	28,900	0	0	0	0	0	95,000
Contingency	0	125,750	0	0	0	0	0	125,750
<b>Total Project Expenditures</b>	<b>\$2,521,750</b>	<b>\$740,750</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,262,500</b>
<b>Funding Sources</b>								
Revenue Bonds	\$2,521,750	\$740,750	\$0	\$0	\$0	\$0	\$0	\$3,262,500
<b>Total Project Funding Sources</b>	<b>\$2,521,750</b>	<b>\$740,750</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,262,500</b>

<b>PROJECT TITLE</b> Muddy Creek Find and Fix Project	<b>DEPARTMENT/DIVISION</b> Utilities / Water Distribution and Wastewater Collection
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project provides for inflow and infiltration investigations, flow monitoring, planning, and construction for sewer rehabilitation projects in the Muddy Creek drainage basin sewer system. The project should decrease the amount of inflow and infiltration entering the system and increase its long-term capacity.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$96,700	\$183,300	\$0	\$0	\$0	\$0	\$0	\$280,000
Construction	0	228,000	0	0	0	0	0	228,000
Contingency	0	50,000	0	0	0	0	0	50,000
<b>Total Project Expenditures</b>	<b>\$96,700</b>	<b>\$461,300</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$558,000</b>
<b>Funding Sources</b>								
Revenue Bonds	\$96,700	\$461,300	\$0	\$0	\$0	\$0	\$0	\$558,000
<b>Total Project Funding Sources</b>	<b>\$96,700</b>	<b>\$461,300</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$558,000</b>

<b>PROJECT TITLE</b> Permanent Flow Monitoring	<b>DEPARTMENT/DIVISION</b> Utilities / Water Distribution and Wastewater Collection
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project provides for the purchase of permanent flow monitors and for their installation at or near existing wastewater pumping stations. Installation at these locations would allow utilization of existing telemetry and Supervisory Control and Data Acquisition System (SCADA) information gathering capabilities at the pump stations in the operation of the flow monitors.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$0	\$100,000	\$0	\$0	\$0	\$0	\$0	\$100,000
Construction	0	250,000	0	0	0	0	0	250,000
Contingency	0	35,000	0	0	0	0	0	35,000
<b>Total Project Expenditures</b>	<b>\$0</b>	<b>\$385,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$385,000</b>
<b>Funding Sources</b>								
Revenue Bonds	\$0	\$385,000	\$0	\$0	\$0	\$0	\$0	\$385,000
<b>Total Project Funding Sources</b>	<b>\$0</b>	<b>\$385,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$385,000</b>

<b>PROJECT TITLE</b> Ardmore Area Water and Sewer Rehabilitation	<b>DEPARTMENT/DIVISION</b> Utilities / Water Distribution and Wastewater Collection
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project provides for the evaluation and rehabilitation of the Ardmore neighborhood water and sewer systems. Due to the large size of the Ardmore neighborhood, the age of the water and sewer systems, and the historical aspects of the area, a master plan approach is being pursued in developing an overall project approach for the rehabilitation of these systems.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$0	\$300,000	\$0	\$0	\$0	\$0	\$0	\$300,000
<b>Total Project Expenditures</b>	<b>\$0</b>	<b>\$300,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$300,000</b>
<b>Funding Sources</b>								
Revenue Bonds	\$0	\$300,000	\$0	\$0	\$0	\$0	\$0	\$300,000
<b>Total Project Funding Sources</b>	<b>\$0</b>	<b>\$300,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$300,000</b>

<b>PROJECT TITLE</b> Stormwater Infrastructure Improvements	<b>DEPARTMENT/DIVISION</b> Stormwater Management
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**PROJECT DESCRIPTION/JUSTIFICATION**

Through stormwater basin studies and city inspections, the stormwater staff has identified over 30 locations throughout the city where public stormwater infrastructure is deficient. The drainage systems in these locations are aging or inadequate in size to handle current stormwater volumes. The estimated cost of improvements to these locations totals over \$24 million. The stormwater staff has assigned each project a priority ranking and created a 15-year plan for constructing these improvements. The 2008-2013 capital plan provides funding for the first six years of the stormwater capital plan, which would construct improvements at approximately half of the locations. The city would fund these improvements using both stormwater management fund reserves and revenue bonds. The debt service on revenue bonds represents a new cost to the Stormwater Management Program, as noted below in the operating impact section.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$160,000	\$520,000	\$0	\$0	\$1,400,000	\$0	\$0	\$2,080,000
Construction	640,000	2,080,000	0	0	5,600,000	0	0	8,320,000
<b>Total Project Expenditures</b>	<b>\$800,000</b>	<b>\$2,600,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$7,000,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$10,400,000</b>
<b>Funding Sources</b>								
Revenue Bonds	\$0	\$1,426,000	\$0	\$0	\$7,000,000	\$0	\$0	8,426,000
Stormwater Management Fund	800,000	1,174,000	0	0	0	0	0	1,974,000
<b>Total Project Funding Sources</b>	<b>\$800,000</b>	<b>\$2,600,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$7,000,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$10,400,000</b>
<b>OPERATING IMPACT:</b>								
Debt Service		\$0	\$120,500	\$120,500	\$416,310	\$712,120	\$712,120	\$2,081,550
<b>Total Net Expenditures</b>		<b>\$0</b>	<b>\$120,500</b>	<b>\$120,500</b>	<b>\$416,310</b>	<b>\$712,120</b>	<b>\$712,120</b>	<b>\$2,081,550</b>

<b>PROJECT TITLE</b> Stormwater Basin Studies - Existing Basin Updates	<b>DEPARTMENT/DIVISION</b> Stormwater Management
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project provides for comprehensive updates of existing public and private storm drainage systems for the basins included in the original studies. These updates would include a revised inventory of public and private stormwater infrastructure, flooding models, updates GIS data, the identification of flooding and drainage issues, and revised pollutant loading models. Completion of these updates is a requirement of the United States Environmental Protection Agency and the city's NPDES Phase I permit. The city will issue revenue bonds to finance the cost of these studies. The debt service on these bonds represents a new cost to the Stormwater Management Program, as noted below in the operating impact section.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$0	\$7,973,880	\$0	\$0	\$0	\$0	\$0	\$7,973,880
<b>Total Project Expenditures</b>	<b>\$0</b>	<b>\$7,973,880</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$7,973,880</b>
<b>Funding Sources</b>								
Revenue Bonds	\$0	\$7,973,880	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Project Funding Sources</b>	<b>\$0</b>	<b>\$7,973,880</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$7,973,880</b>
<b>OPERATING IMPACT:</b>								
Debt Service		\$0	\$673,920	\$673,920	\$673,920	\$673,920	\$673,920	\$3,369,600
<b>Total Net Expenditures</b>		<b>\$0</b>	<b>\$673,920</b>	<b>\$673,920</b>	<b>\$673,920</b>	<b>\$673,920</b>	<b>\$673,920</b>	<b>\$3,369,600</b>

<b>PROJECT TITLE</b> Drainage Improvements on Private Property	<b>DEPARTMENT/DIVISION</b> Stormwater Management
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**PROJECT DESCRIPTION/JUSTIFICATION**

City ordinance authorizes the city to participate in the correction of private storm drainage problems that occur on private residential property. The city staff has adopted changes to the current policy to allow more projects to qualify for assistance, reduce the cost to city residents who request assistance, and address one of the major complaints from residents to the Stormwater Division--flooding caused by brush and vegetative debris. The adopted changes increase the cap on project costs from \$30,000 to \$50,000, increase the city's participation in eligible projects from 60% to 70%, and add a qualifying condition for the removal of brush and vegetative debris that impedes the flow of water and adds to existing flooding problems. Each request for city assistance will be reviewed by city staff and presented to the City Council for final approval. The adopted FY 07-08 budget includes an increase in residential and non-residential stormwater fees that would provide additional resources to address some of these private drainage problems.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Construction	\$0	\$900,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$3,400,000
<b>Total Project Expenditures</b>	<b>\$0</b>	<b>\$900,000</b>	<b>\$500,000</b>	<b>\$500,000</b>	<b>\$500,000</b>	<b>\$500,000</b>	<b>\$500,000</b>	<b>\$3,400,000</b>
<b>Funding Sources</b>								
Stormwater Management Fund	\$0	\$900,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$3,400,000
<b>Total Project Funding Sources</b>	<b>\$0</b>	<b>\$900,000</b>	<b>\$500,000</b>	<b>\$500,000</b>	<b>\$500,000</b>	<b>\$500,000</b>	<b>\$500,000</b>	<b>\$3,400,000</b>

<b>PROJECT TITLE</b> Stormwater Basin Studies - Annexation Areas	<b>DEPARTMENT/DIVISION</b> Stormwater Management
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project provides for new studies of public and private storm drainage systems in the areas annexed by the city in 2006. These studies would coincide with the updates to the existing basin studies (described on page 73). The city also plans to issue revenue bonds to finance the cost of these new studies. The debt service on these bonds is noted below in the operating impact section.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$0	\$1,345,320	\$0	\$0	\$0	\$0	\$0	\$1,345,320
<b>Total Project Expenditures</b>	<b>\$0</b>	<b>\$1,345,320</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,345,320</b>
<b>Funding Sources</b>								
Revenue Bonds	\$0	\$1,345,320	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Project Funding Sources</b>	<b>\$0</b>	<b>\$1,345,320</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,345,320</b>
<b>OPERATING IMPACT:</b>								
Debt Service		\$0	\$113,700	\$113,700	\$113,700	\$113,700	\$113,700	\$568,500
<b>Total Net Expenditures</b>		<b>\$0</b>	<b>\$113,700</b>	<b>\$113,700</b>	<b>\$113,700</b>	<b>\$113,700</b>	<b>\$113,700</b>	<b>\$568,500</b>

<b>PROJECT TITLE</b> Municipal Stormwater Pollution Prevention Plans	<b>DEPARTMENT/DIVISION</b> Stormwater Management
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project involves the development of stormwater pollution prevention plans for all municipally owned and operated facilities that have the potential to contribute pollution to surface waters. Departments and locations for which plans would be developed include: Fleet Services, Department of Transportation, Streets, Sanitation, Utilities Construction and Maintenance, water and wastewater treatment plants, Winston-Salem Entertainment and Sports Complex, landfills, Division of Vegetation Management, and Recreation and Parks Department. Development of these plans is a requirement of the United States Environmental Protection Agency and the city's NPDES Phase I permit. The USEPA requires that the city complete these plans within three years.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$0	\$108,800	\$108,800	\$108,800	\$0	\$0	\$0	\$326,400
<b>Total Project Expenditures</b>	<b>\$0</b>	<b>\$108,800</b>	<b>\$108,800</b>	<b>\$108,800</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$326,400</b>
<b>Funding Sources</b>								
Stormwater Management Fund	\$0	\$108,800	\$108,800	\$108,800	\$0	\$0	\$0	\$326,400
<b>Total Project Funding Sources</b>	<b>\$0</b>	<b>\$108,800</b>	<b>\$108,800</b>	<b>\$108,800</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$326,400</b>

<b>PROJECT TITLE</b> Phase I Development- Old Walkertown Road Cemetery	<b>DEPARTMENT/DIVISION</b> Utilities / Cemeteries
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**PROJECT DESCRIPTION/JUSTIFICATION**

This project will provide for the development of the initial phase of a proposed city-owned cemetery on Old Walkertown Road. The project budget does not include the purchase of the property but assumes property would be transferred, without fee, from the Streets Division to the Cemeteries Division. Beginning in FY 2008-2009, Phase I development would create approximately 9,500 new grave spaces. A second phase of development, creating 7,200 graves, would be proposed, as needed, in FY 2022-2023. The cost of Phase I would be financed through the North Carolina Municipal Leasing Corporation over 10 years, with the annual lease payment included in the Cemeteries operating budget.

**FINANCIAL SUMMARY:**

	Prior Years	Planned Appropriations 2008-2013						Grand Total
	Total Approp To Date	Budget FY 07-08	Planning FY 08-09	Planning FY 09-10	Planning FY 10-11	Planning FY 11-12	Planning FY 12-13	
<b>Expenditures</b>								
Planning/Design/Engineering	\$0	\$0	\$32,470	\$0	\$0	\$0	\$0	\$32,470
Construction	0	0	324,630	0	0	0	0	324,630
Contingency	0	0	32,460	0	0	0	0	32,460
<b>Total Project Expenditures</b>	<b>\$0</b>	<b>\$0</b>	<b>\$389,560</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$389,560</b>
<b>Funding Sources</b>								
NCMLC	\$0	\$0	\$389,560	\$0	\$0	\$0	\$0	\$389,560
<b>Total Project Funding Sources</b>	<b>\$0</b>	<b>\$0</b>	<b>\$389,560</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$389,560</b>
<b>OPERATING IMPACT:</b>								
Capital Outlay/Lease Payments		\$0	\$60,390	\$58,240	\$56,100	\$53,960	\$51,810	\$280,500
<b>Total Net Expenditures</b>		<b>\$0</b>	<b>\$60,390</b>	<b>\$58,240</b>	<b>\$56,100</b>	<b>\$53,960</b>	<b>\$51,810</b>	<b>\$280,500</b>

