

# City of Raleigh

## Capital Improvement Program

### Fiscal Years 2007-08 through 2016-17

#### The City Council

Charles C. Meeker, Mayor  
James P. West, Mayor Pro Tem  
Tommy Craven  
Thomas G. Crowder  
Philip R. Isley  
Joyce Kekas  
Russ Stephenson  
Jessie Taliaferro

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Cover Photo of Raleigh Wide Open*

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*City Of Raleigh*  
*North Carolina*

June 22, 2007

Mayor Charles C. Meeker  
Mayor Pro Tem James P. West  
Councillor Tommy Craven  
Councillor Thomas Crowder  
Councillor Philip R. Isley  
Councillor Joyce Kekas  
Councillor Russ Stephenson  
Councillor Jessie Taliaferro

Dear Mayor and Councillors:

Presented in this document is the annual *Capital Improvement Program* (CIP) for the City of Raleigh, as adopted by the City Council on June 11, 2007.

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. (2007)-277; *A Resolution Adopting the Capital Improvement Program for Fiscal Years 2007-08 through 2016-17*. A copy of the resolution is located at the end of the *Adopted Capital Improvement Program* document.

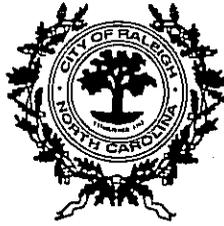
1. Interact, Hospice and Urban Ministries of Wake County— These agencies' capital projects were added to Phase I of the capital program. The total funding budgeted for these agencies in Phase I is \$960,000.
2. Market Plazas and West Morgan Street Streetscapes – The funding for these projects was reduced by \$1,223,500 in order to accommodate agency funding in the adopted FY 2007-08 Budget and Capital Improvement Program.
3. Upper Neuse Initiative and Water Quality Improvements – Title change from Falls Lake Initiative and an additional funding of \$500,000. was added to FY 2007-08.

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 15, 2007

Mayor Charles C. Meeker  
Mayor Pro Tem James P. West  
Councillor Tommy Craven  
Councillor Thomas Crowder  
Councillor Philip R. Isley  
Councillor Joyce Kekas  
Councillor Russ Stephenson  
Councillor Jessie Taliaferro

Dear Mayor and Councillors:

The 10-year Capital Improvement Program (CIP) for the City of Raleigh, spanning fiscal years 2007-08 through 2016-17, 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 the first billion dollar program of investment for capital needs to be proposed for funding over a five-year Phase I period.

### **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), Transportation (2005) and Housing (2005) projects remain the hallmark of the capital program.

Council requested that a means to accelerate stormwater projects via the use of Revenue Bonds be investigated. The capital program anticipates the issuance of almost \$47 million in Stormwater Revenue Bonds over the course of the next two fiscal years to provide a funding resource to execute projects in an expedited manner.

Public Utilities continues to undertake the largest capital investment program in our history. Revenue Bonds in excess of \$450 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.

Adjustments to the Facility Fee structure approved last year by council provide additional support to the transportation and parks programs. The second phase of the rate adjustment, a 36% increase, will become effective with adoption of the budget. Facility fees are anticipated to generate a \$35 million revenue stream over the period covered by Phase I of the CIP.

The General Public Improvement capital program continues to lag behind identified needs for new facilities, the maintenance of existing facilities, various public safety initiatives, and numerous economic development undertakings. A total of \$284 million in projects, including the proposed Clarence Lightner Public Safety Center and implementation of the Remote Operating Facilities approach to crew deployment, remain unfunded.

**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** ..... \$117.7 million
- 2. **Public Utilities** ..... \$547.1 million
- 3. **Parks** ..... \$53.9 million
- 4. **Stormwater Utility and Neuse Basin  
Environmental Program** ..... \$76.5 million
- 5. **Housing** ..... \$22.6 million
- 6. **General Public Improvements** ..... \$34.1 million

**Programmatic Investment**

**Transportation**

Funding of \$117.7 million is proposed for transportation infrastructure improvements, including the phased completion of projects funded by the 2005 Street Bonds.

- **Major Streets.** Nine major street widening projects are included in the transportation program, with a significant number of projects being funded or partially funded for design and right-of-way acquisition in the first year of the capital program.

- **Street Improvements.** Funding to be allocated to the street resurfacing program is once again increased from previous capital programs. The final two allocations to the city portion of the Traffic Signal System upgrade are also programmed, in addition to continued program funding for Traffic Calming and Pedestrian Safety projects.
- **Transit.** Matching appropriations for bus acquisition, transit equipment maintenance and replacement, and preventive maintenance are included in the proposed capital plan.
- **Parking Program.** Projects to assess and repair the Municipal Deck as well as parking equipment and replacement of parking meters are included in this section of the capital program.

### **Public Utilities**

The utilities program continues to execute a massive number of individual 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 \$547 million is proposed over Phase I of the capital program.

Environmental projects represented in the utilities program include a second appropriation to the Falls Lake Initiative– a water quality preservation initiative– as well as funding for infrastructure development at the Randleigh Farm site.

### **Parks**

Five million dollars earmarked for property acquisition, \$20 million in development projects, and \$28 million in phased expenditures from the 2003 Parks bond comprise the Phase I capital program for parks and recreation. Increasing construction costs continue to erode the number of projects that the 2003 Parks bond will fund. Projects removed from the bond program have been deferred to Phase II of the capital program unless Council proceeds with a potential October 2007 Parks bond referendum.

### **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 \$76.5 million Phase I program anticipates a total of almost \$47 million in bonded debt to be issued to fund a variety of drainage improvements and culvert upgrades throughout the jurisdiction. Included in the proposed investment plan are repairs to the Lake Johnson dam which was damaged in the fall of 2006 by flooding.

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 \$22.8 million in general improvement projects and \$11 million in economic development initiatives make up the \$34 million investment proposal for the Phase I program.

Significant projects which City Council has endorsed, such as the Clarence Lightner Public Safety Center (\$107 million) and development of the Remote Operations Facilities concept (\$177 million) are described for your reference in the capital program. A resource for financing these initiatives remains to be determined.

### Summary

The annual *Capital Improvement Program* represents a spending and investment plan for the expansion and improvement of city facilities and economic programs. Significant portions of the investment plan rely upon the issuance of debt for financing the projects proposed. Council may wish to concentrate in this budget cycle on identifying a strategy for increasing the level of pay-as-you-go investment in the future.

Of particular concern is the financing of the aforementioned public safety center and remote facilities plans. Each project would be eligible for funding via the issuance of *Certificates of Participation* or other debt instruments; however, the identification of a stable and recurring revenue stream such as a dedicated portion of ad valorem revenue is necessary before these project proposals may be formally programmed.

Administration is available to assist the Council and respond to questions and concerns as you review this proposal for the largest capital investment program you have considered.

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 2007-08 through 2011-12, addresses both project needs and a financial strategy for this period. **Phase II**, covering fiscal years 2012-13 through 2016-17, 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 2007-08 through 2011-12. 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 2007-08 edition of the *Capital Improvement Program* include a presentation of project expenditure proposals associated with the 2003 Parks Bond, 2005 Transportation and Affordable Housing Bonds, and a recommended Stormwater Revenue Bond. The program also includes a recommendation for five projects to be considered for alternative financing. These projects include the public safety center and four remote operation facilities. These projects have been included in previous capital programs but a method of financing has yet to be determined.

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 \$117,751,160.

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 \$547,656,325.

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 \$53,993,276.

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 \$76,575,500.

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 \$22,675,000.

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 \$33,859,285

The **total** projected cost for Phase I *Capital Improvement Program* is \$852,510,546.

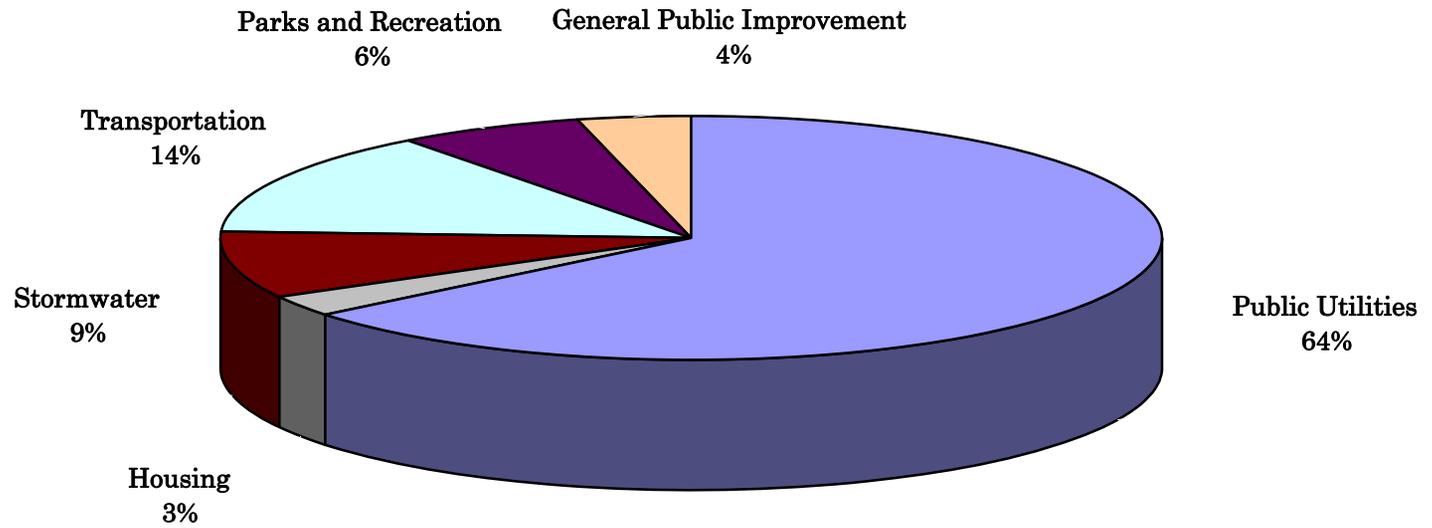
## Capital Improvement Expenditure Summary by Program

	Phase I					Phase I Summary	Phase II Summary	10 Year Summary
	2007-08	2008-09	2009-10	2010-11	2011-12			
<b>TRANSPORTATION</b>								
Major Streets	\$ 26,871,000	\$ 6,134,789	\$ 4,923,000	\$ 10,199,000	\$ 4,026,000	\$ 52,153,789	\$ 468,375,000	\$ 520,528,789
Street Improvements	10,125,500	8,304,606	10,190,000	10,540,000	10,890,000	50,050,106	61,200,000	111,250,106
Pedestrian Projects	1,033,800	1,000,000	1,121,000	1,075,000	1,150,000	5,379,800	6,642,000	12,021,800
Transit Projects	1,929,040	2,591,445	820,660	2,212,820	1,068,500	8,622,465	3,242,740	11,865,205
Parking Improvements	665,000	200,000	240,000	240,000	200,000	1,545,000	1,114,000	2,659,000
<b>Total</b>	<b>\$ 40,624,340</b>	<b>\$ 18,230,840</b>	<b>\$ 17,294,660</b>	<b>\$ 24,266,820</b>	<b>\$ 17,334,500</b>	<b>\$ 117,751,160</b>	<b>\$ 540,573,740</b>	<b>\$ 658,324,900</b>
<b>PUBLIC UTILITIES</b>								
Water Projects	\$ 26,820,000	\$ 41,520,000	\$ 64,057,000	\$ 15,800,000	\$ 88,037,500	\$ 236,234,500	\$ 213,400,000	\$ 449,634,500
Wastewater Projects	73,981,725	77,200,400	118,888,200	27,045,000	14,306,500	311,421,825	117,750,000	429,171,825
<b>Total</b>	<b>\$100,801,725</b>	<b>\$118,720,400</b>	<b>\$182,945,200</b>	<b>\$ 42,845,000</b>	<b>\$102,344,000</b>	<b>\$ 547,656,325</b>	<b>\$ 331,150,000</b>	<b>\$ 878,806,325</b>
<b>PARKS</b>								
Acquisition Projects	\$ 980,000	\$ 790,000	\$ 775,000	\$ 1,265,000	\$ 1,325,000	\$ 5,135,000	\$ 29,450,000	\$ 34,585,000
Development Projects	4,210,505	4,143,168	4,304,579	3,964,864	4,049,160	20,672,276	75,762,927	96,435,203
2003 Park Bond	16,769,034	11,416,966				28,186,000		28,186,000
<b>Total</b>	<b>\$ 21,959,539</b>	<b>\$ 16,350,134</b>	<b>\$ 5,079,579</b>	<b>\$ 5,229,864</b>	<b>\$ 5,374,160</b>	<b>\$ 53,993,276</b>	<b>\$ 105,212,927</b>	<b>\$ 159,206,203</b>
<b>STORMWATER UTILITY and NEUSE BASIN ENVIRONMENTAL</b>								
Neuse Environmental	\$ 3,913,000	\$ 3,910,000	\$ 1,495,000	\$ 1,495,000	\$ 1,495,000	\$ 12,308,000	\$ 21,200,000	\$ 33,508,000
Stormwater Utility	26,624,300	23,454,000	4,399,200	5,000,000	4,790,000	64,267,500	43,528,000	107,795,500
<b>Total</b>	<b>\$ 30,537,300</b>	<b>\$ 27,364,000</b>	<b>\$ 5,894,200</b>	<b>\$ 6,495,000</b>	<b>\$ 6,285,000</b>	<b>\$ 76,575,500</b>	<b>\$ 64,728,000</b>	<b>\$ 141,303,500</b>
<b>HOUSING</b>	<b>\$ 4,550,000</b>	<b>\$ 4,550,000</b>	<b>\$ 4,550,000</b>	<b>\$ 4,550,000</b>	<b>\$ 4,475,000</b>	<b>\$ 22,675,000</b>	<b>\$ 3,830,500</b>	<b>\$ 26,505,500</b>
<b>GENERAL PUBLIC IMPROVEMENT</b>								
General Public	\$ 3,898,915	\$ 6,343,000	\$ 4,583,000	\$ 4,333,320	\$ 4,677,000	\$ 23,835,235	\$ 6,640,000	\$ 30,475,235
Economic Development	1,704,476	714,046	2,805,528	2,450,000	2,350,000	10,024,050	8,100,000	18,124,050
<b>Total</b>	<b>\$ 5,603,391</b>	<b>\$ 7,057,046</b>	<b>\$ 7,388,528</b>	<b>\$ 6,783,320</b>	<b>\$ 7,027,000</b>	<b>\$ 33,859,285</b>	<b>\$ 14,740,000</b>	<b>\$ 48,599,285</b>
<b>TOTAL, All Programs</b>	<b>\$204,076,295</b>	<b>\$192,272,420</b>	<b>\$223,152,167</b>	<b>\$ 90,170,004</b>	<b>\$142,839,660</b>	<b>\$ 852,510,546</b>	<b>\$1,060,235,167</b>	<b>\$ 1,912,745,713</b>

# Capital Improvement Program Expenditure Summary

## Phase I Total Expenditures

(Does not Include proposed alternative financing projects)



## 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 \$117,751,160 including the 2005 Transportation Bond referendum and annual funding. Phase I major road projects are comprised of three intersection improvement projects and eight 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 funding for the traffic calming program.

The **pedestrian 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.

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
<b>Major Street Projects</b>	\$ 6,738,000	\$ 468,375,000	\$ 475,113,000
<b>2005 Road Bond Projects</b>	45,415,789		45,415,789
<b>Street Improvements</b>	50,050,106	61,200,000	111,250,106
<b>Pedestrian Improvements</b>	5,379,800	6,642,000	12,021,800
<b>Transit Projects</b>	8,622,465	3,242,740	11,865,205
<b>Parking Improvements</b>	1,545,000	1,114,000	2,659,000
<b>Total</b>	\$ 117,751,160	\$ 540,573,740	\$ 658,324,900

## Project Costs for Transportation

		2007-08	2008-09	2009-10	2010-11	2011-12	Phase I Summary
<b>Major Streets</b>							
1	Hillsborough/Morgan Streets Roundabout	\$ 500,000					\$ 500,000
2	Perry Creek Road Widening (*)	8,000,000					8,000,000
3	Falls of Neuse Road Realign and Widen (*)	3,500,000	3,500,000				7,000,000
4	Tryon Road Widening, Part D (*)	6,271,000					6,271,000
5	Hillsborough Streets Roundabouts (*)	2,600,000					2,600,000
6	Six Forks/Millbrook Road Intersection (*)		448,000	1,960,000	2,993,000		5,401,000
7	Rock Quarry Road Widening, Part B (*)	2,000,000	1,390,394	1,765,000	6,238,000		11,393,394
8	Leesville Road Widening, Part A (*)	1,000,000		1,198,000	968,000	4,026,000	7,192,000
9	Lake Wheeler Road Improvements (*)		796,395				796,395
10	Jones Sausage Road Widening (*)	3,000,000					3,000,000
<b>Subtotal, Major Streets</b>		<b>\$ 26,871,000</b>	<b>\$ 6,134,789</b>	<b>\$ 4,923,000</b>	<b>\$ 10,199,000</b>	<b>\$ 4,026,000</b>	<b>\$ 52,153,789</b>

<b>Street Improvements</b>							
1	Street Resurfacing	\$ 6,250,000	\$ 6,589,606	\$ 8,000,000	\$ 8,400,000	\$ 8,850,000	\$ 38,089,606
2	Street Paving	600,000	800,000	1,000,000	1,200,000	1,400,000	5,000,000
3	Median Repair/Signage Improvements	100,000	100,000	75,000	175,000	175,000	625,000
4	Traffic Signal Installation	165,000	165,000	165,000	165,000	165,000	825,000
5	Traffic Signal System Upgrade (*)	2,000,000					2,000,000
6	Traffic Calming and Pedestrian Safety (*)	600,000	600,000	600,000	600,000	300,000	2,700,000
7	Traffic Engineering Center Improvements		50,000	350,000			400,000
8	Mt. Herman Salt Storage Facility	50,500					50,500
9	Mt. Herman Spreader Storage Facility	280,000					280,000
10	Repair and Maintenance City Bridges	80,000					80,000
<b>Subtotal, Street Improvements</b>		<b>\$ 10,125,500</b>	<b>\$ 8,304,606</b>	<b>\$ 10,190,000</b>	<b>\$ 10,540,000</b>	<b>\$ 10,890,000</b>	<b>\$ 50,050,106</b>

<b>Pedestrian Improvements</b>							
1	ADA Curb Ramps	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 175,000	\$ 575,000
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	100,000	75,000	100,000	150,000	150,000	575,000
5	Thoroughfare Streetlight Installation	308,800	300,000	396,000	300,000	300,000	1,604,800
<b>Subtotal, Pedestrian Improvements</b>		<b>\$ 1,033,800</b>	<b>\$ 1,000,000</b>	<b>\$ 1,121,000</b>	<b>\$ 1,075,000</b>	<b>\$ 1,150,000</b>	<b>\$ 5,379,800</b>

## Project Costs for Transportation

		2007-08	2008-09	2009-10	2010-11	2011-12	Phase I Summary
<b>Transit Projects</b>							
1	Transit Equipment and Facilities	\$ 212,440	\$ 97,840	\$ 55,660	\$ 85,520	\$ 58,500	\$ 509,960
2	Bus and Van Replacement	746,600	474,000		1,132,300	250,000	2,602,900
3	Preventive Maintenance	700,000	700,000	720,000	740,000	760,000	3,620,000
4	Design/Engineering/Construction	270,000	1,319,605	45,000	255,000		1,889,605
<b>Subtotal, Transit Projects</b>		<b>\$ 1,929,040</b>	<b>\$ 2,591,445</b>	<b>\$ 820,660</b>	<b>\$ 2,212,820</b>	<b>\$ 1,068,500</b>	<b>\$ 8,622,465</b>

<b>Parking Improvement Program</b>							
1	Parking Deck Maintenance and Improvements	\$ 197,000	\$ 200,000	\$ 240,000	\$ 240,000	\$ 200,000	\$ 1,077,000
2	Municipal Deck Assessment and Repair	140,000					140,000
3	Cabarrus Deck Assessment and Repair	187,000					187,000
4	Parking Meter Replacement	141,000					141,000
<b>Subtotal, Parking Improvements</b>		<b>\$ 665,000</b>	<b>\$ 200,000</b>	<b>\$ 240,000</b>	<b>\$ 240,000</b>	<b>\$ 200,000</b>	<b>\$ 1,545,000</b>

(\*) = 2005 Street Bond Project

<b>Total, Transportation</b>	<b>\$ 40,624,340</b>	<b>\$ 18,230,840</b>	<b>\$ 17,294,660</b>	<b>\$ 24,266,820</b>	<b>\$ 17,334,500</b>	<b>\$ 117,751,160</b>
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## Funding Plan for Transportation

	2007-08	2008-09	2009-10	2010-11	2011-12	Phase I Summary
Street Facility Fees	\$ 4,074,680	\$ 4,196,920	\$ 4,322,828	\$ 4,452,513	\$ 4,586,088	\$ 21,633,029
Powell Bill	4,877,140	5,122,131	5,619,374	6,110,587	6,490,194	28,219,426
Interest Income	1,647,000	1,684,000	1,721,000	1,758,000	1,787,734	8,597,734
Sidewalk Fund Revenue	190,000	193,000	196,000	199,000	202,000	980,000
Sidewalk Fund Reserves	200,000					200,000
Street Fund Revenue	800,000	825,000	850,000	875,000	900,000	4,250,000
Street Fund Reserves	2,155,971					2,155,971
Parking Operations	665,000	200,000	240,000	240,000	200,000	1,545,000
2005 Street Bond Proceeds	25,014,549	6,009,789	4,345,458	10,631,720	3,168,484	49,170,000
2005 Street Bond Reserves	1,000,000					1,000,000

**Total, Transportation                    \$ 40,624,340   \$ 18,230,840   \$ 17,294,660   \$ 24,266,820   \$ 17,334,500   \$ 117,751,160**

**Major Streets**

1. Hillsborough/Morgan Roundabout: \$500,000

Hillsborough Street and Morgan Street intersection will be reconstructed as a roundabout for the acceptance of two-way traffic and a reduction in traffic congestion. Prior funding for design: \$90,000.

2. Perry Creek Road Widening (\*): \$8,000,000

This funding would be for right-of-way acquisition and construction for the widening of Perry Creek Road to a multilane section with curb and gutter and sidewalks from Capital Boulevard to Louisburg Road. Prior funding for design: \$615,000, right-of-way: \$1,688,000.

3. Falls of Neuse Road Realignment and Widening (\*): \$7,000,000

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 multilane 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. Prior funding: \$2,500,000.

4. Tryon Road Widening, Part D (\*): \$6,271,000

Construction funding for Tryon Road widening from Dillard Road to Campbell Road as a four-lane divided facility with curb and gutter and sidewalks. Prior funding for design: \$655,000, and right-of-way: \$1,688,000.

5. Hillsborough Street Roundabouts (\*): \$2,600,000

This project will construct multiple roundabouts along Hillsborough Street, which averages between 22,000 and 26,000 vehicles per day. The project will improve pedestrian safety while maintaining traffic flow along Hillsborough Street. Prior funding for Design: \$400,000.

6. Six Forks Road / Millbrook Road Intersection Improvements (\*): \$5,401,000

This project will add additional turn lanes to each approach of the intersection. These costs also include incidental improvements on Six Forks Road between Millbrook Road and Sandy Forks Road.

7. Rock Quarry Road Widening, Part B (\*): \$11,393,394

This project will widen Rock Quarry Road to a multilane section with curb and gutter and sidewalks from Sunnybrook Road to New Hope Road and includes widening the existing bridge between Jones Sausage Road and New Hope Road.

8. Leesville Road Widening, Part A (\*): \$7,192,000

This funding will provide design, right-of-way and partial construction funding to widen Leesville Road to a multilane section with curb and gutter and sidewalks from the I-540 interchange to the intersection of New Leesville Boulevard, Hickory Grove Church Road, and Leesville Road. Partial construction funding in Phase II: \$3,000,000.

9. Lake Wheeler Road Improvements (\*): \$796,395

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

(\*) = 2005 Street Bond Project

10. Jones Sausage Road Widening (\*): \$3,000,000

Jones Sausage Road will be widened between I-40 to Rock Quarry with construction to begin in 2008. This funding will provide additional construction costs estimated in addition to the prior funding for design: \$428,000, right-of-way: \$1,269,000 and construction: \$5,150,000.

**Street Improvements**

1. Street Resurfacing: \$38,089,606

Resurfacing deteriorating streets helps to avoid more serious and costly repairs at a later date. The resurfacing is performed by contract. The streets to be resurfaced are selected each year on the basis of a street conditions survey.

2. Street Improvements and Petition Paving Projects: \$5,000,000

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. Capacity, Signage & Signal Improvements: \$625,000

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 Signal System Upgrade (\*): \$2,000,000

These funds will provide the city's contribution to an NCDOT project to upgrade the city's existing Traffic Signal System to a coordinated fiber-optic system.

6. Traffic Calming and Pedestrian Safety (\*): \$2,700,000

There is currently an extensive queue of projects in the Traffic Calming Program. A portion of the funds may be used to retain a consultant to assist with handling the volume of project designs this allocation would entail.

7. 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.

8. Mt. Hermann Road Salt and Spreader Storage Facility: \$330,500

This funding is requested for the design and construction of an additional salt and spreader storage facility. The increase in total storage capacity would support a six-inch and/or four day snow/ice storm.

10. Repair and Maintenance of City-owned Bridges: \$80,000

This project will address necessary bridge repairs and provide maintenance for city-owned bridges.

(\*) = 2005 Street Bond Project

### Pedestrian Projects

1. ADA Curb Ramps: \$575,000

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 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: \$575,000

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.

5. Thoroughfare Streetlight Installation: \$1,604,800

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

### Transit

1. Transit Equipment and Facilities: \$509,960 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: \$2,602,900 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.

3. Preventive Maintenance/Technology: \$3,620,000 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: \$1,889,605

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

### Parking Improvements

1. Parking Deck Assessment and Repairs: \$1,404,000

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

2. Parking Meter Replacement: \$141,000

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

**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. NCDOT will widen eastbound Rock Quarry Road and Barwell Road to intersection.

Blue Ridge Road Pedestrian Improvements: \$2,751,000  
Add curb and gutter and sidewalks on both sides of Blue Ridge Road from Hillsborough Street to Wade Avenue.

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.

Buck Jones Road Widening: \$9,245,000  
This project will provide construction funding for widening Buck Jones Road to a three-lane section from 250 feet south of Farm Gate Road to Xebec Way.

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 41' b-b facility with curb and gutter and sidewalks on one side from Lake Wheeler Road to Granite Street. The intersection with Lake Wheeler Road will also be improved.

Chapel Hill Road Widening: \$13,528,000  
Widen this existing two-lane roadway/ four-lane divided roadway to a four-lane 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.

## **Phase II Transportation**

### Hillsborough Street Improvements: \$21,094,000

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

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

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

### Jones Franklin Road Widening, Part B: \$21,631,000

Widen Jones Franklin Road from I-440 to Dillard Drive as a four-lane divided section with curb and gutter and sidewalks. This includes widening the bridge over I-40 / I-440.

### 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.

### Leesville Road Widening: \$3,000,000

This funding will provide construction funding to widen Leesville Road to a multilane section with curb and gutter and sidewalks from the I-540 interchange to the intersection of New Leesville Boulevard, Hickory Grove Church Road, and Leesville Road.

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

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

### Mitchell Mill Road Widening: \$12,787,000

This project will widen Mitchell Mill Road to a multilane section with curb and gutter and sidewalks from Louisburg Road to Forestville Road. Also included will be turn-lane improvements and a culvert upgrade at the intersection of Mitchell Mill Road and Forestville Road.

### 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.

## **Phase II Transportation**

### **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.

### **Old Wake Forest Road Widening, Part A:** \$8,456,000

Widen the existing two-lane roadway to a five-lane curb and gutter section with sidewalk on both sides from Oak Forest Drive to Capital Boulevard

### **Old Wake Forest Road Widening, Part B:** \$5,972,000

Widen the existing two-lane roadway to a five-lane curb and gutter section with sidewalk on both sides from Litchford Road to Oak Forest 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.

### **Poole Road Widening:** \$11,672,000

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

### **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 A:** \$11,559,000

Widen the existing three-lane roadway from the vicinity of Olde Birch Road to Sunnybrook Road as a multi-lane section with curb and gutter and sidewalks on both sides. Includes widening the bridge over I-440.

### **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.

### **Sandy Forks Road Widening:** \$10,027,000

Construction funding to widen existing Sandy Forks Road from Six Forks Road to Falls of Neuse Road as a three-lane facility with curb and gutter and sidewalk on one side.

### **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 Buffalo Road as a multi-lane section with curb and gutter and sidewalks.

## **Phase II Transportation**

### **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 Buffalo 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.

### **Tyron 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.

### **Tyron Road Widening, Part C:** \$11,528,000

Tyron Road will be widened from Lake Wheeler Road proceeding east to the Norfolk-Southern (N-S) Railroad bridge as a four-lane divided section with curb and gutter and sidewalks. NCDOT will replace the bridge over the N-S Railroad and realign Tryon Road to South Wilmington Street.

### **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:** \$53,000,000

For ongoing program of routine street resurfacing.

### **Street Improvements and Petition Paving Projects:** \$5,000,000

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

### **Capacity, Signage & Signal Improvements:** \$875,000

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

## **Phase II Transportation**

### **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.

## **Parking Improvements**

### **Parking Deck Maintenance and Improvements:** \$1,114,000

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

## **Pedestrian and Bicycle Projects**

### **ADA Curb Ramps:** \$875,000

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

### **Sidewalk Improvements:** \$2,500,000

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

### **Sidewalk Repairs:** \$125,000

Funding to repair broken, cracked and uneven sidewalks

### **Intersection Pedestrian Improvements:** \$750,000

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:** \$1,500,000

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

### **Tryon Road Extension Sidewalks:** \$448,000

City participation in 50% of cost with N.C. Department of Transportation (U-3111) to construct sidewalks on Tryon Road Extension from Garner Road to Rock Quarry Road.

### **Strickland Road / Westgate Road Sidewalks:** \$294,000

City participation in 50% of cost with N.C. Department of Transportation (U-2918) to construct sidewalks on Strickland Road Extension from Westgate Road to east of Leesville Road.

### **Tryon Road Sidewalks:** \$150,000

City participation in 50% of cost with N.C. Department of Transportation (U-4432) to construct sidewalks on Tryon Road Realignment from the Norfolk-Southern Railroad to US 70-401.

## **Phase II Transportation**

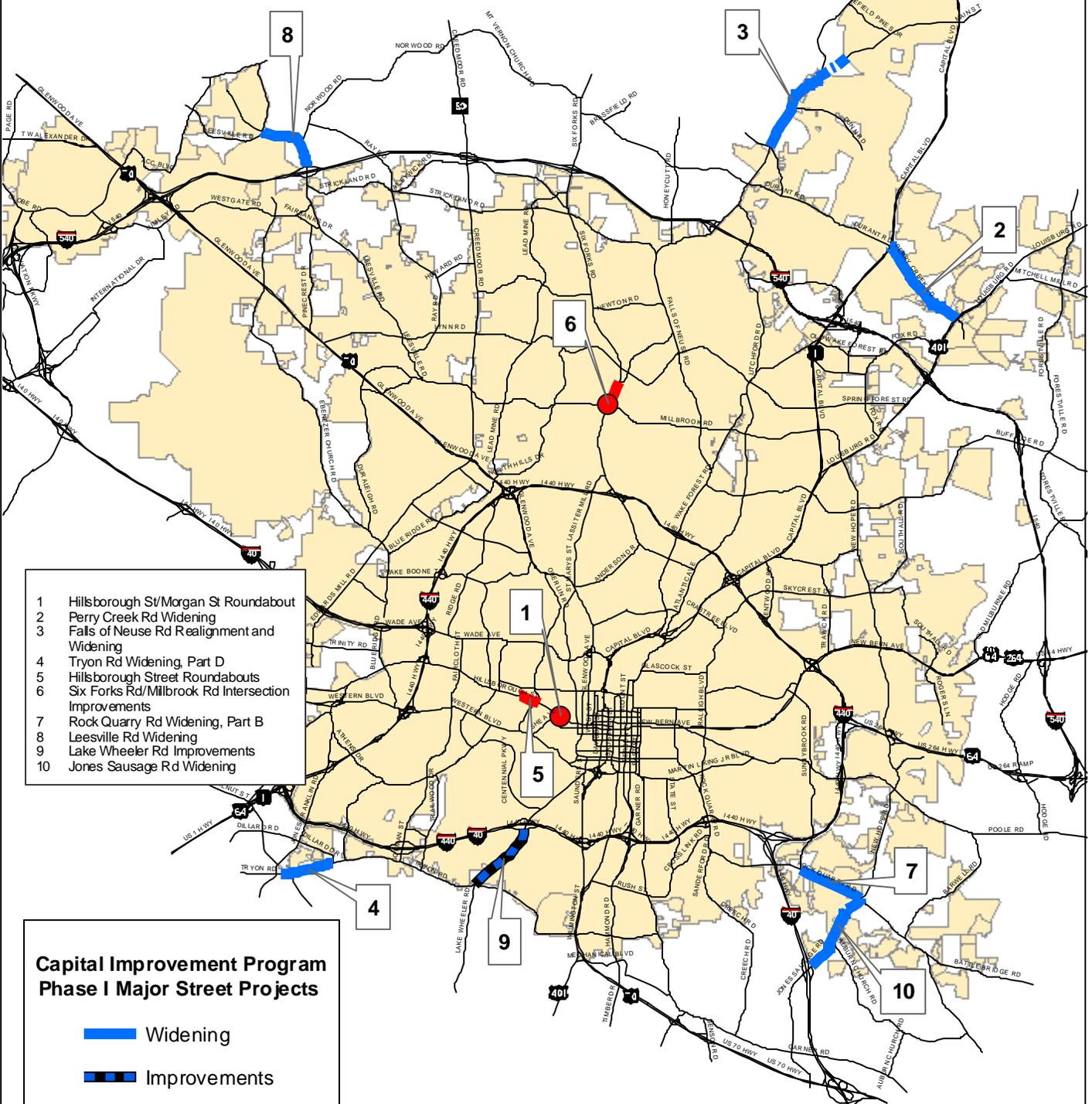
### **Transit**

Transit Support: \$3,242,740 City Funding

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



# City of Raleigh Public Works Department Major Street Projects



- 1 Hillsborough St/Morgan St Roundabout
- 2 Perry Creek Rd Widening
- 3 Falls of Neuse Rd Realignment and Widening
- 4 Tryon Rd Widening, Part D
- 5 Hillsborough Street Roundabouts
- 6 Six Forks Rd/Milbrook Rd Intersection Improvements
- 7 Rock Quarry Rd Widening, Part B
- 8 Leesville Rd Widening
- 9 Lake Wheeler Rd Improvements
- 10 Jones Sausage Rd Widening

**Capital Improvement Program  
Phase I Major Street Projects**

-  Widening
-  Improvements
-  Realignment
-  Intersection



## 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 \$547,656,325.

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	\$ 236,234,500	\$ 213,400,000	\$ 449,634,500
Wastewater Projects	311,421,825	117,750,000	429,171,825
Total	\$ 547,656,325	\$ 331,150,000	\$ 878,806,325

## Project Costs for Public Utilities

		2007-08	2008-09	2009-10	2010-11	2011-12	Phase I Summary
<b>Water Projects</b>							
1	Water Main Replacement	\$ 2,000,000	\$ 3,000,000	\$ 4,000,000	\$ 6,000,000	\$ 8,000,000	\$ 23,000,000
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	400,000	855,000	1,150,000	400,000	400,000	3,205,000
6	D.E. Benton WTP Water Main	8,500,000	8,200,000				16,700,000
7	EM Johnson WTP Chemical Tank		100,000	50,000	50,000	50,000	250,000
8	Elevated Water Tank Rehabilitation	800,000	800,000	1,000,000	1,000,000	1,000,000	4,600,000
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		470,000	470,000			940,000
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			2,700,000		41,000,000	43,700,000
15	EM Johnson WTP New Laboratory Facility	420,000	4,500,000				4,920,000
16	EM Johnson WTP Sludge Storage Canopy		400,000				400,000
17	EM Johnson WTP Lagoon Sludge Removal	400,000	400,000	400,000	400,000		1,600,000
18	Remote Operations Center	200,000	200,000	200,000	200,000	200,000	1,000,000
19	Automatic Meter Reader Replacement	3,500,000	3,500,000	3,500,000	3,500,000	1,000,000	15,000,000
20	Wake Forest WTP Decommissioning	45,000	300,000				345,000
21	Upper Neuse Initiative and Water Quality	1,000,000					1,000,000
22	Water Distribution - Study, Evaluation, Design	500,000	600,000	300,000	250,000		1,650,000
23	Parallel 30" Water Main (Atlantic to Capital)		2,000,000				2,000,000
24	Falls Lake RWPS Improvements	250,000	2,250,000				2,500,000
25	EM Johnson WTP DAF Pilot Plant Facility		2,000,000				2,000,000
26	Little River Reservoir Impact Statement	350,000	350,000	350,000	350,000		1,400,000
27	Telemetry Upgrades	150,000	150,000	150,000			450,000
28	EM Johnson WTP Warehouse Expansion	300,000		3,000,000			3,300,000
29	EM Johnson WTP Permanganate Facility	150,000	1,350,000				1,500,000
30	EM Johnson WTP 120 MGD Expansion	900,000					900,000
31	EM Johnson WTP Basin Additions		2,500,000	35,000,000			37,500,000

## Project Costs for Public Utilities

		2007-08	2008-09	2009-10	2010-11	2011-12	Phase I Summary
32	EM Johnson WTP UV/Solids Handling			2,100,000		33,000,000	35,100,000
33	EM Johnson WTP Stream Restoration	450,000					450,000
34	Little River Reservoir County Reimbursement	500,000	500,000	500,000	500,000	500,000	2,500,000
35	Lake Johnson Dam Upgrade	400,000	1,800,000				2,200,000
36	Wendell Water Main Rehabilitation	500,000	500,000				1,000,000
37	Wendell Tank Rehabilitation	100,000					100,000
38	Wendell Water Booster Station Upgrade	495,000					495,000
39	Lake Glad Road Waterline Extension			325,000			325,000
40	Wendell Water Transmission Improvements		100,000	1,062,000			1,162,000
41	Wendell Water Distribution Improvements	100,000	1,000,000				1,100,000
42	Zebulon Water Distribution Improvements		695,000				695,000
43	Zebulon Water Transmission Improvements		165,000	1,430,000			1,595,000
44	Zebulon WTP Basin Demolition	110,000					110,000
45	Zebulon Water Booster Generator		85,000				85,000
46	Zebulon Water Tank Rehabilitation			220,000		137,500	357,500
47	Poole Road Booster Pump Station	200,000	300,000	2,800,000			3,300,000
<b>Subtotal, Water Projects</b>		<b>\$ 26,820,000</b>	<b>\$ 41,520,000</b>	<b>\$ 64,057,000</b>	<b>\$ 15,800,000</b>	<b>\$ 88,037,500</b>	<b>\$ 236,234,500</b>

### Wastewater Projects

1	Service Area Growth	\$ 750,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 8,750,000
2	Main Replacement	4,000,000	5,000,000	6,000,000	6,000,000	6,000,000	27,000,000
3	Sewer System Capacity	100,000	100,000	100,000	100,000	100,000	500,000
4	Neuse Reuse System Expansion	1,000,000	7,700,000	1,650,000	2,400,000		12,750,000
5	Lower Crabtree Interceptor Parallel	550,000	525,000				1,075,000
6	Lower Crabtree North Sewer Main	200,000	900,000				1,100,000
7	Neuse River East Parallel Interceptor		7,400,000				7,400,000
8	Walnut Creek Influent Lift Station	2,500,000	2,500,000				5,000,000
9	Garner Pump Station Removal	325,000					325,000
10	Cemetery Sewer Main Replacement	1,000,000					1,000,000
11	Conversion of Garner 201 Facility	1,700,000					1,700,000
12	Neuse WWTP Land Purchase	200,000	200,000	200,000	200,000	200,000	1,000,000
13	Neuse WWTP Alkaline Storage		700,000	1,500,000			2,200,000

## Project Costs for Public Utilities

		2007-08	2008-09	2009-10	2010-11	2011-12	Phase I Summary
<b>Wastewater Projects (continued)</b>							
14	Sanitary Pump Station Removal	500,000	500,000	500,000	500,000	500,000	2,500,000
15	Access to Sanitary Sewer Mains	200,000	200,000	200,000	200,000	200,000	1,000,000
16	SW Garner Regional Pump Station		8,000,000	2,650,000			10,650,000
17	Upper Pigeon House Rehabilitation		2,545,000	2,545,000	2,545,000	2,545,000	10,180,000
18	Crabtree Valley Sewer Replacement		6,000,000				6,000,000
19	Crabtree/Raleigh Blvd/Glenwood/ Sewer	7,500,000			3,250,000		10,750,000
20	Walnut Creek Intercept Rehabilitation	500,000	500,000	2,000,000	2,000,000		5,000,000
21	Neuse WWTP Facility Improvements		750,000	1,300,000			2,050,000
22	Neuse WWTP Solids Handling	725,000	10,000,000				10,725,000
23	Neuse WWTP Filter and Blower	15,000,000		2,000,000			17,000,000
24	Neuse WWTP Road Repair and Resurface	100,000				300,000	400,000
25	Neuse WWTP Electrical Improvements	250,000					250,000
26	Neuse WWTP Odor Control	1,250,000	1,750,000				3,000,000
27	Neuse WWTP Sludge Dryer		1,500,000	11,250,000			12,750,000
28	Neuse WWTP Reuse Improvements		1,000,000	1,000,000	1,000,000	1,000,000	4,000,000
29	Satellite Reuse Facilities Study	500,000	4,500,000				5,000,000
30	Air Release Valve Replacement	50,000	50,000	50,000	50,000	50,000	250,000
31	Beaver Dam Lake Sewer Extension	1,200,000					1,200,000
32	Neuse WWTP Pump Station Warehouse		1,000,000				1,000,000
33	Neuse WWTP 15MGD Expansion	1,000,000	4,000,000	57,000,000			62,000,000
34	House Creek Sewer Rehabilitation	2,600,000					2,600,000
35	Dunn Road Sewer Replacement		1,000,000				1,000,000
36	Glenwood Ave Force Main Replacement	2,000,000	500,000				2,500,000
37	Crabtree Creek Sewer Transmission Study	350,000					350,000
38	Neuse River Pump Station Main and Pump			1,000,000			1,000,000
39	Smith Crk WWTP Process Improvements	12,500,000					12,500,000
40	Residential Backwater Valve Program		100,000	100,000	100,000	100,000	400,000
41	Greenbrier/Maxwell Pump Station	650,000					650,000
42	Crabtree Lift Station Improvements			750,000			750,000
43	Knightdale WW Collection System	800,000					800,000
44	Knightdale Misc Lift Station Improvements	100,000					100,000

## Project Costs for Public Utilities

		2007-08	2008-09	2009-10	2010-11	2011-12	Phase I Summary
45	Poplar Creek Regional Pump Station			6,600,000	6,600,000		13,200,000
46	Neuse WWTP Lab Improvements	75,000	600,000				675,000
47	Randleigh Environmental Education Center	100,000		500,000			600,000
48	Randleigh Center Sewer Extension	125,000	1,000,000				1,125,000
49	Wendell Infiltration and Inflow Study	880,000					880,000
50	Buffalo Creek Sewer Improvements		759,000				759,000
51	Various Wendell Gravity Sewer Projects		108,900	216,700		896,500	1,222,100
52	Marshburn Road Sewer Improvements			1,958,000			1,958,000
53	Wendell Lake Glad Road Demolition					165,000	165,000
54	Wendell East Wake Sewer Costshare		3,300,000				3,300,000
55	Wendell Service Area Sewer Improvements	1,650,000					1,650,000
56	Zebulon Infiltration and Inflow Study	880,000					880,000
57	Zebulon SCADA Improvements		247,500				247,500
58	Azelea Drive Pump Station Removal	88,000					88,000
59	Zebulon Interceptor Improvements		110,000	1,138,500			1,248,500
60	Little Creek WWTP Security Improvements	88,000					88,000
61	Little Creek WWTP Biosolids Improvements			1,980,000			1,980,000
62	Little Creek WWTP Lab/Office Renovations		55,000				55,000
63	Little Creek WWTP Expansion (Phase I)	7,145,725					7,145,725
64	Little Creek WWTP Expansion (Phase II)	2,000,000		12,600,000			14,600,000
65	Zebulon Reuse System Expansion	750,000					750,000
66	NPDES Permit Renewals					150,000	150,000
67	Neuse WWTP Instrumentation Improvements	100,000	100,000	100,000	100,000	100,000	500,000
<b>Subtotal, Wastewater Projects</b>		<b>\$ 73,981,725</b>	<b>\$ 77,200,400</b>	<b>\$ 118,888,200</b>	<b>\$ 27,045,000</b>	<b>\$ 14,306,500</b>	<b>\$ 311,421,825</b>

**Total, Public Utilities                    \$ 100,801,725   \$ 118,720,400   \$ 182,945,200   \$ 42,845,000   \$ 102,344,000   \$ 547,656,325**

## Funding Plan for Public Utilities

	2007-08	2008-09	2009-10	2010-11	2011-12	Phase I Summary
Public Utility Fund	\$ 20,000,000	\$ 18,000,000	\$ 13,000,000	\$ 16,000,000	\$ 19,500,000	\$ 86,500,000
Public Utilities Capital Reserves	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
Acreage Fees						
Interest Income (50k in 320,325, 200K in 348/349)	500,000	500,000	500,000	500,000	500,000	2,500,000
Revenue Bonds	79,301,725	99,220,400	168,445,200	25,345,000	81,344,000	453,656,325
 <b>Total, Public Utilities</b>	 <b>\$ 100,801,725</b>	 <b>\$ 118,720,400</b>	 <b>\$ 182,945,200</b>	 <b>\$ 42,845,000</b>	 <b>\$ 102,344,000</b>	 <b>\$ 547,656,325</b>

**Water Projects**

1. Water Main Replacements and Rehabilitation: \$23,000,000

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: \$250,000

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: \$4,600,000

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.

## **Public Utilities**

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

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

11. Vulnerability Assessment Security Improvements: \$940,000

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: \$43,700,000

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: \$4,920,000

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. Automatic Meter Reading Replacement: \$15,000,000

Ongoing replacement of residential water meters with remote meter reading equipment.

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

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

## **Public Utilities**

21. Upper Neuse Initiative/Water Quality Improvements: \$1,000,000

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.

22. Water Distribution Water Quality Program, Study, Evaluation & Design: \$1,650,000

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.

23. Parallel 30" Water Main (Atlantic Ave. to Capital Blvd.): \$2,000,000

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.

24. Falls Lake RWPS Improvements: \$2,500,000

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.

25. 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.

26. Little River Reservoir Environmental Impact Statement: \$1,400,000

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.

27. Telemetry Upgrades: \$450,000

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.

28. EM Johnson WTP Warehouse Expansion: \$3,300,000

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.

29. EM Johnson WTP Sodium Permanganate Facility: \$1,500,000

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.

## **Public Utilities**

### 30. EM Johnson WTP 120 MGD Expansion: \$900,000

This work is part of Phase one (1) of the E.M. Johnson Water Treatment Plant expansion to 120 MGD. This work encompasses the environmental engineering services necessary to comply with the SEPA, as it applies to the project. Work will include, scoping meetings with staff of the North Carolina Department of Environmental & Natural Resources, compilation of multi-jurisdictional documentation regarding environmentally protective measures, Comprehensive Planning Documents and suggestive mitigation measures for direct and secondary and cumulative impacts.

### 31. EM Johnson WTP Basin Additions: \$37,500,000

E.M. Johnson and its water source, Falls Lake, remain the primary water source for the City of Raleigh and the greater city utility service area. Even with the advent of the D.E. Benton WTP, additional potable water is needed to provide for growth into the 21st century. The City of Raleigh Water Supply Plan identifies the E.M. Johnson WTP expansion to 120 MGD as the source for this future water supply. This project is in compliance with City Council goals as set forth in Chapter 4, part 1 of the Comprehensive Plan.

### 32. EM Johnson WTP UV/Solids Handling: \$35,100,000

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.

### 33. EM Johnson WTP Stream Restoration: \$450,000

Treatment process wastewater discharged from the E.M. Johnson Water Treatment Plant still contains iron and manganese residuals resulting from the water treatment process. This treated process effluent is periodically discharged into a stream located in the northwestern portion of the WTP site. A constructed wetland is proposed to provide some reduction of these constituents within the effluent prior to leaving the plant site.

### 34. 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.

### 35. Lake Johnson Dam Upgrade: \$2,200,000

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.

### 36. Wendell Water Main Rehabilitation: \$1,000,000

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.

## **Public Utilities**

37. Wendell Tank Rehabilitation: \$100,000

Rehabilitation of the Old Zebulon Road ground storage tank and pumps to bring the tank back into operation. This project was identified in the merger document as WD05.

38. Wendell Water Booster Station Upgrade: \$495,000

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

39. 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.

40. Wendell Water Transmission Improvements: \$1,162,000

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

41. Wendell Water Distribution Improvements: \$1,100,000

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.

42. 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.

43. Zebulon Water Transmission Improvements: \$1,595,000

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

44. Zebulon WTP Basin Demolition: \$110,000

Allowance for the demolition of basins at the old Zebulon Water Treatment Plant to two (2) feet below ground elevation.

45. 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.

46. 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.

## Public Utilities

### 47. 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.

## Wastewater Projects

### 1. Service Area Growth: \$8,750,000

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: \$27,000,000

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: \$500,000

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: \$12,750,000

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: \$1,075,000

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: \$1,100,000

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.

## **Public Utilities**

7. Neuse River East Parallel Interceptor: \$7,400,000

Installation of approximately 12,200 LF of 48" sewer main from the existing 48-in sewer south of Buffalo Road to Harris Creek. This will provide service for growth and development in this area of Raleigh's ETJ.

8. Walnut Creek/Influent Lift Station Pumps: \$5,000,000

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.

9. Garner – Pump Station Removal: \$325,000

Remove the Southside and Heather Hills sewer pump stations from operation and upgrade the Aversboro pump station, which will receive additional flow after removal of the Southside and Heather Hills stations.

10. 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.

11. Conversion of the Garner 201 Facility: \$1,700,000

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.

12. 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.

13. 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).

14. 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.

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

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.

## **Public Utilities**

### **16. 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.

### **17. Upper Pigeon House Rehabilitation/Replacement: \$10,180,000**

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.

### **18. Crabtree Valley Sewer Replacement: \$6,000,000**

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.

### **19. Crabtree Creek/Raleigh Boulevard/Glenwood Avenue Sewer Repair: \$10,750,000**

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.

### **20. Walnut Creek Interceptor Rehabilitation and Replacement: \$5,000,000**

Repair or replace existing sanitary sewer mains along the major tributaries of Walnut Creek.

### **21. 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 FY09; Administration building is funded in FY10.

### **22. Neuse River WWTP Bio-solids Handling Facilities Improvements: \$10,725,000**

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

### **23. Neuse River WWTP Filter and Blower Improvements: \$17,000,000**

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.

### **24. Neuse River WWTP Roadway Repair and Resurfacing: \$400,000**

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

## **Public Utilities**

### **25. Neuse River WWTP Plant Electrical Improvements:** \$250,000

Construct covers over the A, B, & C cell Motor Control Centers and Switch Gear at the Neuse River Wastewater Treatment Plant. Covering the existing electrical equipment will prolong the life of the equipment and increase reliability. These covers also provide a dry place for staff to work on equipment which improves the overall safety of the plant.

### **26. Neuse River WWTP Plant Odor Control Improvements:** \$3,000,000

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 (FY08). This project was initiated from the Odor Control Study performed by Hazen & Sawyer.

### **27. Neuse River WWTP Sludge Dryer:** \$12,750,000

Install a thermal dryer at the Neuse River WWTP to dry the wastewater sludge. Design funds are proposed for FY09, with construction beginning in FY10. A thermal sludge dryer can produce a Class 'A' dried pelletized product without the use of lime or other amendments, which reduces the overall volume of bio-solids for disposal. The dried pellets are easier to market than other bio-solids products. Odors from the bio-solids process will also be reduced by using a dryer.

### **28. 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 FY11. 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.

### **29. Satellite Reuse Facilities Study:** \$5,000,000

This project will utilize sites selected under the satellite reuse system feasibility study conducted in FY07 to actually construct a small wastewater treatment facility for the purpose of providing large water customers with reuse water. A satellite reuse system is an intermediate step toward establishing a city-wide reuse system.

### **30. Air Release Valve Replacement:** \$250,000

Existing air release valves located throughout the sanitary sewer system have deteriorated and require replacement. Replacement will help the city avoid sewer overflows related to failed valves.

### **31. Beaver Dam Lake Sewer Extension:** \$1,200,000

Construct approximately 8,000 LF of 36" & 30" gravity sanitary sewer from the east side of the Neuse River to just west of I-540 in the Beaverdam Creek drainage basin which is north of New Bern Ave. This will provide sewer service to this rapid developing area. This project is also identified as a capital project in the merger agreement with Knightdale.

### **32. 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.

## **Public Utilities**

### 33. Neuse River WWTP 15 million gallons per day Capacity Expansion: \$62,000,000

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.

### 34. House Creek Sewer Rehabilitation and Replacement: \$2,600,000

Rehabilitation and/or replacement of approximately 4,000 LF of existing 8" & 10" sewer main along House Creek from just north of Wade Ave. through the NCSU Vet School with a 16" 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.

### 35. 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.

### 36. Glenwood Avenue Force Main Replacement: \$2,500,000

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.

### 37. Crabtree Creek Sewer Transmission Study: \$350,000

Identify the best alternative for handling wet weather flows in the Crabtree Creek Basin. The study will include evaluation of infiltration/inflow reduction, a tunnel from Crabtree Valley to near the Crabtree Lift Station, and a pump station at Crabtree Valley with various force main routes.

### 38. Neuse River Pump Station Parallel Force Main and Pump: \$1,000,000

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.

### 39. Wake Forest WWTP Process Improvements: \$12,500,000

The expansion and modification of the Smith Creek WWTP plant, a City of Raleigh asset acquired as part of the Utility Merger Agreement (UMA) between the City and the Town of Wake Forest. Improvements include influent pumping upgrades, a filter expansion, an ultra violet disinfection system expansion, upgrades to the return activated sludge system, the installation of a diffused aeration system and improvements to the standby power system. This project also includes a unique diversion system that would allow raw sewage, waste activated sludge and mixed liquor to be moved from the Smith Creek WWTP to the Neuse Interceptor and ultimately to the Neuse River Plant. This diversion system will allow operational flexibility and would remove the bio-solids handling process from this plant.

### 40. 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.

## **Public Utilities**

41. Greenbrier/Maxwell Pump Station (PS) Improvements: \$650,000

Extend gravity sewer from the Greenbrier PS to the sewer collection system that flows to Maxwell PS. Upgrade Maxwell PS to accommodate the additional flow. Construct a new force main from Maxwell PS to the existing 8" FM along US 70, to allow abandonment of Greenbrier Pump Station, which is severely deteriorated.

42. Crabtree Lift Station Improvements: \$750,000

Rehabilitate the augers in FY10, to extend the life and maintain efficiency of the lift station.

43. Knightdale WW Collection System Improvements: \$800,000

Allowance for manhole repairs and replacements throughout Knightdale to address deficiencies identified through inventory, field inspections, and analysis conducted under the Infiltration and Inflow Study.

44. Knightdale Miscellaneous Lift Station Improvements: \$100,000

Allowance for minor improvements to Knightdale pump stations based on Infiltration and Inflow Study.

45. Poplar Creek Interceptor / Regional Pump Station: \$13,200,000

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 FY10. 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 FY11.

46. Neuse River WWTP Lab Improvements: \$675,000

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

47. Randleigh Environmental Education Center: \$600,000

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.

48. Randleigh Center Sewer Extension: \$1,125,000

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.

49. Wendell Infiltration and Inflow Study: \$880,000

The rehabilitation work for this project will be developed from the Infiltration and Inflow study performed on the Wendell sanitary sewer system in the FY07 budget.

50. Buffalo Creek Sewer Improvements: \$759,000

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

### 51. Various Wendell Gravity Sewer Improvements: \$1,222,1000

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 '09 (1,000 LF of 8" gravity sewer), the Lake Glad Road sewer extension from Wellington Pump Station in '10 (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.

### 52. Marshburn Road Sewer Improvements: \$1,958,000

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.

### 53. 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.

### 54. 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..

### 55. Wendell Service Area Sewer Improvements: \$1,650,000

As part of the Utility Merger Agreement (UMA) between the City of Raleigh and the Town of Wendell, several sanitary sewer projects were approved for design and construction. For the period of 2007 and 2008, those sanitary sewer project included the installation of approximately 8,000 LF of 8-inch gravity sewer, 1,700 LF of low pressure sewer line, 8,500 LF of forced sewer line, 2,500 LF repair and rehabilitation of existing sewer, the removal of one lift station, the repair of one lift station and the construction of one lift station.

### 56. Zebulon Infiltration and Inflow Study: \$880,000

The rehabilitation work for this project will be developed from the Infiltration and Inflow study performed on the Zebulon sanitary sewer system in the FY07.

### 57. Zebulon SCADA Improvements: \$247,500

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.

### 58. Azelea Drive Pump Station Removal: \$88,000

Installation of 500 LF of 8" gravity sewer to allow for the abandonment of Azalea Drive pump station. This item was identified in the merger document.

## Public Utilities

59. Zebulon Interceptor Improvements: \$1,248,500

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.

60. Little Creek Wastewater Treatment Plant Security Improvements: \$88,000

This project would allow the Public Utilities Department to work with Valor Concepts, the security system provider for department, to install a remote facilities security system to reduce the vulnerability of the site to unauthorized access.

61. Little Creek WWTP Bio-solids Improvements: \$1,980,000

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.

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

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

63. Little Creek WWTP Expansion/Improvements (Phase I): \$7,145,725

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.

64. Little Creek WWTP Expansion (Phase II): \$14,600,000

This project is the continuation of a planned extension of the Little Creek Wastewater Treatment Plant expansion originally planned during the City of Raleigh/Town of Zebulon Utility Merger. Phase I of this project fell under the minimum threshold for an Environmental Assessment (EA), but this second phase of expansion will require completion of the State Environmental Policy Act process (currently underway).

65. Zebulon Reuse System Expansion: \$750,000

This project is a continuation of the Zebulon service area reuse water distribution line extension from the Little Creek Wastewater Treatment Plant to the GlaxoSmithKline (GSK) industrial campus. The project calls for the installation of approximately 16,000 LF of 12, 6, and 4-inch reuse distribution line to GSK as well as two schools, 40 residential units, and the Zebulon industrial park. The Town of Zebulon sought and received partial funding for this project from the Clean Water Management Trust Fund and the Golden Leaf Foundation. The project has been modified to include a separate project with the Utility Merger Agreement (UMA) that would install variable frequency drives and a liquid bleach disinfection system.

## **Public Utilities**

### **66. NPDES Permit Renewals: \$150,000**

Permitting the discharges associated with the EM Johnson WTP. The E.M. Johnson WTP utilizes a NPDES (National Pollutant Discharge Elimination System) permit to discharge process wastewater. This project would engage engineering services to seek renewal of this permit.

### **67. Neuse WWTP Instrumentation Improvements: \$500,000**

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.

## **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.

## **Phase II Public Utilities**

### **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.

### **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):** \$15,000,000

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.

### **D.E. Benton WTP Waste Treatment Facilities:** \$15,000,000

In order to remain within the budget for the D.E. Benton WTP construction, the waste treatment facilities portion of the project was removed from the construction contract.

### **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.

## **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.

### **Buffaloe Road Sewer Main:** \$650,000

Installation of approximately 5,000 LF of 18-in sewer main on the east side of the Neuse River eastward to just south of Buffaloe Road.

### **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.

### **Lower Walnut Creek Interceptor Parallel:** \$9,000,000

Development and growth in the southern portion of the utility service area will require additional capacity within the Walnut Creek Sewer Interceptor: 16,000 feet of 42-inch sewer main from Sunnybrook Road to Walnut Creek Lift Station.

### **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.

### **Crabtree Creek Sewer Parallel (Phase V):** \$3,800,000

Development and growth in the west and northwest sectors of the utility service area will require additional sewer flow capacity in the Crabtree Creek sewer main. This project will construct about 6,400 LF of 36-inch sewer main from the vicinity of Oak Park to Richland Creek. A major portion (about 2,400 linear feet) of the sewer main parallel of this project may require tunneling.

### **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.

## **Phase II Public Utilities**

### **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:** \$10,000,000

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.

### **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

Remove 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.

### **Neuse River Pump Station 15 MGD Pump:** \$500,000

Installation of an additional 15 MGD pump at the Neuse River pump station. Additional pumping capacity will be needed at the Neuse River pump station to accommodate growth in the Neuse River sewer shed.

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

Construction of the Randleigh Environmental Education Center.

### **Crabtree/Raleigh Blvd/Glenwood/Sewer:** \$4,000,000

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.

## **Phase II Public Utilities**

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

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

### Air Release Valves: \$250,000

Replacement of existing air release valves located throughout the sanitary sewer system. Existing valves are exposed to very corrosive materials and thus deteriorate with time. Replacement will reduce the risk of sanitary sewer overflows from equipment failure.

### Sewer System Capacity: \$500,000

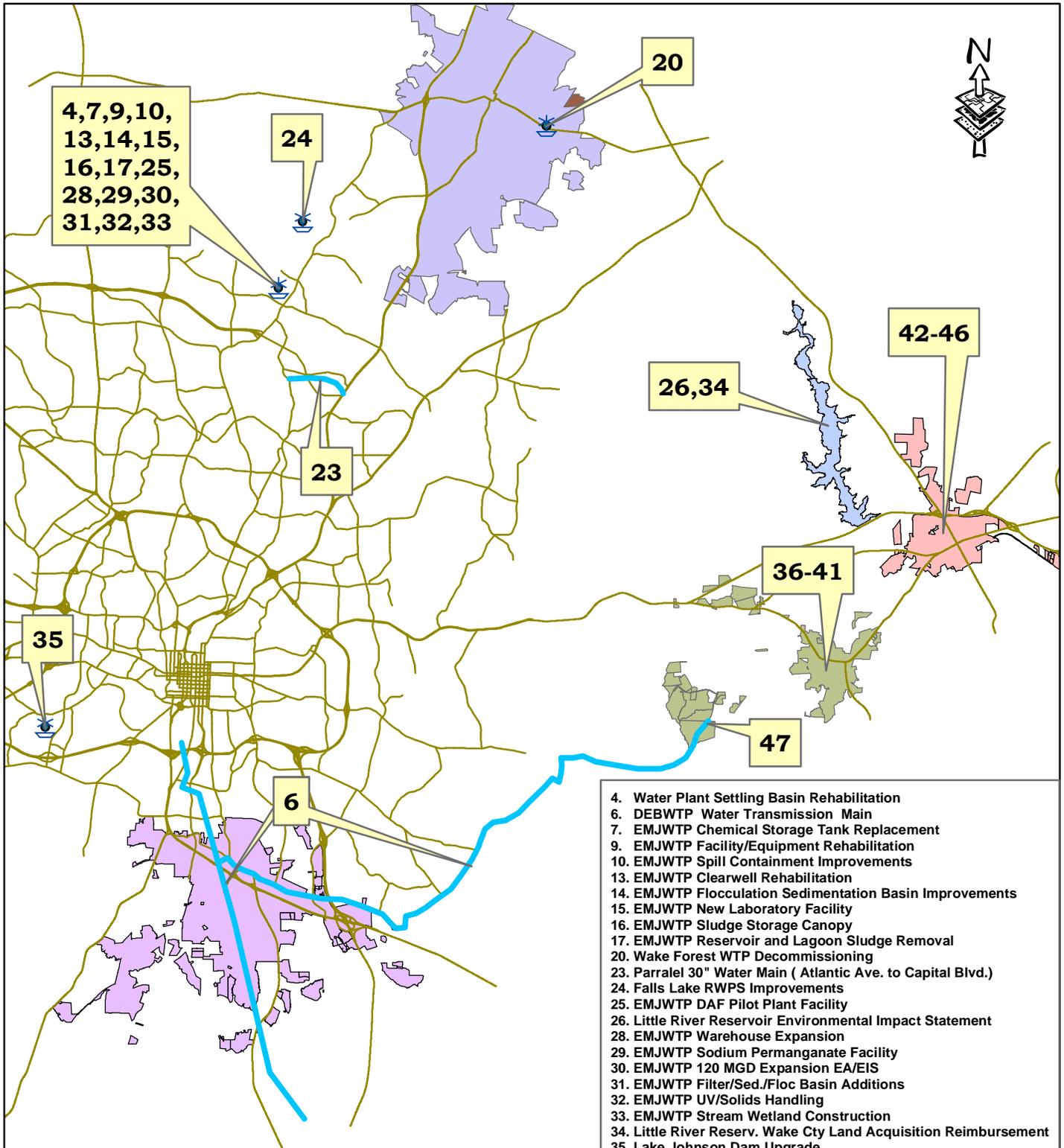
This project will continue to collect data and model the sanitary sewer collection system. This analysis provides information on the existing sewer collection system which is utilized to evaluate available system capacity and to guide future system improvements.

### 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.

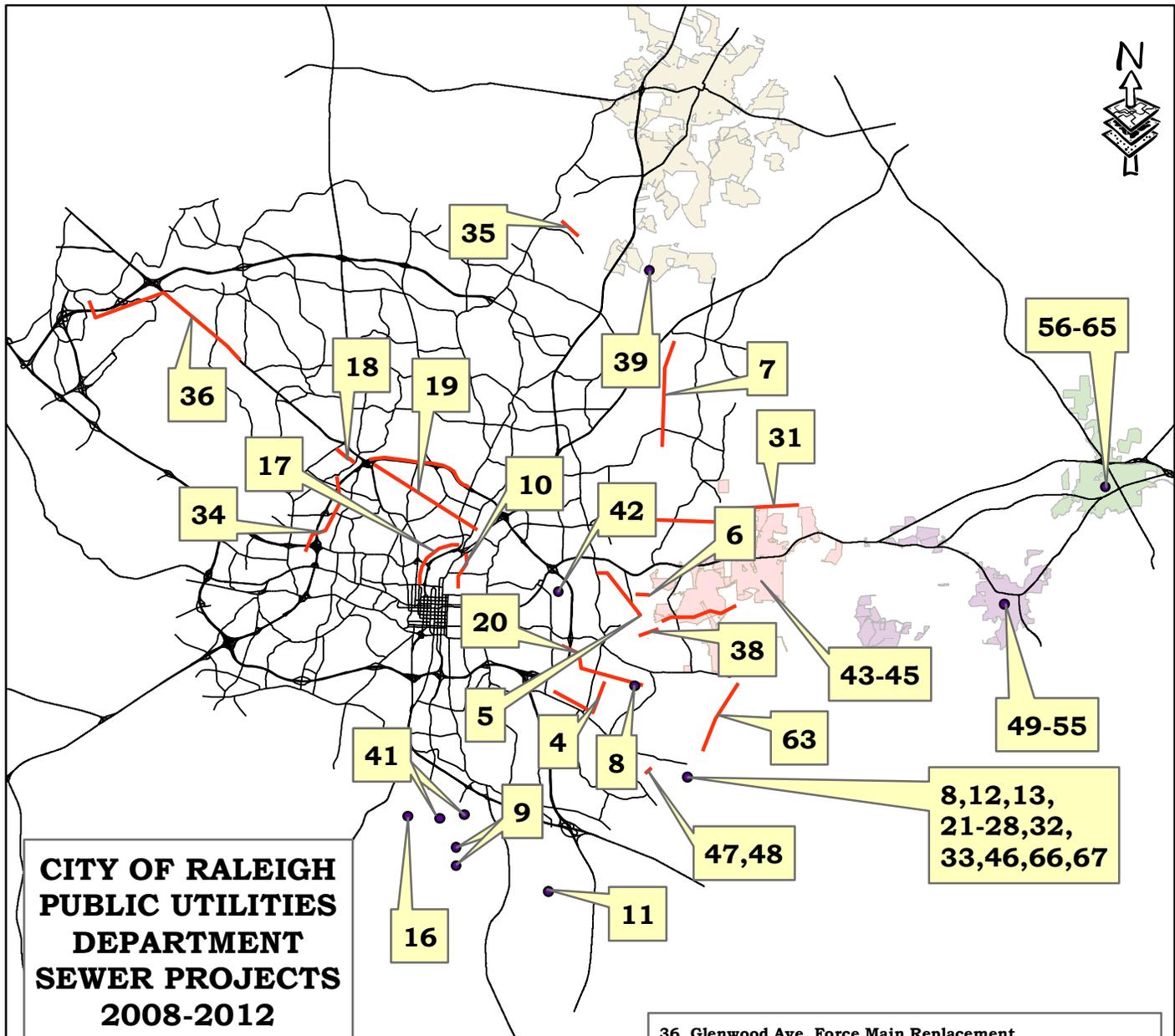
### Neuse River WWTP Instrumentation Improvements: \$500,000

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.



**City of Raleigh**  
**Public Utilities Department**  
**Water Projects**  
**2008-2012**

- 4. Water Plant Settling Basin Rehabilitation
- 6. DEBWP 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
- 20. Wake Forest WTP Decommissioning
- 23. Parralel 30" Water Main ( Atlantic Ave. to Capital Blvd.)
- 24. Falls Lake RWPS Improvements
- 25. EMJWTP DAF Pilot Plant Facility
- 26. Little River Reservoir Environmental Impact Statement
- 28. EMJWTP Warehouse Expansion
- 29. EMJWTP Sodium Permanganate Facility
- 30. EMJWTP 120 MGD Expansion EA/EIS
- 31. EMJWTP Filter/Sed./Floc Basin Additions
- 32. EMJWTP UV/Solids Handling
- 33. EMJWTP Stream Wetland Construction
- 34. Little River Reserv. Wake Cty Land Acquisition Reimbursement
- 35. Lake Johnson Dam Upgrade
- 36. Wendell Water Main Rehabilitation
- 37. Wendell Tank Rehabilitation
- 38. Wendell Water Booster Station Upgrade
- 39. Lake Glad Road Waterline Extension
- 40. Wendell EW Water Transmission Improvements
- 41. Wendell Water Distribution Improvements
- 42. Zebulon Water Distribution Improvements
- 43. Zebulon EW Water Transmission Improvements
- 44. Zebulon WTP Basins Demolition
- 45. Zebulon Water Booster PS Generator
- 46. Zebulon Water Tank Rehabilitation
- 47. Poole Road Booster Pump Station



**CITY OF RALEIGH  
PUBLIC UTILITIES  
DEPARTMENT  
SEWER PROJECTS  
2008-2012**

- 4. Neuse River Off-site Reuse System Expansion
- 5. Lower Crabtree Interceptor Parallel
- 6. Lower Crabtree North Sewer Main
- 7. Neuse River East Parallel Interceptor
- 8. Walnut Creek/NRWWTW Influent Lift Station Improvmts
- 9. Garner PS Removal
- 10. Cemetery Branch Sewer Main Replacement
- 11. Conversion of Garner 201 Facility
- 12. NRWWTW Land Purchase
- 13. NRWWTW Alkaline Stabilization Storage Rehab/Expan
- 16. SW Garner Regional Pump Station
- 17. Upper Pigeon House Rehabilitation
- 18. Crabtree Valley Sewer Replacement
- 19. Crabtree /Raleigh Blvd/Glenwood/Sewer
- 20. Walnut Creek Intercept Rehabilitation
- 21. NRWWTW Facilities Improvement
- 22. NRWWTW Solids Handling
- 23. NRWWTW Filter and Blower
- 24. NRWWTW Road Repair & Resurfacing
- 25. NRWWTW Electrical Improvements
- 26. NRWWTW Odor Control
- 27. NRWWTW Sludge Dryer
- 28. NRWWTW Onsite Reuse Improvements
- 31. Beaverdam Lake Sewer Extension
- 32. NRWWTW Pump Station Shop/Warehouse
- 33. NRWWTW 15 MGD Capacity Expansion
- 34. House Creek Sewer Rehabilitation/Replacement
- 35. Dunn Road Sewer Replacement

- 36. Glenwood Ave. Force Main Replacement
- 38. Neuse River Pump Station Parallel Force Main and Pump
- 39. Smith Creek WWTP Process Improvemnts
- 41. Greenbrier/Maxwell Pump Station Improvements
- 42. Crabtree Lift Station Improvements
- 43. Knightdale WW Collection System Improvements
- 44. Knightdale Misc Lift Station Improvements
- 45. Poplar Creek Interceptor/Regional Pump Station
- 46. NRWWTW Lab Improvements
- 47. Randleigh Environmental Education Center
- 48. Randleigh EEC Sanitary Sewer Extension
- 49. Wendell I/I Study/Rehabilitation
- 50. Buffalo Creek Basin Sewer Imps.
- 51. Various Wendell Gravity Sewer Projects
- 52. Marshburn Road Sewer Improvements
- 53. Wendell Lake Glad Rd. Demolition
- 54. Wendell East Wake Sewer Costshare
- 55. Wendell Service Area Sewer System Improvements
- 56. Zebulon I/I Study/Rehabilitation
- 57. Zebulon SCADA Improvements
- 58. Azalea Drive PS Removal
- 59. Zebulon Northern Interceptor Improvements
- 60. LCWWTW Security Improvements
- 61. LCWWTW Biosolids Improvements
- 62. LCWWTW Lab/Office Renovations
- 63. LCWWTW Expansion/Improvements (Phase I)
- 64. LCWWTW Expansion (Phase II)
- 65. Zebulon Service Area Reuse System Expansion
- 66. NPDES Permit Renewals
- 67. NRWWTW Instrumentation Improvements

## Parks and Recreation Program

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 \$53,993,276, which includes previously authorized bond proceeds allocated to specific projects as shown herein.

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 & Greenway bond package was approved in referendum in October, 2003. The bond package was approved under the precept that the bonds would not be programmed for expenditure until such time as the economy improved and sources of revenue other than the property tax would become available for debt service.

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

	<b>Phase I</b>	<b>Phase II</b>	<b>Total</b>
<b>Property Acquisition</b>	<b>\$ 5,135,000</b>	<b>\$ 29,450,000</b>	<b>\$ 34,585,000</b>
<b>Site Development and Improvements</b>	<b>20,672,276</b>	<b>75,762,927</b>	<b>96,435,203</b>
<b>2003 Park Bond</b>	<b>28,186,000</b>		<b>28,186,000</b>
<b>Total</b>	<b>\$ 53,993,276</b>	<b>\$ 105,212,927</b>	<b>\$ 159,206,203</b>

## Project Costs for Parks and Recreation

		2007-08	2008-09	2009-10	2010-11	2011-12	Phase I Summary
<b>Parks and Recreation</b>							
1	Park Site Acquisition	\$ 640,000	\$ 500,000	\$ 500,000	\$ 890,000	\$ 950,000	\$ 3,480,000
2	Greenway Acquisition	200,000	200,000	200,000	300,000	300,000	1,200,000
3	System Integration Planning (SIP)	140,000	90,000	75,000	75,000	75,000	455,000
<b>Subtotal, Acquisition</b>		<b>\$ 980,000</b>	<b>\$ 790,000</b>	<b>\$ 775,000</b>	<b>\$ 1,265,000</b>	<b>\$ 1,325,000</b>	<b>\$ 5,135,000</b>

### Development Projects

4	Greenway Development	\$ 100,000	\$ 200,000	\$ 250,340	\$ 250,000	\$ 250,000	\$ 1,050,340
5	Building Improvements	200,000	200,000	200,000	250,000	250,000	1,100,000
6	Park Site Improvements	190,000	190,000	190,000	235,000	235,000	1,040,000
7	Playground Improvements	210,000	100,000	110,000	225,000	225,000	870,000
8	Tennis Court Resurfacing	42,000	48,000	54,000	85,000	63,000	292,000
9	Roof Repairs	270,000	260,000	345,000	235,000	235,000	1,345,000
10	Paving Improvements	129,000	215,215	230,000	225,000	245,000	1,044,215
11	Park Fencing	155,000	110,000	158,000	170,000	150,000	743,000
12	Park Lighting	235,000	100,000	200,000	200,000	210,000	945,000
13	Irrigation Projects	85,000	75,000	120,000	100,000	95,000	475,000
14	Restroom Facility Improvements	120,000	120,000	240,000	260,000	150,000	890,000
15	Community Facility Upgrades	240,000	300,000	475,000	260,000	300,000	1,575,000
16	Picnic Shelters	110,000	95,000	64,000	50,000	100,000	419,000
17	Aquatic Improvements	86,000	153,800	84,000	225,000	200,000	748,800
18	Greenway Trail Resurfacing	130,000	224,785	80,000	80,000	100,000	614,785
19	Field Upgrades	110,000	101,000	100,000	110,000	94,000	515,000
20	Electrical - Fields/Courts	100,000	120,000	120,000	120,000	110,000	570,000
21	Street Tree Replacement	75,000	75,000	75,000	75,000	75,000	375,000
22	Lead Paint/Asbestos Abatement	50,000	60,000	120,000	60,000	120,000	410,000
23	ADA Facility Upgrades	77,500	50,000	50,000	75,000	100,000	352,500
24	Carousel Animal Restoration	73,000	50,000	50,000	43,000	75,000	291,000
25	Multipurpose Field Renovation	46,000	100,000	101,000	46,000	100,000	393,000
26	Safety Compliance	25,005	67,868	45,239	48,364	55,160	241,636
27	Facility Backflow Preventers	50,000	50,000	50,000			150,000
28	Raleigh Little Theatre Improvements	95,000	75,000	25,000			195,000

## Project Costs for Parks and Recreation

		2007-08	2008-09	2009-10	2010-11	2011-12	Phase I Summary
29	Mordecai Improvements	90,000	100,000	260,000	65,000	52,000	567,000
30	Shelly Lake Docks	35,000					35,000
31	Lake Wheeler Replacement Deck		25,000				25,000
32	Theater in the Park (TIP)			55,500	75,000	250,000	380,500
33	Park Signage	30,000		30,000	60,000	60,000	180,000
34	Volunteerism and Partnership	60,000	60,000	60,000	60,000	75,000	315,000
35	Lake Wheeler Facilities			50,000			50,000
36	City Cemetery	35,000	70,000				105,000
37	Fayetteville Street Renovation Impacts	60,000	62,500	62,500	62,500	75,000	322,500
38	Lane Street Improvements		70,000				70,000
39	Neuse River Corridor to County Line	100,000		50,000			150,000
40	Wade Avenue Administration Renovation	50,000					50,000
41	Wilkerson Evaluation	75,000					75,000
42	Canine Park	20,000					20,000
43	Lions Park BMX Improvements	70,000	85,000				155,000
44	Marsh Creek Park Improvements		150,000	200,000	180,000		530,000
45	Durant Nature Park Spillway Repairs	256,000					256,000
46	Lake Johnson Fishing Dock				35,000		35,000
47	Moore and Nash Square Improvements	70,000					70,000
48	Maintenance Operations Facilities	150,000					150,000
49	Lassiter Mill Dam Repairs	16,000	200,000				216,000
50	Marsh Creek Greenhouse		40,000				40,000
51	Pullen Train Replacement		100,000				100,000
52	Walnut Creek Greywater Irrigation		40,000				40,000
54	Randleigh Farm	90,000					90,000
<b>Subtotal, Development Projects</b>		<b>\$ 4,210,505</b>	<b>\$ 4,143,168</b>	<b>\$ 4,304,579</b>	<b>\$ 3,964,864</b>	<b>\$ 4,049,160</b>	<b>\$ 20,672,276</b>

### 2003 Park Bond Projects

B14	Honeycutt Creek Greenway	\$ 1,410,723					\$ 1,410,723
B29	Marsh Creek Community Center	5,789,520					5,789,520
B38	Crabtree Creek Greenway		2,827,502				2,827,502
B39	Forest Ridge Park		5,860,936				5,860,936

## Project Costs for Parks and Recreation

		2007-08	2008-09	2009-10	2010-11	2011-12	Phase I Summary
<b>2003 Park Bond Projects (continued)</b>							
B40	Pullen Park Improvements	5,504,538					5,504,538
B41	Timberlake Neighborhood Park		2,062,756				2,062,756
B43	Optimist Pool Planning	3,695,313					3,695,313
B44	Gardner Street Park	368,940					368,940
B48	Optimist Community Center Expansion		665,772				665,772
<b>Subtotal, 2003 Park Bond Projects</b>		<b>\$ 16,769,034</b>	<b>\$ 11,416,966</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 28,186,000</b>

**Total, Parks and Recreation**                     
 **\$ 21,959,539**  
 **\$ 16,350,134**  
 **\$ 5,079,579**  
 **\$ 5,229,864**  
 **\$ 5,374,160**  
 **\$ 53,993,276**

## Funding Plan for Parks and Recreation

	2007-08	2008-09	2009-10	2010-11	2011-12	Phase I Summary
Park Facility Fees	\$ 2,542,648	\$ 2,610,677	\$ 2,680,748	\$ 2,752,920	\$ 2,827,258	\$ 13,414,251
General Fund	1,065,857	1,108,491	1,152,831	1,198,944	1,246,902	5,773,025
Prior Year Reserves	400,000					400,000
Interest Income	1,082,000	1,114,000	1,146,000	1,178,000	1,200,000	5,720,000
Revolving Fund	100,000	100,000	100,000	100,000	100,000	500,000
2003 Bond Proceeds	15,769,034	11,416,966				27,186,000
New Reserves (Bonds)	1,000,000					1,000,000
<b>Total, Parks and Recreation</b>	<b>\$ 21,959,539</b>	<b>\$ 16,350,134</b>	<b>\$ 5,079,579</b>	<b>\$ 5,229,864</b>	<b>\$ 5,374,160</b>	<b>\$ 53,993,276</b>

## Parks and Recreation

1. Future Park Site Acquisitions: \$3,480,000

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: \$1,200,000

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. System Integration Planning (SIP): \$455,000

Per City Council Action - Resolution 735, a 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 and constraints, affirm the parkland classification, and, if applicable, special intent for integration into the Comp Plan.

4. Greenway Development: \$1,050,340

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.

5. Building Improvements: \$1,100,00

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

6. 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.

7. Playground Improvements: \$870,000

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.

8. Tennis Court Resurfacing: \$292,000

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.

9. Roof Repairs: \$1,345,000

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

10. Parks Paving Program: \$1,044,215

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

## Parks and Recreation

11. Park Fencing: \$743,000

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

12. Park Lighting: \$945,000

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

13. Irrigation Projects: \$475,000

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

14. Restroom Facility Improvements: \$890,000

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

15. Community Facility Upgrades: \$1,575,000

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

16. Picnic Shelters: \$419,000

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

17. Aquatic Improvements: \$748,800

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.

18. Greenway Trail Resurfacing: \$614,785

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

19. Field Upgrades: \$515,000

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

20. Electrical Improvements – Fields/Courts: \$570,000

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

21. Street Tree Replacement: \$375,000

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

22. Lead Paint and Asbestos Abatement: \$410,000

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

## **Parks and Recreation**

23. Americans with Disabilities Act (ADA) Facility Upgrades: \$352,500

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.

24. Carousel Animal Restoration: \$291,000

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

25. Multipurpose Field Renovation: \$393,000

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.

26. Safety Compliance: \$241,636

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.

27. Facility Backflow Preventers: \$150,000

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

28. Raleigh Little Theatre Improvements: \$195,000

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.

29. Mordecai Improvements: \$567,000

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.

30. Shelley Lake Docks: \$35,000

The two docks at this facility have reached their useful life and will be replaced.

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

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

32. Theatre in the Park: \$380,500

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

33. Park Signage: \$180,000

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

## **Parks and Recreation**

### 34. Volunteerism and Partnership Projects: \$315,000

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

### 35. 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.

### 36. City Cemetery Restoration: \$105,000

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 is to restore these sites.

### 37. Fayetteville Street Renovation Impacts: \$322,500

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%.

### 38. 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.

### 39. Neuse River Corridor to County Line: \$150,000

Acquisition of the flood plain lands along the Neuse River extending from Poole Road south to the Johnston-Wake County Line.

### 40. Wade Avenue Administration Renovation: \$50,000

There are short term needs to renovate the offices and Parks and Recreation Greenway Advisory Board Meeting space at the Wade Avenue facility with plans for an architectural study for the long term needs of the P&R administrative offices at Jaycee Park.

### 41. Wilkerson Evaluation: \$75,000

This funding will go towards determining the master plan on the tract of land donated by Dr. Wilkerson to the City of Raleigh.

### 42. Canine Park: \$20,000

Dog parks are off-leash pet exercise areas on public property, generally in established parks or as part of a master plan. Entirely fenced, double gated pedestrian entrance, water service, possibly with lights. Typically the site takes advantage of existing infrastructure (parking, water service, restroom, etc.) and is 1-2 acres.

## **Parks and Recreation**

43. Lions Park BMX Improvements: \$155,000

Capital City BMX (CCBMX) is interested in having a staging area constructed and lighting added so that the existing track at Lions Park can be used for national type events.

44. Marsh Creek improvements: \$530,000

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.

45. Durant Nature Park Spillway Repairs: \$256,000

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

46. 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.

47. Moore and Nash Square Improvements: \$70,000

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 St as well as maintain the integrity of the area they will be installed.

48. Maintenance Operations Facilities: \$150,000

This funding is for hiring 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 consultant to evaluate the Mt Herman Road site that has been tabbed for a NW Parks Operations Facility. The consultants will develop recommendations on site design, facility construction and cost estimates.

49. Lassiter Mill Dam Repairs: \$216,000

Lassiter Mill Dam is draining and has a number of repair needs. Damage to the dam was the result of Tropical Storm Alberto. Funding of this includes an assessment and costs for repairs.

50. 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.

51. Pullen Train Replacement: \$100,000

This funding is for replacing the current CP Huntington train engine at Pullen Park due to age of current engine.

## **Parks and Recreation**

52. Walnut Creek Greywater Irrigations: \$40,000

This project is to extend the re-use Greywater north to Walnut Creek Softball complex to irrigation the fields.

53. Randleigh Farm: \$90,000

This funding is for the master plan and first phase development of Randleigh Farm Park.

### **2003 Bond Projects**

B-14. Honeycutt Creek Greenway – Bent Creek to Falls Lake: \$1,410,723

Partial project funding is provided for the completion of this greenway segment between Bent Creek to Falls Lake.

B-29. Marsh Creek Community Center: \$5,789,520

A traditional community center building, including a gymnasium, will be constructed at Marsh Creek. Design plans will allow for future development of an adjacent recreational pool.

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 Cary 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-40. Pullen Park Improvements: \$5,504,538

Funds are proposed for various improvements to the playground, boat ride, carousel area, and the Lake Howell area.

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

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

B-43. Optimist Pool Planning: \$ 3,695,313

Funding will be used to plan renovation to the Optimist Pool complex. The primary focus will be to upgrade the pool systems, deck, lighting, and replacement of the bathhouse.

B-44. Gardner Street Park Improvements: \$368,940

Prepare a master plan for and redevelop Gardner Park.

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

Project is to expand the classroom/meeting space.

### **Phase II Parks and Recreation Projects**

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.

## **Phase II Parks and Recreation**

### **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.

### **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 Comp Plan.

### **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.

### **Building Improvements:** \$7,500,000

Continued funding for building maintenance and repairs; including interior and exterior painting and HVAC repairs/replacements.

### **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

### **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.

### **Tennis Court Resurfacing:** \$350,000

Continued funding for court resurfacing in order to maintain life expectancy.

### **Roof Repairs:** \$1,500,000

Continued funding for repairing and replacing facility roofs and coverings.

### **Paving Improvements:** \$500,000

Continued funding for improving, repairing, and replacing pavement at city facilities.

### **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**

### **Irrigation Projects:** \$200,000

Install, repair, upgrade, and maintain automated irrigation infrastructure at park sites, ball fields, and other facilities.

### **Comfort Station Improvements:** \$600,000

Continued funding to repair, replace and upgrade comfort stations at various park sites.

### **Community Facility Upgrades:** \$2,000,000

Continued funding to maintain, repair, replace, and upgrade community center systems such as plumbing, lighting, and HVAC.

### **Picnic Shelters:** \$750,000

Continued funding to replace shelters that are at the end of their useful lifecycle.

### **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.

### **Greenway Trail Resurfacing:** \$700,000

Resurface older greenway trails to provide a safe walking surface and to widen older trails to current standards.

### **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.

### **Electrical – Fields/Courts:** \$600,000

Continued funding to replace, repair and maintain existing electrical systems at sports fields and tennis courts in parks.

### **Street Tree Replacement:** \$375,000

Typical lifespan of a tree in downtown streetscape is 10-12 years. In addition, trees on City thoroughfares are destroyed by vehicles.

### **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 make them ADA compliant.

### **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.

### **Raleigh Little Theatre Improvements:** \$200,000

Continued funding for capital improvement at the Raleigh Little Theatre Building.

## **Phase II Parks and Recreation**

Mordecai Improvements: \$200,000

Continued funding to upgrade the facilities at Historic Mordecai Park.

Theater in the Park: \$500,000

Continued funding for Theatre in the Park Building improvements.

Park Signage: \$375,000

Update signage to improve park identification and information signage according to recommendations in the Signage Study.

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.

Fayetteville Street Renovation Impacts: \$375,000

Continued funding for replacement of hardscape materials, site furniture and structures on Fayetteville Street.

Dog Parks: \$200,000

Continued funding to design and construct dog parks across the city.

Jaycee Center Expansion: \$990,732

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

Halifax Center Expansion: \$2,972,195

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.

# Bond Projects FY 2008

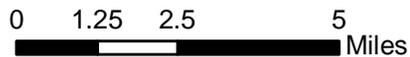
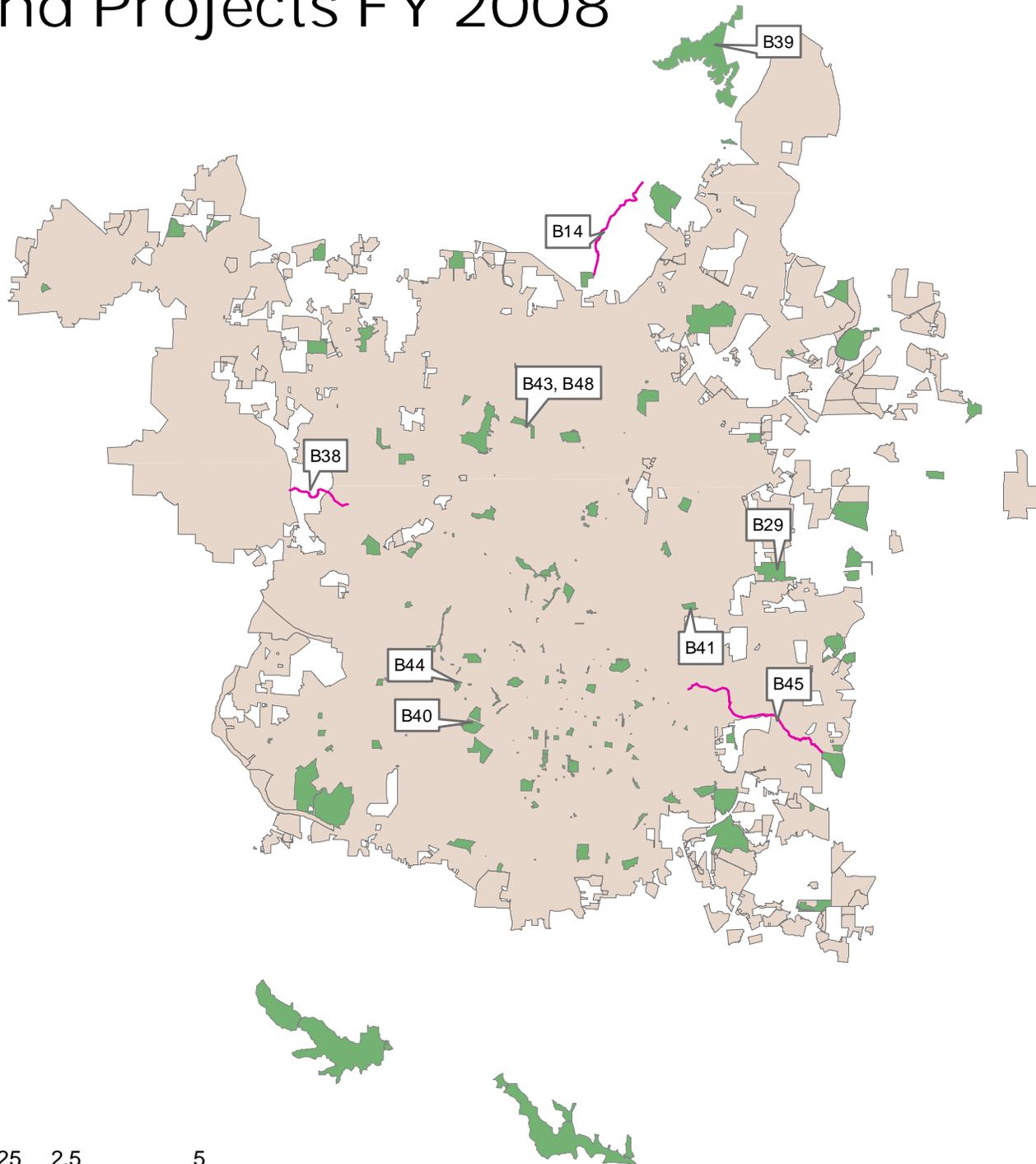


## Raleigh Parks and Recreation Department

### Legend

-  Raleigh Parks
-  Raleigh City Limits
-  Raleigh Greenway Trails
-  Park/Greenway Projects

- B14 Honeycutt Creek Greenway
- B29 Marsh Creek Community Center
- B38 Crabtree Creek Greenway
- B39 Forest Ridge Park
- B40 Pullen Park Improvements
- B41 Timberlake Neighborhood Park
- B43 Optimist Pool Planning
- B44 Gardner Street Park
- B45 Crabtree Creek Extension East to Neuse
- B48 Optimist Community Center Expansion



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## **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 \$46,909,000 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**

	<b>Phase I</b>	<b>Phase II</b>	<b>Total</b>
<b>Neuse Basin Environmental Program</b>	<b>\$ 12,308,000</b>	<b>\$ 21,200,000</b>	<b>\$ 33,508,500</b>
<b>Stormwater Utility Program</b>	<b>64,267,500</b>	<b>43,528,000</b>	<b>107,795,500</b>
<b>Total</b>	<b>\$ 76,575,500</b>	<b>\$64,728,000</b>	<b>\$ 141,303,000</b>

## Project Costs for Stormwater Utility and Neuse Basin Environmental

Phase I  
Summary

2007-08      2008-09      2009-10      2010-11      2011-12

### Neuse Basin Environmental Program

	2007-08	2008-09	2009-10	2010-11	2011-12	Phase I Summary
1 Stormwater Management Studies		\$ 410,000	\$ 410,000	\$ 410,000	\$ 410,000	\$ 1,640,000
2 Lake Preservation			585,000	585,000	585,000	1,755,000
3 Stream Restoration / Stabilization			500,000	500,000	500,000	1,500,000
4 Upper Longview Restoration (*)		1,500,000				1,500,000
5 Fred Fletcher Park Retention Pond (*)	380,000					380,000
6 Pigeon House Branch Stream (*)	1,800,000					1,800,000
7 Crabtree Creek Stormwater Study	675,000					675,000
8 Neuse River Tributaries Stormwater	850,000					850,000
9 Bioretention Facilities	208,000					208,000
10 Crabtree Creek Stream Restoration (*)		2,000,000				2,000,000
<b>Subtotal, Neuse Basin Projects</b>	<b>\$ 3,913,000</b>	<b>\$ 3,910,000</b>	<b>\$ 1,495,000</b>	<b>\$ 1,495,000</b>	<b>\$ 1,495,000</b>	<b>\$ 12,308,000</b>

### 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 White Oak Lake Reconstruction (*)	2,200,000					2,200,000
4 Swift Drive Culvert (*)		3,125,000				3,125,000
5 Pineview Drive Culvert (*)	779,000					779,000
6 Simmons Branch Channel Restoration				500,000		500,000
7 Simmons Branch Tributary Drainage					500,000	500,000
8 Bayberry Lane Culvert (*)	410,000					410,000
9 Northshore Lake Project (*)		4,000,000				4,000,000
10 Brockton Drive Lake Project (*)		3,000,000				3,000,000
11 Brentwood Today Lake Project (*)		4,000,000				4,000,000
12 Maintenance Reserve	100,000	500,000	500,000	750,000	1,000,000	2,850,000
13 Drainage System Inventory	250,000	500,000	500,000	250,000	250,000	1,750,000
14 White Oak Road Creek Restoration (*)	455,000					455,000
15 Fairfax Drive Drainage	125,000					125,000
16 Woodbend Drive Culvert Upgrade				300,000	1,200,000	1,500,000
17 Dortch Street Culvert Replacement (*)	1,660,000					1,660,000
18 Greystone Lake (*)		2,474,000				2,474,000

## Project Costs for Stormwater Utility and Neuse Basin Environmental

		2007-08	2008-09	2009-10	2010-11	2011-12	Phase I Summary
19	Cheyenne Road Drainage (*)	350,000					350,000
20	Lenoir Sreet Drainage (*)	390,000					390,000
21	Lail Court Culvert (*)	800,000					800,000
22	Swift Drive Culvert Crossing (*)	1,000,000					1,000,000
23	Kaplan Drive Culvert Upgrade (*)	665,000					665,000
24	North Hills Drive Culvert Upgrade (*)	1,300,000					1,300,000
25	Inventory Software Upgrade		35,000			40,000	75,000
26	Flood Mitigation	250,000	500,000	500,000	500,000	500,000	2,250,000
27	Yorkgate Drive Drainage	250,000					250,000
28	Five Points Drainage	400,000		800,000	1,400,000		2,600,000
29	Holt/Harvey/Cowper Drainage	50,000					50,000
30	Stoneybrook Bridge	1,570,000					1,570,000
31	Rainwood Lane Drainage	100,000	500,000				600,000
32	Favorwood Court Drainage	138,000	552,100				690,100
33	Audubon Drive Drainage	51,300	205,100				256,400
34	Tanbark Way Drainage			108,100			108,100
35	Knights Way Drainage		84,100	336,200			420,300
36	Strothmore/Harps Mill Way Drainage		88,700	354,900			443,600
37	Laurel Hills Dam Reconstruction (*)	2,500,000					2,500,000
38	Carolina Pines Dam Repairs (*)	1,150,000					1,150,000
39	Big Branch Channel (*)	410,000					410,000
40	Lower Longview Lake (*)	2,000,000					2,000,000
41	Cambridge Road Culvert (*)	1,200,000					1,200,000
42	Fairview Road Culvert (*)	1,037,000					1,037,000
43	Churchill Road Culvert (*)	750,000					750,000
44	Harrington Street Drainage (*)	419,000					419,000
45	Breckenridge Drainage (*)	360,000					360,000
46	Van Haven Drainage (*)	245,000					245,000
47	Jones/Sewell Drainage (*)		790,000				790,000
48	Oak Park Culvert Replacement (*)	660,000					660,000
49	Ravenwood Drive Culvert (*)	800,000					800,000

(\*) = FY08-09 Revenue Bond Project

## Project Costs for Stormwater Utility and Neuse Basin Environmental

		2007-08	2008-09	2009-10	2010-11	2011-12	Phase I Summary
<b>Stormwater Program (continued)</b>							
50	Lassiter Mill Dam Repairs (*)	500,000					500,000
51	Lake Johnson Spillway Upgrade (*)		1,800,000				1,800,000
<b>Subtotal, Stormwater Projects</b>		<b>\$ 26,624,300</b>	<b>\$ 23,454,000</b>	<b>\$ 4,399,200</b>	<b>\$ 5,000,000</b>	<b>\$ 4,790,000</b>	<b>\$ 64,267,500</b>

(\*) = FY08-09 Revenue Bond Project

**Total, Stormwater and Neuse Basin      \$ 30,537,300    \$ 27,364,000    \$ 5,894,200    \$ 6,495,000    \$ 6,285,000    \$ 76,575,500**

## Funding Plan for Stormwater Utility and Neuse Basin Environmental

Stormwater Utility Operating Fund	\$ 6,317,300	\$ 4,675,000	\$ 5,894,200	\$ 6,495,000	\$ 6,285,000	\$ 29,666,500
Revenue Bond Program (FY 07-09)	24,220,000	22,689,000				46,909,000

**Total, Stormwater and Neuse Basin      \$ 30,537,300    \$ 27,364,000    \$ 5,894,200    \$ 6,495,000    \$ 6,285,000    \$ 76,575,500**

**Neuse Basin Environmental Program**

1. Stormwater Management Studies: \$1,640,000

Study stormwater impact on various drainage basins within the city. This project will also develop remedial strategies for runoff control and water quality, including the potential location of basin impoundments and other runoff controls. Also includes the evaluation of lake preservation requirements to assist with the prioritization of funding.

2. Lake Preservation: \$1,755,000

The lake preservation policy allows the city to negotiate with private property owners for the preservation of existing lakes. Various lake preservation projects will be implemented, including the upgrade of existing dams, engineering design, dredging and other efforts to support the lake preservation policy.

3. Stream Restoration and Stabilization: \$1,500,000

Restore and stabilize degraded streams on public property. Specific projects are identified as components of the drainage basin studies. Projects funded during the first three years of the program will focus on Crabtree Creek and Pigeon House Branch watersheds. The city is mandated by the federal Clean Water Act to improve the water quality of impaired streams such as Pigeon House Branch.

4. Upper Longview Lake Restoration (\*): \$1,500,000

Dredge lake and install forebays to increase the capacity of this lake to remove pollution.

5. Fred Fletcher Park Water Garden (\*): \$380,000

Construct a wetland and water garden in the park.

6. Pigeon House Branch Stream Enhancement (\*): \$1,800,000

The stabilization and enhancement of eroding stream banks in three (3) City of Raleigh park areas: Smallwood, Cowper and Edna Metz Wells.

7. Crabtree Creek Stormwater Study: \$675,000

Study stormwater impacts in the Crabtree Creek basin using modeling and develop remedial strategies for runoff control, water quality, and potential location of basin impoundments.

8. Neuse River Tributaries Stormwater Study: \$850,000

Study stormwater impact to streams and tributaries in the Neuse River watershed basin. Develop remedial strategies for runoff control, water quality, and potential location of basin impoundments.

9. Bio-retention Facilities: \$208,000

The installation of bio-retention areas at city maintenance facilities (Vehicle Fleet Services and Street Maintenance) along West Street in order to treat stormwater runoff from the washbay area as well as the maintenance yard.

(\*) = FY08-09 Revenue Bond Project

10. Crabtree Stream Restoration and Stabilization (\*): \$2,000,000

Restoration/stabilization of degraded streams on public property as needed in 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. White Oak Lake Rehabilitation (\*): \$2,200,000

To replace a dam and spillway, the dredging of the lake, relocate sewer and water lines, and water quality enhancements.

4. Swift Drive Culvert (\*): \$3,125,000

This project will supplement existing culverts under Swift Drive along Simmons Branch.

5. Pineview Drive Culvert (\*): \$779,000

Replace a 60-inch and 54-inch drainage piping with an 11-foot by 5-foot concrete box culvert. This will reduce flooding at five downstream residences and alleviate roadway flooding during storms that occur about once every two years.

6. 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.

7. 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.

8. Bayberry Lane Culvert Upgrade (\*): \$410,000

This project is for providing storm drainage improvements along Bayberry Lane. Storm drainage pipe upgrades and channel stabilization work will be performed as a part of this project.

9. Northshore Lake Project (\*): \$4,000,000

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.

## Stormwater Utility – Neuse Basin

10. 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.

11. Brentwood Today Lake Project (\*): \$4,000,000

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.

12. Maintenance Reserve: \$2,850,000

Implement funding for recommendations made by the Stormwater Utility Funding Study.

13. Drainage System Inventory: \$1,750,000

This funding is for consultant assistance to develop an inventory of drainage systems in Raleigh.

14. White Oak Road Retaining Wall (\*): \$455,000

This project will replace an existing retaining wall along White Oak Road to prevent street failure and stream erosion.

15. Fairfax Drive Drainage: \$125,000

This drainage improvement project will address the issue of street flooding in Fairfax Drive and Ivy Lane and also address structural flooding on private properties. The project involves removal and replacement of storm pipe along Fairfax Drive and on private property along the Fairfax Drive drainage system to bring the drainage system to City of Raleigh standards.

16. Woodbend Drive Culvert Upgrade: \$1,500,000

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.

17. Dortch Street Culvert Replacement (\*): \$1,660,000

Replace existing twin 9' by 12' culvert because of deterioration and potential danger. Project will keep the street from failing and will lessen frequent maintenance at this location.

18. Greystone Lake Dam Safety Upgrade (\*): \$2,474,000

The Greystone Lake Dam Safety upgrade 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.

19. Cheyenne Road Drainage (\*): \$350,000

The project includes installation of new storm drainage inlets and associated pipes at the intersection of Cheyenne Road and Pinecrest Drive.

20. Lenoir Street Drainage (\*): \$390,000

The project includes installation of new storm drainage devices on East Lenoir Street between Parrish Street and Merrywood Drive.

(\*) = FY08-09 Revenue Bond Project

21. Lail Court Culvert Upgrade (\*): \$800,000

This project is for providing storm drainage improvements along Lail Court. Storm drainage pipe upgrades and channel stabilization work will be performed as a part of this project.

22. Swift Drive Crossing (\*): \$1,000,000

This project is for providing storm drainage improvements along Swift Drive. Storm drainage pipe upgrades and channel stabilization work will be performed as a part of this project.

23. Kaplan Drive Culvert Upgrade (\*): \$665,000

This project is for providing storm drainage improvements along Kaplan Drive. Storm drainage pipe upgrades and channel stabilization work will be performed as a part of this project.

24. North Hills Drive Culvert Upgrade (\*): \$1,300,000

This project is for providing storm drainage improvements along North Hills Drive. Storm drainage pipe upgrades and channel stabilization work will be performed as a part of this project.

25. Inventory Software Upgrade: \$75,000

This item is to provide a reliable upgrade to data collection software (AKA Gilware) used to collect stormwater drainage information throughout the city. This upgrade ensures all technologies and Inventory processes are working together (Pentop, Gilware and Global Positioning systems [GPS]). An upgrade to the software is timed to coincide with hardware replacement every three (3) years.

26. Flood Mitigation: \$2,250,000

This project will provide funding for buyout or the elevation of structures within the 100-year floodplain, particularly the repetitive loss structures.

27. Yorkgate Drive Drainage: \$250,000

This drainage improvement project will address street flooding on Yorkgate Drive and Carter Street as well as structural flooding. The project involves removal and replacement of existing storm pipes and replacement with significantly larger storm drainage box culverts.

28. Five Points Drainage: \$2,600,000

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.

29. Holt/Harvey/Cowper Drainage: \$50,000

The proposed project includes the design and construction of the replacement of the existing storm drainage system at the Harvey Street / Holt Drive / Cowper Drive intersection. This will include removal of the existing storm drainage system in the area and installation of new storm drainage pipes and structures.

30. Stoneybrook Bridge: \$1,570,000

This project is to replace the Stonybrook Drive Bridge to prevent flooding of the road and upstream properties.

31. Rainwood Lane Drainage: \$600,000

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.

32. Favorwood Court Drainage: \$690,100

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.

33. Audobon Drive Drainage: \$256,400

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.

34. 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.

35. Knights Way Drainage: \$420,300

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.

36. 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.

37. Laurel Hills Dam Reconstructions (\*): \$2,500,000

This project provides for the repair and reconstruction of Laurel Hills Dam embankment and spillway system.

38. Carolina Pines Dam Repairs (\*): \$1,150,000

The City plans to replace the three 36-inch concrete pipes, which currently act as the only spillway for Carolina Pines Lake, with a spillway structure in the lake, a 5' x 10' concrete culvert, and a 60-inch concrete pipe. A bottom drain would also be installed to provide a means to drain the lake.

(\*) = FY08-09 Revenue Bond Project

39. Big Branch Channel (\*): \$410,000

This project will install channel improvements and stabilization measures in a 2,100 linear foot section of Big Branch, from Hardimont Road north to the confluence with Tributary C, near Eastgate Park. This includes some re-grading of the channel, installation of weirs to direct flow to the center of the channel and away from the banks, vegetative stabilization on the banks, and some structural stabilization measures, including gabions and rip-rap.

40. Lower Longview Lake (\*): \$2,000,000

This project will require that the dam and spillway for this lake are reconstructed to meet current standards.

41. Cambridge Road Culvert (\*): \$1,200,000

This project will replace a culvert under Cambridge Road with two box culverts.

42. Fairview Road Culvert (\*): \$1,037,000

This project will add an additional culvert to an existing culvert under Fairview Road.

43. Churchill Road Culvert (\*): \$750,000

This project will add an additional culvert to an existing culvert under Fairview Road.

44. Harrington Street Drainage (\*): \$419,000

This project will add additional catch basins to Harrington Street in vicinity of 506 N. Harrington Street.

45. Breckenridge Drainage (\*): \$360,000

This project is for providing storm drainage improvements along Brecken Ridge Avenue. Storm drainage pipe upgrades and channel stabilization work will be performed as a part of this project.

46. Van Haven Drainage (\*): \$245,000

This project is for providing storm drainage improvements along Westbrook Drive and Van Haven Drive. Storm drainage pipe upgrades and channel stabilization work will be performed as a part of this project.

47. 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.

48. Oak Park Culvert Replacement (\*): 660,000

The proposed project includes the design and construction of an upgrade to the existing 60" corrugated metal pipe under Oak Park Road at 4436 Oak Park Road. The existing culvert is both undersized for the drainage basin and is currently in poor condition.

49. Ravenwood Drive Culvert (\*): \$800,000

This project is for the replacement of undersized storm drainage culvert under Ravenwood Drive in West Raleigh.

## **Phase II - Stormwater Utility – Neuse Basin**

### **50. Lassiter Mill Dam Repairs (\*)**: \$500,000

This project is for providing dam maintenance improvements to maintain the existing water level.

### **51. Lake Johnson Spillway Upgrade (\*)**: 1,800,000

This project is for providing dam safety improvements, including improvements to the spillway.

## **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

Consultant assistance to develop the inventory of the city's drainage system.

#### **Stormwater Inventory Software Update**: \$110,000

Consultant assistance to develop to 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.

#### **Grist Mill / Harps Mill Drainage**: \$1,088,000

Replace existing storm drainage pipes to reduce roadway and structural flooding.

(\*) = FY08-09 Revenue Bond Project

## **Phase II - Stormwater Utility – Neuse Basin**

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

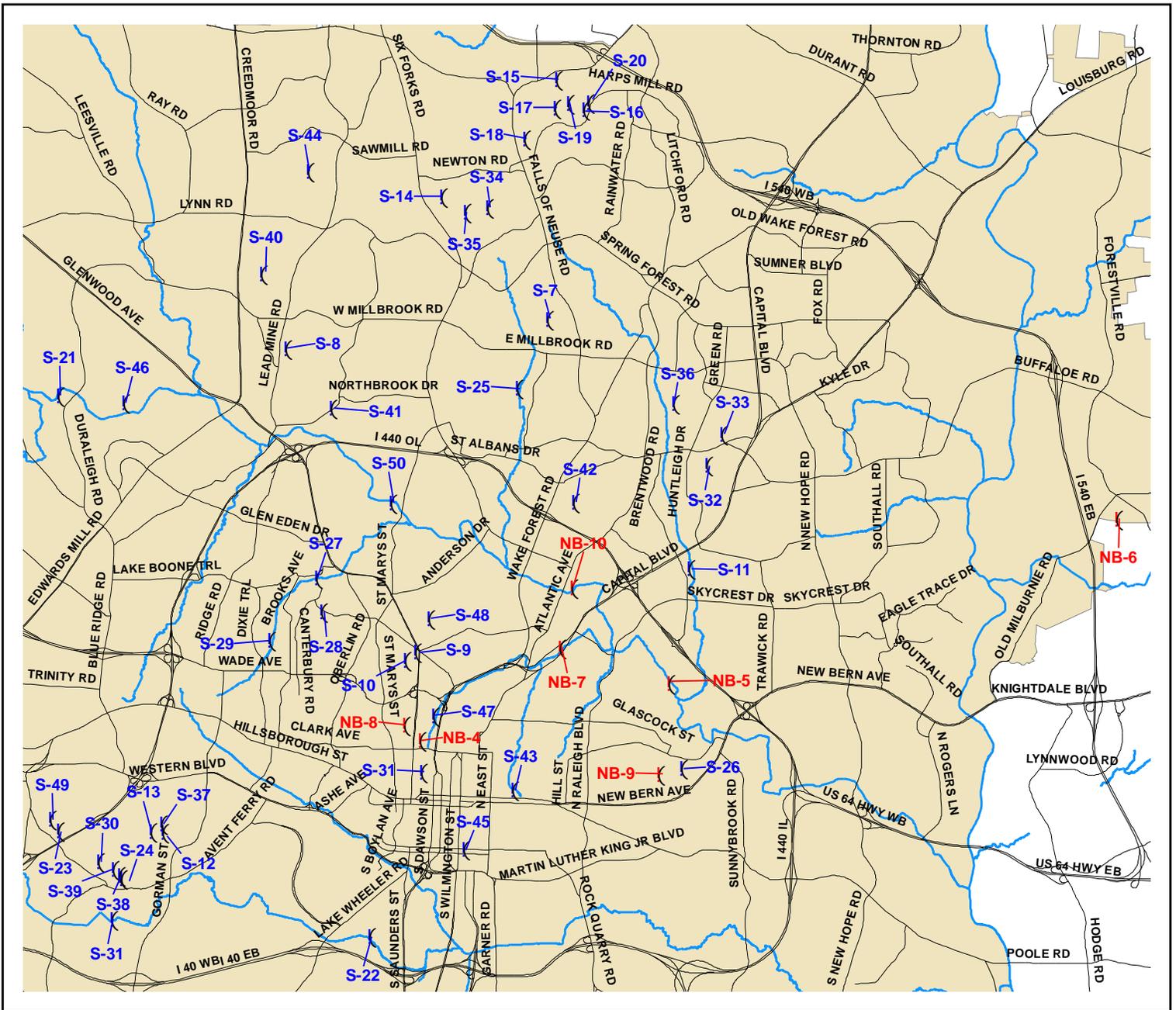
Replace and upgrade pipes along the Simmons Branch Tributary from Kaplan Drive to Swift Drive at eight locations to reduce roadway and structural flooding.

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.



## 2008-2012 Stormwater CIP Projects

-  Raleigh Extra Territorial Jurisdiction
-  Major Streams

### NEUSE BASIN ENVIRONMENTAL PROGRAM PROJECTS \* Bond Project

- NB-4** Biorention Facilities
- NB-5** Crabtree Creek Stormwater Study
- NB-6** Neuse River Tributaries SW Study
- NB-7** Pigeon House Stream Rest./Stab.\*
- NB-8** Fletcher Park Water Garden\*
- NB-9** Upper Longview Restoration\*
- NB-10** Crabtree Creek Stream Restoration\*

### STORMWATER PROGRAM PROJECTS \* Bond Project

- S-7 Fairfax Drive Drainage
- S-8 Yorkgate Drive Drainage
- S-9 Five Points Drainage
- S-10 Holt/Harvey/Cowper Drainage
- S-11 Stoneybrook Bridge
- S-12 Simmons Branch Channel Rest.
- S-13 Simmons Branch Trib. Drainage
- S-14 Woodbend Drive Culvert Upgrade
- S-15 Rainwood Lane Drainage
- S-16 Favorwood Court Drainage
- S-17 Audubon Drive Drainage
- S-18 Tanbark Way Drainage
- S-19 Knights Way Drainage
- S-20 Strothmore/Harps Mill Drainage
- S-21 Laurel Hills Dam Reconstruction\*
- S-22 Carolina Pines Dam Repairs\*
- S-23 White Oak Lake Reconstruction\*
- S-24 Swift Drive Culvert\*
- S-25 Big Branch Channel\*
- S-26 Lower Longview Lake\*
- S-27 Cambridge Road Culvert\*

- S-28 Fairview Road Culvert\*
- S-29 Churchill Road Culvert\*
- S-30 Pineview Drive Culvert\*
- S-31 Harrington Street Drainage\*
- S-32 Brentwood Today Lake\*
- S-33 Northshore Lake\*
- S-34 Breckenridge Drainage\*
- S-35 Van Haven Drainage\*
- S-36 Brockton Drive Lake\*
- S-37 Kaplan Drive Culvert\*
- S-38 Lail Court Culvert\*
- S-39 Swift Drive Culvert Crossing\*
- S-40 Bayberry Lane Culvert\*
- S-41 North Hills Drive Culvert\*
- S-42 Cheyenne Road Drainage\*
- S-43 Jones/Sewell Drainage\*
- S-44 Greystone Lake\*
- S-45 Lenoir Street Drainage\*
- S-46 Oak Park Road Culvert Replacement\*
- S-47 Dortch Street Culvert Replacement\*
- S-48 White Oak Road Creek Restoration\*
- S-49 Ravenwood Drive Culvert\*
- S-50 Lassiter Mill Dam Repairs\*
- S-51 Lake Johnson Spillway Upgrade\*



1 inch equals 8,500 feet

D. Brice  
27Jun2007



## 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 improve the city's inner core and older neighborhoods.

Funding for Phase I of the housing program includes \$17,175,000 approved in the October, 2005 bond referendum. 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

	<b>Phase I</b>	<b>Phase II</b>	<b>Total</b>
<b>Housing</b>	<b>\$ 22,675,000</b>	<b>\$ 3,830,500</b>	<b>\$ 26,505,500</b>
<b>Total</b>	<b>\$ 22,675,000</b>	<b>\$ 3,830,500</b>	<b>\$ 26,505,500</b>

## Project Costs for Housing

**Phase I  
Summary**

**2007-08      2008-09      2009-10      2010-11      2011-12**

**Housing**

1	First Time Home Ownership	\$ 675,000	\$ 675,000	\$ 675,000	\$ 675,000	\$ 675,000	\$ 3,375,000
2	Joint Venture Rental	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	7,500,000
3	Purchase of Housing Units and Land	375,000	375,000	375,000	375,000	375,000	1,875,000
4	Limited Repair Program	100,000	100,000	100,000	100,000	100,000	500,000
5	Neighborhood Revitalization	500,000	500,000	500,000	500,000	500,000	2,500,000
6	Homelessness Plan and Support	400,000	400,000	400,000	400,000	400,000	2,000,000
7	Homeowner Repair Loan Program	1,000,000	1,000,000	1,000,000	1,000,000	925,000	4,925,000

**Total, Housing                      \$ 4,550,000   \$ 4,550,000   \$ 4,550,000   \$ 4,550,000   \$ 4,475,000   \$ 22,675,000**

## Funding Plan for Housing

2005 Bond Proceeds	\$ 3,350,000	\$ 3,450,000	\$ 3,550,000	\$ 3,550,000	\$ 3,275,000	\$ 17,175,000
Program Income and Reserves	1,200,000	1,100,000	1,000,000	1,000,000	1,200,000	5,500,000

**Total, Housing                      \$ 4,550,000   \$ 4,550,000   \$ 4,550,000   \$ 4,550,000   \$ 4,475,000   \$ 22,675,000**

## Housing

1. First Time Home Ownership: \$3,375,000

This project will provide second mortgage financing to first-time homebuyers consisting of low interest loans of up to \$30,000 that can be used to finance down payments and closing costs on a new or existing residence citywide. The city will also make these funds available for low and moderate income homebuyers purchasing homes within city sponsored neighborhood development areas such as the Cooke Street development to encourage homeownership within transitioning neighborhoods.

2. Joint-Venture Rental: \$7,500,000

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 and NCHFA tax credits.

3. Rehabilitation/Purchase of Housing Units and Land: \$1,875,000

This program will provide for the acquisition of new units to be added to the city-wide affordable rental housing stock and / or to rehabilitate existing units to ensure marketability of the units to potential renters. The affordable rental units provide housing for citizens with incomes below 50% of the median.

4. Limited Repair Program: \$500,000

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: \$2,500,000

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: \$2,000,000

Previously identified as Joint Venture Rental/ Single Room Occupancy this program is designed to provide funds to developers (typically non-profit developers) for housing programs that focus on single and very low income individuals in need of rental housing and related services.

7. Homeowner Repair Loan Program: \$4,925,000

The homeowner repair loan program is designed to provide homeowners within the Community Development targeted area with funds for the substantial rehabilitation of their homes. These loans will discount annually as long as homeowners remain in the home for 15 years, after which the loan becomes a grant.

**Phase II Housing Projects**

**Affordable Housing:** \$500,000

These funds will continue the city-wide affordable housing program by providing second mortgages to first time homebuyers, leveraging private funds for the rehabilitation, and construction of new and affordable rental housing. They will also assist in increasing the housing stock for persons transitioning from homelessness.

**Joint Venture Rental:** \$1,500,000

These funds will provide low interest loans to private or non-profit developers for construction of affordable rental housing.

**Rehab/Purchase of Housing Units and Land:** \$750,000

These funds will provide affordable rental housing for Raleigh citizens with incomes 50% or below the area median.

**Limited Repair Program:** \$100,000

These funds will provide emergency repairs to owner occupied homes within Raleigh city limits.

**Neighborhood Revitalization:** \$330,000

These funds will support neighborhood revitalization within the City of Raleigh reducing conditions causing slum and blight.

**Homelessness Plan Support:** \$600,000

These funds will provide housing and other related services to support the 10 year plan to end homelessness.

**Homeowner Repair Loan Program:** \$550,000

These funds will provide discounting loans for substantial rehabilitation to homes of eligible homeowners who live in targeted areas.

## 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, 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 \$318,494,514 (including proposed alternative financing projects). Major sources of funding for projects within this section are the 1/2-cent local option sales tax and a projected need for alternative financing. Phase II funding needs are estimated at \$14,740,000.

### Ten Year Summary of the General Public Improvement Program

	Phase I	Phase II	Total
<b>General Public Improvements</b>	<b>\$ 23,835,235</b>	<b>\$ 6,640,000</b>	<b>\$ 30,475,235</b>
<b>Economic Development</b>	<b>10,024,050</b>	<b>8,100,000</b>	<b>18,124,050</b>
<b>Subtotal</b>	<b>33,859,285</b>	<b>14,740,000</b>	<b>48,599,285</b>
<b>Proposed Alternative Funding</b>	<b>284,785,229</b>		<b>284,785,229</b>
<b>Total</b>	<b>\$ 318,644,514</b>	<b>\$ 14,740,000</b>	<b>\$ 333,384,514</b>

## Project Costs for General Public Improvement

		2007-08	2008-09	2009-10	2010-11	2011-12	Phase I Summary
<b>General Public Improvement</b>							
1	Fire Station Backflow Prevention Devices	\$ 45,000	\$ 45,000				\$ 90,000
2	Fire Station Improvements	150,000	150,000	150,000	15,000	150,000	615,000
3	Fire 800 MHz Radios	200,000	168,000	95,000			463,000
4	Replace Fire Station 3			1,575,000	2,675,320		4,250,320
5	Fire Station, Northeast Raleigh	465,000	3,850,000				4,315,000
6	Fire Station Roof Repair	177,415	260,000	275,000	265,000	265,000	1,242,415
7	Fire Storage Building		240,000				240,000
8	Fire Station				589,000	3,312,000	3,901,000
9	Joint Police/Sheriff Training Center	300,000					300,000
10	ECC Backup Center Update and Repair	166,000					166,000
11	ECC Radio Transmitter	57,500					57,500
12	Convention and Performing Arts Center Reserve	300,000	300,000	500,000	500,000	500,000	2,100,000
13	Walnut Creek Amphitheater Improvements	368,000	380,000	390,000			1,138,000
14	Electrical Heating Units, One Exchange Plaza (OEP)	25,000	25,000				50,000
15	Cooling Towers and Chiller, OEP		330,000				330,000
16	Elevator Replacement, OEP			440,000			440,000
17	Elevator Upgrade, Avery Upchurch Building (AUB)	66,000					66,000
18	Pedestrian Bridge Rehabilitation, AUB		40,000				40,000
19	Replace and Modify Variable Speed Drive, AUB			28,000	140,000	140,000	308,000
20	Replace Elevator Control, AUB			420,000			420,000
21	Replace Boiler, AUB				31,000	310,000	341,000
22	HVAC Control Replacement, 110 S McDowell	44,000					44,000
23	Lighting Replacement, S McDowell and Dillon Bldg				118,000		118,000
24	Generator Installation, Wade Ave Building			260,000			260,000
25	HVAC Upgrade, Police Training Center	30,000					30,000
26	Space Study Update	100,000					100,000
27	Landfill Gas Recovery System	850,000					850,000
28	Contemporary Art Museum	200,000	200,000	200,000			600,000
29	Urban Ministries of Wake County Capital	105,000	105,000				210,000
30	Interact Capital	100,000	100,000	100,000			300,000
31	Hospice Capital	150,000	150,000	150,000			450,000
<b>Subtotal, General Public Improvement</b>		<b>\$ 3,898,915</b>	<b>\$ 6,343,000</b>	<b>\$ 4,583,000</b>	<b>\$ 4,333,320</b>	<b>\$ 4,677,000</b>	<b>\$ 23,835,235</b>

## Project Costs for General Public Improvement

		2007-08	2008-09	2009-10	2010-11	2011-12	Phase I Summary
<b>Economic Development</b>							
1	Public Realm Improvements				\$ 500,000	\$ 500,000	\$ 1,000,000
2	Peace Street Streetscapes	500,000					500,000
3	Parking Deck Retail Space			500,000	500,000	500,000	1,500,000
4	Southeast Raleigh Streetscapes	150,000	150,000	250,000	250,000	250,000	1,050,000
5	Façade Grant Program	100,000	50,000	50,000	50,000	50,000	300,000
6	North End Master Development				500,000	500,000	1,000,000
7	Downtown West Gateway			500,000	500,000	500,000	1,500,000
8	General Government Acquisition	75,000	64,046	105,528	50,000	50,000	344,574
9	SW Raleigh District Improvements	100,000	100,000	100,000	100,000		400,000
10	Downtown Wayfinding Program	500,000	350,000	300,000			1,150,000
11	Market Plazas (One Exchange to Transit Station)			1,000,000			1,000,000
12	Moore Square Implementation Strategy	279,476					279,476
<b>Subtotal, Economic Development</b>		<b>\$ 1,704,476</b>	<b>\$ 714,046</b>	<b>\$ 2,805,528</b>	<b>\$ 2,450,000</b>	<b>\$ 2,350,000</b>	<b>\$ 10,024,050</b>

**Subtotal, General Public Improvement      \$ 5,603,391   \$ 7,057,046   \$ 7,388,528   \$ 6,783,320   \$ 7,027,000   \$ 33,859,285**

### Alternative Financing Projects

B1	CEL Public Safety Center			\$ 7,102,600	\$ 93,549,365	\$ 7,006,579	\$ 107,658,544
B2	Remote Operations Facility, Downtown			41,709,245	3,915,604	28,039,280	73,664,129
B3	Remote Operations Facility, Mt. Herman			20,073,913	28,341,627		48,415,540
B4	Remote Operations Facility, Northeast			6,000,000		22,181,742	28,181,742
B5	Remote Operations Facility, Wilder's Grove			7,802,121	19,063,153		26,865,274
<b>Subtotal, Alternative Financing Projects</b>		<b>\$ -</b>	<b>\$ -</b>	<b>\$ 82,687,879</b>	<b>\$ 144,869,749</b>	<b>\$ 57,227,601</b>	<b>\$ 284,785,229</b>

**Total, General Public Improvement      \$ 5,603,391   \$ 7,057,046   \$ 90,076,407   \$ 151,653,069   \$ 64,254,601   \$ 318,644,514**

## Funding Plan for General Public Improvement

	2007-08	2008-09	2009-10	2010-11	2011-12	Phase I Summary
General Fund	\$ 4,335,391	\$ 5,767,046	\$ 5,878,528	\$ 5,853,320	\$ 6,087,000	\$ 27,921,285
Artspace Building Sale Proceeds	200,000	200,000	200,000			600,000
Interest Income	400,000	410,000	420,000	430,000	440,000	2,100,000
Walnut Creek Amphitheater Rent	368,000	380,000	390,000			1,138,000
Interlocal Agreement Funding	300,000	300,000	500,000	500,000	500,000	2,100,000
Alternative Financing Funding			82,687,879	144,869,749	57,227,601	284,785,229

**Total, General Public Improvement      \$   5,603,391   \$   7,057,046   \$   90,076,407   \$ 151,653,069   \$   64,254,601   \$ 318,644,514**

## General Public Improvement

1. Fire Station Backflow Prevention Devices: \$90,000

This project will install backflow devices within the water supplies at 14 fire stations throughout the city.

2. Fire Station Improvements: \$615,000

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: \$463,000

This request is a continuation of the previous two year's CIP projects which provided funding for 800 MHz radios. This funding was required in order to receive \$1.17 million federal funding through Wake County for 800 MHz infrastructure. The FY08 request will provide for the addition of a fourth hand held radio on each fire apparatus. The FY09 request provides for base radios for all stations 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: \$4,250,320

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, Northeast Raleigh: \$4,315,000

This is a request to construct a fire station in the rapidly growing northeastern portion of the city to serve such areas as recently annexed River Towne. 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: \$1,242,415

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. A re-assessment will occur on a year to year basis.

7. 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.

8. Fire Station: \$3,901,000

A new fire station is projected to be constructed in response to population growth in Raleigh.

## General Public Improvement

9. Joint Police/Sheriff Training Center: \$300,000

This project funding will provide initial infrastructure sharing for the joint training center for city police and the county sheriff department.

10. Emergency Communication Backup Center Update and Repair: \$166,000

Upgrade and repair of Backup 9-1-1 Center (electrical, mechanical, HVAC, and security). The center, as designed, did not enable complete redundancy. Without upgrades, services will be limited.

11. Emergency Communication Radio Transmitter: \$57,500

To replace obsolete Master Two (2) Raleigh Police Department (UHF) and Raleigh Fire Department (VHF) radio transmitters that are used to broadcast radio calls for service. The request includes upgrading and reusing the remaining Master Three (3) transmitters.

12. Convention and Performing Arts Centers Reserve: \$2,100,000

This is reserve funding from a portion of the annual appropriation the city receive 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.

13. Walnut Creek Amphitheater Facility Improvements: \$1,138,000

This funding will provide for various facility maintenance and improvements to the amphitheater structure and grounds.

FY08 Proposed CIP items to include:

- Lawn lighting replacement (\$57,000)
- Restrooms renovations (\$30,000)
- Phase two of the fixed seating replacement (\$95,000)
- Structural repair to the trellis areas (\$30,000)
- Paving roadway to backstage area (\$45,000)
- Cement pad with fixed awning (permanent structure for in seat service area - \$15,000)
- Landscaping equipment (\$65,000)
- Box office safe (\$1,000)
- Golf cart for concession distribution (\$4,000)
- Gator maintenance cart (\$6,000)
- Draft beer power packs (\$20,000)

Total: \$368,000

14. Electrical Heating Units, One Exchange Plaza (OEP) Building: \$50,000

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.

15. 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.

16. Elevator Replacement, OEP: \$440,000

This project will provide preventative maintenance and upgrade existing elevators in One Exchange Plaza. The part availability is limited and if problems occur, the time and cost to repair will be reduced.

## General Public Improvement

17. Building Elevator Upgrade, Avery Upchurch Building (AUB): \$66,000

Upgrade the interior wall panels, ceiling components, display floor indicators and all elevator foyers from the 1<sup>st</sup> through 6<sup>th</sup> floors of the Municipal Building.

18. 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.

19. Replace and Modify Variable Speed Drive, AUB: \$308,000

Due to the life expectancy of this equipment, an upgrade of original drive technology to a modernized variable drive technology that will reduce energy consumption and provide energy savings and better control of air distribution system.

20. Replace Elevator Control, 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.

21. Replace Boiler, AUB: \$341,000

This is a replacement of an original piece of equipment that was installed in 1983. Equipment has reached its life expectancy and we would like to do a scheduled changeout to ensure that there are no disruptions to the facility versus a disruptive, unanticipated change out.

22. HVAC Control Valve Replacement, 110 South McDowell Street Building: \$44,000

Replace all zone control valves and the incorporation of new valves into the existing DDC control systems. Existing valves are obsolete, in deteriorated condition, and partially non-functional.

23. Lighting Replacement – 110 S. McDowell and Dillon Buildings: \$118,000

This funding is for replacing interior lighting and ceiling tiles.

24. 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.

25. HVAC Upgrade, Police Training Center: \$30,000

Upgrade all HVAC equipment and replace the heating boiler expansion tank in north mechanical room. This funding would also improve the hot water piping for the boiler and modernize the outside air dampers in the control system with automated damper control.

26. Space Study Update: \$100,000

Update the 2002 Plan for Downtown City of Raleigh Municipal Offices and related facilities. Updating the plan will provide information on how the current space needs compare to projected as well as incorporate department operational changes and needs. This will provide a new foundation for implementing space changes and continue to fulfill office space needs in an orderly, logical and economically viable and justifiable manner.

## **General Public Improvement**

27. Landfill Gas Recovery System: \$850,000

The city will conduct operations of the Landfill Gas Extraction system. Initial funding is needed to update blowers, flares, wells, etc. when the terms of the contract have been completed with Natural Power, Inc. and the Raleigh Landfill Gas Corporation takes over. This public improvement funding will be recouped from landfill revenues.

28. Contemporary Art Museum: \$600,000

This funding will provide capital matching funds to the Contemporary Art Museum.

29. Urban Ministries of Wake County Capital: \$210,000

This capital funding will contribute towards renovating and enlarging Urban Ministries of Wake County's new space on Capital Boulevard.

30. Interact Capital: \$300,000

This capital funding will contribute towards expanding Interact's shelter space in order to increase capacity.

31. Hospice Capital: \$450,000

This capital funding will contribute towards a 20-bed inpatient and residential hospice facility.

## **Economic Development**

1. Public Realm Improvements: \$1,000,000

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.

2. Peace Street Streetscapes: \$500,000

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, and overhead utility consolidation/undergrounding.

3. Parking Deck Retail Space: \$1,500,000

This program is to develop architectural plans and a construction budget for upfit of street level space in three city-owned Downtown parking structures: the Convention Center Parking Deck; Wilmington Street Parking Deck; and Performing Arts Center Parking Deck.

## General Public Improvement

4. Southeast Raleigh Streetscapes: \$1,050,000

This funding is for the installation of streetscapes 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. This need was identified by Southeast Raleigh Assembly (SERA) in their action plan and in the Comprehensive Plan for the Southeast District.

5. Façade Grant Program: \$300,000

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.

6. North End Master Development: \$1,000,000

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.

7. Downtown West Gateway: \$1,500,000

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.

8. General Government Acquisitions: \$344,574

This project provides for reserve funding for various property acquisition activities not otherwise associated with a capital program.

9. Southwest Raleigh District Improvements: \$400,000

This program is to build a funding source for design and installation of streetscapes and infrastructure improvements at key entrances and along corridors within Southwest Raleigh as an economic development incentive for business development and to implement program items recommended with the SW District Plan update.

10. Downtown Wayfinding Program: \$1,150,000

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)

## General Public Improvement

### 11. Market Plazas (One Exchange to Transit Station): \$1,000,000

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 to One Exchange Plaza and the Moore Square Transit Station. 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: \$279,476

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.

**Alternative Financing:** *The following projects have been included in previous versions of the Capital Improvement Program but the method of financing has yet to be determined.*

### B1. Clarence Lightner Safety Center: \$107,658,444

Construction of a Public Safety Center located in the Downtown Business District. The facility will comprise an estimated 146,000 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 260,000 gross sq. ft. office tower and 800 parking spaces in a new offsite deck.

### B2. Remote Operations Facility, Downtown: \$73,664,129

This item is for the acquisition and construction of a new Downtown Remote Operations Facility for new Street Maintenance, Vehicle Fleet Service, Building Maintenance, Parks and Recreation and Traffic Engineering facilities. This facility would be the first facility to be developed so the current Devereaux Meadows facility housing Street Maintenance, Vehicle Fleet Services and Solid Waste Services could be vacated.

### B3. Remote Operations Facility, Mt. Herman: \$48,415,540

This item is for the acquisition and 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.

### B4. Remote Operations Facility, Northeast: \$28,181,742

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.

## **Phase II General Public Improvement**

### **B5. Remote Operations Facility, Wilder's Grove: \$26,865,274**

This item is for the acquisition and construction of a new Solid Waste and Vehicle Fleet Services Operations Facility on the existing Wilders Grove Landfill. This facility would be one of the first facilities to be developed so the current Devereaux Meadows facility housing Solid Waste, Street Maintenance and Vehicle Fleet Services could be vacated.

## **Phase II General Public Improvement**

### **General Public Improvement**

#### **Fire Station 31: \$3,320,000**

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: \$3,320,000**

A new fire station is projected in response to population growth in Raleigh.

### **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.

#### **Southeast Raleigh Streetscapes: \$750,000**

This plan provides for the landscaping, utility line revisions, sidewalk improvements in the areas of Rock Quarry Road, Garner Road, and New Hope Road.

#### **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.

## **Phase II General Public Improvement**

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 \$28,219,426 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 \$33,694,310 is projected over the next five years.

## **Facility Fees**

The facility fee program is expected to provide \$21,633,029 for thoroughfares and \$13,414,251 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 \$86,500,000 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 \$29,666,500 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 \$13,255,971 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 \$18,917,734 in funding resources for capital improvements over the next five years.

## **Bond Funds**

Bond authorizations within the Phase I include \$453,656,325 in revenue bonds for utility improvements; \$49,170,000 for street improvements; \$17,175,000 for the housing program; and \$27,186,000 for parks. Included in the stormwater and Neuse Basin environmental program is \$46,909,000 in revenue bonds recommended by City Council and the Stormwater Management Advisory Commission. The general public improvement program includes a proposed \$284,785,229 for alternative financing.

## Capital Improvement Program Phase I Funding by Source

	2007-08	2008-09	2009-10	2010-11	2011-12	Phase I Summary
Powell Bill	\$ 4,877,140	\$ 5,122,131	\$ 5,619,374	\$ 6,110,587	\$ 6,490,194	\$ 28,219,426
General Fund	5,401,248	6,875,537	7,031,359	7,052,264	7,333,902	33,694,310
Revolving Fund	100,000	100,000	100,000	100,000	100,000	500,000
Public Utility Revenues	20,000,000	18,000,000	13,000,000	16,000,000	19,500,000	86,500,000
Stormwater Utility Revenues	6,317,300	4,675,000	5,894,200	6,495,000	6,285,000	29,666,500
Walnut Creek Amphitheater Rent	368,000	380,000	390,000			1,138,000
Interlocal Agreement	300,000	300,000	500,000	500,000	500,000	2,100,000
Sidewalk Fund	190,000	193,000	196,000	199,000	202,000	980,000
Street Fund	800,000	825,000	850,000	875,000	900,000	4,250,000
Parking Operations	665,000	200,000	240,000	240,000	200,000	1,545,000
Artspace Building Sale Proceeds	200,000	200,000	200,000			600,000

### Reserve Funds

Streets & Sidewalk	\$ 2,355,971					\$ 2,355,971
Public Utility	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
Housing	1,200,000	1,100,000	1,000,000	1,000,000	1,200,000	5,500,000
Parks	400,000					400,000
<b>Subtotal</b>	<b>\$ 4,955,971</b>	<b>\$ 2,100,000</b>	<b>\$ 2,000,000</b>	<b>\$ 2,000,000</b>	<b>\$ 2,200,000</b>	<b>\$ 13,255,971</b>

### Facility Fees

Streets	\$ 4,074,680	\$ 4,196,920	\$ 4,322,828	\$ 4,452,513	\$ 4,586,088	\$ 21,633,029
Parks	2,542,648	2,610,677	2,680,748	2,752,920	2,827,258	13,414,251
<b>Subtotal</b>	<b>\$ 6,617,328</b>	<b>\$ 6,807,597</b>	<b>\$ 7,003,576</b>	<b>\$ 7,205,433</b>	<b>\$ 7,413,346</b>	<b>\$ 35,047,280</b>

### Interest and Assessments

<b>\$ 3,629,000</b>	<b>\$ 3,708,000</b>	<b>\$ 3,787,000</b>	<b>\$ 3,866,000</b>	<b>\$ 3,927,734</b>	<b>\$ 18,917,734</b>
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### Bonds

Utility	\$ 79,301,725	\$ 99,220,400	\$ 168,445,200	\$ 25,345,000	\$ 81,344,000	\$ 453,656,325
Streets	25,014,549	6,009,789	4,345,458	10,631,720	3,168,484	49,170,000
Housing	3,350,000	3,450,000	3,550,000	3,550,000	3,275,000	17,175,000

## Capital Improvement Program Phase I Funding by Source

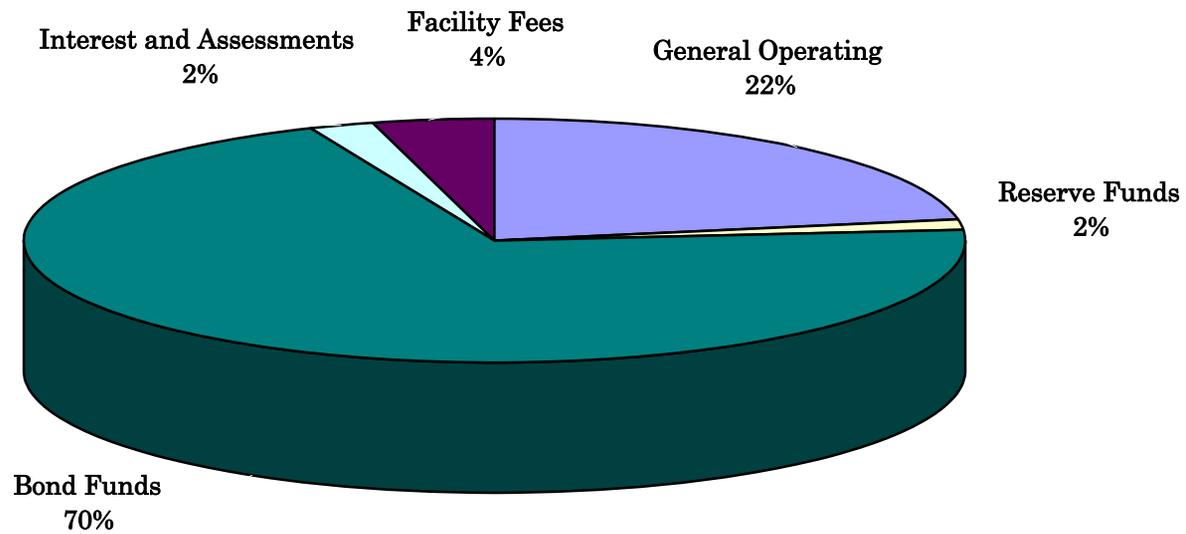
	2007-08	2008-09	2009-10	2010-11	2011-12	Phase I Summary
Parks	15,769,034	11,416,966				27,186,000
Stormwater	24,220,000	22,689,000				46,909,000
Bond Reserves	2,000,000					2,000,000
<b>Subtotal</b>	<b>\$ 149,655,308</b>	<b>\$ 142,786,155</b>	<b>\$ 176,340,658</b>	<b>\$ 39,526,720</b>	<b>\$ 87,787,484</b>	<b>\$ 596,096,325</b>

**TOTAL, All Sources                    \$ 204,076,295   \$ 192,272,420   \$ 223,152,167   \$ 90,170,004   \$ 142,839,660   \$ 852,510,546**

# Capital Improvement Program Funding Summary

## Phase I Total Funding

(Does not include proposed alternative financing projects)



## CIP Account Codes for Capital Projects

### TRANSPORTATION

Major Streets		Fund	Org
1	Hillsborough/Morgan Roundabout	525	9280
2	Perry Creek Road Widening - Part A	531	9445
3	Falls of Neuse Road Realign and Widen	531	9455
4	Tryon Road Widening, Part D	531	9279
5	Hillsborough/Morgan Roundabout	531	9280
6	Six Forks/Millbrook Road Intersection	531	9457
7	Rock Quarry Road Widening, Part B	531	9458
8	Leesville Road Widening	531	9461
9	Lake Wheeler Road Improvements	531	8767
10	Jones Sausage Road Widening	531	8924

Transit		Fund	Org
1	Transit Equipment and Facilities	525	8420
2	Bus and Van Replacement	525	8420
3	Preventive Maintenance	525	8420
4	Design/Engineering/Construction	525	8420

Parking Improvement Program		Fund	Org
1	Parking Deck Maintenance	446	9277
2	Municipal Deck Assessment & Repair	446	9450
3	Cabarrus Deck Pay Station	446	9451
4	Parking Meter Replacement	446	9485

Street Improvements		Fund	Org
1	Street Resurfacing	525	8380
2	Street Paving	525	8383
3	Median Repair/Signage Improvements	525	8386
4	Traffic Signal Installation	525	8391
5	Traffic Signal System Upgrade	531	8920
6	Traffic Calming and Pedestrian Safety	531	9075
7	Traffic Engineering Center Improvements	525	9775
8	Mt. Herman Salt Storage Facility	525	9447
9	Mt. Herman Spreader Storage Facility	525	9484
10	Repair and Maintenance City Bridges	525	9449

Pedestrian Improvements		Fund	Org
1	ADA Curb Ramps	515	8002
2	Sidewalk Improvements	515	8295
3	Sidewalk Repairs	515	8298
4	Intersection Pedestrian Improvements	515	9364
5	Thoroughfare Streetlight Installation	515	9453

### PUBLIC UTILITIES

Water Projects		Fund	Org
1	Water Main Replacement	320/348	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
10	EM Johnson WTP Spill Containment	348	9158
11	Vulnerability Security Improvements	348	9159
12	Property Acquisitions	348	9282
13	EM Johnson WTP Clearwell Rehabilitation	348	9285
15	EM Johnson WTP New Laboratory Facility	348	9291
16	EM Johnson WTP Sludge Storage Canopy	348	9283

Wastewater Projects		Fund	Org
1	Service Area Growth	325	8011
2	Main Replacement	325/349	8468
3	Sewer System Capacity	349	8331
4	Neuse WWTP Reuse System Expansion	349	8530
5	Lower Crabtree Interceptor Parallel	349	9180
6	Lower Crabtree North Sewer Main	349	9295
7	Neuse River East Parallel Interceptor	349	9027
8	Walnut Creek Influent Lift Station	349	9166
9	Garner Pump Station Removal	349	9002
10	Cemetery Sewer Main Replacement	349	9028
11	Conversion of Garner 201 Facility	349	9296
12	Neuse WWTP Land Purchase	349	8934
13	Neuse WWTP Alkaline Storage	349	9486
14	Sanitary Sewer Pump Station Removal	349	9030
15	Access to Sanitary Sewer Mains	349	9031

## CIP Account Codes for Capital Projects

<b>Water Projects (continued)</b>		<b>Fund</b>	<b>Org</b>
17	EM Johnson WTP Lagoon Sludge Removal	348	9395
18	Remote Operations Center	348	9396
19	Automatic Meter Reader Replacement	348	9397
20	Wake Forest WTP Decommissioning	348	9405
21	Upper Neuse Initiative/Water Quality	348/320	9468
22	Water Distribution - Study, Evaluation, Design	348	9487
23	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
26	Little River Reservoir Impact Statement	348	9491
27	Telemetry Upgrades	348	9776
28	EM Johnson WTP Warehouse Expansion	348	9777
29	EM Johnson WTP Sodium Permanganate Facility	348	9778
30	EM Johnson WTP 120 MGD Expansion	348	9779
31	EM Johnson WTP Basin Additions	348	9780
33	EM Johnson WTP Stream Restoration	348	9781
34	Little River Reservoir County Reimbursement	348	9782
35	Lake Johnson Dam Upgrade	348	9783
36	Wendell Water Main Rehabilitation	348	9784
37	Wendell Tank Rehabilitation	348	9785
38	Wendell Water Booster Station Upgrade	348	9786
40	Wendell Water Transmission Improvements	348	9787
41	Wendell Water Distribution Improvements	348	9788
42	Zebulon Water Distribution Improvements	348	9789
43	Zebulon Water Transmission Improvements	348	9790
44	Zebulon WTP Basin Demolition	348	9791
45	Zebulon Water Booster Generator	348	9792
47	Poole Road Booster Pump Station	348	9794

<b>Wastewater Projects (continued)</b>		<b>Fund</b>	<b>Org</b>
16	SW Garner Regional Pump Station	349	9033
17	Upper Pigeon House Rehabilitation	349	9182
18	Crabtree Valley Sewer Replacement	349	9406
19	Crabtree/Raleigh Blvd/Glenwood Sewer	349	9795
20	Walnut Creek Intercept Rehabilitation	349	9495
21	Neuse WWTP Facility Improvements	349	9189
22	Neuse WWTP Solids Handling	349	9247
23	Neuse WWTP Filter and Blower	349	9300
24	Neuse WWTP Road Repair and Resurface	349	9301
25	Neuse WWTP Electrical Improvements	349	8633
26	Neuse WWTP Odor Control	349	9303
27	Neuse WWTP Sludge Dryer	349	9304
28	Neuse WWTP Reuse Improvements	349	9305
29	Satellite Reuse Facilities Study	349	9307
30	Air Release Valve Replacement	349	9308
31	Beaver Dam Lake Sewer Extension	349	9311
32	Neuse WWTP Pump Station Warehouse	349	9408
33	Neuse WWTP 15 MGD Expansion	349	9496
34	House Creek Sewer Rehabilitation	349	9497
35	Dunn Road Sewer Replacement	349	9411
36	Glenwood Ave Force Main Replacement	349	9412
37	Crabtree Creek Sewer Transmission Study	349	9414
39	Smith Crk WWTP Process Improvements	349	9426
40	Residential Backwater Valve Program	349	9529
41	Greenbrier/Maxwell Pump Station Imprvt.	349	9601
43	Knightdale WW Collection System Improvements	349	9539
44	Knightdale Misc Lift Station Improvements	349	9540
46	Neuse WWTP Lab Improvements	349	9546
47	Randleigh Environmental Education Center	349	9796
48	Randleigh Center Sewer Extension	349	9797
49	Wendell Infiltration and Inflow Study	349	9798
50	Buffalo Creek Sewer Improvements	349	9799
51	Various Wendell Gravity Sewer Projects	349	9800
54	Wendell East Wake Sewer Costshare	349	9801
55	Wendell Service Area Sewer Improvements	349	9802
56	Zebulon Infiltration and Inflow Study	349	9803
57	Zebulon SCADA Improvements	349	9804
58	Azelea Drive Pump Station Removal	349	9805
59	Zebulon Interceptor Improvements	349	9806

### HOUSING

<b>Housing</b>			
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

## CIP Account Codes for Capital Projects

<b>PARKS</b>			
<b>Acquisition Projects</b>		<b>Fund</b>	<b>Org</b>
1	Park Site Acquisition	636	8229
2	Greenway Acquisition	625/636	8431
3	System Integration Planning	625	9547
<b>Development Projects</b>			
4	Greenway Development	625	8123
5	Building Improvements	625	9138
6	Park Site Improvements	625	8232
7	Playground Improvements	625	8339
8	Tennis Court Resurfacing	625	8334
9	Parks Roof Repairs	625	8237
10	Parks Paving Program	625	8236
11	Park Fencing	625	8106
12	Park Lighting	625	8020
13	Irrigation Projects	625	8233
14	Restroom Facility Improvements	625	8571
15	Community Center Upgrades	625	8574
16	Picnic Shelters	625	8847
17	Aquatic Improvements	625	8849
18	Greenway Trail Resurfacing	625	8124
19	Field Upgrades	625	8939
20	Electrical Improvements - Fields/Courts	625	8942
21	Street Tree Replacement	625	9037
22	Lead Paint Abatement	625	8851
23	ADA Facility Upgrades	625	9319
24	Carousel Animal Restoration	625	9040
25	Multipurpose Field Renovation	625	9548
26	Safety Compliance	625	9812
27	Facility Backflow Preventers	625	8961
28	Raleigh Little Theatre Improvements	625	9041
29	Mordecai Improvements	625	9038
30	Shelly Lake Docks	625	8292
31	Lake Wheeler Replacement Deck	625	9813
33	Park Signage	625	9370
34	Volunteerism and Partnership Projects	625	9385
36	City Cemetary Restoration	625	9678
37	Fayetteville Street Renovation Impacts	625	9386
38	Lane Street Improvements	625	9814
39	Neuse River Corridor to County Line	625	9679

### Wastewater Projects (continued)

60	Little Creek WWTP Security Improvements	349	9807
62	Little Creek WWTP Lab/Office Renovations	349	9808
63	Little Creek WWTP Expansion/Improvements (Phase I)	349	9744
64	Little Creek WWTP Expansion (Phase II)	349	9809
65	Zebulon Reuse System Expansion	349	9810
67	Neuse WWTP Instrumentation Improvements	349	9811

### STORMWATER

<b>Neuse Basin Environmental Program</b>		<b>Fund</b>	<b>Org</b>
1	Stormwater Management Studies	470	8432
4	Upper Longview Lake Restoration	475	9143
5	Fred Fletcher Park Retention Pond	475	9144
6	Pigeon House Branch Stream	475	9145
7	Crabtree Creek Stormwater Study	470	9146
8	Neuse River Tributaries Stormwater	470	9682
9	Bioretention Facilities	470	9659
10	Crabtree Creek Stream Rest/Stabalization	475	9683

### Stormwater Program

1	Stormwater System Repairs	470	8659
2	Petition Projects	470	9139
3	White Oak Lake Reconstruction	475	9140
4	Swift Drive Culvert	475	9147
5	Pineview Drive Culvert	475	9148
8	Bayberry Lane Culvert Upgrade	475	9684
9	Northshore Lake Project	475	9346
10	Brockton Drive Lake Project	475	9347
11	Brentwood Today Lake Project	475	9348
12	Maintenance Reserve	470	9390
13	Drainage System Inventory	470	9685
14	White Oak Road Creek Restoration	475	9687
15	Fairfax Drive Drainage	470	9613
17	Dortch Street Culvert Replacement	475	9689
18	Greystone Lake	475	9690
19	Cheyenne Road Drainage	475	9095
20	Lenoir St Drainage	475	9096
21	Lail Court Culvert Upgrade	475	9691
22	Swift Drive Crossing	475	8702
23	Kaplan Drive Culvert Upgrade	475	9692
24	North Hills Drive Culvert Upgrade	475	8696

## CIP Account Codes for Capital Projects

### Development Projects (continued)

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

### 2003 Park Bond Projects

		Fund	Org
B14	Honeycutt Creek Greenway	636	9322
B29	Marsh Creek Community Center	636	9388
B38	Crabtree Creek Greenway	636	9463
B39	Forest Ridge Park	636	8743
B40	Pullen Park Improvements	636	8567
B41	Timberlake Neighborhood Park	636	9464
B43	Optimist Pool Planning	636	8403
B44	Gardner Street Park	636	9340
B48	Optimist Community Center Expansion	636	9826

### Stormwater Program (continued)

25	Inventory Software Upgrade	470	9815
26	Flood Mitigation	470	9816
27	Yorkgate Drive Drainage	470	9142
28	Five Points Drainage	470	9828
29	Holt/Harvey/Cowper Drainage	470	9829
30	Stoneybrook Bridge	470	9830
31	Rainwood Lane Drainage	470	9831
32	Favorwood Court Drainage	470	9832
33	Audubon Drive Drainage	470	9833
35	Knights Way Drainage	470	9834
36	Strothmore/Harps Mill Way Drainage	470	9835
37	Laurel Hills Dam Reconstruction	475	9836
38	Carolina Pines Dam Repairs	475	9837
39	Big Branch Channel	475	9152
40	Lower Longview Lake	475	9838
41	Cambridge Road Culvert	475	9344
42	Fairview Road Culvert	475	8777
43	Churchill Road Culvert	475	8780
44	Harrington Street Drainage	475	9611
45	Breckenridge Drainage	475	9610
46	Van Haven Drainage	475	9616
47	Jones/Sewell Drainage	475	9839
48	Oak Park Culvert Replacement	475	9840
49	Ravenwood Drive Culvert	475	9094
50	Lassiter Mill Dam Repairs	475	9767
51	Lake Johnson Spillway Upgrade	475	9841

## GENERAL PUBLIC IMPROVEMENTS

### Economic Development

2	Peace Steet Streetscapes	505	9093
4	Southeast Raleigh Streetscapes	505	9559
5	Façade Grant Program	505	9209
8	General Government Acquisitions	505	8987
9	SW Raleigh District Improvements	505	9702
10	Downtown Wayfinding Program	505	9703
12	Moore Square Implementation Strategy	505	9705

### General Public Improvements

1	Fire Station Backflow Prevention Devices	505	8961
2	Fire Station Improvements	505	9512
3	Fire 800 MHz Radios	505	9438
5	Fire Station, Northeast Raleigh	505	8990
6	Fire Station Roof Repair	505	9842
7	Fire Storage Building	505	9843
9	Joint Police/Sheriff Training Center	505	9844
10	ECC Backup Center Update and Repair	505	9845
11	ECC Radio Transmitter	505	9846
12	Convention and Performing Arts Reserve	646	8898

## CIP Account Codes for Capital Projects

### General Public Improvements (continued)

13	Walnut Creek Amphitheater Improvements	650	8361
14	Electrical Heating Units, One Exchange Plaza	505	9356
15	Cooling Towers and Chiller, OEP	505	9847
17	Elevator Upgrade, Avery Upchurch Building (AUB)	505	9707
18	Pedestrian Bridge Rehabilitation, AUB	505	9848
22	HVAC Control Replace, 110 S. McDowell	505	9709
25	HVAC Upgrade, Police Training Center	505	9350
26	Space Study Update	505	9849
27	Landfill Gas Reserve System	505	9850
28	Contemporary Art Museum	505	9470
29	Urban Ministries of Wake County Capital	505	9858
30	Interact Capital	505	9859
31	Hospice Capital	505	9860



# RESOLUTION ADOPTING THE CAPITAL IMPROVEMENT PROGRAM

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## Resolution No. (2007-277), City Of Raleigh, Fiscal Years 2007-08 Through 2016-2017

WHEREAS, a Proposed Capital Improvement Program for Fiscal Years 2007-08 through 2016-17 was presented to the City Council on May 15, 2007; 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, 2007-08 through 2016-17*" is hereby amended as follows:

Upper Neuse Initiative/Water Quality Improvements – \$1,000,000. This project has been renamed, previously Falls Lake Initiative, and increased by \$500,000 in FY08 of the Public Utilities Program, Page 20, Item 21.

Market Plazas – \$1,000,000. This project has been decreased by \$500,000 in FY08 of the General Public Improvement Program, Page 81, Item 11.

West Morgan Street Streetscapes – \$0. This project has been decreased by \$723,500 in FY08 of the General Public Improvement Program, Page 81, Item 13.

Urban Ministries of Wake County Capital– \$210,000. This project and funding has been added to Phase I of the General Public Improvement Program.

Interact Capital– \$300,000. This project and funding has been added to Phase I of the General Public Improvement Program.

Hospice Capital– \$450,000. This project and funding has been added to Phase I of the General Public Improvement Program.

**Section 2.** That the document titled "*Proposed Capital Improvement Program, 2007-08 through 2016-17*" 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 2007-08 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 11, 2007

Effective: July 1, 2007

