

City of Raleigh

Capital Improvement Program

Fiscal Years 2008-09 through 2017-18

The City Council

Charles C. Meeker, Mayor
James P. West, Mayor Pro Tem
Mary-Ann Baldwin
Thomas G. Crowder
Nancy McFarlane
Philip R. Isley
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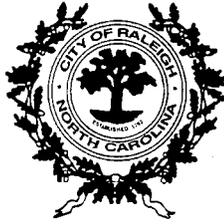
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Rendering of new Convention Center courtesy of City of Raleigh*

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City Of Raleigh North Carolina

July 1, 2008

Mayor Charles C. Meeker
Mayor Pro Tem James P. West
Councilor Mary-Ann Baldwin
Councilor Thomas Crowder
Councilor Philip R. Isley
Councilor Rodger Koopman
Councilor Nancy McFarlane
Councilor Russ Stephenson

Dear Mayor and Councilors:

Presented in this document is the annual *Capital Improvement Program* (CIP) for the City of Raleigh, as adopted by the City Council on June 23, 2008.

Summarized below are the changes to the *Proposed Capital Improvement Program* made by Council prior to the adoption of the program. Detailed changes to Phase I of the program can be found in Resolution No. (2008)-593; *A Resolution Adopting the Capital Improvement Program for Fiscal Years 2008-09 through 2017-18*. A copy of the resolution is located at the end of the *Adopted Capital Improvement Program* document.

1. Two projects were added to Phase I of the General Public Improvement program – South Park History Project (\$50,000) and Person/Blount/New Bern Project (\$50,000).
2. Downtown West Gateway and Parking Deck Retail project funding was reduced by \$500,000 and \$750,000, respectively, in order to accommodate other budget priorities in the adopted FY 2008-09 Operating Budget and Capital Improvement Program.
3. Upper Neuse Initiative and Water Quality Improvements funding was increased by \$1 million to a total of \$1,500,000 in FY09. Little River Reservoir Wetland Mitigation Property Acquisition funding was increased by \$560,500 to a total of \$3,060,500 in FY09.
4. Technical corrections were made to the Parking Deck Assessment and Repair project to adjust the total funding in FY09 to \$126,500 and to the Remote Operations Facilities Project to reflect \$53,230,256 in funding in Phase II of the General Public Improvement Program.

City administration is prepared to implement the projects authorized by Council's adoption of this *Capital Improvement Program*.

Sincerely,

J. Russell Allen
City Manager





City Of Raleigh *North Carolina*

May 20, 2008

Mayor Charles C. Meeker
Mayor Pro Tem James P. West
Councillor Mary-Ann Baldwin
Councillor Thomas Crowder
Councillor Philip R. Isley
Councillor Rodger Koopman
Councillor Nancy McFarlane
Councillor Russ Stephenson

Dear Mayor and Councillors:

The 10-year Capital Improvement Program (CIP) for the City of Raleigh, spanning fiscal years 2008-09 through 2017-18, is hereby submitted to the City Council for consideration. The Phase I program, encompassing the first five years of the CIP, includes projects approved by Council in previous editions of the CIP as well as additional projects recommended as the result of planning processes. The Phase II program, spanning the second five year period, includes projects and capital maintenance needs necessary for the continuation of services to the citizens of the city.

This edition of the annual CIP for the City of Raleigh represents a solid \$1.5 billion investment to address its capital needs over a five-year Phase I period and proposes allocation of an additional 2.5 cents on the property tax rate in 2008 – 2009 to begin funding the joint public safety center (\$226.1 million), the remote operations facilities (\$223.5 million), and the 2007 Parks Bond (\$88.6 million).

Capital Investment Financing

The capital program continues to be primarily financed by the use of debt instruments. Phased issuance of the General Obligation bonds approved in referendum for Parks (2003 & 2007), Transportation (2005) and Housing (2005) projects remain the hallmark of the capital program. Additionally a total of \$11.1 million in 2/3 bonds financing supports transportation and general public improvement projects. Finally, this five year program proposes a \$120 million referendum in the fall of 2008 to support the city's Transportation infrastructure needs over the final four years of Phase I.

At the Council's encouragement, this year the city will issue stormwater revenue bonds for the first time in order to accelerate stormwater projects. The capital program implements this practice with the planned issuance of \$20.2 million to execute projects in an expedited manner.

Public Utilities continues to undertake the largest capital investment program in our history. Revenue Bonds of approximately \$424 million will serve to finance the water, wastewater, and reuse water projects necessary to ensure efficient and effective services to the fully-merged service area. We have also increased operating transfers to the capital program as projected and expected by the markets in which our bonds will be issued.

The capital program assumes no change in the current facility fees since Council has taken no action prior to the presentation of this budget. A separate budget note outlines the estimated revenue generated from the proposed increase in facility fees and the capital projects which would be accelerated from these additional revenues. Based on current rates, facility fees are anticipated to generate a \$35.1 million revenue stream over the period covered by Phase I of the CIP.

Capital Investment Proposal

Total appropriations for Phase I of the CIP are proposed at the following levels for the six major program areas:

1. Transportation\$218.4 million
2. Public Utilities\$545.0 million
3. Parks.....\$126.4 million
4. Stormwater Utility and Neuse Basin
Environmental Program\$50.8 million
5. Housing\$19.5 million
6. General Public Improvements.....\$499.8 million

Programmatic Investment

Transportation

Funding of \$218.4 million is proposed for transportation infrastructure improvements, including the phased completion of projects funded by the 2005 Street Bonds, \$900K in 2/3 bond financing, and a \$120M bond referendum sought in fall 2008 to fund the remainder of the 2005 Street Bond projects along with new projects in FY 2010 and beyond. An increase in thoroughfare facility fees is not assumed in this program.

- Major Streets: Sixteen major street widening and road improvement projects are included in the transportation program.

- **Street Improvements:** Funding is allocated to the street resurfacing program. Construction of a new salt storage and spreader facility and repairs to city-owned bridges are also included. The program also includes the city's share for the traffic signal system upgrade and partial funding for the traffic calming program.
- **Transit:** Provides funds for replacement buses and feeder vans as well as for maintenance and upgrades to facilities and equipment that support transit system operations. Federal and State grants are expected to pay 90% of the cost of capital equipment needed for transit services.
- **Parking Program:** Includes funding for the city's off-street parking facilities' maintenance and repair needs and replacement of individual on-street parking meters with multi-space meters. It also includes funding for additional upgrades to City-owned parking decks to energy-efficient LED-based lighting systems. This program is funded directly from the city's Parking Fund.

Public Utilities

The utilities program continues to execute an extensive number of investment projects, as well as initiatives to improve water and wastewater operations throughout the Raleigh service area which now includes providing service and capital investment to infrastructure located within the municipalities of Garner, Knightdale, Wake Forest, Rolesville, Wendell and Zebulon. A total investment program of \$545 million is proposed over Phase I of the capital program.

Environmental projects represented in the utilities program include, among others, an appropriation of \$500K to the Falls Lake Initiative in FY09 (a water quality preservation initiative) and infrastructure development at the Randleigh Farm site and design of its Environmental Education Center.

Parks

Phase I of the parks capital improvement program earmarks \$2.7 million for property acquisition, \$23.7 million for development projects, and \$100 million for phased expenditures from the 2003 and 2007 Parks Bonds. An increase in open space facility fees is not assumed in the parks program.

Stormwater Utility and Neuse Basin Environmental Program

Acceleration of the number of stormwater projects funded within the Phase I Stormwater Utility program is to be accomplished through the issuance of Revenue Bonds, which will provide an additional funding resource to the program. The \$50.8 million Phase I program anticipates a total of almost \$20.2 million in bonded debt to be issued to fund a variety of drainage improvements and culvert upgrades throughout the jurisdiction. The balance of the capital program is financed through operating transfers, also known as pay-as-you-go funding.

General Public Improvements

All other capital facility and maintenance needs fall under the category of General Public Improvements. Included in this program is the construction of fire stations and other public safety initiatives that support police and emergency communications operations. A total of \$428.1 million

in general improvement projects and \$17.6 million in economic development initiatives make up the \$499.8 million investment proposal for the Phase I program.

The Clarence E. Lightner Public Safety Center (\$226.1 million), development of the Remote Operations Facilities concept (\$223.5 million), and the 2007 Parks Bonds (\$88.6 million) are described for your reference in the capital program and are proposed to be funded through a multi-year debt model strategy that includes an additional 2.5 cents on the property tax rate in FY 2009.

Other major projects in this program include:

- \$4 million for construction of a Northwest Fire Station (#29);
- \$1.9 million to fund sustainability initiatives which will drive longer term cost savings and environmental benefits in the long run;
- \$860K to install wayfinding infrastructure throughout the city to promote economic development;
- \$1.5 million for a Downtown Amphitheater adjacent to the new Convention Center;
- \$1.3 million to fund construction of parking deck retail space that will be leased to private retailers in the downtown core; and
- \$500K to study and revamp the city's Zoning Code.

Summary

The annual *Capital Improvement Program* represents a significant step forward in our commitment to maintain and improve our existing infrastructure as well as fund the construction of major new city facilities and economic development programs deserving of our first class city. Administration is available to assist the Council and respond to questions and concerns as you review this proposal.

Respectfully submitted,



J. Russell Allen
City Manager

Introduction

Capital improvement programming is a procedure for analyzing major facility needs, projecting fiscal resources, establishing priorities, and developing schedules for the development of capital facilities. For the purpose of the *Capital Improvement Program* (CIP), capital facilities are generally defined as fixed assets with a useful life greater than ten years and with a cost of greater than \$25,000. Regular purchases of vehicles and equipment for routine operations and most maintenance and repair costs for city facilities are funded through the equipment fund and the annual operating budget.

Upon adoption by the City Council, the CIP becomes a statement of city policy regarding the timing, location, character, and funding of future capital projects. It is recognized that the policy represented by the CIP reflects the best judgment of the City Council at the time, and that additional needs and constraints are likely to become apparent before the program is completed.

The policy established in the CIP provides important guidance for city administration, the various boards and commissions appointed by City Council that assist with municipal governance, and all citizens of the City of Raleigh with regard to the following matters:

1. Preparation of the capital portion of the annual operating budget. The first two years of the CIP serve as the basis for the capital portion of the annual operating budget and biannual budget projection.
2. Scheduling and prioritization of project planning and design.
3. Site selection and property acquisition.
4. Financial modeling and planning, especially with regard to the financing of debt.
5. Coordination with federal, state, county and other local agencies.
6. Private planning efforts of businesses, developers, and neighborhood organizations.

Capital improvement programming is one element in the planning process of the city. It is a bridge between general long-term plans and short-term project planning. In the capital improvement programming process, the long range objectives of the city are reviewed with growth trends, and translated into a more specific multi-year program. This program provides a framework for individual project decisions consistent with multi-year needs, priorities, and financial resources.

The **Capital Improvement Program** looks ahead ten years to predict and plan for capital needs. **Phase I**, covering fiscal years 2008-09 through 2012-13, addresses both project needs and a financial strategy for this period. **Phase II**, covering fiscal years 2013-14 through 2017-18, provides a more general review of anticipated project needs for the balance of the plan.

Capital Improvement Program

Phase I of the *Capital Improvement Program* spans five fiscal years, from 2008-09 through 2012-13. Project costs, descriptions and funding plans are presented in six programmatic categories for Phase I: Transportation, Public Utilities, Parks, Stormwater Utility and Neuse Basin Environmental, Housing, and General Public Improvement. The information provided with each programmatic category also includes a listing of estimated capital needs expected in the five-year period immediately following Phase I.

The major initiatives represented in the 2008-09 edition of the *Capital Improvement Program* include a presentation of project expenditure proposals associated with the 2003 and 2007 Parks Bonds, 2005 Transportation and Affordable Housing Bonds, a Stormwater Revenue Bond, as well as from a proposed 2008 Transportation Bond. The program also projects Certificates of Participation for the Public Safety and Remote Operation Facilities.

The Phase I **transportation program** addresses thoroughfare needs and other street improvements, major street maintenance, sidewalk construction, bicycle facilities, and transit capital needs at a total Phase I projected cost of \$218,325,071.

The **public utilities program** includes treatment plant design, construction and improvements, storage and pumping facility maintenance and improvements, and the maintenance and extension of water and sewer mains for a total Phase I projected cost of \$546,529,000.

The **parks program** includes funding for park site and greenway trail acquisition, major maintenance projects, and the design and development of parks located throughout the city jurisdiction. The Phase I cost for the parks program is \$126,402,631.

The **stormwater utility and Neuse Basin environmental program** continues the city's efforts to proactively manage and mitigate the effects of stormwater runoff, alleviate flooding, improve the drainage capacity of watercourses and containment structures, and provide methods for pollution control and improving water quality within the Neuse River drainage basin. The program cost for projects in Phase I is \$50,802,700.

The **housing program** will provide capacity for increasing the stock of affordable housing throughout the city. The program cost for projects included in Phase I is \$19,525,000.

The **general public improvement program** includes funding for various public improvement projects and initiatives, including the maintenance and construction of public safety structures such as fire stations and police training facilities, general maintenance of city-owned buildings and infrastructure, economic development and other general needs. The projected cost, excluding proposed alternative financing, for Phase I is \$498,602,730.

The **total** projected cost for Phase I *Capital Improvement Program* is \$1,460,187,132.

Capital Improvement Expenditure Summary by Program

	Phase I					Phase II		10 Year
	2008-09	2009-10	2010-11	2011-12	2012-13	Summary	Summary	Summary
TRANSPORTATION								
Major Streets	\$ 19,575,500	\$ 32,304,000	\$ 29,046,000	\$ 44,011,000	\$ 16,511,000	\$ 141,447,500	\$ 376,368,000	\$ 517,815,500
Street Improvements	10,790,000	11,740,000	12,140,000	12,765,000	13,365,000	60,800,000	63,050,000	123,850,000
Pedestrian Projects	1,085,000	1,344,000	1,920,000	1,375,000	1,350,000	7,074,000	5,423,000	12,497,000
Transit Projects	1,583,220	2,244,830	1,323,060	431,250	299,111	5,881,471	1,808,458	7,689,929
Parking Improvements	282,500	1,056,600	973,000	405,000	405,000	3,122,100	3,265,000	6,387,100
Total	\$ 33,316,220	\$ 48,689,430	\$ 45,402,060	\$ 58,987,250	\$ 31,930,111	\$ 218,325,071	\$ 449,914,458	\$ 668,239,529

PUBLIC UTILITIES

Water Projects	\$ 42,722,500	\$ 39,990,000	\$ 39,364,000	\$ 33,201,000	\$ 21,281,500	\$ 176,559,000	\$ 330,224,000	\$ 506,783,000
Wastewater Projects	46,550,000	58,705,000	102,600,000	68,200,000	93,915,000	369,970,000	526,600,000	896,570,000
Total	\$ 89,272,500	\$ 98,695,000	\$ 141,964,000	\$ 101,401,000	\$ 115,196,500	\$ 546,529,000	\$ 856,824,000	\$ 1,403,353,000

PARKS

Acquisition Projects	\$ 220,000	\$ 300,000	\$ 600,000	\$ 750,000	\$ 850,000	\$ 2,720,000	\$ 35,000,000	\$ 37,720,000
Development Projects	4,871,015	4,787,619	4,658,306	4,658,219	4,690,506	23,665,665	140,254,876	163,920,541
2003 Park Bond	11,416,966					11,416,966		11,416,966
2007 Park Bond	20,918,047	33,030,732	27,101,221	7,550,000		88,600,000		88,600,000
Total	\$ 37,426,028	\$ 38,118,351	\$ 32,359,527	\$ 12,958,219	\$ 5,540,506	\$ 126,402,631	\$ 175,254,876	\$ 301,657,507

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STORMWATER UTILITY and NEUSE BASIN ENVIRONMENTAL

Neuse Environmental	\$ 3,910,000	\$ 1,495,000	\$ 1,495,000	\$ 1,495,000	\$ 1,495,000	\$ 9,890,000	\$ 21,200,000	\$ 31,090,000
Stormwater Utility	20,979,700	4,759,000	4,700,000	4,140,000	6,334,000	40,912,700	45,578,000	86,490,700
Total	\$ 24,889,700	\$ 6,254,000	\$ 6,195,000	\$ 5,635,000	\$ 7,829,000	\$ 50,802,700	\$ 66,778,000	\$ 117,580,700

HOUSING

	\$ 4,625,000	\$ 4,625,000	\$ 4,625,000	\$ 4,550,000	\$ 1,100,000	\$ 19,525,000	\$ -	\$ 19,525,000
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GENERAL PUBLIC IMPROVEMENT

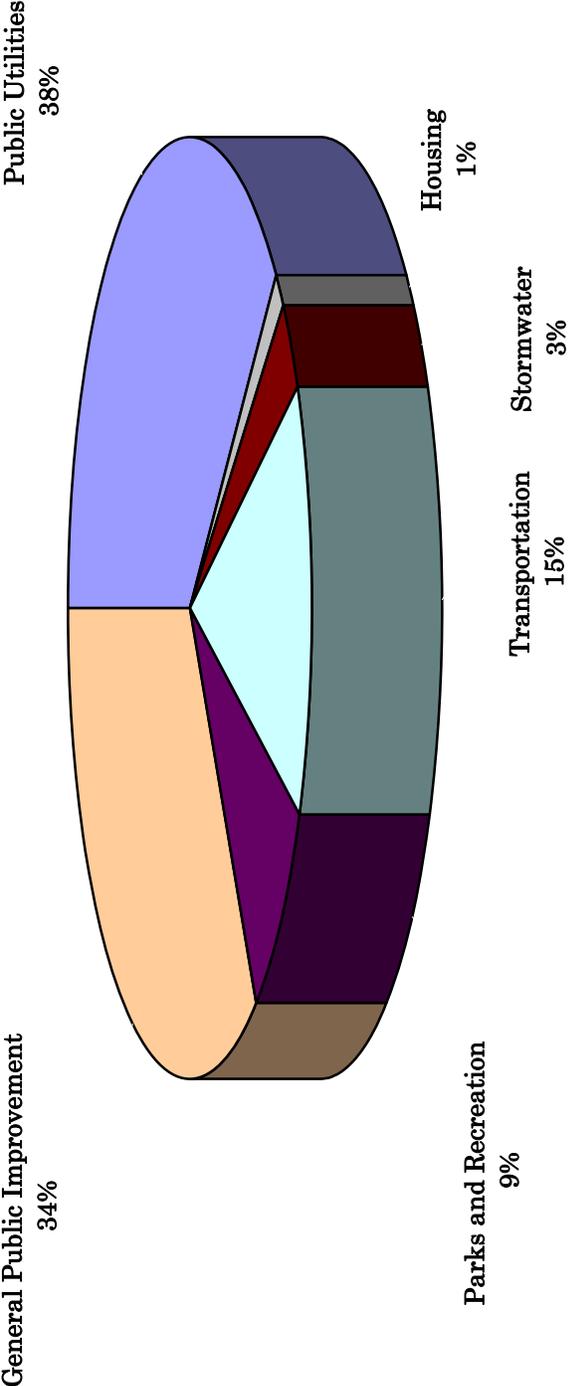
General Public	\$ 67,518,733	\$285,703,167	\$ 56,616,456	\$ 28,433,513	\$ 43,493,461	\$ 481,765,330	\$ 94,070,256	\$ 575,835,586
Economic Development	6,477,400	2,740,000	2,040,000	4,540,000	1,040,000	16,837,400	7,350,000	24,187,400
Total	\$ 73,996,133	\$288,443,167	\$ 58,656,456	\$ 32,973,513	\$ 44,533,461	\$ 498,602,730	\$ 101,420,256	\$ 600,022,986

TOTAL, All Programs \$263,525,581 \$484,824,948 \$ 289,202,043 \$ 216,504,982 \$ 206,129,578 \$1,460,187,132 \$ 1,650,191,590 \$ 3,110,378,722

Capital Improvement Program Expenditure Summary

Phase I Total Expenditures

(Including Proposed Transportation Bond)



Transportation

The transportation program includes major street construction, street improvements, pedestrian and bicycle projects, and transit projects. Total Phase I funding for the transportation program is \$218,325,071 including the 2005 Transportation Bond referendum, projected 2008 Transportation Bond Referendum, 2/3 bond financing, and annual funding. Projects within Phase I for **major streets** are comprised of sixteen widening and road improvement projects.

The **street improvements** component of the transportation program includes funding for street resurfacing, street improvements, petition paving projects, traffic signal installations, intersection improvements, and median improvements. Construction of a new salt storage and spreader facility and repairs of city-owned bridges are also included. The 2005 Transportation Bond funding includes the city's share for the traffic signal system upgrade and partial funding for the traffic calming program.

The **bicycle, pedestrian & planning improvements** element of the transportation program includes funding for new curb ramps, thoroughfare streetlight installation, intersection pedestrian improvements and funding for sidewalk construction, maintenance, and repair. This section includes matching funds to be provided to NCDOT for construction of sidewalks associated with state projects. These funds will also be used to improve intersections between greenways and public streets and to conduct advanced planning for future thoroughfare corridors.

The **parking improvements** section includes funding for the city's off-street parking facilities maintenance and repair needs and on-street parking meter upgrades to meter stationing.

The **transit section** provides funds for replacement buses and feeder vans as well as for maintenance and upgrades to facilities and equipment that support transit system operations. Federal and state grants are expected to pay 90% of the cost of capital equipment needed for transit service.

The major funding sources for transportation projects in Phase I include facility fees, the local share of the state gasoline tax (Powell Bill), and general obligation bonds. A listing and a brief description of projects proposed for the five years following Phase I are provided at the end of the Transportation section. The cost of the projects for the second five years is summarized below as Phase II costs.

The table provides a summary of transportation costs in the Capital Improvement Program.

Ten Year Summary of the Transportation Program

	Phase I	Phase II	Total
Major Street Projects	\$ 141,447,500	\$ 376,368,000	\$ 517,815,500
Street Improvements	60,800,000	63,050,000	123,850,000
Pedestrian Improvements	7,074,000	5,423,000	12,497,000
Transit Projects	5,881,471	1,808,458	7,689,929
Parking Improvements	3,122,100	3,265,000	6,387,100
Total	\$ 218,325,071	\$ 449,914,458	\$ 668,239,529

Project Costs for Transportation

Phase I
Summary

2008-09 2009-10 2010-11 2011-12 2012-13

Major Streets

1	Falls of Neuse Road Realign and Widen (*)	\$ 6,500,000	\$ 4,000,000			\$	10,500,000
2	Hillsborough Street Improvements	3,402,500					3,402,500
3	Rock Quarry Road Widening, Part B (*, +)	3,206,000	7,183,000				10,389,000
4	Poole Road Widening (+)		1,272,000	2,179,000	8,755,000		12,206,000
5	Leesville Road Widening, I-540 North (*, +)	1,149,000	1,526,000	7,311,000			9,986,000
6	Buck Jones Road Widening (+)	1,801,000	6,881,000				8,682,000
7	Wade Avenue Improvements (+)	111,000	864,000				975,000
8	Lake Wheeler Road Improvements (+)		1,000,000				1,000,000
9	Mitchell Mill Road Widening (*, +)	1,406,000	3,282,000	10,173,000			14,861,000
10	Sandy Forks Road Improvements (+)		962,000	707,000	6,619,000		8,288,000
11	Jones Franklin Road Improvements (+)		1,769,000	2,217,000	12,182,000		16,168,000
12	Old Wake Forest Road Widening (+)		1,565,000	2,974,000	10,687,000		15,226,000
13	South/Lenoir Two-Way Conversion, Part 2 (+)			200,000	1,500,000		1,700,000
14	Rock Quarry Road Widening, Part A (+)			1,285,000	778,000	8,849,000	10,912,000
15	Tryon Road, Part C (+)				1,232,000	2,977,000	4,209,000
16	Six Forks Road Widening (+)				1,258,000	4,685,000	5,943,000
17	Public-Private Partnership Reserve	2,000,000	2,000,000		1,000,000		7,000,000
	Subtotal, Major Streets	\$ 19,575,500	\$ 32,304,000	\$ 29,046,000	\$ 44,011,000	\$ 16,511,000	\$ 141,447,500

Street Improvements

1	Street Resurfacing (*, +)	\$ 8,800,000	\$ 9,250,000	\$ 9,800,000	\$ 10,500,000	\$ 10,900,000	\$ 49,250,000
2	Street Improvement/Petition Paving	800,000	1,000,000	1,200,000	1,400,000	1,600,000	6,000,000
3	Median Repair/Signage Improvements	175,000	175,000	175,000	175,000	175,000	875,000
4	Traffic Signal Installation	165,000	165,000	165,000	165,000	165,000	825,000
5	Traffic Calming and Pedestrian Safety (*)	600,000	600,000	600,000	300,000	300,000	2,400,000
6	Traffic Engineering Center Improvements	50,000	350,000				400,000
7	East Visioning/South Area Infrastructure	100,000	100,000	100,000	100,000	100,000	500,000
8	Repair and Maintenance City Bridges	100,000	100,000	100,000	125,000	125,000	550,000
	Subtotal, Street Improvements	\$ 10,790,000	\$ 11,740,000	\$ 12,140,000	\$ 12,765,000	\$ 13,365,000	\$ 60,800,000

Project Costs for Transportation

Phase I
Summary

2008-09 2009-10 2010-11 2011-12 2012-13

Bicycle, Pedestrian, and Planning Projects

	2008-09	2009-10	2010-11	2011-12	2012-13	
1 ADA Curb Ramps (*, +)	\$ 100,000	\$ 100,000	\$ 100,000	\$ 175,000	\$ 175,000	\$ 650,000
2 Sidewalk Improvements (*, +)	500,000	500,000	500,000	500,000	500,000	2,500,000
3 Sidewalk Repairs	25,000	25,000	25,000	25,000	25,000	125,000
4 Intersection Pedestrian Improvements	75,000	100,000	150,000	150,000	150,000	625,000
5 Thoroughfare Streetlight Installation (*, +)	300,000	396,000	300,000	300,000	300,000	1,596,000
6 Edwards Mill Road Greenway (+)		28,000				28,000
7 Blue Ridge Road/State Fairgrounds (+)			750,000			750,000
8 Western-Hillsborough Sidewalks				150,000		150,000
9 Tryon Road Widening					150,000	150,000
10 Greenway/Street Intersection Improvements	10,000	20,000	20,000			50,000
11 SSSA Handbook Update		100,000				100,000
12 Advanced Planning and Feasibility Studies	50,000	50,000	50,000	50,000	50,000	250,000
13 Wetland Mitigation and Delineation	25,000	25,000	25,000	25,000		100,000
Subtotal, Pedestrian Improvements	\$ 1,085,000	\$ 1,344,000	\$ 1,920,000	\$ 1,375,000	\$ 1,350,000	\$ 7,074,000

Transit Projects

1 Transit Equipment and Facilities	\$ 48,920	\$ 27,830	\$ 42,760	\$ 29,250	\$ 40,111	\$ 188,871
2 Bus and Van Replacement	1,043,600	288,000	1,132,300	250,000	103,000	2,816,900
3 Preventive Maintenance	140,000	144,000	148,000	152,000	156,000	740,000
4 Design/Engineering/Construction	350,700	255,000				605,700
5 Maintenance Operations Facility		1,530,000				1,530,000
Subtotal, Transit Projects	\$ 1,583,220	\$ 2,244,830	\$ 1,323,060	\$ 431,250	\$ 299,111	\$ 5,881,471

Parking Improvement Program

1 Parking Deck Maintenance and Improvements		\$ 240,000	\$ 240,000	\$ 240,000	\$ 240,000	\$ 960,000
2 Parking Meter Replacement	156,000	214,600	165,000	165,000	165,000	865,600
3 Parking Deck Assessment and Repair	126,500	459,000	568,000			1,153,500
4 LED Lighting		143,000				143,000
Subtotal, Parking Improvements	\$ 282,500	\$ 1,056,600	\$ 973,000	\$ 405,000	\$ 405,000	\$ 3,122,100

(*) = Includes 2005 Street Bond Proceeds

(+) = Includes Proposed 2008 Street Bond Proceeds

Total, Transportation

\$ 33,316,220 \$ 48,689,430 \$ 45,402,060 \$ 58,987,250 \$ 31,930,111 \$ 218,325,071

Funding Plan for Transportation

Phase I

	2008-09	2009-10	2010-11	2011-12	2012-13	Summary
Street Facility Fees	\$ 4,646,920	\$ 4,322,828	\$ 4,452,513	\$ 4,586,088	\$ 4,723,671	\$ 22,732,020
Powell Bill	5,580,000	5,790,000	6,000,000	6,220,000	6,445,000	30,035,000
Powell Bill Reserves	1,102,500					1,102,500
Interest Income	1,654,000	1,696,000	1,733,000	1,770,000	1,780,000	8,633,000
Sidewalk Fund Revenue	193,000	196,000	199,000	202,000	205,000	995,000
Sidewalk Fund Reserves	150,000					150,000
Street Fund Revenue	825,000	850,000	875,000	900,000	900,000	4,350,000
Street Fund Reserves	650,000					650,000
Parking Operations	282,500	1,056,600	973,000	405,000	405,000	3,122,100
GO 2/3rd Bond Proceeds	900,000					900,000
2005 Street Bond Proceeds	15,832,300	8,323,151				24,155,451
2005 Street Bond Reserves	1,500,000					1,500,000
Proposed 2008 Bond Proceeds		26,454,851	31,169,547	44,904,162	17,471,440	120,000,000

Total, Transportation \$ 33,316,220 \$ 48,689,430 \$ 45,402,060 \$ 58,987,250 \$ 31,930,111 \$ 218,325,071

Major Streets

1. Falls of Neuse Road Realignment and Widening (*): \$10,500,000

These funds will be the city's contribution to the NCDOT improvements project for the Falls of Neuse corridor north of Raven Ridge Road (U-4901). This includes widening the existing roadway to a four-lane median-divided facility from Raven Ridge Road to Fonville Road and the construction of New Falls of Neuse Road as a four-lane median-divided facility across the Neuse River. Improvements will also include sidewalks and streetlights on both sides of the project. Prior funding: \$6,000,000.

2. Hillsborough Street Improvements: \$3,402,520

This project will include significant streetscape and utility improvements to Hillsborough Street from Gardner Street to Woodburn Road. These improvements include the extension of Pullen Road to Oberlin Road and the construction of a multilane roundabout at Hillsborough Street and Pullen Road. This project will also entail widening sidewalks, improving pedestrian and bicyclist safety, undergrounding utilities, and installing an LED-based streetlight system. Prior funding: \$3,626,680

3. Rock Quarry Road Widening, Part B (*,+): \$10,389,000

This project will widen Rock Quarry Road to a five-lane curb and gutter section with sidewalks and streetlights on both sides from Sunnybrook Road to New Hope Road and includes widening the existing bridge between Jones Sausage Road and New Hope Road.

4. Poole Road Widening (+): \$12,206,000

This project will widen Poole Road from Maybrook Drive to Barwell Road to a four-lane median-divided curb and gutter section with sidewalks and streetlights on both sides.

5. Leesville Road Widening, I-540 North (*,+): \$9,986,000

This funding will widen Leesville Road from the I-540 interchange to the intersection of New Leesville Boulevard and Hickory Grove Church Road to a four-lane median-divided curb and gutter section with sidewalks and streetlights on both sides. Prior funding: \$1,000,000.

6. Buck Jones Road Widening (+): \$8,682,000

This project will provide construction funding for widening Buck Jones Road from south of Farmgate Road to Xebec Way to a three-lane curb and gutter section with sidewalks and streetlights on both sides.

7. Wade Avenue Improvements (+): \$975,000

This project will add curb and gutter, sidewalks and streetlights to Wade Avenue between Ridge Road and Faircloth Street.

8. Lake Wheeler Road Improvements (+): \$1,000,000

This project will construct a multi-use path along the west side of the roadway and will provide turning lanes at two intersections along Lake Wheeler Rd between Tryon Road and the I-40 interchange.

9. Mitchell Mill Road Widening (*,+): \$14,861,000

This project will widen Mitchell Mill Road between Louisburg Road and Watkins Road to a four-lane median-divided curb and gutter section with sidewalks and streetlights on both sides. Also included will be turn-lane improvements and a culvert replacement at the intersection of Mitchell Mill Road and Forestville Road.

(*) = Includes 2005 Street Bond Proceeds

(+) = Includes Proposed 2008 Street Bond Proceeds

Transportation

10. Sandy Forks Road Improvements (+): \$8,288,000

This project will improve Sandy Forks Road between Six Forks Road and Falls of Neuse Road to a three-lane curb and gutter roadway with sidewalks and streetlights on both sides.

11. Jones Franklin Road Improvements (+): \$16,168,000

This project will widen Jones Franklin Road between Powell Drive and the I-440 Interchange to a four-lane median-divided curb and gutter section with sidewalks and streetlights on both sides.

12. Old Wake Forest Road Widening (+): \$15,226,000

This project will widen Old Wake Forest Road between Litchford Road to Capital Boulevard to a four-lane median-divided curb and gutter section with sidewalks and streetlights on both sides. This project will include widening the existing railroad bridge east of Litchford Road.

13. South/Lenoir Two-Way Conversion, Part 2 (+): \$1,700,000

This project will provide improvements to complete the conversion of South Street and Lenoir Street from one-way to two-way operation between South Saunders Street and East Street. This project will also include pedestrian safety improvements, including curb extensions and signal upgrades.

14. Rock Quarry Road Widening, Part A (+): \$10,912,000

This project will widen Rock Quarry Road between Olde Birch Road and Sunnybrook Road as a five-lane curb and gutter section with sidewalks and streetlights on both sides. This project includes widening the existing bridge over I-440.

15. Tryon Road, Part C (+): \$4,209,000

This project will widen Tryon Road between Lake Wheeler Road to the Norfolk-Southern Railroad bridge as a four-lane median-divided curb and gutter section with sidewalks and streetlights on both sides. Phase II funding: \$8,482,000.

16. Six Forks Road Widening (+): \$5,943,000

This project will widen Six Forks Road between Rowan Street and Sandy Forks Road to a six-lane median divided curb and gutter section with curb and gutter and streetlights on both sides. These improvements will also include turn lane improvements at the intersection of Six Forks Road and Millbrook Road. Phase II funding: \$9,233,000.

17. Public-Private Partnership Reserve: \$7,000,000

These funds are proposed to be used in partnerships with new private developments for new thoroughfare construction. These funds would also be available to assist with construction of collector streets along the US Highway corridors (US 70, US 1, US 64) as part of the parallel street system for these corridors.

Street Improvements

1. Street Resurfacing (*,+): \$49,250,000

Resurfacing deteriorating streets helps to avoid more serious and costly repairs at a later date and maintain the integrity and usability of roadways. Resurfacing activities include pavement milling, pavement patching, utility adjustments, and pavement resurfacing. A bi-annual pavement condition survey, along with further inspections by Street Maintenance personnel, identifies the streets that require resurfacing. The resurfacing is performed by contract.

(*) = Includes 2005 Street Bond Proceeds

(+) = Includes Proposed 2008 Street Bond Proceeds

Transportation

2. **Street Improvements and Petition Paving Projects:** \$6,000,000

This is funding for street improvements made by resident petition requests or by projects initiated by the city and approved by City Council. Property owners are assessed fees which pay for part of the project cost.

3. **Median Repair and Signage Improvements:** \$875,000

This is a program to improve services at intersections through refurbishment of intersection medians, LED signal head replacements and overhead street markers which are being placed at all signalized intersections.

4. **Traffic Signal Installation:** \$825,000

This program provides funding to contract for the installation of new traffic signals within the city and provide signal timing plans along major thoroughfares.

5. **Traffic Calming and Pedestrian Safety (*):** \$2,400,000

This program provides assistance on residential streets experiencing significant speeding problems. A portion of these funds may be used to retain consultant services to assist with design and construction of these street improvements.

6. **Traffic Engineering Center Improvements:** \$400,000

This funding will provide for the construction of a new sign screening building, storage shelters and resurfacing of the Signal and Services Shop parking lot.

7. **East Visioning / South Area Infrastructure:** \$500,000

This funding will provide curb and gutter, sidewalk, and street repairs above our routine maintenance program. Increased costs of repairs and additional citizen expectations have created a need for specialized funding for neighborhood infrastructures.

8. **Repair and Maintenance of City-owned Bridges:** \$550,000

This project will address necessary bridge repairs and provide maintenance for city-owned bridges. This funding will provide for addressing needs of 51 bridges on a gradual basis and will focus on the oldest with the most needs first.

Bicycle, Pedestrian and Planning Projects

1. **ADA Curb Ramps (*,+):** \$650,000

The Americans with Disabilities Act requires installation of wheelchair accessible ramps at intersections where sidewalks adjoin streets. These ramp installations are completed in conjunction with the city's annual street resurfacing program.

2. **Sidewalk Improvements (*,+):** \$2,500,000

This is funding for new sidewalk construction projects including petition requests by city residents.

3. **Sidewalk Repairs:** \$125,000

This is funding for sidewalk repairs as approved by the City Council. Most repair costs are assessed to the adjoining property owners.

4. **Intersection Pedestrian Improvements:** \$625,000

This program improves pedestrian facilities at major intersections that have high numbers of pedestrians or transit riders. Improvements will include pedestrian refuge areas, curb extensions, and signal upgrades.

(*) = Includes 2005 Street Bond Proceeds

(+) = Includes Proposed 2008 Street Bond Proceeds

Transportation

5. Thoroughfare Streetlight Installation (*,+): \$1,596,000

This program installs streetlights along improved thoroughfares to improve nighttime visibility for drivers, pedestrians and cyclists.

6. Edwards Mill Road Greenway (+): \$28,000

These funds would provide the local match for NCDOT TIP Project E-4978, which will construct a multiuse trail along the east side of Edwards Mill Road from Trinity Road to Reedy Creek Road.

7. Blue Ridge Road / State Fairgrounds (+): \$750,000

This project would construct sidewalks along the west side of Blue Ridge Road between Hillsborough Street and Wade Avenue adjacent to the NC State Fairgrounds. Construction is anticipated with a future NCDOT enhancement grant; these funds would provide the required local match.

8. Western-Hillsborough Sidewalks: \$150,000

These funds would provide the local match for new sidewalk construction associated with NCDOT TIP Project B-4656, which will replace the existing flyover bridge at Western Boulevard and Hillsborough Street.

9. Tryon Road Widening: \$150,000

These funds would provide the local match for new sidewalk construction associated with NCDOT TIP Project U-4432, which will replace the existing bridge at Tryon Road and the Norfolk-Southern Railroad.

10. Greenway / Street Intersection Improvements: \$50,000

This project will install improvements at various intersections between Capital Area Greenways and local streets. Potential improvements include new signage, curb cuts, crosswalks, and other traffic controls.

11. SSDA Handbook Update: \$100,000

This project will update the City's Streets, Sidewalks, and Driveway Access Handbook, which includes the city's standards, policies and regulations for street design. These funds will be used to secure consulting services to develop the updated handbook.

12. Advanced Planning and Feasibility Studies: \$250,000

This program will fund engineering studies and environmental documentation/permitting for the multiple future thoroughfare corridors throughout the city.

13. Wetland Mitigation and Delineation: \$100,000

This program will provide a separate fund for wetland mitigation and delineation associated with various future roadway/corridor projects throughout the city.

Transit

1. Transit Equipment and Facilities: \$188,871 City Funding

This funding will provide for the city's share of replacement of capital equipment items associated with the operation of the Capital Area Transit System.

2. Bus and Van Replacement: \$2,816,900 City Funding

This funding will provide for the city share of replacement of buses and vans in the Capital Area Transit System which have reached their life expectancy.

(*) = Includes 2005 Street Bond Proceeds

(+) = Includes Proposed 2008 Street Bond Proceeds

Transportation

3. Preventive Maintenance/Technology: \$740,000 City Funding

This is the city's share of costs associated with maintenance of fleet/service vehicles, buildings, and grounds at the Capital Area Transit as well as computer hardware/software.

4. Design/Engineering/Construction: \$605,700

This funding will provide for the city's share of design, engineering and technology in the Capital Area Transit System.

5. Maintenance Operations Facility: \$1,530,000

This funding will provide for the city's share of design, engineering and construction of the new bus maintenance and operations facility to serve the Capital Area Transit System.

Parking Improvements

1. Parking Deck Maintenance and Improvements: \$960,000

This funding will provide for necessary maintenance and repairs on the city's off-street parking facilities.

2. Parking Meter Replacement: \$865,600

This funding will begin the process of replacing sections of several individual parking meters with one multi-space meters.

3. Parking Deck Assessment and Repairs: \$1,153,500

This funding will provide for necessary condition assessment and subsequent repairs on the city's off-street parking facilities.

4. LED Lighting: \$143,000

This funding will allow for additional upgrades of lighting City-owned parking decks to energy-efficient LED-based lighting systems.

Phase II Transportation Projects

Major Streets

Barwell Road / Rock Quarry Road / Pearl Road Intersection Improvements: \$1,625,000

Realign Pearl Road to Barwell Road, widen turn lanes Pearl Road and westbound Rock Quarry Road.

Blue Ridge Road / Lake Boone Trail: \$2,365,000

Widen southbound Blue Ridge Road and westbound Lake Boone Trail for dual left turn lanes.

Blue Ridge Road Widening: \$10,705,000

Widen the existing two-lane roadway to a multi-lane curb and gutter facility from Duraleigh Road to Glen Eden Drive with sidewalks on both sides per the Crabtree Pedestrian Plan.

Capital Boulevard Median Replacement: \$2,650,000

Construction funding to remove and reconstruct the concrete median barrier and glare screen on Capital Boulevard from the railroad bridge north of Lane Street to the Wade Avenue flyover.

Carolina Pines Drive Widening: \$11,862,000

Right-of-way and construction funding for widening the existing two-lane roadway to a three-lane facility with curb and gutter and sidewalks on both sides from Lake Wheeler Road to Granite Street.

(*) = Includes 2005 Street Bond Proceeds

(+) = Includes Proposed 2008 Street Bond Proceeds

Phase II Transportation

Chapel Hill Road Widening: \$13,528,000

Widen this existing roadway to a four-lane median-divided curb and gutter section with sidewalks on both sides from Hillsborough Street to Corporate Center Drive.

Coxindale Road Extension: \$3,217,000

Complete the 630 foot Coxindale Road connection between Gresham Lake Road and Litchford Road as a 41' b-b curb and gutter section with sidewalk on one side.

Hillsborough Street Improvements, Phase II: \$20,000,000

This project will enhance pedestrian and vehicular safety along the Hillsborough Street corridor from Faircloth Street/Gorman Street to Gardner Street.

Jones Franklin Road Widening, Part A: \$9,126,000

Widen Jones Franklin Road from Western Boulevard to I-440 to a three-lane section with curb and gutter and sidewalk on both sides.

Jones Franklin Road Widening, Part C: \$7,314,000

Widen Jones Franklin Road from Dillard Drive to Tryon Road as a multi-lane section with curb and gutter and sidewalks.

Lake Wheeler Road Widening, North: \$12,228,000

Widen the existing two-lane facility to a five-lane curb and gutter section with sidewalks on both sides from South Saunders Street to Centennial Parkway.

Lake Wheeler Road Widening, South: \$16,722,000

Widen Lake Wheeler Road to a four-lane divided section with curb and gutter and sidewalks on both sides between I-40 and Tryon Road.

Millbrook Road/Creedmoor Road: \$1,779,000

Widen eastbound Millbrook Road at Creedmoor Road to provide dual left turns.

New Hope Church Road/Atlantic Avenue: \$1,152,000

Widen westbound New Hope Church Road at Atlantic Avenue for dual left turn lanes.

New Hope Road Widening: \$17,980,000

This project will complete the four-lane divided curb and gutter section of New Hope Road from New Bern Avenue to the US 64 Bypass interchange. This will include sidewalks on both sides.

New Leesville Boulevard Extension: \$7,273,000

Extend existing New Leesville Boulevard as a four-lane median section with curb and gutter and sidewalks on both sides to Carpenter Pond Road. This project includes the realignment of the existing intersection of Carpenter Pond Road and Shady Grove Road.

Old Lead Mine Road Widening: \$2,350,000

Widen the existing two-lane roadway to a three-lane curb and gutter section with a sidewalk from Lead Mine Road to Forum Drive.

Pleasant Valley Road Widening: \$4,244,000

Widen existing Pleasant Valley Road from Duraleigh Road to Glenwood Avenue/U.S. 70 to a four-lane section with curb and gutter and sidewalks on both sides.

Phase II Transportation

Ray Road Widening: \$22,006,000

Widen the existing two-lane roadway to a three-lane curb and gutter section with sidewalks on both sides from Leesville Road to Strickland Road.

Rock Quarry Road Widening, Part C: \$11,088,000

Widen the existing two-lane roadway from the vicinity of New Hope Road to Battle Bridge Road as a multi-lane section with curb and gutter and sidewalks on both sides.

Six Forks Road Widening: \$9,233,000

This project will widen Six Forks Road between Rowan Street and Sandy Forks Road to a six-lane median divided curb and gutter section with curb and gutter and streetlights on both sides. These improvements will also include turn lane improvements at the intersection of Six Forks Road and Millbrook Road.

Skycrest Drive Extension: \$41,920,000

Extend Skycrest Drive from Southall Road to the I-540 interchange as a four-lane divided facility with curb and gutter and sidewalks on both sides.

Southall Road Extension, Part A: \$3,673,000

Construct Southall Road from Rogers Lane to tie to existing Southall Road at Hedingham Boulevard. Construction will be as multi-lane section with curb and gutter and sidewalks on both sides.

Southall Road Extension and Widening, Part B: \$14,696,000

Construct and widen Southall Road from Skycrest Drive to existing Buffaloe Road as a multi-lane section with curb and gutter and sidewalks.

Spring Forest Road Extension: \$30,228,000

Construct a new four-lane divided facility with curb, gutter and sidewalks on both sides from Louisburg Road to Buffaloe Road.

Spring Forest Road Widening: \$7,792,000

Widen existing Spring Forest Road from Fox Road to Louisburg Road as a multi-lane facility with curb and gutter and sidewalk on both sides.

Strickland Road Widening: \$28,454,000

Widen existing Strickland Road to a multi-lane facility with curb and gutter and sidewalks on both sides from Leesville Road to Creedmoor Road.

Tryon Road Extension, Part A: \$18,491,000

Tyron Road will be extended as a four-lane divided facility with sidewalks on both sides from Garner Road to Creech Road.

Tryon Road Widening, Part C: \$8,482,000

This project will widen Tryon Road between Lake Wheeler Road to the Norfolk-Southern Railroad bridge as a four-lane median-divided curb and gutter section with sidewalks and streetlights on both sides.

Phase II Transportation

Wade Avenue Improvements: \$2,600,000

Add an additional outside westbound lane from Glenwood Avenue Ramp at Williamson Drive to St. Mary's Street with curb and gutter and sidewalk on one side. This addition will extend the acceleration lane from Glenwood Avenue interchange and a two-way left turn lane on Wade Avenue.

Wade Avenue at Jaycee Park Entrance: \$3,635,000

Widen Wade Avenue for a westbound left turn lane into the Jaycee Park.

Western Boulevard Extension: \$27,950,000

Completion of four-lane divided connection on new location between Cary Towne Boulevard and Western Boulevard. The roadway will have curb and gutter and sidewalks on both sides.

Street Improvements

Street Resurfacing: \$55,000,000

For ongoing program of routine street resurfacing.

Street Improvements and Petition Paving Projects: \$4,400,000

For paving dirt and other substandard streets as approved by City Council and in response to petitions for improvements.

Median Repair and Signal Improvements: \$700,000

Funding for improved services at intersections to improve safety and reduce congestion.

Traffic Signal Installations: \$825,000

Provides funding for traffic signal installations on city system streets each year.

Traffic Calming and Pedestrian Safety: \$1,500,000

Funding for program for reducing speeds in residential areas. Additional funding of \$600,000 is being requested in the November 2005 Bond Referendum.

Bridge Repair and Maintenance: \$625,000

This project will address necessary bridge repairs and provide maintenance for city-owned bridges. This funding will provide for addressing needs of 51 bridges on a gradual basis and will focus on the oldest with the most needs first.

Bicycle, Pedestrian and Planning Projects

ADA Curb Ramps: \$700,000

Continued installation of curb ramps as needed for compliance with the Americans with Disabilities Act.

Sidewalk Improvements: \$2,000,000

Continued funding for city-initiated and petition sidewalk projects approved by City Council.

Sidewalk Repairs: \$100,000

Funding to repair broken, cracked and uneven sidewalks

Phase II Transportation

Intersection Pedestrian Improvements: \$600,000

This funding will establish a program to improve pedestrian facilities at major intersections that have high numbers of pedestrians or transit riders. Improvements will include pedestrian refuge areas and pedestrian signals with push buttons.

Thoroughfare Streetlight Installation: \$1,200,000

This proposal will provide streetlights for improved thoroughfares and other CIP projects in order to address capital backlog of the Streetlight Program.

Advanced Planning and Feasibility Studies: \$250,000

This program will fund engineering studies and environmental documentation/permitting for the multiple future thoroughfare corridors throughout the city.

Wetland Mitigation and Delineation: \$125,000

This program will provide a separate fund for wetland mitigation and delineation associated with various future roadway/corridor projects throughout the city.

Tryon Road Extension Sidewalks: \$448,000

City participation in 50% of cost with NCDOT TIP Project U-3111 to construct sidewalks on Tryon Road Extension from Garner Road to Rock Quarry Road.

Transit

Transit Support: \$1,808,458 City Funding

Funding for replacement of buses, transit equipment, and preventive maintenance is recommended for Phase II.

Parking Improvements

Parking Deck Improvements: \$1,000,000

This funding will provide for necessary assessment of condition of parking decks and subsequent repairs.

Parking Meter Replacement: \$695,000

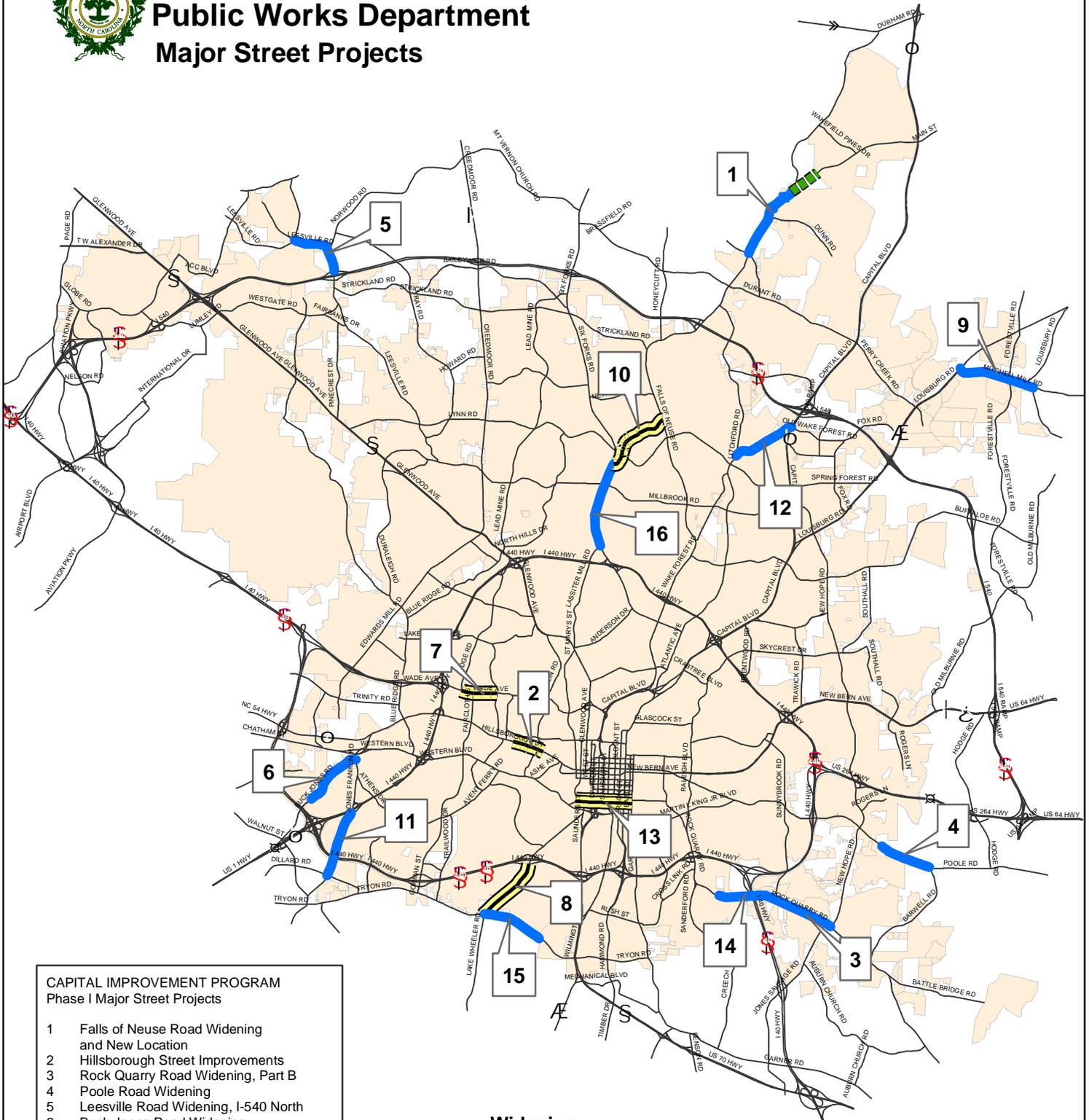
This funding will begin the process of replacing sections of several individual parking meters with one multi-space meters.

Parking Deck Assessment and Repair: \$1,570,000

This funding will provide for necessary condition assessment and subsequent repairs on the city's off-street parking facilities.



City of Raleigh Public Works Department Major Street Projects



- CAPITAL IMPROVEMENT PROGRAM
Phase I Major Street Projects**
- 1 Falls of Neuse Road Widening and New Location
 - 2 Hillsborough Street Improvements
 - 3 Rock Quarry Road Widening, Part B
 - 4 Poole Road Widening
 - 5 Leesville Road Widening, I-540 North
 - 6 Buck Jones Road Widening
 - 7 Wade Avenue Improvements
 - 8 Lake Wheeler Road Improvements
 - 9 Mitchell Mill Road Widening
 - 10 Sandy Forks Road Improvements
 - 11 Jones Franklin Road Widening
 - 12 Old Wake Forest Road Widening
 - 13 South/Lenoir Two-Way Conversion, Part II
 - 14 Rock Quarry Road Widening, Part A
 - 15 Tryon Road, Part C
 - 16 Six Forks Road Widening

-  Widening
-  Improvements
-  New Location



Public Utilities

The public utilities program includes projects for the treatment and distribution of the city's drinking water supply; projects associated with the collection and treatment of wastewater; projects associated with the extension of both water and sewer service for service area growth; maintenance projects involving water and sewer mains, elevated water storage tanks, and pumping stations; and projects for the delivery of reused water that has been processed by the wastewater treatment plant. Phase I cost projections for all such projects totals \$546,529,000.

The Phase I public utilities program includes improvements to the various components of each of the program's delivery systems. Funding for public utilities capital projects is primarily provided through the issuance of revenue bonds. Additional funding is provided by the Public Utilities operating fund, which also supports all debt service requirements for revenue bonds issued.

The table below provides a summary of utility costs for this Capital Improvement Program. A listing and brief description of the projects proposed for the five years following Phase I are provided at the end of the Public Utilities section. The Phase II funding shown below is described in the section immediately following the descriptions for Phase I projects.

Ten Year Summary of the Public Utility Program

	Phase I	Phase II	Total
Water Projects	\$176,559,000	\$330,224,000	\$506,783,000
Wastewater Projects	369,970,000	526,600,000	896,570,000
Total	\$546,529,000	\$856,824,000	\$1,403,353,000

Project Costs for Public Utilities

Phase I
Summary

2008-09 2009-10 2010-11 2011-12 2012-13

Water Projects		\$	\$	\$	\$	\$	\$
1	Water Main Replacement						
2	Thoroughfare Mains	400,000	400,000	400,000	400,000	400,000	2,000,000
3	Service Area Growth	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
4	Water Plant Settling Basin Rehabilitation				800,000	400,000	1,200,000
5	Water Booster Pump Station Rehabilitation	855,000	1,150,000	400,000	400,000	400,000	3,205,000
6	D.E. Benton WTP Water Main	8,200,000		8,500,000			16,700,000
7	EM Johnson WTP Chemical Tank	100,000	50,000	50,000	50,000	50,000	300,000
8	Elevated Water Tank Rehabilitation	1,000,000	1,200,000	1,200,000	1,200,000	1,200,000	5,800,000
9	EM Johnson WTP Facility/Equip Rehabilitation	750,000	750,000	750,000	750,000	750,000	3,750,000
10	EM Johnson WTP Spill Containment		1,500,000				1,500,000
11	Vulnerability Security Improvements	500,000	500,000				1,000,000
12	Property Acquisitions	200,000	200,000	200,000	200,000	200,000	1,000,000
13	EM Johnson WTP Clearwell Rehabilitation	250,000	100,000	1,000,000			1,350,000
14	EM Johnson WTP Flocculation Improvements				4,290,000		4,290,000
15	EM Johnson WTP New Laboratory Facility		4,500,000				4,500,000
16	EM Johnson WTP Sludge Storage Canopy		400,000				400,000
17	EM Johnson WTP Lagoon Sludge Removal		1,600,000				1,600,000
18	Remote Operations Center		400,000	200,000	200,000	200,000	1,000,000
19	Wake Forest WTP Decommissioning			45,000	300,000		345,000
20	Upper Neuse Initiative and Water Quality	1,500,000					1,500,000
21	Water Distribution - Study, Evaluation, Design		600,000	300,000	250,000		1,150,000
22	Parallel 30" Water Main (Atlantic to Capital)	2,900,000					2,900,000
23	Falls Lake RWPS Improvements	4,000,000					4,000,000
24	EM Johnson WTP DAF Pilot Plant Facility	2,000,000					2,000,000
25	Little River Reservoir Impact Statement	350,000	350,000	350,000			1,050,000
26	Telemetry Upgrades	2,000,000	1,000,000				3,000,000
27	EM Johnson WTP Warehouse Expansion			3,000,000			3,000,000
28	EM Johnson WTP Permanganate Facility	1,350,000					1,350,000
29	EM Johnson WTP UV/Solids Handling				2,100,000		2,100,000
30	Little River Reservoir County Reimbursement	500,000	500,000	500,000	500,000	500,000	2,500,000
31	Lake Johnson Dam Upgrade	1,800,000					1,800,000

Project Costs for Public Utilities

		Phase I							Summary
		2008-09	2009-10	2010-11	2011-12	2012-13			
32	Wendell Water Main Rehabilitation	500,000						500,000	
33	Lake Glad Road Waterline Extension			325,000				325,000	
34	Wendell Water Transmission Improvements	1,062,000						1,062,000	
35	Wendell Water Distribution Improvements		1,000,000					1,000,000	
36	Zebulon Water Distribution Improvements		695,000					695,000	
37	Zebulon Water Transmission Improvements	1,500,000						1,500,000	
38	Zebulon Water Booster Generator		85,000					85,000	
39	Zebulon Water Tank Rehabilitation			220,000		137,500		357,500	
40	Poole Road Booster Pump Station		500,000			2,800,000		3,300,000	
41	EMJ WTP Wastewater Facilities Expansion	1,000,000	2,300,000					3,300,000	
42	DEBWTP Backwash Waste Recycle Facility		8,000,000					8,000,000	
43	DEBWTP Settling Tank Waste Dewatering Facility			8,000,000				8,000,000	
44	Fire Hydrant Replacement		1,000,000	1,000,000	1,000,000	1,000,000		4,000,000	
45	Water Service Replacement		250,000	250,000	250,000	250,000		1,000,000	
46	Emergency Water Interconnections	1,000,000						2,000,000	
47	Little River Res. Wetland Mitig. Property Acquis.	3,060,500	2,500,000	2,500,000	2,500,000	2,500,000		13,060,500	
48	3 MGD pump addition to Shelly Road			276,000				276,000	
49	Check Valve installation on Six Forks Rd		75,000					75,000	
50	Benson Road Transmission Main 24-inch		594,000					594,000	
51	Benson Road Transmission Main 16-inch		437,000					437,000	
52	New Rand Road Transmission Main 16-in		434,000					434,000	
53	PRV Install/ Pres. Bound. Shift Tyron Rd/Junction Blvd	140,000						140,000	
54	Creech Rd Transmission line	164,000						164,000	
55	Wilmington Road Transmission line	556,000						556,000	
56	PRV Installation Capital Boulevard	100,000						100,000	
57	PSV and Check Valve Installation on Taylor Street	125,000						125,000	
58	Martin Pond Road connector line 24-inch	860,000						860,000	
59	Wendell Boulevard Transmission Extension		225,000					225,000	
60	Pump #3 at Pullen Park PS			320,000				320,000	
61	Pullen Park Discharge Transmission Upgrade			2,078,000				2,078,000	
62	EMJ WTP High Service Pump No. 1 Upgrade					690,000		690,000	
63	EMJ WTP Additional High Service Discharge Pipe					359,000		359,000	

Project Costs for Public Utilities

Phase I

		2008-09	2009-10	2010-11	2011-12	2012-13	Summary
64	1 MGD Pump Upgrade at Mt. Herman PS					280,000	280,000
65	Replace Springdale Tank					165,000	165,000
66	Ten Ten Road Water Tank				3,000,000		3,000,000
67	Garner Road Transmission line 16-inch				460,000		460,000
68	Auburn Church Rd Transmission line 16-inch				1,796,000		1,796,000
69	Jones Sausage Road Upgrade Under I-40		850,000				850,000
70	GG Hill WTP Cleanwell Improvements		345,000				345,000
71	Control Valve Installation at Wendell Blvd				130,000		130,000
72	Wendell Blvd Water line from NC 97 to Cypress St				1,449,000		1,449,000
73	Zebulon Water line on NC 97				2,176,000		2,176,000
	Subtotal, Water Projects	\$ 42,722,500	\$ 39,990,000	\$ 39,364,000	\$ 33,201,000	\$ 21,281,500	\$ 176,559,000

Wastewater Projects

1	Service Area Growth	\$ 3,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 11,000,000
2	Main Replacement	5,000,000	6,000,000	6,000,000	6,000,000	6,000,000	29,000,000
3	Sewer System Capacity		100,000	100,000	100,000	100,000	400,000
4	Neuse Reuse System Expansion	17,000,000	2,000,000	2,000,000	2,000,000	2,000,000	25,000,000
5	Lower Crabtree Interceptor Parallel	800,000					800,000
6	Lower Crabtree North Sewer Main	1,000,000					1,000,000
7	Walnut Creek Inflow Lift Station		2,500,000				2,500,000
8	Cemetery Sewer Main Replacement	1,000,000					1,000,000
9	Conversion of Garner 201 Facility		500,000				500,000
10	Neuse WWTP Land Purchase	200,000	200,000	200,000	200,000	200,000	1,000,000
11	Neuse WWTP Alkaline Storage		700,000	1,500,000			2,200,000
12	Sanitary Pump Station Removal		500,000	500,000	500,000	1,000,000	2,500,000
13	Access to Sanitary Sewer Mains		200,000	200,000	200,000	200,000	800,000
14	SW Garner Regional Pump Station		8,000,000	2,650,000			10,650,000
15	Upper Pigeon House Rehabilitation			1,000,000	2,500,000	11,000,000	14,500,000
16	Crabtree Valley Sewer Replacement			1,600,000	3,000,000	18,000,000	22,600,000
17	North Bank Crabtree Creek Replacement			300,000	3,250,000	250,000	3,800,000
18	Neuse WWTP Facility Improvements		750,000	1,300,000			2,050,000
19	Neuse WWTP Solids Handling				12,000,000		12,000,000

Project Costs for Public Utilities

Phase I

		2008-09	2009-10	2010-11	2011-12	2012-13	Summary
20	Neuse WWTP Filter and Blower		2,000,000				2,000,000
21	Neuse WWTP Road Repair and Resurface					300,000	300,000
22	Neuse WWTP Odor Control		1,750,000				1,750,000
23	Neuse WWTP Reuse Improvements		1,000,000	1,000,000		1,000,000	4,000,000
24	Neuse WWTP Pump Station Warehouse		1,000,000				1,000,000
25	Neuse WWTP 15MGD Expansion	4,000,000		60,000,000			64,000,000
26	House Creek Sewer Rehabilitation	1,000,000					1,000,000
27	Dunn Road Sewer Replacement		1,000,000				1,000,000
28	Glenwood Ave Force Main Replacement	500,000					500,000
29	Neuse River Pump Station Main and Pump		2,000,000				2,000,000
30	Greenbrier/Maxwell Pump Station		100,000	100,000	100,000	100,000	400,000
31	Crabtree Lift Station Improvements			1,000,000			1,000,000
32	Poplar Creek Regional Pump Station			600,000	6,000,000		6,600,000
33	Neuse WWTP Lab Improvements			600,000			600,000
34	Randleigh Environmental Education Center			500,000			500,000
35	Randleigh Center Sewer Extension	1,000,000					1,000,000
36	Buffalo Creek Sewer Improvements		800,000				800,000
37	Various Wendell Gravity Sewer Projects		150,000	250,000	900,000		1,300,000
38	Marshburn Road Sewer Improvements		2,000,000				2,000,000
39	Wendell Lake Glad Road Demolition					165,000	165,000
40	Wendell East Wake Sewer Costshare			3,300,000			3,300,000
41	Zebulon SCADA Improvements	250,000					250,000
42	Zebulon Interceptor Improvements	1,500,000					1,500,000
43	Little Creek WWTP Bio-solids Improvements		2,900,000				2,900,000
44	Little Creek WWTP Lab/Office Renovations		55,000				55,000
45	Little Creek WWTP Expansion (Phase I)		11,200,000				11,200,000
46	NPDES Permit Renewals				150,000		150,000
47	Neuse WWTP Instrumentation Improvements		100,000	100,000	100,000	100,000	400,000
48	Crabtree Valley Pump Station and Force Main	3,500,000	4,500,000	4,500,000	17,000,000	20,000,000	49,500,000
49	Crabtree Valley Wastewater Storage Tank	1,500,000	1,800,000			19,000,000	22,300,000
50	Crabtree Interceptor Siphons	800,000	900,000	9,600,000			11,300,000
51	East Neuse Regional Pump Station	1,000,000	1,500,000	1,500,000	10,000,000		14,000,000

Project Costs for Public Utilities

		Phase I					
		2008-09	2009-10	2010-11	2011-12	2012-13	Summary
52	East Neuse Regional Pump Station Force Main			700,000	1,200,000	7,500,000	9,400,000
53	Neuse WWTP Stand Alone Centrifuge	3,500,000					3,500,000
54	Neuse WWTP Anaerobic Digestion					5,000,000	5,000,000
Subtotal, Wastewater Projects		\$ 46,550,000	\$ 58,705,000	\$102,600,000	\$ 68,200,000	\$ 93,915,000	\$ 369,970,000

Total, Public Utilities \$ 89,272,500 \$ 98,695,000 \$141,964,000 \$101,401,000 \$115,196,500 \$ 546,529,000

Funding Plan for Public Utilities

	2008-09	2009-10	2010-11	2011-12	2012-13	Phase I Summary
Public Utility Fund	\$ 15,560,500	\$ 12,000,000	\$ 16,000,000	\$ 19,500,000	\$ 26,500,000	\$ 89,560,500
Public Utilities Capital Reserves	9,000,000	1,000,000	1,000,000	1,000,000	1,000,000	13,000,000
Interest Income (\$250k in 320,325; \$2m in 348; \$1.5m in 349)	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	20,000,000
Revenue Bonds	60,712,000	81,695,000	120,964,000	76,901,000	83,696,500	423,968,500

Total, Public Utilities \$ 89,272,500 \$ 98,695,000 \$ 141,964,000 \$ 101,401,000 \$ 115,196,500 \$ 546,529,000

Water Projects

1. Water Main Replacements and Rehabilitation: \$29,000,000

This funding will continue the program to replace undersized mains, existing transit mains and other older water mains.

2. Thoroughfare Mains: \$2,000,000

This funding will continue the program to install water mains in construction of new thoroughfare projects and adjustment to existing water mains in thoroughfare widening projects. (Projects include Tryon Road, US Hwy 401, Perry Creek Road, NC 98 Bypass, TW Alexander Road, Leesville Road, etc.)

3. Service Area Growth: \$5,000,000

The city annexes areas that reach levels of development appropriate for municipal services when authorized by City Council. This funding pays for extending water service to households and businesses in newly annexed areas and is estimated for the next five year period.

4. Water Plant Settling Basin Rehabilitation: \$1,200,000

Re-grout and repair deteriorated concrete in the remaining three settling and flocculation basins that were built in the second expansion of the water plant 20 years ago.

5. Water Booster Pump Station Rehabilitation: \$3,205,000

Install weatherproof enclosure for existing MCC, provide enclosure and maintenance platform for existing generator and extend access road at Shelley Road Booster Pump Station. Replace existing gas operated pump, associated underground fuel storage tank and install emergency generator at North Hills Booster Pump Station. Replace 9 MGD pump at Pullen Park Booster Pump Station and complete misc. facility upgrades at Wade Avenue Booster Pump Station.

6. D. E. Benton Water Treatment Plant Transmission Main: \$16,700,000

Construction of approximately 20,000 LF of 48-in water main from DE Benton WTP to an existing water main at the EB Bain facility in Raleigh, approximately 97,000 linear feet (LF) of 36/30-in water main from downtown Garner to Poole Road in Wendell and approximately 13,600 LF of 16-in water main in the Garner and Knightdale service areas.

7. E. M. Johnson WTP Chemical Storage Tank Replacement: \$300,000

The ferric tanks were installed in the early 1980's and the hypochlorite tanks were installed in the mid 1990's. Due to the corrosiveness of the contents, they do not have a long service life.

8. Elevated Tank Rehabilitation and Maintenance: \$5,800,000

Elevated water storage tanks throughout the utility system need refurbishment and maintenance because of storage tank age and service life projections.

9. E. M. Johnson WTP Facility and Equipment Rehabilitation: \$3,750,000

Rehabilitation and/or replacement of major equipment and associated facilities at the EM Johnson Water Treatment Plant. This includes the conversion of the old generator building to a training facility and 3rd floor expansion for additional office space.

10. E. M. Johnson WTP Spill Containment Improvements: \$1,500,000

Construct spill containment structures at the chemical and fuel storage facilities.

Public Utilities

11. Vulnerability Assessment Security Improvements: \$1,000,000

Improvements to the security measures at the EMJ water treatment plant, elevated tank sites and other remote water facilities.

12. Property Acquisitions: \$1,000,000

Purchasing property for future water main easements, booster pump stations, elevated tank sites, and additional land at the E.M. Johnson WTP.

13. E.M. Johnson WTP Clearwell Rehabilitation: \$1,350,000

Clean and repair the clearwells and construct baffles in the existing clearwells.

14. E.M. Johnson WTP Flocculation and Sedimentation Basin Improvements: \$4,290,000

This project is Phase two (2) of the E.M. Johnson Water Treatment Plant expansion to 120 MGD. This project involves flocculation and sedimentation basin improvements to the existing basins and the installation of new rapid mix basins. Additionally, new raw water yard piping, chemical injection, site electrical and instrumentation/controls are needed as part of this project.

15. E.M. Johnson WTP New Laboratory Facility: \$4,500,000

Construct a new facility for laboratory operations at the water treatment plant, replacing the existing lab that is undersized for existing equipment and staff.

16. E.M. Johnson WTP Sludge Storage Canopy: \$400,000

Design and construct a canopy to cover the existing sludge storage area at the waste treatment facility. The canopy will keep rain water off the sludge, reducing the transportation costs of sludge disposal.

17. E.M. Johnson WTP Lagoon Sludge Removal: \$1,600,000

Remove and dispose of sludge from the water treatment plant lagoon and raw water reservoir. The available storage capacity in the lagoon has been greatly reduced after many years of usage.

18. Remote Operations Center: \$1,000,000

To develop a remote operations center for the Operating Divisions of Maintenance, Construction and Meters. The center will consist of office and crew rooms, as well as material and equipment storage areas for the divisions.

19. Wake Forest WTP Decommissioning: \$345,000

Demolition, waste disposal and other miscellaneous costs associated with closing the GG Hill WTP in Wake Forest.

20. Falls Lake Initiative/Water Quality Improvements: \$1,500,000

Funding to provide monetary resources to help support water quality initiatives and the Conservation Trust of North Carolina for expanding land protection in the Falls Lake watershed.

21. Water Distribution Water Quality Program, Study, Evaluation & Design: \$1,150,000

Conducting corrosion control, nitrification and nutrient reduction studies, developing a water line rehabilitation/replacement program, preliminary design for elevated storage tank mixing improvements and development of a uniform directional flushing program.

Public Utilities

22. Oak Forest 30" Water Main (Atlantic Ave. to Capital Blvd.): \$2,900,000

Installation of approximately 6,700 LF of 30-inch water main from Atlantic Avenue to Capital Boulevard for the purpose of meeting additional water flow demands based upon growth in the potable water distribution system.

23. Falls Lake RWPS Improvements: \$4,000,000

Installation of a new utility sub-station and 5kV switchgear and replacement of existing 25 MGD Raw Water Pump. The existing pump has reached its service life and additional pumping capacity is required to provide for future demands.

24. E.M. Johnson WTP DAF Pilot Plant Facility: \$2,000,000

Construction and operation of a permanent pilot testing facility to demonstrate high rate coagulation for future plant upgrades to 120 MGD. The pilot evaluations are required to demonstrate that performance of high rate coagulation (DAF or Plate Settling) and associated processes will provide for water quality that will consistently meet SDWA standards for future plant upgrades.

25. Little River Reservoir Environmental Impact Statement: \$1,050,000

An Environmental Impact Statement (EIS) is required for obtaining state permits for the design and construction of an impoundment for a new raw water supply for the City of Raleigh. Due to the projected population growth in the service area, an additional water supply is needed.

26. Telemetry Upgrades: \$3,000,000

Modeling study of the Wendell service area distribution system, including investigation of chlorine residual issues and the resulting project to address deficiencies found by the study.

27. EM Johnson WTP Warehouse Expansion: \$3,000,000

The additional 8,000 sq. ft. warehouse storage area will include an area for hazardous chemical storage, offices, conference/drawing room and Operation & Maintenance Manual library for warehouse and plant personnel. The project will include a fire suppression system for the existing warehouse and a new loading dock to serve the enlarged warehouse structure.

28. EM Johnson WTP Sodium Permanganate Facility: \$1,350,000

The project would construct a new building to house four metering pumps and associated piping, valves and flow measurement meters. Two new 10,000-gallon liquid storage tanks, spill containment and transfer pumping for the sodium permanganate would also be constructed.

29. EM Johnson WTP UV/Solids Handling: \$2,100,000

This project is Phase three (3) of the E.M. Johnson Water Treatment Plant expansion to 120 MGD. This project includes the construction of a new ultraviolet radiation disinfection facility, improved solids handling facilities to address higher waste flows from an expanded plant capacity, and miscellaneous civil engineering work.

30. Little River Reservoir County Reimbursement: \$2,500,000

Wake County, in partnership with the City of Raleigh and the utility merger municipalities, has worked for many years to acquire the land necessary for the construction of the Little River Reservoir in Eastern Wake County. Because of the jurisdictional issues, Wake County has managed all land acquisition. This line item is an annual repayment of 500,000 until the land acquisition costs are repaid.

Public Utilities

31. Lake Johnson Dam Upgrade: \$1,800,000

The project would re-surface the face of the dam and would make improvements to the spillway. This project is a cost share between the Public Utilities Department and the Public Works Department.

32. Wendell Water Main Rehabilitation: \$500,000

As a part of the Wendell merger, 6,500 LF of galvanized pipe in the water system were identified as needing to be replaced with 4" PVC or ductile iron pipe. Also, 23 defective hydrants were identified to be replaced.

33. Lake Glad Road Waterline Extension: \$325,000

This funding is for construction of 4,300 LF of 6" and 8" water line along Lake Glad Road. This item was identified in the merger document.

34. Wendell Water Transmission Improvements: \$1,062,000

This is Wendell's cost share for the segment of water transmission main from Poole Road to Wendell Boulevard.

35. Wendell Water Distribution Improvements: \$1,000,000

Modeling study of the Wendell service area distribution system, including investigation of chlorine residual issues and the resulting project to address deficiencies found by the study.

36. Zebulon Water Distribution Improvements: \$695,000

Potable water distribution lines have a finite service life. Failure to establish and maintain a replacement schedule would lead to increase service interruptions, escalating maintenance costs and compounding capital replacement costs as failing water mains accumulate, requiring immediate action.

37. Zebulon Water Transmission Improvements: \$1,500,000

This is Zebulon's cost share for the segment of water transmission main from Poole Road along Martin Pond Road to NC 97.

38. Zebulon Water Booster Generator: \$85,000

Installation of a new, larger generator for the water booster pump station sized to run both pumps at the facility. This item was identified in the merger document.

39. Zebulon Water Tank Rehabilitation: \$357,500

This CIP item is for the cleaning and inspection of the Greenpace Road one million gallon elevated storage tank in FY08 and the exterior painting of that tank in FY10.

40. Poole Road Booster Pump Station: \$3,300,000

The project would construct a regional water booster station to replace the existing aging or undersized booster stations within the Wendell and Zebulon service areas. The project is a component of Wendell merger project and Zebulon merger project. Cost will be divided between the City of Raleigh, Town of Wendell and the Town of Zebulon based upon the cost share memo provided by CH2M Hill as part of the Merger Document.

41. EMJ WTP Wastewater Facilities Expansion: \$3,300,000

This project will expand, replace and modify the wastewater solids handling capacity at the E.M. Johnson Water Treatment Plant to maintain waste disposal standards for compliance.

Public Utilities

42. DEBWTP Backwash Recycle Facility: \$8,000,000

This project will develop a backwash recycle facility to clarify the backwash water from the treatment process using diffused air filtration (DAF) and UV disinfection. The newly cleaned recycle water, which represents approximately 868,000 in average daily flow, will be returned to Lake Benson for future use in the treatment process.

43. DEBWTP Settling Tank Waste Dewatering Facility: \$8,000,000

This project will develop a settling tank waste dewatering facility to handle all industrial wastes produced by the potable water treatment process. The resulting dewatered sludge will be trucked in thickened form to final disposal through composting or other environmentally beneficial uses

44. Fire Hydrant Replacement: \$4,000,000

This project involves the replacement of hose nozzle threads and pumper nozzle threads on hydrants within the City of Raleigh and the total replacement of approximately 5000 older cast iron fire hydrants within the City of Raleigh service area. The replacement will result in the conversion of all hydrant threads to Nation Standard Thread (NST) spacing and will allow neighboring communities who use this standard to provide mutual aid fire service coverage in the event of an emergency.

45. Water Service Replacement: \$1,000,000

This project would focus on the rehabilitation of service lines that are in need of replacement but the water distribution mains they are connected to do not need immediate replacement. Staff estimates that 6,000 service lines are comprised of older material such as galvanized iron and are in need of replacement to preserve water quality.

46. Emergency Water Interconnections: \$2,000,000

This project will provide addition emergency connections to Johnston County and Durham County. As a response to the record drought of 2007-08, Governor Easley asked all community water systems to pursue all emergency interconnections possible to insure available water supplies could be provided to drought stressed communities.

47. Little River Reservoir Wetland Mitigation Property Acquisition: \$3,060,500

Wetland Mitigation through property or conservation easement purchases

48. 3 MGD Pump Addition to Shelly Road PS: \$276,000

The water distribution system has nine separate pressure zones. Growth in water demand in these pressure zones necessitate upgrades to the pump stations that support these pressure zones. This project will provide an additional large service pump to address growth needs in the 605 pressure zone.

49. Check Valve Installation on Six Forks Road: \$75,000

The water distribution system has 9 separate pressure zones. Growth in water demand in these pressure zones necessitate upgrades to the distribution system that support these pressure zones. The installation of check valve on Six Forks Road will support water quality.

50. Benson Road Transmission Main 24-inch: \$594,000

Transmission main to be installed on Benson Road from the D.E. Benton WTP to New Bethel Church Road for a length of 2763 feet to allow the new water treatment plant to support water needs in the 532 pressure zone.

Public Utilities

51. Benson Road Transmission Main 16-inch: \$437,000

Transmission main to be installed on Benson Road from Foxbury Drive to Timber Drive for a length of 1,980 feet to allow the new water treatment plant to provide adequate water transmission main capacity size from the DEB WTP through critical locations within the 532 pressure zone.

52. New Rand Road Transmission Main 16-inch: \$434,000

Project will install a new 16-inch transmission main in New Rand Road from US 70 to Wakeland Drive for a distance of 3, 586 feet.

53. Pressure Reducing Valve (PRV) Install/Pressure Boundary Shift: \$140,000

This project would install a Pressure Reducing Valve (PRV) at the intersection of Tyron Road and Junction Boulevard to shift pressure zones.

54. Creech Road Transmission Line: \$164,000

This project is the installation of a 12-inch potable water transmission line along Creech Road from Fox Hollow Drive to Gipson Drive for a distance of 1,980 feet.

55. Wilmington Road Transmission Line: \$556,000

This project is the installation of a 12-inch water transmission line along Wilmington Road from Creek Road to Jones Sausage pump station, a distance of 6,700 linear feet.

56. Pressure Reducing Valve (PRV) Installation Capital Boulevard: \$100,000

This project is the installation of a Pressure Reducing Valve on Capital Boulevard to facilitate water flow between pressure zones.

57. Pressure Sustaining Valve (PSV) & Check Valve Installation—Taylor Street: \$125,000

This project is the installation of a Pressure Sustaining Valve and check valve on Taylor Street to facilitate water flow between pressure zones.

58. Martin's Pond Road Connector: \$860,000

This project will install approximately 4,000 linear feet of 24-inch water transmission main along Martin's Pond Road to complete the East Wake Transmission loop.

59. Wendell Boulevard Transmission Extension: \$225,000

This project will install a 12 inch water line along Wendell Boulevard from North Cypress Steet to North Selma Road for a distance of 2,708 linear feet, to accommodate additional growth of the water system.

60. Pump #3 at Pullen Park Pump Station: \$320,000

This project will upgrade pump #3 in the Pullen Park water booster station to a new 8 MGD capacity.

61. Pullen Park Discharge Upgrade: \$2,078,000

This project would upgrade the water transmission system that the Pullen Park booster water discharges into to accommodate the larger volumes. This would include the installation of a 24-inch water transmission line along Bilyeu street and Main Campus Drive from Pullen Park to Achievement Drive for a distance of 9,667 linear feet.

Public Utilities

62. EMJ WTP High Service Pump #1 Upgrade: \$690,000

This project would upgrade pump number one on the high service (605 Zone) at E.M. Johnson Water Treatment Plant. This upgrade would install a 15 MGD pump to support greater demand in the high service zone.

63. EMJ WTP Additional High Service Discharge Pipe: \$359,000

This project is the installation of 1,300 linear feet of 30-inch transmission main on the E.M. Johnson Water Treatment Plant site to convey the higher flows generated by project (B301) to the high service distribution system.

64. Pump Upgrade at Mt. Herman Pump Station: \$280,000

This project would install a 1 MGD pump at the Mount Herman water booster station to accommodate addition water demand in the 655 pressure zone.

65. Replace the Springdale Tank: \$165,000

This project will replace the current Springdale Tank, which is a 75,000 gallon multi-leg tank that is nearing the end of its service life. The new tank will be relocated within the 655 pressure zone and will be a 500,000 gallon composite tank.

66. Ten Ten Road Water Tank: \$3,000,000

This project is the construction of a new 1.0 MG elevated water storage tank in the vicinity of Ten Ten Road and Old Stage Road to support the growing water demand of the 532 pressure zone.

67. Garner Road Transmission Line: \$460,000

This project would install a new transmission main along Garner Road from New Rand Road to Jones Sausage Road for a distance of 3,800 linear feet.

68. Auburn Church Rd Transmission Line: \$1,796,000

This project will install a new 16-inch transmission line along Auburn Church Road for a distance of 14,840 linear feet to bring the Auburn Church service area, including the Pepsi Production facility, onto the 532 pressure zone.

69. Jones Sausage Road Upgrade Under I-40: \$850,000

The project would construct a new 16-inch water line along Jones Sausage Road at the crossing of I-40 to remove a bottleneck in the distribution system that limits the capacity of the Jones Sausage water booster station.

70. GG Hill WTP Clearwell Improvements: \$345,000

This project will modify the clearwell at the GG Hill Water Treatment Plant to allow for direct storage from the distribution system, converting the clearwell into a ground storage system.

71. Control Valve Installation at Wendell Boulevard: \$130,000

This control valve installation is necessary to support the orderly growth of the water distribution system. Failure to plan for orderly growth must lead to structured reduction in growth or could cause system failures as water demand outstrips the ability of the distribution system to supply that demand.

72. Wendell Blvd Water Line: \$1,449,000

This project is the installation of a 16-inch water line from the NC 97 intersection to Cypress Street for a distance of 11,978 linear feet. This is a Wendell Merger project.

73. Zebulon Water Line on NC 97: \$2,176,000

This project will extend a 16-inch water line along NC 97 from the intersection of Wendell Boulevard to Riverview Drive for a distance of 17,985 linear feet.

Wastewater Projects

1. Service Area Growth: \$11,000,000

The city annexes areas that reach levels of development appropriate for municipal services when authorized by City Council. This funding reflects the sewer service extensions associated with the annexation plan for the next five years.

2. Main Replacement: \$29,000,000

This funding will continue the program to replace under-sized and deteriorated sanitary sewer collection mains and services. The program will concentrate on rehabilitation or replacement in older areas of the city, such as inside the beltline.

3. Sewer System Capacity Analysis: \$400,000

This funding will continue the program to collect data and model the sanitary sewer collection system. A system-wide capacity analysis is currently under contract w/ CDM. This analysis provides information on the existing sewer collection system which is utilized to evaluate available system capacity and to guide future system improvements. This is a Capacity, Management, Operations, and Maintenance recommendation.

4. Wastewater Reuse System Expansion: \$25,000,000

This project is the first extension of a permanent, City wide reuse water distribution system. This phase of the project will include the installation of 25,550 Linear Feet (LF) of 16-inch Reuse Water Line (RWL), 8,400 LF of 24-inch RWL, 7,300 LF of RWL the activation of 13,500 LF of existing RWL and the construction of a 750,000 elevated water tank to provide reuse water to the Walnut Creek softball complex, the Walnut Creek Amphitheater and Raleigh Country Club golf course. The project also includes the construction of a reuse pump station at the Neuse River WWTP. The Project will be phased over three years.

5. Lower Crabtree Interceptor Parallel: \$800,000

This item reflects the installment payments to NCDOT for the parallel interceptor installed by NCDOT under the US 64 By-pass for the city growth and inflow in the Crabtree Creek "sewer shed" is requiring additional capacity greater than the existing 60-inch main can provide during periods of severe wet weather.

6. Lower Crabtree Creek North Sewer Main: \$1,000,000

Installation of approximately 6,300 LF of 8-in sewer main from the Turf Grass and Kingsborough Pump Stations to the Neuse River Interceptor on the north side of Crabtree through Anderson Point Park. This will provide gravity service to other areas along north side of Crabtree Creek.

7. Walnut Creek/Influent Lift Station Pumps: \$2,500,000

Replacement of augers and drive units at the Neuse River WWTP Influent Pump Station and installation of the 4th VT pump at Walnut Creek Lift Station in FY08. This funding will also replace the drive units and rehabilitate the augers at the Walnut Creek Lift Station in FY09.

8. Cemetery Branch Sewer Main Replacement: \$1,000,000

Replacement of 5,000 LF of 12-inch and 18-inch sanitary sewer line along Cemetery Branch from Pigeon House Creek at Capital Boulevard to the Oakwood Cemetery.

Public Utilities

9. Conversion of the Garner 201 Facility: \$500,000

The project will convert the wastewater treatment plant to an irrigation site to allow for the disposal of process reject water from the D.E. Benton water treatment plant. Conversion may include the installation of high density Polyethylene lagoon liner and clearing and grubbing the wooded spray field area to facilitate spray irrigation of process reject water.

10. Neuse River WWTP Land Purchase: \$1,000,000

Continuation of program to purchase land for land application of bio-solids from the Neuse River Wastewater Treatment Plant.

11. Neuse River WWTP Alkaline Stabilization Storage: \$2,200,000

Installation of a metal canopy over the existing windrow area and expansion of the uncovered area (FY09). Installation of walls around the covered storage area to protect the alkaline stabilized bio-solids from rainwater and to contain odors associated with the alkaline stabilized product (FY10).

12. Sanitary Sewer Pump Station Removal, Repair, and Replacement: \$2,500,000

Extension of gravity sanitary sewer mains to eliminate sanitary sewer pump stations. This item also include rehabilitation or replacement of deteriorated pump station facilities.

13. Access to Sanitary Sewer Mains: \$800,000

Federal and state laws require access to all parts of sanitary sewer mains. This project will clear easements, install driveways, and purchase access easements throughout the system.

14. Southwest Garner Regional Pump Station (PS): \$10,650,000

Development and growth in the southern portion of the service area will require the construction of additional sewer mains. A new regional pump station will facilitate abandonment of three (3) existing pump stations. Construction of approximately 3,400 LF of 21-inch sanitary sewer from Eagle Ridge PS and Green Spring Valley PS to a new SW Garner Regional PS near Old Stage Road at Swift Creek, approximately 2,500 LF of 8-inch sanitary sewer from Vandora Pines PS to the SW Garner Regional PS; approximately 22,700 LF of 15-inch and 18-inch sewer from the new SW Garner Regional PS along a tributary to Swift Creek to beyond US 401 S in FY 08-09.

15. Upper Pigeon House Rehabilitation/Replacement: \$14,500,000

This project is the rehabilitation and/or replacement of approximately 10,000 of 24-inch sewer main along Upper Pigeon Creek from Fenton Street to Fairview Road in FY09 and from Fairview to Downtown in FY10. Pigeon House Creek has been listed as "impaired" for fecal coli form bacteria. One possible source could be the deteriorated Pigeon House Creek sewer line, herein targeted for repair. The age and condition of this line indicates the need for replacement.

16. Crabtree Valley Sewer Replacement: \$22,600,000

Repair and replace 6,000 LF of sanitary sewer main because of age and hydraulic constraints. This line runs from Glenwood Avenue to Hare Snipe Creek.

17. North Bank Crabtree Creek Interceptor Replacement: \$3,800,000

This project is currently planned to be implemented over four phases. This project involves the replacement or rehabilitation of approximately 29,500 LF of 30 and 36-inch sanitary sewer line between Raleigh Boulevard and Glenwood Avenue along the north bank of Crabtree Creek because of age and Hydraulic loading.

Public Utilities

18. Neuse River WWTP Facility Improvements: \$2,050,000

Renovate the existing filter and administrative building at the Neuse River WWTP. Renovation will include the replacement of windows, HVAC system, ceiling, instrumentation, and several other items that are in dire need of renovating. Filter Building Renovation is funded in FY10; Administration building is funded in FY11.

19. Neuse River WWTP Bio-solids Handling Facilities Improvements: \$12,000,000

Expansion of the Neuse River WWTP Bio-solids De-watering Building, including one (1) new centrifuge and liquid polymer system.

20. Neuse River WWTP Filter and Blower Improvements: \$2,000,000

Construction of 10 new effluent filters at the Neuse River WWTP in FY08. Installation of an additional blower in the new blower building in FY10.

21. Neuse River WWTP Roadway Repair and Resurfacing: \$300,000

Existing road surfaces throughout the wastewater treatment plant site are deteriorated and need repair.

22. Neuse River WWTP Plant Odor Control Improvements: \$1,750,000

Construct odor control facility improvements to the existing odor control building that serves the aerobic digesters. This project will predominately consist of new scrubbing equipment and improved chemical storage and feed system (FY10). This project was initiated from the Odor Control Study performed by Hazen & Sawyer.

23. Neuse River WWTP Reuse Irrigation Improvements: \$4,000,000

This project will allow for the installation of additional irrigation lines and sprinkler heads for the Neuse River WWTP farm agricultural fields on FY08 through FY15. By using the effluent from the wastewater treatment plant for irrigation, the city reduces the amount of plant effluent and nitrogen that would ultimately be discharged into the Neuse River. Reuse water availability at the bio-solids application field would improve crop yield and maximize the application rates that could be used during a drought year.

24. Neuse River WWTP Pump Station Shop and Warehouse: \$1,000,000

Construct a shop and warehouse for pump station maintenance and storage of spare pumps and parts. Existing Neuse River WWTP shop and warehouse are inadequate for WWTP and Pump Station maintenance work and storage of spare parts/equipment.

25. Neuse River WWTP 15 million gallons per day Capacity Expansion: \$64,000,000

Construction of additional waste treatment facilities at the Neuse River WWTP that will increase the treatment capacity of the facility from 60 MGD to 75 MGD, this is necessary due to anticipated growth in the service area.

26. House Creek Sewer Rehabilitation and Replacement: \$1,000,000

Rehabilitation and/or replacement of approximately 6,000 LF of existing 8" & 10" sewer main along House Creek from just north of Wade Ave. through the NCSU Vet School with an 18" sanitary sewer main. Additional interceptor capacity is needed to accommodate expansion of the NCSU Vet School and the Art Museum. Existing older mains also warrant rehabilitation and/or replacement to prevent sanitary sewer overflows.

Public Utilities

27. Dunn Road Sewer Replacement: \$1,000,000

Replace about 6,000 LF of 8-inch sewer main with a new 18-inch sewer main from the existing 18-inch sewer main at the end of Dunn Road west toward Falls of Neuse Road.

28. Glenwood Avenue Force Main Replacement: \$500,000

Replace and/or rehabilitation of 2350 LF of 30-inch DIP force main and 4350 LF of 24-inch DIP force main along Glenwood Avenue. Replace and/or rehabilitation of 2350 LF of 30-inch DIP force main and 4350 LF of 24-inch DIP force main along Glenwood Avenue.

29. Neuse River Pump Station Parallel Force Main and Pump: \$2,000,000

Installation of a fourth pump and replacement of the existing generator to accommodate the added load due to the fourth pump. This will provide for future growth in this portion of the service area.

30. Residential Backwater Valve Program: \$400,000

Install backwater valves on residential sewer services that meet the requirements established for requiring such. To avoid property damage and the resulting insurance claims caused by sewer back-ups into homes.

31. Crabtree Lift Station Improvements: \$1,000,000

Rehabilitate the augers in FY11, to extend the life and maintain efficiency of the lift station.

32. Poplar Creek Interceptor / Regional Pump Station: \$6,600,000

Construct a regional pump station at the convergence of Poplar Creek and the Neuse River with a force main to the Neuse River WWTP influent in FY12. Construct a new 36-42 inch interceptor from the regional pump station along Poplar Creek to the Knightdale Poplar Creek Interceptor at Poole Road in FY12.

33. Neuse River WWTP Lab Improvements: \$600,000

Expansion and upgrading the laboratory facility at the Neuse River WWTP in accordance with the Hazen & Sawyer lab study

34. Randleigh Environmental Education Center: \$500,000

Preparation of a study to determine the environmental education program to be utilized at the Randleigh Environmental Education Center (REEC). Design of the REEC will start in FY09. Construction funds will be programmed in subsequent CIP's once the scope and cost are determined.

35. Randleigh Center Sewer Extension: \$1,000,000

Design (FY08) and Construction (FY09) of approximately 3,200 LF of 18" and 1,000 LF of 8" gravity sanitary sewer to serve the Randleigh Environmental Education Center and provide for sewer service for the remainder of the Randleigh development.

36. Buffalo Creek Sewer Improvements: \$800,000

Construction of a new pump station and force main along Buffalo Creek near the county line to discharge into the Lake Glad Road facility. The proposed pump station size was 1220 GPM pumping through 6,200 LF of new 12" force main. This was listed as a Wendell CIP item adopted in the merger agreement.

Public Utilities

37. Various Wendell Gravity Sewer Improvements: \$1,300,000

Gravity sewer extensions were identified in the merger agreement over the next several years. They are the Wendell Park gravity sewer to the Buffalo Interceptor in '10 (1,000 LF of 8" gravity sewer), the Lake Glad Road sewer extension from Wellington Pump Station in '11 (2,000 LF of 8" gravity sewer), the Old Wilson Road extension (3,035 LF of 8" gravity sewer), the Lizard Lick Interchange sewer (1,700 LF of 8" gravity sewer), and the Old Zebulon Road sewer extensions (3,000 LF of 8" gravity sewer) in '12.

38. Marshburn Road Sewer Improvements: \$2,000,000

Construction of a new pump station along Marshburn Road near Little River discharging to the gravity sewer at Hanor Lane. The proposed pump station was sized at 700 GPM pumping through 5,000 LF of new 10" force main. This was listed as a Wendell CIP item adopted in the merger agreement.

39. Wendell Lake Glad Road Demolition: \$165,000

Demolition of the Lake Glad Road Aeration basins (2) and extension of the aerial gravity sewer line and splitter box. This was listed as a Wendell project adopted in the merger agreement.

40. Wendell East Wake Sewer Costshare: \$3,300,000

This is Wendell's portion of the cost share for the Wendell Falls pump station and force main along Poole Road from Lake Myra to the Poplar Creek interceptor. Also included in this estimate is for 5,760 LF of 12" gravity sewer extension in the upper Marks Creek basin and upsizing of 16,400 LF of gravity interceptor through Wendell Falls. This was listed as a Wendell project adopted in the merger agreement..

41. Zebulon SCADA Improvements: \$250,000

Installation of SCADA (supervisory control and data acquisition) and telemetry improvements to be consistent with Raleigh standards. This item was identified in the merger document.

42. Zebulon Interceptor Improvements: \$1,500,000

Installation of 3,920 LF of 12" and 18" gravity sewer to provide additional capacity to the Zebulon Northern Interceptor. This item was identified in the merger document.

43. Little Creek WWTP Bio-solids Improvements: \$2,900,000

This project would add an additional digester for batching the aerobically digested bio-solids and then sending to the bio-solids to the holding tank for post digestion thickening. This would allow staff to complete a 30 day VSR test prior to sending bio-solids to the holding tanks where it will be blended with other batches. Project would also include the replacement of the existing bar screen system with fine screen (3-5 mm) technology that will fit into the existing influent structure and work with existing hydraulics. Discharge into a new compactor to dry grit prior to discharge into dumpster.

44. Little Creek WWTP Lab/Office Renovations: \$55,000

Renovation to the office and laboratory building, required due to building age and wear.

Public Utilities

45. Little Creek WWTP Expansion/Improvements (Phase I): \$11,200,000

The project is a re-rating of the Little Creek Wastewater Treatment Plant from 1.85 MGD to 2.2 MGD and is phase I of the planned expansion of this facility. The project includes improvements to influent lift pumps, grit removal system, bio-solids removal, anoxic mixed liquor suspension units and odor control systems. New filters to remove nutrients and covers for the aerobic digesters, sludge holding tanks and influent structure are also included in the project. A new generator will be added that will accept the entire plant load and a new aerobic digester for batch processing will be added. The project is a composite of merger projects.

46. NPDES Permit Renewals: \$150,000

Permitting the discharges associated with the EM Johnson WTP, Neuse River WWTP, Smith Creek WWTP and Little Creek WWTP. The City's water and wastewater treatment plants utilize a NPDES (National Pollutant Discharge Elimination System) permit to discharge process wastewater. This project would engage engineering services to seek renewal of this permit.

47. Neuse WWTP Instrumentation Improvements: \$400,000

Continuation of Instrumentation upgrades at the Neuse River WWTP in order to improve operator efficiency and minimize the possibility for errors caused by poor instrumentation at the Neuse River WWTP, Swift Creek WWTP, and Little Creek WWTP.

48. Crabtree Valley Pump Station & Force Main: \$49,500,000

This project will construction a new 20-MGD lift station upstream of the confluence of Mine Branch and Crabtree Creek to pump all flow from the upper basin to the Neuse River pump station. The project also includes 51,800 feet of 36-inch force main from the new station to the Neuse River lift station.

49. Crabtree Valley Wastewater Storage Tank: \$22,300,000

This project is comprised of a ground storage tank or "off-line" storage tank up stream of the Mine Branch in Crabtree Valley. This storage tank will work integrally with the proposed Crabtree Valley pump station to absorb expected peak wastewater flow for later transmission via the pump station or the north/south bank Crabtree Creek interceptors

50. Crabtree Interceptor Siphons: \$11,300,000

This project involves the upgrade of eight wastewater collection system inverted siphons on both the North and South Bank Crabtree Creek Interceptors. Siphons allow gravity sewer lines to cross under creeks, rivers and streams. This project will reduce flow restrictions at these eight locations.

51. East Neuse Regional Pump station: \$14,000,000

Construction of a new pump station on the east bank of the Neuse River at the confluence of Poplar Creek and the Neuse River across from the Neuse River WWTP. This new pump station will pump a peak one hour flow rate of 89 MGD with five 20 MGD pumps. The purpose of this pump station will convey flow from the Neuse basin and Walnut Creek basin to the Neuse River WWTP.

52. East Neuse Regional Pump Station Force Main: \$9,400,000

Construction of the new pump station on the east bank of the Neuse River at the confluence of Poplar Creek and the Neuse River across from the Neuse River WWTP will require a new force main. This force main will consist of 2,500 linear feet of 48-inch parallel lines that will convey 107 MGD peak flow.

Public Utilities

53. NRWTP Additional Centrifuge: \$3,500,000

This project includes the construction of a new bio-solids dewatering centrifuge to supplement the dewatering capacity at the NRWTP. The centrifuge will be installed in a new building beside the existing dewatering building and discharge into the new sludge conveyance system.

54. NRWTP Anaerobic Digestion: \$5,000,000

This project consists of the construction of two new 3.25 million gallon egg shaped anaerobic digesters and associated ancillary facilities at the NRWTP.

Phase II Public Utilities Projects

Water Projects

Water Main Replacements: \$40,000,000

Continuation of the program to replace and/or rehab undersized and deteriorated water mains in Raleigh.

Service Area Growth: \$5,000,000

Estimated cost of extending water lines for projected annexation and service growth.

Water Storage Tank Rehabilitation/Replacement: \$5,000,000

Rehabilitation or replacement of water storage tanks.

Water Booster Station Rehabilitation/Replacement: \$2,000,000

Rehabilitate or replace existing water booster pumping stations.

E.M. Johnson WTP Facility & Equipment Rehabilitation: \$3,750,000

Rehabilitation and/or replacement of major equipment and associated facilities at the EM Johnson WTP.

Remote Operations Center: \$3,000,000

To develop a satellite Operations Center site in the North Raleigh area.

Thoroughfare Mains: \$2,000,000

Continuation of currently funded program to install water mains in the construction of new thoroughfare projects and make adjustments to existing water mains in thoroughfare widening projects.

E.M. Johnson WTP Chemical Storage Tank Replacement: \$250,000

Due to the corrosive nature of chemicals in storage, periodic replacement of aged bulk chemical storage tanks is required.

E.M. Johnson WTP Clearwell Addition: \$21,000,000

To meet future water supply demands, an additional clearwell will be required at the water treatment plant. An additional clearwell facility will be designed, permitted, and constructed.

Water Distribution System Plan Update: \$500,000

Engineering field study of the existing water system performance, hydraulics, and related water quality modeling issues as well as subsequent computer modeling of the distribution system.

Phase II Public Utilities

Property Acquisitions: \$1,000,000

Acquire property for water main easements, booster pump stations, and elevated water tanks.

Little River Reservoir: \$57,000,000

Design and construction of the Little River Reservoir as a new raw water supply for the City of Raleigh.

Little River Reservoir Wake County Land Acquisition Reimbursement: \$2,500,000

Wake County purchased approximately 2,050 acres for approximately \$15,000,000 for the construction of the Little River Reservoir and Dam. The City of Raleigh plans to reimburse Wake County for the land acquisition with annual payments of \$500,000.

Little River Reservoir Wetland Mitigation (property acquisition): \$12,500,000

As part of the State and Federal permit for the Little River Reservoir existing wetlands will be removed or otherwise impacted. This project will purchase additional property for the purpose of remediation and/or replacement of these wetlands.

Little River Reservoir Wetland Mitigation (construction): \$15,600,000

As part of the State and Federal permit for the Little River Reservoir, existing wetlands will be removed or otherwise impacted. This project will utilize the land purchase under to construct replacement wetlands.

Little River Mitigation Monitoring: \$300,000

As part of the State and Federal permit for the Little River Reservoir, a monitoring program will be used to quantify the impact of mitigation associated with the reservoir construction.

E.M. Johnston WTP Ozone Expansion: \$24,500,000

As the water plant expands to its maximum capacity, an additional Ozone generator will be required to maintain proper treatment levels. This will include the Installation of a 4th Ozone Generator and an associated Destructor.

Fire Hydrant Replacement: \$5,000,000

Many fire hydrants in the Raleigh service areas are old, outdated and need replacement and/or repair. This project is a continuation of the annual maintenance program for the City's Fire Hydrants.

Bain Pump Station Upgrade: \$700,000

Project Justification: This project is identified as "B103 - Bain Pump Station Upgrade" in the City of Raleigh Water Quality Study & Master Plan Update as prepared by Hazen & Sawyer. This water distribution system improvement is required in order to meet the City's future water demand projections.

Buffaloe Road Transmission Main 16-inch: \$495,000

Project Justification: This project is identified as "B104 - Buffaloe Road Transmission Main" in the City of Raleigh Water Quality Study & Master Plan Update as prepared by Hazen & Sawyer. This water distribution system improvement is required in order to meet the City's future water demand projections.

Old Milburnie Road Transmission Main 16-inch: \$486,000

Install approximately 4,020 linear feet of 16-inch water transmission main along Old Milbournie Road from Buffaloe Road to Forestville Road.

Phase II Public Utilities

Baileywick Road Waterline 12-inch: \$855,000

Install approximately 10,300 linear feet of 12-inch waterline along Baileywick Road from Strickland Road to Charmford Way.

Gleneagles Drive Waterline 12-inch: \$349,000

Install approximately 4,205 linear feet of 12-inch waterline along Gleneagles Drive from Baileywick Road to Strickland Road.

Thomson Mill Road Waterline 12-Inch: \$1,058,000

Install approximately 12,754 linear feet of 12-inch waterline along Thomson Mill Road from Old NC 98 to Jenkins Road.

Purnell Road Waterline 12-inch: \$532,000

Install approximately 6,408 linear feet of 12-inch waterline along Purnell Road from US Hwy 1 to Hogan Road.

Shady Grove Road Waterline 12-inch: \$155,000

Install approximately 1,862 linear feet of 12-inch waterline along Shady Grove Road from North Exeter Way to Kendell Ridge Court.

Water Services Replacement: \$1,250,000

Continuation of the program to replace old existing water services that have deteriorated over time.

Swift Creek Pump Station Relocation: \$2,070,000

Relocate the existing Swift Creek Pump Station, serving Fuquay-Varina, south along US Hwy 401 to the intersection of Ten-Ten Road and US Hwy 401.

Auburn-Knightdale Road Transmission Main 16-inch: \$1,605,000

Install approximately 13,266 linear feet of 16-inch water transmission main along Auburn-Knightdale Road from Garner Road to Battlebridge Road.

Rock Quarry Road Waterline 12-inch: \$686,000

Install approximately 8,270 linear feet of 12-inch waterline along Rock Quarry Road from Auburn-Knightdale Road to Pearl Road.

Wall Store Road Water Transmission Main 16-inch: \$715,000

Install approximately 5,910 linear feet of 16-inch water transmission main along Wall Store Road from Auburn Church Road to Rock Quarry Road.

Oregon Trail Road Transmission Main 24-inch: \$1,219,000

Install approximately 5,670 linear feet of 24-inch water transmission main from the D.E. Benton WTP along Oregon Trail to New Bethel Church Road.

Clifford Road Transmission Main 24-inch: \$1,189,000

Install approximately 5,530 linear feet of 24-inch water transmission main along Clifford Road from New Bethel Church Road to Hebron Church Road.

Hebron Church Road Transmission Main 24-inch: \$970,000

Install approximately 4,510 linear feet of 24-inch water transmission main along Hebron Church Road from Clifford Road to White Oak Road.

Phase II Public Utilities

Franklin Street Waterline 12-inch: \$133,000

Install approximately 1,600 linear feet of 12-inch waterline along Franklin Street from Friendship Chapel Road to NC 98 Bypass.

NC 98 Bypass Waterline 12-inch: \$493,000

Install approximately 5,940 linear feet of 12-inch waterline along NC 98 Bypass from Jones Dairy Road to Franklin Street.

Ligon Mill Road Waterline 12-inch: \$430,000

Install approximately 5,180 of 12-inch waterline along Ligon Mill Road from Margots Avenue to Burlington Mills Road.

Bethlehem Road Elevated Water Tank 1.0 MG: \$3,000,000

Construction of a 1.0 million gallon elevated water storage tank at the intersection of Bethlehem Road and Old Faison Road.

Bethlehem Road Transmission Main 16-inch: \$839,000

Install approximately 6,930 linear feet of 16-inch water transmission main along Bethlehem Road from Poole Road to Cross Cut Place.

EMJ WTP Flocculation Sedimentation Basin Improvements: 38,610,000

This project is Phase 2 of the E.M. Johnson Water Treatment Plant expansion to 120 MGD. This project involves flocculation and sedimentation basin improvements to the existing basins and the installation of new rapid mix basins. Additionally, new raw water yard piping, chemical injection, site electrical and instrumentation/controls are needed as part of this project.

EMJ WTP UV/Solids Handling: \$33,000,000

This project is Phase 3 of the E.M. Johnson Water Treatment Plant expansion to 120 MGD. This project includes the construction of a new ultraviolet radiation disinfection facility, improved solids handling facilities to address higher waste flows from an expanded plant capacity, and miscellaneous civil engineering work.

EMJ WTP Filter/Sed/Floc Basin Additions: \$37,000,000

This project is part of Phase 1 of the E.M. Johnson Water Treatment Plant expansion to 120 MGD. As the initial phase of the plant expansion, this project will incorporate new high rate filters, an additional flocculation and sedimentation basin with plate settlers, improvements to the raw water transmission lines to the site and to the reservoirs, various chemical improvements, and the installation of miscellaneous electrical/instrumentation/controls.

Replace Springdale Tank: \$1,485,000

This project will replace the current Springdale Tank, which is a 75,000 gallon multi-leg tank that is nearing the end of its service life, with a 500,000 gallon composite tank.

Wastewater Projects

Sewer Main Replacements: \$30,000,000

Continuation of the program to replace undersized and deteriorated sanitary sewer collections mains and eliminate sewer pump stations.

Phase II Public Utilities

Service Area Growth: \$10,000,000

Projected cost to the City to provide for the extension of sewer lines into projected annexation areas during the period encompassed by Phase II of the Capital Improvement Program.

Wastewater Reuse System: \$10,000,000

A water reuse system reduces the effluent and nitrogen discharged into the Neuse River by the wastewater treatment plant. This project will install additional irrigation laterals and sprinklers heads for the waste treatment plant agricultural and off-site reuse water transmission mains. In the future, the reuse of water will reduce the amount of drinking water used for irrigation.

Sewer Pump Station Removal/Rehabilitation/Replacement: \$5,000,000

The planned removal of sewer pump stations by extending gravity sewer lines reduces operational and maintenance costs to the utility system. Routine repair and upgrading of necessary pump stations reduces the utility's exposure to sanitary sewer overflows. This project extends gravity sewer lines and removes, repairs, and replaces pump stations throughout the utility system.

Walnut Creek Interceptor Tributaries Rehabilitation/Replacement: \$2,500,000

As part of the city's ongoing efforts to prevent instances of overflows, existing sewer mains that warrant maintenance will be repaired or replaced. This project will provide for maintenance work on sewer lines along the major tributaries of Walnut Creek.

Neuse River WWTP Equipment Rehabilitation: \$5,000,000

Rehabilitation and/or replacement of major equipment that has reached the end of its projected or recommended service life.

Big Branch North Sewer Rehabilitation/Replacement: \$2,500,000

As part of ongoing efforts to prevent instances of sanitary sewer overflows, existing sewer mains that warrant maintenance will be rehabilitated or replaced. This project will provide for the maintenance of approximately 13,000 LF of existing sanitary sewer main along the Big Branch North sewer trunk main.

Wastewater Treatment Plant Reuse Irrigation Improvements: \$2,000,000

A water reuse system reduces effluent and nitrogen discharged into the Neuse River by the wastewater treatment plant. This project will install additional spray irrigation facilities to service agricultural fields at the wastewater treatment plant.

Neuse River WWTP Anaerobic Digesters: \$110,000,000

Construction of new anaerobic digester at the Neuse River WWTP. This will provide a fuel source (methane gas) for the thermal sludge dryer while simultaneously digesting sludge.

Neuse River WWTP Electrical Improvements: \$7,000,000

Construction of a C feeder and switchgear for automatic switching between feeders throughout the plant. This will provide additional electrical redundancy and reliability.

Wendell Highway NC 97 Gravity Sanitary Sewer: \$700,000

Extension of 6,300 LF of gravity sewer along NC Highway 97 northeast to the Lizard Lick Area. This project is identified in the Raleigh/Wendell Utility Merger agreement.

Phase II Public Utilities

Wendell Green Willow Pump Station Upgrade: \$200,000

This project would increase the pump capacity to 285 GPM and rehabilitate the wet well. It is also identified in the Raleigh/Wendell Utility Merger agreement.

Wendell Whitley Way Pump Station and Force Main Improvements: \$750,000

Upgrade the existing Whitley Way pump station to deliver 430 GPM through 10,200 LF of new 8-inch force main. This project is identified in the Raleigh/Wendell Utility Merger agreement.

Wendell Wellington Sewer Basin Improvements: \$1,400,000

Construction of 5,100 LF of 12" gravity sewer, elimination of the Deerfield and Selma pump station and upgrade to the Wellington pump station. This project is identified in the Raleigh/Wendell Utility Merger agreement.

West Prong of Turkey Creek Interceptor: \$4,000,000

Removal the Turkey Creek pump station and part of the Glenwood Avenue force main by the installation of approximately 8,000 LF of gravity sewer. This project will compliment the city-wide annexation plan and the removal of sanitary sewer lift stations improves system reliability.

Randleigh Environmental Education Center: \$6,000,000

Construction of the Randleigh Environmental Education Center.

Crabtree/Raleigh Blvd/Glenwood/Sewer: \$5,000,000

This project will continue the replacement/repair/rehabilitation of the North Bank Crabtree Creek Sanitary Sewer Interceptor. This project represents phases three and four ending at Glenwood Avenue.

Access to Sanitary Sewer Mains: \$1,000,000

This project will clear easements, install driveways and purchase access easements throughout the system.

Sewer System Capacity: \$500,000

This project will continue to collect data and model the sanitary sewer collection system. This analysis provides information on the existing sewer collection system which is utilized to evaluate available system capacity and to guide future system improvements.

Residential Backflow: \$500,000

Install backwater valves on residential sewer services that meet the established requirements in order to avoid property damage and the resulting insurance claims caused by sewer back-ups into homes.

Neuse River WWTP Instrumentation Improvements: \$500,000

Annual replacement of aging and obsolete electronic process control equipment. The vast majority of plant process controls are monitored and maintained by digital electronic equipment. All electronics have a fixed operational life and must be upgraded or replaced on a regular basis.

Pigeon House Creek Parallel Interceptor: \$3,500,000

Install approximately 15,000 feet of 36-inch (or 48-inch replacement pipe) parallel relief sewer from manhole 66239 to manhole 129894 along the Pigeon House Branch all the way to the Crabtree Interceptor.

Phase II Public Utilities

Upper Mine Branch Interceptor: \$4,000,000

Install 13,000 feet of 30-inch (or 42-inch replacement pipe) parallel relief sewer from manhole 116161 to manhole 114490 along the Upper Mine Branch from Six Forks Road to Millbrook Rd. Needed to eliminate observed surcharging and overflows during peak wet weather.

Marsh Interceptor I: \$7,500,000

Install 8,600 feet of 30-inch (or 36-inch replacement pipe) parallel relief sewer from manhole 120175 to manhole 101187 along the Marsh Branch from Brockton Street to Trawick Road. Needed to eliminate observed surcharging and overflows during peak wet weather.

Big Branch Interceptor: \$7,600,000

Install 16,000 feet of 18-inch (or 30-inch replacement pipe) parallel relief sewer from manhole 118813 to manhole 129145 along the Big Branch from Millbrook Road to the Crabtree Interceptor. Needed to eliminate observed surcharging and overflows during peak wet weather.

Southwest Beaver Creek Interceptor: \$1,000,000

Install 6,000 feet of 15-inch (or 24-inch replacement pipe) parallel relief sewer from manhole 63160 to manhole 71775 along the Southwest Beaver Creek from Medlin Drive to Glenwood Ave. Needed to eliminate predicted surcharging and overflows during peak wet weather.

Crabtree Creek South Interceptor: \$22,500,000

This project includes the construction of 8,600 feet of 48-inch (or 60-inch replacement pipe) parallel sewer from manhole 138260 to manhole 142622 along the south interceptor from Crabtree Mall to upstream of the Mine Branch. Needed to eliminate observed surcharging and overflows during peak wet weather.

Harris Creek Parallel: \$500,000

This project involves the installation of 14,000 feet of pipe of 15-inch pipe (or 21-inch replacement pipe) parallel to the Harris Creek Interceptor from manhole 122830 to manhole 122552. Needed to eliminate predicted surcharging and overflows during peak wet weather.

Lower Neuse Interceptor Parallel: \$4,000,000

Install 25,000 feet of 48-inch parallel pipe (or 66-inch to 72-inch replacement pipe) from the East Neuse parallel phase II project downstream to the Neuse River PS. Needed to eliminate predicted surcharging and overflows during peak wet weather.

Walnut Creek Interceptor Parallel: \$25,000,000

This project includes installation of a new junction box to divert flow from existing interceptors to new parallel pipe. The project also includes installation of 17,000 feet of 48-inch parallel pipe (or 72-inch replacement pipe) from the softball field junction box (MH 106042) to the siphon junction box upstream of Walnut Creek PS (MH 106337). Needed to eliminate observed surcharging and overflows during peak wet weather.

Wildcat Interceptor: \$500,000

This project involves upsizing 4,000 feet of pipe in the Wildcat subbasin beginning at manhole 71045 to manhole 70625 from 15-inch to 21-inch & 24-inch. Needed to eliminate predicted surcharging and overflows during peak wet weather.

Phase II Public Utilities

Walnut Creek Interceptor Parallel Phase II: \$13,000,000

This project involves installation of a new junction box to divert flow from northern and southern interceptors to a new parallel line. The project also includes installation of 13,000 feet of parallel pipe (or 72-inch replacement pipe) from the new junction box to the softball field junction box and includes parallel siphon (See "Walnut Creek Interceptor Parallel" for softball field junction box.) The parallel pipe is 48-inch to 54-inch and contains a 24-inch parallel siphon beginning at manhole 102773 and ending at manhole 16042. Needed to eliminate predicted surcharging and overflows during peak wet weather.

State Street Interceptor: \$250,000

Upsize 1,700 feet of pipe just west of State Street between Bragg and Peterson Street beginning at manhole 63623 and ending at manhole 70077 from 18-inch to 24-inch. Needed to eliminate predicted surcharging and overflows during peak wet weather.

Walnut Creek Pump Station Bypass Siphon: \$5,000,000

Install two new 42-inch siphons from Walnut Creek PS to Neuse Interceptor (see "East Neuse River Interceptor Phase III") to convey a peak flow of 35 mgd. Needed to convey flow over to the new East Neuse Interceptor which will alleviate the need for a second parallel to the twin 72-inch pipes between the Walnut Creek Pump Station and the NRWWTWP.

East Neuse River Interceptor Phase III: \$104,000,000

Install 21,000 feet of 96-inch pipe from Walnut Creek Pump Station to the NRWWTWP. This replacement is needed to eliminate predicted surcharging and overflows during peak wet weather.

East Neuse River Interceptor Phase IV: \$19,700,000

Install 7,000 feet of 84-inch pipe from the Neuse River Pump Station to the East Neuse River Interceptor Phase III. This project also consists of abandoning the Neuse River Pump Station. This replacement is needed to eliminate predicted surcharging and overflows during peak wet weather and to eliminate the fourth largest pump station within the City of Raleigh's Public Utilities Service Area which will provide better reliability to the sanitary sewer system.

North Raleigh Waste Water Treatment Plant Sludge Dryer: \$25,000,000

Install a thermal dryer at the NRWWTWP to dry the wastewater biosolids. A thermal sludge dryer can produce a Class "A" dried pellitized product without the use of lime or other amendments, which reduces the overall volume of biosolids for disposal. The dried pellets are easier to market than other biosolids products. Odors from the biosolids process will also be reduced by using a dryer.

Little Creek Waste Water Treatment Plant Upgrade to 4MGD: \$36,000,000

Upgrade the treatment capacity of the Little Creek Wastewater Treatment Plant from a 2.2MGD facility to a 4MGD facility. Necessary to increase the plant capacity to handle the expected growth in the Town of Zebulon planning jurisdiction, and is identified in the Town of Zebulon merger agreement.

Little Creek Waste Water Treatment Plant Upgrade to 6MGD: \$19,000,000

Upgrade the treatment capacity of the Little Creek Wastewater Treatment Plant from a 4MGD facility to a 6MGD facility. Necessary to increase the plant capacity to handle the expected growth in the Town of Zebulon planning jurisdiction, and is identified in the Town of Zebulon merger agreement.

Phase II Public Utilities

East Neuse Regional Pump Station: \$15,000,000

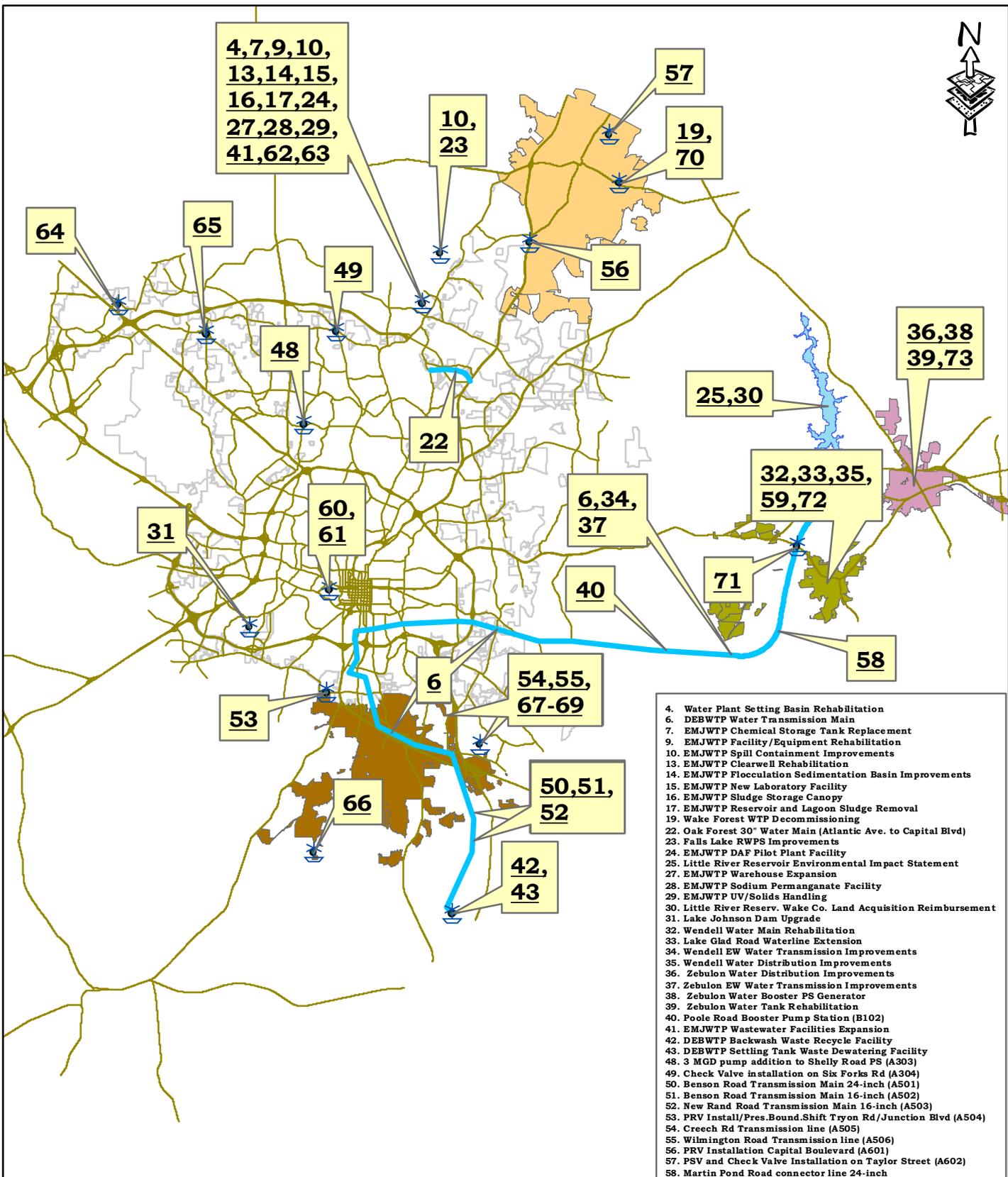
Construction of a new pump station on the east bank of the Neuse River at the confluence of Poplar Creek and the Neuse River across from the Neuse River WWTP. This new pump station will pump a peak one hour flow rate of 89 MGD with five 20 MGD pumps. The purpose of this pump station will convey flow from the Neuse basin and Walnut Creek basin to the Neuse River WWTP. Phase II improvements provide additional wet well and pump capacity.

Neuse River East Parallel Interceptor: \$8,000,000

Construction of a new interceptor along the east side of the Neuse River from just south of Buffaloe Road to Harris Creek.

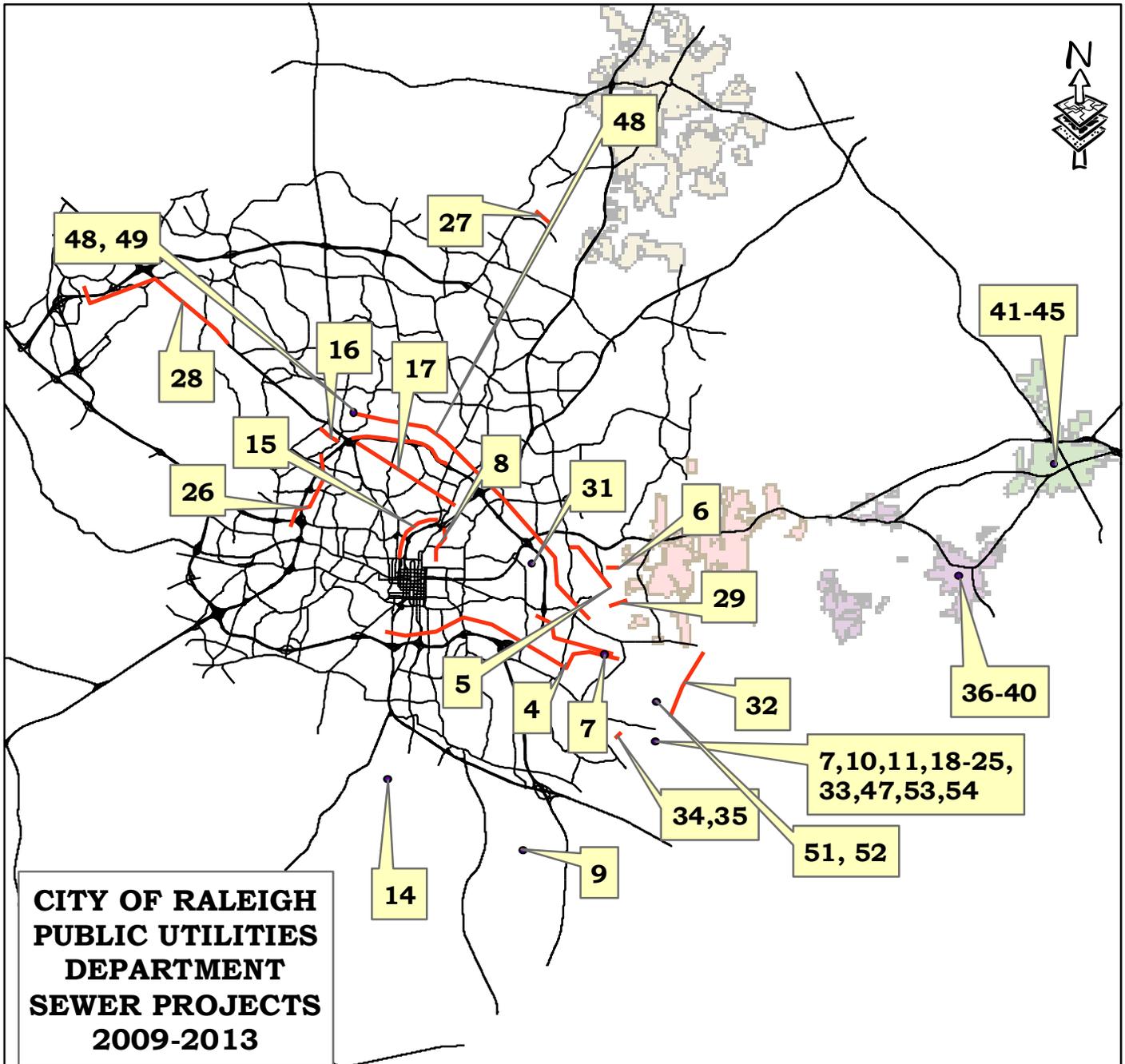
NRWWTP Land Purchase: \$1,000,000

Purchase of additional property adjacent to the NRWWTP for biosolids application and additional buffers.



- 4. Water Plant Setting Basin Rehabilitation
- 6. DEBWTP Water Transmission Main
- 7. EMJWTP Chemical Storage Tank Replacement
- 9. EMJWTP Facility/Equipment Rehabilitation
- 10. EMJWTP Spill Containment Improvements
- 13. EMJWTP Clearwell Rehabilitation
- 14. EMJWTP Flocculation Sedimentation Basin Improvements
- 15. EMJWTP New Laboratory Facility
- 16. EMJWTP Sludge Storage Canopy
- 17. EMJWTP Reservoir and Lagoon Sludge Removal
- 19. Wake Forest WTP Decommissioning
- 22. Oak Forest 30" Water Main (Atlantic Ave. to Capital Blvd)
- 23. Falls Lake RWFS Improvements
- 24. EMJWTP DAF Pilot Plant Facility
- 25. Little River Reservoir Environmental Impact Statement
- 27. EMJWTP Warehouse Expansion
- 28. EMJWTP Sodium Permanganate Facility
- 29. EMJWTP UV/Solids Handling
- 30. Little River Reserv. Wake Co. Land Acquisition Reimbursement
- 31. Lake Johnson Dam Upgrade
- 32. Wendell Water Main Rehabilitation
- 33. Lake Glad Road Waterline Extension
- 34. Wendell EW Water Transmission Improvements
- 35. Wendell Water Distribution Improvements
- 36. Zebulon Water Distribution Improvements
- 37. Zebulon EW Water Transmission Improvements
- 38. Zebulon Water Booster PS Generator
- 39. Zebulon Water Tank Rehabilitation
- 40. Poole Road Booster Pump Station (B102)
- 41. EMJWTP Wastewater Facilities Expansion
- 42. DEBWTP Backwash Waste Recycle Facility
- 43. DEBWTP Settling Tank Waste Dewatering Facility
- 48. 3 MGD pump addition to Shelly Road PS (A303)
- 49. Check Valve installation on Six Forks Rd (A304)
- 50. Benson Road Transmission Main 24-inch (A501)
- 51. Benson Road Transmission Main 16-inch (A502)
- 52. New Rand Road Transmission Main 16-inch (A503)
- 53. PRV Install/Pres.Bound.Shift Tryon Rd/Junction Blvd (A504)
- 54. Creech Rd Transmission line (A505)
- 55. Wilmington Road Transmission line (A506)
- 56. PRV Installation Capital Boulevard (A601)
- 57. PSV and Check Valve Installation on Taylor Street (A602)
- 58. Martin Pond Road connector line 24-inch
- 59. Wendell Boulevard Transmission Extension
- 60. Pump #3 at Pullen Park PS (B201)
- 61. Pullen Park Discharge Transmission Upgrade (B202)
- 62. EMJWTP High Service Pump No.1 Upgrade (B301)
- 63. EMJWTP Additional High Service Discharge Pipe (B302)
- 64. 1 MGD Pump Upgrade at Mt. Herman PS (B401)
- 65. Replace Springdale Tank (B402)
- 66. Ten Ten Road Water Tank (B503)
- 67. Garner Road Transmission line 16-inch (B504)
- 68. Auburn Church Rd. Transmission line 16-inch (B505)
- 69. Jones Sausage Road Upgrade under I-40 (B512)
- 70. GG Hill WTP Clearwell Improvements (B601)
- 71. Control Valve Installation at Wendell Blvd. (B901)
- 72. Wendell Blvd Water line from NC 97 to Cypress St (B902)
- 73. Zebulon Water line from NC 97 (B903)

**City of Raleigh
Public Utilities Department
Water Projects
2009-2013**



**CITY OF RALEIGH
PUBLIC UTILITIES
DEPARTMENT
SEWER PROJECTS
2009-2013**

- 4. Neuse River Off-site Reuse System Expansion
- 5. Lower Crabtree Interceptor Parallel
- 6. Lower Crabtree North Sewer Main
- 7. Walnut Creek/NRWWTW Influent Lift Station Improvmts
- 8. Cemetery Branch Sewer Main Replacement
- 9. Conversion of Garner 201 Facility
- 10. NRWWTW Land Purchase
- 11. NRWWTW Alkaline Stabilization Storage Rehab/Expan
- 14. SW Garner Regional Pump Station
- 15. Upper Pigeon House Rehabilitation
- 16. Crabtree Valley Sewer Replacement
- 17. Crabtree /Raleigh Blvd/ Glenwood/ Sewer
- 18. NRWWTW Facilities Improvement
- 19. NRWWTW Solids Handling
- 20. NRWWTW Filter and Blower
- 21. NRWWTW Road Repair & Resurfacin
- 22. NRWWTW Odor Control
- 23. NRWWTW Onsite Reuse Improvements
- 24. NRWWTW Pump Station Shop/Warehouse
- 25. NRWWTW 15 MGD Capacity Expansion(Includes W15A)
- 26. House Creek Sewer Rehabilitation/Replacement
- 27. Dunn Road Sewer Replacement
- 28. Glenwood Ave. Force Main Replacement

- 29. Neuse River Pump Station Parallel Force Main and Pump
- 31. Crabtree Lift Station Improvements
- 32. Poplar Creek Interceptor
- 33. NRWWTW Lab Improvements
- 34. Randleigh Environmental Education Center
- 35. Randleigh EEC Sanitary Sewer Extension
- 36. Buffalo Creek Basin Sewer Imps.
- 37. Various Wendell Gravity Sewer Projects
- 39. Wendell Lake Glad Rd. Demolition
- 40. Wendell East Wake Sewer Costshare
- 41. Zebulon SCADA Improvements
- 42. Zebulon Northern Interceptor Improvements
- 43. LCWWTP Biosolids Improvements
- 44. LCWWTP Lab/Office Renovations
- 45. LCWWTP Expansion/Improvements (Phase I)
- 47. NRWWTW Instrumentation Improvements
- 48. Crabtree Valley Pump Station and Force Main (C21)
- 49. Wastewater Storage Tank (C22)
- 51. East Neuse Regional PS (W16A)
- 52. East Neuse Regional PS Force Main (W17A)
- 53. NRWWTW Stand Alone Centrifuge
- 54. NRWWTW Anaerobic Digestion



Parks and Recreation Program

The Parks, Recreation and Greenway element of the City of Raleigh's Comprehensive Plan is the document that guides park development, level of service and land acquisition. The parks capital program consists of the acquisition of new park and greenway properties, development of existing park sites, and the maintenance and improvement of various park facilities. Phase I funding for the parks program totals \$126,402,631 which includes previously authorized bond proceeds allocated to specific projects as shown herein. Phase II funding of this program consists of a continued investment in the improvements in existing parks, continued resources to acquire new park and greenway land and the funding for the planning, design and development of new facilities.

Major funding sources for projects scheduled in Phase I of the program include facility fees, sales tax revenue, and new and existing bond proceeds. A \$47 million Parks, Recreation & Greenway bond package was approved in referendum in October, 2003 and bond package in the amount of \$88.6 million was approved in 2007. The final 2003 bond projects are programmed to be completed in fiscal year 2009 in conjunction with the launch of several 2007 bond projects.

The table below contains a summary of Parks program expenditures included in this edition of the Capital Improvement Program.

Ten Year Summary of the Parks and Recreation Program

	Phase I	Phase II	Total
Property Acquisition	\$2,720,000	\$35,000,000	\$37,720,000
Site Development and Improvements	23,665,665	140,254,876	163,920,541
2003 Park Bond	11,416,966		11,416,966
2007 Park Bond	88,600,000		88,600,000
Total	\$126,402,631	\$175,254,876	\$301,657,507

Project Costs for Parks and Recreation

Phase I

Summary

2012-13

2011-12

2010-11

2009-10

2008-09

Parks and Recreation		2008-09	2009-10	2010-11	2011-12	2012-13	Summary
1	Park Site Acquisition	\$ 70,000	\$ 200,000	\$ 400,000	\$ 500,000	\$ 550,000	\$ 1,720,000
2	Greenway Acquisition	150,000	100,000	200,000	250,000	300,000	1,000,000
	Subtotal, Acquisition	\$ 220,000	\$ 300,000	\$ 600,000	\$ 750,000	\$ 850,000	\$ 2,720,000

Development Projects		2008-09	2009-10	2010-11	2011-12	2012-13	Summary
3	Greenway Development	\$ 203,225	\$ 250,000	\$ 250,000	\$ 300,000	\$ 250,000	\$ 1,253,225
4	Building Improvements	220,000	200,000	250,000	250,000	250,000	1,170,000
5	Park Site Improvements	225,000	190,000	235,000	235,000	250,000	1,135,000
6	Playground Improvements	10,000	110,000	200,000	200,000	200,000	720,000
7	Tennis Court Upgrades	25,000	200,000	100,000	63,000	85,000	473,000
8	Roof Repairs	260,000	293,000	235,000	235,000	250,000	1,273,000
9	Paving Improvements	280,000	150,000	200,000	245,000	250,000	1,125,000
10	Park Fencing	100,000	158,000	170,000	150,000	50,000	628,000
11	Park Lighting	35,000	18,000	200,000	210,000	170,000	633,000
12	Irrigation Projects	30,000	50,000	100,000	100,000	100,000	380,000
13	Restroom Facility Improvements	120,000	240,000	260,000	150,000	150,000	920,000
14	Community Facility Upgrades	350,000	400,000	450,000	550,000	600,000	2,350,000
15	Picnic Shelters	110,000	75,000	50,000	100,000	75,000	410,000
16	Aquatic Improvements	86,400	150,000	225,000	200,000	250,000	911,400
17	Greenway Trail Resurfacing	215,006	250,000	300,000	100,000	125,000	990,006
18	Field Upgrades	130,000	100,000	110,000	100,000	50,000	490,000
19	Electrical - Fields/Courts		120,000	120,000	110,000	100,000	450,000
20	Street Tree Replacement	50,000	75,000	75,000	75,000	75,000	350,000
21	Lead Paint/Asbestos Abatement	60,000	100,000	60,000	120,000	75,000	415,000
22	ADA Facility Upgrades	30,000	50,000	50,000	100,000	75,000	305,000
23	Carousel Animal Restoration	50,000	50,000	43,000	75,000	75,000	293,000
24	Multipurpose Field Renovation	120,000	100,000	46,000	100,000	50,000	416,000
25	Safety Compliance	68,000	50,000	48,000	50,000	50,000	266,000
26	Facility Backflow Preventers		50,000	25,000		50,000	125,000
27	Raleigh Little Theatre Improvements	200,000	50,000	50,000	50,000	50,000	400,000
28	Mordecai Improvements	35,000	100,000	50,000	25,000	50,000	260,000

Project Costs for Parks and Recreation

Phase I

	2008-09	2009-10	2010-11	2011-12	2012-13	Summary
29 Lake Wheeler Replacement Deck	25,000					25,000
30 Theater in the Park	25,000	111,119	50,000	75,000	75,000	336,119
31 Park Signage	25,000	50,000	50,000	50,000	50,000	225,000
32 Volunteerism and Partnership	60,000	60,000	60,000	60,000	60,000	300,000
33 Lake Wheeler Facilities		50,000				50,000
34 City Cemetery	25,000	25,000	50,000	50,000	50,000	200,000
35 Fayetteville Street Renovation Impacts		62,500	62,500	62,500	75,000	262,500
36 Lane Street Improvements	70,000					70,000
37 Marsh Creek Park Improvements	115,000	150,000	50,000			315,000
38 Lake Johnson Fishing Dock			35,000			35,000
39 Moore Square Improvements		50,000	75,000		50,000	175,000
40 Maintenance Operations Facilities	75,000	75,000	108,806	75,000	75,000	408,806
41 Marsh Creek Greenhouse	40,000					40,000
42 Buffaloe Road Facilities	125,000	75,000		77,719		277,719
43 Camp Durant Nature Park Improvements	50,000	75,000		50,000		175,000
44 Greenway Bridge/Boardwalk Repairs	100,000	50,000	75,000	75,000	100,000	400,000
45 Latta House		50,000				50,000
46 Millbrook Pool Enclosure Liner	225,000					225,000
47 Nash Square Improvements		50,000				50,000
48 Re-use Greywater Line Extensions	50,000	25,000	40,000			115,000
49 Pullen Park Improvements					100,000	100,000
50 Roof Runoff Collection					75,000	75,000
51 Solar Hot Water Heaters					75,506	75,506
52 Structure Repair and Replacement	75,000	50,000	50,000	50,000	75,000	300,000
53 Walnut Creek Softball Complex Improve	250,000	50,000	50,000	140,000	75,000	565,000
54 Wooten Meadows Master Plan		75,000				75,000
55 Chavis Way Planning		75,000				75,000
56 Unsatisfied Neighborhood Park Site	523,384					523,384
Subtotal, Development Projects	\$ 4,871,015	\$ 4,787,619	\$ 4,658,306	\$ 4,658,219	\$ 4,690,506	\$ 23,665,665

Project Costs for Parks and Recreation

Phase I

2012-13
Summary

2008-09 2009-10 2010-11 2011-12

2003 Park Bond Projects	2008-09	2009-10	2010-11	2011-12	2012-13	Summary
B38 Crabtree Creek Greenway	\$ 2,827,502					\$ 2,827,502
B39 Forest Ridge Park	5,860,936					5,860,936
B41 Timberlake Neighborhood Park	2,062,756					2,062,756
B48 Optimist Community Center Expansion	665,772					665,772
Subtotal, 2003 Park Bond Projects	\$ 11,416,966	\$ -	\$ -	\$ -	\$ -	\$ 11,416,966
2007 Park Bond Projects						
B70 Playground Improvements	\$ 878,222					\$ 878,222
B71 Building Improvements	1,750,000					1,750,000
B72 Outdoor Security Lighting	239,825					239,825
B51 Crabtree Crk. Ext East to Neuse	600,000		5,988,721			6,588,721
B52 Halifax Center Improvements	350,000	2,800,000				3,150,000
B53 Jaycee Center Expansion	150,000	1,040,732				1,190,732
B54 Honeycutt Creek Greenway	2,300,000					2,300,000
B55 Neuse River Greenway Completion	4,500,000	1,000,000	4,500,000	3,000,000		13,000,000
B56 Walnut Creek Greenway Ext. to Neuse River	300,000		2,700,000			3,000,000
B73 Land Acquisition	5,000,000	2,500,000	5,500,000	2,000,000		15,000,000
B58 Barwell Road Park Development		600,000	150,000	1,550,000		1,700,000
B59 Carolina Pines Community Center Expansion	100,000					700,000
B60 Pullen Park Carriageway Bridge			2,000,000			2,000,000
B61 Chavis Carousel Building Adaptive Reuse			500,000			500,000
B62 Raleigh Senior Center	700,000	7,040,000				7,740,000
B63 Wilkerson Nature Preserve	150,000	1,850,000				2,000,000
B64 Mordacai Park Interpretive Center		150,000	1,412,500			1,562,500
B65 Randleigh Farm		400,000				400,000
B66 Aquatic Facility	750,000	7,250,000				8,000,000
B74 NE Raleigh Community Center	850,000	8,150,000				9,000,000
B75 NE Raleigh Active Recreation Partnerships	1,000,000		1,000,000			2,000,000
B69 Lake Johnson Facility		250,000	2,350,000			2,600,000
B76 Unsatisfied Neighborhood Park Search Areas	1,000,000		1,000,000	1,000,000		3,000,000
B77 Park Signage	300,000					300,000
Subtotal, 2007 Park Bond Projects	\$ 20,918,047	\$ 33,030,732	\$ 27,101,221	\$ 7,550,000	\$ -	\$ 88,600,000

Total, Parks and Recreation \$ 37,426,028 \$ 38,118,351 \$ 32,359,527 \$ 12,958,219 \$ 5,540,506 \$ 126,402,631

Funding Plan for Parks and Recreation

Phase I
Summary

	2008-09	2009-10	2010-11	2011-12	2012-13	
Park Facility Fees	\$ 2,335,677	\$ 2,405,748	\$ 2,477,920	\$ 2,552,258	\$ 2,628,826	\$ 12,400,429
General Fund	1,238,338	1,287,871	1,339,386	1,392,961	1,448,680	6,707,236
Prior Year Reserves	20,000	300,000	325,000	325,000	325,000	1,295,000
Interest Income	972,000	994,000	1,016,000	1,038,000	1,038,000	5,058,000
Revolving Fund	100,000	100,000	100,000	100,000	100,000	500,000
2003 Bond Proceeds	11,416,966					11,416,966
2003 Bond Reserves (Bonds)	425,000					425,000
2007 Bond Proceeds	20,918,047	33,030,732	27,101,221	7,550,000		88,600,000

Total, Parks and Recreation \$ 37,426,028 \$ 38,118,351 \$ 32,359,527 \$ 12,958,219 \$ 5,540,506 \$ 126,402,631

1. Future Park Site Acquisitions: \$1,570,000

This funding is for acquisition of park land in areas that are deficient in parks and open space. The areas and priorities of potential park site acquisitions are identified in the Comprehensive Plan.

2. Greenway Acquisitions: \$950,000

This funding is for acquisition of greenway land. The items funded include missing greenway segments, reimbursements for dedicated greenway easements that become available during development site plan approval procedures.

3. Greenway Development: \$1,253,225

This funding is for constructing, studying and managing greenway trails. Costs for construction include permitting, professional services such as engineers and construction administration, environmental and site surveys.

4. Building Improvements: \$1,170,000

Funding will target interior/exterior painting, siding repairs, and boilers and HVAC replacement.

5. Park Site Improvements: \$1,040,000

This funding is for repairs/replacements to grounds and certain non-structural facilities such as concrete and asphalt surfaces, grills, tables and benches to maintain our current levels of service.

6. Playground Improvements: \$720,000

This funding is for repairs/replacements of existing playgrounds to address safety issues and play value; this includes removal of old wooden structures, correction of entrapments, surfacing materials, and borders to meet Consumer Product safety Council Guidelines.

7. Tennis Court Upgrades: \$473,000

Tennis courts are resurfaced on a five-year cycle to preserve the life of the court surface. There are 113 tennis courts in the city system.

8. Roof Repairs: \$1,273,000

Roof repairs and replacements are scheduled based on consultant evaluations and recommendations at various facilities throughout the park system.

9. Parks Paving Program: \$1,125,000

This is a program to pave dirt and gravel driveways and parking areas and to resurface existing paved areas as needed.

10. Park Fencing: \$628,000

Fencing is repaired and replaced as needed, primarily at ball fields and tennis courts.

11. Park Lighting: \$633,000

This funding will upgrade and replace the lighting system at ball fields, tennis courts, and parking lots.

12. Irrigation Projects: \$380,000

This funding is for repairing/maintaining and upgrading automated irrigation systems.

13. Restroom Facility Improvements: \$920,000

This funding is for maintaining, repairing, replacing, and upgrading existing stand alone restrooms.

14. Community Facility Upgrades: \$2,350,000

This funding is for maintaining, repairing, replacing, and upgrading recreation center lighting, interiors, and facades.

15. Picnic Shelters: \$410,000

This funding is for replacing and upgrading existing shelters as well as constructing new shelters.

16. Aquatic Improvements: \$911,400

This funding is for general aquatic maintenance, including water treatment systems (filters and chemical feed systems) and maintenance of the pool, decks and supporting structures.

17. Greenway Trail Resurfacing: \$990,006

Resurface older greenway trails to improve safety of walking surface. Older trails will be widened to meet current standards.

18. Field Upgrades: \$490,000

Athletic fields will be upgraded with additional concrete pads and walks for dugouts, scorer's table, bleachers, and player's benches.

19. Electrical Improvements – Fields/Courts: \$450,000

This funding is for replacing, repairing and maintaining existing electrical systems, including underground feeders and wires at sports fields and tennis courts.

20. Street Tree Replacement: \$350,000

This funding is for planting and replacing trees on public property along downtown streets as well as the NeighborWoods Program.

21. Lead Paint and Asbestos Abatement: \$415,000

These are additional costs associated with repainting facilities with lead paint and/or asbestos.

22. Americans with Disabilities Act (ADA) Facility Upgrades: \$305,000

This funding will improve access to city recreational centers and services. Funds would be provided annually to implement changes in buildings and access routes to make them ADA compliant.

23. Carousel Animal Restoration: \$293,000

This funding will be used to Restore Pullen and Chavis Park Carousel animals.

24. Multipurpose Field Renovation: \$416,000

Installation of new irrigation systems, addition of soil and amendments and contractual sprigging of several multi-purpose fields yet to be renovated for use under the department's new open space policy and program.

25. Safety Compliance: \$266,000

Sites and facilities in need of improvements to be compliant with safety regulations are identified through staff inventory assessments and are evaluated in terms of facility age, levels of use, demand, etc.

26. Facility Backflow Preventers: \$125,000

This is an ongoing program to install and rebuild backflow preventers to city facilities to comply with code.

27. Raleigh Little Theatre Improvements: \$400,000

Improve fire protection with the installation of a sprinkler system for the main stage area; improve security by replacing locks and the key system. The carpet at the main stage and lobby will also be replaced and the climate control system will be upgraded. Conditions within the building will also be documented.

28. Mordecai Improvements: \$260,000

This funding will continue the phased improvements to buildings at the Mordecai Historic Park. This includes the repair and restoration of the kitchen, double door dependency, storage building, Andrew Johnson House, Law Office, Chapel, and Post Office.

29. Lake Wheeler Replacement Deck: \$25,000

The existing wooden deck at this facility has reached its useful life and will be replaced.

30. Theatre in the Park: \$336,119

This funding is for structural repairs to the deteriorated main theatre floor.

31. Park Signage: \$225,000

Update park entry and other signs to improve identification and information communication.

32. Volunteerism and Partnership Projects: \$300,000

Funds for the purpose of partnering with individuals and groups in projects related to Adopt-a-Park, playground builds, and other park improvement projects.

33. Lake Wheeler Facilities: \$50,000

Three boat ramps need to be replaced due to age and deterioration and a 620 sq. ft., dual-bay, Boat House is needed to store the Patrol Boats. The boat house would include an indoor platform that surrounds the interior of the boat house with a center dock separating the two bays, and a dual winch system.

34. City Cemetery Restoration: \$200,000

Developing a "Strategic Plan for the Inventory and Restoration of Raleigh's three Historic Cemeteries" - - (O'Rourke, City Cemetery and Mount Hope). The overall project is to take place in several phases: the first is currently starting to take place with the development of a plan; the second is to inventory and assess the condition of the sites, landmarks and resources and the final phase is to begin restoration of these historic sites.

35. Fayetteville Street Renovation Impacts: \$262,500

Replace the hardscape materials, site furniture, and structures. Because of the expected volume of use and damage, loss per year is expected to be 10%.

36. Lane Street Improvements: \$70,000

Make improvements to Lane Street Mini-park based on neighborhood desires. This may potentially include adding a play area, replacing the existing basketball court and associated fencing and other park site improvements such as, block wall repair/ replacement, benches, picnic tables, and trash cans.

37. Marsh Creek improvements: \$315,000

This funding is for two projects at Marsh Creek Community Park. The first project is to design and build a playground at the park. The second project is to upgrade the in-line skating rink that currently exists at the park.

38. Durant Nature Park Spillway Repairs: \$315,000

This funding is for repairing the damage to the lower lakes storm spillway that was caused by Tropical Storm Alberto in summer of 2006.

39. Lake Johnson Fishing Dock: \$35,000

This funding is to provide a designated fishing area for patrons and classes. This would eliminate fishing from the walking bridge, which has caused safety issues for pedestrians passing by. It would also allow a daily fishing permit fee to offset costs with approximate average revenue of \$10,000-\$12,000. A fishing pier is currently included in the Lake Johnson Master Plan and this is a slight modification of scope.

40. Moore and Nash Square Improvements: \$175,000

This funding is to procure and install new site furnishings at both Moore and Nash Squares. Furnishings selected should be in line with what has been installed at Fayetteville Street as well as maintain the integrity of the area they will be installed.

41. Maintenance Operations Facilities: \$408,806

This funding is for the hiring of a consultant to evaluate the current facility center at Marsh Creek in order to develop recommendations on how to develop and utilize the current space in the most efficient and effective manner. Funding would also be available to hire consultants to evaluate the Mt. Herman Road site that has been designated as a NW Parks Operations Facility. The consultants will develop recommendations on site design, facility construction and cost estimates.

42. Marsh Creek Greenhouse: \$40,000

This funding is for upgrades and renovations to the existing greenhouse to accommodate plant propagation of materials to be used at all grounds. Upgrades will include repairs to the structure, new heating system for the wintering of plant material, electrical and irrigation upgrades required to accommodate the renovation.

43. Buffaloe Road Facilities: \$277,719

This funding is to establish a structure that would include restrooms, storage, offices, and score keeper area and parking lot.

44. Camp Durant Nature Park Improvements: \$175,000

This funding is for improvements to existing structures at Camp Durant Nature Park.

45. Greenway Bridge/Boardwalk Repairs: \$400,000

An annual funding amount for the purposes of repairing and/or replacing bridges or boardwalks that are identified in a systematic evaluation program.

46. Latta House: \$50,000

Newly acquired historic site, this will be funding for research and planning for the site

47. Millbrook Pool Enclosure Liner: \$225,000

This funding will provide a new liner to the Millbrook Pool enclosure based on needs for energy efficiency and neighbor complaints regarding light and sounds.

48. Nash Square Improvements: \$50,000

Improvements to Nash Square to coincide with the opening of the New Convention Center. Extent of upgrades to include site furnishing upgrade, landscape improvements and lighting upgrades to both the pathways and repair to the tree lighting

49. Re-use Waterline Extensions: \$115,000

This project is to extend the Re-use Waterline north to the Walnut Creek Softball complex to provide irrigation for fields.

50. Roof Runoff Collection: \$75,000

This project is to incorporate roof runoff collection system to existing buildings. The system can be above-ground or underground. Modification to existing building and possibly irrigation system will be necessary.

51. Solar Hot Water Heaters: \$75,506

To incorporate solar hot water heater to existing recreation center buildings. This is not to replace the existing system, but rather be the primary hot water source with the conventional existing system as backup.

52. Structure Repair and Replacement: \$300,000

To fund the repair and replacement of bridges and/or other structures as determined by structural engineer. This program will be set up to initiate major repairs and/or replace 2 bridges annually. This funding would be used to complete repairs and or replacements that go beyond the capability off the division operating budget.

53. Walnut Creek Softball Complex Improvements: \$565,000

This project to fund improvements for Walnut Creek Softball Complex.

54. Wooten Meadows Master Plan: \$75,000

This project to fund the master planning of this neighborhood park.

55. Chavis Way Planning: \$75,000

Funding needed for the planning of the connection of the Chavis Way greenway to the downtown.

56. Unsatisfied Neighborhood Park Site: \$523,384

This is to provide funding to acquire or renovate locations to provide services in areas that we can not meet as per the Comprehensive Plan, using non-traditional methods for the delivery of recreational services.

2003 Bond Projects

B-38. Crabtree Creek Greenway – Lindsay to Umstead: \$2,827,502

This trail segment is the final segment needed to connect the Capital Area Greenway to Umstead State Park and the Town of Cary's Black Creek Greenway.

B-39. Forest Ridge Park: \$5,860,936

Located on the northeast shore of Falls Lake, development of Forest Ridge Park is to include design work, infrastructure elements, trail, and informal open space development.

B-41. Timberlake Neighborhood Park: \$2,062,756

Funds are for development to include playground, picnic, and recreation court facilities.

B-48. Optimist Community Center Expansion: \$665,772

Project is to expand the classroom/meeting space.

2007 Bond Projects

B-70. Playground Improvements: \$878,222

Playground Improvements: This funding is for repairs/replacements of existing playgrounds to address safety issues and play value; this includes removal of old wooden structures, correction of entrapments, surface material replacement or replenishment, and border installation to comply with Consumer Product Safety Council guidelines.

B-71. Building Improvements: \$1,750,000

Building Improvements: Funding will target interior lighting upgrades, and boilers, gas packs, water fountain, and HVAC replacement. Building Improvements- bond funding is slated to expedite the scheduled top priority projects.

B-72. Outdoor Security Lighting: \$239,825

This funding will upgrade and replace the lighting system in various Parks. Outdoor Security lighting-bond is slated to expedite the purchase and installation of lighting stemming from citizen security based concerns. In most instances, existing park lighting is enhanced and/or expanded.

B-51. Crabtree Creek Extension East to Neuse: \$6,588,721

Complete the greenway segment from Buckeye Trail at New Bern Avenue to the Neuse River at Anderson Point Park.

B-52. Halifax Center Improvements: \$3,150,000

This project would include the renovation and expansion of the existing center building to accommodate the recreational/classroom/meeting space needs in this changing neighborhood.

B-53. Jaycee Center Expansion: \$1,190,732

The proposed project is to expand the classroom/meeting space to address excess programming demand.

B-54. Honeycutt Creek Greenway: \$2,300,000

The section of the greenway system will connect North Raleigh to Falls Lake and the South Shore Trail.

Parks and Recreation

B-55. Neuse River Greenway Completion: \$13,000,000

Complete major portions of the Neuse River Greenway and seek partnerships to complete all the way to Johnston County.

B-56. Walnut Creek Greenway Extension to Neuse River: \$3,000,000

The portion of the greenway system will move the connection towards the Neuse River.

B-73. Land Acquisition: \$15,000,000

This funding is used to purchase various future park sites according to the city's Comprehensive Plan needs.

B-58. Barwell Road Park Development: \$1,700,000

This would develop the first phase outdoor recreational opportunities around the new Community Center.

B-59. Carolina Pines Community Center Expansion: \$700,000

This project would include the renovation and expansion of the existing center building to accommodate the recreational/classroom/meeting space needs in this changing neighborhood.

B-60. Pullen Park Carriageway Bridge: \$2,000,000

New bridge as per the master plan to safely connect two portions of the park.

B-61. Chavis Height Carousel Building Adaptive Reuse: \$500,000

Old Carousel Bldg will be adaptively re-used for the Community to use as a public space.

B-62. Raleigh Senior Center: \$7,740,000

This funding is for the design and construction of a new Raleigh Senior Center.

B-63. Wilkerson Nature Preserve: \$2,000,000

Funding to be used for design and first phased development of the Nature Preserve.

B-64. Mordecai Park Interpretive Center: \$1,562,500

Design and Construction of a new interpretive center at the Historic Site as per master plan.

B-65. Randleigh Farm: \$400,000

First phase funding for Randleigh Farm as per overall master plan for site.

B-66. Aquatic Facility: \$8,000,000

Design and construction of a new aquatics facility at Buffalo Road Park.

B-74. NE Raleigh Community Center: \$9,000,000

Design and construction of a new community center in NE Raleigh.

B-75. NE Raleigh Active Recreation Partnerships: \$2,000,000

Funding for partnerships to provide active recreational opportunities in NE Raleigh.

B-69. Lake Johnson Facility: \$2,600,000

New multiple use facility as per the adopted master plan.

B-76. Unsatisfied Neighborhood Park Search Areas: \$3,000,000

This project will provide funding to acquire or renovate locations to provide services in areas that we can not meet as per the Comprehensive Plan, using non-traditional methods for the delivery of recreational services.

B-77. Park Signage: \$300,000

Park and Greenway signage improvements across the city.

Phase II Parks and Recreation Projects

Greenway Acquisitions: \$4,000,000

Continued funding for acquisition of land for greenway parcels. The items funded include missing greenway segments, reimbursements for dedicated greenway easements that become available during development site plan approval procedures.

Park Site Acquisitions: \$25,000,000

Continued funding for acquisition of land for community parks. The areas and priorities of potential park site acquisitions are identified in the Comprehensive Plan.

System Integration Planning: \$450,000

System Integration Plan (SIP) is needed for all acquired parkland. The SIP will set guidelines for the interim management of parkland prior to the initiation of a Master Plan, document existing site conditions & constraints, affirm the parkland classification & if applicable special intent for integration into the city's Comprehensive Plan.

ADA Facility Upgrades: \$500,000

Continued funding to improve access to city recreational centers and services. Funds would be provided annually to implement changes in buildings and access routes to ensure compliance with the Americans with Disabilities Act.

Aquatic Improvements: \$1,000,000

General aquatic maintenance including: DE filter element replacements, automated chemical feed system improvements, locker replacements, pool deck and tile re-grouting.

Building Improvements: \$7,500,000

Continued funding for building maintenance and repairs; including interior and exterior painting and HVAC repairs/replacements.

Carousel Animal Restoration: \$283,400

Pullen and Chavis Park Carousel animal restoration. Funding is for continuous maintenance and restoration and deterioration of Carousels from regular use

City Cemeteries: \$936,000

The first phase of developing a "Strategic Plan for the Inventory and Restoration of Raleigh's three Historic Cemeteries", consisting of O'Rourke, City Cemetery and Mount Hope. The three City Cemetery grounds are currently maintained by the Parks & Recreation Department with the exception of headstone and cemetery plot maintenance. This project takes into account industry standards and public/philanthropic involvement to develop a strategic plan as to the maintenance and restoration of these sites.

Phase II Parks and Recreation

Community Facility Upgrades: \$2,000,000

Continued funding to maintain, repair, replace, and upgrade community center systems such as plumbing, lighting, and HVAC.

Electrical – Fields/Courts: \$600,000

Continued funding to replace, repair and maintain existing electrical systems at sports fields and tennis courts in parks.

Fayetteville Street Renovation Impacts: \$375,000

Continued funding for replacement of hardscape materials, site furniture and structures on Fayetteville Street.

Field Upgrades: \$500,000

The athletic field upgrades include the repair/replacement of concrete pads and walks for the dugouts, scorer's table, and bleachers. Also included is the purchase and installation of player's benches, score boards and scorer's table and bench.

Greenway Bridge and Boardwalk Repair/Replacement: \$1,500,000

An annual funding amount for the purposes of repairing and/or replacing bridges or boardwalks that are identified in a systematic evaluation program.

Greenway Development and Improvements: \$15,000,000

Continued funding to construct, study and manage greenway trails. Costs for construction include permitting, professional services, such as engineers and construction administration, environmental and site surveys.

Greenway Trail Resurfacing: \$700,000

Resurface older greenway trails to provide a safe walking surface and to widen older trails to current standards.

Irrigation Projects: \$200,000

Install, repair, upgrade, and maintain automated irrigation infrastructure at park sites, ball fields, and other facilities.

Lead Paint/Asbestos Abatement: \$624,000

Costs associated with repainting facilities with lead paint and/or asbestos.

Mordecai Improvements: \$200,000

Continued funding to upgrade the facilities at Historic Mordecai Park.

Multipurpose Field Renovations: \$250,000

Installation of new irrigation systems, addition of soil and amendments and contractual sprigging of several multi-purpose fields yet to be renovated for use under the department's new open space policy and program.

Park Fencing: \$300,000

Repair, replace, and maintain fencing at park sites, ball fields, tennis courts and other facilities.

Park Lighting: \$450,000

Repair, replace, and maintain lighting at park sites, ball fields, tennis courts, and other facilities.

Phase II Parks and Recreation

Park Signage: \$375,000

Update signage to improve park identification and information signage according to recommendations in the Signage Study

Park Site Improvements: \$35,000,000

Continued funding for repairs/replacements to grounds and certain non-structural facilities such as concrete and asphalt surfaces, grills, tables and benches to maintain our current levels of service

Paving Improvements: \$500,000

Continued funding for improving, repairing, and replacing pavement at city facilities.

Picnic Shelters: \$750,000

Continued funding to replace shelters that are at the end of their useful lifecycle.

Playground Improvements: \$1,500,000

Continued funding for repairs/replacements of existing playgrounds to address safety issues and play value – such as the removal of old wooden structures, correction of entrapments, surfacing materials, and borders to meet Consumer Product Safety Council guidelines.

Raleigh Little Theatre Improvements: \$200,000

Continued funding for capital improvement at the Raleigh Little Theatre Building.

Comfort Station Improvements: \$1,560,000

Continued funding to repair, replace and upgrade comfort stations at various park sites.

Re-use Waterline Extension: \$1,000,000

This project is to extend the Re-use Waterline north to Walnut Creek Softball complex to provide field irrigation.

Roof Repairs: \$1,500,000

Continued funding for repairing and replacing facility roofs and coverings.

Roof Runoff Collection: \$2,143,700

To incorporate roof runoff collection system to existing buildings.

Safety Compliance: \$500,000

Sites and facilities in need of improvements to be compliant with safety regulations are identified through staff inventory assessments and are evaluated in terms of facility age, levels of use, demand, etc.

Solar Hot Water Heaters: \$500,000

To incorporate solar hot water heater to existing recreation center buildings. This is not to replace the existing system, but rather be the primary hot water source with the conventional existing system as backup.

Street Tree Replacement: \$375,000

Typical lifespan of a tree in downtown streetscape is 10-12 years. Replacement of thoroughfare trees damaged or destroyed by vehicular traffic.

Phase II Parks and Recreation

Structure Repair and Replacement: \$1,000,000

Repair and replacement of bridges and/or other structures as determined by Structural Engineer. This program will be set up to initiate major repairs and/or replace 2 bridges annually.

Tennis Court Upgrades: \$350,000

Continued funding for court resurfacing in order to maintain life expectancy.

Theatre in the Park: \$500,000

Continued funding for Theatre in the Park Building improvements.

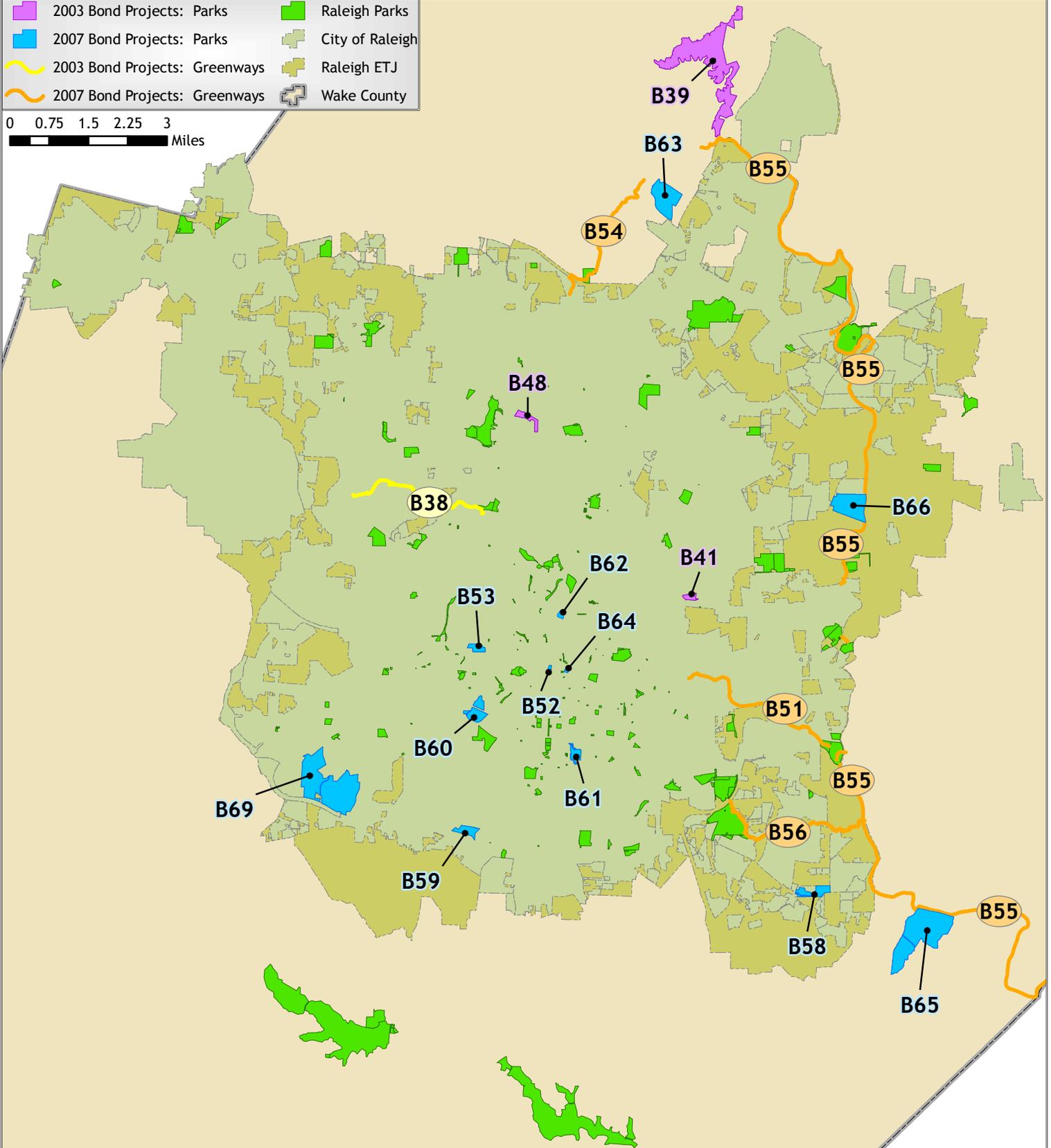
Volunteerism and Partnerships: \$375,000

Continued funding for partnering with individuals and groups in projects related to Adopt-a-Park, playground builds, and other park improvement projects.



- 2003 Bond Projects: Parks
- 2007 Bond Projects: Parks
- 2003 Bond Projects: Greenways
- 2007 Bond Projects: Greenways
- Raleigh Parks
- City of Raleigh
- Raleigh ETJ
- Wake County

0 0.75 1.5 2.25 3 Miles



2003 Bond Projects		2007 Bond Projects	
B38	Crabtree Creek Greenway	B52	Halifax Center Improvements
B39	Forest Ridge Park	B53	Jaycee Center Expansion
B48	Optimist Comm Center Expansion	B54	Honeycutt Creek Greenway
B41	Timberlake Neighborhood Park	B55	Neuse River Greenway Completion
B51	Crabtree Cr Ext to Neuse River	B56	Walnut Creek Greenway Ext to Neuse River
B52	Halifax Center Improvements	B58	Barwell Road Park Development
B53	Jaycee Center Expansion	B59	Carolina Pines Comm Center Expansion
B54	Honeycutt Creek Greenway	B60	Pullen Park Carriageway Bridge
B55	Neuse River Greenway Completion	B61	Chavis Heights Carousel Building Adaptive Re-Use
B56	Walnut Creek Greenway Ext to Neuse River	B62	Raleigh Senior Center-Whitaker Mill
B58	Barwell Road Park Development	B63	Annie Louise Wilkerson, MD Nature Preserve
B59	Carolina Pines Comm Center Expansion	B64	Mordecai Historic Park Interpretive Center
B60	Pullen Park Carriageway Bridge	B65	Randleigh Farm
		B66	Aquatic Facility
		B69	Lake Johnson Facility





Stormwater Utility and Neuse Basin Environmental Program

The stormwater utility and Neuse Basin environmental program funds projects associated with stormwater runoff, pollution control and water quality, drainage improvements, alleviation of flooding, and improvements to watercourses that require erosion control and streambed remediation throughout the city's jurisdiction.

Raleigh established a monthly stormwater fee during fiscal year 2003-2004. In conjunction with the establishment of the stormwater fee, the City Council created the Stormwater Management Advisory Commission. The Commission advises the City Council on issues related to the stormwater management program; local, state, and federal regulations and their application to city stormwater programs; and options for alleviating the impact of stormwater and other drainage issues to private property.

All revenue from fees is programmed for expenditure within the stormwater utility and Neuse Basin Program. The program also includes \$20,215,000 in Revenue Bonds as recommended by City Council and the Stormwater Management Advisory Commission. A list of projects covered by fees and bonds are itemized on the following pages.

Ten Year Summary of the Stormwater Program

	Phase I	Phase II	Total
Neuse Basin Environmental Program	\$9,890,000	\$21,200,000	\$31,090,000
Stormwater Utility Program	40,912,700	45,578,000	86,490,700
Total	\$50,802,700	\$66,778,000	\$117,580,700

Project Costs for Stormwater Utility and Neuse Basin Environmental

Phase I
Summary

2008-09 2009-10 2010-11 2011-12 2012-13

Neuse Basin Environmental Program

	2008-09	2009-10	2010-11	2011-12	2012-13	
1 Stormwater Management Studies	\$ 410,000	\$ 410,000	\$ 410,000	\$ 410,000	\$ 410,000	\$ 2,050,000
2 Lake Preservation		585,000	585,000	585,000	585,000	2,340,000
3 Stream Restoration / Stabilization		500,000	500,000	500,000	500,000	2,000,000
4 Upper Longview Restoration (*)	1,500,000					1,500,000
5 Crabtree Creek Stream Restoration (*)	2,000,000					2,000,000
Subtotal, Neuse Basin Projects	\$ 3,910,000	\$ 1,495,000	\$ 1,495,000	\$ 1,495,000	\$ 1,495,000	\$ 9,890,000

Stormwater Program

1 Stormwater System Repairs	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 4,000,000
2 Petition Projects	500,000	500,000	500,000	500,000	500,000	2,500,000
3 Maintenance Reserve	500,000	500,000	750,000	1,000,000	1,000,000	3,750,000
4 Drainage System Inventory	500,000	500,000	250,000	250,000	250,000	1,750,000
5 Inventory Software Upgrade	35,000			40,000		75,000
6 Flood Mitigation	500,000	500,000	500,000	500,000	500,000	2,500,000
7 Five Points Drainage		800,000	1,400,000			2,200,000
8 Simmons Branch Channel Restoration			500,000			500,000
9 Simmons Branch Tributary Drainage				500,000		500,000
10 Woodbend Drive Culvert Upgrade				300,000		300,000
11 Rainwood Lane Drainage	500,000					500,000
12 Favorwood Court Drainage	552,000					552,000
13 Audubon Drive Drainage	205,000					205,000
14 Tanbark Way Drainage		108,100				108,100
15 Knights Way Drainage	84,000	336,000				420,000
16 Strothmore/Harps Mill Way Drainage	88,700	354,900				443,600
17 Swift Drive Culvert (*)	3,125,000					3,125,000
18 Brentwood Today Lake Project (*)	3,000,000					3,000,000
19 Northshore Lake Project (*)	3,000,000					3,000,000
20 Brockton Drive Lake Project (*)	3,000,000					3,000,000
21 Jones/Sewell Drainage (*)	790,000					790,000
22 Greystone Lake (*)	2,000,000					2,000,000
23 Lake Johnson Spillway Upgrade (*)	1,800,000					1,800,000

Project Costs for Stormwater Utility and Neuse Basin Environmental

						Phase I
						Summary
	2008-09	2009-10	2010-11	2011-12	2012-13	
24					900,000	900,000
25					219,000	219,000
26					183,000	183,000
27				250,000	1,500,000	1,750,000
28					282,000	282,000
29					200,000	200,000
30		250,000				250,000
31		110,000				110,000
Subtotal, Stormwater Projects	\$ 20,979,700	\$ 4,759,000	\$ 4,700,000	\$ 4,140,000	\$ 6,334,000	\$ 40,912,700

(*) = FY08-09 Revenue Bond Project

Total, Stormwater and Neuse Basin \$ 24,889,700 \$ 6,254,000 \$ 6,195,000 \$ 5,635,000 \$ 7,829,000 \$ 50,802,700

Funding Plan for Stormwater Utility and Neuse Basin Environmental

Stormwater Utility Operating Fund	\$ 4,674,700	\$ 6,254,000	\$ 6,195,000	\$ 5,635,000	\$ 7,829,000	\$ 30,587,700
Revenue Bond Program (FY08-09)	20,215,000					20,215,000

Total, Stormwater and Neuse Basin \$ 24,889,700 \$ 6,254,000 \$ 6,195,000 \$ 5,635,000 \$ 7,829,000 \$ 50,802,700

Neuse Basin Environmental Program

1. Stormwater Management Studies: \$2,050,000
Study stormwater impact on various drainage basins within the city. This project will also develop remedial strategies for flooding, runoff control and water quality.
2. Lake Preservation: \$2,340,000
Various lake preservation and water quality enhancement projects will be implemented, including the upgrade/replacement of existing dams, engineering design, dredging and other efforts to support the lake preservation.
3. Stream Restoration and Stabilization: \$2,000,000
Restore and stabilize degraded streams within the city to improve water quality. The city is mandated by the federal Clean Water Act to improve the water quality of impaired streams.
4. Upper Longview Lake Restoration (*): \$1,500,000
Dredge lake and install forebays to increase the capacity of this lake to remove pollution.
5. Crabtree Stream Restoration and Stabilization (*): \$2,000,000
Stabilize and enhance eroded stream banks within the Crabtree Creek watershed.

Stormwater Utility Program

1. Stormwater System Repairs: \$4,000,000
Repair stormwater system facilities, and construct stormwater drainage projects on city property or within the right-of-way.
2. Stormwater Petition Projects: \$2,500,000
Fund stormwater and drainage projects requested by petition and approved by the City Council for implementation under the auspices of the city's Storm Drainage Policy.
3. Maintenance Reserve: \$3,750,000
Implement funding for recommendations made by the Stormwater Utility Funding Study.
4. Drainage System Inventory: \$1,750,000
This funding is for consultant assistance to develop an inventory of drainage systems in Raleigh.
5. Inventory Software Upgrade: \$75,000
This item is to provide a reliable upgrade to data collection software used to collect stormwater drainage information throughout the city. This upgrade ensures all technologies and inventory processes are working together. An upgrade to the software is timed to coincide with hardware replacement every three (3) years. This item will help the city meet the requirements for the National Pollution Discharge Elimination System (NPDES) permit.
6. Flood Mitigation: \$2,500,000
This project will provide funding for buyout or the elevation of structures within the 100-year floodplain, particularly the repetitive loss structures.
7. Five Points Drainage: \$2,200,000
This project will provide additional drain inlets and upgrade the capacity of the storm drainage pipes in the road along Fairview Road and side streets near Glenwood Avenue.

8. Simmons Branch Channel Restoration: \$500,000

Improve 4,000 feet of channel along Simmons Branch to decrease flooding and erosion. This also will improve water quality by reducing sediment loads and decrease flooding to homes and roads.

9. Simmons Branch Tributary Drainage: \$500,000

Replace and upgrade the drainage piping along the Simmons Branch tributary at eight locations from Kaplan Drive to Swift Drive. This project will decrease flooding to residences and roads.

10. Woodbend Drive Culvert Upgrade: \$300,000

Replace existing arch culvert with three 10-feet by 10-feet concrete box culverts, which will reduce flooding to three (3) apartment buildings and the road

11. Rainwood Lane Drainage: \$500,000

This drainage improvement project will address street flooding on Rainwood Lane and structural flooding of residential properties on Rainwood Lane. The project involves removal and replacement of existing storm pipes and replacement with significantly larger storm drainage pipes and/or box culverts.

12. Favorwood Court Drainage: \$552,000

This drainage improvement project will address structural flooding of a residential property on Favorwood Court as a result of inadequate drainage piping along Harps Mill Road. The project involves installation of new storm piping to prevent structural flooding. This project is adjoins the proposed upstream storm drainage improvements along Strothmore Court and could be performed as one project.

13. Audobon Drive Drainage: \$205,000

This drainage improvement project will address street flooding on Audubon Drive. The project involves removal and replacement of existing storm pipes and replacement with significantly larger storm drainage pipes and/or box culverts.

14. Tanbark Way Drainage: \$108,100

This drainage improvement project will address street flooding on Tanbark Way. The project involves removal and replacement of existing storm pipes and replacement with significantly larger storm drainage pipes and/or box culverts.

15. Knights Way Drainage: \$420,000

This drainage improvement project will address street flooding on Knights Way. The project involves removal and replacement of existing storm pipes and replacement with significantly larger storm drainage pipes and/or box culverts.

16. Strothmore/Harps Mill Way Drainage: \$443,600

This drainage improvement project will address street flooding on Strothmore Court and Harps Mill Road and some limited structural flooding of residential properties. The project involves removal and replacement of existing storm pipes and replacement with significantly larger storm drainage pipes and/or box culverts.

17. Swift Drive Culvert (*): \$3,125,000

This project will supplement existing culverts under Swift Drive along Simmons Branch.

18. Brentwood Today Lake Project (*): \$3,000,000

This project will reconstruct the entire dam embankment and spillway. The lake will be also be dredged and wetlands will be re-established within the lake and shoreline.

19. Northshore Lake Project (*): \$3,000,000

Upgrade the spillway and dam to meet state dam safety requirements and to improve water quality. This project will also be assessed to determine if it can reduce flooding at four residences downstream.

20. Brockton Drive Lake Project (*): \$3,000,000

This project is for providing dam and storm drainage improvements at the Brockton Drive Dam. Dam safety improvements, storm drainage improvements and lake and channel stabilization work will be performed as a part of this project.

21. Jones/Sewell Drainage (*): \$790,000

The proposed project includes the removal and/or abandonment of the existing storm drainage system at Seawell Avenue and Jones Street and the installation of a new storm drainage system.

22. Greystone Lake Dam (*): \$2,000,000

The Greystone Lake Dam project includes: Design and construction of improvements to the existing dam to meet State Dam Safety requirements; Investigate, design, and construct improvements to reduce structural flooding of several homes along Greystone Lake, and; evaluation and dredging of sediments in Greystone Lake.

23. Lake Johnson Spillway Upgrade (*): 1,800,000

This project is for providing dam safety improvements, including improvements to the spillway.

24. Roanoke Park Neighborhood Dam: \$900,000

This project will prevent significant flooding by replacing and installing storm drainage improvements along Greenwood Street, Cherokee Drive, and Fairview Roa

25. Old Buffalo Road Pipe Upgrade: \$219,000

This project is for providing storm drainage improvements under Old Buffalo Road. A 24-inch pipe will be upgraded to a 36-inch pipe.

26. Aycock Street Storm Drain: \$183,000

This project includes the replacement of existing 24 and 30 inch pipes in Aycock Street and adding additional storm drainage to prevent street flooding.

27. Shepherd/Merriman Storm Drain: \$1,750,000

There are 18-inch and 24-inch diameter pipes on Shepherd Street and Merriman Avenue that are undersized contributing to flooding of Shepherd Street and the private property on Dixie Trail. These pipes need to be replaced with 30-inch diameter reinforced concrete pipe to address street flooding and minimize flooding of private properties.

28. Parkwood Drive Drainage Upgrade: \$282,000

There is an existing 36-inch diameter reinforced concrete pipe that crosses Parkwood Drive, which is downstream from Pleasant Valley Promenade Mall. The existing pipe was installed before the construction of the mall, but is currently undersized for the amount of drainage that comes to the pipe.

Stormwater Utility – Neuse Basin

29. Valley Lake Dam/Spillway Improvements: \$200,000

This project will reconstruct the entire dam embankment and spillway. The lake is being upgraded to meet North Carolina Dam Safety standards. In addition, this project is designed to be a water quality feature and will help the City reach nitrogen removal requirements set forth by the State.

30. GristMill/Harps Mill Drainage: \$250,000

Replace existing storm drainage system as recommended in the Brown and Caldwell study of drainage systems in the North Ridge area.

31. Grist Mill Northwest Drainage: \$110,000

Replace existing storm drainage system as recommended in the Brown and Caldwell study of drainage systems in the North Ridge area.

Phase II Stormwater Utility – Neuse Basin

Neuse Basin Environmental Program

Stormwater Management Studies: \$3,000,000

Study stormwater effects using a basin-wide approach and develop remedial strategies for stormwater problems.

Lake Preservation: \$13,200,000

Preserve and upgrade the existing lakes that reduce stormwater and improve water quality.

Stream Restoration/ Stabilization: \$5,000,000

Restore and stabilize degraded streams on public property as recommended in the drainage basin studies.

Stormwater Utility Program

Stormwater System Repairs: \$10,435,000

Repair to stormwater system facilities in accordance with policies approved by City Council.

Petition Projects: \$3,500,000

Fund stormwater and drainage projects initiated by citizen petition, approved by City Council and constructed under the city's Storm Drainage Policy.

Maintenance Reserve: \$10,000,000

Funding of a maintenance program as recommended by the Stormwater Utility Funding Study.

Drainage System Inventory: \$2,500,000

Funding for consultant assistance to inventory the city's drainage systems.

Stormwater Inventory Software Update: \$110,000

Funding for consultant assistance to develop and update the inventory software for the city's inventory collection program.

Flood Mitigation: \$2,500,000

Funding to buyout or elevate structures within the 100 year floodplain.

Phase II - Stormwater Utility – Neuse Basin

Grist Mill / Harps Mill Drainage: \$1,088,000

Replace existing storm drainage pipes to reduce roadway and structural flooding.

Grist Mill Northwest Drainage: \$420,000

Replace existing storm drainage pipes to reduce roadway and structural flooding.

Harps Mill / Haymarket Drainage: \$3,525,000

Replace existing storm drainage pipes to reduce roadway and structural flooding.

Simmons Branch Channel Restoration: \$2,500,000

Improve 4,000 feet of channel along Simmons Branch to decrease flooding and erosion.

This also will improve water quality by reducing sediment loads and decrease flooding to homes and roads.

Simmons Branch Tributary Drainage: \$4,000,000

Replace and upgrade pipes along the Simmons Branch Tributary from Kaplan Drive to Swift Drive at eight locations to reduce roadway and structural flooding.

Longstreet Drive Culvert: \$1,300,000

Replace corrugated metal 72-inch pipe with a 10-foot wide by 8-foot high concrete box culvert. This will reduce flooding to eight (8) condominiums and two (2) residences.

Newton Road Culvert: \$1,650,000

Replace existing 72-inch pipes with a 10' wide by 8' high concrete box culvert. This will reduce flooding to three (3) apartment buildings.

Valley Lake Spillway Improvements: \$750,000

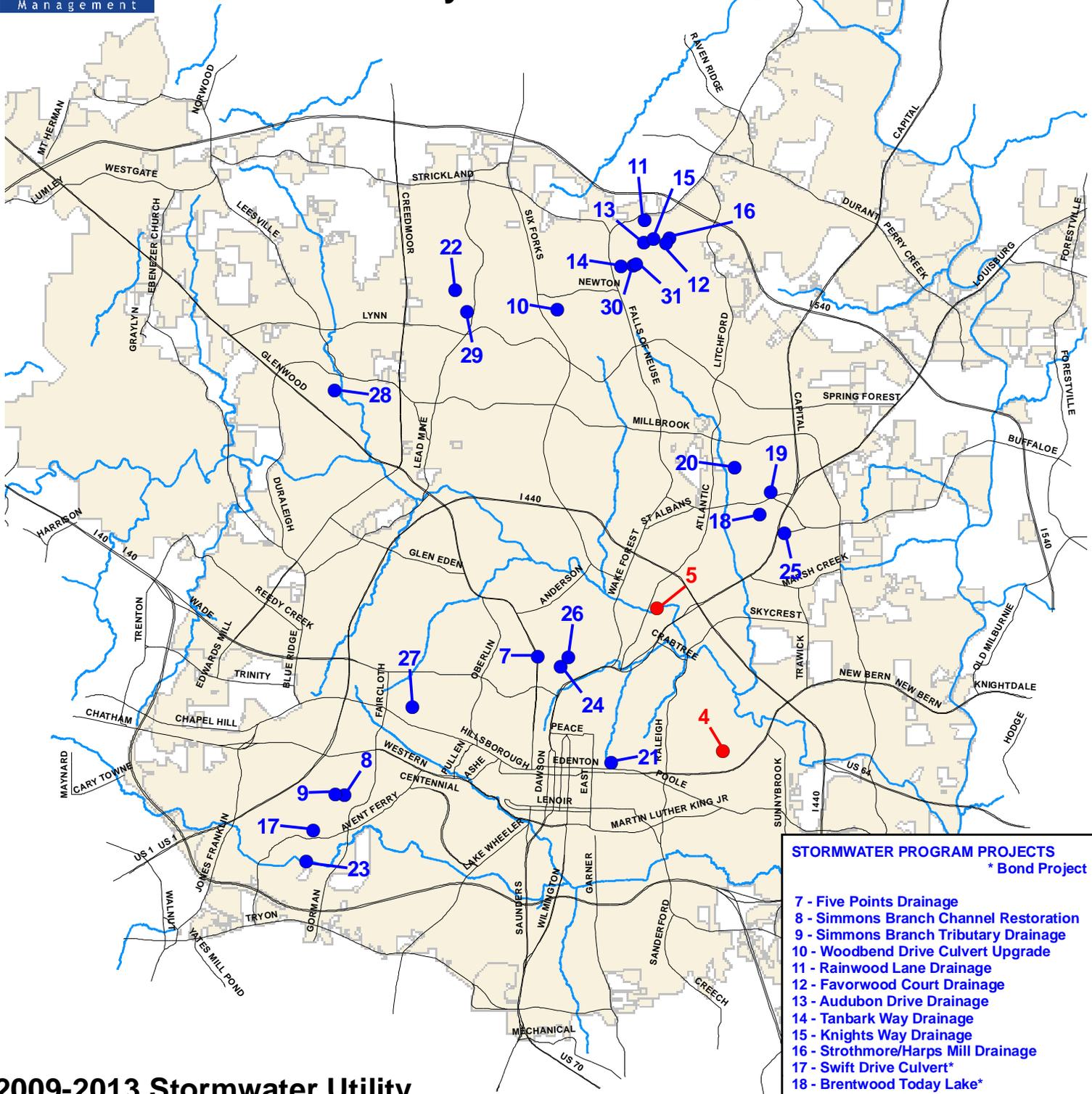
Project will upgrade spillway to meet Dam Safety standards by replacing existing dam and spillway. This project is recommended in the Mine Creek Stormwater study.

Woodbend Drive Culvert Upgrade: \$1,300,000

Replace existing arch culvert with three 10 by 10 concrete box culverts. Project will decrease structure flooding to three (3) apartment buildings and road flooding. This project is recommended in the Mine Creek Stormwater study.



City of Raleigh Public Works Department Stormwater Utility



2009-2013 Stormwater Utility Capital Improvement Projects (CIP) Phase 1

STORMWATER PROGRAM PROJECTS * Bond Project

- 7 - Five Points Drainage
- 8 - Simmons Branch Channel Restoration
- 9 - Simmons Branch Tributary Drainage
- 10 - Woodbend Drive Culvert Upgrade
- 11 - Rainwood Lane Drainage
- 12 - Favorwood Court Drainage
- 13 - Audubon Drive Drainage
- 14 - Tanbark Way Drainage
- 15 - Knights Way Drainage
- 16 - Strothmore/Harps Mill Drainage
- 17 - Swift Drive Culvert*
- 18 - Brentwood Today Lake*
- 19 - Northshore Lake*
- 20 - Brockton Drive Lake*
- 21 - Jones/Sewell Drainage*
- 22 - Greystone Lake*
- 23 - Lake Johnson Spillway Upgrade*
- 24 - Roanoke Park Neighborhood Drainage
- 25 - Old Buffalo Road Pipe Upgrade
- 26 - Aycock Street Storm Drainage
- 27 - Shepherd/Merriman Storm Drainage
- 28 - Parkwood Drive Drainage Upgrade
- 29 - Valley Lake Dam/Spillway Improvement
- 30 - Grist Mill/Harps Mill Drainage
- 31 - Grist Mill Northwest Drainage

NEUSE BASIN ENVIRONMENTAL PROGRAM PROJECTS

- 4 - Upper Longview Restoration* * Bond Project
- 5 - Crabtree Creek Stream Restoration*



Raleigh City Limits
 Major Streams



Housing Program

The city has provided funding for an affordable housing program since the mid-1980s. The program's resources are utilized to reduce the cost of development and/or to finance the rehabilitation of housing for citizens of low to moderate incomes.

Typically, housing program funds are leveraged as loans to developers, contractors, or first time homebuyers as a method of reducing the cost of capital. When loan proceeds are repaid to the city, they are considered as a resource that may be applied to other housing developments or to retire the debt from bonds, if that was the source of original financing.

Funding for this program will be applied in several ways: as second mortgage loans to first time homebuyers; as loans to supplement development of rental housing using low-income housing tax credits; to add to the city's inventory of rental housing for lower income families; as loans to low-income homeowners for limited, emergency-type repairs; as loans to non-profit developers supporting the 10 year plan to end homelessness; as loans to low-income homeowners whose homes need substantial rehabilitation and to revitalize the City's inner core of older neighborhoods.

Funding for Phase I of the housing program includes \$13,825,000 approved in the October, 2005 Bond referendum and \$5,700,000 in program generated reserves. The main source of funding for the housing program is bonds. Additional City and Federal funding for comparable affordable housing development and rehabilitation activities is included in the operating budget of the Community Development Department.

Ten Year Summary of the Housing Program

	Phase I	Phase II	Total
Housing	\$ 19,525,000	\$ 0	\$ 19,525,000
Total	\$ 19,525,000	\$ 0	\$ 19,525,000

Project Costs for Housing

Phase I
Summary

2008-09 2009-10 2010-11 2011-12 2012-13

Housing

1	First Time Home Ownership	\$ 675,000	\$ 675,000	\$ 675,000	\$ 675,000	\$ 500,000	\$ 3,200,000
2	Joint Venture Rental	1,500,000	1,500,000	1,500,000	1,500,000		6,000,000
3	Purchase of Housing Units and Land	375,000	375,000	375,000	375,000		1,500,000
4	Limited Repair Program	100,000	100,000	100,000	100,000		400,000
5	Neighborhood Revitalization	500,000	500,000	500,000	500,000		2,000,000
6	Homelessness Plan and Support	400,000	400,000	400,000	400,000		1,600,000
7	Homeowner Repair Loan Program	1,000,000	1,000,000	1,000,000	925,000	525,000	4,450,000
8	Loan Servicing	75,000	75,000	75,000	75,000	75,000	375,000

Total, Housing \$ 4,625,000 \$ 4,625,000 \$ 4,625,000 \$ 4,550,000 \$ 1,100,000 \$ 19,525,000

Funding Plan for Housing

2005 Bond Proceeds	\$ 3,450,000	\$ 3,550,000	\$ 3,550,000	\$ 3,275,000	\$ 13,825,000
Prior Year Reserves	1,100,000	1,000,000	1,000,000	1,200,000	5,175,900
Program Income	75,000	75,000	75,000	75,000	224,100

Total, Housing \$ 4,625,000 \$ 4,625,000 \$ 4,625,000 \$ 4,550,000 \$ 1,100,000 \$ 19,525,000

Housing

1. First Time Home Ownership: \$3,200,000

These funds will be used to provide second mortgage financing consisting of low-interest loans of up to \$20,000 that can be used to finance a down payment on a new or existing residence citywide and up to \$30,000 for residences located in the inner city redevelopment areas including the State Street/ Garner Road and other approved developments.

2. Joint-Venture Rental: \$6,000,000

These funds will provide low-interest loans to private housing developers (both non-profit and for profit) to construct or rehabilitate affordable rental housing units. This program leverages other funds including Wake County Housing dollars; NCHFA tax credits and funds from private lenders.

3. Rehab/Purchase of Housing Units and Land: \$1,500,000

These funds will be used to purchase land, rehabilitate multifamily units or construct new city owned rental units for low income citizens or Raleigh who do not qualify for public housing.

4. Limited Repair Program: \$400,000

These funds will provide emergency rehabilitation for low income homeowners within the city limits of Raleigh. Homes must be occupied by an owner with income at or below 50% of the median and the home must be in need of repairs that if left unattended will pose a threat to the occupant's health and safety. A maximum of \$5,000 per unit can be used for each qualifying applicant.

5. Neighborhood Revitalization: \$2,000,000

These funds will support neighborhood preservation and revitalization efforts to improve the quality of life for Raleigh's residents by increasing and improving the existing housing stock and undertaking redevelopment type activities to mitigate blighted conditions citywide.

6. Homelessness Plan and Support: \$1,600,000

These funds will go towards housing programs in support of the 10 year plan to end homelessness, focusing on single individuals needing housing and other services.

7. Homeowner Repair Program: \$4,450,000

This project will provide loans for substantial rehabilitation to homes of eligible homeowners who live within the targeted areas. Loans will discount and can be used with other repaying and forgivable loans.

8. Servicing of Loans: \$375,000

This activity will allow funding for the servicing of the loans funded with Bond funds. The City has outsourced this activity and fees will be paid from funds generated from interest earned on the repaying loans.

Phase II Housing Projects

No funds have been budgeted for Phase II at this time. Phase I projected expenditure estimates include revenues generated from prior year loan repayments.



General Public Improvement Program

This section of the Capital Improvement Program includes projects for public safety, economic development, and general facility improvements. Public improvements associated with the support of city operations are not set aside in distinct CIP programs. Improvements include the construction and outfitting of new fire stations and other city support facilities, workspace for office and operational requirements, downtown streetscapes and improvement projects, and general repairs and maintenance of public buildings and facilities.

Total funding for general public improvement projects in Phase I is \$498,602,730. Major sources of funding for projects within this section are the 1/2-cent local option sales tax, 2/3 bond proceeds and projected Certificates of Participation for the Public Safety and Remote Operation Facilities. The current Phase II funding needs are estimated at \$101,420,256.

Ten Year Summary of the General Public Improvement Program

	Phase I	Phase II	Total
General Public Improvements	\$481,765,330	\$94,070,256	\$575,835,586
Economic Development	16,837,400	7,350,000	24,187,400
Total	\$498,602,730	\$101,420,256	\$600,022,986

Project Costs for General Public Improvement

Phase I
Summary

2008-09 2009-10 2010-11 2011-12 2012-13

General Public Improvement

Public Safety

		\$	\$			\$
1	Fire Station Backflow Prevention Devices		55,000			55,000
2	Fire Station Improvements	150,000	150,000	200,000	200,000	900,000
3	Fire 800 MHz Radios	168,000	95,000			263,000
4	Replace Fire Station 3			1,650,000		4,323,355
5	Fire Station, Northwest Raleigh	3,980,000				3,980,000
6	Fire Station Roof Repair	268,000	310,000	311,000	320,000	1,512,000
7	Fire Station Backup Generators	312,000	312,000			936,000
8	Fire Storage Building	240,000				240,000
9	Police Precinct Study	98,835				98,835
10	Joint Police/Sheriff Training Center	200,000				200,000
11	Police Firing Range Support Building	884,820				884,820
12	Police District Stations		2,000,000			2,000,000
13	Police Training Center Facility		750,000	500,000	5,367,966	6,617,966
14	ECC Backup Center Update and Repair	30,000			70,000	100,000
15	ECC Radio Diagnostic Monitor		40,000			40,000

Facility Maintenance and Improvements

16	CEM Repair and Upgrade	26,500				26,500
17	New Convention Center Data and Wireless	118,000				118,000
18	Convention and Performing Arts Center Reserve	300,000	500,000	500,000	500,000	2,300,000
19	Walnut Creek Amphitheater Improvements	334,000	362,750	393,188	475,000	2,039,938
20	Electrical Heating Units, One Exchange Plaza (OEP)	25,000				25,000
21	Cooling Towers and Chiller, OEP	330,000				330,000
22	Elevator Control, Avery Upchurch Building (AUB)	420,000				420,000
23	Pedestrian Bridge Rehabilitation, AUB	40,000				40,000
24	Facility Maintenance Program		255,841	339,929	350,000	1,426,770
25	Generator Installation, Wade Ave Building		260,000			260,000
26	Voice Over IP (VoIP)	525,000				525,000
27	City Space Needs	200,000	100,000	100,000	100,000	600,000
28	Sustainability Projects	1,500,000	100,000	100,000	100,000	1,900,000

Funding Plan for General Public Improvement

Phase I
Summary

2008-09 2009-10 2010-11 2011-12 2012-13

	2008-09	2009-10	2010-11	2011-12	2012-13	
General Fund	\$ 4,298,555	\$ 6,287,841	\$ 6,539,355	\$ 6,800,929	\$ 7,072,966	\$ 30,999,646
Interest Income	410,000	420,000	430,000	440,000	440,000	2,140,000
Fund Reserves	300,000					300,000
Technology Fund	525,000					525,000
9-1-1 Wireless/Wireline Fund	30,000				35,000	65,000
Artspace Building Sale Proceeds	200,000	200,000				400,000
Walnut Creek Amphitheater Rent	334,000	362,750	393,188	475,000	475,000	2,039,938
Interlocal Agreement Funding	300,000	500,000	500,000	500,000	500,000	2,300,000
Certificates of Participation	57,368,578	280,672,576	50,793,913	24,757,584	36,010,495	449,603,146
GO 2/3rd Bond Proceeds	10,230,000					10,230,000

Total, General Public Improvement \$ 73,996,133 \$ 288,443,167 \$ 58,656,456 \$ 32,973,513 \$ 44,533,461 \$ 498,602,730

General Public Improvement Program

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Economic Development	16,837,400	7,350,000	24,187,400
Total	\$498,602,730	\$101,420,256	\$600,022,986

Public Safety

1. Fire Station Backflow Prevention Devices: \$55,000

This project will install backflow devices within the water supplies at 14 fire stations throughout the city.

2. Fire Station Improvements: \$900,000

This project will provide maintenance to the city's fire stations, half of which are over 30 years old. Others are more than 40 years old. Renovations are needed at many of these stations. Over the next five years, this request will pay for roof, kitchen, bathroom, floor, window, boiler, driveway and parking area repaving as well as other repair/replacements needed to maintain these facilities.

3. Fire 800 MHz. Radios: \$263,000

This request is a continuation of the previous three years' CIP projects which provided funding for 800 MHz radios. The FY09 request provides for base radios and the FY10 request provides for the addition of a fifth hand held radio on those 19 fire apparatus with 5 personnel assigned.

4. Replace Fire Station 3: \$4,323,355

This is a proposal to construct a new fire station to replace Station 3, located at 13 South East Street. Station 3, built in 1951, is inadequate to serve as a city fire station. Though there have been improvements, it remains functionally obsolete and is too small. A new fire station, located in the same area, would be better equipped to respond to the needs of those in this area of Raleigh.

5. Fire Station, Northwest Raleigh: \$3,980,000

This is a request to construct a fire station in the rapidly growing northwestern portion of the city to serve such areas Brier Creek and surrounding areas. The station would house two companies (an engine and a ladder) and would be staffed by 30 personnel, 10 per shift.

6. Fire Station Roof Repair: \$1,512,000

This project involves a range of work from simple repairs to complete roof replacement to existing fire station roofs based on a study performed in late 2006. The roof repairs and replacements that were deemed the most pressing were prioritized by a roof consultant and proposed in the FY07/08. All roofs have been studied for repairs/replacement and prioritized by year in this funding request, most are 30 to 40+ years old.

7. Fire Station Backup Generators: \$936,000

Newer fire stations were equipped with backup generators when they were constructed in accordance with Department of Homeland Security recommendations. Older stations do have portable gasoline-powered generators; however, these generators cannot be left unattended, will not power the entire facility, and gasoline may not always be available to fuel them. This funding will allow standby generators to be installed at all facilities over the next four years.

8. Fire Storage Building: \$240,000

Construct a 60' X 80' butler-type building at the fire services facility on New Bern Avenue. The purpose of this building is to serve as a garage for five (5) reserve fire apparatus that currently are kept outdoors. They are very susceptible to damage including rusting and general deterioration resulting from outside storage. The addition of this structure will protect the fire apparatus thus keeping it in ready-response condition and lengthening its useful life.

General Public Improvement

9. Police Precinct Study: \$98,835

As the department and city continues to grow and expand, precinct locations are becoming inadequate for the district they serve. This study will help determine precinct locations in Raleigh in order to maintain their effectiveness and efficiencies.

10. Joint Police/Sheriff Training Center: \$200,000

This project funding will provide initial infrastructure sharing for the joint training center for city police and the county sheriff department.

11. Police Firing Range Support Building: \$884,820

This project will fund a support building for the Police Department firing range. The building will house some training staff and provide classroom seating for up to fifty (50), plus restrooms, and storage space for range maintenance equipment and training supplies. Upgrade of the site fencing and repair of the grounds are required in order to meet the State of North Carolina Standards. This work needs to be implemented to support the new Joint Venture of the Wake County Training Facility and the Future Raleigh Police Department Training Facility.

12. Police District Stations: \$2,000,000

This funding is the initial investment for improving the Police Department's district stations based on the results of the precinct study.

13. Police Training Center Facility: \$6,617,966

This funding is the initial investment in the construction of a Police Training Center on city-owned land at Battle Bridge Road adjacent to the current Police Range facilities. The facility will be approximately 50,000 sq. ft in size. Construction costs include landscaping, phones/data wiring, CCTV, high-density storage, testing and permitting. The current training facility at Spring Forest Rd. is too small for current needs. The remaining funding is budgeted in Phase II.

14. Emergency Communication Backup Center Update and Repair: \$100,000

This funding is for replacing the battery at the Backup 9-1-1 Center (every four years).

15. Emergency Communication Diagnostic Monitor: \$40,000

This funding is for an additional MTR 2000 UHF/VHF Diagnostic Monitor for the radio shop so repairs can be made in a more efficiently. Currently there are only two monitors for a staff of four.

Facility Maintenance and Improvements

16. Communications and Electronics Maintenance Shop Repair and Upgrade: \$26,500

This funding is for lighting (upgrade of energy efficiency) and reducing the harmful static electricity in the Communications and Electronics Maintenance Shop. Existing components such as bay door and ceilings also contribute to HVAC loss. Upgrade would improve level of service and meet with Council goal of energy reduction.

17. New Convention Center Data and Wireless: \$118,000

This funding is for retrofitting the new convention center with data and wireless capabilities for improved patron services.

General Public Improvement

18. Convention and Performing Arts Centers Reserve: \$2,300,000

This is reserve funding from a portion of the annual appropriation the city receives from the Wake County Prepared Food and Beverage tax, to be utilized for future, undesignated capital maintenance at both the Convention and Performing Arts Centers.

19. Walnut Creek Amphitheater Facility Improvements: \$2,039,938

This funding will provide for various facility maintenance and improvements to the amphitheater structure and grounds.

20. Electrical Heating Units, One Exchange Plaza (OEP) Building: \$25,000

This funding will provide for the replacement of heating units due to the age of the equipment and projected life expectancy of the heating units.

21. Cooling Towers and Chillers, OEP: \$330,000

Replace the cooling towers and air conditioning chillers at the One Exchange Plaza building. Due to the age of this equipment, the life expectancy has expired and replacement is necessary.

22. Replace Elevator Control, Avery Upchurch Building (AUB): \$420,000

Replace existing controls and devices associated with all three elevators within the Municipal Complex. This will improve reliability, replace aged equipment and upgrade to today's elevator standards.

23. Pedestrian Bridge Rehabilitation, AUB: \$40,000

Replace the existing Lexan glass on the pedestrian walkway bridge, to include waterproofing and sealing. Existing panels display signs of splitting, leaking, and general deterioration due to age.

24. Facility Maintenance Program: \$1,426,770

This funding is for the lifecycle replacement of facility systems based on system age and condition. Typical systems include: HVAC, boilers, elevators, towers and chillers, and variable speed drives.

25. Generator Installation at Wade Avenue Building: \$260,000

This project will install an emergency back-up generator for the administrative and service areas in the Wade Avenue Parks and Recreation Building. This building serves as the main hub for events, programs, and camps.

26. Voice Over IP (VoIP): \$525,000

This is a portion of the total funding required to update city facilities to accommodate this enhanced technology for communications. This transition will bring cost savings as well as provide improved flexibility and efficiencies over the standard hard line telecommunications currently installed.

27. City Space Needs: \$600,000

This funding request is for providing City department space in order to accommodate their current, and future, staff growth. The funding will go towards upfitting city owned or leased space in order to meet the O'Brien Atkins' space guidelines as well as the operational needs of the department. Possible space funding needs includes: upfit current city owned space, secure/upfit potential lease space, relocation of departments/divisions.

General Public Improvement

28. Sustainability Projects: \$1,900,000

The funding for this project will go towards establishing a fund to be used for city initiatives that will increase the sustainability of the city. Typical funded projects will be those that reduce energy / fuel consumption and solid waste as well as fund other city 'green' initiatives.

New Facilities

29. Clarence Lightner Public Safety Center: \$226,070,000

Construction of a Public Safety Center located in the Downtown Business District. The facility will comprise an estimated 174,973 net sq. ft. and include the ECC, Emergency Operations, Traffic Signal Control and Public Safety Center functions as well as general office space as part of a proposed 305,000 gross sq. ft. office tower

30. Remote Operations Facility, Downtown: \$88,011,839

This item is for the construction of a new Downtown Remote Operations Facility for new Street Maintenance, Vehicle Fleet Service, Building Maintenance, Parks and Recreation and Traffic Engineering facilities. The estimate includes building and site work cost estimates as well as estimate of off-site development costs, design development contingency, escalation and construction contingency.

31. Remote Operations Facility, Mt. Herman: \$48,575,455

This item is for the construction of a new North West Remote Operations Facility for new Street Maintenance, Vehicle Fleet Service, Building Maintenance, Parks and Recreation and Traffic Engineering facilities. The estimate includes building and site work cost estimates as well as estimate of off-site development costs, design development contingency, escalation and construction contingency.

32. Remote Operations Facility, Northeast: \$8,000,000

This item is for the acquisition and construction of a new north East Remote Operations Facility for new Street Maintenance, Vehicle Fleet Service and Traffic Engineering facilities. This facility would be used for emergency storm operations. The estimate includes building and site work cost estimates as well as estimate of off-site development costs, design development contingency, escalation and construction contingency.

33. Remote Operations Facility, Wilder's Grove: \$45,004,246

This item is for the construction of a new Solid Waste and Vehicle Fleet Services Operations Facility on the existing Wilder's Grove Landfill. The estimate includes building and site work cost estimates as well as estimate of off-site development costs, design development contingency, escalation and construction contingency.

34. Marsh Creek Maintenance Facility: \$33,941,606

This Parks Operation facility is currently located on an existing property so no real estate acquisition is anticipated. Estimate of building and development costs were prepared using space requirements developed in a study by Carter Burgess. The estimate includes building and site work cost estimates as well as estimate of off-site development costs, design development contingency, escalation and construction contingency.

Economic Development

1. Downtown Wayfinding Program: \$860,000

The Downtown Wayfinding Program intends to design a new wayfinding system for access to and circulation within downtown addressing the deficiencies of the existing wayfinding signage, acknowledging the particular constraints of a mode of travel (vehicular speed, one way streets, pedestrians, new visitors, etc.) The system will serve to both direct visitors (and therefore reduce unnecessary traffic) and inform them of our tourist destinations (museums, districts, convention center).

2. Zoning Code Update: \$500,000

This funding will go towards updating the city's zoning code.

3. Public Realm Improvements: \$2,700,000

This funding will provide for a program to continue implementation of the "Five-in-Five" strategy to improve the pedestrian environment in the downtown area. Potential improvements include the widening of sidewalks, improvements to crosswalks and street crossing treatments, pedestrian friendly signalization, and minimizing crossing distances. It will also include funding devoted to undertaking a public realm study which will give the city a baseline to begin identifying needed improvements.

4. Peace Street Streetscapes: \$172,400

Preparation of streetscape construction plan for West Peace Street from St. Mary's Street to West Street to include as built survey, data collection and analysis, schematic design, design development, construction documents, bidding and pricing for the improvements. The general improvements will include sidewalks, street trees with tree grates, selected curb replacement, driveway consolidation, intersection signal poles and mastarms, undergrounding of Progress Energy secondary and service lines, and undergrounding of all BellSouth and Time Warner service drop lines.

5. Parking Deck Retail Space: \$500,000

This program is to develop architectural plans and a construction budget for upfit of street level space in city-owned Downtown parking structures, including the Convention Center Parking Deck; Wilmington Street Parking Deck; Performing Arts Center Parking Deck and the new Blount Street Parking deck.

6. Southeast Raleigh Streetscapes: \$400,000

This funding is for streetscape improvements at key entrances and along corridors within Southeast Raleigh as an economic development tool and incentive for business development on particular sites in SE Raleigh. The need was identified in the Southeast Raleigh Assembly (SERA) action plan and in the Comprehensive Plan for the Southeast District.

7. Façade Grant Program: \$600,000

This program provides funding for the rehabilitation of older commercial properties with matching cash grants for exterior improvements to assure compliance with design standards specific to Pedestrian Business Overlay Districts (PBOD) streetscape plans, the Fayetteville Street Urban Design Manual or the existing Downtown Urban Design Guidelines.

General Public Improvement

8. North End Master Development: \$1,500,000

This program is intended to begin reserving funds to make streetscape, one- to two-way conversion of Jones and Lane Streets and/or other improvements in support of the State's Blount Street Redevelopment, the redevelopment of the Seaboard Warehouse Area, the expansion of Peace College, the expansion of the Museum of Natural Sciences (Green Square) and the other redevelopment projects in the north end of Downtown.

9. Downtown West Gateway: \$1,250,000

This proposal will provide funding to address needed improvements to streets, sidewalks, street trees, parking, public areas, utility relocations, and other public improvements in the areas surrounding the Downtown Multi-Modal Transportation Center (MTC) and the South Saunders Redevelopment Area as part of the implementation of the Downtown West Gateway Small Area Plan. This request will be used to accumulate sufficient funds to make the necessary public improvements.

10. General Government Acquisitions: \$250,000

This project provides for reserve funding for various property acquisition activities not otherwise associated with a capital program.

11. Market Plazas (One Exchange to Transit Station): \$1,500,000

Design and implementation of plans to improve the pedestrian plazas, crosswalk, and transit station pedestrian areas in the 200 block of Fayetteville Street that connect Fayetteville Street, One Exchange Plaza, the Moore Square Transit Station and Moore Square. It would include hiring a consultant to design the plazas and pedestrian ways and constructing the improvements, which could include lighting, plantings, furniture, new pavers/sidewalk materials, and public art.

12. Moore Square East Implementation Strategy: \$1,400,000

This program is intended to implement the Moore Square South Development Strategy. The development strategy targets the use/development of city-owned property to further catalyze private sector residential development on the south and east of Moore Square and strengthen the connection between these areas and the Downtown Core. This program provides funding for assessing needed infrastructure improvements, engineering feasibility studies and construction of improvements to support the redevelopment of city- and privately-owned parcels identified in the Moore Square South Development Strategy area.

13. City Plaza: \$2,500,000

This funding will go towards completing the Fayetteville Street city plaza project.

14. Downtown Amphitheater: \$1,500,000

This funding will go towards the construction of a downtown outdoor amphitheater. The theater will be adjacent to the new convention center.

15. South Park History Project: \$50,000

This project was added by City Council during budget deliberation process, and will address the South Park History project.

16. Person/Blount/New Bern Consultant: \$50,000

This project was added by City Council during budget deliberation process, and will address the need of a consultant for the Person/Blount/New Bern area.

General Public Improvement

17. Contemporary Art Museum: \$400,000

This funding will provide capital matching funds to the Contemporary Art Museum.

18. Alliance Medical Ministries: \$100,000

This funding is for the Capital Campaign of the Alliance Medical Ministries, Inc.

19. Urban Ministries of Wake County Capital: \$105,000

This capital funding will contribute towards renovating and enlarging Urban Ministries of Wake County's new space on Capital Boulevard.

20. Interact Capital: \$200,000

This capital funding will contribute towards expanding Interact's shelter space in order to increase capacity.

21. Hospice Capital: \$300,000

This capital funding will contribute towards a 20-bed inpatient and residential hospice facility.

Phase II General Public Improvement

General Public Improvement

Fire Station 31: \$5,320,000

Construct/equip a new fire station is proposed to be constructed in the East Raleigh area. A new station is needed in response to the population growth in this area of Raleigh.

Fire Station: \$5,320,000

A new fire station is projected in response to population growth in Raleigh.

Fire Training Center Expansion: \$3,500,000

This is a long range goal that will need to be addressed due to the growth of the fire department and the inadequacy of the current training facility. It might be possible to expand the Keeter Training Center but it could be necessary to secure land and construct a second facility somewhere else in the city. It is proposed that a consultant be engaged early to assess our needs and provide a recommendation. At that point, it will be possible to provide more concrete cost projections for this project.

Fire Station Expansion: \$2,000,000

This funding will go toward enlarging Stations 12 and 15 so that they can accommodate aerial ladder trucks. The station bays need to be expanded in length and height. Expanding these stations will improve the Fire Department's ability to serve due to quicker ladder company responses since ladder trucks cannot be currently assigned to these stations.

Mounted Police Unit Facility: \$2,700,000

Starting in FY08 this facility is under lease for 5-years. This funding is for construction a Mounted Unit Deployment Center located within or near the Downtown Business District once the current lease expires. This facility will need to be constructed to accommodate stalls for 10-12 horses, a tack room, a feed room, grooming area for the horses, locker room, restrooms and showers, two offices and a squad room and include parking.

Phase II General Public Improvement

Police Training Facility: \$10,000,000

This funding will complete the construction of a Police Training Center on city-owned land at Battle Bridge Road adjacent to the current Police Range facilities. The facility will be approximately 50,000 sq. ft in size. Construction costs include landscaping, phones/data wiring, CCTV, high-density storage, testing and permitting. The current training facility at Spring Forest Rd. is too small for current needs.

Remote Operations Facilities: \$53,230,256

This is the remaining funding required to complete the remote operation facilities.

Police District Stations: \$10,000,000

This funding continues the investment for improving the Police Department's precincts based on the results of the FY09 precinct study.

Facility Maintenance Program: \$2,000,000

This funding is for the lifecycle replacement of facility systems based on system age and condition. Typical systems include: HVAC, boilers, elevators, towers and chillers, and variable speed drives.

Economic Development

Capital Boulevard Revitalization: \$500,000

This program is for the relocation of utility lines, streetlights, and underground traffic signal cables on Capital Boulevard between Wake Forest Road and the Beltline.

Downtown Pedestrian Improvements: \$2,500,000

To continue funding for a program that improves the pedestrian environment in the downtown area.

Façade Grant Program: \$350,000

This program will provide funding for the rehabilitation of older commercial properties with matching cash grants for exterior improvements to assure compliance with design standards specific to Pedestrian Business Overlay Districts (PBOD) streetscape plans, the new Fayetteville Street Urban Design Manual or the existing downtown Urban Design Guide.

Glenwood Avenue Pedestrian Bridge: \$1,250,000

This Funding is for the construction of a pedestrian bridge over Glenwood Avenue from Marriott Drive to the upper level parking deck at Crabtree Valley Mall, as envisioned in the *Crabtree Valley Pedestrian Circulation Study*.

Neighborhood Pedestrian Enhancement Program: \$1,250,000

This project will provide funding to execute pedestrian projects in urbanized portions of the city.

Public Realm Improvements: \$1,500,000

This funding will continue the program of implementing the "Five-in-Five" strategy to improve the pedestrian environment in the downtown area. Potential improvements include the widening of sidewalks, improvements to crosswalks and street crossing treatments, pedestrian friendly signalization, and minimizing crossing distances.

Funding Resources

Funding resources for capital improvement projects include: 1) designated revenues, 2) bond proceeds, and 3) annual revenues. Certain revenues are designated for particular capital purposes by federal guidelines, state statute, or by previous action of the City Council. Annual revenues may be used to supplement the resources available from designated sources. Bond proceeds are generally used for larger projects and for programs that require financing at substantially greater levels than are generally available from annual resources. Major funding resources for the *Capital Improvement Program* (CIP) are described below:

Powell Bill Revenue

The portion of the state gasoline tax returned to the city is known as Powell Bill revenue. This funding source is restricted to use for city-system streets, sidewalks, and bicycle facilities located within the city limits. The city has traditionally allocated a portion of the revenues to street maintenance operations and a portion to capital improvements. Capital expenditures from Powell Bill funds are scheduled at \$30,035,000 over the next five years.

General Fund

Supplemental and optional sales taxes, previously designated as major sources of revenue for the capital program, are now funneled to the program via the General Fund. This source of funding provides a significant revenue stream to fund primarily the general public improvement capital program. Funding in the amount of \$37,706,882 is projected over the next five years.

Facility Fees

The facility fee program is expected to provide \$22,732,020 for thoroughfares and \$12,400,429 for parks over the next five years. These funds are restricted by statute to be allocated to the purposes for which they are collected.

Annual Revenues

The funding plan projects the use of \$89,560,500 in annual revenue from the public utilities operating fund for the five-year public utilities capital program. The CIP also projects funding in the amount of \$30,587,700 from the stormwater utility operating fund for the five-year stormwater and Neuse Basin environmental capital program.

Capital Fund Reserves

Capital reserves are an accumulation of residual funding after projects have been completed. They are expected to provide \$21,673,400 in funding resources for capital improvements over the next five years.

Interest and Assessments

Street, sidewalk, water, sewer capital and other accounting funds receive revenues from fees, interest earnings, assessments, payments in lieu of taxes/assessments, as well as other sources. They are expected to provide \$35,831,000 in funding resources for capital improvements over the next five years.

Debt Financing

Bond authorizations within the Phase I include \$423,968,500 in revenue bonds for utility improvements; \$145,055,451 for street improvements; \$13,825,000 for the housing program; and \$100,016,966 for parks. Included is \$900,000 in 2/3 bonds financing for transportation and \$10,230,000 in General Public Improvements. Included in the stormwater and Neuse Basin environmental program is \$20,215,000 in revenue bonds recommended by City Council and the Stormwater Management Advisory Commission. The general public improvement program includes a proposed \$449,603,146 in Certificates of Participation.

Capital Improvement Program Phase I Funding by Source

	2008-09	2009-10	2010-11	2011-12	2012-13	Phase I Summary
Powell Bill	\$ 5,580,000	\$ 5,790,000	\$ 6,000,000	\$ 6,220,000	\$ 6,445,000	\$ 30,035,000
General Fund	5,536,893	7,575,712	7,878,741	8,193,890	8,521,646	37,706,882
Revolving Fund	100,000	100,000	100,000	100,000	100,000	500,000
Public Utility Revenues	15,560,500	12,000,000	16,000,000	19,500,000	26,500,000	89,560,500
Stormwater Utility Revenues	4,674,700	6,254,000	6,195,000	5,635,000	7,829,000	30,587,700
Walnut Creek Amphitheater Rent	334,000	362,750	393,188	475,000	475,000	2,039,938
Interlocal Agreement	300,000	500,000	500,000	500,000	500,000	2,300,000
Sidewalk Fund	193,000	196,000	199,000	202,000	205,000	995,000
Street Fund	825,000	850,000	875,000	900,000	900,000	4,350,000
Parking Operations	282,500	1,056,600	973,000	405,000	405,000	3,122,100
9-1-1 Wireless/Wireline Fund	30,000				35,000	65,000
Technology Fund	525,000					525,000
Artspace Building Sale Proceeds	200,000	200,000				400,000
Program Income	75,000	75,000	75,000	75,000	224,100	524,100

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Reserve Funds

Streets, Sidewalk and Powell Bill	\$ 1,902,500					\$ 1,902,500
Public Utility	9,000,000	1,000,000	1,000,000	1,000,000	1,000,000	13,000,000
Housing	1,100,000	1,000,000	1,000,000	1,200,000	875,900	5,175,900
General Public Improvement	300,000					300,000
Parks	20,000	300,000	325,000	325,000	325,000	1,295,000
Subtotal	\$ 12,322,500	\$ 2,300,000	\$ 2,325,000	\$ 2,525,000	\$ 2,200,900	\$ 21,673,400

Facility Fees

Streets	\$ 4,646,920	\$ 4,322,828	\$ 4,452,513	\$ 4,586,088	\$ 4,723,671	\$ 22,732,020
Parks	2,335,677	2,405,748	2,477,920	2,552,258	2,628,826	12,400,429
Subtotal	\$ 6,982,597	\$ 6,728,576	\$ 6,930,433	\$ 7,138,346	\$ 7,352,497	\$ 35,132,449

Capital Improvement Program Phase I Funding by Source

	2008-09	2009-10	2010-11	2011-12	2012-13	Phase I Summary
Interest and Assessments	\$ 7,036,000	\$ 7,110,000	\$ 7,179,000	\$ 7,248,000	\$ 7,258,000	\$ 35,831,000

Debt Financing

Utility	\$ 60,712,000	\$ 81,695,000	\$ 120,964,000	\$ 76,901,000	\$ 83,696,500	\$ 423,968,500
Streets	16,732,300	34,778,002	31,169,547	44,904,162	17,471,440	145,055,451
Housing	3,450,000	3,550,000	3,550,000	3,275,000		13,825,000
Parks	32,335,013	33,030,732	27,101,221	7,550,000		100,016,966
Stormwater	20,215,000					20,215,000
General Public Improvement	67,598,578	280,672,576	50,793,913	24,757,584	36,010,495	459,833,146
Bond Reserves	1,925,000					1,925,000
Subtotal	\$ 202,967,891	\$ 433,726,310	\$ 233,578,681	\$ 157,387,746	\$ 137,178,435	\$ 1,164,839,063

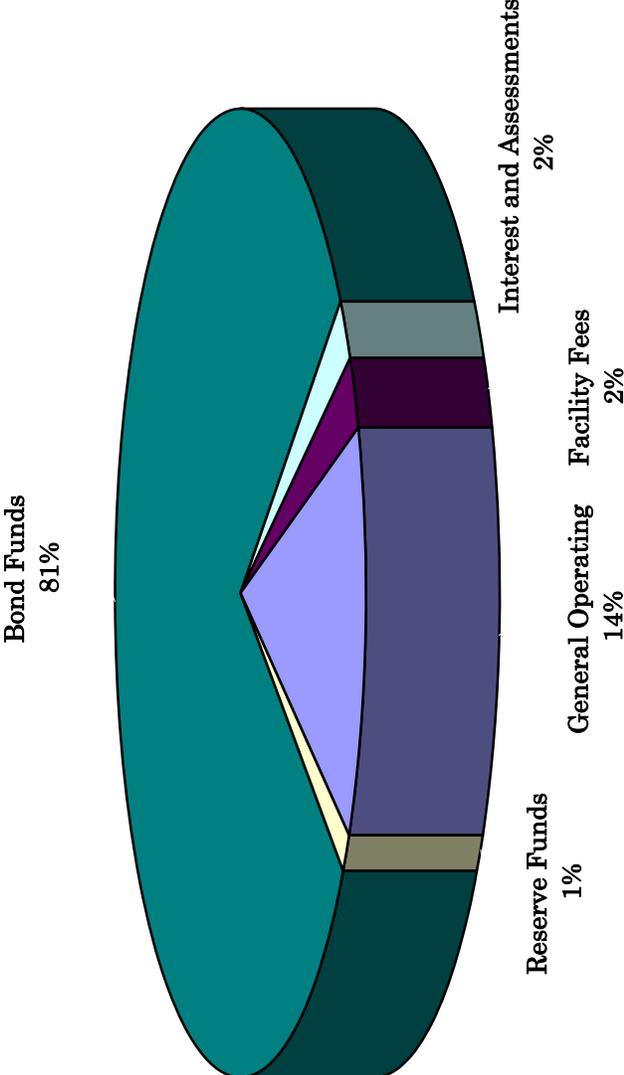
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TOTAL, All Sources

\$ 263,525,581 \$ 484,824,948 \$ 289,202,043 \$ 216,504,982 \$ 206,129,578 \$ 1,460,187,132

Capital Improvement Program Funding Summary

Phase I Total Funding (Including Proposed Transportation Bond)



CIP Account Codes for Capital Projects

TRANSPORTATION

Major Streets		Fund	Org	Street Improvements		Fund	Org
1	Falls of Neuse Road Realign and Widen	531	9455	1	Street Resurfacing	525	8380
2	Hillsborough/Morgan Roundabout	525/531	9280	2	Street Improvement/Petition Paving	525	8383
3	Rock Quarry Road Widening, Part B	531	9458	3	Median Repair/Signage Improvements	525	8386
5	Leesville Road Widening	531	9461	4	Traffic Signal Installation	525	8391
6	Buck Jones Road Widening	531	9898	5	Traffic Calming and Pedestrian Safety	531	9075
7	Wade Avenue Improvements	531	9899	6	Traffic Engineering Center Improvements	525	9775
9	Mitchell Mill Road Widening	531	9462	7	East Visioning/South Area Infrastructure	531	9902
17	Public Private Partnerships	531	9901	8	Repair and Maintenance City Bridges	525	9449

Transit

1	Transit Equipment and Facilities	525	8420	1	ADA Curb Ramps	515	8002
2	Bus and Van Replacement	525	8420	2	Sidewalk Improvements	515	8295
3	Preventive Maintenance	525	8420	3	Sidewalk Repairs	515	8298
4	Design/Engineering/Construction	525	8420	4	Intersection Pedestrian Improvements	515	9364

Parking Improvement Program

2	Parking Meter Replacement	446	9485
3	Parking Deck Maintenance	446	9277

Bicycle, Pedestrian, and Planning Projects

10	Greenway/Street Intersection Improvements	515	9903
12	Advanced Planning and Feasibility Studies	515	9904
13	Wetland Mitigation and Delineation	515	9905

PUBLIC UTILITIES

Water Projects

1	Water Main Replacement	320	8468
2	Thoroughfare Mains	320	8337
3	Service Area Growth	320	8010
5	Water Booster Pump Station Rehabilitation	348	9019
6	D.E. Benton WTP Water Transmission Main	348	9367
7	EM Johnson WTP Chemical Tank	348	9025
8	Elevated Water Tank Rehabilitation	348	9026
9	EM Johnson WTP Facility Rehabilitation	348	9207
11	Vulnerability Security Improvements	348	9159
12	Property Acquisitions	348	9282
13	EM Johnson WTP Clearwell Rehabilitation	348	9285
20	Upper Neuse Initiative/Water Quality	348/320	9468
22	Parallel 30" (Atlantic to Capital) Water Main	348	9489
24	Falls Lake RWPS Improvements	348	9490
25	EM Johnson WTP DAF Pilot Plant Facility	348	8099

Wastewater Projects

1	Service Area Growth	325	8011
2	Main Replacement	325	8468
4	Neuse WWTP Reuse System Expansion	349	8530
5	Lower Crabtree Interceptor Parallel	349	9180
6	Lower Crabtree North Sewer Main	349	9295
8	Cemetery Sewer Main Replacement	349	9028
10	Neuse WWTP Land Purchase	349	8934
25	Neuse WWTP 15 MGD Expansion	349	9496
26	House Creek Sewer Rehabilitation	349	9497
28	Glenwood Ave Force Main Replacement	349	9412
35	Randleigh Center Sewer Extension	349	9797
41	Zebulon SCADA Improvements	349	9804
42	Zebulon Interceptor Improvements	349	9806
48	Crabtree Valley Pump Station and Force Main	349	9893
49	Crabtree Valley Wastewater Storage Tank	349	9894

CIP Account Codes for Capital Projects

PUBLIC UTILITIES

Water Projects (continued)		Fund	Org
25	Little River Reservoir Impact Statement	348	9491
26	Telemetry Upgrades	348	9776
28	EM Johnson WTP Permanganate Facility	348	9778
30	Little River Reservoir County Reimbursement	348	9782
31	Lake Johnson Dam Upgrade	348	9783
32	Wendell Water Main Rehabilitation	348	9784
34	Wendell Water Transmission Improvements	348	9787
41	EM Johnson WTP Facilities Expansion	348	9777
46	Emergency Water Interconnections	348	9939
47	Little River Res. Wetland Property Acquis.	320/348	9940
48	PRV Install Tyron Rd/Junction Blvd	348	9941
49	Creech Rd Transmission line	348	9942
50	Wilmington Road Transmission line	348	9943
51	PRV Installation Capital Boulevard	348	9944
52	PSV and Check Valve Installation Taylor Street	348	9945
53	Martin Pond Road connector line 24-inch	348	9946

Wastewater Projects (continued)		Fund	Org
50	Crabtree Interceptor Siphons	349	9895
51	East Neuse Regional Pump Station	349	9896
53	Neuse WWTP Stand Alone Centrifuge	349	9897

HOUSING

Housing		Fund	Org
1	First Time Home Ownership	720	8666
2	Joint Venture Rental	724	8667
3	Purchase of Housing Units and Land	724	8668
4	Limited Repair Program	720	7587
5	Neighborhood Revitalization	724	7588
6	Homelessness Plan and Support	724	7589
7	Homeowner Repair Loan Program	720/724	7593
8	Loan Servicing	720	7501

PARKS

Acquisition Projects		Fund	Org
1	Park Site Acquisition	636	8229
2	Greenway Acquisition	636	8431
Development Projects		Fund	Org
3	Greenway Development	625	8123
4	Building Improvements	625	9138
5	Park Site Improvements	625	8232
6	Playground Improvements	625	8339
7	Tennis Court Upgrades	625	8334
8	Parks Roof Repairs	625	8237
9	Parks Paving Program	625	8236
10	Park Fencing	625	8106
11	Park Lighting	625	8020
12	Irrigation Projects	625	8233
13	Restroom Facility Improvements	625	8571
14	Community Facility Upgrades	625	8574
15	Picnic Shelters	625	8847
16	Aquatic Improvements	625	8849
17	Greenway Trail Resurfacing	625	8124
18	Field Upgrades	625	8939

2003 Park Bond Projects		Fund	Org
B38	Crabtree Creek Greenway	636	9463
B39	Forest Ridge Park	636	8743
B41	Timberlake Neighborhood Park	636	9464
B48	Optimist Community Center Expansion	636	9826
2007 Park Bond Projects		Fund	Org
B70	Playground Improvements	636	8339
B71	Building Improvements	636	9138
B72	Outdoor Security Lighting	636	9329
B51	Crabtree Crk. Ext East to Neuse	636	9927
B52	Halifax Center Improvements	636	9928
B53	Jaycee Center Expansion	636	9929
B54	Honeycutt Creek Greenway	636	9322
B55	Neuse River Greenway Completion	636	9930
B56	Walnut Creek Greenway Ext. to Neuse River	636	9931
B73	Land Acquisition	636	9932
B59	Carolina Pines Community Center Expansion	636	8533
B62	Raleigh Senior Center	636	9482
B63	Wilkerson Nature Preserve	636	9933
B66	Aquatic Facility	636	8012

CIP Account Codes for Capital Projects

PARKS (continued)

20	Street Tree Replacement	625	9037				
21	Lead Paint Abatement	625	8851				
22	ADA Facility Upgrades	625	9319				
23	Carousel Animal Restoration	625	9040				
24	Multipurpose Field Renovation	625	9548				
25	Safety Compliance	625	9812				
27	Raleigh Little Theatre Improvements	625	9041				
28	Mordecai Improvements	625	9038				
29	Lake Wheeler Replacement Deck	625	9813				
30	Theater in the Park (TIP)	625	8335				
31	Park Signage	625	9370				
32	Volunteerism and Partnership Projects	625	9385				
34	City Cemetery	625	9678				
36	Lane Street Improvements	625	9814				
37	Marsh Creek Park Improvements	625	9818				
40	Maintenance Operations Facilities	625	9821				
41	Marsh Creek Greenhouse	625	9822				
42	Buffaloe Road Facilities	625	8844				
43	Camp Durant Nature Park Improvements	625	9922				
44	Greenway Bridge/Boardwalk Repairs	625	9923				
46	Millbrook Pool Enclosure Liner	636	9924				
48	Re-use Greywater Line Extensions	625	9317				
52	Structure Repair and Replacement	625	9925				
53	Walnut Creek Softball Complex Improve	625	8366				
56	Unsatisfied Neighborhood Park Site	636/625	9926				
40	Wade Avenue Administration Renovation	625	9680				
41	Wilkerson Evaluation	625	9681				
42	Canine Park	625	9711				
43	Lions Park BMX Improvements	625	9817				
44	Marsh Creek Park Improvements	625	8186				
45	Durant Nature Park Spillway Repairs	625	9819				
47	Moore and Nash Square Improvements	625	9820				
48	Maintenance Operations Facilities	625	9821				
49	Lassiter Mill Dam Repairs	625	9767				
50	Marsh Creek Greenhouse	625	9822				
51	Pullen Train Replacement	625	9823				
52	Walnut Creek Greywater Irrigation	625	9824				
53	Randleigh Farm	625	9825				

B74	NE Raleigh Community Center	636	9881				
B75	NE Raleigh Active Recreation Partnerships	636	9934				
B76	Unsatisfied Neighborhood Park Search Areas	636	9935				
B77	Park Signage	636	9370				

STORMWATER

Neuse Basin Environmental Program		Fund	Org
1	Stormwater Management Studies	470	8432
4	Upper Longview Lake Restoration	475	9143
5	Crabtree Creek Stream Rest/Stabalization	475	9683

Stormwater Program

1	Stormwater System Repairs	470	8659
2	Petition Projects	470	9139
3	Maintenance Reserve	470	9390
4	Drainage System Inventory	470	9685
5	Inventory Software Upgrade	470	9815
6	Flood Mitigation	470	9816
11	Rainwood Lane Drainage	470	9831
12	Favorwood Court Drainage	470	9832
13	Audubon Drive Drainage	470	9833
15	Knights Way Drainage	470	9834
16	Strothmore/Harps Mill Way Drainage	470	9835
17	Swift Drive Culvert	475	9147
18	Brentwood Today Lake Project	475	9348
19	Northshore Lake Project	475	9346
20	Brockton Drive Lake Project	475	9347
21	Jones/Sewell Drainage	475	9839
22	Greystone Lake	475	9690
23	Lake Johnson Spillway Upgrade	475	9841

GENERAL PUBLIC IMPROVEMENTS

General Public Improvements

2	Fire Station Improvements	505	9512
3	Fire 800 MHz Radios	505	9438
5	Fire Station, Northwest Raleigh	506	8990
6	Fire Station Roof Repair	505	9842
7	Fire Station Backup Generators	505	9694
8	Fire Storage Building	505	9843

CIP Account Codes for Capital Projects

GENERAL PUBLIC IMPROVEMENTS

Economic Development		
1	Downtown Wayfinding Program	9703
2	Zoning Code Update	9917
3	Public Realm Improvements	9918
4	Peace Steet Streetscapes	9093
6	Southeast Raleigh Streetscapes	9559
7	Façade Grant Program	9209
10	General Government Acquisitions	8987
13	City Plaza	9936
14	Downtown Amphitheater	9920
15	South Park History Project	9954
16	Person/Blount/New Bern Assessment	9955
17	Contemporary Art Museum	9470
18	Alliance Medical Ministries	9921
19	Urban Ministries of Wake County Capital	9858
20	Interact Capital	9859
21	Hospice Capital	9860

General Public Improvements (continued)

9	Police Precinct Study	505	9907
10	Joint Police/Sheriff Training Center	505	9844
11	Police Firing Range Support Building	505	9909
14	ECC Backup Center Update and Repair	505	9845
16	CEM Repair and Upgrade	505	9910
17	New Convention Center Data and Wireless	646	9916
18	Convention and Performing Arts Reserve	646	8898
19	Walnut Creek Amphitheater Improvements	650	8361
20	Electrical Heating Units, One Exchange Plaza	505	9356
21	Cooling Towers and Chiller, OEP	506	9847
22	Elevator Upgrade, Avery Upchurch Building (AUB)	506	9707
23	Pedestrian Bridge Rehabilitation, AUB	505	9848
26	Voice Over IP (VoIP)	501	9889
27	City Space Needs	505	8199
28	Sustainability Projects	506	9911
29	Clarence Lightner Public Safety Center	506	9908
30	Remote Operations Facility, Downtown	506	9396
31	Remote Operations Facility, Mt. Herman	506	9912
32	Remote Operations Facility, Northeast	506	9913
33	Remote Operations Facility, Wilder's Grove	506	9915
34	Marsh Creek Maintenance Facility	506	9914

Resolution Adopting the Capital Improvement Program

Resolution No. (2008-593), City Of Raleigh, Fiscal Years 2008-09 Through 2017-2018

WHEREAS, a Proposed Capital Improvement Program for Fiscal Years 2008-09 through 2017-18 was presented to the City Council on May 20, 2008; and

WHEREAS, the Proposed Capital Improvement Program described major capital projects, funding schedules, and a capital financing plan recommended by the City Administration; and

WHEREAS, the Capital Improvement Program provides a comprehensive framework for accomplishing needed public improvements;

NOW THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF RALEIGH:

Section 1. That the document titled "*Proposed Capital Improvement Program, 2008-09 through 2017-18*" is hereby amended as follows:

Parking Deck Assessment and Repair – \$126,500. This project has been reduced by \$39,777 in FY09 of the Transportation Program, Page 7, Item 4.

Upper Neuse Initiative and Water Quality - \$1,500,000. This project has been increased by \$1mil in FY09 of the Public Utilities Program, Page 22, Item 20.

Little River Reservoir Wetland Mitigation Property Acquisition - \$3,060,500. This project has been increased by \$560,500 in FY09 of the Public Utilities Program, Page 23, Item 47.

Parking Deck Retail – \$500,000. This project has been reduced by \$750,000 in FY09 of the General Public Improvement Program, Page 91, Item 5.

Downtown West Gateway – \$1,250,000. This project has been reduced by \$500,000 in FY09 of the General Public Improvement Program, Page 91, Item 9.

Person/Blount/New Bern Consultant – \$50,000. This project has been added to Phase I of the General Public Improvement Program for FY09, Page 91.

South Park History Project – \$50,000. This project has been added to Phase I of the General Public Improvement Program for FY09, Page 91.

Remote Operations Facilities – \$53,230,256. This project has been added to Phase II of the General Public Improvement Program, Page 100.

Section 2. That the document titled "*Proposed Capital Improvement Program, 2008-09 through 2017-18*" is adopted as a policy to guide capital budgeting, financial planning, project schedules, and other activities related to the accomplishment of capital projects.

Section 3. That the adopted Capital Improvement Program supersedes all previously adopted Capital Improvement Programs.

Section 4. Authorized project expenditures for 2008-09 represent appropriations necessary for the completion of projects and therefore do not require re-appropriation in any subsequent fiscal year.

Section 5. That the adopted Capital Improvement Program may be amended by the City Council with budgetary actions or other actions related to the authorization of specific projects and by the adoption of future Capital Improvement Programs.

Adopted: June 23, 2008

Effective: July 1, 2008

Distribution: City Manager

City Council

City Attorney

Department Heads

Budget Staff

