### City of Raleigh Capital Improvement Program Fiscal Years 2011-12 through 2020-21

### **The City Council**

Charles C. Meeker, Mayor

Nancy McFarlane, Mayor Pro Tem
Mary-Ann Baldwin
Thomas G. Crowder
Bonner Gaylord
John Odom
Russ Stephenson
Eugene Weeks

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Tyrone S. Williamson	Business Analyst, Finance Department
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May 17, 2011

Mayor Charles C. Meeker
Mayor Pro-Tem Nancy McFarlane
Councilor Mary-Ann Baldwin
Councilor Thomas G. Crowder
Councilor Bonner Gaylord
Councilor John Odom
Councilor Russ Stephenson
Councilor Eugene Weeks

### Dear Mayor and Councilors:

The 10-year Capital Improvement Program (CIP) for the City of Raleigh, spanning fiscal years 2011-12 through 2020-21, 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 as a result of various planning and review 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 represents an \$876 million investment to address capital needs for the City of Raleigh over the five year Phase I period. As the economy slowly recovers there still remains a distinct funding gap between revenue sources and expenditures. This CIP attempts to address our City's most critical capital needs, but also reduces and defers several FY12 CIP project requests as a result of decreased available project funding.

There are multiple factors that are influencing the revenues to support the proposed FY12 CIP including a reduction in interest income, General Fund and Public Utilities pay-go capital and decreased facility fee revenues and Powell Bill funding. Some uncertainties continue in the financial markets that are also affecting not only current bond funded projects but also the decision as to when future bond funded projects can be initiated. In order to meet the existing debt model requirements through the transfer of facility fee revenues to debt service, a majority of facility fee revenues collected in FY12 will go to our debt service. This significantly lessens the support that facility fee revenues provide to Parks and Recreation and Transportation projects, both for current and future years.

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### Capital Investment Financing

The capital program continues to be primarily financed by the use of debt instruments. Appropriations from the current phased issuance of General Obligation bonds approved in referendum for Parks and Recreation (2007) are anticipated to end this fiscal year. Given Parks and Recreation reliance on bond funding, it will be essential that a new bond program be considered within the next two fiscal years.

Future Transportation and Housing projects rely on proposed bond funding totaling \$52 million, to be pursued with a bond referendum in Fiscal Year 2012.

Public Utilities continues its capital investment program with projects spread throughout all service areas. In Phase I of the CIP transfers from Revenue Bonds of approximately \$230.5 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.

The Stormwater Utility fee program continues to fund projects related to water quality and quantity in accordance with state and federal standards. These funds will be paired with future revenue bonds to provide significant improvements to the city's stormwater system.

### 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	\$70.1 million
2.	Public Utilities	. \$372.4 million
3.	Parks	. \$116.9 million
4.	Stormwater Utility and Neuse Basin Environmental Program	\$72.9 million
5.	Housing	\$15.6 million
6	General Public Improvements	<b></b>

### Programmatic Investment

### Transportation

Funding of \$70.1 million is proposed for transportation Phase I infrastructure improvements. A proposed \$37 million bond referendum will be sought in FY12 to fund future projects. The Transportation program is outlined to include: Major Streets, Street Improvements, Transit and the City Parking Program. A projected reduction in thoroughfare facility fees has been addressed in this program.

### **Public Utilities**

The utilities capital program continues to execute an extensive number of investment projects, as well as initiatives to improve water and wastewater operations throughout the Raleigh service area which now includes providing service and capital investment to infrastructure located within the municipalities of Garner, Knightdale, Wake Forest, Rolesville, Wendell and Zebulon. A total investment program of \$372.4 million is proposed over Phase I of the capital program.

### **Parks**

Phase I of the Parks and Recreation capital program earmarks \$650,000 for property acquisition, \$14 million for development projects, \$7.7 million for phased expenditures from the 2007 Parks Bonds and approximately \$92 million in proposed 2012 Park Bonds. The Parks capital program has been affected the most by the reduction in facility fees, as current projections indicate there will be no facility fee revenues available for Parks pay-go projects over the course of the next five years. It is anticipated that bond funding will need to be addressed within the next fiscal year.

### Stormwater Utility and Neuse Basin Environmental Program

This year's CIP proposes a program of \$72.9 million in Phase I financed through operating transfers, also known as pay-go funding, anticipated capital reserves and proposed bond funds. Stormwater projects are associated with stormwater runoff, pollution control and water quality, drainage improvements, the alleviation of flooding, and improvements to watercourses that require erosion control and streambed remediation throughout the city's jurisdiction.

### Housing

The Phase 1 CIP for the Housing program includes \$15.6 million in project funds. Funding for Phase I of the housing program includes \$15,000,000 from a proposed Bond Referendum in the fall of 2011 as well as other program incomes.

### **General Public Improvements**

All other capital facility and maintenance needs fall under the category of General Public Improvements (GPI). This capital program represents a commitment to maintain and improve existing infrastructure as well as addresses the need for major new facilities and economic projects throughout the city. A total of \$228.8 million in general improvement projects make up this investment proposal for the Phase I program.

Major project areas within the GPI portion of the CIP include:

- Bond Funded Facilities and Major Renovation Construction and Planning: Continued development and construction of Remote Operations facilities, three new fire stations, expansion of the fire training facility, police district stations, and a police training facility are also identified needs in Phase I of the CIP. COP funding will be needed to support these projects.
- Facility Improvements: These projects address the major infrastructure repairs and maintenance of City-owned buildings and facilities. These improvements in some cases provide a return on the investment due to the increase in the efficiencies provided by the upgrades.
- Technology, Equipment, and Other: Funds to implement the City's proposed technology infrastructure upgrades and changes, and updates to the emergency services communications equipment and systems. Funding in this area also includes upgrades to our CitiWorks Asset Management System, upgrading our ERP system as well as developing strategies for a comprehensive land management program.
- Economic Development: Projects in this category target areas of the City, with particular emphasis in the downtown core, to accommodate and promote economic growth. This includes the Facade Grant Program and Downtown Wayfinding System.
- Clarence E. Lightner Public Safety Center: These funds were budgeted in previous fiscal years but have yet to be authorized by the City Council. Council direction is needed to complete the planning, design and construction of a new public safety center.

### **Summary**

This annual *Capital Improvement Program* represents a commitment to maintain and improve our existing infrastructure as well as fund the construction of major new city facilities and development projects. This CIP is laying out a road map for the development of the necessary facilities and infrastructure to provide city services over the next decade. This will allow the city to continue to proactively move forward with being a 21<sup>st</sup> century place to live and work. It utilizes available resources and proposes new revenue opportunities in an effective manner. It is also in line with the direction set by the City's Comprehensive Plan, as well as other community and Council initiatives. Administration is available to assist the Council and respond to questions and concerns as you review this proposal.

Respectfully submitted,

J. Russel aller

J. Russell Allen City Manager



### **Overview of Capital Improvement Program**

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.
- 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 the city's Comprehensive Plan and short-term capital project planning. In the capital improvement programming process, the long range objectives of the city are reviewed with growth trends and the need for services, 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 2011-12 through 2015-16, addresses both project needs and a financial strategy for this period. Phase II, covering fiscal years 2016-17 through 2020-21, provides a more general review of anticipated project needs for the balance of the plan.

### **Capital Improvement Program Budget**

Phase I of the *Capital Improvement Program* spans five fiscal years, from 2011-12 through 2015-16. 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. Each programmatic category includes a listing of estimated capital needs expected in the five-year period immediately following Phase I.

The major initiatives represented in the 2011-12 edition of the *Capital Improvement Program* include a presentation of project expenditure proposals associated with the 2007 Parks Bonds, 2005 Affordable Housing Bonds, and a proposed 2011 Housing and Transportation Bond. Facility fee revenues have declined since the recession began, and due to the policy decision to use facility fee revenues to support debt service, both Parks and Recreation and Transportation capital programs have seen a decline in facility fee revenues to support their projects. Unless the economy improves significantly, Parks & Recreation will continue to receive minimal revenue support to projects from facility fees as almost all proceeds go to debt service during Phase I of this program.

The Phase I **transportation program** addresses thoroughfare needs and other street improvements, major street maintenance, sidewalk construction, bicycle facilities, and transit capital needs for a total Phase I projected cost of \$70,073,136

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 \$372,398,000

The **parks and recreation program** includes funding for park site and greenway trail acquisition, major maintenance projects, and the design and development of parks located throughout the city. The Phase I cost for the parks program is \$116,866,500.

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 total cost for Phase I projects is \$72,855,000.

The **housing program** will provide capacity for increasing the stock of affordable housing throughout the city. The total cost for Phase I projects is \$15,616,748.

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 and police facilities, streetscapes, general maintenance of city-owned buildings and infrastructure, economic development and other general needs. The total cost for Phase I projects is \$228,825,692.

The **total** projected cost for all six programs in Phase I of the *Capital Improvement Program* is \$876,635,076.

### **Capital Improvement Program 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 Phase I of 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 \$20,924,000 over the next five years.

### General Fund

Supplemental and optional sales taxes, previously designated as major sources of revenue for the capital program, are now funneled to the program via the General Fund. This source of funding provides a significant revenue stream to fund primarily the general public improvement capital program. Funding in the amount of \$26,300,000 is projected over the next five years.

### **Facility Fees**

While in the past facility fee revenues have been instrumental in funding both Parks and Recreation and Transportation capital programs, the recent decision to support debt service through facility fee revenues has greatly diminished the allocation to both. The facility fee program is expected to provide \$1,355,766 for thoroughfares over the next five years, however no annual allocation is budgeted for Parks and Recreation besides a one-time transfer of \$1,500,000 in eligible residual funds in FY12. 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 \$142,000,000 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 \$27,172,500 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. These reserves are currently budgeted at \$605,000 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 \$10,410,000 in funding resources for capital improvements over the next five years.

### **Debt Financing**

Bond authorizations within the Phase I include \$226,148,000 in revenue bonds for public utility improvements and the potential for \$43,982,500 in revenue bonds for the Stormwater utility program. Listed in this five year Phase 1 CIP is the potential for \$99,536,500 in general obligation bonds for Parks and Recreation. The Transportation program includes proposed bond funding totaling \$37,000,000 to be pursued with a proposed bond referendum in late 2011 (FY12). In conjunction with this referendum, the Housing program includes proposed bond funding totaling \$15,000,000. The general public improvement program includes an anticipated need for future Certificates of Participation funding in the amount of \$209,975,642 over the span of Phase I.

### The Comprehensive Plan's Relationship to the Capital Improvement Program

The Comprehensive Plan is the key policy document that helps make the city workable, livable, and prosperous. The 2030 Comprehensive Plan was adopted by the City Council in October 2009 and provides the Vision and strategies for Raleigh to prosper and grow as a modern, 21st century city. The Plan provides an integrated approach to all aspects of Raleigh's physical development and related economic and social issues. It is also an important guiding element in assisting Departments in identifying and establishing priorities within the City's Capital Improvement Program.

The Comprehensive Plan, driven by its Vision and Themes and directed by the City Charter, contains numerous policies and action items that promote the orderly growth and unified improvement of the city. These policies and actions along with other existing plans and studies are used to assist in the establishment of priorities among the many potential capital investment projects of the city.

The Vision and Themes that guide the Comprehensive Plan are based on feedback received from the public during the workshops that were used to develop the plan.

### Raleigh's Vision Statement for 2030

Raleigh will be a city that values and fosters development that provides economic prosperity, housing opportunity, and equity for all Raleigh residents. Raleigh will embody environmental conservation, energy efficiency, and sustainable development. Raleigh will be a great place to live with distinctive and attractive neighborhoods, plentiful parks and green spaces, quality schools and educational opportunities, and a vibrant downtown.

### **Vision Themes**

Six key themes reinforce Raleigh's Vision for 2030 and serve as Planning Raleigh 2030's overall goals:

- 1. Economic Prosperity and Equity;
- 2. Expanding Housing Choices;
- 3. Managing Our Growth;
- 4. Coordinating Land Use and Transportation;
- 5. Greenprint Raleigh—Sustainable Development; and
- 6. Growing Successful Neighborhoods and Communities.

### Capital Improvement Expenditure Summary by Program

								Phase	_	Phase II		10 Year
TRANSPORTATION		2011-12	2012-13	2013-14	2014-15		2015-16	Summary	ary	Summary		Summary
Major Streets	\$	2,480,000 \$	6,049,956	\$ 3,898,274	\$ 1,895,268	268 \$	484,599	\$ 14,808,097	_	\$ 195,166,250	\$	209,974,347
Street Improvements		3,359,283	5,589,166	5,562,150	2,845,999	666	4,549,000	21,90	21,905,598	\$ 79,200,000		101,105,598
Pedestrian Projects		351,000	8,892,000	9,780,000	208,000	000	211,000	19,442,000	2,000 \$	\$ 11,123,000		30,565,000
Transit Projects		1,308,551	4,876,520	1,475,000	1,250,000	000	1,275,000	10,18	10,185,071	\$ 6,014,000		16,199,071
Parking Improvements		675,000	1,014,535	1,014,535	623,360	360	404,940	3,73	3,732,370	\$ 6,268,500		10,000,870
Total, Transportation	<del>\$</del>	8,173,834 \$	26,4	22,177 \$ 21,729,959	\$ 6,822,	6,822,627 \$	6,924,539 \$ 70,073,136	\$ 70,07	3,136	\$ 297,771,750 \$	<del>s</del>	367,844,886
PUBLIC UTILITIES												
Water Projects	\$	\$ 16,120,000 \$	\$ 25,151,000	51,000   \$ 17,925,000   \$ 15,200,000   \$ 31,542,000   \$ 105,938,000	\$ 15,200,	\$ 000	31,542,000	\$ 105,93	8,000 \$	\$ 226,021,000 \$	\$	331,959,000
Wastewater Projects		55,950,000	85,150,000	30,400,000	42,300,000	000	52,660,000	266,460,000	0,000	364,500,000		630,960,000
Total, Public Utilities		72,070,000 \$	110,301,000	\$ 72,070,000 \$ 110,301,000 \$ 48,325,000 \$ 57,500,000 \$ 84,202,000 \$ 372,398,000 \$	\$ 57,500,	\$ 000	84,202,000	\$ 372,39	\$ 000'8	\$ 590,521,000 \$	<del>\$</del>	962,919,000

### PARKS

Acquisition Projects		- \$	\$ 20,000	\$ 150,000 \$	200,000 \$	\$ 250,000	\$ 650,000 \$	27,500,000	\$ 28,150,000
Development Projects		2,755,000	1,730,000	2,695,000	3,142,500	3,672,500	13,995,000	61,640,000	75,635,000
Park Bond Projects		7,735,000	400,000	23,872,750	35,888,750	34,325,000	102,221,500	136,967,500	239,189,000
	Total Parks	\$ 10 490 000	2 180 000	\$ 26717750 \$	39 231 250	38 247 500	38 247 500 \$ 116 866 500 \$	226 107 500	342 974 000

### STORMWATER UTILITY and NEUSE BASIN ENVIRONMENTAL

Neuse Environmental	3	\$ 1,450,000	\$ 2,440,000 \$	2,150,000	\$ 9,100,000	\$	2,250,000	\$ 17,3	7,390,000 \$	16,750,000	\$ 34,	1,140,000
Stormwater Utility		28,825,000	2,475,000	3,387,500	17,157,500		3,620,000	55,	55,465,000	34,565,000	90,	90,030,000
ī.	otal, Stormwater	\$ 30,275,000	\$ 4,915,000 \$	5,537,500	\$ 26,257,500	s	5,870,000	\$ 72,8	72,855,000 \$	51,315,000	\$ 124,	124,170,000

HOUSING	s	248,000	\$ 3,840,000	\$ 3,848,748	\$ 3,840,000	\$ 3,840,000	\$ 15,67	,616,748	- \$	s	15,616,748

### GENERAL PUBLIC IMPROVEMENT

General Public Improvement Projects	\$	1,560,000	19,749,0	749,072 \$	37,903,994 \$	24,989,342 \$		41,703,291 \$ 125,905,699	\$ 12	5,905,699	s	40,159,717	€	166,065,416
Bond Funded Facilities, Major Construction		13,768,459	31,756,064	994	23,754,916	13,065,317	·	15,745,187	0,	98,089,943		137,607,996		235,697,939
Convention Center / Performing Arts Projects		415,000	1,345,000	000	1,135,050	000'096		975,000		4,830,050		-		4,830,050
Total, GPI	s	15,743,459 \$	52,850,136	\$ 98	62,793,960	\$ 39,014,659	\$	58,423,478 \$ 228,825,692	\$ 22	8,825,692	\$	177,767,713	s	406,593,405

# Capital Improvement Program Phase I Funding by Source

						Phase
Pay-Go and Miscellaneous Funds	2011-12	2012-13	2013-14	2014-15	2015-16	Summary
Powell Bill	\$ 3,828,000	4,003,000	4,181,000	4,363,000	4,549,000	20,924,000
General Fund	2,700,000	3,800,000	5,500,000	6,500,000	7,800,000	26,300,000
Revolving Fund	100,000	100,000	100,000	100,000	100,000	500,000
Public Utility Revenues	16,000,000	30,000,000	30,000,000	32,000,000	34,000,000	142,000,000
Stormwater Utility Revenues	4,000,000	4,715,000	5,237,500	8,000,000	5,220,000	27,172,500
Walnut Creek Amphitheater Rent	415,000	430,000	445,000	460,000	475,000	2,225,000
Interlocal Agreement	•	200,000	500,000	200,000	200,000	2,000,000
Sidewalk Fund	200,000	202,000	205,000	208,000	211,000	1,026,000
Street Fund	875,000	900,006	925,000	950,000	975,000	4,625,000
Parking Operations	675,000	1,014,535	1,014,535	623,360	404,940	3,732,370
Program Income	248,000	000'06	98,748	90,000	90,000	616,748
Subtotal, Pay-Go and Misc. Funds \$	\$ 29,041,000 \$	, 45,754,535 \$	48,206,783	\$ 53,794,360 \$	54,324,940 \$	231,121,618

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605,050	\$	<del>\$</del>	190,050 \$	415,000 \$	\$ -	Subtotal, Reserve Funds
605,050	•	-	190,050	415,000	•	General Public Improvement

Facility Fees											
Streets	<del>0</del>	\$ 25,834	\$	187,642	<del>S</del>	279,424	\$ 378,	378,267 \$	484,599	<del>S</del>	1,355,766
Parks		1,500,000		-		-		-	-		1,500,000
	Subtotal, Facility Fees \$	1,525,834	↔	187,642	ક	279,424	\$ 378,	378,267 \$	484,599		2,855,766

Interest and Assessments							
Subtotal, Interest and Assessments	\$ 720,000	\$ 1,440,000	\$ 1,875,000	\$ 2,66	2,662,500	\$ 3,712,500	\$ 10,410,000

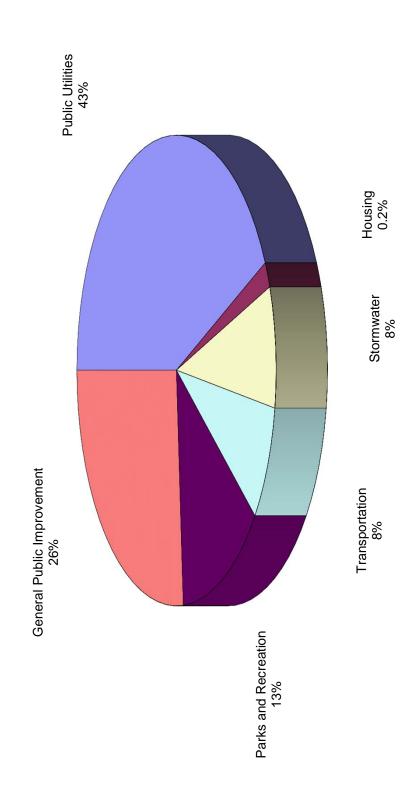
# Capital Improvement Program Phase I Funding by Source

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Debt Financing	2010-11	2011-12	2012-13	2013-14	2014-15	Summary
Utility	55,820,000	79,801,000	17,575,000	24,375,000	48,577,000	48,577,000 \$ 226,148,000
Streets	2,400,000	19,775,000	14,825,000	-	-	37,000,000
Housing	-	3,750,000	3,750,000	3,750,000	3,750,000	15,000,000
Parks	7,550,000	-	23,272,750	35,113,750	33,600,000	99,536,500
Stormwater	26,175,000	-	-	17,807,500	-	43,982,500
General Public Improvement	13,768,459	49,385,136	58,978,910	34,784,659	53,058,478	209,975,642
Subtotal, Debt Financing \$ 10	\$ 105,713,459 \$	5,713,459 \$ 152,711,136 \$ 118,401,660 \$ 115,830,909 \$ 138,985,478	118,401,660	\$ 115,830,909	\$ 138,985,478 \$	631,642,642

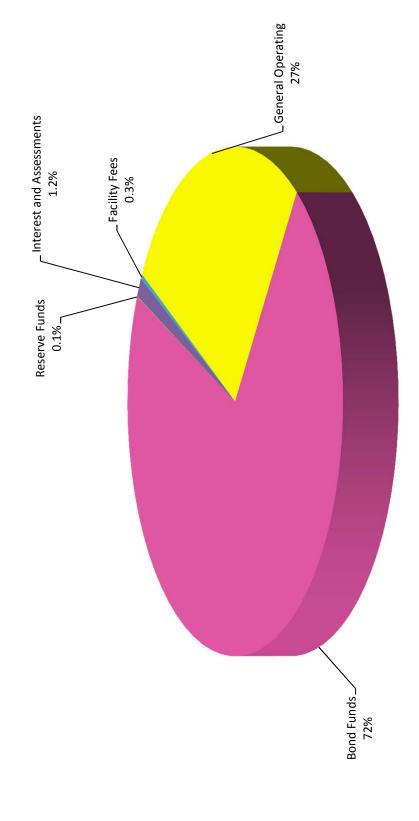
876,635,076

<sup>\$ 137,000,293 \$ 200,508,313 \$ 168,952,917 \$ 172,666,036 \$ 197,507,517 \$</sup> 

# FY 2011-12 Proposed CIP Phase I Total Expenditures



# FY 2011-12 Proposed CIP Phase I Total Funding



### **Transportation**

The transportation program includes major street construction, street improvements, pedestrian and bicycle projects, and parking and transit projects. Total Phase I funding for the transportation program is \$70,073,136. This includes proposed bond funding totaling \$37,000,000, to be pursued with a bond referendum in Fiscal Year 2012. Revenues from this proposed Multimodal Transportation Bond would be used to fund street resurfacing projects, street improvement projects and studies, sidewalk installation and repairs, greenway projects, and transit facility improvements. If a proposed bond referendum is not approved, it will require the review and delay of these proposed projects.

Phase I for **major streets** is comprised of seven street improvement projects. Each project is being designed in keeping with "complete streets" principles, which includes multimodal accommodations for bicycle, pedestrian and transit facilities. Ten previously considered projects are no longer proposed for consideration with this transportation program, including Mitchell Mill Road widening, Sandy Forks Road improvements, Poole Road widening, Jones Franklin Road widening, Old Wake Forest Road widening, Rock Quarry Road widening Part A, Tryon Road widening Part C, Six Forks Road widening, Leesville Road widening Part A, and New Bern Avenue improvements.

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. Funding is allocated to the street resurfacing program and repairs to city-owned bridges. The program also includes the construction of additional workspace and improvements to existing facilities located within the Traffic Engineering Center.

The **bicycle**, **pedestrian & planning improvements** element of the transportation program includes funding for new curb ramps, thoroughfare streetlight installation, intersection pedestrian improvements and funding for sidewalk construction, maintenance, and repair. The bicycle program is a new element of the capital improvement program following the recommendations of the newly adopted Bicycle Comprehensive Plan. This section also includes matching funds to be provided to NCDOT for construction of sidewalks associated with state projects. These funds will be used to improve intersections between greenways and public streets and to conduct advanced planning for future thoroughfare corridors. New funding for ADA curb ramps, Intersection Pedestrian Improvements, and the Traffic Calming and Pedestrian Safety program would be suspended with this transportation program.

The **parking improvements** section includes funding for the city's off-street parking facilities maintenance and repair needs, and implement security measures designed to assure public safety.

The **transit section** provides funds to maintain and upgrades facilities and equipment that support transit system operations.

The major funding sources for transportation projects in Phase I include facility fees, project-related assessments, 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 table provides a summary of transportation costs in the Capital Improvement Program.

### **Ten-Year Summary of the Transportation Program**

	PHASE I	PHASE II	TOTAL
Major Street Projects	\$ 14,808,097	\$ 195,166,250	\$ 209,974,347
Street Improvements	21,905,598	79,200,000	101,105,598
Bicycle, Pedestrian & Planning Improvements	19,442,000	11,123,000	30,565,000
Transit Projects	10,185,071	6,014,000	16,199,071
Parking Improvements	3,732,370	6,268,500	10,000,870
TOTAL	\$ 70,073,136	\$ 297,771,750	\$ 367,844,886

## Project Costs and Funding Plan for Transportation Program

Major Straat Draionto	2044 42	c	2012.13	2013 14	2044	2015 16	Phase I	Phase 2
Major Order Hojers	7	\$ 000 000	61-2102		F	21.212		
7	,- 00,-	+		•	•	·	000,000,	000,620,71
2 Two-Way Lenoir/South Street - 2011 Bond			2,000,000			•	2,000,000	
3 Leesville Rd Widening		-	3,049,956	2,324,776	1,395,268	1	6,770,000	6,770,000
4 Buck Jones Road Widening		-	-	1,573,498	500,000	484,599	2,558,097	6,442,000
5 Lake Wheeler Rd Ped Improvements	43(	430,000	-	-	-	1	430,000	1
6 Hillsborough Street Phase II - 2011 Bond			1,000,000	-	1	1	1,000,000	7,050,250
7 Person-Blount Corridor Study - 2011 Bond	25(	250,000	1		1	1	250,000	
8 Old Wake Forest Rd Bridge			-	-	1	1	•	19,562,000
9 Poole Rd Widening		ı	1		1	1	•	12,964,000
10 Jones Franklin Rd Improvements			1	•			•	16,637,000
11 Mitchell Mill Rd Widening			1	•			•	15,135,000
12 Public-Private Partnerships		1	1		1	ı	1	10,000,000
13 Sandy Forks Road Improvements		1	1		1	1	1	9,355,000
14 Rock Quarry Rd Widening-Part A			1			ı		12,545,000
15 Six Forks Road Widening		1		•			•	18,512,000
16 New Bern Avenue Improvements		,	1		1	1	1	5,273,000
17 Leesville Road Widening Part A		ı	1		1	1	•	7,027,000
18 Rock Quarry Road Part C		-	1			ı	1	22,048,000
19 Tryon Road Ext Part C		1	1			1	,	13,823,000
Subtotal, Major Street Projects	\$ 2,480,000	\$ 000'	6,049,956	\$ 3,898,274	\$ 1,895,268 \$	\$ 484,599	\$ 14,808,097	\$ 195,166,250
							Phase I	Phase 2
Street Improvements	2011-12	2	2012-13	2013-14	2014-15	2015-16	Summary	Summary
1 Bridge Repair	\$ 120	120,000 \$	120,000	\$ 120,000	\$ 120,000 \$	\$ 120,000	\$	\$ 500,000
2 Street Resurfacing	2,689	689,283	1	-	2,181,549	3,589,000	8,459,832	73,000,000
3 Street Resurfacing - Petition - 2011 Bond		-	5,050,000	5,000,000	1	1	10,050,000	1
4 Street Improvements and Paving Petitions	200	200,000	104,166	100,000	150,000	200,000	754,166	1,000,000
5 Intersection Signage and Signal Imrpovements		ı	150,000	242,150	294,450	475,000	1,161,600	2,375,000
6 Traffic Signal Improvements		-	165,000	100,000	100,000	165,000	530,000	825,000
7 Traffic Engineeering Center Improvements	35(	350,000	1	-	-	1	350,000	1
8 Neighborhood Traffic Calming Project		1	1	-	•	1	•	1,500,000
Subtotal, Street Improvements	\$ 3,359,283	,283 \$	5,589,166	\$ 5,562,150	\$ 2,845,999 (	\$ 4,549,000	\$ 21,905,598	\$ 79,200,000
							Phase I	Phase 2
Bicycle, Pedestrian & Planning Improvements	2011-12	2	2012-13	2013-14	2014-15	2015-16	Summary	Summary
	\$	<b>⇔</b> -	1,500,000		- \$	-	-	\$ 1,200,000
2 Sidewalk Improvement - 2011 Bond		1	2,375,000	2,375,000	1	1	4,750,000	2,500,000
3 Sidewalk Repair - 2011 Bond		1	2,000,000	2,000,000	1	ı	4,000,000	100,000

## Project Costs and Funding Plan for Transportation Program

Riovela Dadastrian & Dianning Improvements	2011-12	2012_13	2013-14	2014-15	2015-16	Phase I	Phase 2
Throughfare Streetlight Installation	!!	-	105,000	108,000	111,000	324,000	1,500,000
5 Advanced Plan Feasibility Study	50,000	50,000	50,000	50,000	50,000	250,000	250,000
6 Walnut Creek Greenway-New Hope Rd to Neuse River-2011 Bond	,		3,200,000	1	-	3,200,000	
7 Lumley/Westgate Road Cooridor Greenway - 2011 Bond	1	2,200,000	1	1	1	2,200,000	1
8 Rosengarten Greenway - 2011 Bond	1	1	200,000	ı	1	200,000	1
9 Bicycle Facilities/Parking	1	27,000	25,000	25,000	25,000	102,000	125,000
10 Bike Lane Marking & Signage	1	,	25,000	25,000	25,000	75,000	2,500,000
11 Six Forks Road Sidewalks	1	100,000	1	1		100,000	
12 Creedmoor Rd Sidewalks	301,000	1	1	ı	1	301,000	1
13 I-40 Overpass Ped Access Retrofits	1	415,000	1	-	1	415,000	
14 Bicycle Striping Projects	1	225,000	1	ı	1	225,000	
15 Tryon Road Widening Extension	-	•	•	-	1	-	448,000
16 Intersection Pedestrian Improvements	-	'	1	-	1	-	750,000
17 Wetland Mitigation & Delineation	-	'	1	-	1	-	125,000
18 Blue Ridge Rd/State Fairground	-		1	-	-	-	750,000
19 Ada Curb Ramps	1			1	-	1	875,000
Subtotal, Bicycle, Ped & Planning Improvements	\$ 351,000	\$ 8,892,000	000'082'6 \$	\$ 208,000	\$ 211,000	\$ 19,442,000	\$ 11,123,000
1						Phase I	Phase 2
Transit Projects	2011-12	2012-13	2013-14	2014-15	2015-16	Summary	Summary
1 Moore Square Facility Improvements - 2011 Bond	\$ 350,000	\$ 3,150,000	- \$	- \$	- \$	\$ 3,500,000	- \$
2 Transit Corridor Improvements(Shelters & Benches)-2011 Bond	-	500,000	250,000	-	_	750,000	_
3 Transit Equipment/Facilities/Property Maintenance	159,856	503,520	538,000	506,400	505,040	2,212,816	2,500,000
4 Transit Preventive Maintenance	488,695	490,000	487,000	450,600	503,760	2,420,055	2,180,000
5 Transit - Bus & Van Replacement	310,000	233,000	200,000	293,000	266,200	1,302,200	1,334,000
Subtotal, Transit Projects	\$ 1,308,551	\$ 4,876,520	\$ 1,475,000	\$ 1,250,000	\$ 1,275,000	\$ 10,185,071	\$ 6,014,000
						Phase I	Phase 2
Parking Improvement Program	2011-12	2012-13	2013-14	2014-15	2015-16	Summary	Summary
1 Parking Deck Maint & Improvement	\$ 360,000	\$ 240,000	\$ 240,000	\$ 200,000	- \$	\$ 1,040,000	\$ 1,000,000
2 Municipal Deck-Assess & Repair	315,000	-	1	30,000	_	345,000	2,068,500
3 LED Parking Deck Lighting	1	674,535	674,535	293,360	304,940	1,947,370	1,500,000
4 Parking Deck Security	•	100,000	100,000	100,000	100,000	400,000	100,000
5 Parking Meter Replacement	1		1	1	_	1	1,600,000
Subtotal, Parking Improvements	\$ 675,000	\$ 1,014,535	\$ 1,014,535	\$ 623,360	\$ 404,940	\$ 3,732,370	\$ 6,268,500

297,771,750

6,924,539 \$ 70,073,136

6,822,627

8,173,834 \$ 26,422,177 \$ 21,729,959

₩

Total Project Costs, Transportation

## Project Costs and Funding Plan for Transportation Program

1		:	:	:	!	:	Phase I
Program F	Program Funding Resources	2011-12	2012-13	2013-14	2014-15	2015-16	Summary
Street Fund Income		\$ 875,000	000,006 \$	\$ 925,000	\$ 950,000	\$ 975,000	3 4,625,000
Interest		170,000	340,000	300,000	300,000	300,000	1,410,000
Parking Operations		675,000	1,014,535	1,014,535	623,360	404,940	3,732,370
Sidewalk Fund Revenues		200,000	202,000	205,000	208,000	211,000	1,026,000
Facility Fees		25,834	187,642	279,424	378,267	484,599	1,355,766
2011 Transportation Bond		2,400,000	19,775,000	14,825,000	-	-	37,000,000
Powell Bill		3,828,000	4,003,000	4,181,000	4,363,000	4,549,000	20,924,000
	Total Funding Plan, Transportation \$ 8,173,834	\$ 8,173,834	\$ 26,422,177	26,422,177 \$ 21,729,959	\$ 6,822,627	\$ 6,924,539	6,924,539 \$ 70,073,136

### **Phase I - Transportation**

### **Major Streets**

### 1. <u>Tryon Road Widening – 2011 Bond</u>: \$1,800,000

This project will widen Tryon Road to a four lane median divided roadway with curb and gutter, sidewalks and bicycle lanes on both sides from South Wilmington Street to the Norfolk Southern Railroad Bridge. NCDOT will replace the bridge over the Norfolk Southern Railroad.

### 2. Two-Way Lenoir and South Street: \$2,000,000

The project will complete the conversion of South Street and Lenoir Street from one-way streets to twoway streets in downtown Raleigh. The project scope has been expanded to include bicycle lanes on South Street and sharrow markings on Lenoir Street.

### 3. Leesville Road Widening: \$6,770,000

This project will widen and realign Leesville Road to a four-lane median-divided section with curb and gutter, sidewalks, marked bike lanes and streetlights between I-540 and existing New Leesville Boulevard.

### 4. Buck Jones Road Widening: \$2,558,097

This project will widen Buck Jones Road to a three lane section with curb and gutter, sidewalks, marked bike lanes and streetlights from Farmgate Road to Xebec Street.

### 5. Lake Wheeler Road Pedestrian Improvements: \$430,000

This project will construct a multi-purpose path along the west side of the roadway and will provide turning lanes at various intersections between Centennial Parkway and Tryon Road. Construction will include some pedestrian refuge installations near the I-40 exit ramps and curb-cut modifications along Lake Wheeler Road. The amount budgeted reflects a 20% match requirement for a federal grant that will be used to complete construction on the project.

### 6. Hillsborough Street Phase II – 2011 Bond: \$1,000,000

Prepare and implement a streetscape plan for a 2,477 linear foot section of Hillsborough Street between Gardner Road and Rosemary Street to address needed improvements within the street right-of-way including sidewalk repair and replacement, traffic circles, street trees between the curb and sidewalk, overhead utility consolidation and cleanup.

### 7. Person-Blount Corridor Study – 2011 Bond: \$250,000

This project involves the design and construction of lane reconfiguration, on-street parking modifications, trees and street furniture, and under-grounding utilities along Person and Blount Streets from Delway Street to Martin L. King, Jr. Blvd. These improvements will help to address needed improvements within the street right-of-way including sidewalk repair, street trees between the curb and sidewalk, and overhead utility consolidation.

### **Street Improvements**

### 1. Bridge Repair: \$600,000

This project will address necessary repairs and provide maintenance for city owned bridges. This funding will address the needs of 38 structures on a gradual basis with the oldest bridge structures receiving the highest priority.

### 2. Street Resurfacing: \$8,459,832

This project addresses the ongoing annual pavement resurfacing of the City system streets.

### 3. Street Resurfacing – Petition – 2011 Bond: \$10,050,000

This project addresses the ongoing annual pavement resurfacing of the City system streets which will be funded with 2011 bond funding.

### 4. Street Improvements and Paving Petitions: \$754,166

Construct street improvements and petition paving projects associated with capital projects or petition projects as requested by citizens and submitted to City Council for approval.

### 5. Intersection Signage and Signal Improvements: \$1,161,600

This is a program to improve services at intersections through refurbishment of intersection medians, signal head replacement (LED), overhead street markers, and cover the cost of replacing approximately 70,000 signs in the City of Raleigh with new highly reflective sheeting to meet the Federal Highway Administration's new requirements

### 6. Traffic Signal Improvements: \$530,000

Install new traffic signals on City-maintained streets.

### 7. Traffic Engineering Center Improvements: \$350,000

This project will fund the construction of a sign screening building, the paving the back parking lot of the Signal and Services Shops, and the construction of storage shelters.

### Bicycle, Pedestrian and Planning Projects

### 1. <u>Sidewalk Improvements – Petition – 2011 Bond</u>: \$3,000,000

Construct new sidewalks along thoroughfares and other public streets by petition projects requested by citizens and submitted to City Council for approval.

### 2. Sidewalk Improvements – 2011 Bond: \$4,750,000

Construct new sidewalks along thoroughfares and other public streets based on the recommendation of evaluated and prioritized streets by the Sidewalk Program criteria and submitted to City Council for approval.

### 3. <u>Sidewalk Repair – 2011 Bond</u>: \$4,000,000

Repair of broken and deteriorated sidewalk locations as approved by the City Council. These are property owner assessed projects.

### 4. Thoroughfare Streetlight Installation: \$324,000

Provide streetlights for improved thoroughfares and Phase I CIP projects to address capital backlog of Streetlight Program.

### 5. Advanced Plan Feasibility Study: \$250,000

This project funds advance planning and environmental documentation for the future thoroughfare corridors throughout the City.

### 6. Walnut Creek Greenway - New Hope Rd to Neuse River - 2011 Bond: \$3,200,000

The Walnut Creek Greenway project extends from New Hope Road east to the Neuse River, for approximately 2.3 miles. This segment is proposed to be a traditional greenway, including a10-foot wide asphalt path with 4,900 linear feet of boardwalk to avoid impacts to jurisdictional wetlands. Design for this segment of greenway was completed with funding from the 2007 Parks and Recreation bond referendum. The proposed funds from the 2011 Transportation Bond are for the acquisition and construction phases of this project. This greenway will connect downtown Raleigh and the Neuse River Greenway and provide a critical connection within the Capital Area Greenway System.

### 7. <u>Lumley/Westgate Road Corridor Greenway – 2011 Bond</u>: \$2,200,000

The Lumley to Westgate Road Corridor is composed of a section of multi-use pat and a section of bike lane shoulder improvements. The total length of this corridor is 3.7 miles. The multi-use path will extend approximately 1.4 miles on Lumley Road from Briar Creek to Glenwood Drive. The segment of on-road

bicycle improvements will extend approximately 2.3 miles on Westgate Road from Glenwood Drive to Leesville Road. The proposed funds are for the design, acquisition and construction phases of this project.

### 8. Rosengarten Greenway – 2011 Bond: \$500,000

The Rosengarten Greenway will provide a possible connection from the proposed Intermodal Transportation Center to the Rocky Branch Greenway beginning at South Saunders Street and Jamaica Drive. This greenway segment is proposed to be a traditional greenway 10-foot wide asphalt path along the tributary to Rocky Branch. The remainder of the trail will be enhanced sidewalk along the right of way of Dorothea Drive and South Saunders Street. The total length of this segment is approximately .04 miles. The proposed funds are for the design, acquisition and construction phases of this project. This segment will serve as a key connection between the Rocky Branch Greenway to the south and the Lenoir Street Park and Boylan Heights Neighborhood to the north.

### 9. <u>Bicycle Facilities/Parking</u>: \$102,000

Provide bicycle racks, secure parking, and support facilities per the recommendation of the Bicycle Transportation Plan.

### 10. Bike Lane Marking & Signage: \$75,000

Provide bicycle lane striping and bicycle emblem installation per the recommendation of the Bicycle Transportation Plan. This project will also improve or replace existing bicycle route signage and install additional signs and way finding equipment.

### 11. Six Forks Road Sidewalks: \$100,000

This project includes the construction of 5' sidewalks along Six Forks Road from Coleridge Drive to Wake Forest Road. The project includes the construction of a pedestrian bridge near Anderson Drive. Funding for this project reflects a 20% matching requirement for a federal grant that will be used to complete this project.

### 12. Creedmoor Road Sidewalks: \$301,000

This project includes the construction of continuous 5' sidewalks on both sides Creedmoor Road from Glenwood Avenue to Strickland Road. Funding for this project reflects a 20% matching requirement for a federal grant that will be used to complete this project.

### 13. <u>I-40 Overpass Pedestrian Access Retrofits:</u> \$415,000

This project includes a comprehensive feasibility study and subsequent construction of pedestrian retrofits at the I-40 overpasses at Avent Ferry Road, Lake Dam Road, Trailwood Drive, Rock Quarry Road, Trenton Road, and Blue Ridge Road bridge over Wade Avenue. Each of these roads has high pedestrian demand but no pedestrian accommodations at the overpass crossing location. The feasibility study will develop cost-effective scenarios to provide pedestrian accommodations at these overpasses and provide detailed costs estimates, including preliminary engineering for the design and construction of each pedestrian retrofit. Less than 40% of the I-40/I-440 crossings in Raleigh are pedestrian accessible. This project will provide critical connections to greenway trails, bicycle routes and to key destinations such as Lake Johnson and NC State University Centennial Campus. Funding for this project reflects a 20% matching requirement for a federal grant that will be used to complete this project.

### 14. Bicycle Striping: \$225,000

This project implements the priority bicycle lane striping, sharrow marking, and restriping projects per the Comprehensive Bicycle Transportation Plan. Funding for this project reflects a 20% matching requirement for a federal grant that will be used to complete this project.

### **Transit**

### 1. Moore Square Facility Improvements - 2011 Bond: \$3,500,000

This funding is for the City's share of design, engineering and construction of facility upgrades at Moore Square Transit Center.

### 2. Transit Corridor Improvements (Shelters and Benches) – 2011 Bond: \$750,000

This funding will provide new and improved transit amenities such as shelters and benches at stops along priority transit corridors within the Capital Area Transit System.

### 3. Transit Equipment, Facilities and Property Maintenance: \$2,212,816

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

### 4. Transit Preventive Maintenance: \$2,420,055

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

### 5. Transit Bus and Van Replacement: \$1,302,200

This funding is for the City's share of replacement of buses and vans in the Capital Area Transit System which have reached their life expectancy.

### **Parking Improvements**

### 1. Parking Deck Maintenance and Improvements: \$1,040,000

This is a program to improve and maintain all parking decks. The improvements include card readers and spitters, security cameras and other maintenance items.

### 2. Municipal Deck – Assessment and Repairs: \$345,000

Regular structural assessments of parking decks to identify areas requiring both immediate and longer term repair.

### 3. LED Parking Deck Lighting: \$1,947,370

This project will convert existing lighting systems to LED for all parking decks. Revised cost figures and light fixtures adding in stairwells to original fixtures to replace LED's in the Municipal, Cabarrus, Wilmington, Moore Square, Performing Arts, City Center (City Side), and City Center (Progress Energy Side) decks.

### 4. Parking Deck Security: \$400,000

This is a fundamental program required to maintain the security of all City parking Decks. The City Attorney's Office has recommended that the parking decks be studied for the most appropriate security measures and that the necessary changes be implemented.

### **Phase II Transportation Projects**

### **Major Streets**

### Tryon Road Widening – 2011 Bond: \$12,023,000

This project will widen Tryon Road to a four lane, median divided roadway with curb and gutter, sidewalks and bicycle lanes on both sides from South Wilmington Street to the Norfolk Southern Railroad Bridge. NCDOT will replace the bridge over the Norfolk Southern Railroad.

### Leesville Road Widening: \$6,770,000

This project will widen and realign Leesville Road to a four-lane, median-divided section with curb and gutter, sidewalks, marked bike lanes and streetlights between I-540 and existing New Leesville Boulevard.

### Buck Jones Road Widening: \$6,442,000

This project will widen Buck Jones Road to a three lane section with curb and gutter, sidewalks, marked bike lanes and streetlights from Farmgate Road to Xebec Street.

### PROPOSED CIP BUDGET 2011-12 TRANSPORTATION

### Hillsborough Street Phase II – 2011 Bond: \$7,050,250

Prepare and implement a streetscape plan for a 2,477 linear foot section of Hillsborough Street between Gardner Road and Rosemary Street to address needed improvements within the street right-of-way including sidewalk repair and replacement, traffic circles, street trees between the curb and sidewalk, overhead utility consolidation/cleanup.

### Old Wake Forest Road Bridge: \$19,562,000

This project will widen Old Wake Forest Road to a four lane median divided section with curb and gutter, sidewalks, and streetlights from Litchford Road to Capital Boulevard (US1).

### Poole Road Widening: \$12,964,000

This project will widen Poole Road to a four lane median divided section with curb and gutter, sidewalks, and streetlights from Maybrook Road to Barwell Road.

### Jones Franklin Road Improvements: \$16,637,000

This project will widen Jones Franklin Road to a four lane median divided section with curb and gutter, sidewalks and streetlights from Dillard Drive to the I-440 interchange and includes widening the existing bridge over I-40 between Crossroads Boulevard and Wayne Street.

### Mitchell Mill Road Widening: \$15,135,000

This project will widen Mitchell Mill Road to a four lane median divided section with curb and gutter, sidewalks and streetlights from Louisburg Road (US 401) to Watkins Road.

### Public and Private Partnerships: \$10,000,000

Fund reserves established for public-private agreements for thoroughfare improvements and collector street system.

### Sandy Forks Road Improvements: \$9,355,000

This project will widen Sandy Forks Road to a three lane section with curb and gutter, sidewalks and streetlights from Six Forks Road to Falls of Neuse Road.

### Rock Quarry Road Widening Part A: \$12.545.000

This project will widen the existing three lane segment of Rock Quarry Road between Star Sapphire Drive to Sunnybrook Road to a multi-lane section with curb and gutter, and sidewalks and streetlights on both sides. This project will include widening the bridge over I-440.

### Six Forks Road Widening: \$18,512,000

This project will widen Six Forks Road to a six lane median divided section with curb and gutter, sidewalks and streetlights from Rowan Street to Sandy Forks Road.

### New Bern Avenue Improvements: \$5,273,000

This project involves the construction of curb and gutter, drainage, sidewalks and streetlights on both sides of New Bern Avenue between Poole Road and Sunnybrook Road.

### <u>Leesville Road Widening Part A</u>: \$7,027,000

Widen Leesville Road to a four-lane divided section with curb and gutter and sidewalks on both sides between Westgate Road and O'Neal Road.

### Rock Quarry Road Part C: \$22,048,000

This project will widen the existing two-lane section of Rock Quarry Road from New Hope Road to Battle Bridge Road as a 4-lane divided roadway with curb and and gutter, sidewalks and bicycle lanes on both sides.

### Tryon Road Widening - Part C: \$13,823,000

This project will widen Tryon Road to a four lane median divided roadway with curb and gutter, street lights, sidewalks, and bicycle lanes on both sides Lake Wheeler Road to the Norfolk Southern Railroad Bridge.

### **Street Improvements**

Bridge Repair: \$500,000

This project will address necessary repairs and provide maintenance for city owned bridges. This funding will address the needs of 38 structures on a gradual basis with oldest bridge structures receiving the highest priority.

Street Resurfacing: \$73,000,000

This project funds the ongoing annual pavement resurfacing of the City system streets.

### Street Improvements and Paving Petitions: \$1,000,000

Construct street improvements and petition paving projects associated with capital projects or petition projects as requested by citizens and submitted to City Council for approval.

### Intersection Signage and Signal Improvements: \$2,375,000

This is a program to improve intersections through refurbishment of medians, signal head replacement (LED), overhead street markers, and to help cover the cost of replacing approximately 70,000 signs in the City of Raleigh with new highly reflective sheeting to meet the Federal Highway Administration's new requirements

### Traffic Signal Improvements: \$825,000

Install new traffic signals on City-maintained streets.

### Neighborhood Traffic Calming Project: \$1,500,000

Implement traffic calming measures along non-thoroughfare streets per the Neighborhood Traffic Management Program by petition as requested by citizens and submitted to City Council for approval.

### Bicycle, Pedestrian and Planning Projects

### Sidewalk Improvements - Petition - 2011 Bond: \$1,200,000

Construct new sidewalks along thoroughfares and other public streets by petition projects as requested by citizens and submitted to City Council for approval.

### Sidewalk Improvements - 2011 Bond: \$2,500,000

Construct new sidewalks along thoroughfares and other public streets based on the recommendation of evaluated and prioritized streets by the Sidewalk Program criteria and submitted to City Council for approval.

### Sidewalk Repair - 2011 Bond: \$100,000

Repair of broken and deteriorated sidewalk locations as approved by the City Council. These are property owner assessed projects.

### Thoroughfare Streetlight Installation: \$1,500,000

Provide streetlights for improved thoroughfares and Phase 1 CIP projects to address capital backlog of Streetlight Program.

### Advanced Plan Feasibility Study: \$250,000

This project funds advance planning and environmental documentation for the multiple future thoroughfare corridors throughout the City.

Bicycle Facilities/Parking: \$125,000

Provide bicycle racks, secure parking bicycle parking stations and supportive facilities per the recommendation of the City of Raleigh Bicycle Transportation Plan.

### Bike Lane Marking & Signage: \$2,500,000

Provide bicycle lane striping and bicycle emblem installation per the recommendation of the Bicycle Transportation Plan. This project will also provide improvements or replacement of existing bicycle route signage and install additional signs and way finding equipment.

### Tryon Road Widening Extension: \$448.000

Funds the local match for new sidewalk construction associated with NCDOT TIP Project which will replace existing flyover bride at Western Boulevard and Hillsborough Street.

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

This is a program to improve services at intersections through refurbishment of intersection medians, signal head replacement (LED), overhead street markers, and to help cover the cost of replacing approximately 70,000 signs in the City of Raleigh with new highly reflective sheeting to meet the Federal Highway Administration's new requirements

### Wetland Mitigation & Delineation: \$125,000

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

### Blue Ridge Rd/State Fairground: \$750,000

Install sidewalks along the west side of Blue Ridge Road between Hillsborough Street and Wade Avenue adjacent to the NC State Fairgrounds.

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

The Americans with Disabilities Act requires the 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.

### **Transit**

### Transit Equipment, Facilities and Property Maintenance: \$2,500,000

This funds the City's share of replacement of capital equipment items in the Capital Area Transit System.

### Transit Preventive Maintenance: \$2,180,000

This funds 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 and software.

### Transit Bus and Van Replacement: \$1,334,000

This funds the City's share of replacement of buses and vans in the Capital Area Transit system which have reached their life expectancy.

### **Parking Improvements**

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

This is a program to improve and maintain all parking decks. The improvements include card readers and spitters, security cameras and other maintenance.

### Municipal Deck - Assessment and Repairs: \$2,068,500

Regular structural assessments of parking decks to identify areas requiring both immediate and longer term repair.

### LED Parking Deck Lighting: \$1,500,000

This project will convert existing lighting systems to LED for all parking decks. Revised cost figures and light fixtures adding in stairwells to original fixtures to replace LED's in the Municipal, Cabarrus, Wilmington, Moore Square, Performing Arts, City Center (City Side), and City Center (Progress Energy Side) decks.

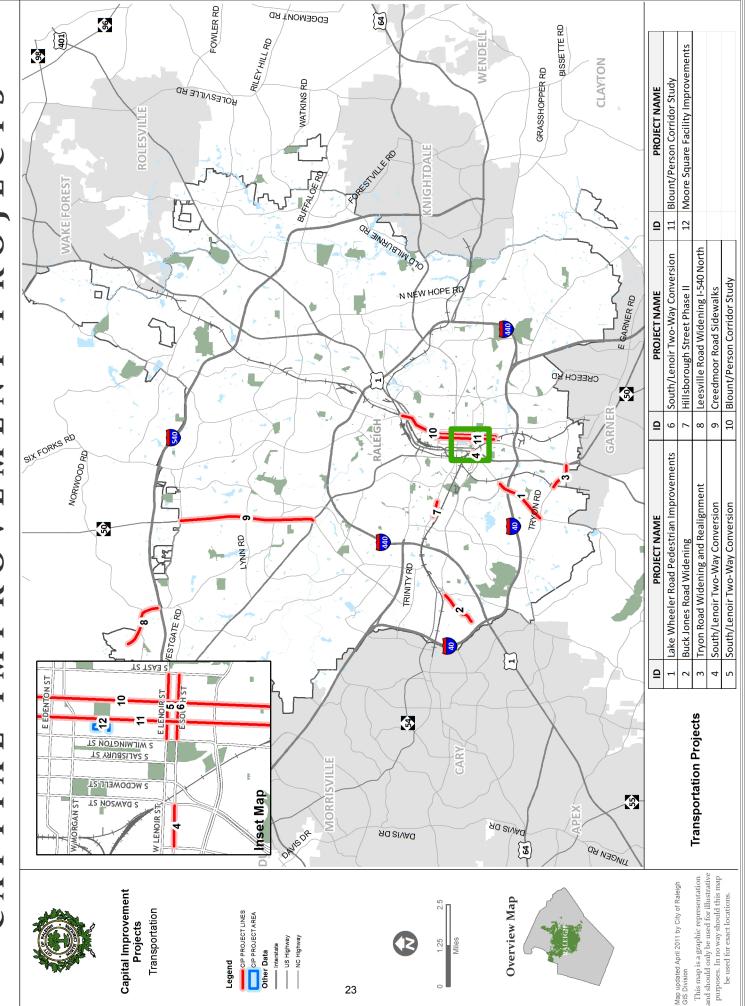
### Parking Deck Security: \$100,000

This is a fundamental program required to maintain the security of all City parking Decks. The City Attorney's Office has recommended that the parking decks be studied for the most appropriate security measures and that the necessary changes be implemented.

### Parking Meter Replacement: \$1,600,000

The scope includes new pay stations and single meter replacement. The downtown street metering area extends from Dawson to Blount to Lenoir, as well as Glenwood Avenue from Hillsborough to Peace, and Hillsborough.

# S CAPITAL IMPROVEMENT PROJECT





### **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 \$372,398,000.

The Phase I public utilities program includes improvements to the water and sewer delivery systems. Funding for public utilities capital projects is primarily provided through the issuance of revenue bonds. Public Utilities sold revenue bonds in the amount of \$100,000,000 in January 2011 to fund both new projects identified in this capital plan as well as existing unfunded projects. Revenue bonds will also finance future project. The Public Utilities operating fund supports all debt service requirements for revenue bonds issued and cash funding for projects.

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	\$ 105,938,000	\$ 226,021,000	\$ 331,959,000
Wastewater Projects	266,460,000	364,500,000	630,960,000
TOTAL	\$ 372,398,000	\$ 590,521,000	\$ 962,919,000

### Project Costs and Funding Plan for Public Utilities

	Water Projects	2011-12	2012-13	2013-14	2014-15	2015-16	Phase I Summary	Phase II Summary
~	Annexation-Water	· \$		\$ 1,000,000 \$	1,000,000	\$ 1,000,000	3,000,000	\$
2		400,000	400,000	400,000	400,000	400,000	2,000,000	2,000,000
3		4,000,000	4,000,000	4,000,000	4,000,000	5,000,000	21,000,000	25,000,000
4		-	5,000,000	•	1	-	5,000,000	-
2	EMJ Pilot Plant	1	1,000,000	1	1	1	1,000,000	1
9	Falls Lake Hydroelectric Project	150,000		1	1	1	150,000	•
7	Ligon Mill Road Waterline	1	1	1		430,000	430,000	•
∞		200,000	200,000	200,000	200,000	400,000	1,800,000	2,000,000
6	EMJ Bulk Storage Tank Replacement	1	125,000	1	1	125,000	250,000	250,000
10		1,200,000	1,200,000	1,200,000	1,250,000	1,000,000	5,850,000	-
11	1 Va Security Improvements	1	1	1	1	200,000	200,000	1,000,000
1,	12 EM Johnson Facility Rehabilitation	200,000	200,000	200,000	200,000	750,000	2,750,000	3,750,000
1	13 EMJWTP Clearwell Rehab	1,100,000	-	-	-	1	1,100,000	•
14	4 EMJWTP New Lab Facility	-	-	4,500,000	-	-	4,500,000	-
15	5 DebWTP Water Transmission Main	-	-	-	-	1,400,000	1,400,000	10,600,000
16	6 EMJWTP Lagoon Sludge Removal	-	-	-	-	1,600,000	1,600,000	-
17		150,000	150,000	500,000	150,000	100,000	1,050,000	500,000
15	18 Parellel 30 Main (Atlantic to Capital)	-	-	-	2,900,000	-	2,900,000	-
16	19 Little River Reservoir Impact Statement	2,000,000	1,000,000	800,000	-	-	3,800,000	-
20	0 Em Johnson WTP Sodium Permang	2,000,000	-	-	-	-	2,000,000	-
21	1 Little River Reservoir County	200,000	500,000	200,000	500,000	500,000	2,500,000	2,500,000
22	2 Poole Rd Booster Pump Station	-	-	-	-	2,800,000	2,800,000	-
23	3 Falls Lake Initiative	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	7,500,000	
24	4 Little River Reservoir Wetland Mitigation	-	2,500,000	2,500,000	2,500,000	2,500,000	10,000,000	12,500,000
25	5 3 MGD Pump Add Shelly Road PS	-	276,000	-	-	-	276,000	-
26	6 DEBWTP Settling Tank Dewater	-	6,800,000	-	-	-	6,800,000	-
27		-	-	325,000	1	1	325,000	-
28	8 1 MG Pump Ugrade Mt. Herman PS	-	-	-	1	280,000	280,000	-
29		'	1	1	•	70,000	70,000	•
3(	30   Clifford Rd Trans Main 24"	-	-	1	1	1,189,000	1,189,000	-
31	1 Control Valve Install Wendell Bvd	-	-	-	1	130,000	130,000	-
32	2 EMJWTP High Service Discharge	-	-	-	-	359,000	359,000	-
33	3 EMJWTP Pump #1 Upgrade	-	-	-	-	000,069	000'069	-
34	4 EMJWTP Raw Water Reservoir Cover	1,100,000	-	-	1	1	1,100,000	-
35	5 Franklin Street Waterline 12"	'	'	1	ı	133,000	133,000	•
36	36 Hebron Church Rd Transmission	-	-	-	1	970,000	970,000	-
37	7 Wendell Blvd Water Line	-	-	1	1	1,449,000	1,449,000	-
38	8 Zebulon Water Line of NC 97	'	1	-	1	2,176,000	2,176,000	1

### Project Costs and Funding Plan for Public Utilities

	Water Projects	2011-12	2012-13	2013-14	2014-15	2015-16	Phase I	Phase II
39	Springdale Tank Reg	,	-	,		1,650,000	1,650,000	-
40			1		ī	1,029,000	1,029,000	1
41		520,000			1		520,000	
42	2 Oregon Trail Rd Transmission	1	1	1	1	1,219,000	1,219,000	1
43	3 NC 98 Bypass Waterline	-	-	-	-	493,000	493,000	1
44	4 EMJWTP Filter Bottom Rehab	200,000	-	1	1	1	200,000	1
45	5 EMJ WTP UV Solids Handling	-	-	-	-	-	-	38,100,000
46	8 Water Plant Settling Basins Rehabilitation	-	-	-	-	-	-	1,200,000
47		-	-	1	1	1	1	839,000
48		-	-	-	-	-	-	38,500,000
49	9 EMJWTP Floc Sed Basin Improvements	-	_	-	-	-	-	42,900,000
20	3 EMJWTP Ozone Expansion	-	-	1	-	1	-	24,500,000
51	1 Jones Sausage Upgrade I-40		1	1	1	1		850,000
52	2 Ten Ten Road Water Tank	-	-	1	1	1	1	3,000,000
53	3 Ten Ten Road Transmission Line	-	-	1	1	1	1	432,000
54	4 Little River Reservoir Wetland Mitigation Construction	-	-	1	-		1	15,600,000
22	5 Little River Reservior Mitigation Monitoring	1	1	ı	-	ı	ı	300,000
	Subtotal, Water Projects	\$ 16,120,000	\$ 25,151,000	\$ 17,925,000	\$ 15,200,000	\$ 31,542,000	\$ 105,938,000	\$ 226,021,000
27							Phase I	Phase II
	Wastewater Projects	2011-12	2012-13	2013-14	2014-15	2015-16	Summary	Summary
_	Main Replacement	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 7,000,000	\$ 27,000,000	\$ 35,000,000
2	Annexation-Sewer	-	_	2,000,000	2,000,000	2,000,000	6,000,000	10,000,000
က	Lower Walnut Crk Parallel Interceptor	1	1	1	2,000,000	19,500,000	21,500,000	1
4	Wendell Wellington Sewer Basin	-	-	1	1	200,000	200,000	1
2	New Crabtree Crk Pump Sta & Equalizer	28,000,000	28,000,000	-	-	-	56,000,000	13,000,000
9	WF Richland Crk Intercept Impv	200,000	4,700,000	1	1	1	5,200,000	1
7	WF Smith Creek Intrceptor Improvements	200,000	8,500,000	1	-	1	9,000,000	-
8	System Capacity Analysis Improvements	200,000	450,000	200,000	200,000	200,000	1,250,000	1,000,000
6		200,000	500,000	500,000	500,000	2,000,000	4,000,000	10,000,000
10	Neuse River Pump Station Force	-	_	2,000,000	-	-	2,000,000	•
11	1 Aversboro Pump Station Improvements	2,000,000	-	-	-	-	2,000,000	1
12	2 NRWWTP Land Purchase	-	-	-	-	200,000	200,000	1,000,000
13	3 Sanitary Sewer Pump Station Removal	200,000	200,000	500,000	500,000	1,000,000	3,000,000	5,000,000
14		200,000	2,000,000	1	1	1	2,500,000	1
15		•	3,000,000	3,000,000	2,200,000	1	8,200,000	1
16	6 NRWWTP Facility Improvements	•	-	1	•	1,400,000	1,400,000	1
17	7 Lower Crabtree N Sewer Main	200,000	ı	1	1	-	200,000	1

### Project Costs and Funding Plan for Public Utilities

	Wastewater Projects	2011-12	2012-13	2013-14	2014-15	2015-16	Phase I Summary	Phase II Summary
18	Removal Garner	4,200,000	1	•	1	1	4,200,000	,
19		1	1			1,000,000	1,000,000	5,000,000
20		1	1		,	1,000,000	1,000,000	1
21	GIS Water System Upgrades	200,000	-	'	•	-	200,000	1
22	NRWWTP 15 Mgd Expansion	000,000,6	28,000,000	15,600,000	7,400,000	-	000'000'09	1
23	NRWWTP Lab Improvements	-	-	-	000,009	-	000,009	1
24		150,000	1	-	-	-	150,000	1
25	Various Wendell Gravity Sewer	150,000	250,000	1	1	1	400,000	1
26	Wendell East Wake Sewer Costsh	1	1	1		3,300,000	3,300,000	1
27	East Neuse Regional Pump Station	200,000	1,500,000	1	13,400,000	1	15,400,000	15,000,000
28	Crabtree Lfit Station Improv	1	1	100,000	1,000,000	1	1,100,000	1
29	Access to Sanitary Sewer Mains	1		1		200,000	200,000	1,000,000
30		ı	1			3,500,000	3,500,000	96,000,000
31	Neuse East Parallel Inter Ph4	ı	1			1,500,000	1,500,000	27,000,000
32	NRWWTP Anaerobic Digestors	•		1		5,000,000	5,000,000	47,000,000
33	NRWWTP Instrumentation Improv	1		1		100,000	100,000	200,000
34	_	1		1	6,000,000	ı	6,000,000	1
35	Wendell Green Willow PS Upgrade	•	•		•	95,000	95,000	•
9g 2	Wendell Lake Glad Rd Demo	•		1		165,000	165,000	1
37	Wendell Wellington Sewer Basin	•	•		•	1,200,000	1,200,000	•
38	NRWWTP Electrical Trans Rehab	1	1			300,000	300,000	1
39		1,250,000	1,250,000	'	•	-	2,500,000	1
40	NRWWTP Thickening Bldg Switchgear	1	1	1		300,000	300,000	1
41	Sanitary Sewer Siphon Rehab	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000	5,000,000
42	Utility Field Op Facil Improvements	1,000,000	200,000	500,000	200,000	200,000	3,000,000	2,500,000
43	Crabtree Valley Sewer Replacement	1	1	1		1	1	22,600,000
44	Zebulon LCWWTP Biosolids Improvements	-	-	-	-	-	-	2,900,000
45	NRWWTP Dewatering&Sludge Dryer	-	-	-	-	-	-	35,000,000
46	Zebulon LCWWTP Expansion/Improvements (Phase I)	-	-	-	-	-	-	30,000,000
	Subotal, Wastewater Projects	\$ 22,950,000	\$ 85,150,000 \$	\$ 30,400,000 \$	\$ 42,300,000 \$	52,660,000	\$ 266,460,000	\$ 364,500,000
	Total Project Costs, Public Utilities	\$ 72,070,000 \$	\$ 110,301,000 \$	\$ 48,325,000 \$	\$ 57,500,000 \$	84,202,000	\$ 372,398,000	\$ 590,521,000
							Phase I	
	Program Funding Resources	2011-12	2012-13	2013-14	2014-15	2015-16	Summary	
	Fr 310 Public Utilities	_	\$ 30,000,000 \$	\$ 30,000,000 \$		34,000,000	\$ 142,000,000	
	Bond Proceeds	55,820,000	79,801,000	17,575,000	24,375,000	48,577,000	226,148,000	
	Interest-Bonds Tax Exempt	250,000	200,000	750,000	1,125,000	1,625,000	4,250,000	
	Total Funding Plan, Public Utilities	\$ 72,070,000	\$ 110,301,000 \$	\$ 48,325,000 \$	\$ 000,002,75	84,202,000	\$ 372,398,000	

### Phase I – Public Utilities

### **Water Projects**

### 1. Annexation-Water: \$3,000,000

The project funds the required water service needs associated with the City's initiated annexation plans for the next five years.

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

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

### 3. Main Replacement: \$21,000,000

The City of Raleigh utility service area encompasses the City limits and the extended services areas of Garner, Rolesville, Wake Forest, Knightdale, Wendell and Zebulon. The total length of the water distribution system is over 2,050 miles. The original water distribution system for many communities in Wake County dates back to the beginning of the 20th century, making a significant portion of the water distribution system over 50-years old. Most professional utility organizations recommend a replacement rate of 1-2% per year for water distributions systems. That would translate into the replacement of 20 miles per year. A gradual increase in expenditures is expected.

### 4. Dempsey E. Benton Water Treatment Plant Backwash Waste Recycle: \$5,000,000

The Backwash Waste Facilities are designed to clarify and disinfect filter backwash water and return this water to Lake Benson which is the water supply for the plant. The recycling of this backwash water will help preserve water supply in times of drought. This project will also include the addition of a 40' X 60' maintenance and warehouse facility for the Treatment Plant.

### 5. E.M. Johnson WTP Pilot Plant: \$1,000,000

Construction and operation of a permanent pilot testing facility to demonstrate high rate coagulation for future plant upgrades to 120 million gallons per day (MGD).

### 6. Falls Lake Hydroelectric Project: \$150,000

Development of a hydroelectric facility at the Falls Lake Dam discharge to generate sustainable energy. The initial phases of the project include legal and technical assistance to evaluate feasibility, prepare a competitive application and obtain a FERC license to construct and operate the facility. Funding for design and construction will be programmed once the feasibility and licensing have been determined.

### 7. US401/Ligon Mill to Jonesville: \$430,000

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

### 8. Water Booster Pump Station Rehabilitation: \$1,800,000

Rehabilitate and upgrade existing water booster pumping stations

### 9. E.M. Johnson Bulk Storage Tank Replacement: \$250,000

Replacement of bulk chemical storage tanks at the EMJWTP.

### 10. Water Tank Rehabilitation and Maintenance: \$5,850,000

Rehabilitation and maintenance of the Elevated Water Tanks in the water distribution system which includes regularly scheduled washouts.

### 11. VA Security Improvements: \$200,000

Improvements to the security measures at the EMJ WTP, elevated water tanks sites and other remote water facilities.

### 12. E.M. Johnson Facility Rehabilitation: \$2,750,000

Rehabilitation and replacement of major equipment and facilities at the EM Johnson Water Treatment Plant. Equipment scheduled for rehabilitation includes the walking beam flocculators in each of the five flocculator basins, replacement of rails and mounting hardware for the five monrake traveling bridge sludge rakes, sandblasting and recoating of each monorake traveling bridge assembly, replacement of monorake control panel, replacement of sedimentation basin gates, modifications to existing flash mix chambers, 3rd Floor roof and HVAC replacement for the Operations Building, conversion of chemical feed pump motors from DC to AC, etc.

### 13. E.M. Johnson WTP Clearwell Rehabilitation: \$1,100,000

Clean, repair and renovate the 12 MG clearwell at the EMJWTP.

### 14. E.M. Johnson WTP New Lab Facility: \$4,500,000

Construct a new facility for laboratory operations.

### 15. DEBWTP Water Transmission Main: \$1,400,000

Construction of approximately 41,600 linear feet of 30-inch water main from E.B. Bain Re-pump Facility along Walnut Creek to an existing 30-inch water main at Poole Road and Hodge Road in Knightdale.

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

Removal and disposal of sludge and sediment from EMJ WTP Raw Water Reservoir and Sludge Storage Lagoon.

### 17. Water Distribution Water Quality Program Study and Evaluation: 1,050,000

This project includes 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. Water Distribution System Master Plans updated every 5 years.

### 18. Parellel 30 Main (Atlantic Avenue to Capital Blvd: \$2,900,000

Installation of approximately 6,700 linear feet (LF) of 30-inch water main from Atlantic Avenue to Capital Boulevard for the purpose of meeting additional water flow demands and balancing water levels between the New Hope and Chamberlain tanks.

### 19. <u>Little River Reservoir Impact Statement:</u> \$3,800,000

An Environmental Impact Statement (EIS) is required to obtain state permits for the design and construction of an impoundment for a new raw water supply for the City of Raleigh.

### 20. E.M. Johnson WTP Sodium Permanganate: \$2,000,000

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

### 21. 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.

### 22. Poole Road Booster Pump Station: \$2,800,000

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 WD 11 and Zebulon merger project WD 07. Cost will be divided between the City of Raleigh, Town of Wendell and the Town of Zebulon based upon the cost share memorandum provided by CH2M Hill in the Merger Document.

### 23. Falls Lake Initiative: \$7,500,000

Funding to provide monetary resources to the Conservation Trust of North Carolina for expanding land protection in the Falls Lake watershed.

### 24. Little River Reservoir Wetland Mitigation: \$10,000,000

Wetland mitigation through property or conservation easement purchases.

### 25. 3 MGD Pump Addition – Shelly Road Pump Station: \$276,000

Additional large service pump to address growth needs in the 605 pressure zones.

### 26. DEBWTP Settling Tank Dewater: \$6,800,000

Under the original design criteria for the D.E. Benton Water Treatment Plant (DEBWTP) a settling tank waste dewatering facility was developed to handle all industrial wastes produced by the potable water treatment process. The resulting dewatered sludge will be trucked in thickened form to final disposal through composting or other environmentally beneficial uses.

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

Construction of 4,300 linear feet of 6" and 8" water line along Lake Glad Road. This item was identified in the merger document as WD09.

### 28. 1MG Pump Upgrade Mt. Herman Pump Station: \$280,000

Installation of a 1 MGD pump at the Mt. Herman Road Water Booster Pump Station to accommodate the additional water demand in the 655 Pressure Zone.

### 29. BAIN Pump Station Upgrade: \$70,000

Replacement of existing water booster pumps (one at 2 MGD and one at 3 MGD) with two 8 MGD pumps.

### 30. Clifford Road Trans Main 24": \$1,189,000

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

### 31. Control Valve Installation Wendell Blvd: \$130,000

Install a control valve at the existing connection between the 462 pressure zone and the 497 pressure zone to allow limited water transfer for water quality purposes.

### 32. E.M. Johnson WTP High Service Discharge: \$359,000

Installation of 1,300 linear feet of 30-inch transmission main on the E.M. Johnson Water Treatment Plant site to convey water in the high service 605' pressure zone.

### 33. E.M. Johnson WTP Pump #1 Upgrade: \$690,000

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

### 34. E.M. Johnson WTP Raw Water Reservoir Cover: \$1,100,000

The purpose of the reservoir covers is to provide shade from the sun and thereby prevent growth of algae in the reservoirs. Algae can cause taste and odor issues with the drinking water and cause operational problems with the plant filters. Algae is also a source of organic carbon which is regulated by NC Public Water Supply. The covers will also help control waterfowl in the reservoir.

### 35. Franklin Street Waterline 12": \$133,000

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

### 36. Hebron Church Road Transmission: \$970,000

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

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

Install 11,978 linear feet of 16-inch water transmission line along Wendell Blvd. from NC 97 to Cypress Street.

### 38. Zebulon Water Line of NC 97: \$2,176,000

Install 17,985 linear feet of 16-inch water transmission line along NC 97 from the intersection of Wendell Boulevard to Riverview Drive.

### 39. Springdale Tank Replacement: \$1,650,000

This project will replace the current Springdale Tank, which is a 100,000 gallon pedisphere tank that is nearing the end of its service life. The new tank will be relocated within the 655 pressure zone and will be a 500,000 gallon elevated tank.

### 40. Rand Road Transmission Line: \$1,029,000

Installation of approximately 12,400 linear feet of 12-inch water line along Rand Road in Garner from NC 50 to Ten Ten Road.

### 41. Raleigh-Cary Emergency H20 Conversion: \$520,000

The staff of the Public Utilities Department has identified several opportunities to establish emergency connections to water distribution systems owned by other municipalities or counties. This project will potentially provide five additional emergency connections to the Town of Cary, NC.

### 42. Oregon Trail Rd Transmission: \$1,219,000

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

### 43. NC 98 Bypass Waterline: \$493,000

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

### 44. E.M. Johnson WTP Filter Bottom Rehab: \$500,000

Rehabilitation and replacement of 8 filter bottoms with new porcelain, gravel, and sand. These existing 8 filter bottoms are constructed of a plastic porous media that staff considers unreliable. During the spring of 2010, 14 filters with this same type of bottom were replaced due to structural failures of the porous plastic.

### **Wastewater Projects**

### 1. Main Replacement: \$27,000,000

These funds continue the program to replace under-sized and deteriorated sanitary sewer collection mains and services, concentrating on rehabilitation or replacement in older areas of the City, such as inside the beltline.

### 2. Annexation - Sewer: \$6,000,000

Reflects City-initiated annexation plan for the next five years and sewer service extensions associated with them.

### 3. Lower Walnut Creek Parallel Interceptor: \$21,500,000

This project includes installation of a new junction box to divert flow from existing interceptors to a new parallel pipe. The project also includes the installation of 17,000 feet of 48-inch parallel pipe (or 72-inch replacement pipe) from the softball field junction box to the siphon junction box upstream of Walnut Creek Pump Station.

### 4. Wendell Wellington Sewer Basin: \$200,000

Construction of 5,100 LF of 12" gravity sewer, elimination of the Deerfield and Selma pump stations and upgrade to the Wellington pump station.

### 5. New Crabtree Creek Pump Station & Equipment: \$56,000,000

This project includes the construction of approximately 40,000 linear feet of 54-inch, 60-inch, and 72-inch parallel gravity sanitary sewer interceptor along Crabtree Creek from Mine Creek to the Crabtree Lift Station (located at the Hwy 264/I440 interchange), construction of additional pumping capacity at the existing Crabtree Lift Station, and approximately 14,600 linear feet of 42-inch force main from Crabtree Pump Station to the planned Neuse River East Parallel Interceptor Phase III.

### 6. WF Richland Creek Interception Improvements: \$5,200,000

This project is a result of the Inflow & Infiltration Study that was performed for the Wake Forest service area as identified in the merger agreement. The I/I Study revealed several deficiencies with the Wake Forest Sanitary Sewer Collection System that must be corrected as outlined in the merger agreement. Originally the I/I collection system improvements had \$1.15 million budgeted as a place holder but a merger agreement amendment will be executed to reflect this new amount. Capital Improvements will be paid for by the rate differential between Wake Forest and Raleigh customers. This project was delayed to coincide with the January 2011 revenue bond sale and therefore the funds have been spread over two years. This project is entirely located in the Town of Wake Forest Service Area.

### 7. WF Smith Creek Interception Improvements: \$9,000,000

Parallel 30" or equivalent replacement of the Smith Creek Sanitary Sewer Interceptor (SCSSI) from the Smith Creek Wastewater Treatment Plant to Lagerfeld Rd., parallel 24" or equivalent replacement of the SCSSI from Lagerfeld Rd. to Heritage Height, and parallel 16" or equivalent replacement of the SCSSI from Heritage Height to Franklin St.

### 8. System Capacity Analysis: \$1,250,000

Continuation of the program to collect data and model the sanitary sewer collection system.

### 9. Neuse River Wastewater Treatment Plant Reuse System Expansion: \$4,000,000

Continued expansion of the Neuse River Wastewater Treatment Plant off-site reuse system expansion. Project scope includes reuse distribution mains, pump stations, and other reuse distribution components necessary for the expansion of the system in accordance with the reuse master plan.

### 10. Neuse River Pump Station Force: \$2,000,000

Installation of a fourth pump and replacement of the existing generator to accommodate the added load due to the fourth pump.

### 11. Aversboro Pump Station Improvements: \$2,000,000

Project includes the installation of 7,000 linear feet of 16" parallel force main from the existing Aversboro pump station to downstream gravity sewer. Project also includes an upgrade to the pump station that includes the replacement of existing pumps with three 65 horsepower submersible pumps, electrical and instrumentation improvements, a new grinder and ventilation, and miscellaneous structural improvements.

### 12. NRWWTP Land Purchase: \$200,000

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

### 13. Sanitary Sewer Pump Station Removal: \$3,000,000

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

### 14. Walnut Creek/Influent Lift Station Pump: \$2,500,000

Installation of the 4th VT pump and replacing the drive units and augers at the Walnut Creek Lift Station. Project also includes force main extension across Barwell Rd. to the 72" parallel gravity sanitary sewers.

### 15. Upper Pigeon House Rehabilitation and Replacement: \$8,200,000

This project is the rehabilitation and/or replacement of approximately 10,000 feet of 24-inch sewer main along Upper Pigeon Creek from Fenton Street to near Peace St. as identified in the preliminary engineering report prepared by Stearns & Wheeler. This project will be implemented in three phases.

### 16. NRWWTP Facility Improvements: \$1,400,000

Renovate the existing administrative building at the NRWWTP. Renovation will include the replacement of windows, HVAC system, ceiling, flooring and several other items.

### 17. Lower Crabtree North Sewer Main: \$500,000

Installation of approximately 2,300 linear feet of 18-in & 12-in sewer main from the Turf Grass and Kingsborough Pump Stations to the end of the first phase of this project near Rogers Lane.

### 18. Removal Garner 201 Facility: \$4,200,000

Closure and conversion of this 201 facility is a component of the memorandum of understanding between the City of Raleigh, the Town of Garner and the North Carolina Department of Environment and Natural Resources.

### 19. NRWWTP Reuse Pump Disinfection Irrigation: \$1,000,000

This project funds for the installation of additional irrigation lines and sprinkler heads for the NRWWTP farm agricultural fields. 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.

### 20. Walnut Creek Debris Drying Pads: \$1,000,000

Construction of concrete pads for drying of flush truck debris from pump stations and the wastewater collection system. Additional pads will be constructed at the existing debris drying facility off of Old Williams Road and at an undetermined location in the Town of Wake Forest.

### 21. GIS Water System Upgrades: \$500,000

Professional services for improvements to the Public Utilities GIS database. These services will include database enhancement to allow the GIS system to be used as an asset management tool to: help prioritize infrastructure replacement projects, identify value of the distribution and collection system, and facilitate other City and Town projects such as sidewalk, resurfacing, and greenways.

### 22. NRWWTP 15 MGD Expansion: \$60,000,000

Construction of additional waste treatment facilities at the NRWWTP that will increase the treatment capacity of the facility from a 60 MGD plant to 75 MGD. The project will include but not be limited to the construction of a new influent pumping station with 7 vertical turbine pumps, 4 new 140' primary clarifiers and associated distribution boxes, the addition of a fine screen and grit equipment in the new headworks building, construction of new secondary clarifiers, and installation of 4 channels of UV equipment at the new UV building. This project also incorporates other NRWWTP improvements funding in prior capital budgets.

### 23. NRWWTP Lab Improvements: \$600,000

Expansion and upgrading the laboratory facility at the NRWWTP in accordance with the Hazen & Sawyer lab study.

### 24. NPDES Renewal: \$150,000

Permitting the discharges associated with the EM Johnson WTP, Neuse River WWTP, Smith Creek WWTP and Little Creek WWTP.

### 25. Wendell Gravity Sewer Improvements: \$400,000

Gravity sewer extensions were identified in the merger agreement over the next several years. They are the Wendell Park gravity sewer to the Buffalo Interceptor in '12 (1,000 linear feet of 8" gravity sewer) and the Lake Glad Road sewer extension from Wellington Pump Station in '13 (2,000 linear feet of 8" gravity sewer). These projects were listed in the merger document as WW09 and WW10.

### 26. Wendell East Wake Sewer Cost Share: \$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. This project also includes 5,760 linear feet of 12" gravity sewer extension in the upper Marks Creek basin and upsizing of 16,400 linear feet of gravity interceptor through Wendell Falls. This was listed as a Wendell project adopted in the merger agreement as item WW24.

### 27. East Neuse Regional Pump Station: \$15,400,000

Construction of a new pump station and force main on the east bank of the Neuse River at the confluence of Poplar Creek and the Neuse River across from the Neuse River WWTP. This new pump station will ultimately pump a peak one hour flow rate of 89 MGD with five 20 MGD pumps. The pump station will convey flow from the Crabtree Creek, Neuse River, and Walnut Creek basins to the Neuse River WWTP. This pump station will serve as the backbone to the City's long range sanitary sewer conveyance needs for current and future growth flows.

### 28. Crabtree Lift Station Improvements: \$1,100,000

Rehabilitate or replace the lift station augers in FY15.

### 29. Access to Sanitary Sewer Mains: \$200,000

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

### 30. Neuse East Parallel Interceptor, Phase 3: \$3,500,000

Install 21,000 linear feet of 96-inch gravity sanitary sewer main from the Walnut Creek Lift Station off Barwell Rd. to the proposed East Neuse Regional Pump Station.

### 31. Neuse East Parallel Interceptor, Phase 4: \$1,500,000

Install 7,000 linear feet of 84-inch gravity sanitary sewer main from the Walnut Creek Lift Station off Barwell Rd. to the existing Neuse River Pump Station at Anderson Pointe Park off of Rogers Lane.

### 32. NRWWTP Anaerobic Digestors: \$5,000,000

Construction of two 3.25 MG egg shaped anaerobic digesters at the NRWWTP.

### 33. NRWWTP Instrumentation Improvements: \$100,000

Annual replacement of aging and obsolete electronic process control equipment.

### 34. Poplar Creek Interceptor: \$6,000,000

Construct a new 36" or 42" interceptor from the East Neuse Regional Pump Station located near the confluence of the Neuse River and Poplar Creek to the Knightdale Poplar Creek interim pump station at Poole Road.

### 35. Wendell Green Willow Pump Station Upgrade: \$95,000

Rehabilitation of the wet well of the Wendell Green Willow Pump Station.

### 36. 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 as item WW19. Currently, the basins are used for flow equalization. These flow equalization basins will not be necessary when the force main is shortened and discharges to the Poplar Creek interceptor at Grasshopper Road. This interceptor will flow to the East Neuse Regional Pump Station.

### 37. Wendell Wellington Sewer Basin: 1,200,000

Construction of 5,100 linear feet of 12" gravity sewer, elimination of the Deerfield and Selma pump station and upgrade to the Wellington pump station.

### 38. NRWWTP Electrical Transmission Rehabilitation: \$300.000

Rehabilitation of existing electrical transformers at the Neuse River Wastewater Treatment Plant.

### 39. NRWWTP Filters 1-12 Rehabilitation: \$2,500,000

Rehabilitation of Filters 1-12 at the NRWWTP. Rehabilitation includes replacement of air scour valves, media replacement, filter bottom inspection and replacement if necessary, and air piping replacement of filters 7-12.

### 40. NRWWTP Thickening Building Switchgear: \$300,000

Replacement of the existing thickening building electrical switchgear at the NRWWTP.

### 41. Sanitary Sewer Siphon Rehab: \$5,000,000

Rehabilitation of existing sanitary sewer siphons (or "depressed sewers"). Rehabilitation includes cured-in-place pipe liners, pipe bursting, replacement in place, manhole and siphon box rehabilitation.

### 42. Utility Field Op Facility Improvements: \$3,000,000

Miscellaneous improvements to various utility field operation facilities. Improvements include paving of Lake Woodard warehouse storage yard (a result of a dust safety study), installing emergency generators at South Raleigh and East Raleigh facilities, improving security at South Raleigh and East Raleigh, and installing emergency management systems for all facilities.

### Phase II – Public Utilities

### **Water Projects**

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

The continuation of currently funded program to install water mains in construction of new thoroughfare projects and adjustment to existing water mains in the thoroughfare widening projects. Projects include Tryon Road, US Hwy 401, Perry Creek Road, NC 98 Bypass, TW Alexander Road, and Leesville Road.

### Main Replacement: \$25,000,000

The City of Raleigh utility service area encompasses the City limits and the extended services areas of Garner, Rolesville, Wake Forest, Knightdale, Wendell and Zebulon. The total length of the water distribution system is over 2,050 miles. The original water distribution system for many communities in Wake County dates back to the beginning of the 20th century, making a significant portion of the water distribution system over 50 years old. Most professional utility organizations recommend a replacement rate of 1-2% per year for water distributions systems. That would translate into the replacement of 20 miles per year.

### Water Booster Pump Station Rehabilitation: \$2,000,000

Rehabilitate and upgrade existing water booster pumping stations

### E.M. Johnson Bulk Storage Tank Replacement: \$250,000

Replacement of bulk chemical storage tanks at the EMJWTP.

### VA Security Improvements: \$1,000,000

Improvements to the security measures at the EMJWTP, elevated water tanks sites and other remote water facilities.

### E.M. Johnson Facility Rehabilitation: \$3,750,000

Rehabilitation and replacement of major equipment and facilities at the EM Johnson Water Treatment Plant. Equipment scheduled for rehabilitation includes the walking beam flocculators in each of the five flocculator basins, replacement of rails and mounting hardware for the five monrake traveling bridge sludge rakes, sandblasting and recoating of each monorake traveling bridge assembly, replacement of monorake control panel, replacement of sedimentation basin gates, modifications to existing flash mix chambers, 3rd Floor roof and HVAC replacement for the Operations Building, conversion of chemical feed pump motors from DC to AC, etc.

### DEBWTP Water Transmission Main: \$10,600,000

Construction of approximately 41,600 linear feet of 30-inch water main from E.B. Bain Re-pump Facility along Walnut Creek to an existing 30-inch water main at Poole Road and Hodge Road in Knightdale.

### Water Distribution Water Quality Program Study, Evaluation: \$500,000

Conducting corrosion control, nitrification and nutrient reduction studies, developing a water line rehabilitation/replacement program, preliminary design of elevated storage tank mixing improvements and development of a uniform directional flushing program. Water distribution system master plans are updated every 5 years.

### <u>Little River Reservoir - County Reimbursement: \$2,500,000</u>

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.

### <u>Little River Reservoir Wetland Mitigation: \$12,500,000</u>

Wetland mitigation through property or conservation easement purchases.

### E.M. Johnson WTP UV Solids Handling: \$38,100,000

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

### Water Plant Settling Basins Rehabilitation: \$1,200,000

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

### Bethlehem Road Transmission Main: \$839,000

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

### E.M. Johnson WTP Filter/Sedimentation/Flocculation Basin Addition: \$38,500,000

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

### E.M. Johnson WTP Flocculation Sedimentation Basin Improvements: \$42,900,000

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

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

Installation of a 4th ozone generator and associated destructor.

### Jones Sausage Upgrade I-40: \$850,000

Install a 16-inch water line along Jones Sausage Road at the intersection of I-40.

### Ten-Ten Road Water Tank: \$3,000,000

Construction of a new 1.0 MG elevated water storage tank in the vicinity of Ten Ten Road and Old Stage Road to support the increasing water demand of the 532 pressure zone.

### Ten-Ten Road Transmission Line: \$432,000

Installation of approximately 5,200 linear feet of 12-inch water line along Ten Ten Road in Garner from Rand Raod to Old Stage Road.

### <u>Little River Reservoir Wetland Mitigation Construction: \$15,600,000</u>

Wetland Mitigation Construction to enhance wetland restoration areas. This would consist of restoring wet conditions and planting trees on mitigation sites acquired through property or conservation easement purchases.

### Little River Reservoir 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.

### **Wastewater Projects**

### Main Replacement: \$35,000,000

These funds continue the program to replace under-sized and deteriorated sanitary sewer collection mains and services, concentrating on rehabilitation or replacement in older areas of the City, such as inside the beltline.

### Annexation - Sewer: \$10,000,000

Reflects City-initiated annexation plan for the next five years and sewer service extensions associated with them.

### New Crabtree Creek Pump Station & Equipment: \$13,000,000

This project includes the construction of approximately 40,000 linear feet of 54-inch, 60-inch, and 72-inch parallel gravity sanitary sewer interceptor along Crabtree Creek from Mine Creek to the Crabtree Lift Station (located at the Hwy 264/I440 interchange), construction of additional pumping capacity at the existing Crabtree Lift Station, and approximately 14,600 linear feet of 42-inch force main from Crabtree Pump Station to the planned Neuse River East Parallel Interceptor Phase III.

### System Capacity Analysis: \$1,000,000

Continuation of the program to collect data and model the sanitary sewer collection system.

### NRWWTP Reuse System Expansion: \$10,000,000

Continued expansion of the Neuse River Wastewater Treatment Plant off-site reuse system expansion. Project scope includes reuse distribution mains, pump stations, and other reuse distribution components necessary for the expansion of the system in accordance with the Reuse Master Plan.

### NRWWTP Land Purchase: \$1,000,000

Continuation of program to purchase land to apply biosolids from the Neuse River Wastewater Treatment Plant.

### Sanitary Sewer Siphon Rehab: \$5,000,000

Rehabilitation of existing sanitary sewer siphons (or "depressed sewers"). Rehabilitation includes cured in place pipe liners, pipe bursting, replacement in place, manhole and siphon box rehabilitation.

### NRWWTP Reuse Pump Disinfection Irrigation: \$5,000,000

This project allows for the installation of additional irrigation lines and sprinkler heads for the NRWWTP farm agricultural fields. By using the effluent from the wastewater treatment plant for irrigation, the City reduces the amount of plant effluent and nitrogen that will be discharged into the Neuse River.

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

Construction of a new pump station and force main on the east bank of the Neuse River at the confluence of Poplar Creek and the Neuse River across from the Neuse River WWTP. The pump station will pump a peak one hour flow rate of 89 MGD with five 20 MGD pumps. The purpose of this pump station will convey flow from the Crabtree Creek, Neuse River, and Walnut Creek basins to the Neuse River WWTP. The pump station will serve as the backbone to the City's long range sanitary sewer conveyance needs for current and future growth flows.

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

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

### Neuse East Parallel Interceptor, Phase 3: \$96,000,000

Installation of 21,000 linear feet of 96-inch gravity sanitary sewer main from the Walnut Creek Lift Station off Barwell Rd. to the proposed East Neuse Regional Pump Station.

### Neuse East Parallel Interceptor, Phase 4: \$27,000,000

Installation of 7,000 linear feet of 84-inch gravity sanitary sewer main from the Walnut Creek Lift Station off Barwell Road to the existing Neuse River Pump Station at Anderson Pointe Park off of Rogers Lane.

### NRWWTP Anaerobic Digestors: \$47,000,000

Construction of two 3.25MG egg shaped anaerobic digesters at the NRWWTP

### NRWWTP Instrumentation Improvements: \$500,000

Annual replacement of aging and obsolete electronic process control equipment.

### Sanitary Sewer Siphon Rehab: \$5,000,000

Rehabilitation of existing sanitary sewer siphons (or "depressed sewers"). Rehabilitation includes cured in place pipe liners, pipe bursting, replacement in place, manhole and siphon box rehabilitation.

### Utility Field Op Facility Improvements: \$2,500,000

Miscellaneous improvements to various utility field operation facilities. Improvements include but are not limited to paving of Lake Woodard warehouse storage yard (a result of a dust safety study), emergency generators at South Raleigh and East Raleigh facilities, security improvements at South Raleigh and East Raleigh, and Emergency Management Systems for all facilities.

### <u>Crabtree Valley Sewer Replacement:</u> \$22,600,000

Repair and replace 6,000 LF of sanitary sewer main from Glenwood Avenue to Hare Snipe Creek.

### Zebulon LCWWTP Biosolids Improvements: \$2,900,000

This project would add an additional digester for batching the aerobically digested biosolids and then sending the biosolids to the holding tank for post digestion thickening. This would allow staff to complete a 30 day volatile solids reduction (VSR) test prior to sending biosolids 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 and the addition of a new compactor to dry grit prior to discharge into dumpster.

### PROPOSED CIP BUDGET 2011-12 PUBLIC UTILITIES

### **CITY OF RALEIGH**

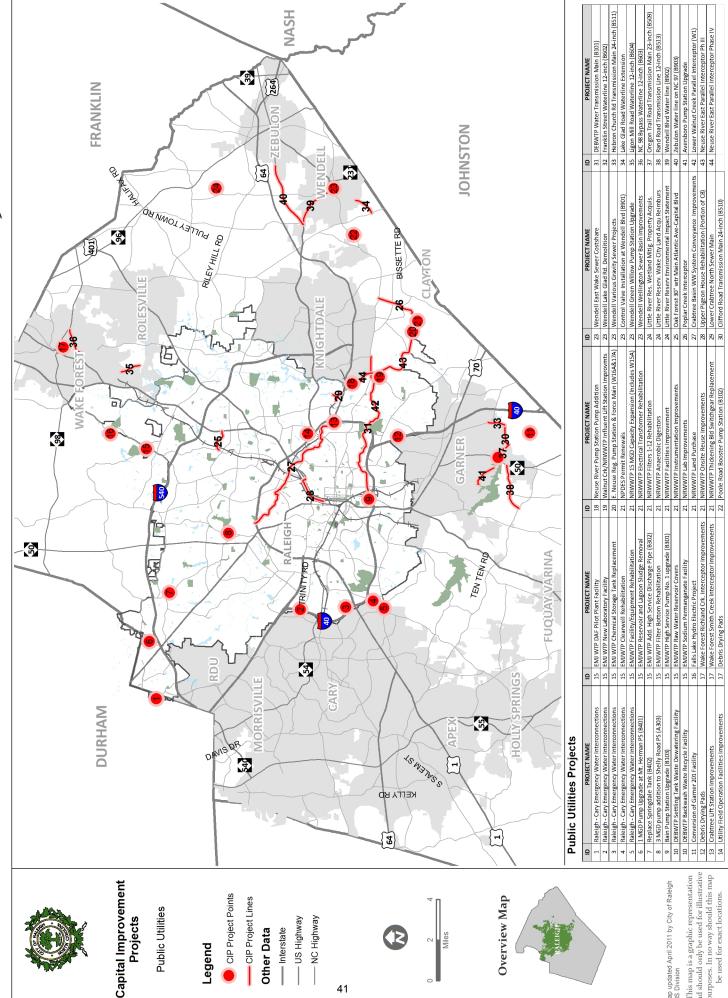
### NRWWTP Dewatering & Sludge Dryer: \$35,000,000

Expansion of the NRWWTP Biosolids Dewatering Facilities and the addition of a Sludge Dryer. The new dewatering facilities and sludge dryer will be fed from the new anaerobic digesters that will be installed at the plant in 2018.

### Zebulon LCWWTP Expansion, Phase I: \$30,000,000

The project would increase the capacity of the Little Creek Wastewater Treatment Plant from 1.85 MGD to 4.0 MGD and is phase I of the planned expansion of this facility. The project includes improvements to the influent lift pumps, grit removal system, biosolids 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. This project combines merger projects WWT01, 03, 06, 09, and 14.

# CAPITAL IMPROVEMENT PROJECT



41

Map updated April 2011 by City of Raleigh GIS Division

DEBWTP Settling Tank Waste Dewatering Facility
DEBWTP Backwash Waste Recycle Facility mp addition to Shelly Road PS (A303) Raleigh - Cary Emergency Water Interconnectic 1 MGD Pump Upgrade at Mt. Herman PS (8401)

37 Oregon Trail Road Transmission Main 23-inch (BSCB)
38 Rand Road Transmission Line 12-inch (BST3)
39 Wendell Blvd Water line (BSC2)
40 Zebulon Water line on NC 97 (BS03)
41 Aversboro Pump Station Upgrade

42 Lower Walnut Creek Parallel Interceptor (W1)
 43 Neuse River East Parallel Interceptor Ph III
 44 Neuse River East Parallel Interceptor Phase IV

NRWWTP Thickening Bld Switchgear Replacement Poole Road Booster Pump Station (B102)

Wake Forest Smith Creek Interceptor Improvements
 Debris Drying Pads

NRWWTP Instrumentation Improvements NRWWTP Lab Improvements

NRWWTP Filters 1-12 Rehabilitation NRWWTP Facilities Improvement

> and should only be used for illustrative purposes. In no way should this map This map is a graphic representation be used for exact locations.

8 3 MKGD pump addition to Shelly Road PS (A303)
9 Bain Pump Station Upgrade (8103)
10 DEBWTP Settling Tank Waste Dewatering facility
10 DEBWTP Backwash Waste Recycle Facility
11 Conversion of Garner 201 Facility
12 Debris Drying Pads
13 Crabtree Lift Station Improvements
14 Littlity Field Operation Facilities Improvements



### **Parks and Recreation Program**

The Parks, Recreation and Greenway element of the City of Raleigh's Comprehensive Plan and the Park Plan are the two main documents that guide park development, level of service and land acquisition. Existing feasibility studies, reports and strategic plans also provide guidance to city staff on the capital investments required to sustain a progressive parks and recreation system. The parks and recreation department capital improvement program consists primarily of the acquisition of new park and greenway properties, development of new and existing park sites, and the maintenance and improvement of various park facilities. Phase I funding, which is distributed to specific parks program projects, totals \$116,866,500. This total includes the final allocation of previously authorized 2007 bond proceeds as well as proposed future bond proceeds beginning in fiscal year 2014. Phase II funding of this program consists of a continued investment in the improvements in existing parks, continued resources to acquire new park and greenway land and the funding for the planning, design and development of new facilities.

Major funding sources for Phase I projects include facility fees, sales tax revenue, and existing bond proceeds. A \$47 million Parks, Recreation & Greenway bond package was approved in referendum in October, 2003 and an \$88.6 million bond package was approved in 2007. This parks and recreation CIP reflects the final year of the 2007 bond appropriations and a newly proposed parks and recreation bond in calendar year 2012. There is a demonstrated need for additional bond funding prior to the end of Phase I of this CIP to continue land acquisition, reinvestment into an aging set of facilities and infrastructure and continue development of new opportunities to address Raleigh's growth.

The table below contains a summary of the Parks and Recreation Department's request for funds included in this edition of the Capital Improvement Program.

### Ten-Year Summary of the Parks and Recreation Program

	PHASE I	PHASE II	TOTAL
Parks and Recreation Acquisition	\$ 650,000	\$ 27,500,000	\$ 28,150,000
Development Projects	13,995,000	61,640,000	75,635,000
2007 Park Bond	102,221,500	136,967,500	239,189,000
TOTAL	\$ 116,866,500	\$ 226,107,500	\$ 342,974,000

# Project Costs and Funding Plan for Parks and Recreation Program

	Parke and Recreation Accumisation	2011-12	C	2012-13	2013-14	4	2014-15	•	2015_16	Phase I	Phase II
Ľ	Park Site Acquisition	: : : : :	<b>€</b>	·	2 2 4	75 000 \$		<del>v.</del>	125,000	000	\$ 25,000,000
· ·	2 Greenway Acquisition	1	•	50,000		_		-	125,000	350,000	
1	Subtotal, Acquisition	· &	s	20,000	\$	150,000 \$	200,000	\$	250,000	\$ 650,000	\$ 27,500,000
										Phase I	Phase II
	Development Projects	2011-12	2	2012-13	2013-14	-14	2014-15	,	2015-16	Summary	Summary
_	1 Park Lighting	\$ 40,000	\$ 0	75,000	\$ 1	150,000 \$	150,000	\$ (	150,000	\$ 565,000	1,075,000
W	2 Site Security P&R	-		21,000		35,000	35,000		35,000	126,000	150,000
(1)	3 Field Fencing	25,000	0	25,000		20,000	50,000		50,000	200,000	775,000
4	4 Greenway Development	-		20,000		75,000	150,000	(	150,000	425,000	750,000
4)	5 Greenway Trail Resurfacing	50,000	0	20,000		75,000	125,000	0	125,000	425,000	1,500,000
9	6 Nash Square	1				25,000	25,000	0	25,000	75,000	375,000
	7 Park Site Improvements	100,000	0	120,000	1	160,000	210,000		225,000	815,000	1,450,000
3	8 Parks Irrigation Projects	10,000	0	10,000		25,000	25,000	(	25,000	92,000	250,000
U)	9 Parks Paving Program	35,000	0	35,000		75,000	87,500	(	100,000	332,500	750,000
Ť	10 Parks Roof Repairs	100,000	0	100,000	1	125,000	125,000	(	125,000	575,000	925,000
1	11 Tennis Resurfacing	12,000	0	24,000		30,000	65,000	(	65,000	196,000	450,000
44	12 Theater In The Park	-		25,000		25,000	25,000	(	25,000	100,000	100,000
1	13 Walnut Creek Softball Complex	-		25,000		25,000	-		-	20,000	_
÷	14 Community Facility Upgrades	190,000	0	•		-	ı		-	190,000	-
	15 Wooten Meadows	1		50,000		-	200,000	0	1	250,000	20,000
Ť	16 Backflow Prevention Upgrade	1		25,000		25,000	25,000		25,000	100,000	325,000
_	17 Buffaloe Rd Park	1		•		25,000	25,000	0	72,500	122,500	4,250,000
Ť	18 Picnic Shelters	1		25,000	1	125,000	135,000		135,000	420,000	790,000
<del>,</del>	19 Aquatic Improvements	100,000	0	100,000	1	150,000	175,000		200,000	725,000	11,500,000
Ñ	20 Lead Paint Abatement	125,000	0	50,000		50,000	50,000	0	50,000	325,000	250,000
7	21 P&R-Field Upgrades	20,000	0	25,000		50,000	50,000	0	50,000	195,000	375,000
2	22 Street Tree Replacement	1		50,000		75,000	75,000		75,000	275,000	450,000
ĺ	23 Mordecai Improvements	1		15,000		15,000	15,000	0	15,000	000'09	150,000
5	24 Carousel Animal Restoration	1		25,000		25,000	25,000	0	25,000	100,000	225,000
Ö	25 Raleigh Little Theatre Improvements	1		15,000		25,000	25,000	0	-	65,000	125,000
Ñ	26 Building Improvements	1		200,000	2	225,000	300,000		300,000	1,025,000	7,500,000
7	27 MLK Jr. Park Expansion	1		50,000		50,000	175,000	_	100,000	375,000	1
Ñ	28 Reused Water Line Extension	1		25,000			50,000	0	•	75,000	250,000
7	29 Chavis Way Extension	ı		1			1		100,000	100,000	2,000,000
ñ	30 Signage-Parks & Greenways	1		20,000		25,000	35,000	0	35,000	115,000	250,000
က	31 Volunteerism & Partnership Project	25,000	0	25,000		40,000	50,000		20,000	190,000	375,000

# Project Costs and Funding Plan for Parks and Recreation Program

						Phase I	Phase II
	2011-12	2012-13	2013-14	2014-15	2015-16	Summary	Summary
32 Fayetteville St Renovation Improvements	30,000	20,000	75,000	75,000	75,000	305,000	200,000
33 Multipurpose Field Renovations	50,000	35,000	25,000	25,000	25,000	160,000	375,000
34 City Cemetary Restoration	1	15,000	15,000	25,000	25,000	80,000	250,000
35 Canine Park	1	1	1	25,000	30,000	22,000	100,000
36 Safety Compliance	20,000	25,000	35,000	35,000	35,000	150,000	250,000
37 Lions Park Bmx Improvements	ı	1	25,000	1	ı	25,000	100,000
38 Moore & Nash Square Improvements	1	100,000	125,000	1	1	225,000	1
39 Maintenance Operations Facility	25,000	20,000	75,000	75,000	75,000	300,000	475,000
40 Camp Durant Nature Park Improvements		25,000	1	25,000	50,000	100,000	250,000
41 Parks Plan Update	198,000	50,000	1	1	1	248,000	1
42 Greenway Bridge/Boardwalk Repairs	20,000	20,000	75,000	75,000	75,000	325,000	1,000,000
43 Structure Repair and Replacement	50,000	50,000	75,000	75,000	75,000	325,000	500,000
44 Latta House	1	1	20,000	1	100,000	150,000	20,000
45 Solar Hot Water Heaters	1	1	1	20,000	20,000	100,000	375,000
46 Alvis Farm	1	1	125,000	1	175,000	300,000	5,000,000
47 Milburnie Park	•	-	140,000		250,000	390,000	7,000,000
48 Thorton Road	1	1	1	175,000	150,000	325,000	5,000,000
49 Urban Forestry Standards	1	20,000	1	•	1	20,000	1
50 Drewry Hills	•	1	75,000	•	150,000	225,000	2,000,000
51 Halifax Park and Community Center Improvement	1,000,000	-	-	-	-	1,000,000	-
52 Carolina Pines / Jaycee Community Center Improvements	200,000		-	-	-	200,000	1
53 Master Plans	-	1	1	-	-	-	1,000,000
Subtotal, Development Projects \$	\$ 2,755,000	\$ 1,730,000 \$	\$ 2,695,000	\$ 3,142,500	\$ 3,672,500	\$ 13,995,000	\$ 61,640,000
						Phase I	Phase II
Park Bond Projects	2011-12	2012-13	2013-14	2014-15	2015-16	Summary	Summary
1 Playground Improvements	- \$	\$ 25,000	\$ 50,000	\$ 75,000	\$ 75,000	\$ 225,000	1,000,000
2 Comfort Station Improvements	110,000	25,000	125,000	150,000	150,000	260,000	1,130,000
3 Community Facility Upgrades	-	200,000	275,000	400,000	350,000	1,225,000	6,050,000
4 P&R Electrical-Fields/Courts	-	75,000	75,000	75,000	75,000	300,000	500,000
5 Barwell Rd Park Development	1,550,000	-	-	-	-	1,550,000	-
6 Ada Facility Upgrades	75,000	75,000	75,000	50,000	20,000	325,000	2,500,000
7 Neuse River Greenway Completion	3,000,000	1	1	1	1	3,000,000	-
8 Land Acquisition - 2007 Park Bond	2,000,000	-	-	-	-	2,000,000	-
9 Unsatisfied Park Search Areas	1,000,000	1	1	1	1	1,000,000	1
10 2012 Bond-Greenway Improvement	ı	•	2,500,000	2,500,000	2,500,000	7,500,000	2,500,000
11 Roof Runoff Collection	I	1	ı	25,000	25,000	20,000	400,000

# Project Costs and Funding Plan for Parks and Recreation Program

							Phase I	Phase II
	Park Bond Projects	2011-12	2012-13	2013-14	2014-15	2015-16	Summary	Summary
1,	12 2012 Bond-Neighborhood Park Improvements	1		453,750	2,796,250	1,275,000	4,525,000	1
¥	13 2012 Bond-Community Park Improvements	1		3,229,000	12,293,500	4,462,500	19,985,000	5,625,000
7	14 2012 Bond-Cultural Site Improvements	1	1	675,000	2,450,000	1,850,000	4,975,000	1,275,000
7	15 2012 Bond-Trenton Rd Greenway	1		1	924,000	1	924,000	1
Ŧ	16 2012 Bond-Park Facility & Site Improvements	1	1	4,400,000	3,450,000	3,000,000	10,850,000	1,000,000
7	17 2012 Bond-Baileywick Community Center	1		1,425,000	ı	8,075,000	9,500,000	1
~	18 2012 Bond-Lineberry Neighborhood Park	1		125,000	1,125,000	1	1,250,000	1
Ť	19 2012 Bond-Walnut Crk Wetland	1		150,000	850,000	1	1,000,000	1
×	20 2012 Bond-Tennis Center	1		1	1,050,000	1	1,050,000	5,950,000
7	21 2012 Bond-Dunn Road Comm Park	1	1	1	975,000	5,525,000	6,500,000	1
2,	22 2012 Bond-Pullen Art Center Improvements	-	1	1	1	712,500	712,500	4,037,500
7	23 2012 Bond-P&R Plan & Design	•		1,000,000	1	1,200,000	2,200,000	1
5	24 2012 Bond-Wilkerson Nature Preserve	1	1	300,000	1,700,000	1	2,000,000	1
2,	25 2012 Bond - Park Site Acquisitions	-	1	5,000,000	5,000,000	5,000,000	15,000,000	5,000,000
2	26 2012 Bond - Walnut Crk Greenway	-	-	4,015,000	1	1	4,015,000	1
2.	27 Athletic Complex	-	-	-	-	-	-	40,000,000
5	28 Aquatic, Nature, Community, & Senior Centers	-	-	1	1	1	1	40,000,000
6 4	29 Park development	-	-	-	-	-	-	20,000,000
6	Subtotal, Park Bond Projects	\$ 7,735,000	\$ 400,000 \$	3,872,750	\$ 35,888,750	\$ 34,325,000	\$ 102,221,500	\$ 136,967,500

						Phase I
Program Funding Resources	2011-12	2012-13	2013-14	2014-15	2015-16	Summary
Interest On Investments	\$ 15,000	\$ 30,000	\$ 45,000 \$	\$ 67,500	8 005'26	\$ 255,000
Fr 100 For P&R	1,200,000	1,800,000	3,000,000	3,500,000	3,800,000	13,300,000
Fr 130 Revolving Fund	100,000	100,000	100,000	100,000	100,000	200,000
Facility Fees	1,500,000	1	1	1	1	1,500,000
Bond Proceeds	7,550,000	1	1	1	-	7,550,000
2012 Proposed Parks Bond	1	1	23,272,750	35,113,750	33,600,000	91,986,500
Interest-Bonds Tax Exempt	125,000	250,000	300,000	450,000	000,059	1,775,000
Total Funding Plan Parks & Recreation	\$ 10 490 000	10 490 000 \$ 2 180 000 9	26717750 9	39 231 250 \$	38 247 500	116 866 500

226,107,500

116,866,500 \$

39,231,250 \$ 38,247,500 \$

Total Project Costs, Parks & Recreation \$ 10,490,000 \$ 2,180,000 \$ 26,717,750 \$

### Phase I – Parks and Recreation Program

### **Parks and Recreation Acquisition**

### 1. Park Site Acquisition: \$300,000

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

### 2. Greenway Acquisition: \$350,000

This funding is for acquisition of greenway land. This includes missing greenway segments and reimbursements for dedicated greenway easements that become available during development site plan approval procedures.

### **Development Projects**

### 1. Park Lighting: \$565,000

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

### 2. Site Security: \$126,000

This project will provide funding to address security issues throughout the park system, including: installation of control access gates to limit vehicular access to facilities after hours, and indoor and outdoor security cameras to increase security for parks and facilities (e.g. parking, picnic shelters).

### 3. Field Fencing: \$200,000

This is an ongoing program to repair and replace fencing at ball fields, tennis courts and general park fencing. It requires the removal of existing and replacement with new according to department specifications. This project also funds substantial repairs to existing fencing that are beyond the funding capacity of the Parks Division operating budget, in order to extend the current life cycle of existing installations.

### 4. Greenway Development: \$425,000

This project will provide funding for small greenway projects that are implemented by park staff and to supplement the major greenway projects approved by voters in bond referendums.

### 5. Greenway Trail Resurfacing: \$425,000

Funding to resurface and repair older trail surfaces and structures to maintain a safe, smooth travel surface.

### 6. Nash Square: \$75,000

Funding for upgrades including new irrigation, landscape improvements, wall repairs, and lighting upgrades for both pathways and tree lighting.

### 7. Park Site Improvement: \$815,000

To provide funds for repairs and replacements to park grounds and certain non-structural facilities such as concrete and asphalt surfaces, grills, park benches, picnic tables, trash receptacles and other site furnishings to maintain current levels of service.

### 8. Parks Irrigation Projects: \$95,000

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

### 9. Parks Paving Program: \$332,500

Funds are for repair and replacement of existing paved areas, as well as the creation of new paved surfaces, and include walking trails in parks, interior roadways, parking lots, basketball court surfaces, and sidewalks.

### 10. Parks Roof Repairs: \$575,000

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

### 11. Tennis Resurfacing: \$196,000

Tennis courts are resurfaced on a five-year cycle to preserve the life of the court surface. There are 112 tennis courts in the city's park system.

### 12. Theater in the Park: \$100,000

Funding to implement structural repairs to the main theater based upon recent study results.

### 13. Walnut Creek Softball Complex: \$50,000

Funds for improvements at Walnut Creek Softball Complex including LED scoreboards, field fencing, irrigation, bleachers, ticket booth, accessible ramps and a picnic shelter.

### 14. Community Facility Upgrades:\$190,000

Funding is for interior and exterior painting, maintaining, repairing, replacing, and upgrading recreation center lighting, interiors, and facades.

### 15. Wooten Meadows: \$250,000

This project will provide funding to create a master plan and begin development of this neighborhood park.

### 16. <u>Backflow Prevention Upgrade</u>: \$100,000

This is an ongoing project to install and rebuild backflow preventers within City facilities to comply with code.

### 17. Buffaloe Road Park: \$122,500

Funding for additional athletic park improvements, including track and field venues, a picnic shelter, lights for the football field, and parking.

### 18. <u>Picnic Shelters</u>: \$420,000

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

### 19. Aquatic Improvements: \$725,000

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.

### 20. Lead Paint Abatement: \$325,000

These are additional costs associated with repainting facilities that have been identified as having had lead paint and/or asbestos. Funding is provided for various Parks facilities and will be primarily used in conjunction with the Building Improvements and Community Facility Upgrade Capital accounts.

### 21. P&R Field Upgrades: \$195,000

Athletic field upgrades include the addition of concrete pads and walks for dugouts, scorer's tables, and bleachers, as well as the purchase and installation of player's benches, scorer's tables, scoreboards, and bleachers.

### 22. Street Tree Replacement: \$275,000

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

### 23. Mordecai Improvements: \$60,000

Funding for the continuation of phased maintenance for the Mordecai Historic Park buildings, including the repair and restoration of the kitchen, double door dependency, storage building, Andrew Johnson House, Law Office, Chapel, and Post Office.

### 24. Carousel Animal Restoration: \$100,000

This funding will be used to restore Pullen and Chavis Park Carousel animals. Animals are on a constant rotation for restoration.

### 25. Raleigh Little Theater Improvements: \$65,000

Funding for various facility maintenance and upgrade projects including: installation of new locks and keying system for building security; carpet replacement at main stage and lobby; needs assessment for landscape upgrades at Rose Garden and implement study results; amphitheater seats; and risers.

### 26. Building Improvements: \$1,025,000

Funding will target interior lighting upgrades, boilers, gas packs, water fountains, and HVAC replacement.

### 27. MLK, Jr. Park Expansion: \$375,000

Funds for expansion of the existing memorial park in collaboration with Community Advocates for Parks in Southeast Raleigh (CAPSR) and the Martin Luther King Committee. Phase 1 to include an outdoor meeting space, restroom facility and additional parking.

### 28. Reused Water Line Extension: \$75,000

This project will extend the re-use water line to Walnut Creek Softball complex to irrigate the fields and will be used for similar projects at other locations.

### 29. Chavis Way Extension: \$100,000

Funding for design and development of infrastructure on Chavis Way Greenway. to facilitate programming use of open space. Signage, benches and other site amenities will be considered.

### 30. Signage-Parks & Greenways: \$115,000

Funding for installation of new signs at parks and greenways, and replacement of existing signs damaged beyond repair.

### 31. Volunteerism and Partnership Project: \$190,000

Funds for the purpose of partnering with individuals and groups on projects related to the Adopt-a-Park Program, the Park Improvement Matching Grant Program, playground construction and renovation, and other park improvement projects.

### 32. Fayetteville Street Renovation Improvements: \$305,000

Replacement and repair of hardscape materials, landscape materials, site furnishings and other structures as a result of wear and tear attributed to daily use and special events. Additional repairs will be required as a result of vandalism or unanticipated damage from renovation of adjoining properties. Other improvements to include plant material replacement to account for seasonal color replacement and mortality resulting from normal life cycle of material in an urban setting. Contractual power washing and pavement replacement.

### 33. Multipurpose Field Renovations: \$160,000

The scope of this project is to renovate existing open space areas at park facilities to accommodate departmental athletic programming and rental of space by outside agencies. Renovation will consist of grading and site preparation, irrigation system installation and installation of sod or sprigs to establish a quality playing surface.

### 34. City Cemetery Restoration: \$80,000

Funding to implement the strategic plan recommendations related to the inventory, restoration and ongoing care of Raleigh's three historic cemeteries (O'Rorke, Mount Hope, and City Cemetery).

### 35. Canine Park: \$55,000

Funding for new dog parks and off-leash pet exercise areas in new and established parks. Dog parks are entirely fenced, with double gated pedestrian entrance, water service, and lights. They are sited to take advantage of existing infrastructure (parking, water service, restroom, etc.) and cover 1-2 acres.

### 36. Safety Compliance: \$150,000

Funding for sites and facilities in need of improvements to be compliant with safety regulations, as well as the installation of AEDs at park facilities. Selected sites are identified through staff inventory assessments and are evaluated in terms of facility age, levels of use, demand, etc.

### 37. Lions Park BMX Improvements: \$25,000

Repair and upgrade to existing track elements and related furnishings. Potential improvements to include track upgrades, new site furnishings, landscaping and asphalt repair.

### 38. Moore & Nash Square Improvements: \$225,000

Funding to make site amenity improvements to both Moore and Nash Square, including irrigation and lighting improvements, benches, signage and trash cans.

### 39. Maintenance Operations Facilities: \$300,000

Funds will be used to address renovation, upgrade and required repair for compliance at the numerous maintenance facilities associated with the Parks and Recreation Department.

### 40. Camp Durant Nature Park Improvements: \$100,000

Funding for improvements to existing structures at Camp Durant Nature Park.

### 41. Parks Plan Update: \$248,000

Funding to update the Parks Plan to reflect changes required by the adoption of the City's updated Comprehensive Plan. The current Parks Plan was adopted May 2004.

### 42. Greenway Bridge and Boardwalk Repair: \$325,000

Annual funding to repair and/or replace bridges or boardwalks that are identified in a systematic evaluation program.

### 43. Structure Repair and Replacement: \$325,000

Funding for repair and replacement of bridges and other structures as determined by Structural Engineer. This program is set up to initiate major repairs and/or replace 2 bridges annually. This funding is used to complete repairs and/or replacements that go beyond the capability of the Division operating budget.

### 44. Latta House: \$150,000

Funding for research and planning for this historic site.

### 45. Solar Hot Water Heaters: \$100,000

Funding to incorporate solar hot water heaters at existing recreation center buildings. This project will not replace the existing system, but will be the primary hot water source, while the conventional existing system will be a backup. This will be a multi-year project.

### 46. Alvis Farm: \$300,000

Funds to develop a master plan and begin development of this community park.

### 47. Milburnie Park: \$390,000

Funds to develop a master plan and begin development of this community park.

### 48. Thorton Road: \$325,000

Funds to develop a master plan and begin development of this community park.

### 49. Urban Forestry Standards: \$20,000

Funding to hire a consultant to complete the street tree inventory and prepare a Street Tree Management Plan, incorporating the Policies and Standards Governing Activities Which Impact City Trees and city code.

### 50. Drewry Hills: \$225,000

Funds to develop a master plan and begin development of this neighborhood park in the Drewry Hills-Rothgeb area of Crabtree Creek.

### 51. Halifax Park and Community Center Improvement: \$1,000,000

Funding will be used for the site and building improvements in conjunction with the 2007 bond project.

### 52. Carolina Pines and Jaycee Community Center Improvements: \$500,000

Funding will be used for the site and building improvements at both locations in conjunction with the 2007 bond projects currently under design.

### **Bond Projects**

### 1. Playground Improvements:\$225,000

This funding is for repairs and replacement of existing playground equipment and repair and/or replacement and replenishment of playground safety surfacing in order to comply with Consumer Product Safety Council Guidelines for Public Playgrounds, ASTM Standard 1487, ADA, and ADAAG.

### 2. Comfort Station Improvements: \$560,000

This funding is for repairs/replacement of existing comfort stations throughout the park system.

### 3. Community Facility Upgrades: \$1,225,000

Funding is for interior/exterior painting, maintaining, repairing, replacing, and upgrading recreation center lighting, interiors, and facades. FY11-12 includes Pullen Community Center (kitchen and bathroom renovation and upgrade to ADA compliance) and Borden and Garris Buildings (exterior envelope repair).

### 4. P&R Electrical-Fields/Courts: \$300,000

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

### 5. Barwell Road Park Development: \$1,550,000

Develop the first phase of outdoor recreational opportunities around the new Community Center.

### 6. ADA Facility Upgrades: \$325,000

Current codes, standards and expectations have changed with regard to the extent of accessibility to park and recreation services. Funding is used to implement changes in buildings and access routes to make them ADA compliant.

### 7. Neuse River Greenway Completion: \$3,000,000

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

### 8. <u>Land Acquisition – 2007 Bond</u>: \$2,000,000

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.

### 9. <u>Unsatisfied Park Search Areas</u>: \$1,000,000

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

### 10. 2012 Bond-Greenway Improvement: \$7,500,000

Funding for improvements to the existing greenway infrastructure that will typically include bridges, retaining structures and surfacing.

### 11. Roof Runoff Collection: \$50,000

Funding to incorporate roof runoff collection systems for existing buildings. The collection system can be above-ground or underground, and will require modifications to the existing building and possibly the irrigation system.

### 12. 2012 Bond - Neighborhood Park Improvements: \$4,525,000

These funds will be used to extend the life and improve the efficiency of existing neighborhood park facilities and infrastructure.

### 13. 2012 Bond - Community Park Improvements: \$19,985,000

These funds will be used to extend the life and improve the efficiency of existing community park facilities and infrastructure.

### 14. 2012 Bond - Cultural Site Improvements: \$4,975,000

These funds will be used to extend the life and improve the efficiency of existing cultural sites.

### 15. 2012 Bond - Trenton Road Greenway: \$924,000

Funding to construct a 10' wide multi-purpose path on the west side of Trenton Road from the Reedy Creek Trail to I-40.

### 16. 2012 Bond – Various Park Facility and Site Improvements: \$10,850,000

These funds will be used to extend the life and improve the efficiency of existing park facilities and infrastructure. Projects will improve structural, safety, security and aesthetic issues identified by site and building assessments and include: building systems upgrades, lighting upgrades, security improvements, and playground/picnic shelter/restroom retrofits and replacement programs.

### 17. 2012 Bond - Baileywick Community Center: \$9,500,000

Design and construction of a new community center at Baileywick Park as per the master plan.

### 18. 2012 Bond - Lineberry Neighborhood Park: \$1,250,000

Funding to plan, design and development of this neighborhood park in southwest Raleigh.

### 19. <u>2012 Bond – Walnut Creek Wetland</u>: \$1,000,000

Funds for master plan, design and construction of park amenities.

### 20. 2012 Bond - Tennis Center: \$1,050,000

Funding to design and construct a new tennis complex including courts, parking and a building.

### 21. <u>2012 Bond – Dunn Road Community Park</u>: \$6,500,000

Funding is for design and construction of Phase 2 development for Dunn Road Community Park, including: baseball fields, concessions, shelters, and parking.

### 22. 2012 Bond - Pullen Art Center Improvements: \$712,500

Funding for building and site improvements at Pullen Art Center.

### 23. 2012 Bond - P&R Plan and Design: \$2,200,000

Funding for new master plans, designs and studies based on Park Plan update.

### 24. 2012 Bond - Wilkerson Nature Preserve: \$2,000,000

Funding is for design and construction of Phase 2 development for the Annie Louise Wilkerson, MD Nature Preserve Park.

### 25. <u>2012 Bond – Park Site Acquisition</u>: \$15,000,000

This funding is for acquisition of various park sites in locations spread throughout the city. The search areas for these park sites are identified in the Comprehensive Plan, with neighborhood park sites identified as a priority.

### 26. 2012 Bond - Walnut Creek Greenway: \$4,015,000

This project will complete the extension of the Walnut Creek Greenway from New Hope Road to the Neuse River greenway corridor, connecting downtown to the Neuse River.

### Phase II – Parks and Recreation Program

### Parks and Recreation Acquisition

### Park Site Acquisition: \$25,000,000

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

### Greenway Acquisition: \$2,500,000

This funding is for acquisition of greenway land. This includes missing greenway segments and reimbursements for dedicated greenway easements that become available during development site plan approval procedures.

### **Development Projects**

### Park Lighting: \$1,075,000

Funding to upgrade and replace the lighting system at ball fields, tennis courts, and parking lots.

### Site Security: \$150,000

Funding to address security issues throughout the park system, including: installation of control access gates to limit vehicular access to facilities after hours, and indoor and outdoor security cameras to increase security for parks and facilities (e.g. parking, picnic shelters).

### Field Fencing: \$775,000

This is an ongoing program to repair and replace fencing at ball fields, tennis courts and general park fencing. It requires the removal of existing and replacement with new according to department specifications. This project also funds substantial repairs to existing fencing that are beyond the funding capacity of the Parks Division operating budget, in order to extend the current life cycle of existing installations.

### Greenway Development: \$750.000

This project will provide funding for small greenway projects that are implemented by park staff and to supplement the major greenway projects approved by voters in bond referendums.

### Greenway Trail Resurfacing: \$1,500,000

Funding to resurface and repair older trail surfaces and structures to maintain a safe, smooth travel surface.

Nash Square: \$375,000

Funding for upgrades including new irrigation, landscape improvements, wall repairs, and lighting upgrades for both the pathways and tree lighting.

### Park Site Improvement: \$1,450,000

To provide funds for repairs and replacements to park grounds and certain non-structural facilities such as concrete and asphalt surfaces, grills, park benches, picnic tables, trash receptacles and other site furnishings to maintain current levels of service. .

### Parks Irrigation Projects: \$250,000

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

### Parks Paving Program: \$750,000

Funds are for repair and replacement of existing paved areas, as well as the creation of new paved surfaces, and include walking trails in parks, interior roadways, parking lots, basketball court surfaces, and sidewalks.

### Parks Roof Repairs: \$925,000

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

### Tennis Resurfacing: \$450,000

Tennis courts are resurfaced on a five-year cycle to preserve the life of the court surface. There are 112 tennis courts in the city's park system.

### Theater in the Park: \$100,000

Funding to implement structural repairs to the main theatre based upon recent study results.

### Wooten Meadows: \$50,000

Funds to master plan and begin development of this neighborhood park.

### Backflow Prevention Upgrade: \$325,000

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

### Buffaloe Road Park: \$4,250,000

Funding for additional athletic park improvements, including track/field venues, a picnic shelter, lights for the football field, and parking.

### Picnic Shelters: \$790,000

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

### Aquatic Improvements: \$11,500,000

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.

### Lead Paint Abatement: \$250,000

These are additional costs associated with repainting facilities that have been identified as having had lead paint and/or asbestos. Funding is provided for various Parks facilities and will be primarily used in conjunction with the Building Improvements and Community Facility Upgrade Capital accounts.

### P&R Field Upgrades: \$375,000

Athletic field upgrades include the addition of concrete pads and walks for dugouts, scorer's tables, and bleachers, as well as the purchase and installation of player's benches, scorer's tables, scoreboards, and bleachers.

### Street Tree Replacement: \$450,000

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

### Mordecai Improvements: \$150,000

Funding for the continuation of phased maintenance for the Mordecai Historic Park buildings to include the repair and restoration of the kitchen, double door dependency, storage building, Andrew Johnson House, Law Office, Chapel, and Post Office.

### Carousel Animal Restoration: \$225,000

This funding will be used to restore Pullen and Chavis Park Carousel animals. Animals are on a constant rotation for restoration.

### Raleigh Little Theater Improvements: \$125,000

Funding for various facility maintenance and upgrade projects including: installation of new locks and keying system for building security; carpet replacement at main stage and lobby; study needs for landscape upgrades at Rose Garden and implement study results; amphitheater seats; and risers.

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

Funding will target interior lighting upgrades, boilers, gas packs, water fountains, and HVAC replacement.

### Reused Water Line Extension: \$250,000

This project is to extend the re-use water line to Walnut Creek Softball complex to irrigate the fields and for similar projects at other locations.

### Chavis Way Extension: \$2,000,000

Funding for design and development of infrastructure on Chavis Way Greenway to facilitate programming use of open space. Signage, benches and other site amenities will be considered.

### Signage-Parks & Greenways: \$250,000

Funding for installation of new signs at parks and greenways, and replacement of existing signs damaged beyond repair.

### Volunteerism & Partnership Project: \$375,000

Funds for the purpose of partnering with individuals and groups on projects related to the Adopt-a-Park Program, the Park Improvement Matching Grant Program, playground construction and renovation, and other park improvement projects.

### Fayetteville Street Renovation Improvements: \$500,000

Replacement and repair of hardscape materials, landscape materials, site furnishings and other structures as a result of wear and tear attributed to daily use and special events. Additional repairs will be required as a result of vandalism or unanticipated damage from renovation of adjoining properties. Other improvements to include plant material replacement to account for seasonal color replacement and mortality resulting from normal life cycle of material in an urban setting. Contractual power washing and pavement replacement.

### Multipurpose Field Renovations: \$375,000

The scope of this project is to renovate existing open space areas at park facilities to accommodate departmental athletic programming and rental of space by outside agencies. Renovation will consist of grading and site preparation, irrigation system installation and installation of sod or sprigs to establish a quality playing surface.

### City Cemetery Restoration: \$250,000

Funding to implement the recommendations of the strategic plan related to the inventory, restoration and ongoing care of Raleigh's three historic cemeteries (O'Rorke, Mount Hope, and City Cemetery).

Canine Park: \$100,000

Funding for new dog parks and off-leash pet exercise areas in new and established parks. Dog parks are entirely fenced, with double gated pedestrian entrance, water service, and lights. They are sited to take advantage of existing infrastructure (parking, water service, restroom, etc.) and cover 1-2 acres.

Safety Compliance: \$250,000

Funding for sites and facilities in need of improvements to be compliant with safety regulations, as well as the installation of AEDs at park facilities. Selected sites are identified through staff inventory assessments and are evaluated in terms of facility age, levels of use, demand, etc.

### Lions Park BMX Improvements: \$100,000

Repair and upgrade to existing track elements and related furnishings. Potential improvements to include, but not limited to, track upgrades, new site furnishings, landscaping and asphalt repair.

Maintenance Operations Facilities: \$475,000

Funds will be used to address renovation, upgrade and required repair for compliance at the numerous maintenance facilities associated with the Parks and Recreation Department.

### Camp Durant Nature Park Improvements: \$250,000

Funding for improvements to existing structures at Camp Durant Nature Park.

### Greenway Bridge/Boardwalk Repair: \$1,000,000

Annual funding to repair and/or replace bridges or boardwalks that are identified in a systematic evaluation program.

### Structure Repair and Replacement: \$500,000

Funding for repair and replacement of bridges and other structures as determined by Structural Engineer. This program is set up to initiate major repairs or replace 2 bridges annually. This funding is used to complete repairs or replacements that go beyond the capability of the Division operating budget.

### Latta House: \$50,000

Funding for research and planning for this historic site.

### Solar Hot Water Heaters: \$375,000

Funding to incorporate solar hot water heaters at existing recreation center buildings. This is not to replace the existing system, but rather to be the primary hot water source with the conventional existing system as backup. This will be a multi-year project.

### Alvis Farm: \$5,000,000

Funds to develop master plan and begin development of this community park.

### Milburnie Park: \$7,000,000

Funds to develop master plan and begin development of this community park.

### Thorton Road: \$5,000,000

Funds to develop master plan and begin development of this community park (Sydnor White property).

### Drewry Hills: \$2,000,000

Funds to develop master plan and begin development of this neighborhood park in the Drewry Hills-Rothgeb area of Crabtree Creek.

### Master Plans: \$1,000,000

Revision of existing outdated Master Plans and new Master Plans for undeveloped/unplanned properties

### **Phase II Bond Projects**

### Playground Improvements: \$1,000,000

This funding is for repairs and replacement of existing playground equipment and repair and/or replacement/replenishment of playground safety surfacing in order to comply with Consumer Product Safety Council Guidelines for Public Playgrounds, ASTM Standard 1487, ADA, and ADAAG.

### Comfort Station Improvements: \$1,130,000

This funding is for repairs and replacement of existing comfort stations through out the park system.

### Community Facility Upgrades: \$6,050,000

Funding is for interior and exterior painting, maintaining, repairing, replacing, and ugrading recreation center lighting, interiors, and facades. This includes the Pullen Community Center (kitchen and bathroom renovation and upgrade to ADA compliance) and Borden and Garris Buildings (exterior envelope repair).

### P&R Electrical-Fields and Courts: \$500,000

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

### ADA Facility Upgrades: \$2,500,000

Current codes, standards and expectations have changed with regard to the extent of accessibility to park and recreation services. Funding is used to implement changes in buildings and access routes to make them ADA compliant.

### 2012 Bond-Greenway Improvement: \$2,500,000

Funding for improvements to the existing greenway infrastructure that will typically include bridges, retaining structures and surfacing.

### Roof Runoff Collection: \$400,000

Funding to incorporate roof runoff collection systems for existing buildings. The collection system can be above-ground or underground, and will require modifications to the existing building and possibly the irrigation system.

### 2012 Bond - Community Park Improvements: \$5,625,000

These funds will be used to extend the life and improve the efficiency of existing community park facilities and infrastructure.

### 2012 Bond - Cultural Site Improvements: \$1,275,000

These funds will be used to extend the life and improve the efficiency of existing cultural sites.

### 2012 Bond – Various Park Facility and Site Improvements: \$1,000,000

These funds will be used to extend the life and improve the efficiency of existing park facilities and infrastructure. Projects will improve structural, safety, security and aesthetic issues identified by site and building assessments and include: building systems upgrades, lighting upgrades, security improvements, and playground/picnic shelter/restroom retrofits and replacement programs.

### 2012 Bond - Tennis Center: \$5,950,000

Funding to design and construct a new tennis complex including courts, parking and a building.

### 2012 Bond - Pullen Art Center Improvements: \$4,037,500

Funding for building and site improvements at Pullen Art Center.

### 2012 Bond - Park Site Acquisition: \$5,000,000

This funding is for acquisition of various park sites in locations spread throughout the city. The search areas for these park sites are identified in the Comprehensive Plan, with neighborhood park sites identified as a priority.

### Athletic Complex: \$40,000,000

Funding to incorporate roof runoff collection systems for existing buildings. The collection system can be above-ground or underground, and will require modifications to the existing building and possibly the irrigation system.

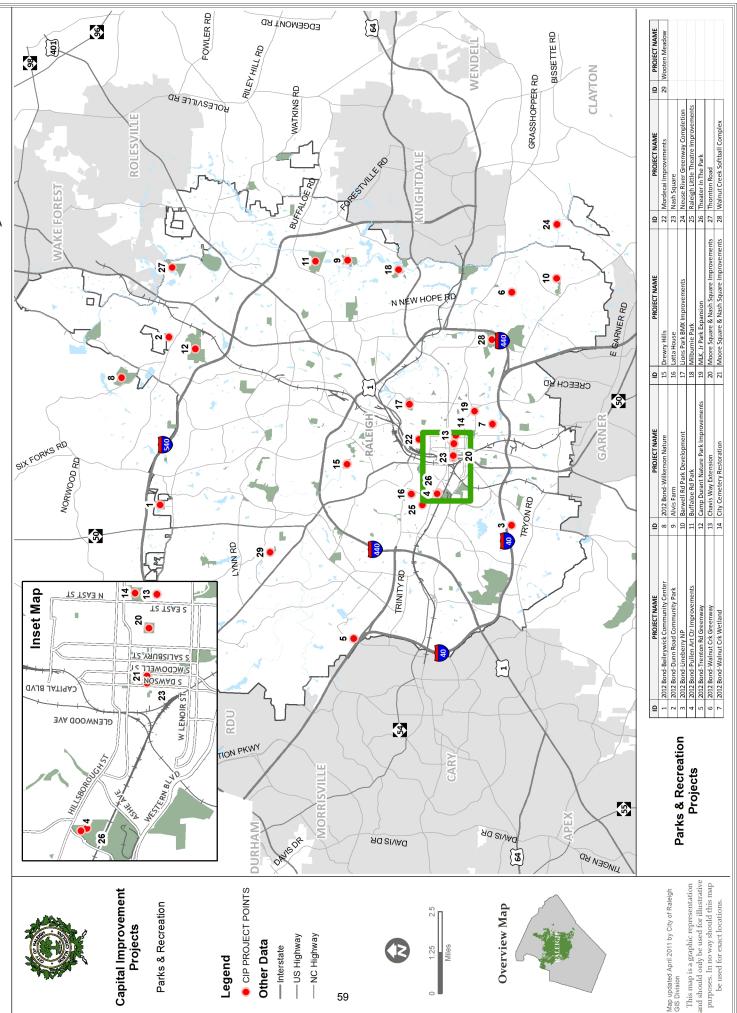
### Aquatic, Nature, Community and Senior Centers: \$40,000,000

Design and construction of new aquatic, community, nature and senior centers at strategic locations around the city, based on the Comprehensive Plan, Aquatic Study and Senior Center Study.

### Park Development: \$20,000,000

New park development, as well as development of existing parks to include additional park elements and future phases of existing master plans.

### S PROJECT IMPROVEMENT CAPITAL





### Stormwater Utility and Neuse Basin Environmental Program

The stormwater utility 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 in March 2004. In conjunction with the establishment of this fee, the City Council created the Stormwater Management Advisory Commission. The Commission advises the City Council on issues related to stormwater management; 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 environmental program. A list of projects covered by fees and bonds are itemized on the following pages.

### Ten-Year Summary of the Stormwater Program

	PHASE I	PHASE II	TOTAL
Neuse Basin Environmental Program	\$ 17,390,000	\$ 16,750,000	\$ 34,140,000
Stormwater Utility Program	55,465,000	34,565,000	90,030,000
TOTAL	\$ 72,855,000	\$ 51,315,000	\$ 124,170,000

## Project Costs and Funding Plan for Stormwater Utility and Neuse Basin Environmental

		7	0,000		1		Phase I	Phase II
Ľ	Neuse basin Environmental Program	ZI-1.10Z	\$1-2102 \$	\$ 500,000	\$ 000 000 \$	91-6102	Summary	Summary
.   0	Mater Ottefity Model		250,000	250,000	250,000		1 250 000	
(1)		- '0			500,000	500,000	1,000,000	2.500,000
4	1	1		400,000	400,000		800,000	2,000,000
4)	5 Drainage System Inventory	500,000	540,000	200,000	200,000	500,000	2,540,000	2,500,000
y V	6 Stream Restore/Stabilization		-	200,000	500,000		1,000,000	3,500,000
_	7 Simmons Branch Stream Restoration	-	-	-	-	500,000	200,000	2,500,000
ω	8 Kensington Park Stream Restoration	-	400,000	-	2,200,000	-	2,600,000	-
رن	9 Valley Lake Rehab/Preservation	-	400,000	-	2,000,000	-	2,400,000	-
Ť	10 Glen Eden Park Lake Rehab/Preservation	-	250,000	1	850,000	-	1,100,000	1
_	11 Camp Durant Lake Rehab/Preservation	-	100,000	1	800,000	1	000'006	
Ψ,	12 Pigeon House Branch Stream Restoration	1	1	1	000'009	1	000'009	1
	Subtotal, Neuse Basin Environmental Program	\$ 1,450,000	\$ 2,440,000	\$ 2,150,000 \$	\$ 9,100,000 \$	3,250,000	\$ 17,390,000	\$ 16,750,000
							Phase I	Phase II
	Stormwater Projects	2011-12	2012-13	2013-14	2014-15	2015-16	Summary	Summary
_	1 Grist Mill NW Drainage	- \$	- \$	- \$	\$ 200,000 \$	-	\$ 200,000	- \$
2	2 Grist Mill/Harps Mill Drainage	-	•	-	1,200,000	-	1,200,000	1
რ 62	3 Harps Mill Rd/Haymarket Drainage	2,700,000	-	-	-	-	2,700,000	-
4	4 Hargett-West St Drainage Impvt	-	-	-	300,000	-	300,000	-
4)	5 Sierra Dr Storm Drainage	350,000	-	-	1,250,000	-	1,600,000	-
9	6 Tanbark Way Drainage	1	-	1	250,000	-	250,000	-
7	7 Western Blvd Drainage	1	-	•	350,000	1	350,000	-
ω	8 Newbold St Drainage Impvt	-	-	-	250,000	-	250,000	-
U)	9 Winthrop Drive Culvert	-	-	20,000	250,000	-	300,000	-
Ť	10 Stormwater System Repair	000'008	800,000	800,000	800,000	800,000	4,000,000	11,200,000
_	11 North Hills Drive	425,000	-	1	-	1	425,000	-
7	12 Fairview Rd Culvert Upgrade	500,000	-	1	1	-	200,000	-
Ť	13 Churchill Rd Culvert Upgrade	450,000	-	1	1	-	450,000	-
Ť	14 Petition Projects	000'092	750,000	750,000	750,000	750,000	3,750,000	3,750,000
<del>-</del>	15 Newton Road Culvert Upgrade	-	-	1	-	250,000	250,000	1,400,000
Ť	16 Pineview Drive Culvert	3,750,000	-	1	-	1	3,750,000	-
17	7 Cambridge Rd Culvert	1,000,000	1	1	ı	1	1,000,000	•
Ť	18 Albemarle Dr/Lower Longview Lake Project	2,500,000	1	1	1	'	2,500,000	•
Ť	19 Northshore Lake Project	2,500,000	-	1	1	-	2,500,000	-
2	20 Brentwood Today Lake Project	2,000,000	1	1	1	1	2,000,000	•
7	21 Maintenance Reserve	•	•	200,000	1,000,000	•	1,500,000	5,000,000
7	22 Breckenridge Ave Drainage	400,000	1	1	-	ı	400,000	

## Project Costs and Funding Plan for Stormwater Utility and Neuse Basin Environmental

23 Crabtree Crk Stream Rest/Stal 24 Woodbend Dr Culvert Upgrade 25 Lail Court Culvert Upgrade 26 Kaplan Dr Culvert Upgrade 27 Flood Mitigation 28 Five Points Drainage 30 Audubon Dr Drainage 31 Knights Way Drainage 32 Strothmore/Harps Mill Drainage 33 Laurel Hills Dam Reconstructic 34 Quince Street Drainage 35 Frank Street Drainage 36 Old Buffaloe Rd Pipe Upgrade 37 Aycock Street Storm Drainage 38 Shepard Merriman Storm Drain 39 Parkwood Dr Drainage Upgrad 40 New Hope Church Rd Culvert 41 Acer Ct Drainage Improvemen 42 Timber Ridge Drainage Improvemen 43 Harps Mill/HM Woods/Paddle V	Stormwater Projects Crabtree Crk Stream Rest/Stabalization Woodbend Dr Culvert Upgrade Lail Court Culvert Upgrade Kaplan Dr Culvert Upgrade Flood Mitigation Five Points Drainage Rainwook Lane Drainage Rainwook Lane Drainage Knights Way Drainage Knights Way Drainage Caurel Hills Dam Reconstruction Cuince Street Drainage Frank Street Drainage Old Buffaloe Rd Pipe Upgrade Aycock Street Storm Drainage Shepard Merriman Storm Drainage	800,000 800,000 500,000 800,000 400,000 500,000 500,000				300,008	800,000 300,000	oummary
2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	tream Rest/Stabalization Culvert Upgrade ert Upgrade Innage Innage Ps Mill Drainage In Reconstruction Drainage Storm Drainage Storm Drainage	800,000 500,000 500,000 800,000 400,000 500,000 500,000				300,000	300.000	
2 2 2 2 2 2 2 2 2 2 2 3 3 3 3 3 3 3 3 3	Eulivert Upgrade ert Upgrade ert Upgrade Innage innage ainage Ps Mill Drainage In Reconstruction Drainage Storm Drainage Alpipe Upgrade Storm Drainage	1,200,000 500,000 500,000 800,000 400,000 500,000 2,500,000			1	300,000	300.000	
2 2 2 2 2 2 2 2 2 2 2 3 3 3 3 3 3 3 3 3	ert Upgrade ert Upgrade Inage inage ainage ps Mill Drainage n Reconstruction Drainage ainage The Upgrade Storm Drainage	1,200,000 500,000 		1 1			1,)()))	1,300,000
2 2 2 2 8 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3	ert Upgrade Inage Inage ainage rainage Ps Mill Drainage In Reconstruction Prainage In Reconstruction Prainage A Pipe Upgrade Storm Drainage	500,000 800,000 400,000 500,000 		1	•	1	1,200,000	-
2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	inage E Drainage ainage rainage Ps Mill Drainage n Reconstruction Prainage ainage Storm Drainage Storm Drainage	800,000 400,000 500,000 - 2,500,000			-	1	500,000	-
2 2 8 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	inage  Drainage rainage  ps Mill Drainage  n Reconstruction  Crainage ainage  1 Pipe Upgrade Storm Drainage  nan Storm Drainage	800,000 400,000 500,000 2,500,000		200,000	500,000	1	1,000,000	2,500,000
20 30 30 30 30 30 30 30 30 30 30 30 30 30	e Drainage ainage rainage ps Mill Drainage n Reconstruction Drainage ainage 1 Pipe Upgrade Storm Drainage nan Storm Drainage	800,000 400,000 500,000 2,500,000	1 1 1 1 1	-	2,000,000	-	2,000,000	-
30 31 32 33 33 33 34 44 44 44 44 44 45 45 46 46 46 46 46 46 46 46 46 46 46 46 46	ainage rainage ps Mill Drainage n Reconstruction Drainage ainage 1 Pipe Upgrade Storm Drainage	400,000 500,000 - 2,500,000		-	-	-	800,000	-
33 33 33 33 34 4 4 4 4 4 4 4 4 4 4 4 4	rainage ps Mill Drainage n Reconstruction Drainage alinage 1 Pipe Upgrade Storm Drainage	500,000		-	-	-	400,000	-
32 33 33 34 35 36 36 37 37 40 40 41 41 44 44 44	ps Mill Drainage n Reconstruction Drainage ainage 1 Pipe Upgrade Storm Drainage	2,500,000	1 1	1	1	1	200,000	-
33 34 35 36 36 37 38 39 40 40 41 42 43	n Reconstruction Drainage ainage J Pipe Upgrade Storm Drainage nan Storm Drainage	2,500,000	1	200,000	000'009	1	800,000	-
34 35 36 37 38 39 40 41 42 43	Drainage ainage A Pipe Upgrade Storm Drainage			-	-	-	2,500,000	-
35 36 37 38 39 40 41 44 44	ainage 1 Pipe Upgrade Storm Drainage nan Storm Drainage	1	40,000	1	250,000	1	290,000	-
36 37 38 39 39 40 41 42 43 44 44	J Pipe Upgrade Storm Drainage nan Storm Drainage		100,000	1	000'009	1	000'002	-
37 38 39 40 41 42 43 44 44	Storm Drainage nan Storm Drainage	1	40,000	-	230,000	-	270,000	-
38 39 40 41 42 43 44 44	nan Storm Drainage	-	-	25,000	200,000	-	225,000	-
39 40 41 42 43 44		-	250,000	-	1,600,000	-	1,850,000	-
40 41 42 43 44	Parkwood Dr Drainage Upgrade	-	20,000	1	290,000	1	340,000	-
41 43 44 44	New Hope Church Rd Culvert Upgrade	-	-	1	-	250,000	250,000	1,500,000
42 43 44	Acer Ct Drainage Improvements	-	40,000	1	150,000	1	190,000	-
43 Harps Mill/HM \ 44 Brockton Drive	Timber Ridge Drainage Improvs	-	-	1	100,000	1	100,000	-
	Harps Mill/HM Woods/Paddle Wheel	-	-	1	100,000	1	100,000	-
	Culvert	-	100,000	1	500,000	1	000,009	-
45 E Davie St Drai	E Davie St Drainage Improvmnts	-	40,000	1	150,000	1	190,000	-
46 Mine Creek Nor	Mine Creek North Stream Restoration	-	-	1	-	000'09	000'09	400,000
47 Mine Creek Sou	Mine Creek South Stream Restoration	-	-	1	-	60,000	000'09	400,000
48 Walnut Creek R	Walnut Creek Rest/Flood Mitigation	-	-	1	-	250,000	250,000	1,000,000
	Walnut Creek Drainage Infrastructure	-	-	1	-	250,000	250,000	3,250,000
50 Brockton Drive Dam	Dam	2,500,000	-	1	-	1	2,500,000	-
51 Wilcox Place Drainage	rainage	150,000	-	1	-	1	150,000	-
52 Daisy Street Drainage	ainage	200,000	-	1	-	1	200,000	-
53 Atlantic & Hodg	Atlantic & Hodges Storm Drnage	-	-	1	100,000	1	100,000	-
54 West Bragg Street	eet	-	-	27,500	247,500	1	275,000	-
55 Calloway Drive		-	-	32,500	292,500	1	325,000	-
56 Greenleaf Street	ət	-	-	37,500	337,500	1	375,000	-
57 Seabrook Road		1	1	45,000	405,000	•	450,000	-
58 Ligon Street		1	100,000	'	1	•	100,000	-
59 Watson Branch		•	1	45,000	405,000	1	450,000	-

# Project Costs and Funding Plan for Stormwater Utility and Neuse Basin Environmental

											Phase I	Phase II
	Stormwater Projects		2011-12	2012-13		2013-14	2014-15		2015-16	0,	Summary	Summary
9	60 Stoval Drive		-	1		25,000	225,000	_	1		250,000	ı
Ö	61 Proctor Road			1		20,000	450,000	<u> </u>	1		200,000	1
9	62 Longstreet Drive Culvert		1	1		1	1		300,000		300,000	1,000,000
છં	63 House Crk Culvert Energy Dissipation		-	1		-	150,000	_	1		150,000	1
ě	64 Mine Creek Stream Restoration/Stabilization		800,000	1		1	1		1		800,000	
ő	65 Water Quality Retrofit		350,000	165,000	00	250,000	125,000	_	350,000		1,240,000	230,000
ŏ	66 O'Neal Road Culvert			1		20,000	250,000	_	1		300,000	•
.0	67 Wycliff Rd Lake Rehab/Preservation		-	1		-	1		1		•	700,000
<u></u>	68 Fallon Park Water Quality Improvements		-	1		-	1		1		•	410,000
ő	69 Method Road Drainage		-	-		-	-		-		-	525,000
	Subtotal, Stormwater Projects	↔	28,825,000	\$ 2,475,000	\$ 0	3,387,500	\$ 17,157,500	↔	3,620,000	↔	55,465,000 \$	34,565,000
	Total Project Costs, Stormwater	↔	30,275,000	\$ 4,915,000	<del>\$</del>	5,537,500	\$ 26,257,500	↔	5,870,000	↔	72,855,000 \$	51,315,000
											Phase I	
	Program Funding Resources		2011-12	2012-13	,	2013-14	2014-15		2015-16	0,	Summary	
	Interest On Investments	\$	100,000	\$ 200,000	\$ 00	300,000	\$ 450,000	\$	650,000	\$	1,700,000	
,	Bond Proceeds		26,175,000	-		-	17,807,500	_	1		43,982,500	
	Stormwater Services Fund		4,000,000	4,715,000	00	5,237,500	8,000,000		5,220,000		27,172,500	
	Total Funding Resources, Stormwater	ક્ક	30,275,000	\$ 4,915,000	\$ 0	5,537,500	\$ 26,257,500	ક્ક	5,870,000	\$	72,855,000	

### Phase I - Stormwater Utility & Neuse Basin

### Neuse Basin Environmental Program

### 1. TMDL Streams Water Quality Program: \$2,700,000

Funding for the design and construction of water quality projects/BMP's to reduce pollutant discharges in stormwater runoff within the TMDL listed watersheds such as Pigeon House Branch and Perry Creek. The City of Raleigh's NPDES Stormwater Permit requires the development and implementation of a water quality restoration plan for all TMDL listed streams. These practices are considered "green" and promote sustainable development.

### 2. Water Quality Cost Share: \$1,250,000

This cost share program will be similar to the Drainage Petition Program already managed by the Stormwater Management Division. The Water Quality Cost Share program will be for the construction of water quality best management practices, including cost shares with NCDOT. Retrofit projects are mandated by the Neuse Nutrient Management Study, also known as the Neuse Rules, as enforced by North Carolina Department of Environmental and Natural Resources. Retrofit projects are essential for achieving water quality goals.

### 3. Lake Preservation: \$1,000,000

These projects will provide downstream flood protection and water quality benefits by replacing dams and spillways, dredging lakes, and enhancing water quality. This project implements the Lake Preservation Policy as approved by City Council.

### 4. Stormwater Management Studies: \$800,000

To study stormwater impacts using computer modeling to develop techniques to alleviate flooding, water quality, and erosion problems. Component of the City's Neuse River initative and the City's mandated NPDES permit.

### 5. <u>Drainage System Inventory: \$2,540,000</u>

The drainage system inventory is a component of the City's mandated NPDES permit.

### 6. Stream Restore / Stabilization: \$1,000,000

Stabilization and enhancement of eroding stream banks within the City to improve water quality. Implementation of a component of the City's water quality plan which is mandated by the Clean Water Act.

### 7. Simmons Branch Stream Restoration: \$500,000

Improve 4,000 feet of channel along Simmons Branch to decrease flooding and erosion. This project will improve water quality by reducing sediment loads and decreasing flooding of homes and roads. Recommended in the Simmons Branch watershed study.

### 8. Kensington Park Stream Restoration: \$2,600,000

This project will improve water quality by reducing sediment loads and decreasing flooding of homes and roads.

### 9. Valley Lake Rehab / Preservation: \$2,400,000

Rebuild the dam and spillway and retrofit for water quality control.

### 10. Glen Eden Park Lake Rehabilitation / Preservation: \$1,100,000

This project will repair and rehabilitate the dam at Glen Eden Park. This includes making improvements to the dam to meet North Carolina Dam Safety Standards and to accommodate a Parks and Recreation Greenway Trail.

### 11. Camp Durant Lake Rehabilitation / Preservation: \$900,000

Design services and construction for the repair of a failing dam

### 12. Pigeon House Branch Stream Restoration: \$600,000

To improve water quality in a TMDL listed impaired stream through stabilization of eroding stream banks. Implementation of a component of the City's water quality plan which is mandated by the Clean Water Act.

### **Stormwater Projects**

### 1. Grist Mill NW Drainage: \$500,000

This project will replace and install storm drainage improvements along Grist Mill and Harps Mill.

### 2. Grist Mill / Harps Mill Drainage: \$1,200,000

This project will replace and install storm drainage improvements along Grist Mill Road.

### 3. Harps Mill Rd / Haymarket Drainage: \$2,700,000

This project will replace and install storm drainage improvements along Harps Mill / Haymarket as a critical element of the North Ridge stormwater capital improvement projects.

### 4. Hargett-West Street Drainage Improvement: \$300,000

This project will replace and supplement existing storm drainage structures and pipes at the intersection of Hargett Street and West Street to alleviate street flooding and standing water.

### 5. Sierra Drive Storm Drainage: \$1,600,000

This project includes a study of several thousand feet of a storm drainage system in the watershed draining to the 2100 and 2200 blocks of Sierra Drive.

### 6. Tanbark Way Drainage: \$250,000

This project will replace and install storm drainage improvements along Grist Mill and Harps Mill.

### 7. Western Blvd. Drainage: \$350,000

This project will upgrade the existing drainage system at 3900 Western Boulevard and design a solution to alleviate the structural flooding in that area.

### 8. Newbold Street Drainage Improvement: \$250,000

This project will replace and install storm drainage improvements across Newbold Street between Blanchard Street and Rush Street.

### 9. Winthrop Drive Culvert: \$300,000

This project will upgrade the existing culvert at Winthrop Drive between Hermitage Drive and Sleepy Hollow Drive. This culvert is expected to overflow in the 4% Annual-Chance storm, causing street flooding and structural flooding at the crossing and upstream. The scope of work will be to replace the existing 54" RCP with a 7' x 7' (or equally-sized) box culvert.

### 10. Stormwater Systems Repair: \$4,000,000

Repairs to stormwater facilities made in accordance with City Council policies.

### 11. North Hills Drive: \$425,000

This project will replace the existing, failing end wall and pipe outlet for the culvert below North Hills Drive along a tributary to Mine Creek. This project will include channel stabilization and realignment of the outfall of the storm pipe as well as stabilization of the fill slope adjacent to North Hills Drive.

### 12. Fairview Road Culvert Upgrade: \$500,000

This project will replace the existing culvert at Fairview Road along the SE Prong of Beaverdam Creek.

### 13. Churchill Road Culvert Upgrade: \$450,000

This project will replace the existing culvert at Churchill Road along the SW prong of Beaverdam Creek.

### 14. <u>Petition Projects:</u> \$3,750,000

Funding of drainage petition projects approved by City Council for construction under the City Storm Drainage Policy.

### 15. Newton Road Culvert Upgrade: \$250,000

Replace existing 72" pipes with a 10' wide by 8' high concrete box culvert.

### 16. Pineview/Swift Drive Culvert: \$3,750,000

Stormwater Utility Division performed a watershed study of Simmons Branch. Pineview Drive and Swift Drive were identified in this study as being undersized culverts and not meeting Stormwater standards for roadway overtopping. The existing 2 - 54" RCP culvert will be replaced with a 16' X 5' RCB culvert at the intersection of Pineview Drive and Swift Drive. The existing 3 - 54" RCP and 5' X 8' concrete block culvter along Swift Drive will be replaced with a 20' X 5' RCB.

### 17. Cambridge Road Culvert: \$1,000,000

This project will replace the existing culvert at Cambridge Road along the SW Prong of Beaverdam Creek.

### 18. Albemarle Drive/Lower Longview Lake: \$2,500,000

The City plans to replace the principal spillway and bridge with a spillway structure in the lake, overtopping protection and a cast-in-place concrete culvert. A bottom drain will be installed to provide a means to drain the lake. The new structures will discharge near the center of the dam along the original creek alignment.

### 19. Northshore Lake Project: \$2,500,000

The proposed improvements to Northshore Lake and dam will bring the dam structure in compliance with NC Dam Safety standards and will install features that will improve water quality within the lake. In order to achieve this goal, a concrete chute structure with and energy dissipater will be installed. In addition, the lake will be dredged, a sediment sump will be constructed, and wetlands plants will be installed within the lake.

### 20. Brentwood Today Lake Project: \$2,000,000

The proposed improvements to Brentwood Today Lake and Dam will bring the dam structure in compliance with NC Dam Safety standards and will install features to improve the lake's water quality. In order to achieve this goal, a concrete chute structure with and energy dissipater will be installed. In addition, the lake will be dredged, a sediment sump will be constructed, and wetlands plants will be installed within the lake.

### 21. Maintenance Reserve: \$1,500,000

Funding of a maintenance program to be developed as recommended in the Stormwater Utility Funding Study.

### 22. Breckenridge Avenue Drainage: \$400,000

This project will increase the size of the existing pipe system at 7004 Breckenridge Avenue to eliminate yard and structural flooding.

### 23. Crabtree Creek Stream Restoration / Stabilization: \$800,000

Two stream restoration projects totaling approximately 1600 linear feet of channel improvements in the Mine Creek drainage basin located near Old Deer Trail and Sawmill Road.

### 24. Woodbend Drive Culvert Upgrade: \$300,000

This project is for providing storm drainage improvements under Woodbend Drive. An arch culvert will be upgraded to three 10 by 10 box culverts.

### 25. Lail Court Culvert Upgrade: \$1,200,000

Stormwater Utility Division performed a watershed study of Simmons Branch. The study identified Lail Court and Swift Drive as being undersized culverts and not meeting Stormwater standards for roadway overtopping. The existing 2 - 60" RCP culvert will be replaced with dual 8' X 6' RCB culvert at Lail Court. The existing 2 - 60" RCP at Swift Drive will be replaced with 2 - 11' X 5.5' RCBs.

### 26. Kaplan Drive Culvert Upgrade: \$500,000

Stormwater Utility Division performed a watershed study of Simmons Branch. The study identified Kaplan Drive as being an undersized culvert and not meeting Stormwater standards for roadway overtopping. The project will replace the existing 54" RCP pipe with dual 7' X 7' RCBs.

### 27. Flood Mitigation: \$1,000,000

Project to provide funding for buyout or elevation of structures within the 100-year floodplain, particularly repetitive loss structures.

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

Stormwater Utility Division will prepare construction plans and construct culvert drainage improvements along Fairview Road, Myrtle Road, and Glenwood Avenue in the Five Points neighborhood. The existing storm pipes at Fairview Road and Myrtle Road will be increased in size and an existing culvert under Glenwood Avenue will be replaced with a new jack and bore larger capacity culvert.

### 29. Rainwood Lane Drainage: \$800,000

This project will replace existing undersized drainage infrastructure from the backyard of 1208 Rainwood Lane to just north of the intersection of Rainwood and Farmingdon Lane. The public utility system will also replace water and sewer infrastructure.

### 30. Audubon Drive Drainage: \$400,000

This project will replace existing undersized drainage infrastructure at Audubon Drive from the existing catch basin on the north side of Audubon Drive to the outfall between 7708 Audubon and 1300 Sadler Court. The public utility system will also replace water and sewer infrastructure.

### 31. Knights Way Drainage: \$500,000

This project will replace an existing culvert under Knight's Way with a larger culvert. This project also includes replacement of adjacent sanitary sewer, downstream channel stabilization and restoration.

### 32. Strothmore/Harps Mill Drainage: \$800.000

This project includes design and construction for storm drainage improvements to Strothmore Court.

### 33. Laurel Hills Dam Reconstruction: \$2.500.000

The Laurel Hills Dam has overtopped and compromised the dam structure and roadway on top of the dam. The current dam does not have a bottom drain or a spillway. The City proposes to re-construct the dam and bring it into compliance with State standards. A bottom drain will be installed as a part of the concrete riser structure. The riser structure will have accompanying double 5' by 5' RCB culverts that will serve as as the main spillway during larger storm events.

### 34. Quince Street Drainage: \$290,000

This project will replace an existing deteriorated culvert on Quince Street.

### 35. Frank Street Drainage: \$700,000

This project will replace an existing deteriorated culvert and headwall on Frank Street. The new culvert will extend along Frank Street past Norris Street to Cemetery Branch.

### 36. Old Buffaloe Road Pipe Upgrade: \$270,000

This project will provide storm drainage improvements on Old Buffalo Road. An undersized 24-inch pipe will be upgraded to a 36-inch pipe. The pipe replacement is located on Old Buffalo Road between Capital Boulevard and Oates Street.

### 37. Aycock Street Storm Drainage: \$225,000

This project will provide storm drainage improvements on Aycock Street. This project includes the replacement of existing 24 and 30 inch pipes in Aycock Street and adding additional storm drainage to prevent street flooding. The pipe replacement is located on Aycock Street between Bickett and Sunrise.

### 38. Shepard Merriman Storm Drainage: \$1,850,000

There are 18-inch and 24-inch diameter pipes on Shepherd Street and Merriman Avenue that are undersized contributing to flooding of Shepherd Street and the private property on Dixie Trail. These pipes will be replaced with 30-inch diameter reinforced concrete pipe to address street flooding and minimize flooding of private properties.

### 39. Parkwood Drive Drainage Upgrade: \$340,000

There is an existing 36-inch diameter reinforced concrete pipe that crosses Parkwood Drive downstream from Pleasant Valley Promenade Mall. The existing pipe was installed before the construction of the mall, and is now undersized for the amount of drainage that comes to the pipe.

### 40. New Hope Church Road Culvert Upgrade: \$250,000

This project will upgrade the existing culvert system at New Hope Tributary and New Hope Church Road. The additional culvert will be either a 1-8' X 6' RCB or 2-10' X 5' RCB with inverts 1 foot higher.

### 41. Acer Court Drainage Improvements: \$190,000

This project will add storm drainage structures on Acer Court to relieve street and structural flooding.

### 42. Timber Ridge Drainage Improvements: \$100,000

This project will connect the storm drainage system along Timber Ridge Dr with a downstream receiving system to allow proper drainage, reduce ongoing maintenance, and help reduce the probability of local street flooding.

### 43. Harps Mill / Homewoods / Paddle Wheel: \$100,000

This project is to construct an additional curb inlet and pipe to eliminate standing water in Harps Mill Road.

### 44. Brockton Drive Culvert: \$600,000

The existing 24" CMP culvert at 4227 Brockton Drive is undersized and prone to clogging. This has led to upstream flooding on City of Raleigh property and Brockton Drive. The downstream channel is eroding.

### 45. E Davie Street Drainage Improvements: \$190,000

This project will upgrade the undersized storm drainage system under E. Davie Street (near 901 E. Davie) that is currently contributing to street flooding.

### 46. Mine Creek North Stream Restoration: \$60,000

To improve water quality in the City through stabilization of eroding stream banks. Implementation of a component of the City's water quality plan which is mandated by the Clean Water Act.

### 47. Mine Creek South Stream Restoration: \$60,000

To improve water quality in the City through stabilization of eroding stream banks. Implementation of a component of the City's water quality plan which is mandated by the Clean Water Act.

### 48. Walnut Creek Restoration / Flood Mitigation: \$250,000

This future series of projects will begin to address higher priority stream restoration and flood mitigation projects identified within the Walnut Creek Watershed Study and Master Plan. Projects may include stream stabilization, stream restoration, and/or flood mitigation. Walnut Creek passes through Council Districts C and D making this multi-district.

### 49. Walnut Creek Drainage Infrastructure: \$250,000

These projects will enlarge culverts and improve channels to eliminate street flooding, provide level of service and eliminate finished floor flooding.

### 50. Brockton Drive Dam: \$2,500,000

This project is to provide 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.

### 51. Wilcox Place Drainage: \$150,000

This project will install storm drainage improvements along Wilcox Street and Wilcox Place.

### 52. Daisy Street Drainage: \$200,000

This project will replace existing undersized drainage infrastructure along Daisy Street from the intersection with Doulgas down to the intersection at Hillsborough Street.

### 53. Atlantic & Hodge Storm Drainage: \$100,000

This project would provide increased protection for more recurrent flooding along Atlantic Avenue at Hodges St

### 54. West Bragg Street: \$275,000

This project is to enlarge the culvert under West Bragg Street to alleviate street flooding and provide a 10vear level of service.

### 55. Calloway Drive: \$325,000

This project is to enlarge the culvert under Calloway Drive to alleviate street flooding and provide a 10-year level of service.

### 56. Greenleaf Street: \$375,000

This project is to enlarge the culvert under Greenleaf Drive to alleviate street flooding and provide a 25-year level of service.

### 57. Seabrook Road: \$450,000

This project is to enlarge the culvert under Seabrook Road to alleviate street flooding and provide a 25-year level of service.

### 58. Ligon Street: \$100,000

This project is to enlarge the culvert under Ligon Street to alleviate street flooding and provide a 10-year level of service.

### 59. Watson Branch: \$450,000

This project is to provide channel improvements to eliminate finished floor flooding at three residences.

### 60. Stoval Drive: \$250,000

This project is to enlarge the culvert to eliminate finished floor flooding at one residence.

### 61. Proctor Road: \$500,000

This project is to replace the Proctor Road bridge with a large enough culvert to eliminate finished floor flooding at one residence.

### 62. Long Street Culvert: \$300,000

Replace existing 72" corrugated metal pipe with a 10' wide by 8' high concrete box culvert.

### 63. House Creek Culvert Energy Dissipation: \$150,000

This project will install outlet protection or structural energy dissipaters at three locations within the House Creek Basin. These locations include: 1) Sandia Drive on an unnamed tributary; 2) Blue Ridge Road on House Creek; and 3) Glen Eden Drive on House Creek.

### 64. Mine Creek Stream Restoration/Stabilization: \$800,000

This project funds two stream restoration projects totaling approximately 1,600 linear feet of channel improvements in the Mine Creek drainage basin located near Old Deer Trail and Sawmill Road.

### 65. Water Quality Retrofit: \$1,240,000

Implementation of best management practices to capture and treat runoff including: (1) Construction of an extensive green roof to be installed on the 6th floor roof of the Raleigh Municipal Building; (2) a cistern to capture runoff from the parking deck for use in irrigation, the fountain, and possibly vehicle washing; (3) a cistern to capture runoff from the new public safety center; and (4) installation of bio-retention and other LID techniques to capture runoff from walkways and other remaining impervious areas. There would also be an opportunity to create a water feature such as a water sculpture utilizing the treated runoff. Retrofit projects are required by the Neuse Nutrient Management Study, also known as the Neuse Rules, as enforced by North Carolina Department of Environment and Natural Resources. Retrofit projects are essential for achieving water quality goals. These projects serve as a demonstration sites, provide positive exposure, and offer an excellent opportunity for public education and outreach. These practices are considered "green" and promote sustainable development.

### 66. O'Neal Road Culvert: \$300,000

This project will upgrade the existing culvert at O'Neal Road upstream of Springdale Lake. This culvert is expected to overtop in the 10% Annual-Chance storm, causing street flooding and structural flooding at the crossing and upstream. The scope of work includes replacing the existing twin 48" RCP's with two 7' x 7' or equal sized box culverts.

### Phase II - Stormwater Utility & Neuse Basin

### Neuse Basin Environmental Program

### TMDL Streams Water Quality Program: \$2,500,000

Funding for the design and construction of water quality projects/BMP's to reduce pollutant discharges in stormwater runoff within the TMDL listed watersheds such asPigeon House Branch and Perry Creek. The City of Raleigh's NPDES Stormwater Permit requires the development and implementation of a water quality restoration plan for all TMDL listed streams. These practices are considered "green" and promote sustainable development.

### Water Quality Cost Share: \$1,250,000

This cost share program will be similar to the Drainage Petition Program already managed by the Stormwater Management Division. The Water Quality Cost Share program will be for the construction of water quality best management practices, including cost shares with NCDOT. Retrofit projects are mandated by the Neuse Nutrient Management Study, also known as the Neuse Rules, as enforced by North Carolina Department of Environment and Natural Resources. Retrofit projects are essential for achieving water quality goals.

### Lake Preservation: \$2,500,000

Replacement of dams and spillways, dredging of lakes, and water quality enhancements. Implementation of the Lake Preservation Policy as approved by City Council. These projects will provide downstream flood protection and water quality benefits.

### Stormwater Management Studies: \$2,000,000

To study stormwater impacts using computer modeling to develop techniques to alleviate flooding, water quality, and erosion problems. Component of the City's Neuse River imitative and the City's mandated NPDES permit.

### Drainage System Inventory: \$2,500,000

The drainage system inventory is a component of the City's mandated NPDES permit.

### Stream Restore / Stabilization: \$3,500,000

Stabilization and enhancement of eroding stream banks within the City to improve water quality. To improve water quality in the City through stabilization of eroding stream banks. Implementation of a component of the City's water quality plan which is mandated by the Clean Water Act.

### Simmons Branch Stream Restoration: \$2,500,000

Improve 4,000 feet of channel along Simmons Branch to decrease flooding and erosion. This project will improve water quality by reducing sediment loads and decreasing flooding of homes and roads. Recommended in the Simmons Branch watershed study.

### **Stormwater Projects**

### Stormwater Systems Repair: \$11,200,000

Repairs to stormwater facilities made in accordance with City Council policies.

### Petition Projects: \$3,750,000

Funding of drainage petition projects approved by City Council for construction under the City Storm Drainage Policy.

### Newton Road Culvert Upgrade: \$1,400,000

Replace existing 72" pipes with a 10' wide by 8' high concrete box culvert.

### Maintenance Reserve: \$5,000,000

Funding of a maintenance program to be developed as recommended in the Stormwater Utility Funding Study.

### Woodbend Drive Culvert Upgrade: \$1,300,000

This project provides for storm drainage improvements under Woodbend Drive. An arch culvert will be upgraded to three 10' by 10' box culverts.

### Flood Mitigation: \$2.500.000

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

### New Hope Church Road Culvert Upgrade: \$1,500,000

This project will upgrade the existing culvert system at New Hope Tributary and New Hope Church Road. The additional culvert will be either a 1-8' X 6' RCB or 2-10' X 5' RCB with inverts 1 foot higher.

### Mine Creek North Stream Restoration: \$400,000

To improve water quality in the City through stabilization of eroding stream banks. Implementation of a component of the City's water quality plan which is mandated by the Clean Water Act.

### Mine Creek South Stream Restoration: \$400,000

To improve water quality in the City through stabilization of eroding stream banks. Implementation of a component of the City's water quality plan which is mandated by the Clean Water Act.

### Walnut Creek Restoration / Flood Mitigation: \$1,000,000

This future series of projects will begin to address higher priority stream restoration and flood mitigation projects identified within the Walnut Creek Watershed Study and Master Plan. Projects may include stream stabilization, stream restoration, and/or flood mitigation. Walnut Creek passes through Council Districts C and D making this multi-district.

### Walnut Creek Drainage Infrastructure: \$3,250,000

These projects are to continue to enlarge culverts and improve channels to eliminate street flooding, provide level of service and eliminate finished floor flooding.

### Long Street Culvert: \$1,000,000

This project will replace existing 72" corrugated metal pipe with a 10' wide by 8' high concrete box culvert.

### Water Quality Retrofit: \$230,000

This project will implement best management practices to capture and treat runoff including: (1) Construction of an extensive green roof to be installed on the 6th floor roof of the RMB; (2) a cistern to capture runoff from the parking deck for use in irrigation, the fountain, and possibly vehicle washing; (3) a cistern to capture runoff from the new public safety center; and (4) installation of bio-retention and other LID techniques to capture runoff from walkways and other remaining impervious areas. There would also be an opportunity to create a water feature such as a water sculpture utilizing the treated runoff. Retrofit projects are required by the Neuse Nutrient Management Study, also known as the Neuse Rules, as enforced by North Carolina Department of Environment and Natural Resources. Retrofit projects are essential for achieving water quality goals. These projects serve as a demonstration sites, provide positive exposure, and offer an excellent opportunity for public education and outreach. These practices are considered "green" and promote sustainable development.

### Wycliff Rd Lake Rehab / Preservation: \$700,000

This project will repair and rehabilitate the dam at Wycliff Road Pond. The spillway and outlet structure is undersized, causing downstream flooding of Wycliff Road and Lake Boone Shopping Center, and flooding of the apartments around the pond. Improvements will allow the dam to meet North Carolina Dam Safety Standards.

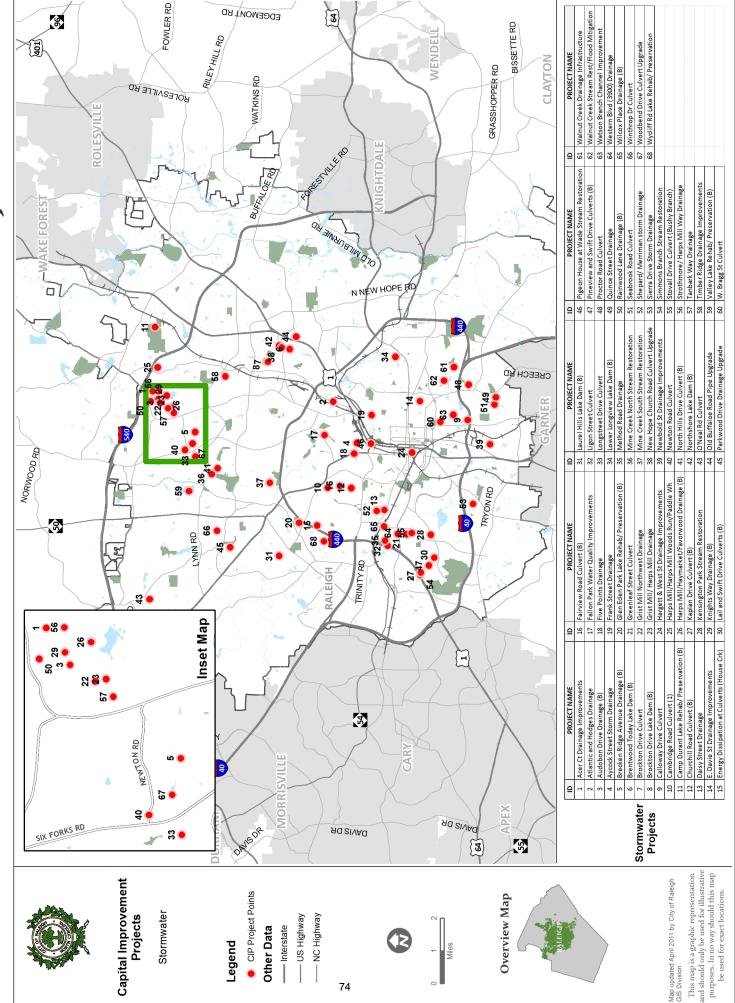
### Fallon Park Water Quality Improvements: \$410,000

This project will provide water quality enhancements in the Oxford tributary to Crabtree Creek through: (1) removal of existing curb and replacement with rolled curb along Oxford Road at Fallon Park to allow sheet flow along with utilizing naturalization and installation of supplemental plantings to provide treatment through the riparian buffer; and (2) utilize bio-engineering to stabilize severely eroded sections of the stream within Fallon Park. Stream stabilization on City owned properties is a high priority of the Water Quality Program. Retrofit projects are required by the Neuse Nutrient Management Study, also known as the Neuse Rules, as enforced by North Carolina Department of Environment and Natural Resources. Retrofit projects are essential for achieving water quality goals.

### Method Road Drainage: \$525,000

This project will replace and install storm drainage improvements along Method Road. This will involve additional storm drainage structures in Method Road, piping, traffic control / road closures, and possible upgrades to the storm drainage system on private property between Stedman Road and Wilder Road.

### S IMPROVEMENT PROJECT CAPITAL



### **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, to finance the rehabilitation of housing for citizens of low to moderate incomes, or to provide down-payment assistance to first time homebuyers.

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, homeowner loans, 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 low-income homeowners whose homes need substantial rehabilitation, and to revitalize the City's inner core of older neighborhoods.

Funding for Phase I of the housing program includes \$15,000,000 from a proposed Bond Referendum in the fall of 2011 as well as \$614,748 in program income. For the past 20 years, the main source of funding for the housing program has been 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. Appropriations from the current bond authorization will end in FY12. Future program revenues will fund other projects.

### **Ten-Year Summary of the Housing Program**

	PHASE I	PHASE II	TOTAL
Housing	\$ 15,616,748	\$ -	\$ 15,616,748
TOTAL	\$ 15,616,748	\$ -	\$ 15,616,748

## Project Costs and Funding Plan for Housing Program

												Phase I		Phase II	_
	Community Development Projects	"	2011-12	(A	2012-13	•	2013-14	ิ	2014-15	•	2015-16	Summary	_	Summary	<u>~</u>
7	First Time Home Ownership	\$	158,000	\$	1,200,000 \$	s	1,200,000	\$	1,200,000	\$	1,200,000	\$ 4,958,000	\$ 000		
2	Joint Venture Rental				2,000,000		2,000,000		2,000,000		2,000,000	8,000,000	000		
3	Housing Units Purchase				150,000		150,000		150,000		150,000	000'009	000		
4	Loan Servicing		000'06		90,000		98,748		90,000		000'06	458,	458,748		1
9	Limited Rehab/Repair		-		200,000		200,000		200,000		200,000	800	800,000		
7	Neighborhood Revitalization		-		200,000		200,000		200,000		200,000	800,000	000		-
	Total Project Costs, Community Development	s	248,000	↔	248,000 \$ 3,840,000 \$		3,848,748 \$		3,840,000	₩	3,840,000 \$ 3,840,000 \$ 15,616,748	\$ 15,616,	748		
												Phase I			
	Program Funding Resources	W	2011-12	(A	2012-13		2013-14	8	2014-15	•	2015-16	Summary	_		
	Program Income	\$	248,000 \$	\$	\$ 000'06	s	\$   84.748	45	000'06	\$	000'06	\$ 616,748	748		
	2011 Bond Proceeds		-		3,750,000		3,750,000		3,750,000		3,750,000	15,000,000	000		
-	Total Funding Plan, Community Development	<b>⇔</b>	248,000	<del>s</del>	3,840,000	S	248,000 \$ 3,840,000 \$ 3,848,748 \$ 3,840,000 \$ 3,840,000 \$ 15,616,748	ما	3,840,000	₩	3,840,000	\$ 15,616,	748		

### **Phase I - Housing**

### 1. First Time Home Ownership: \$4,958,000

This project will provide second mortgage financing to first time homebuyers consisting of low interest loans of up to \$20,000 than can be used to finance down payment and closing costs on a new or existing residence citywide. The City also makes these funds available (up to \$30,000) for low and moderate income homebuyers purchasing homes within City sponsored neighborhood development areas to encourage homeownership within transitioning neighborhoods.

### 2. Joint Venture Rental: \$8,000,000

The Joint Venture program will continue the City's investment in affordable rental housing for low income renters by leveraging funds with private and other public lending institutions. Financing is made available to both non-profit and for profit developers for the construction or rehabilitation of rental units.

### 3. Housing Units Purchase: \$600,000

This program will provide for the acquisition of new units to be added to the citywide affordable housing stock and / or to rehabilitate units to ensure marketability of units to potential renters. In addition the ongoing preventive maintenance protects the City's real estate assets and investments. The affordable rental units provide housing for citizens with incomes below 50% of the area medium. This program accomplishes a two fold objective, addressing affordable housing and neighborhood revitalization goals simultaneously.

### 4. Loan Servicing: \$458,478

The City of Raleigh outsources the servicing of its loan portfolio. This is an eligible Bond activity and this request will fund the cost of servicing only bond funded loans.

### 5. Limited Rehab/Repair: \$800,000

The limited repair program provides emergency rehabilitation for low income homeowners within the city limits of Raleigh. Homeowner income must be at or below 50% of the area medium 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 \$5000 per unit can be used for each qualifying applicant.

### 6. Neighborhood Revitalization: \$800,000

This program will support neighborhood revitalization efforts to address blight issues of in Raleigh's older neighborhoods. Activities will support efforts to enhance the quality of life, housing stock and related infrastructure in older neighborhoods.

### **Phase II - Housing**

No funds have been budgeted for Phase II at this time. Phase I projected expenditure estimates include revenues generated from prior year loan repayments.



### **General Public Improvement Program**

This section of the Capital Improvement Program includes projects for public safety, general facility improvements, and economic development. Public improvements associated with the support of City operations are not set aside in distinct CIP programs. Improvements include the construction and outfitting of new fire stations and other City support facilities, workspace for office and operational requirements, downtown streetscapes and improvement projects, and general repairs and maintenance of public buildings and facilities.

Total funding for general public improvement projects in Phase I is \$228,825,692. Major sources of funding for projects within this section are the 1/2-cent local option sales tax, and projected Certificates of Participation. While an emphasis in this CIP has been to address facility maintenance and repair issues, there remain a number of identified needs in Phase I of the CIP which include three new fire stations, expansion of the fire training facility, police district stations, and a police training facility. There is no identified funding source for the construction costs associated with these additional projects and consideration of bond funding is recommended. The current Phase II funding needs are estimated at \$177,767,713.

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

	PHASE I	PHASE II	TOTAL
General Public Improvements	\$ 125,905,699	\$ 40,159,717	\$ 166,065,416
Bond Funded Facilities, Major Construction	98,089,943	137,607,996	235,697,939
Convention Center / Performing Arts Projects	4,830,050	ı	4,830,050
TOTAL	\$ 228,825,692	\$ 177,767,713	\$ 406,593,405

## Project Costs and Funding Plan for General Public Improvement Program

General Public Improvement Projects	2011-12	2012-13	2013-14	2014-15	2015-16	Phase I Summary	Phase II Summary
1 Fire Station Improvements	\$ 204,780	\$ 154,660	\$ 204,980 \$	205,080	\$ 205,180	\$ 974,680	\$ 1,128,040
2 Fire Station Roof Repair	234,584	311,361	311,361		1	857,306	1
3 Fire Station #3 Replacement	1	1	2,098,600	1,711,192	3,082,026	6,891,818	1
4 Air Handler Unit Variable Speed	225,000	-	1	-	-	225,000	•
5 Fire Station 12 Relocation	75,000	1,533,227	3,767,755		1	5,375,982	1
6 Facade Improvement Design Assistance	20,000	20,000	20,000	20,000	50,000	250,000	1
7 Downtown Wayfinding Program	20,000	100,000	100,000	100,000	100,000	450,000	1
8 Yard Waste Runoff Compliance	120,000	1,640,000	1	-	-	1,760,000	-
9 W Martin St Elevator Repair	-	-	-	-	300,000	300,000	-
10 Police District Stations	1	668'086'2	5,919,198	5,815,960	6,931,598	26,597,155	26,089,851
11 Parking Deck Retail Space	-	301,500	301,500	-	-	603,000	-
12 SONET Ring	495,396	911,200	1,374,400	1,561,808	1,200,000	5,542,804	-
13 City Space Needs	1	150,000	150,000	•		300,000	1
14 Backflow Preventers-Fire Dept	55,240	55,240	1	•		110,480	•
15 General Facility Maintenance	20,000	20,000	1	250,000	1	350,000	1
16 OEP Generator	1	•	1	•	200,000	200,000	1
17 800 Mhz Radios-Fire Dept	1	250,000	250,000	250,000	250,000	1,000,000	250,000
18 Downtown West Gateway	1	-	310,500	1,242,000	17,465,625	19,018,125	1
19 Fire Station Backup Generators	1	1	460,276	463,285	1	923,561	1
20 Avert Upchurch Bldg Freight Elevator Upgrades	1	175,000	1	-	-	175,000	1
21 Cooling Towers & Chiller, OEP	-	-	210,000	-	-	210,000	_
22 Police Training Center Facility	1	994,165	14,410,374	-	-	15,404,539	1
23 Fire Departmet Driving Training Facility	1	679,300	1,912,800	1,068,600		3,660,700	1
24 Fire Training Facility Expansion	1		1	39,400	889,400	928,800	4,938,625
25 RMB Boiler Design/Relplacement	1	350,000	1		1	350,000	-
26 Solar LED Batteries	1	25,000	1	-	-	25,000	-
27 RMB Restroom Lifecycle Replacement	1	-	1	475,000	-	475,000	-
28 OEP Expansion Control System Lights	1	-	1	75,000	-	75,000	1
29 OEP Tenant Aesthetic Improvements	-	-	350,000	-	-	350,000	-
30 ECC Transfer Switch Design	-	470,000	-	-	_	470,000	_
31 Solar Thermal Installation	-	515,000	-	-	-	515,000	-
32 310 W. Martin Electric Panel Distr.	-	-	-	-	50,000	50,000	_
33 Downtown System Upgrade	-	-	350,000	-	-	350,000	-
34 Fire Station 14	-	2,469,600	1,664,692	3,082,026	-	7,216,318	_
35 Defibrilators	-	1	-	-	100,161	100,161	116,114
36 Hillsborough Streetscape - Cameron	1	484,800	2,994,398	3,603,428	1	7,082,626	-
37 Hillsborough Streetscape - Rosemary	1	148,620	594,480	3,671,843	4,418,658	8,833,601	1
38 Hillsborough Streetscape - Gorman	1		118,680	474,720	6,460,643	7,054,043	-

## Project Costs and Funding Plan for General Public Improvement Program

General Public Improvement Projects		2011-12	2012-13		2013-14	2014-15	2015-16		Phase I Summary	Phase II Summary
39 OEP Air Handler Coil		,			1	850,000	1		850,000	1
40 Fire Station 30		,	'		1	1	'		1	7,637,087
Subtotal, General Public Improvements	\$	1,560,000	\$ 19,749,072	\$ 24	\$ 7,903,994	24,989,342	\$ 41,703,291	\$ 16	125,905,699	\$ 40,159,717
									Phase I	Phase II
Convention Center / Performing Arts Projects		2011-12	2012-13		2013-14	2014-15	2015-16		Summary	Summary
1 Convention Center Annual Reserve	\$	-	\$ 500,000	\$ 00	500,000	\$ 500,000	\$ 200,000	\$ 00	2,000,000	- \$
2 PAC - Lighting Projects		1	95,000	00	190,050	-	-		285,050	
3 Walnut Creek Amphitheater Improvements		415,000	750,000	00	445,000	460,000	475,000	00	2,545,000	-
Subtotal, Convention Center/Performing Arts	\$	415,000	\$ 1,345,000	\$ 00	1,135,050	000'096 \$	\$ 975,000	\$ 00	4,830,050	- \$
									Phase I	Phase II
Bond Funded Facilities, Major Construction		2011-12	2012-13		2013-14	2014-15	2015-16		Summary	Summary
1 Remote Operations Center	\$	7,692,146	\$ 20,036,325	\$ 25	6,130,047	\$ 2,483,278	\$ 6,169,068	\$ 89	42,510,864	\$ 36,569,621
2 Remote Operations Mt. Herman		540,263	2,567,715	15	1,362,005	1,842,605	4,783,320	20	11,095,908	60,565,447
3 Remote Operations Northeast		3,371,050	3,370,724	24	3,370,724	3,370,724	3,370,724	24	16,853,946	3,370,724
4 Marsh Creek Maintenance Facility		2,165,000	5,781,300	00	12,892,140	5,368,710	1,422,075	75	27,629,225	12,892,140
5 Remote Operations Wilder'S Grove		-	-		-	-	-		1	24,210,064
Subtotal, Bond Funded Facilities, Major Construction	\$	13,768,459	\$ 31,756,064	<b>64</b> \$	23,754,916 \$	\$ 13,065,317	\$ 15,745,187	\$ 28	98,089,943	\$ 137,607,996
Total Project Costs, General Public Improvement Program	₩.	15,743,459	\$ 52,850,136	\$ 98	\$ 096'293'960	39,014,659	\$ 58,423,478	\$ 87	228,825,692	\$ 177,767,713
									Phase I	
Program Funding Resources		2011-12	2012-13		2013-14	2014-15	2015-16		Summary	
General Fund	s	1,500,000	\$ 2,000,000	\$ 00	2,500,000	\$ 3,000,000	\$ 4,000,000	\$ 00	13,000,000	
Interest Income		000'09	120,000	00	180,000	270,000	390,000	00	1,020,000	
Anicipated COP Funding		1	17,629,072	72	35,223,994	21,719,342	37,313,291	91	111,885,699	
Interlocal Agreement Funding		1	500,000	00	500,000	500,000	200,000	00	2,000,000	
Prior Year Reserves		-	415,000	00	190,050	-	-		605,050	
Walnut Creek Ampitheater Rent		415,000	430,000	00	445,000	460,000	475,000	00	2,225,000	
Anticipated Bond Proceeds		13,768,459	31,756,064	34	23,754,916	13,065,317	15,745,187	87	98,089,943	
Total Funding Plan, General Public Improvement Program	\$	15,743,459	\$ 52,850,136	\$ 98	\$ 096'862'29	\$ 39,014,659	\$ 58,423,478	\$ 82	228,825,692	
Total Phase I Funding, GPI	\$	17,718,459	\$ 73,944,208	\$ 80	101,833,004 \$	64,964,001	\$ 101,101,769	\$ 69.	359,561,441	
	Phasin	sing of Fundir	g of Funding Authorization	Ę					ī	
Public Safety Construction Projects		2011-12	2012-13		2013-14	2014-15	2015-16		Summary	
Clarence E. Lightner Public Safety Center Funding										
previously budgeted *	\$		\$ 90,000,000	\$ 00	80,000,000	- \$	*	↔	177,000,000	
Total Authorization to Borrow Needed	÷	000,000,7	000'000'06 \$	\$ 00	80,000,000	•	÷	\$	177,000,000	
* The public safety center program needs are still unmet. This is a placeholder until Council can determine the appropriate approach.	older u	ıntil Council can	determine the ap	propriate	approach.					

### Phase I – General Public Improvement

### 1. Fire Station Improvements: \$974,680

This project will fund repairs to kitchens, bathrooms, floors, windows, driveway and parking areas as well as other repairs/replacements needed to maintain these facilities.

### 2. Fire Station Roof Repair: \$857,306

This project repairs or replaces the roofs on selected fire facilities prioritized by construction management as evaluated by a roofing consultant and prioritized by Construction Management

### 3. Fire Station #3 Replacement: \$6,891,818

Construction costs associated with the building of a new fire station to replace existing Fire Station 3.

### 4. Air Handler Unit Variable Speed: \$225,000

Scope of work includes the design and bid package for replacing the Variable Speed Drive Air Handler Unit. Appropriations have been received for FY 09-10 for Phase I design.

### 5. Fire Station 12 Relocation: \$5,375,982

Construction costs associated with the relocation of Station 12.

### 6. Façade Improvements Design Assistance: \$250,000

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 and the Downtown Element of 2030 Comprehensive Plan.

### 7. <u>Downtown Wayfinding Program:</u> \$450,000

The Downtown Wayfinding Program is a signage 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 serves to both direct visitors (and therefore reduce unnecessary traffic) and inform them of our tourist destinations (museums, districts, convention center).

### 8. <u>Yard Waste Runoff Compliance</u>: \$1,760,000

Rules and regulations from Session Law 2009-322 (HB 1100) requires that the runoff from compost facilities must be treated as wastewater. These rules and regulations require the runoff from compost facilities to be collected. It can be sprayed back onto the compost windrows, treated on site, or sent to the Waste Water Treatment Plant. Compost facilities have until June 2012 to comply-apply for permit. Modifications are required at the Yard Waste Facility in order to be in compliance. Considerable engineering work would be required during FY12 in order to prepare the permit application.

### 9. W. Martin Elevator Repair: \$300,000

The scope of work includes elevator replacement of (2) passenger cars at 310 W. Martin Street. Proactive maintenance ensures that elevators work properly and experience a minimum amount of down time and are structurally safe.

### 10. Police District Stations: \$26,597,155

This request includes funding for the procurement of land and construction costs of building a city-owned Precinct building at the rate of one building per year.

### 11. Parking Deck Retail Space: \$603,000

This project is part of the approved Council Resolution 1990 678 - Design Guidelines for Parking Structures, to include retail as a component of city owned parking structures. Parking structures in downtown will become prime candidates for retail, but the City will need to finance the upfit of the spaces to close deals with interested tenants, particularly in the current economy. The project also fulfills the

### **CITY OF RALEIGH**

City's Livable Streets Plan goals of activating the street level portions of existing buildings in the Downtown and enhancing the pedestrian environment.

### 12. SONET Ring: \$5,542,804

The SONET network will provide a city-owned and maintained network for all city facilities. Currently, these facilities use rented network connections (from Time-Warner or AT&T) that are costly and have reliability issues. This project consists of running fiber to city buildings and implementing network equipment to carry network traffic across the fiber. This will result in a secure, resilient network that will provide high-bandwidth to sites and position the city for future network growth

### 13. City Space Needs: \$300,000

This funding request is for providing City department space in order to accommodate their current and future staff growth. Possible space funding needs includes: upfit current city owned space, secure/upfit potential lease space, relocation of departments/divisions.

### 14. <u>Backflow Preventers-Fire Department</u>: \$110,480

This project will install backflow devices within the water supplies at 14 fire stations throughout the City in accordance with municipal requirements.

### 15. General Facility Maintenance: \$350,000

For repairs to include roofing for the Devreaux (former Solid Waste Facilities) building. This funding is for the lifecycle replacement of facility systems based on system age and condition. Typical systems include: HVAC, boilers, elevators, towers and chillers, roofing, and variable speed drives.

### 16. OEP Generator: \$200,000

Replacement of the OEP generator engine, replacement of electrical wiring and piping included.

### 17. 800 Mhz Radios-Fire Department: \$1,000,000

Funding is to begin a five year \$250,000 per year replacement program for 800 MHz radios as they reach the end of their projected life expectancy.

### 18. Downtown West Gateway: \$19,018,125

This proposal will provide funding to prepare a preliminary design for streetscape improvements to include sidewalks, street trees, parking, public areas, utility relocations, and other public improvements along South, Lenoir and Cabarrus Streets in the South Saunders Redevelopment Area as part of the implementation of the Downtown West Gateway Area Plan. The streetscape plans for the Downtown West Gateway area along with 24 other streetscape plans are being prioritized for City Council consideration. Downtown West is the top project based upon the evaluation criteria and funding to support the streetscape design should be included in the upcoming FY.

### 19. Fire Station Back-Up Generator: \$923,561

This project provides installation of stand by generators at all fire department facilities that are not currently equipped to enable continuity of service.

### 20. Avery Upchurch Building Freight Elevator Upgrade: \$175,000

The scope of work includes elevator replacement of freight car at 222 W. Hargett Street. Proactive maintenance ensures that elevators work properly and experience a minimum amount of down time, as well as being structurally safe.

### 21. Cooling Towers & Chillers, OEP: \$210,000

Scope of work includes replacement of existing cooling tower, including basin and piping that will provide efficient water cooling for air conditioning, manufacturing and electric power generation.

### 22. Police Training Center Facility: \$15,404,539

Construction of a 50,000 sq. ft. Police Training Center (assumed to be City-owned land) on Battle Bridge Road and adjacent to current Police Range facilities should result in no acquisition costs. Construction costs include landscaping, phone/data wiring, CCTV, high-density storage, testing, and permitting.

### 23. Fire Department Driving Training Facility: \$3,660,700

Construction costs associated with building a driver training facility located on approximately four acres of land potentially donated by the Raleigh Durham Airport Authority.

### 24. Fire Training Facility Expansion: \$928,800

The current training facility is booked to capacity nearly every day and requires either expansion or construction of a new/additional facility. This is a long range goal that needs to be addressed due to the growth of the fire department and the inadequacy of the current training facility to conduct classroom and practical training simultaneously. It is not clear whether it will be possible to expand the Keeter Training Center or whether it will be necessary to secure land and construct a second facility somewhere else in the city. It is proposed that a consultant be engaged in FY15 to assess our needs and provide recommendations to meet them.

### 25. RMB Boiler Design/Replacement: \$350,000

The scope of work includes design and replacement of boiler at Municipal Building

### 26. Solar LED Batteries: \$25,000

The scope of work will include replacement of Solar LED Batteries at Campbell Lodge, Brentwood Road, One Exchange Plaza and Fayetteville St. The batteries have a lifecycle of 5 years.

### 27. RMB Restroom Lifecycle Replacement: \$475,000

The scope of work includes the replacement of partitions throughout stalls and installation of new shower fixtures.

### 28. OEP Expansion Control System Lighting: \$75,000

The scope of work includes the installation of a Building Automation Control System Lighting. Building Automation Systems core functionality keeps the building climate within a specified range, provides lighting based on an occupancy schedule, monitors system performance and device failures, and provides email and/or text notifications to building engineering staff. Lighting can then be controlled based on the time of day or by occupancy timers.

### 29. OEP Tenant Aesthetic Improvements: \$350,000

This project includes aesthetic improvements to One Exchange Plaza. Entrance and lobby areas are frequent gathering places for building occupants and were designed to encourage interaction. These areas and tenant suites need to be upgraded to be visually stimulating, prominent and contribute to the health, welfare and quality of life to ensure continual stream of revenue for building upkeep

### 30. <u>ECC Transfer Switch Design</u>: \$470,000

Scope of work includes installation of additional parallel-redundant UPS and transfer switch which allows modules equally to share the load and to isolate and power down when necessary. FY12-13: To separate ECC's 911 and data center due to increased systems demand

### 31. Solar Thermal Installation: \$515,000

Scope of work includes design and installation of a 2400 foot squared flat panel solar collector system. The installation of this solar hot water system is estimated to save approximately \$6,000 dollars per year in natural gas costs and approximately 83,000 lbs of carbon emissions.

### 32. 310 West Martin Electrical Panel Distribution: \$50,000

Scope of work includes installation of an electrical distribution panel designed to protect fuse or circuit breaker for each circuit, in a common enclosure.

### 33. Downtown System Upgrades: \$350,000

This funding is for the lifecycle replacement of facility systems based on system age and condition. Typical systems include: HVAC, boilers, elevators, towers and chillers, roofing, and variable speed drives.

### 34. Fire Station 14: \$7,216,318

Construction costs associated with the relocation of Fire Station 14. A larger station is needed that will enable a ladder company to deploy from this station thus providing needed ladder coverage to this area of the city.

### 35. Defibrillators: \$100,161

Funding to begin a project to replace defibrillators carried on Fire Department first response vehicles every five years.

### 36. Hillsborough Streetscape – Cameron: \$7,082,626

Prepare and implement a streetscape plan for a 2,020 linear foot section of Hillsborough Street between Morgan Street and Oberlin Road to address needed improvements within the street right-of-way including sidewalk repair/replacement, street trees between curb and sidewalk, overhead utility consolidation and cleanup, and coordinating business access during construction.

### 37. Hillsborough Streetscape - Rosemary: \$8,833,601

Prepare and implement a streetscape plan for a 1,978 linear foot section of Hillsborough Street between Rosemary Street and Gorman Street to address needed improvements within the street right-of-way including sidewalk repair/replacement, round-abouts, street trees between curb and sidewalk, overhead utility consolidation/cleanup.

### 38. <u>Hillsborough Streetscape – Gorman</u>: \$7,054,043

Prepare and implement a streetscape plan for a 1,978 linear foot section of Hillsborough Street between Rosemary Street and Gorman Street to address needed improvements within the street right-of-way including sidewalk repair/replacement, round-abouts, street trees between curb and sidewalk, overhead utility consolidation/cleanup.

### 39. OEP Air Handler Coil: \$850,000

Scope of work includes first the design and bid package for replacing the Main Air Handler Coil at One Exchange Plaza. This will allow for proper air flow, heating and cooling to each room.

### **Convention Center/Performing Arts Projects**

### 1. Convention Center Annual Reserve: \$2,000,000

This is reserve funding from a portion of the annual appropriation the City receives from the Wake County Prepared Food and Beverage tax, to be utilized for future, undesignated capital maintenance associated with the Convention Center.

### 2. Performing Arts Center Lighting Projects: \$285,050

Replace building light fixtures at the Performing Arts Center that were installed the last 10-20 year period. Light fixtures will be changed to LED or compact fluorescent which are more energy efficient and require less maintenance.

### 3. Walnut Creek Amphitheater Improvements: \$2,545,000

Replacement of shingle and TPO roofs at Walnut Creek in an ongoing roof maintenance program with possibility of adding solar panels on seating roof. Painting of the underside of the seating area grid and dressing room areas at Walnut Creek.

### **Bond Funded Facilities and Major Construction Projects**

### 1. Remote Operations Center: \$42,510,864

This item is for the acquisition and construction of a new Downtown Remote Operations Facility for new Street Maintenance, Vehicle Fleet Service, Building Maintenance and Parks Maintenance Facility. This facility would also be used to provide space for emergency storm operations. Building needs were estimated by Jacobs for a 20 year growth period and indicate a total building requirement of 241,944 SF of space. Exterior storage and parking at 530,681 SF of space is also provided. The space includes a variety of building uses such as office, storage, shops, supply & vehicle maintenance facilities for Street Maintenance., Parks, and Vehicle Fleet Services and a fuel /wash station.

### 2. Remote Operations Mount Herman: \$11,095,908

This item is for construction of the Mt. Herman Remote Operations Facility for new Street Maintenance, Vehicle Fleet Service, Building Maintenance and Parks Maintenance Facility. This facility would also be used to provide space for emergency storm operations. Building needs were estimated by Jacobs for a 20 year growth period and indicate a total building requirement of 226,153 SF of space. Exterior storage and parking at 509,040 SF of space is also provided. The space includes a variety of building uses such as office, storage, shops, supply & vehicle maintenance facilities for Street Maintenance, Parks, and Vehicle Fleet Services and a fuel /wash station.

### 3. Remote Operations Northeast: \$16,853,946

This item is for the acquisition and construction of a new North East Remote Operations Facility for new Street Maintenance, Vehicle Fleet Service and Parks Maintenance Facility. This facility would also be used to provide space for emergency storm operations. Building needs were estimated by Jacobs for a 20 year growth period and indicate a total building requirement of 131,730 SF of space. Exterior storage and parking at 132,500 SF of space is also provided. The space includes a variety of building uses such as office, storage, shops, supply & vehicle maintenance facilities for Street Maintenance, Parks, and Vehicle Fleet Services and a fuel /wash station.

### 4. Marsh Creek Maintenance Facility: \$27,629,225

This item is for the renovation, modernization, and expansion of the existing Parks and Recreation Department's Marsh Creek Maintenance Facilities. This facility is part of the new Remote Operations Facilities and as other locations are constructed, existing Marsh Creek facilities will be vacated allowing a phased replacement master plan to be initiated. This facility would be used to provide additional space for emergency storm operations. Departments have out grown the current facilities and they are energy inefficient and costly to maintain. New facilities would improve productivity and allow departments to be more productive in providing services. Current facilities do not contribute to the require sustainability goals for the City of Raleigh. Building needs were estimated by Jacobs for a 20 year growth period and indicate a total building requirement of 146,662 square feet of conditioned space and exterior storage and parking space at 245,287 square feet of space is also provided. The space requirements include multiple buildings with functions such as office, storage, shop, inventory control, and maintenance for the Parks and Recreation Department as well as the Facilities and Operations Division of the Parks and Recreation Department. Exterior storage for bulk materials and vehicles is included. New lighting systems will be a savings reduction of about 33%. HVAC cost may be reduced by as much as 20-25% with new energy efficient systems compared to the existing equipment. Exterior lighting options could include solar LED or LED lighting would further increase the energy efficiency. Building automation controls will also play a key factor in after hour's energy savings and system monitoring. All new facilities will meet the sustainability goal of LEED Silver certification at a minimum.

### **Phase II - General Public Improvement**

### **General Public Improvement Projects**

### Fire Station Improvements: \$1,128,040

This project will fund repairs to kitchens, bathrooms, floors, windows, driveway and parking areas as well as other repairs/replacements needed to maintain these facilities.

### Police District Stations: \$26,089,851

This request includes funding for the procurement of land and construction costs of building a city-owned Precinct building at the rate of one building per year.

### 800 Mhz Radios-Fire Department: \$250,000

Funding is to begin a five year \$250,000 per year replacement program for 800 MHz radios as they reach the end of their projected life expectancy.

### Fire Training Facility Expansion: \$4,938,625

This is a long range goal of either the expansion or construction of a new/additional facility due to the growth of the fire department and the inadequacy of the current training facility to conduct classroom and practical training simultaneously.

### Defibrillators: \$116,114

Funding to begin a project to replace defibrillators carried on Fire Department first response vehicles every five years.

### Fire Station 30: \$7,637,087

Construction costs associated with the building of an additional fire station necessary to maintain adequate fire protection coverage. The funding source for this project will be COPS funding.

### **Bond Funded Facilities and Major Renovation Construction and Planning**

### Remote Operations Center: \$36,569,621

This item is for the acquisition and construction of a new Downtown Remote Operations Facility for new Street Maintenance, Vehicle Fleet Service, Building Maintenance and Parks Maintenance Facility. This facility would also be used to provide space for emergency storm operations. Building needs were estimated by Jacobs for a 20 year growth period and indicate a total building requirement of 241,944 SF of space. Exterior storage and parking at 530,681 SF of space is also provided.

### Remote Operations Mount Herman: \$60,565,447

This item is for construction of the Mt. Herman Remote Operations Facility for new Street Maintenance, Vehicle Fleet Service, Building Maintenance and Parks Maintenance Facility. This facility would also be used to provide space for emergency storm operations. Building needs were estimated by Jacobs for a 20 year growth period and indicate a total building requirement of 226,153 SF of space. Exterior storage and parking at 509,040 SF of space is also provided.

### Remote Operations Northeast: \$3,370,724

This item is for the acquisition and construction of a new North East Remote Operations Facility for new Street Maintenance, Vehicle Fleet Service and Parks Maintenance Facility. This facility would also be used to provide space for emergency storm operations. Building needs were estimated by Jacobs for a 20 year growth period and indicate a total building requirement of 131,730 SF of space. Exterior storage and parking at 132,500 SF of space is also provided.

### Marsh Creek Maintenance Facility: \$12,892,140

This item is for the renovation, modernization, and expansion of the existing Parks and Recreation Department's Marsh Creek Maintenance Facilities. This facility is part of the new Remote Operations

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### PROPOSED CIP BUDGET 2011-12 GENERAL PUBLIC IMPROVEMENT

Facilities and as other locations are constructed, existing Marsh Creek facilities will be vacated allowing a phased replacement master plan to be initiated. This facility would be used to provide additional space for emergency storm operations.

### Remote Operations Wilder's Grove: \$24,210,064

This item is for the construction of a new Vehicle Fleet Services Operations Facility on the existing Wilders Grove Landfill. The estimate includes building and site work costs, off-site development costs, design development contingency, escalation and a construction contingency.