Raleigh Budget FY2018

Proposed Capital Improvement Program FY2018-FY2022

City of Raleigh

Capital Improvement Program
FY2018 to FY2022
City of Raleigh, North Carolina

Recommended to the City Council by the City Manager ……..May 16, 2017

The City Council

Nancy McFarlane, Mayor

Kay Crowder, Mayor Pro Tem
Mary-Ann Baldwin
Corey D. Branch
David N. Cox
Bonner Gaylord
Russ Stephenson
Richard A. “Dickie” Thompson

Executive Staff

Ruffin L. Hall..... City Manager
Marchell Adams-David ..... Assistant City Manager
James S. Greene, Jr. ..... Assistant City Manager
Tansy Hayward ..... Assistant City Manager
Louis Buonpane ..... Chief of Staff
Allison Bradsher .....Chief Financial Officer
Ben Canada ..... Interim Budget and Management Services Director
Bo Gattis ..... Budget and Management Analyst
Leah Henderson..... Budget and Management Analyst
Nick Sadler..... Budget and Management Analyst
Tonya Walton..... Budget and Management Analyst

The following individuals, whose assistance and contributions to the five year capital improvement program development process are immeasurable, are hereby acknowledged:

Members of the Management Accounting Services team in the Finance Department

Staff from the Open Data Project and Geographic Information Services team (GIS) in the Information Technology Department

Staff from the Urban Design Center in the City Planning Department

Staff from the Communications Department

Table of Contents

INTRODUCTION
Overview of the Capital Improvement Program 1
CIP Policies and Practices 3
Summary of the FY2018-FY2022 CIP 4
CIP Summary by Category 6
Operating Impacts from Capital Investments 8
Horizon Issues 9

ELEMENT SECTIONS
General Public Improvements 11
Public Utilities 19
Stormwater 29
Transportation 37
Parks, Recreation and Cultural Resources 45
Housing 59
Convention and Performing Arts Complex 63
Technology 67

Overview of the Capital Improvement Program

The capital improvement program (CIP) is a five year plan, approved by City Council, that allocates limited financial resources to high priority needs. It is a primary mechanism for implementing the city's long-term vision and strategic plan.

When identifying new projects, staff looks to the long-term priorities and direction set by City Council through strategic planning, as well as the city's comprehensive plan. In addition, long-term studies and citizen input also lead to additional requests. Staff submits formal requests through the annual budget process. A formal request includes a business case that articulates the project need, coordination with city plans, and potential operating costs. Business cases for new projects should be supported with relevant data and information. Staff analyze and discuss these requests, then prioritize the requests based on consistency with Council goals, documented need, and cost.

The CIP is organized into eight pieces called "elements" based on similar purpose and dedicated revenue sources:

- The **general public improvement element (GPI)** funds maintenance and construction of general government and public safety facilities and infrastructure. This element also includes selected economic development projects and other city needs.
- The **public utilities** element funds the ongoing maintenance and improvement of water and sewer infrastructure. These projects include main replacements, water and wastewater treatment plant renovations, and pump station maintenance.
- The **stormwater** element funds projects meant to manage and mitigate the effects of stormwater runoff. Project categories include general infrastructure, lake preservation, and neighborhood drainage.
- The **transportation** element addresses major city streets, infrastructure maintenance, parking facility maintenance, long-term studies, and pedestrian-oriented projects. Both the 2011 and 2013 transportation bond referenda are implemented through this element.
- The **parks, recreation and cultural resources** element funds capital maintenance and renovations at the city's community centers, athletic facilities, greenways, and cultural sites. Projects can include structural and mechanical repairs and pavement repair and resurfacing. This element also funds land acquisition and long-term studies.
- The **housing** element provides capacity for increasing the stock of affordable housing throughout the city through neighborhood revitalization, first time home ownership programs and house rehabilitation projects.
- The **convention and performing arts complex** element funds maintenance, renovations, and improvements at three downtown facilities: Raleigh Convention Center, Performing Arts Center, and the downtown amphitheater. This element also includes the Walnut Creek Amphitheater in southeast Raleigh.
- The **technology** element funds the planning, design and implementation of new technological infrastructure. These projects include maintaining the city's enterprise resource management system and implementing a 911 dispatch system.

Capital revenues can be classified into two broad types: cash (or "paygo") and debt-financing. Cash sources include transfers from the city's General Fund, facility fees, program income, and interest earnings. For debt-financing, the city uses a range of debt mechanisms, including general obligation bonds. Some revenue sources, such as general fund transfers, can be applied to any city project. Other revenues such as facility fees and some user fees, may only be spent on eligible projects. Major funding sources for the CIP are described below:

- Debt Financing: The largest revenue source for the city's CIP, both in FY18 and across the five-year horizon, is bonds. In 2014, for example, Raleigh's citizens approved the use of general obligation bonds for parks and recreation projects. In the public utilities element, revenue bonds will fund many water and sewer infrastructure projects. The city also employs commercial loans and other debt mechanisms for selected projects.

- Transfers from Enterprise and Internal Service Funds: Enterprise funds, such as Public Utilities, Stormwater, and Parking, collect user fees as part of their operations, then invests a portion of that revenue into capital projects. The city uses these transfers only for corresponding enterprise purposes. For example, public utilities transfers to capital are only used for water and sewer projects. Such internal service funds as Vehicle Fleet Services also contribute to selected capital projects. Transfers from enterprise and internal service funds are the CIP's second largest revenue source.

- Transfers from the General Fund: The general fund transfers a portion of the city's property and sales tax revenues to capital funds each year. Compared to other sources, general fund transfers are a flexible revenue source without restrictions on their use. The city applies these funds to a wide range of projects, including general government and public safety facility maintenance, parks facility maintenance, street resurfacing, and technology projects.

- Facility Fees: The city assesses charges on new development to help pay for the capital facility burden created by new development. Each new residential or commercial project pays its proportionate share of the cost of new infrastructure facilities required to serve that development. These fees support debt service and cash-funded projects for parks and road widening. Facility fees are based on a standard formula and a pre-determined fee schedule.

- User Fees and Program Income: In some capital elements, selected user fees and program income sources are dedicated to capital projects rather than operating budgets. This includes program income from affordable housing programs, selected development fees and lease revenue from the Walnut Creek Amphitheater.

- Appropriated Fund Balance: As staff complete capital projects, the unspent budget accumulates into capital reserves, which are available to fund future projects. Capital reserves can also build up when the city collects additional revenues above the budget estimate. Staff annually estimates the reserve funds available for capital projects and may budget this additional revenue source.

- Interest Income: The city actively invests its cash balances in appropriate interest-earning mechanisms. Interest income is not a major source of revenue for the CIP, but supplements project budgets.

CIP Policies and Practices

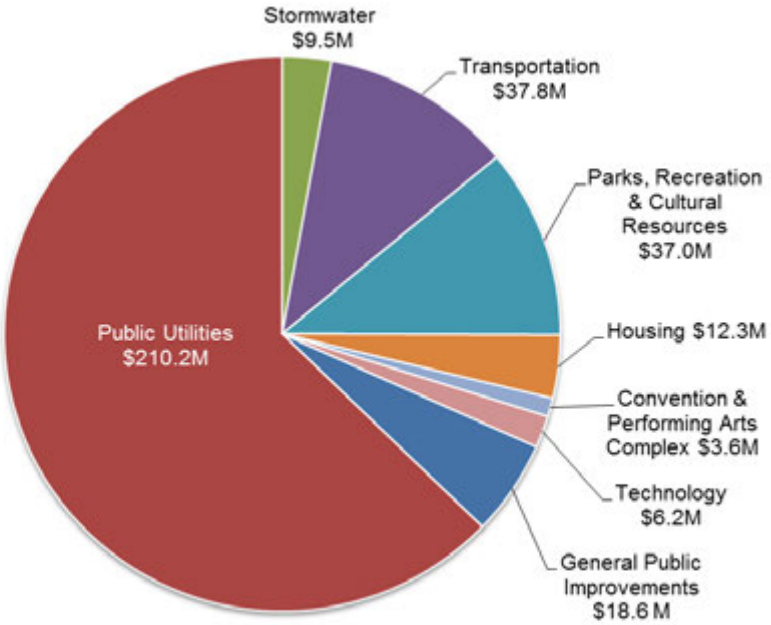
The city adheres to several policies and practices to ensure long-term financial sustainability, promote effective planning, and ensure appropriate use of capital funds. Below is a summary of major items:

- Alignment with City-wide Strategic Plan: The Strategic Plan, adopted by City Council in April 2015, serves as the primary guide for capital investments. The plan articulates areas of strategic focus which will target the City's efforts and resources in ways intended to have the greatest impact in the six key focus areas over the life of the plan. Several of the plan's initiatives require staff to evaluate and implement capital investments in transportation, technology, economic development, and other areas.
- Defining capital projects: Generally, a capital project will be a fixed asset with a useful life greater than ten years and with a cost of at least $25,000. Capital projects include not only new assets, but projects that improve an asset or lengthen its useful life. Scheduled purchases of vehicles and equipment for routine operations are, generally, addressed through the annual operating budget. The operating budget also funds routine maintenance of facilities.
- The CIP serves as a policy document: Upon adoption by the City Council, the CIP becomes a statement of city policy regarding the timing, location, character, and funding of future capital investments. The CIP represents city administration's and City Council's best judgment at that time. Future needs and financial constraints may result in programmatic changes over the five year period. Policies and priorities established in the CIP guides subsequent decisions made by city administration and the various boards and commissions appointed by City Council.
- Complementing the city's comprehensive plan: All capital projects should complement the comprehensive plan. The comprehensive plan includes specific policies that establish it as the city's lead growth and development guide and connect it to the CIP. Policies also require staff to consult the comprehensive plan when establishing capital priorities, share long-term plans with other city staff, and identify long-term planning opportunities.
- General debt policies: City staff use a long-range debt model to track general debt obligations, as well as approved but unissued amounts. The model allows staff to forecast debt service requirements and perform "what if" scenarios. Historically, the city's general debt service should not exceed 15% of the general fund budget, and fund balance in the debt service fund should be at least 50% of annual debt expenses.
- Budget Transfers: City Council approves all increases and decreases to active project budgets. City staff may transfer up to $50,000 from one project to another within the same fund and category. Project transfers in excess of $50,000 require Council approval. All transfers are reviewed through an internal approval process.
- Identifying operating impacts: Requests for new projects must include an estimate of operating impacts. These costs include new staffing and operating costs essential to operate and maintain a new asset, such as a public facility or software system. Examples of operating costs include utilities, vehicles, annual licensing, and service contracts. Operating impacts do not include new services or programs that are not essential to the asset's operation.
- Long-range cost estimates: Beginning with the FY2015 budget process, staff began using common cost escalators to better estimate future construction costs. The city uses a default escalator of 3.5% per year. Staff apply this to new construction and significant building rehabilitations. In some elements, such as public utilities and transportation, staff apply other escalators developed for those specific service areas.
- Closing Projects: Projects are closed when the approved scope of work is complete. Staff review project status periodically to identify projects that are finished and can be closed. If the budget for a completed project is not fully expended, generally, the budget is closed and the remaining balance accumulates in fund balance. The accumulated fund balance is available to pay for future projects.

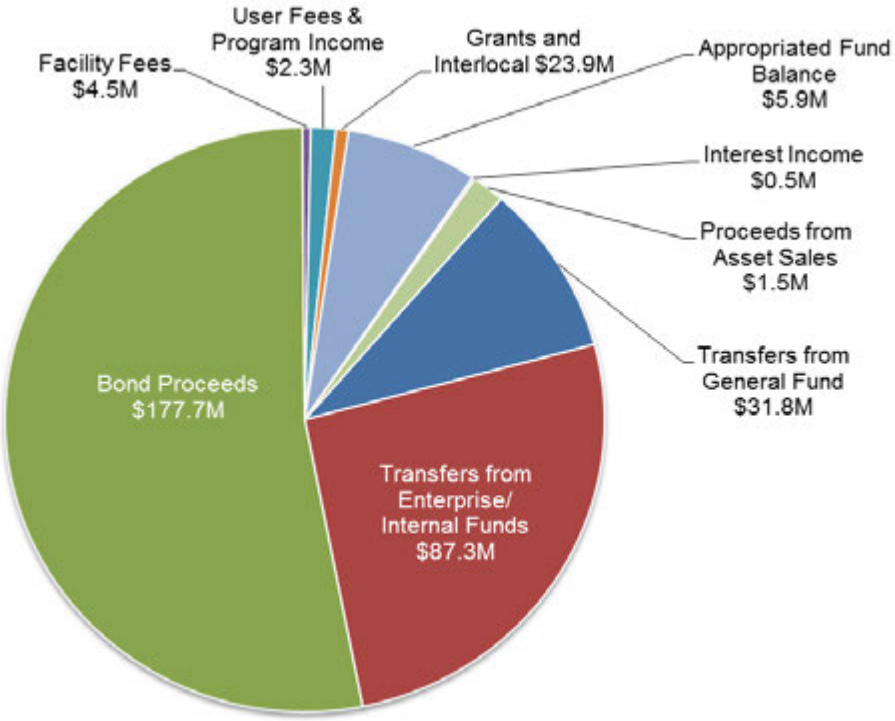
Summary of the FY2018-FY2022 CIP

FY2018 Expenditures by Element (Year 1 of the 5-Year Plan)

1 year totals $335.3 Million

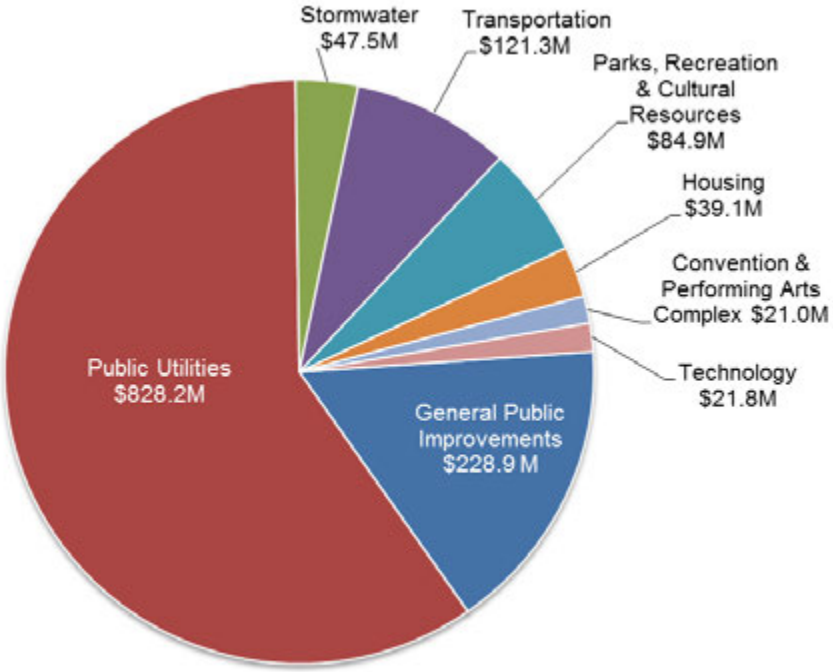


FY2018 Revenues by Source

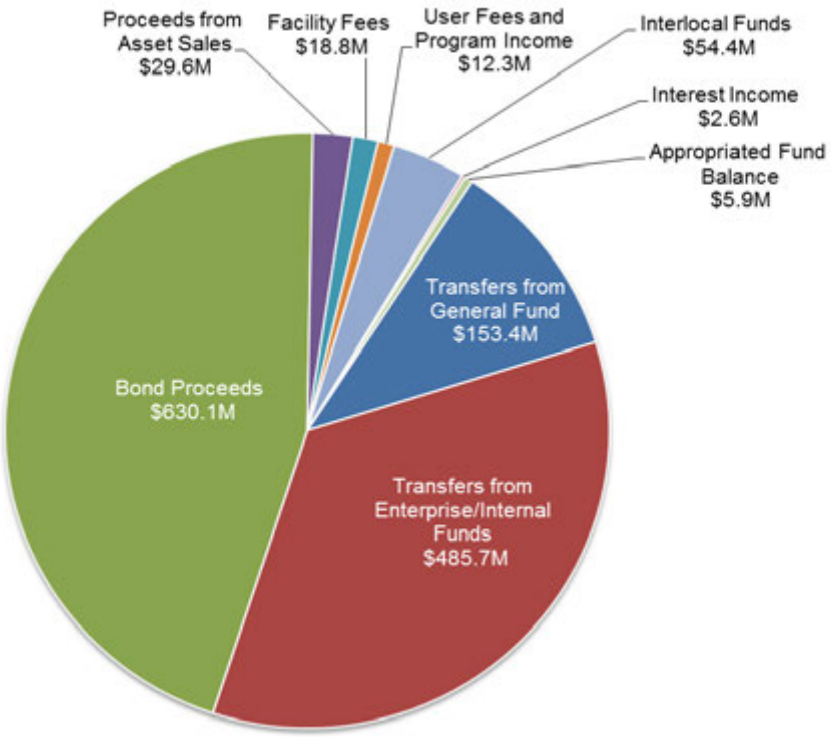


Total Five Year Expenditures by Element

Five Year Plan Totals $1.39 Billion



Total Five Year Revenues by Source



CIP Summary by Category

General Public Improvements	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Economic Development	650,000	550,000	550,000	550,000	550,000	2,850,000
General Government Facility Maintenance	3,070,000	1,425,000	850,000	600,000	400,000	6,345,000
New Facilities	11,337,000	26,348,000	153,687,000	11,877,000	-	203,249,000
Public Safety Facility Maintenance	3,550,000	2,165,000	1,605,000	1,755,000	1,605,000	10,680,000
GPI - Reserve for Future Projects	-	460,000	1,595,000	1,695,000	2,045,000	5,795,000
Total	**18,607,000**	**30,948,000**	**158,287,000**	**16,477,000**	**4,600,000**	**228,919,000**

Public Utilities	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Asset Management	43,392,000	34,652,000	38,452,000	39,492,000	39,492,000	195,480,000
Capital Equipment	5,000,000	6,100,000	5,000,000	5,000,000	5,000,000	26,100,000
EMJWTP Expansion	525,000	220,000	5,850,000	-	36,400,000	42,995,000
Interceptors	18,050,000	53,900,000	147,000,000	32,850,000	21,900,000	273,700,000
Little River Projects	500,000	1,000,000	1,000,000	1,000,000	1,000,000	4,500,000
Misc Water and Wastewater	1,150,000	2,000,000	2,250,000	2,250,000	1,250,000	8,900,000
NRWWTP Expansion	99,750,000	1,000,000	1,000,000	1,000,000	3,300,000	106,050,000
Reuse System	-	3,000,000	3,000,000	3,000,000	3,000,000	12,000,000
Wastewater Pump Stations	26,500,000	1,200,000	1,200,000	1,200,000	1,200,000	31,300,000
Water Main Expansions	4,540,000	525,000	11,370,000	4,770,000	3,100,000	24,305,000
Water Pump Stations	600,000	150,000	1,630,000	1,200,000	650,000	4,230,000
Water Tanks Upgrades	-	900,000	900,000	900,000	900,000	3,600,000
Watershed Initiatives	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	11,250,000
WTP Maintenance	4,315,000	15,725,000	35,000,000	5,750,000	750,000	61,540,000
WWTP Maintenance	3,650,000	6,550,000	4,050,000	2,950,000	5,050,000	22,250,000
Total	**210,222,000**	**129,172,000**	**259,952,000**	**103,612,000**	**125,242,000**	**828,200,000**

Stormwater Management	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
General Drainage Infrastructure	2,350,000	2,200,000	2,450,000	2,450,000	3,000,000	12,450,000
General Water Quality	600,000	700,000	700,000	750,000	850,000	3,600,000
Lake Preservation	-	-	350,000	2,050,000	1,250,000	3,650,000
Neighborhood Drainage System Improvements	5,400,000	4,805,000	325,000	3,425,000	3,450,000	17,405,000
Stream Restoration	-	350,000	2,000,000	500,000	500,000	3,350,000
Street Drainage System Improvements	1,150,000	1,045,000	3,375,000	200,000	100,000	5,870,000
Water Quality Improvements	-	400,000	300,000	125,000	350,000	1,175,000
Total	**9,500,000**	**9,500,000**	**9,500,000**	**9,500,000**	**9,500,000**	**47,500,000**

Transportation	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Bicycle and Pedestrian Improvements	2,002,000	845,000	770,000	995,000	1,025,000	5,637,000
Major Street Projects	5,588,000	3,000,000	2,500,000	2,500,000	2,500,000	16,088,000
Parking	1,170,000	1,290,000	1,290,000	1,290,000	1,290,000	6,330,000
Street Improvement Program	9,015,000	9,395,000	9,729,000	10,020,000	10,319,000	48,478,000
Studies and Planning Projects	125,000	100,000	175,000	150,000	175,000	725,000
Transit	12,793,000	2,785,000	1,780,000	1,628,000	1,623,000	20,609,000
Wake Transit Plan	7,140,000	4,250,000	4,000,000	4,000,000	4,000,000	23,390,000
Total	**37,833,000**	**21,665,000**	**20,244,000**	**20,583,000**	**20,932,000**	**121,257,000**

Parks, Recreation & Cultural Resources	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
2014 Bond Projects	29,525,000	7,500,000	18,225,000	-	-	55,250,000
Cultural Resources	110,000	300,000	750,000	235,000	330,000	1,725,000
Facility Improvements	2,960,000	2,435,000	2,430,000	2,845,000	2,900,000	13,570,000
Greenway System	300,000	300,000	300,000	300,000	300,000	1,500,000
Land Acquisition	125,000	100,000	125,000	125,000	125,000	600,000
Plans, Studies & Development	1,500,000	845,000	325,000	220,000	705,000	3,595,000
Site Improvements	2,516,000	1,495,000	1,595,000	1,850,000	1,215,000	8,671,000
Total	**$37,036,000**	**$12,975,000**	**$23,750,000**	**$5,575,000**	**$5,575,000**	**$84,911,000**

Housing Element	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Homeowner Rehabilitiation	700,000	700,000	700,000	700,000	700,000	3,500,000
Loan Servicing	100,000	100,000	100,000	100,000	100,000	500,000
Rental Development	11,136,000	5,297,000	5,477,000	5,539,000	5,664,000	33,113,000
Transfer to Debt Service	400,000	400,000	400,000	400,000	400,000	2,000,000
Total	**12,336,000**	**6,497,000**	**6,677,000**	**6,739,000**	**6,864,000**	**39,113,000**

Convention & Performing Arts Complex	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Performing Arts Center	500,000	500,000	1,300,000	1,300,000	1,300,000	4,900,000
Raleigh Convention Center	2,709,000	2,709,000	2,709,000	2,709,000	2,948,000	13,784,000
Walnut Creek Amphitheater	350,000	350,000	550,000	550,000	550,000	2,350,000
Total	**3,559,000**	**3,559,000**	**4,559,000**	**4,559,000**	**4,798,000**	**21,034,000**

Technology	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Computer Aided Dispatch System	1,000,000	-	-	-	-	1,000,000
PeopleSoft Roadmap	600,000	775,000	-	-	-	1,375,000
Planning and Evaluation Studies	50,000	50,000	50,000	50,000	50,000	250,000
Recreation and Event Mgt Sys (REMS)	100,000	-	-	-	-	100,000
Small Projects Fund	93,136	75,000	75,000	75,000	75,000	393,136
TECH - Reserve for Future Projects	3,027,864	2,708,000	3,675,000	3,675,000	3,675,000	16,760,864
Digital Signature Assessment	30,000	-	-	-	-	30,000
Cyber Security Program	560,000	67,000	-	-	-	627,000
SeeClickFix Replacement	150,000	450,000	-	-	-	600,000
PCI Annual Attestation	290,000	-	-	-	-	290,000
Data Visualization	30,000	50,000	-	-	-	80,000
RaleighNC.Gov Redesign - Phase 2	300,000	-	-	-	-	300,000
Total	**6,231,000**	**4,175,000**	**3,800,000**	**3,800,000**	**3,800,000**	**21,806,000**
Grand Total	**$335,324,000**	**$218,491,000**	**$486,769,000**	**$170,845,000**	**$181,311,000**	**$1,392,740,000**

Revenue Sources	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	5 Year Total
Transfers from General Fund	31,792,000	29,472,000	30,256,000	30,707,000	31,181,000	153,408,000
Transfers from Enterprise/Internal Funds	87,310,000	87,909,000	97,972,000	102,864,000	109,614,000	485,669,000
Bond Proceeds	177,734,000	86,208,000	316,460,000	23,347,000	26,350,000	630,099,000
Proceeds from Asset Sales	1,472,000	-	28,154,000	-	-	29,626,000
Facility Fees	4,450,000	3,950,000	3,450,000	3,450,000	3,450,000	18,750,000
User Fees and Program Income	2,250,000	1,750,000	2,750,000	2,750,000	2,750,000	12,250,000
Grants and Interlocal Funds	23,860,000	8,684,000	7,209,000	7,209,000	7,448,000	54,410,000
Interest Income	518,000	518,000	518,000	518,000	518,000	2,590,000
Appropriated Fund Balance	5,938,000	-	-	-	-	5,938,000
Total	**$335,324,000**	**$218,491,000**	**$486,769,000**	**$170,845,000**	**$181,311,000**	**$1,392,740,000**

Operating Impacts from Capital Investments

When the City opens a new facility, it generally takes on additional operating costs to run the facility. This can include new staffing, utilities, maintenance, and other recurring costs. New business systems can also add such recurring costs as annual licensing and maintenance contracts. During the budget process, staff review and analyze operating needs related to new facilities and business systems. Approved costs are added to the city's operating budget. There may also be one-time costs related to opening a new facility not covered in the project budget; these are funded with nonrecurring revenue sources in the city's General Fund.

The City's FY2018 General Fund budget will include roughly $2.15 million in additional operating costs, including 19 positions, to open new facilities. The table below lists the operating impacts related to individual capital projects. In future years, there will be additional operating costs operate such facilities as Raleigh Union Station and expanded parks facilities.

This table reflects only forecasted operating impacts in the General Fund for approved, funded projects.

		FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Technology						
	Budget and Planning System	95,000	95,000	95,000	95,000	95,000
	Office365 and Exchange	750,000	750,000	750,000	750,000	750,000
	Recreation and Event Management	165,000	165,000	165,000	165,000	165,000
	Computer Aided Dispatch (CAD)	250,000	250,000	250,000	250,000	250,000
Parks, Recreation and Cultural Resources						
	Historic Site Improvements	70,000	70,000	70,000	70,000	70,000
	Lineberry Neighborhood Park	55,000	55,000	55,000	55,000	55,000
	Eastgate Park	-	93,000	93,000	93,000	93,000
	Kiwanis Park	-	93,000	93,000	93,000	93,000
	Perry Creek Rd Park	-	25,000	25,000	25,000	25,000
	Walnut Creek Athletic center	-	85,000	85,000	85,000	85,000
	Walnut Creek Wetlands Center	-	-	125,000	125,000	125,000
	Pullen Art Center	-	-	15,000	15,000	15,000
	Brentwood Park	-	-	125,000	125,000	125,000
	John Chavis Memorial Park	-	-	175,000	175,000	175,000
	Baileywick Community Center	-	-	-	400,000	400,000
Transportation						
	Bike Share	285,000	285,000	285,000	285,000	285,000
	Union Station	480,000	480,000	480,000	480,000	480,000
Cumulative Total		**2,150,000**	**2,446,000**	**2,886,000**	**3,286,000**	**3,286,000**

There are some future capital investments for which staff have not yet estimated operating impacts. During FY18, staff will continue analyzing operating needs for these projects, which include the future Dorothea Dix Park, Civic Campus, Fire Station 1 and Fire Administration offices, and Police Training Center.

Horizon Issues

The Adopted CIP funds the City's priority needs. Staff reviewed and analyzed the business cases supporting these projects and considers them ready to move forward. In many situations, however, the city has identified a future need, but has not yet completed an analysis, considered options, or designed a specific facility. These needs include a variety of projects, such as new buildings, building rehabilitations, software systems, and other infrastructure needed in the future, often beyond the CIP's five-year timeframe. Below is a list of major needs staff will discuss and evaluate in the coming year and beyond:

- In Summer 2015, the City acquired the Dorothea Dix property from the State for $52 million. Master planning for the future park will begin in Summer 2016. Before the park is constructed, however, the City is responsible for environmental remediation and some operating costs. In the future, developing the property will involve a wide range of recreational and cultural services, which will require additional capital and operating investments.

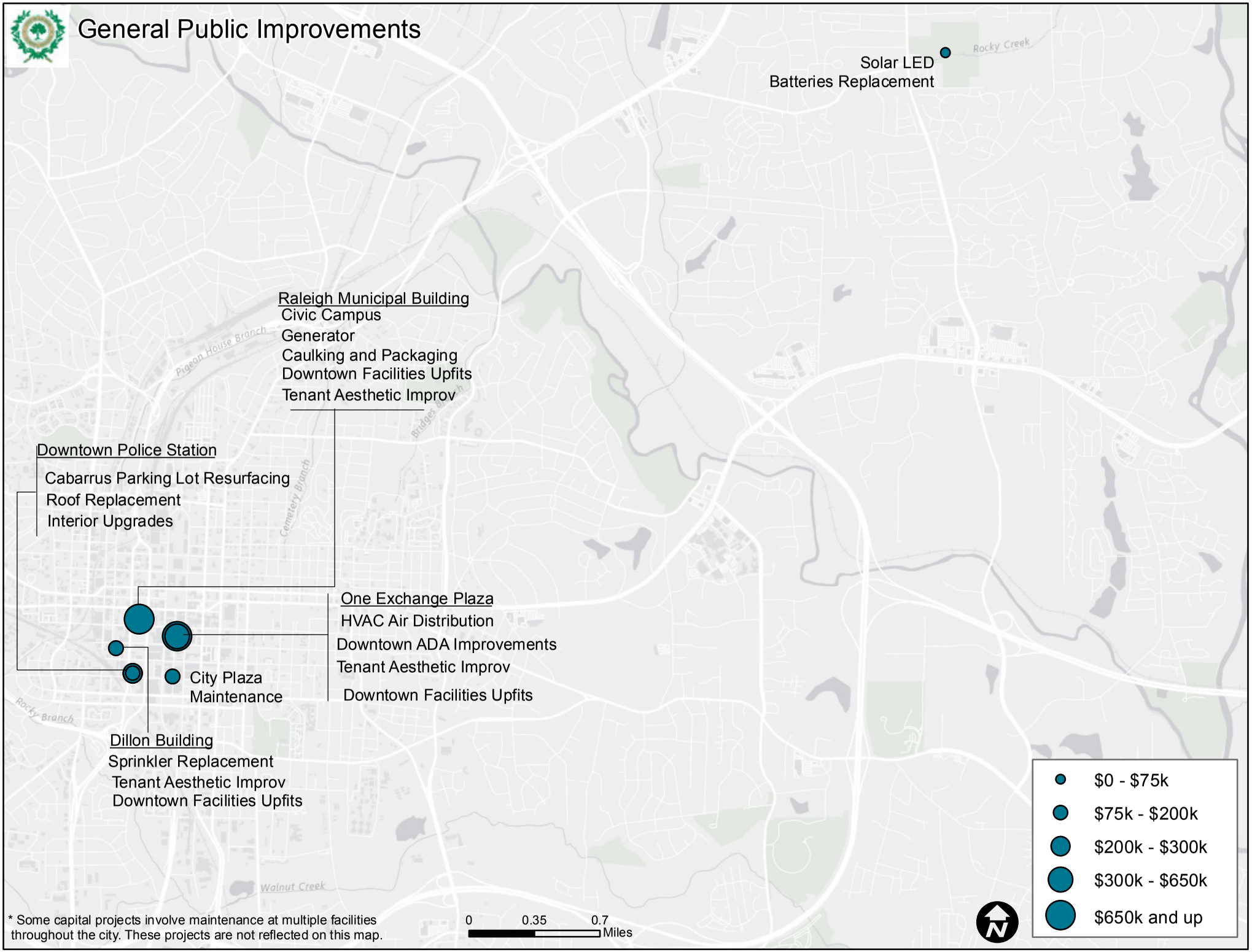
- To continue the city's transit improvements, staff continues to analyze the need for future transit facilities. These facilities include bus stations, park-and-ride facilities, multi-modal facilities like Union Station, and transit centers along the City's major corridors. The passage of the recent sales tax referendum in Fall 2016 has allowed staff to continue to work with regional stakeholders to prioritize transit system needs and determine how the new funds will be used to support the Wake Transit Plan. Funds are programmed in FY2018 for the City of Raleigh, along with other stakeholders, to begin implementing of the Wake Transit Plan. Continued improvements and funding efforts will occur every fiscal year and the Transportation element will continue to see these funds allocated to support implementation and improvement of the regional and local transit system.

- To ensure our public safety staff are proficient and operate safely, the city's Fire and Police departments invest heavily in training. The fire training facility, located south of downtown, off Wilmington Street, is aging and does not include a large driving pad. After staff made progress on several fire station projects, staff will consider options to replace the Keeter Training Facility.

- Staff from Information Technology are working with other stakeholders to consider how technology needs are identified and prioritized for funding. Staff completed an inventory of software systems and other technology assets to provide a starting point of assets and needs. Staff prioritized those needs for the FY2018-FY2022 CIP, and will continue building on these process improvements. Going forward, the long-term operating costs of new systems will be a major criterion in determining which systems to implement.

- The parking supply in downtown Raleigh is rapidly becoming a concern as the City is nearing capacity for monthly accounts in its eight parking decks, and the influx of new businesses drives the demand for additional parking. Current figures show 600 available monthly accounts in City decks and lots. The recently completed Kimley-Horn report from the downtown Raleigh Parking Study has recommended the City enter into public-private partnerships for construction of more downtown decks.

General Public Improvements



* Some capital projects involve maintenance at multiple facilities throughout the city. These projects are not reflected on this map.

General Public Improvements

Categories	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
General Government Facility Maintenance	3,070,000	1,425,000	850,000	600,000	400,000	6,345,000
Public Safety Facility Maintenance	3,550,000	2,165,000	1,605,000	1,755,000	1,605,000	10,680,000
New Facilities	11,337,000	26,348,000	153,687,000	11,877,000	-	203,249,000
Economic Development	650,000	550,000	550,000	550,000	550,000	2,850,000
GPI - Reserve for Future Projects	-	460,000	1,595,000	1,695,000	2,045,000	5,795,000
Total	**18,607,000**	**30,948,000**	**158,287,000**	**16,477,000**	**4,600,000**	**228,919,000**

Revenue Sources	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Transfers from General Fund	7,270,000	4,500,000	4,500,000	4,500,000	4,500,000	25,270,000
Bond Proceeds	9,765,000	26,348,000	125,533,000	11,877,000	-	173,523,000
Proceeds from Asset Sales	1,472,000	-	28,154,000	-	-	29,626,000
Interest Income	100,000	100,000	100,000	100,000	100,000	500,000
Total	**$18,607,000**	**$30,948,000**	**$158,287,000**	**$16,477,000**	**$4,600,000**	**$228,919,000**

Element Overview

The City of Raleigh's General Public Improvement element focuses on maintaining the city's general government and public safety facilities. This element also funds new facilities, selected economic development projects, and other projects funded with general tax revenues.

General government facility projects address capital maintenance at the Raleigh Municipal Building, One Exchange Plaza, and Dillon Building. Public safety facility maintenance projects focus on police, fire and emergency communications facilities and infrastructure. The scope of all these projects includes life safety improvements, mechanical system replacements, structural repairs, and office space renovations. Economic development projects assist small businesses and visitors to our growing downtown. This element also funds new facilities, such as new fire stations, and a new downtown Civic Campus.

Recent Accomplishments

- Completed an assessment of public safety training needs. Staff will use this assessment to inform design choices for the funded Police training facility. In the future, the assessment will also inform future options to replace the Keeter fire training center.
- Completed carpet replacement at Police Headquarters at 6716 Six Forks Road.
- Completed roof assessment of thirty-six Fire stations/facilities.
- Completed air quality improvements at the Police evidence building at 218 W. Cabarrus Street.
- Completed HVAC replacement for Central Operations Facility maintenance building at 2631 Brentwood Road.
- Completed automatic transfer switch replacement at One Exchange Plaza.
- Completed installation of emergency generators at Central Operations Facility salt barn on Appliance Drive and at the maintenance building at 2631 Brentwood Road.

- Completed replacement of solar LED batteries at various City of Raleigh owned sites.

Work Plan Highlights

- Renovation of the rundown shelters at Northeast Remote Operations Facility at 7700 Burwell Road will include: demolition of existing shelter, elevation of platform, and rebuilding the shelter as a steel structure. Work on the shelters is expected to be completed in fall of 2017.
- Interior upgrades to various downtown facilities will include: repairing, replacing and upgrading damaged interior walls, wallpaper, carpet, flooring, insulation, light fixtures, electrical wiring, electrical outlets, plumbing, as well as, repainting and resurfacing walls, and ceilings.
- Downtown ADA projects are a part of the transition plan to bring downtown city facilities into compliance over the next five years.
- Downtown Facilities Upfits, as part of the interim plan to deal with growth and realignment, will include renovations, retrofitting, furniture reconfigurations, cabling, moving costs and other purchases for several departments to provide better customer service and collaboration at One Exchange Plaza, Raleigh Municipal Building, 310 W. Martin Street buildings and to deal with lease updates and changes associated with lease deadlines.
- Energy efficient concepts will be applied into the design and project implementation, for lighting control system expansion for Raleigh Municipal Building and One Exchange plaza, along with, enhancements to HVAC Air Distribution system at One Exchange Plaza.
- Master planning for the future Civic Campus began in January 2017. This first phase of the project will establish facility goals for sustainability, security, office space efficiency, public access, and employee amenities. Staff anticipate completing the facility master plan in Fall 2017. After City Council reviews and approves a master plan, staff will move forward with the design phase.

Horizon Items

- Continue to oversee requests and logistics for space needs and modifications from City departments based on departmental growth/expansion, budget, plans reviews, and structural implications, in addition to, examining plans, evaluating cost, and equitably allocating city space.
- Continue, as asset managers, to take a comprehensive look at facility systems and provide a total cost of ownership perspective on operating efficiencies and best practices.
- Consider future implementation of additional fueling stations and carwashes at remote locations throughout the city.

General Government Facility Maintenance

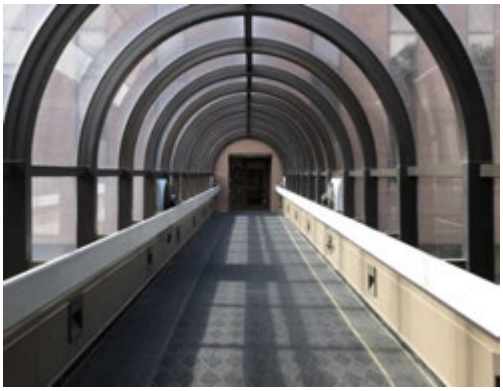
This category of projects funds major capital needs at the city's general government facilities in downtown—Raleigh Municipal Building (RMB), One Exchange Plaza (OEP), and the Dillon Building. City staff analyzes, audits, and assesses facilities on a periodic schedule. Then staff identifies necessary building repairs, replacement of mechanical, electrical, and plumbing (MEP) systems, and other projects that will improve life safety, prolong building lifespan, and make facilities more adaptable for staff.

General Government Facility Maintenance	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Solar LED Batteries Replacement	-	75,000	-	-	-	75,000
Tenant Aesthetic Improvements	163,000	-	-	-	-	163,000
City Plaza Maintenance	2,000,000	200,000	-	-	-	2,200,000
Downtown ADA Improvements	200,000	300,000	300,000	400,000	400,000	1,600,000
Downtown Facilities Upfits	507,000	-	-	-	-	507,000
Generator	200,000	-	-	-	-	200,000
HVAC Air Distribution	-	650,000	-	-	-	650,000
Caulking and Packaging	-	-	250,000	-	-	250,000
Sprinkler Replacement	-	200,000	-	-	-	200,000
General Maintenance Improvements	-	-	-	200,000	-	200,000
Downtown Facilities Interior Upgrades	-	-	300,000	-	-	300,000
Total	**3,070,000**	**1,425,000**	**850,000**	**600,000**	**400,000**	**6,345,000**

Highlighted Projects

Downtown ADA Improvements: $1,600,000

The City is developing a multi-year plan for upfitting facilities to ensure buildings are in compliance with ADA standards. This includes projects at the Raleigh Municipal Building, One Exchange Plaza, and at 310 West Martin Street.



Downtown Facility Upfits: $507,000

In order to plan for department reorganizations and the growth of the city workforce it is necessary to upfit certain workspace areas in the downtown area. This includes work at the Municipal Building, One Exchange Plaza and the Dillon Building.

HVAC Air Distribution: $650,000

This project necessitates replacement of the existing mechanical system and rerouting and/or replacement of current ductwork. Included is the installation of building automation system controls at One Exchange Plaza.

City Plaza Maintenance: $2,200,000

Raleigh City Plaza opened in the fall of 2009 and has become a premier programming space in the downtown core. The Plaza is in need of maintenance which will ensure that it continues to be a vibrant and usable space for the future needs of the City. The project will include paver replacement, construction of additional small programming areas, furniture, and removal of fountain and planters. The City anticipates private contributions from partners to assist with these improvements. After reviewing multiple options, staff recommends increasing funding by $2 Million. When added to the prior appropriations and scheduled funding, total project funding comes to $2,420,000.

Public Safety Facility Maintenance

This category of projects addresses maintenance and improvements in the city's public safety facilities including fire stations, police and emergency communication facilities. These projects keep the facilities safe for employees, extend the useful life of the assets, and improve their operating efficiency. All public safety departments work with the Facilities and Operations Division and Construction Management to identify and prioritize these projects.

Public Safety Facility Maintenance	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Lead Paint & Asbestos	100,000	100,000	100,000	100,000	100,000	500,000
Deferred Maintenance Program	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	6,500,000
HVAC Replacement	225,000	-	-	-	-	225,000
Workspace Improvements	205,000	205,000	205,000	205,000	205,000	1,025,000
Exterior Waterproofing	-	310,000	-	-	-	310,000
Elevator Hydraulics	-	250,000	-	-	-	250,000
Police Downtown Station Roof Replacement	250,000	-	-	-	-	250,000
Cabarrus Parking Lot Resurfacing	-	-	-	150,000	-	150,000
UPS Replacement	400,000	-	-	-	-	400,000
Fire Station 14	1,070,000	-	-	-	-	1,070,000
Total	**3,550,000**	**2,165,000**	**1,605,000**	**1,755,000**	**1,605,000**	**10,680,000**

Highlighted Projects

Fire Station Deferred Maintenance Program: $6,500,000

A comprehensive Fire Station Renovation program that includes mechanical, electrical, plumbing, structural, and roof repairs/replacements, fire alarm replacement, sprinkler system installation, and architectural repairs that are in compliance with current building codes. Nineteen of the City's 27 fire stations were built prior to 1990, these renovations will help ensure compliance with modern building codes and ADA standards.

Fire Station 14: $1,070,000

Fire Station 14 is currently under design to be replaced with a new station. The new station will ensure that aerial resources are located in strategic locations equally around the City. It will also provide the necessary square footage for future growth and will close gaps in fire personnel coverage. Additional funding is needed to build a retaining wall on the site. This will bring the total project budget to $9,588,034.

Economic Development

Economic Development	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Building Upfit Grant	500,000	500,000	500,000	500,000	500,000	2,500,000
Façade Improvements	50,000	50,000	50,000	50,000	50,000	250,000
Innovation Fund	100,000	-	-	-	-	100,000
Total	**650,000**	**550,000**	**550,000**	**550,000**	**550,000**	**2,850,000**

Highlighted Projects

Building Upfit Grant: $2,500,000

This funding supports a program to assist property owners and small business owners improve existing buildings throughout the City. Since the adoption and funding of the program, the Office of Economic Development and Innovation awarded seven (7) Building Up-fit Grants.

Façade Grants Program: $250,000

This program helps small businesses rehabilitate older commercial properties with matching cash grants for exterior improvements and approved art elements. Eligible businesses are located within the Targeted Economic Development Zones as identified in the 2030 Comprehensive Plan. Improvements must comply with design standards specific to the Urban Design Guidelines and the Downtown Element of 2030 Comprehensive Plan.

Innovation Fund: $100,000

The Innovation Fund supports the City's entrepreneurial start-up program. This program assists entrepreneurs in multiple ways, to include: public/private matching grants, beta testing and prototyping programs, start-up challenge programs, crowd funding or kick-starter matching funds, and entrepreneur exchange with other cities. By improving the chances of entrepreneurial success, this program also increases the likelihood that startups will need and benefit from later services like incubation, acceleration, and angel and venture capital investment.

New Facilities

New Facilities	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Fire Station 1 and Administration Office	1,596,000	-	15,635,000	-	-	17,231,000
Police Training Center	2,142,000	18,587,000	-	-	-	20,729,000
Civic Campus	7,499,000	7,761,000	138,052,000	11,877,000	-	165,189,000
Emergency Vehicle Operations Course	100,000	-	-	-	-	100,000
Total	**11,337,000**	**26,348,000**	**153,687,000**	**11,877,000**	**-**	**203,249,000**

Civic Campus: $165,189,000

In the fall of 2016, staff began the master planning for a new civic campus. This project will consolidate City services and staff currently located in various owned and leased buildings onto one campus. Staff anticipates creating a roughly 310,000 square foot campus that will improve customer service and civic engagement, improve staff efficiency, and complement the City's economic development efforts. The campus will also meet the City's office space and parking needs for the next several decades. Pending approval of master plan, the design phase is expected to start in late spring 2018.

One major assumption for this project is that, after consolidating staff onto one site, unused City properties will be sold and the proceeds used to offset a portion of the construction cost. These properties include One Exchange Plaza, Dillon Building, 301 Hillsborough, Site 4 Hotel and Charter Square.

Fire Station 1 and Administration Office: $20,729,000

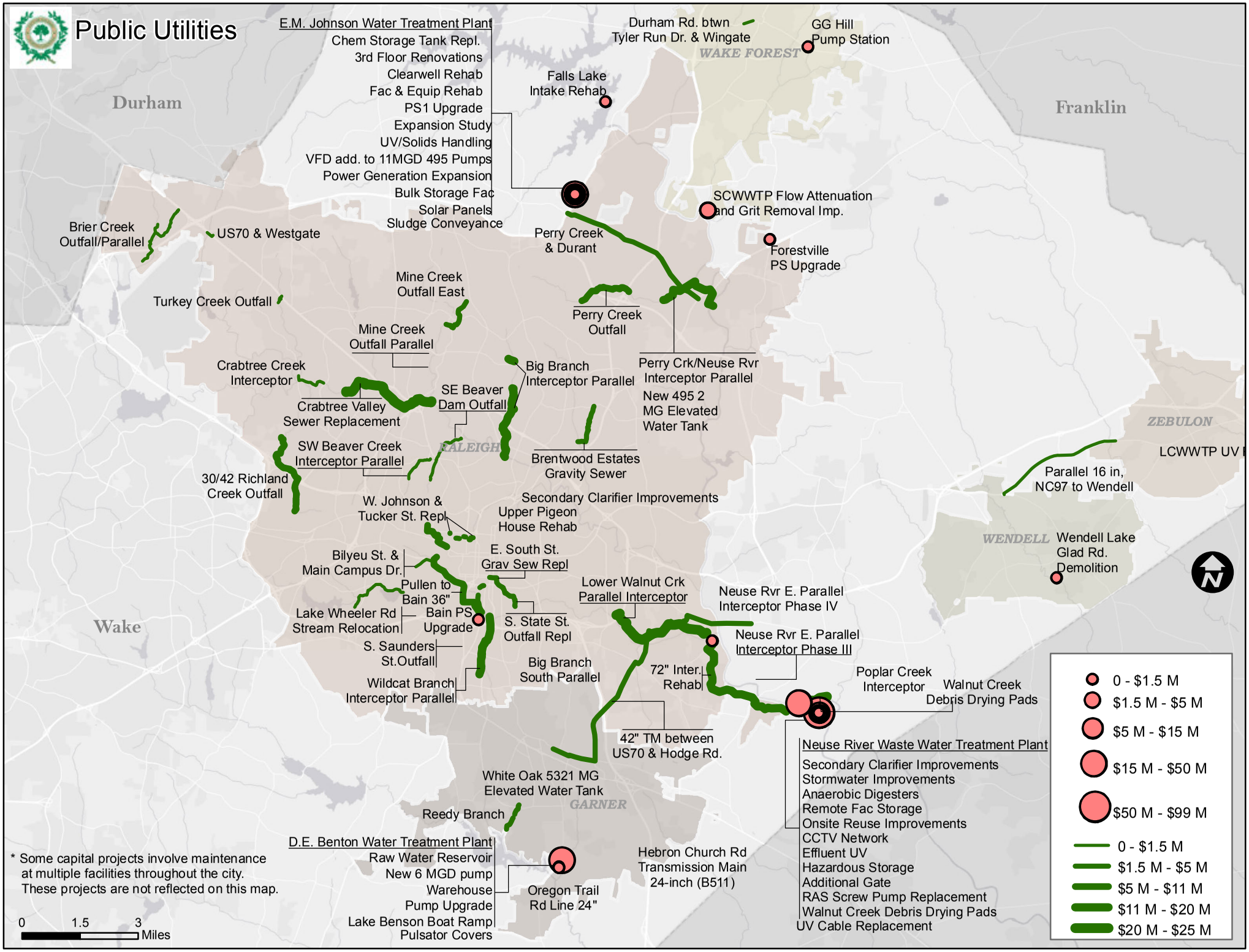
To meet the Fire Department's operational and administrative needs, and to facilitate economic development efforts in the downtown Warehouse district, the CIP funds a replacement for Fire Station 1 and a replacement administrative space for Fire Department management staff. Staff tentatively expects to construct a new station up to 21,000 square feet, and an administration space up to 13,000 square feet. The project budget also funds land acquisition and a parking deck. Depending on the site selected for the station, additional land and a parking deck may not be necessary—in this case, the project budget will be decreased. With funds appropriated in FY2017, the total project budget is $23,885,000.

Police Training Center: $20,729,000

The Raleigh Police Department currently uses a 30-year old 12,000 square foot facility located on Spring Forest Road as its primary training facility. However, this facility is no longer adequate to accommodate the Department's current and projected growth or the training standards as prescribed by various accrediting agencies. The City plans to construct a new facility on Battlebridge Road adjacent to the Wake County Sheriff's Office training center, consistent with an interlocal agreement with Wake County. The new facility will accommodate projected RPD growth through 2040 and will be located near the Raleigh Police Department's Firearms and Driving Training Centers. With funds appropriated in FY2017, the total project budget is $22,633,000.

Emergency Vehicle Operations Course: $100,000

This funding is for the design and preparation of a driving pad for our City's Fire Department. Driver education is an important component of our fire service training program. The future driving course will meet the Fire Department's long-term driving education needs.


Public Utilities
E.M. Johnson Water Treatment Plant
Chem Storage Tank Repl.
3rd Floor Renovations
Clearwell Rehab
Fac & Equip Rehab
PS1 Upgrade
Expansion Study
UV/Solids Handling
VFD add. to 11MGD 495 Pumps
Power Generation Expansion
Bulk Storage Fac
Solar Panels
Sludge Conveyance
Durham Rd. btwn
Tyler Run Dr. & Wingate
GG Hill
Pump Station
WAKE FOREST
Falls Lake
Intake Rehab
Durham
Franklin
SCWWTP Flow Attenuation
and Grit Removal Imp.
Brier Creek
Outfall/Parallel
US70 & Westgate
Perry Creek
& Durant
Forestville
PS Upgrade
Mine Creek
Outfall East
Turkey Creek Outfall
Perry Creek
Outfall
Mine Creek
Outfall Parallel
Crabtree Creek
Interceptor
Big Branch
Interceptor Parallel
Perry Crk/Neuse Rvr
Interceptor Parallel
SE Beaver
Dam Outfall
Crabtree Valley
Sewer Replacement
New 495 2
MG Elevated
Water Tank
ZEBULON
SW Beaver Creek
Interceptor Parallel
RALEIGH
Brentwood Estates
Gravity Sewer
LCWWTP UV
30/42 Richland
Creek Outfall
Parallel 16 in,
NC97 to Wendell
W. Johnson &
Tucker St. Repl
Secondary Clarifier Improvements
Upper Pigeon
House Rehab
WENDELL
Wendell Lake
Glad Rd.
Demolition
Bilyeu St. &
Main Campus Dr.
E. South St.
Grav Sew Repl
Pullen to
Bain 36"
Lower Walnut Crk
Parallel Interceptor
Neuse Rvr E. Parallel
Interceptor Phase IV
Lake Wheeler Rd
Stream Relocation
Bain PS
Upgrade
S. State St.
Outfall Repl
Wake
Neuse Rvr E. Parallel
Interceptor Phase III
S. Saunders
St.Outfall
Big Branch
South Parallel
72" Inter.
Rehab
Poplar Creek
Interceptor
Walnut Creek
Debris Drying Pads
Wildcat Branch
Interceptor Parallel
42" TM between
US70 & Hodge Rd.
Neuse River Waste Water Treatment Plant
Secondary Clarifier Improvements
Stormwater Improvements
Anaerobic Digesters
Remote Fac Storage
Onsite Reuse Improvements
CCTV Network
Effluent UV
Hazardous Storage
Additional Gate
RAS Screw Pump Replacement
Walnut Creek Debris Drying Pads
UV Cable Replacement
White Oak 5321 MG
Elevated Water Tank
GARNER
Reedy Branch
D.E. Benton Water Treatment Plant
Raw Water Reservoir
New 6 MGD pump
Warehouse
Pump Upgrade
Lake Benson Boat Ramp
Pulsator Covers
Oregon Trail
Rd Line 24"
Hebron Church Rd
Transmission Main
24-inch (B511)
* Some capital projects involve maintenance
at multiple facilities throughout the city.
These projects are not reflected on this map.
0
1.5
3
Miles
0 - $1.5 M
$1.5 M - $5 M
$5 M - $15 M
$15 M - $50 M
$50 M - $99 M
0 - $1.5 M
$1.5 M - $5 M
$5 M - $11 M
$11 M - $20 M
$20 M - $25 M

Public Utilities

Categories	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Asset Management	43,392,000	34,652,000	38,452,000	39,492,000	39,492,000	195,480,000
Capital Equipment	5,000,000	6,100,000	5,000,000	5,000,000	5,000,000	26,100,000
EMJWTP Expansion	525,000	220,000	5,850,000	-	36,400,000	42,995,000
Interceptors	18,050,000	53,900,000	147,000,000	32,850,000	21,900,000	273,700,000
Little River Projects	500,000	1,000,000	1,000,000	1,000,000	1,000,000	4,500,000
Miscellaneous Water and Wastewater	1,150,000	2,000,000	2,250,000	2,250,000	1,250,000	8,900,000
Wastewater Treatment Expansion	99,750,000	1,000,000	1,000,000	1,000,000	3,300,000	106,050,000
Reuse System	-	3,000,000	3,000,000	3,000,000	3,000,000	12,000,000
Wastewater Pump Stations	26,500,000	1,200,000	1,200,000	1,200,000	1,200,000	31,300,000
Water Main Expansions	4,540,000	525,000	11,370,000	4,770,000	3,100,000	24,305,000
Water Pump Stations	600,000	150,000	1,630,000	1,200,000	650,000	4,230,000
Water Tanks Upgrades	-	900,000	900,000	900,000	900,000	3,600,000
Watershed Initiatives	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	11,250,000
WTP Maintenance	4,315,000	15,725,000	35,000,000	5,750,000	750,000	61,540,000
WWTP Maintenance	3,650,000	6,550,000	4,050,000	2,950,000	5,050,000	22,250,000
Total	**$210,222,000**	**$129,172,000**	**$259,952,000**	**$103,612,000**	**$125,242,000**	**$828,200,000**

Revenue Sources	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Bond Proceeds	135,720,000	52,360,000	172,702,000	11,470,000	26,350,000	398,602,000
Transfer From Public Utilities Operations	55,100,000	56,422,000	66,200,000	71,092,000	77,842,000	326,656,000
Water Infrastructure Fees	4,500,000	5,440,000	6,100,000	6,100,000	6,100,000	28,240,000
Sewer/Reuse Infrastructure Fees	12,652,000	12,700,000	12,700,000	12,700,000	12,700,000	63,452,000
Watershed Protection Fees	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	11,250,000
Total	**$210,222,000**	**$129,172,000**	**$259,952,000**	**$103,612,000**	**$125,242,000**	**$828,200,000**

Element Overview

The Public Utilities Department treats and distributes drinking water, collects and treats wastewater, distributes reuse water and protects watersheds in Raleigh, Garner, Rolesville, Wake Forest, Knightdale, Wendell and Zebulon. Public Utilities capital projects are fully funded by revenues received from rates and fees for services, and from fees associated with new development. Projects consist primarily of revenue bonds, pay-go (cash-funded), and State Revolving Fund loans from the North Carolina Department of Environmental Quality. The utility system plans to invest a total of $1,516,585,000 in capital needs over the next 10 years, including $210,222,000 in FY18.

The Public Utilities program includes projects for:

- Treatment and distribution of the city's drinking water supply
- Collection and treatment of wastewater
- Asset Management projects involving the rehabilitation or replacement of aging water distribution system, sewer collection system, and water and wastewater treatment infrastructure
- Construction and maintenance of elevated water storage tanks and pump stations
- Building projects for operations
- Developing future water supply
- Delivery of reuse water that has been treated by the wastewater treatment plant

Recent Accomplishments

The Public Utilities Department completed several important projects during FY17 including:

- Completed Wake Forest Richland Creek Sanitary Sewer Interceptor Improvements. This project included installation of approximately 31,000 linear feet of sewer interceptor to replace an existing line with a larger pipe to accommodate growth in the Wake Forest service area
- Completed concrete rehabilitation and lift screw replacement at the Walnut Creek Lift Station. This restores the effectiveness of this wastewater pump station.
- Completed Lower Crabtree Creek North Sewer Outfall, which installed approximately 4,000 linear feet of sewer interceptor that allowed for the abandonment of two pump stations
- Completed EMJWTP Sodium Permanganate Facility, which includes new bulk chemical storage and feed apparatus housed in a spill containment building.
- Replaced over 39,000 linear feet of water main
- Replaced over 66,000 linear feet of sanitary sewer main

Work Plan Highlights

Notable projects that are a continuation of the FY17 budget include:

- Continue construction of the Crabtree Pipeline, which installs 21,000 linear feet of 54" gravity sewer interceptor along Crabtree Creek to reduce sanitary sewer overflows in the basin.
- Continue construction of the NRRRF Expansion Phases III and IV. This project expands wastewater treatment capacity from 60 MGD to 75 MGD.
- Continue construction of the Zebulon Beaverdam Creek Interceptor Improvements, which installs 22,100 linear feet of sewer interceptor and construction of a new pump station.
- Began construction on the Crabtree Creek Lift Station Expansion. This project includes extensive concrete rehabilitation and the replacement of all 5 Archimedes lift screws with larger ones that expand the station's capacity from 80 MGD to 105 MGD. The increase in capacity was necessary to accommodate the flow from the new Crabtree Pipeline project.
- Began rehabilitation of the NRRRF Secondary Clarifiers. This project will rehabilitate concrete and coat the 12 secondary clarifiers, along with electrical upgrades and installation of fiberglass covers to help with odor control.

Notable projects added or modified as part of the FY18 Budget include:

- The addition of a 12 wastewater collection and treatment projects totaling $114.0M, as recommended by the 2016 Wastewater Treatment Master Plan.
- The City's condition assessment efforts through the Asset Management program have identified a large diameter water main along Hillsborough Street that needs to be replaced. The need to replace this main is immediate, as the existing line is in poor condition and has a critical function in the water system. For this reason, construction budget for this new project has been requested in year one.
- Additional funds for the Anaerobic Digester project, also known as Bioenergy Recovery, to cover construction of the facility and associated components.

Horizon Items

- Major initiatives for the Public Utilities Department over the next three to seven years revolve around infrastructure stability, compliance, and planning for growth.

- Future infrastructure stability projects include the replacement and condition assessment of water and sanitary sewer mains and the rehabilitation of plants, pump stations, and elevated storage tanks. These projects originate from the Asset Management program.
- Compliance related projects comprise a large portion of the CIP and include such projects as the East Neuse Regional Pump Station and Interceptor System, Perry Creek Interceptor System and Lower Walnut Creek Wastewater System Improvements. These compliance related project address existing wet weather flow conveyance issues as well as accommodate projected growth for the basin.
- The utility system is in the final stages of all capital projects related to the mergers with surrounding towns.

Abbreviations Used in the Public Utilities Project Descriptions

DEBWTP – Dempsey E. Benton Water Treatment Plant

LCWWTP – Little Creek Wastewater Treatment Plant

SCWWTP – Smith Creek Wastewater Treatment Plant

EMJWTP – E.M. Johnson Water Treatment Plant

NRRRF – Neuse River Resource Recovery Facility

NRWWTP – Neuse River Wastewater Treatment Plant (former name of NRRRF)

MGD – Million Gallons per Day

Asset Management

This category funds the City's Asset Management Plan (AMP), which is a proactive, sustainable, and continuous infrastructure replacement prioritization plan. The AMP's recommendations for condition assessment, infrastructure replacement, and rehabilitation have been incorporated in the CIP. The AMP developed a risk-based prioritization process to answer "how much" rehabilitation and replacement (R&R) is required to meet current and anticipated future rates of infrastructure replacement to mitigate risks of failure.

Asset Management	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Force Main Condition Assessment	182,000	182,000	-	-	-	364,000
Highest Priority Action Projects	-	920,000	920,000	-	-	1,840,000
Gravity Sewer Condition Assessment	550,000	-	-	-	-	550,000
Highest Priority Action Aerial Projects	1,360,000	1,360,000	-	-	-	2,720,000
Pump Station and ARC Flash Assessment	100,000	-	-	-	-	100,000
Thoroughfare Mains	700,000	500,000	500,000	500,000	500,000	2,700,000
Main Replacement	32,750,000	29,250,000	32,200,000	32,350,000	32,350,000	158,900,000
FCA and HPPR Assessment	-	-	-	1,800,000	1,800,000	3,600,000
Force Main FCA and HPPR Assessment	-	-	282,000	282,000	282,000	846,000
Force Main Replacement/Rehab	-	1,590,000	1,600,000	1,610,000	1,610,000	6,410,000
Gravity Sewer FCA and HPPR Assessment	-	-	2,100,000	2,100,000	2,100,000	6,300,000
Galvanized Service Replacement	750,000	750,000	750,000	750,000	750,000	3,750,000
Hillsborough Street Transmission Main	6,600,000	-	-	-	-	6,600,000
Manhole Rehab Replacement	400,000	100,000	100,000	100,000	100,000	800,000
Total	**43,392,000**	**34,652,000**	**38,452,000**	**39,492,000**	**39,492,000**	**195,480,000**

Highlighted Projects

Project Name: Main Replacement $323,505,000 (10 year total)

A significant portion of the water distribution and sewer collection system in the City's service area is over 50 years old. Based on the recommendations of most professional utility organizations, 1-2% of the City's system should be replaced each year. A gradual increase in expenditures is expected to keep up with the needs of the City of Raleigh's service area and to get closer to the 1-2% replacement target. We have consolidated the asset management specific replacement projects with the City's general main replacement project. This project will be partially funded by the water and sanitary sewer infrastructure replacement fees.

Sewer Interceptor Upgrades

The projects represented in the Sewer Interceptor Upgrade category are the result of the 2014 Sewer System Capacity Study. The projects outlined in the study address wet weather flow capacity within the sanitary sewer collection system. During wet weather events a small percentage of rainfall unintentionally enters into the sanitary sewer system. Wet weather flows can drastically decrease the functionality of the sanitary sewer system causing the system to surcharge and ultimately overflow. The US Environmental Protection Agency and NC Department of Environmental Quality have lowered the tolerances for these wet weather overflows for utilities across the nation making it necessary to expand the capacity of the system. Projects are sized to accommodate future growth within the associated drainage basins.

Interceptors	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Lower Walnut Creek Parallel Interceptor	-	-	22,000,000	-	-	22,000,000
72-inch Interceptor Rehabilitation	-	15,000,000	-	-	-	15,000,000
Neuse River East Parallel Interceptor Phase III	2,000,000	3,000,000	63,750,000	-	-	68,750,000
Neuse River East Parallel Interceptor Phase IV	1,000,000	2,000,000	31,000,000	-	-	34,000,000
Perry Creek/Neuse River Interceptor Parallel	850,000	-	10,200,000	-	-	11,050,000
E. South St. Gravity Sewer Replacement	2,000,000	-	-	-	-	2,000,000
Upper Pigeon House Rehabilitation	-	-	4,500,000	-	-	4,500,000
Crabtree Valley Sewer Replacement	-	25,000,000	-	-	-	25,000,000
Poplar Creek Interceptor	6,000,000	-	-	-	-	6,000,000
Big Branch Interceptor Parallel	700,000	700,000	11,200,000	-	-	12,600,000
Southwest Beaver Creek Interceptor Parallel	-	-	-	400,000	-	400,000
Wildcat Branch Interceptor Parallel	-	-	1,500,000	-	13,400,000	14,900,000
Brentwood Estates Gravity Sewer	4,400,000	-	-	-	-	4,400,000
W. Johnson & Tucker St. Replacement	-	200,000	-	1,400,000	-	1,600,000
Perry Creek Outfall	-	1,000,000	-	8,100,000	-	9,100,000
S. Saunders St. Outfall	500,000	5,000,000	-	-	-	5,500,000
Mine Creek Outfall Parallel	450,000	900,000	-	10,200,000	-	11,550,000
Mine Creek Outfall East	-	-	550,000	-	4,000,000	4,550,000
Reedy Branch	-	-	-	450,000	2,200,000	2,650,000
30/42 Richland Creek Outfall	-	600,000	-	5,200,000	-	5,800,000
S. State St. Outfall Replacement	-	-	300,000	2,300,000	-	2,600,000
Rocky Branch Outfall Parallel	-	500,000	-	4,200,000	-	4,700,000
Turkey Creek Outfall	150,000	-	1,200,000	-	-	1,350,000
Southeast Beaver Dam Outfall	-	-	800,000	-	-	800,000
Brier Creek Outfall/Parallel	-	-	-	600,000	-	600,000
Crabtree Creek Interceptor	-	-	-	-	800,000	800,000
Walnut Creek Interceptor Parallel	-	-	-	-	1,500,000	1,500,000
Total	**18,050,000**	**53,900,000**	**147,000,000**	**32,850,000**	**21,900,000**	**273,700,000**

Highlighted Projects

Project Name: Neuse River East Parallel Interceptor Phase III & IV $102,750,000 (10 year total)

This project is the backbone to Raleigh's long range sanitary sewer collection system to address current and projected wet weather flow and growth. Improvements include approximately 28,000 linear feet of 96" & 84" diameter sanitary sewer from the proposed East Neuse Regional Pump Station to Anderson Point Park at the confluence of Crabtree Creek and the Neuse River.

Project Name: Lower Walnut Creek $22,000,000 (10 year total)

Replace 17,000 LF of 42" sanitary sewer main with a 72" sanitary sewer main from Sunnybrook Rd. to just downstream of State St. along Walnut Creek. The project will not only replace an existing pipeline that is in poor condition but will also address wet weather flow capacity restrictions.

Wastewater Treatment Plant Expansion

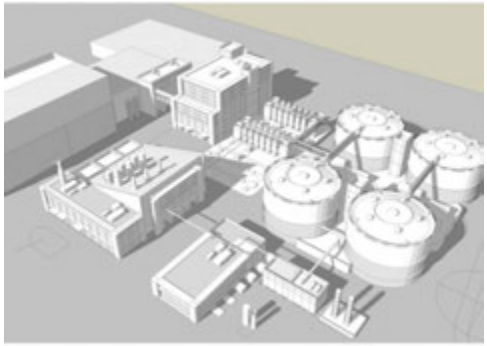
This category includes the construction of additional waste treatment facilities at all three wastewater treatment plants. This category includes the construction of anaerobic digesters at the NRRRF to provide a fuel source (methane gas) for fueling a generator to produce electricity or producing compressed natural gas for pipeline injection and/or bus fleet fuel.

NRWWTP Expansion	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Anaerobic Digesters	99,000,000	-	-	-	-	99,000,000
Nitrogen Credit Purchase	-	1,000,000	1,000,000	1,000,000	1,000,000	4,000,000
Preliminary Permitting Study for WWTP Expansion	750,000	-	-	-	-	750,000
SCWWTP Upgrade	-	-	-	-	2,300,000	2,300,000
Total	**99,750,000**	**1,000,000**	**1,000,000**	**1,000,000**	**3,300,000**	**106,050,000**

Highlighted Projects

Project Name: NRRRF Anaerobic Digesters $99,000,000 (10 year total)

Project includes construction of anaerobic digesters at the NRRRF including: pre-dewatering facilities, sludge screening, thermal hydrolysis and methane gas cleaning and conditioning facilities.



Highlighted Projects

Project Name: SCWWTP Upgrade $42,300,000 (10 year total)

Design and construction to upgrade and expand SCWWTP from 3 MGD to 6 MGD, based on predicted flows in relation to current permitted capacity and need to replace equipment due to age and condition.

.

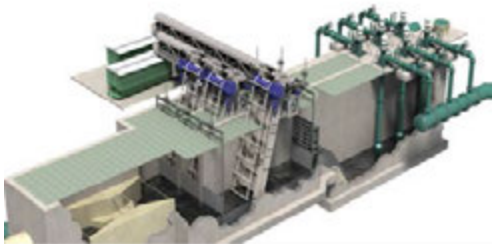
Wastewater Pump Stations

The CIP funding requested for wastewater pump stations includes the construction, rehabilitation, replacement or removal of sanitary sewer pump station facilities.

Water Pump Stations	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Walnut Creek Odor	1,300,000	-	-	-	-	1,300,000
Removal/Rehab/Replacement	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
East Neuse Regional Pump Station & Force Main	24,000,000	-	-	-	-	24,000,000
Pump Station Generator Replacement	200,000	200,000	200,000	200,000	200,000	1,000,000
Total	**26,500,000**	**1,200,000**	**1,200,000**	**1,200,000**	**1,200,000**	**31,300,000**

Highlighted Projects

Project Name: East Neuse Regional Pump Station
$24,000,000 (10 year total)



Project includes the installation of a new pump station located at the Neuse River Resource Recovery Facility to convey flows from Poplar Creek and the East Neuse Interceptor System. This pump station is the backbone to the City's long term wastewater conveyance system. The pump station is projected to convey up to 108 million gallons per day.

Reuse System

The City operates reuse systems in the Raleigh and Zebulon service areas that include two elevated storage tanks and a combined 26 miles of pipe. The City has recently completed an update to the Reuse Master Plan that will help determine future capital needs. Immediate CIP plans for the reuse system are focused on maintaining and improving water quality throughout the distribution system.

Reuse System	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Reuse Expansion-Improvements	-	3,000,000	3,000,000	3,000,000	3,000,000	12,000,000
Total	**-**	**3,000,000**	**3,000,000**	**3,000,000**	**3,000,000**	**12,000,000**

Wastewater Treatment Plant Maintenance

Projects in this category fund the rehabilitation and replacement of major equipment and associated facilities at all three wastewater treatment plants. These projects improve the plants in order to continue reliable daily system operations.

Wastewater Treatment Plant Maintenance	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Land Purchase	-	200,000	200,000	200,000	200,000	800,000
CCTV Network	750,000	-	-	-	-	750,000
Stormwater Improvements	500,000	-	-	-	-	500,000
RAS Screw Pump Replacement	400,000	4,500,000	-	-	-	4,900,000
Comprehensive Plan	-	-	-	2,000,000	-	2,000,000
LCWWTP UV Rehabilitation	50,000	500,000	-	-	-	550,000
NRRRF Grit Basin Rehabilitation	-	600,000	-	-	4,100,000	4,700,000
SCWWTP Improvements	300,000	-	3,100,000	-	-	3,400,000
Odor and Corrosion Study for Plants	500,000	-	-	-	-	500,000
WWTP Facility/Equipment Rehab	750,000	750,000	750,000	750,000	750,000	3,750,000
NRRRF UV Cable Replacement	400,000	-	-	-	-	400,000
Total	**3,650,000**	**6,550,000**	**4,050,000**	**2,950,000**	**5,050,000**	**22,250,000**

Water Main Expansions

The projects represented in the Water Main Expansion category will add water distribution main capacity to serve various growth areas in the City and merger communities. The water main expansion projects range between 12 inches to 48 inches in pipe diameter. The water mains will be primarily installed along major thoroughfares as recommended in the 2015 Water System Master plan. In addition to capacity, some of the projects in this category will address current operational problems such as tank imbalances in the 495' elevation pressure zone.

Water Main Expansions	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Service Area Growth-Water	-	-	-	100,000	100,000	200,000
Bilyeu St. & Main Campus Dr.	1,000,000	-	-	-	-	1,000,000
Hebron Church Road 24in	1,140,000	-	-	-	-	1,140,000
Zebulon TM on NC97	-	-	500,000	4,070,000	-	4,570,000
Oregon Trail Rd Line 24in	1,500,000	-	-	-	-	1,500,000
Durham Rd. between Tyler Run Dr. & Wingate	-	25,000	250,000	-	-	275,000
US70 & Westgate	-	100,000	930,000	-	-	1,030,000
Pullen to Bain 36in	900,000	-	8,230,000	-	-	9,130,000
Perry Creek & Durant	-	400,000	1,400,000	-	-	1,800,000
TM Main between US70 & Hodge Rd	-	-	-	-	3,000,000	3,000,000
Parallel 16 inch, NC97 to Wendell PS	-	-	60,000	600,000	-	660,000
Total	**4,540,000**	**525,000**	**11,370,000**	**4,770,000**	**3,100,000**	**24,305,000**

Highlighted Projects

Project Name: 42" Transmission Main between US70 & Hodge Road $29,800,000 (10 year total)

This project will install approximately 42,000 linear feet of 42" water transmission main along Jones Sausage Rd & Poole Rd to accommodate projected growth in the eastern service area.

.

Water Pump Stations

This category includes construction of new water booster pumping pump stations, as well as rehabilitation and upgrades of existing stations. Existing equipment at booster pump stations has reached its service life. Rehabilitation and upgrade of existing pump stations will extend the service life and increase pumping capacity for future demands.

Water Pump Stations	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
DEBWTP - New 6 MGD pump	600,000	-	-	-	-	600,000
Water Booster Station Rehab	-	-	400,000	400,000	400,000	1,200,000
G.G. Hill PS	-	150,000	1,230,000	-	-	1,380,000
Bain PS Upgrade	-	-	-	-	100,000	100,000
EMJWTP PS1 Upgrade	-	-	-	-	100,000	100,000
Forestville PS Upgrade	-	-	-	-	50,000	50,000
EMJWTP VFD Installation	-	-	-	800,000	-	800,000
Total	**600,000**	**150,000**	**1,630,000**	**1,200,000**	**650,000**	**4,230,000**

EM Johnson Water Treatment Plant (EMJWTP) Expansion

This category includes the phased expansion of EMJWTP to a treatment capacity to 120 MGD. The plant expansion will include the addition of flocculation and sedimentation basins, improvements to the existing basins, installation of new rapid mix basins, as well as providing reliability and redundancy to the existing clearwell storage and installation of a 4th Ozone Generator and associated Destructor. Subsequent phases will incorporate new high rate filters, expanded power generation, improvements to the raw water transmission lines to the plant reservoirs, various chemical improvements, new ultraviolet radiation disinfection facility, and improved solids handling facilities. These estimates are based on a 2007 study, so budget has been requested in year one to revisit the assumptions and cost estimates included in the proposed CIP. The need for these facilities will be highly dependent upon the location and quantity of the City's next water resource.

EMJWTP Expansion	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
UV/Solids Handling	325,000	-	-	-	-	325,000
Power Generation Expansion	-	220,000	3,850,000	-	-	4,070,000
Flocc Sed Basin Improvements	-	-	2,000,000	-	36,400,000	38,400,000
EMJWTP Expansion Study	200,000	-	-	-	-	200,000
Total	**525,000**	**220,000**	**5,850,000**	**-**	**36,400,000**	**42,995,000**

Little River/Water Supply Development Projects

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. The Little River water shed is the last available water shed in Wake County that is economically feasible to develop as a reservoir. The City of Raleigh Water Supply plan identifies the Little River Reservoir as a long range source of new drinking water for the Greater Raleigh Utility Service Area. As other alternatives are explored and per capita consumption decreases, timing for the construction of the reservoir has been pushed out beyond the 10 year CIP planning window. Because of the jurisdictional issues, Wake County has managed all land acquisition, so this category includes an annual repayment of $500,000 to Wake County until the land acquisition costs are repaid. Some funds in this category could be reallocated dependent upon the direction of the City's next water supply, however the City is contractually obligated to repay the land acquisition to Wake County. This category also provides funding for the City to develop other economically and environmentally feasible sources for future water supply.

Little River Projects	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Wake County Reimbursement	500,000	500,000	500,000	500,000	500,000	2,500,000
Water Supply Development	-	500,000	500,000	500,000	500,000	2,000,000
Total	**500,000**	**1,000,000**	**1,000,000**	**1,000,000**	**1,000,000**	**4,500,000**

Water Tank Upgrades

This category provides for the rehabilitation and maintenance of the Elevated Water Tanks in the water distribution system which includes regularly scheduled washouts and regular maintenance due to the age of some of the tanks.

Water Tank Upgrades	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Elevated Water Tank Rehabilitation	-	900,000	900,000	900,000	900,000	3,600,000
Total	**-**	**900,000**	**900,000**	**900,000**	**900,000**	**3,600,000**

Water Treatment Plant Maintenance

This category funds the rehabilitation and replacement of major equipment and associated facilities at the EM Johnson and DE Benton Water Treatment Plants that have reached their service life are needed to improve or maintain operational efficiency.

Water Treatment Plant Maintenance	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Solids Handling Improvements	-	-	-	5,000,000	-	5,000,000
Bulk Storage Facilities	-	2,200,000	-	-	-	2,200,000
North South Basin Rehabilitation	-	2,400,000	-	-	-	2,400,000
Chemical Storage Tank Replacement	-	250,000	-	-	-	250,000
Facility/Equipment Rehabilitation	250,000	750,000	750,000	750,000	750,000	3,250,000
Clearwell Rehab	1,000,000	7,500,000	-	-	-	8,500,000
DEBWTP Raw Water Reservoir	-	1,000,000	34,000,000	-	-	35,000,000
3rd Floor Renovations	-	500,000	-	-	-	500,000
Sludge Conveyance	3,000,000	-	-	-	-	3,000,000
DEBWTP Lake Benson Boat Ramp	-	-	250,000	-	-	250,000
Falls Lake Intake Rehabilitation	-	500,000	-	-	-	500,000
DEBWTP Pulsator Covers	65,000	625,000	-	-	-	690,000
Total	**4,315,000**	**15,725,000**	**35,000,000**	**5,750,000**	**750,000**	**61,540,000**

Highlighted Projects

Project Name: DEBWTP Raw Water Reservoir $35,000,000 (10 year total)
This project provides for the construction of a 100 million gallon raw water reservoir on property adjacent to the DE Benton Water Treatment Plant. The reservoir will provide for five days additional raw water storage, and will create efficiencies in water treatment at the plant.

.

Miscellaneous Water and Wastewater Projects

This category includes other infrastructure, technology, and planning projects that support the public utility system generally.

Miscellaneous Water and Wastewater	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Service Area Growth-Sewer	-	-	200,000	200,000	200,000	600,000
Sanitary Sewer Siphon Rehabilitation	-	1,000,000	1,000,000	1,000,000	-	3,000,000
Utility Field Operation Facilities Improvements	-	500,000	500,000	500,000	500,000	2,000,000
Access to Sanitary Sewer Mains	-	200,000	200,000	200,000	200,000	800,000
Wendell Lake Glad Rd. Demolition	250,000	-	-	-	-	250,000
Sewer System Capacity	200,000	200,000	250,000	250,000	250,000	1,150,000
Walnut Creek Debris Drying Pads	500,000	-	-	-	-	500,000
Water Distribution WQ Program, Study, Eval, & Design	100,000	100,000	100,000	100,000	100,000	500,000
Odor/Corrosion Control Pilot	100,000	-	-	-	-	100,000
Total	**1,150,000**	**2,000,000**	**2,250,000**	**2,250,000**	**1,250,000**	**8,900,000**

Capital Equipment

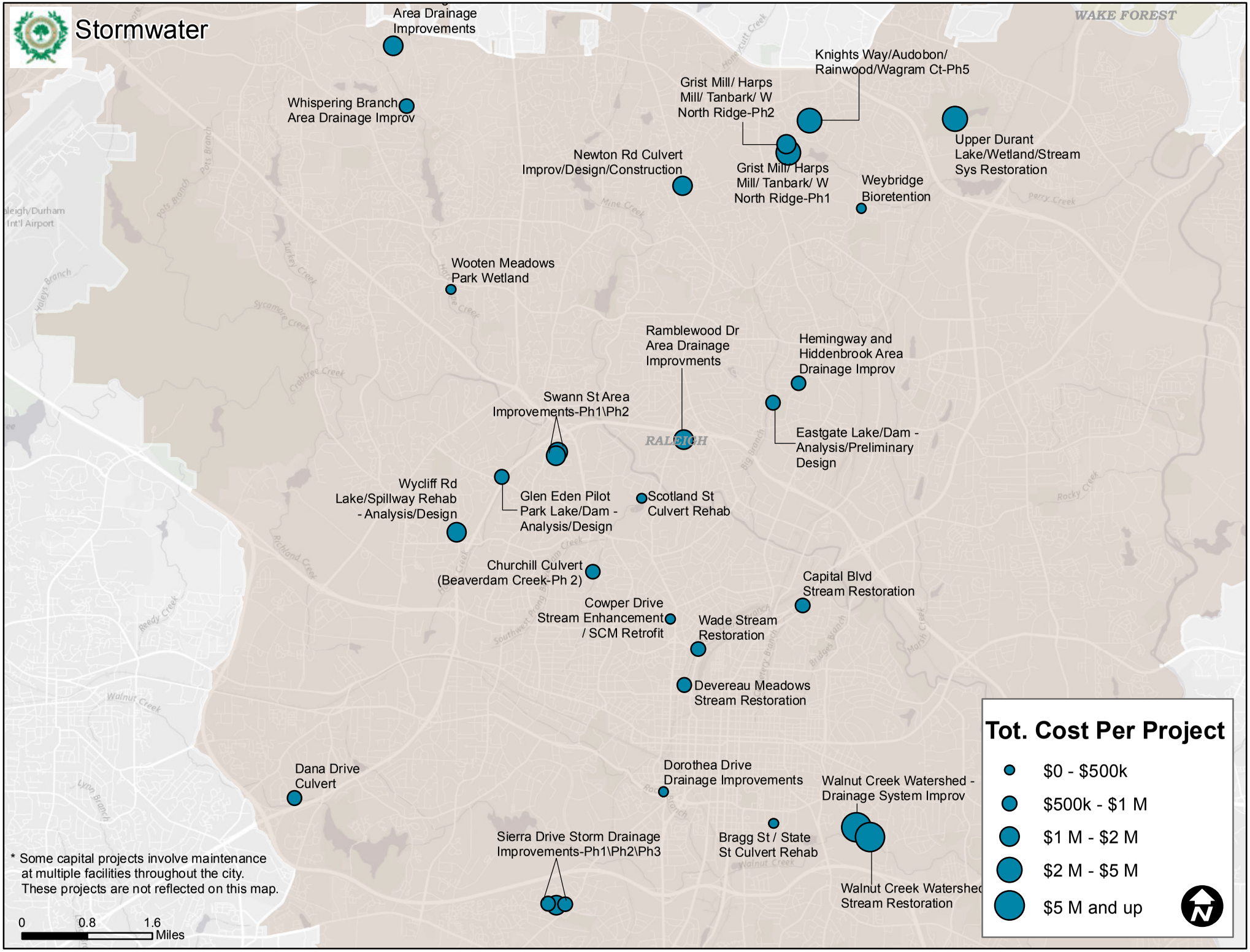
This category includes the hydrant replacement 10 year plan to update Raleigh to national thread hydrant standards and nozzles on all non-lead barrel hydrants. The project cost represents some City staff installed materials as well as some privately contracted work to perform the installations. This initiative will benefit the Fire Department by reducing response time and minimize operational costs. The Capital Equipment Rehabilitation and Replacement project provides funds to purchase operational related capital equipment needs. Meter replacement covers the replacement of AMR (Automatic Meter Reading) water meters that were installed in a system-wide initiative 10 years ago.

Capital Equipment	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Capital Equipment Rehabilitation/Replacement	650,000	650,000	650,000	650,000	650,000	3,250,000
Fire Hydrant Replacement	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
2-inch Meter Replacement	-	1,100,000	-	-	-	1,100,000
Meter Replacement	3,350,000	3,350,000	3,350,000	3,350,000	3,350,000	16,750,000
Total	**5,000,000**	**6,100,000**	**5,000,000**	**5,000,000**	**5,000,000**	**26,100,000**

Watershed Initiatives

The City's Watershed Protection ordinance took effect November 2011. The watershed initiatives are solely funded with watershed protection fees. Funds support watershed conservation and protection activities, such as funding the Conservation Trust of North Carolina to expand the land protection in the Falls Lake and Upper Neuse River watershed.

Watershed Initiatives	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Watershed Initiatives	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	11,250,000
Total	**2,250,000**	**2,250,000**	**2,250,000**	**2,250,000**	**2,250,000**	**11,250,000**


Stormwater
Area Drainage Improvements
Whispering Branch Area Drainage Improv
Knights Way/Audobon/ Rainwood/Wagram Ct-Ph5
Grist Mill/ Harps Mill/ Tanbark/ W North Ridge-Ph2
Upper Durant Lake/Wetland/Stream Sys Restoration
Newton Rd Culvert Improv/Design/Construction
Grist Mill/ Harps Mill/ Tanbark/ W North Ridge-Ph1
Weybridge Bioretention
Wooten Meadows Park Wetland
Ramblewood Dr Area Drainage Improvments
Hemingway and Hiddenbrook Area Drainage Improv
Swann St Area Improvements-Ph1\Ph2
Eastgate Lake/Dam - Analysis/Preliminary Design
Wycliff Rd Lake/Spillway Rehab - Analysis/Design
Glen Eden Pilot Park Lake/Dam - Analysis/Design
Scotland St Culvert Rehab
Churchill Culvert (Beaverdam Creek-Ph 2)
Capital Blvd Stream Restoration
Cowper Drive Stream Enhancement / SCM Retrofit
Wade Stream Restoration
Devereau Meadows Stream Restoration
Dana Drive Culvert
Dorothea Drive Drainage Improvements
Walnut Creek Watershed - Drainage System Improv
Bragg St / State St Culvert Rehab
Sierra Drive Storm Drainage Improvements-Ph1\Ph2\Ph3
Walnut Creek Watershed Stream Restoration
WAKE FOREST
RALEIGH
Tot. Cost Per Project
$0 - $500k
$500k - $1 M
$1 M - $2 M
$2 M - $5 M
$5 M and up
* Some capital projects involve maintenance at multiple facilities throughout the city. These projects are not reflected on this map.
0
0.8
1.6
Miles

Stormwater Management

Categories	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
General Drainage Infrastructure	2,350,000	2,200,000	2,450,000	2,450,000	3,000,000	12,450,000
General Water Quality	600,000	700,000	700,000	750,000	850,000	3,600,000
Lake Preservation	-	-	350,000	2,050,000	1,250,000	3,650,000
Neighborhood Drainage System Improvements	5,400,000	4,805,000	325,000	3,425,000	3,450,000	17,405,000
Stream Restoration	-	350,000	2,000,000	500,000	500,000	3,350,000
Street Drainage System Improvements	1,150,000	1,045,000	3,375,000	200,000	100,000	5,870,000
Water Quality Improvements	-	400,000	300,000	125,000	350,000	1,175,000
Total	**9,500,000**	**9,500,000**	**9,500,000**	**9,500,000**	**9,500,000**	**47,500,000**

Revenue Sources	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Transfer from Stormwater Operating	9,107,000	9,332,000	9,332,000	9,332,000	9,332,000	46,435,000
Interest On Investments	168,000	168,000	168,000	168,000	168,000	840,000
Appropriated Fund Balance	225,000	-	-	-	-	225,000
Total	**$9,500,000**	**$9,500,000**	**$9,500,000**	**$9,500,000**	**$9,500,000**	**$47,500,000**

Element Overview

The prioritized Stormwater Capital Improvement Program (CIP) budget for FY2018 through FY2022 totals $47,500,000. This generates substantial financial support for the program's service areas, which include lake preservation, water quality improvement, stream restoration, stormwater system repairs, drainage assistance, flood mitigation, watershed planning, neighborhood drainage improvements, and street drainage system improvements.

Recent Accomplishments

- During FY17, completed construction for six infrastructure projects totaling approximately $1.8 million in addition to beginning construction for two major projects (Lower Longview Lake Dam and Brockton Lake Dam) totaling more than $4 million. Several other major infrastructure projects, including Laurel Hills Road Lake Dam and Brentwood Today Stream Restoration, are anticipated to begin construction in early FY18. Engineering planning and design is in progress for more than nineteen infrastructure-related projects with total construction value in the range of $30 million.
- Continued efforts to acquire repetitive flood loss properties through the use of Federal Emergency Management Agency (FEMA) Hazard Mitigation Grants. The City acquired the flood-prone Capital Inn property at a total cost of $1,160,500. There was no capital program cost to the City for this project since it is fully funded by State and Federal grant money. The completed project will result in reduced property damage due to flooding and will help advance the City's long-term vision for restoring Pigeon House Branch along the Capital Boulevard gateway corridor.
- Completed construction of 15 high priority community Drainage Assistance projects valued at approximately $610,000. Construction is in progress for over 26 projects valued at $2.7 million. For FY17, the enhanced Drainage Assistance Program policy was adopted leading to notable improvements in project approach and delivery including the dedication of permanent public

drainage easements that protect the City's stormwater improvements and directly benefit the public.

- Made significant progress toward advancing the use of Green Infrastructure/Low Impact Development (GI/LID) measures for stormwater management within Raleigh. Completed the initial implementation phase of a comprehensive program and toolkit for GI/LID.
- Completed a successful pilot project between the City and Bloomberg What Works Cities framework to develop ten Key Performance Indicators (KPIs) and an initial Open Data for the Stormwater Management Program. KPIs include metrics to help measure Stormwater CIP delivery as well as valuable project results and outcomes.

Work Plan Highlights (FY18)

- Funding of $5.4 million for neighborhood-wide drainage system improvements.
- Continued funding level of $1.25 million for the Drainage Assistance Program. The program continues to expedite construction of drainage assistance and drainage repair projects through expanded in-house staffing resources along with new unit price/on-call construction agreements across multiple smaller-scale drainage repair categories, including minor CIP stormwater projects and right-of-way drainage system repairs.
- Funding of $1.15 million for street drainage system improvements.
- Continued funding totaling $500,000 for stormwater system repairs and $200,000 for flood hazard mitigation.
- Funding totaling $200,000 for the stormwater quality cost share program and $400,000 for water quality improvement projects.
- Funding of $400,000 for watershed master planning to help identify stormwater system improvements for flood reduction and improved water quality.

Operating Impacts

- With newly dedicated staff and resources proposed for FY18, Stormwater will begin development of a comprehensive Stormwater Asset Management Program (AMP). The AMP will enhance stormwater system inventory mapping information, prioritize infrastructure rehabilitation and replacement projects for the Stormwater CIP, offer improved assessment of the City's stormwater system, and serve as an integral management and tracking resource for Stormwater Control Measures (SCMs) and dams.
- Near-term operating impacts of maintenance for permanent stormwater easements are included within current and proposed operational budgets. In particular, during FY17 significant additional budgetary and staffing resources were approved to expand the City's in-house drainage maintenance and construction programs managed by Transportation Field Services.

Horizon Items

- Anticipate continued growth of water quality requirements over-time amplifying the need for retrofit projects to further protect and improve water quality. Policy updates related to GI/LID will better support retrofits on private property and within City right-of-way.
- Continue to prioritize drainage and stream system improvements on private property that convey public runoff.
- Continue to implement the Integrated Stormwater Project Prioritization Model for identifying and ranking stormwater capital improvement and drainage assistance projects.

Lake Preservation

Lake preservation projects focus on stormwater management retrofits and improvements to existing pond and lake facilities in strategic locations within local watersheds. These projects are designed to provide significant public stormwater management benefits, including flood control and water quality protection. Originally established in 1994, this CIP area was reviewed by the Stormwater Management Advisory Commission (SMAC) during FY17 for potential updates and enhancements. While program enhancements are pending, two projects are proposed for FY18 – FY22, including Upper Durant Lake/Wetland/Stream System Restoration and Wycliff Road Lake Rehabilitation/Preservation Analysis/Design. These projects are consistent with both the existing and revised lake preservation/management program. The Durant project also represents a multi-year, collaborative effort with the City's Parks, Recreation, and Cultural Resources Department.

Lake Preservation	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Upper Durant Lake,Wetland, Stream System Restoration	-	-	350,000	1,750,000	-	2,100,000
Wycliff Rd Lake, Spillway Rehab	-	-	-	300,000	1,250,000	1,550,000
Total	**-**	**-**	**350,000**	**2,050,000**	**1,250,000**	**3,650,000**

Highlighted Projects

Upper Durant Lake/Wetland/Stream Restoration: $2,100,000

This project will evaluate alternatives for the best long-term use of the current footprint of Upper Durant Lake within the City's Durant Nature Preserve. This project's purpose is to provide a structured, objective-based process to offer significant improvement to the lake's water quality and the Preserve's landscape. The lake's condition will be evaluated and will guide the City in selecting the optimal alternative for protecting and improving water quality within the Perry Creek Watershed; controlling flood flows from the lake; and enhancing opportunities for self-guided nature interpretation and natural resource-based education compatible with protecting and enhancing the Preserve.

Wycliff Road Lake Rehab/Preservation: $1,550,000

This project will rehabilitate the spillway and dam at Wycliff Road Pond. The spillway and outlet structure is undersized, contributing to downstream flooding of Wycliff Road and Lake Boone Shopping Center as well as flooding of apartments around the pond. Improvements will allow the dam and spillway to meet North Carolina Dam Safety standards along with City stormwater management goals, including flood control and water quality protection. This project was identified in the City of Raleigh's House Creek Drainage Basin Study and is also on the City's Lake Preservation list. The facility is privately owned, but the overtopping affects Wycliff Road, which is a City street.

General Water Quality and Water Quality Improvement Projects

Water quality improvement projects include fully funded city stormwater quality projects as well as cost share projects for private property owners.

General Water Quality	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
TMDL Streams Water Quality Projects	200,000	300,000	300,000	300,000	300,000	1,400,000
Water Quality Retrofit Projects	200,000	200,000	200,000	200,000	300,000	1,100,000
Water Quality Cost Share	200,000	200,000	200,000	250,000	250,000	1,100,000
Total	**600,000**	**700,000**	**700,000**	**750,000**	**850,000**	**3,600,000**

Highlighted Projects

Stormwater Quality Cost Share: $1,100,000

These projects provide financial assistance to Raleigh property owners to help pay for installing devices that improve and treat stormwater runoff from their properties, which also benefits local receiving waters. Examples of cost-share projects include bioretention beds, rainwater harvesting systems, stream and buffer restoration, green roofs, infiltration devices, cisterns, and pervious pavers and pavement.

Funded cost share projects may not contribute to a property owners' required compliance with City or State stormwater management ordinances or regulations.

Higher priority is given to projects that drain to streams designated by the Environmental Protection Agency (EPA) as Total Maximum Daily Load (TMDL) or as impaired, that have high benefit-to-cost for pollutant removal, and that are in areas designated as Priority Water Quality Target Areas.

Pictured above is a rainwater harvesting cistern implemented through the Stormwater Quality Cost Share Program.

TMDL Streams Water Quality Projects: $1,400,000

These projects include installation of devices that protect and improve the quality of stormwater runoff that flows into streams that have been designated as impaired.

Many of the water quality devices help reduce both runoff pollutants and volume. Devices include bioretention, constructed wetlands, stormwater detention ponds, vegetated stream buffers, and pervious pavers and pavements.

Pictured to the right is a stormwater wetland at Fred Fletcher Park, in the basin of Pigeon House Branch, a TMDL-designated watershed.

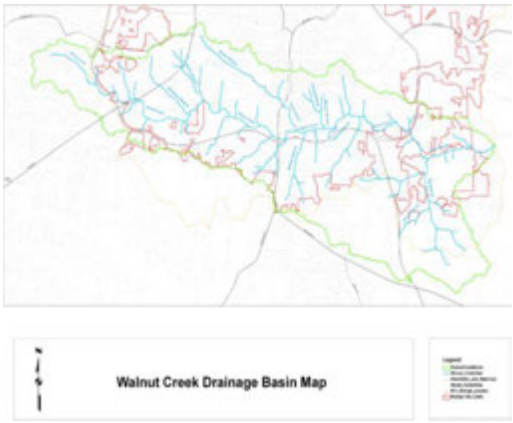
Stream Restoration

Stream restoration projects are designed to stabilize and restore streams to protect stream corridors and adjacent land from erosion as well as improve surface water quality within priority watersheds in Raleigh.

Stream Restoration	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Wade Stream Restoration	-	-	150,000	500,000	-	650,000
Walnut Creek Watershed - Stream Restoration	-	350,000	1,000,000	-	350,000	1,700,000
Devereau Meadows Stream Restoration	-	-	850,000	-	-	850,000
Capital Blvd Stream Restoration	-	-	-	-	150,000	150,000
Total	**-**	**350,000**	**2,000,000**	**500,000**	**500,000**	**3,350,000**

Highlighted Projects

Walnut Creek Watershed-Stream Restoration (Priority Projects): $1,700,000



The Walnut Creek Watershed Stormwater Master Planning Study was completed in 2014. The primary goal of the study was to address existing flooding and erosion problems; further develop available floodplain mapping within the watershed; update information for previously recommended water quality Best Management Practices (BMPs); and provide stormwater master planning for key locations currently experiencing flooding. The study recommends more than 100 potential stormwater retrofit projects to address street and structural flooding and improve water quality. This project will represent a multi-year effort to move forward with prioritizing and designing the highest priority stream stabilization and restoration improvement areas identified in the master plan.

General Drainage Infrastructure

General Drainage Infrastructure	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Watershed Planning / Program Planning	400,000	250,000	250,000	250,000	250,000	1,400,000
Stormwater System Repairs	500,000	500,000	500,000	500,000	500,000	2,500,000
Drainage Assistance (Petition) Projects	1,250,000	1,250,000	1,500,000	1,500,000	2,000,000	7,500,000
Flood Mitigation Projects	200,000	200,000	200,000	200,000	250,000	1,050,000
Total	**2,350,000**	**2,200,000**	**2,450,000**	**2,450,000**	**3,000,000**	**12,450,000**

Stormwater System Repairs: $2,500,000

System repair projects focus primarily on unplanned, emergency maintenance repairs of existing public stormwater infrastructure. Most of the repair projects are for drainage systems within and/or affecting the public right-of-way. Since most repairs are unplanned, these projects typically exceed resource/staffing capabilities to maintain or repair the stormwater infrastructure. A strategic goal is to develop and maintain funding for this project category to a level of approximately 10 percent of the annual Stormwater Management Program revenue to provide a contingency for emergency infrastructure needs.

This category includes culvert and stormwater system repairs such as Blenheim Drive (pictured at right), where a large tree situated above the culvert fell causing five sections of 54-inch pipe to become separated. Severe erosion occurred along the fill slope above the culvert that threatened the sidewalk and roadway.

Drainage Assistance Program: $7,500,000

This CIP category includes prioritized stormwater improvement projects that are focused on mitigating and solving drainage problems on private property that are associated with public runoff. Projects must include a public contribution of stormwater (i.e., runoff from a public street, right-of-way, or City-owned property) and involve qualifying problems, such as severe erosion (sinkholes from pipe failures or streambank erosion impacting a house or structure) and/or structural flooding due to undersized or failed drainage infrastructure. Most projects involve upgrades to stormwater infrastructure on private property, but may also include improvements within or outside of the right-of-way when necessary. Examples of projects recently completed or in the construction queue include replacement of failing, aging, or undersized pipes; replacement or repair of failing catch basins and/or yard inlets; upgrade and improvement to poorly defined neighborhood drainage collection systems; and stabilization of urban streambanks and open channels. Pictured to the right is the recently completed drainage assistance project at Pegasi Way.

Project costs typically vary between $5,000 and $250,000, and can involve one to ten (or more) property owners. The City has retrofit and repaired several thousand linear feet of stormwater pipe and open channel since the start of the program. These ongoing, expanded, and more systematic efforts contribute to improved quality of life and continued protection for the community.

Flood Mitigation Projects: $1,050,000

Flood mitigation projects provide matching funds for FEMA's hazard mitigation grant program to acquire repetitive flood loss properties in order to help reduce major flood hazards. City staff manages and maintains a priority list of properties that experience repetitive losses during large flooding events. The City then applies for grants to acquire those highly flood prone properties.

Watershed Planning Projects: $1,400,000

Watershed master planning projects are important to help identify and classify stormwater management needs and improvements citywide. Watershed-based planning ensures that system enhancements provide maximum benefit for the public by modeling and projecting improvements at critical locations. Many of the City's major stormwater capital improvement projects are based upon watershed studies or drainage basin studies and plans.

Neighborhood Drainage

Neighborhood drainage improvement projects include storm drainage system enhancements to mitigate or reduce flooding of private property and reduce flooding to public roads and buildings, while also protecting water quality. These projects are normally associated with drainage systems serving and affecting City streets within residential neighborhood areas.

Neighborhood Drainage System	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Grist Mill/Harps Mill/Tanbark Drainage/W. North Ridge (Phase 1 & 2)	200,000	2,300,000	-	1,600,000	-	4,100,000
Sierra Drive Storm Drainage Improvements (Phase 1)	1,000,000	-	-	-	-	1,000,000
Knights Way/Audobon/Rainwood/Wagram Ct (Phase 5)	2,500,000	-	-	-	-	2,500,000
Swann St Area Improvements (Phase 1 & 2)	1,700,000	-	-	200,000	1,000,000	2,900,000
Churchill Culvert (Beaverdam Creek Phase 2)	-	680,000	-	-	-	680,000
Walnut Creek Watershed-Drainage Improvements	-	-	250,000	-	1,500,000	1,750,000
Future Neighborhood Drainage System Projects	-	-	75,000	475,000	325,000	875,000
Ramblewood Dr Drainage Improvements	-	1,600,00	-	-	-	1,600,000
Braceridge Area Drainage Improvements	-	225,000	-	1,000,000	-	1,225,000
Hemingway and Hiddenbrook Area Drainage Improvements	-	-	-	150,000	625,000	775,000
Total	**5,400,000**	**4,805,000**	**325,000**	**3,425,000**	**3,450,000**	**17,405,000**

Highlighted Projects

Swann Street Area Improvement (Phase I & II): $2,900,000

This area experiences street and private property flooding with water overflowing the creekbank and Swann Street during larger storm events (pictured to the right). Drainageways near homes on this street are also undersized causing private property and street right-of-way to experience periodic flooding. Therefore, the goal of the project is to upgrade the undersized storm drainage system serving Swann Street and other areas of the local drainage basin that are currently contributing to street and structural flooding.

Knights Way/Audobon/Rainwood/Wagram Court (North Ridge Area Phase 5): $2,500,000

The Knights Way/Audobon/Rainwood/Wagram Court area encompasses continued implementation of major drainage system improvements within the North Ridge residential area. Drainage and stream system improvements were identified during an earlier master plan study of the greater North Ridge basin area. This project will continue to retrofit the drainage system to alleviate street and structural flooding concerns while also seeking to protect water quality.

Street Drainage System Improvements

Similar to neighborhood drainage improvements, street drainage improvements include projects mainly designed to alleviate flooding of public streets as well as replace or rehabilitate aging or failing public drainage infrastructure.

Street Drainage System Improvement	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Scotland St Culvert Rehabilitation	500,000	-	-	-	-	500,000
Newton Rd Culvert Improvement Design & Construction	-	250,000	1,575,000	-	-	1,825,000
Various Street Drainage System Improvement Projects	-	145,000	400,000	200,000	100,000	845,000
Bragg St / State Ct Culvert Rehabiltiation	-	500,000	-	-	-	500,000
Whispering Branch Area Drainage Improvements	150,000	-	750,000	-	-	900,000
Dorothea Drive Drainage Improvements	500,000	-	-	-	-	500,000
Dana Drive Culvert Replacement	-	150,000	650,000	-	-	800,000
Total	**1,150,000**	**1,045,000**	**3,375,000**	**200,000**	**100,000**	**5,870,000**

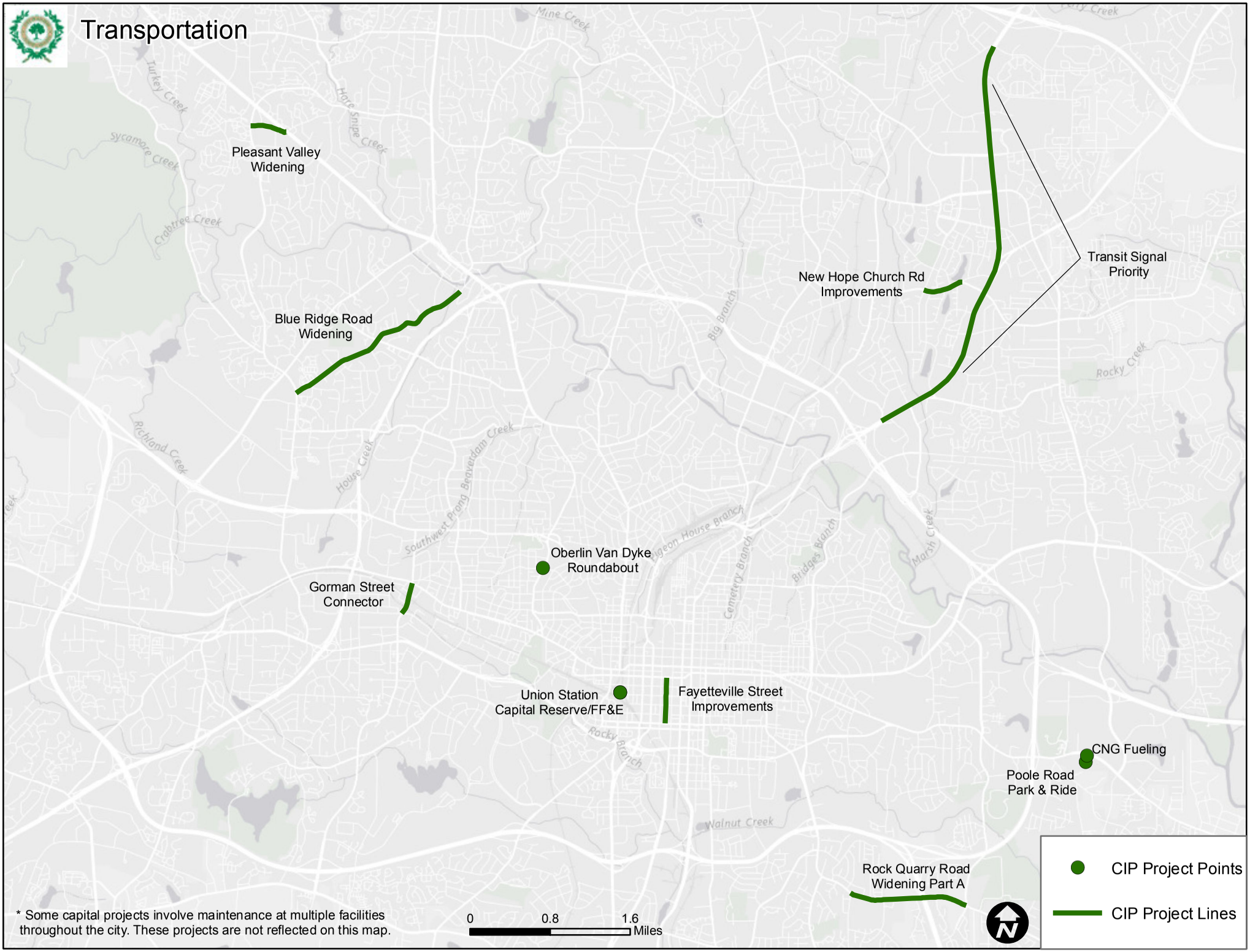
Highlighted Projects

Newton Road Culvert Improvement Design & Construction: $1,825,000

This project will consist of replacing two undersized culverts under Newton Road. Preliminary studies recommend the replacement of the two existing 72-inch pipes with two-10 ft. by 8 ft. box culverts. In addition, the slope along the culvert and right-of-way embankment is eroding at this location.

This project was reprioritized in order to accelerate the design and construction for the undersized culvert and to protect the sidewalk and roadway embankment at the Newton Road roadway section. City Maintenance staff has made interim repairs to the project area.

Transportation



* Some capital projects involve maintenance at multiple facilities throughout the city. These projects are not reflected on this map.

Transportation

Categories	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Bicycle and Pedestrian Improvements	2,002,000	845,000	770,000	995,000	1,025,000	5,637,000
Major Street Projects	5,588,000	3,000,000	2,500,000	2,500,000	2,500,000	16,088,000
Parking	1,170,000	1,290,000	1,290,000	1,290,000	1,290,000	6,330,000
Street Improvement Program	9,015,000	9,395,000	9,729,000	10,020,000	10,319,000	48,478,000
Studies and Planning Projects	125,000	100,000	175,000	150,000	175,000	725,000
Transit	12,793,000	2,785,000	1,780,000	1,628,000	1,623,000	20,609,000
Wake Transit Plan	7,140,000	4,250,000	4,000,000	4,000,000	4,000,000	23,390,000
Total	**37,833,000**	**21,665,000**	**20,244,000**	**20,583,000**	**20,932,000**	**121,257,000**

Revenue Sources	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Federal Grants	10,186,000	1,225,000	-	-	-	11,411,000
State Match	224,000	-	-	-	-	224,000
Municipal Grants/Agreements	1,438,000	-	-	-	-	1,438,000
Bond Proceeds	1,474,000	-	-	-	-	1,474,000
Interest On Investments	200,000	200,000	200,000	200,000	200,000	1,000,000
Permit Fees	850,000	850,000	850,000	850,000	850,000	4,250,000
Wake Transit Fund Revenue	7,140,000	4,250,000	4,000,000	4,000,000	4,000,000	23,390,000
Transfer from General Fund	11,651,000	10,850,000	11,404,000	11,743,000	12,092,000	57,740,000
Transfer From Parking Operations	1,170,000	1,290,000	1,290,000	1,290,000	1,290,000	6,330,000
Street Facility Fees	3,500,000	3,000,000	2,500,000	2,500,000	2,500,000	14,000,000
Total	**$37,833,000**	**$21,665,000**	**$20,244,000**	**$20,583,000**	**$20,932,000**	**$121,257,000**

Element Overview

The transportation element includes major street construction, street improvements, pedestrian and bicycle projects, downtown parking improvements and general transit projects. Total funding for the five-year program is $121.3 million with $37.8 million planned for FY2018. All capital projects are consistent with the adopted goals of the 2030 Comprehensive Plan and incorporate ―Complete Streets" principles, integrating bicycle, pedestrian, and transit system elements into each project.

The CIP includes $2.8 million awarded to the City through the Capital Area Metropolitan Planning Organization's (CAMPO) Locally Administered Project Program (LAPP). The program distributes federal transportation funding directly to local governments through a competitive process annually. The CIP also includes Wake Transit Plan revenues for capital allocations to GoRaleigh.

The CIP invests $16.1 million in major street projects and $48.5 million of street improvements. From all sources—city, the Wake Transit Plan, and LAPP—the CIP invests $44 million in the city's transit system, including facility maintenance and equipment replacement. The bicycle and pedestrian program includes $5.6 million for sidewalk construction, maintenance, repair, streetlight installations, and bicycle facility improvements. Lastly, the CIP includes $6.3 million for maintenance and improvements at downtown parking decks.

To continue the city's transit improvements, staff is coordinating with regional partners to implement the Wake Transit Plan. The FY 2018 Recommended Wake Transit Work Plan balances the careful use of tax payer dollars with thoughtful investment in transit, particularly short-term pressing needs, such as increasing weekend and evening service and smaller capital projects such as ADA improvements and improved bus stops. The Plan also allocates funds towards studies and planning to allow for strategic investment based on sound guidance and data for deployment of new routes and peak service increases, and major capital project investments like the planned Commuter Rail and Bus Rapid Transit projects. For

FY2018, the City of Raleigh has programmed $7.1M in capital projects supported by revenue from the Wake Transit Plan. These projects include the Poole Road Park and Ride Facility, a new Compressed Natural Gas (CNG) Refueling Station, a total of eight new expansion buses, and various bus shelters and stop improvements.

Recent Accomplishments

The City has completed several major transportation projects including:

- Lenoir and South Street Two-way Conversion;
- Glascock Street traffic calming project;
- Pedestrian retrofits on I-40 overpasses at Buck Jones Road and Avent Ferry Road; and
- Sidewalk on Capital Boulevard from Spring Forest Road to Old Wake Forest Road, Chapanoke Road between Ileagnes Road and Wilmington Street, Clark Avenue between Woodburn Road and Bellwood Drive, and New Hope Church Road between Wake Forest Road and Atlantic Avenue.

Work Plan Highlights

- The CIP continues increased cash funding for street resurfacing supported by a one cent property tax increase approved in FY2015. The revenue is transferred to the CIP for additional resurfacing contracts and brings the total resurfacing budget in FY2018 to $7.6 million and the five year total to $40.6 million. The funding enables the City to resurface approximately 3% of its streets annually, compared to 1% prior to the allocated funding source.
- Continued implementation of projects from the 2013 Transportation Bond with construction funding for New Hope Church Road and Pleasant Valley Road.
- Construction of corridor sidewalks using an addition of $902,000 to complete projects designed with previous capital allocations.
- Continued support of the sidewalk petition program with an additional $200,000 to complete successful petitions and support future petitions.

Operating Impacts

- Operating requirements and costs for Union Station total to about $660,000 for FY18, but facility revenues result in a net cost of $480,000. This amount represents partial-year costs for required positions and operating needs to efficiently maintain the facility in FY18. These operating costs will be partially supported by revenue anticipated from leased space and event facility income.
- Staff are currently working to facilitate the design and implementation of the bike share system. In FY18 a full-time Bike Share Coordinator position is funded for $65,000. A total of $220,000 in operating costs is funded to support approximately one-third of the annual operating costs. The program is also dependent on user fees and sponsorships to cover the remaining two-thirds of direct operating costs.

Horizon Items

- Facility fee revenue generated by development activity will be used to supplement bond funding for major street projects. In future years this funding is reserved to match future bond revenues or other funding sources. City staff will continue monitoring legislative changes that would adversely affect this revenue stream.
- Despite new revenues allocated in FY15, additional funding may be needed for street resurfacing. Staff estimates that roughly $12 million per year is needed to meet the city's resurfacing and road quality goals. These goals include resurfacing all city roads every 20 years, which requires the city to maintain a pace of roughly 5% of road miles resurfaced per year. The budget maintains $7.6 million in funding for FY18.

- The city has made a significant commitment to repair of sidewalks in recent years. Trip hazards abatement has been an important part of that effort. In future years, the focus will necessarily shift to replacement of damaged sidewalk panels. There is an estimated replacement backlog of nearly 3 million square feet of sidewalk in need of repair city-wide. The CIP budget meets approximately 20% of that need.
- There is growing concern that bridge repair and maintenance will require significantly more resources in future years, as non-critical maintenance has often been deferred and bridges age. City staff will continue to monitor and evaluate these needs.
- Transportation staff will continue to work with regional partners to implement the Wake Transit Plan. This coordination process includes serving on the Transit Planning Advisory Committee (TPAC), a team charged with planning and implementing the adopted Wake Transit Plan. TPAC is comprised of members from all of Wake County's municipalities, plus GoTriangle, the Capital Area Metropolitan Planning Organization (CAMPO), Wake County, North Carolina State University (NCSU) and Research Triangle Park (RTP). Per the governance agreement, the TPAC is charged with producing a recommended annual Wake Transit Work Plan, comprised of annual operating and capital budgets, an update of the financial model and assumptions guiding the Transit Plan, multi-year operating and capital programs guiding future work plans, and annual operating and capital agreements.
- The Transportation Department, along with assistance from several other impacted departments, is currently working through scoping and costing of a 2017 Transportation Bond package. Once approved by Council, this bond referendum will take place in October of 2017 and any related tax impact will begin in FY2019. Proposed projects include major corridor/small area plan implementing projects, neighborhood corridor/small area plan implementation projects, corridor and neighborhood sidewalk improvements, transit supportive projects (sidewalks, shelters, etc.) that directly support the larger Wake Transit Plan, traffic management and traffic calming projects, and funding for public-private partnership cost sharing opportunities. The proposed bond package also includes an operating impact component for additional staff resources to help with timely bond project implementation and additional operations/maintenance costs, such as traffic engineering, sidewalks, mowing, urban forestry and resurfacing needs, to maintain the expanded system after project completion.

Major Street Projects

The Major Street Projects category funds road widening and other significant improvements in the City's street network. The primary source of funds for these projects is bond funding, with a smaller percentage coming from transportation impact fees and revenue from agreements with NCDOT. Raleigh citizens approved bonds in 2013 to fund these projects.

Major Street Projects	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Blue Ridge Road Widening	400,000	-	-	-	-	400,000
New Hope Church Road Improvements	800,000	-	-	-	-	800,000
Pleasant Valley Widening	1,450,000	-	-	-	-	1,450,000
Rock Quarry Road Widening - Part A	1,500,000	-	-	-	-	1,500,000
Facility Fee Reserve	-	3,000,000	2,500,000	2,500,000	2,500,000	10,500,000
NCDOT Project Participations	1,438,000	-	-	-	-	1,438,000
Total	**5,588,000**	**3,000,000**	**2,500,000**	**2,500,000**	**2,500,000**	**16,088,000**

Highlighted Projects

New Hope Church Road Improvements: $800,000
(Project Total - $5,411,000)

This project will widen New Hope Church Road from Green Road to Deana Lane. The improved street will feature a three-lane curb and gutter section with bike lanes, sidewalks, landscaping, street trees, and streetlights. The project will require extension of a culvert just west of Deana Lane and provide a significant pedestrian connection from the neighborhood to nearby retail uses. Design began in 2015 and the FY18 budget funds construction.

Pleasant Valley Road Widening: $1,450,000
(Project Total - $4,293,000)

This project will widen and rehabilitate Pleasant Valley Road between Duraleigh Road and Glenwood Avenue. The improved street will feature a three-lane curb and gutter section with bike lanes, sidewalks, landscaping, street trees, and streetlights. Project design began in 2015 and the FY18 budget funds construction.

Blue Ridge Road Widening: $400,000
(Project Total - $1,650,000)

This project will widen a segment from Duraleigh Road to Crabtree Valley Avenue to three lanes with curb and gutter, sidewalks, and bicycle lanes on both sides. Current funding supports design and right-of-way efforts for the project, with construction funding required in later years.

Street Improvement Program

This category addresses ongoing maintenance and other improvements to city streets. The city's street network is maintained through ongoing street resurfacing, paving petitions, intersection improvements, and neighborhood traffic management projects. This category also includes streetscape improvements and planned Right-of-Way/Easements.

Street Improvement Program	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Right-of-Way/Easements	-	50,000	150,000	150,000	150,000	500,000
Bridge Repair & Maintenance	300,000	300,000	300,000	300,000	300,000	1,500,000
Street Resurfacing	7,640,000	7,870,000	8,104,000	8,345,000	8,600,000	40,559,000
Street Improvements & Paving Petitions	400,000	500,000	500,000	500,000	500,000	2,400,000
Traffic Signal Installations	200,000	200,000	200,000	250,000	294,000	1,144,000
Intersection Improvements	450,000	450,000	450,000	450,000	450,000	2,250,000
Highway Landscaping	25,000	25,000	25,000	25,000	25,000	125,000
Total	**9,015,000**	**9,395,000**	**9,729,000**	**10,020,000**	**10,319,000**	**48,478,000**

Highlighted Projects

Street Resurfacing: $40,559,000

This project funds ongoing resurfacing and repair of the city's 2,500 lane miles. The city's goal is to maintain high quality roads that provide citizens smooth vehicle rides and have minimal cracking. Capital funds will pay for contracted crews to resurface and repair streets throughout the city. To prioritize streets, staff uses a scoring system that evaluates the asphalt's structural integrity, cracking, and ride quality.

Street Improvements Program: $2,400,000

This program funds the city's resident-petitioned paving and street improvement program. These minor street improvements are for mostly residential or neighborhood streets not covered in the Thoroughfare Plan. Property owners are assessed fees for some portions of the project costs. FY18 funding will support projects on Lorimer Road, Fox Road, Churchill Road, and Breeze Road.

Bicycle and Pedestrian Improvements

These categories fund the maintenance and expansion of the city's pedestrian and bicycle networks. Annual programs include sidewalk construction and repairs, installation of curb ramps and pedestrian signals, bicycle facilities and markings, and street light installations. In most years, this category programs matching funds for projects awarded to the City through the Capital Area MPO's LAPP process.

Bicycle and Pedestrian Improvements	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Bicycle Lane Marking and Signage	50,000	75,000	100,000	100,000	100,000	425,000
ADA Curb Ramps	175,000	150,000	150,000	150,000	175,000	800,000
Bicycle Facilities/Parking and Stations	15,000	20,000	20,000	20,000	25,000	100,000
Sidewalk Repairs	400,000	300,000	200,000	400,000	200,000	1,500,000
Thoroughfare Streetlight Installation	-	200,000	200,000	200,000	400,000	1,000,000
Pedestrian Intersection Safety Projects	-	75,000	75,000	100,000	100,000	350,000
Sidewalk Improvements	902,000	-	-	-	-	902,000
Sidewalk Improvements – Petitions	200,000	-	-	-	-	200,000
Gorman Street Connector	260,000	-	-	-	-	260,000
Bike/Ped Count Program	-	25,000	25,000	25,000	25,000	100,000
Total	**2,002,000**	**845,000**	**770,000**	**995,000**	**1,025,000**	**5,637,000**

Highlighted Projects

Sidewalk Improvements: $902,000

This program funds construction of priority sidewalks along major corridors. Recently completed sidewalks include those along Capital Boulevard and Clark Avenue. This funding will allow for the construction of a handful of sidewalk projects that were designed with prior year allocations.

Sidewalk Improvements - Petitions: $200,000

This program funds sidewalk construction on neighborhood streets, where property owners petition the city to complete sidewalks. There are currently 15 petition sidewalk projects in design. This allocation will support their construction.

Transit and Wake Transit Plan Projects

These categories fund the maintenance and expansion of the GoRaleigh fixed-route and GoRaleigh Access paratransit services. Due to the 2016 Wake Transit Plan Referendum, there is now a category for Wake Transit Plan Projects that are administered by the City of Raleigh. The revenues for this category are GoRaleigh's allocation of Wake Transit funds as recommended by the Transit Planning Advisory Committee (TPAC) and adopted by CAMPO and GoTriangle boards.

Transit	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Federal Transit Capital	8,957,000	-	-	-	-	8,957,000
Equipment and Facility Maintenance	-	1,480,000	1,700,000	1,548,000	1,543,000	6,271,000
ADA Paratransit Facility Renovation	96,000	-	-	-	-	96,000
Union Station FF&E	500,000	-	-	-	-	500,000
Union Station Capital Reserve	80,000	80,000	80,000	80,000	80,000	400,000
Union Station Upfit Costs	400,000					400,000
Reserve for Competitive Grants	-	225,000	-	-	-	225,000
Transit Signal Priority	-	1,000,000	-	-	-	1,000,000
CNG Refueling Station	2,760,000	-	-	-	-	2,760,000
Total	**12,793,000**	**2,785,000**	**1,780,000**	**1,628,000**	**1,623,000**	**20,609,000**

Wake Transit Plan	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Poole Road Park and Ride Facility	1,140,000	-	-	-	-	1,140,000
Bus Shelters and Stop Improvements	500,000	-	-	-	-	500,000
CNG Refueling Station	1,500,000	-	-	-	-	1,500,000
Expansion Vehicles	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	20,000,000
Transit Signal Priority	-	250,000	-	-	-	250,000
Total	**7,140,000**	**4,250,000**	**4,000,000**	**4,000,000**	**4,000,000**	**23,390,000**

Highlighted Projects

Transit Signal Priority: $1,250,000

This project will develop a transit signal priority system for the Capital Boulevard corridor to reduce bus travel times. The project has been awarded a $1 million grant through the CAMPO LAPP program, and requires a match funded by the Wake Transit Plan in FY19.

Compressed Natural Gas (CNG) Fueling Station: $4,260,000

This project will upgrade the existing Poole Road Operations facility with maintenance facility retrofits and a new fueling station to accommodate future Compressed Natural Gas transit fleet requirements. This project is funded through the CAMPO LAPP program, and requires a match funded by the Wake Transit Plan in FY18.

Poole Road Park and Ride: $1,140,000

This project will establish a park-and-ride facility for GoRaleigh that includes 130 parking spaces. This facility will be located across from the GoRaleigh Operations and Maintenance Facility on Poole Road.

Expansion Vehicles: $4,000,000

This project will fund the procurement of eight expansion fixed-route transit vehicles in FY18 to accommodate network expansion as part of the Wake Transit Plan.

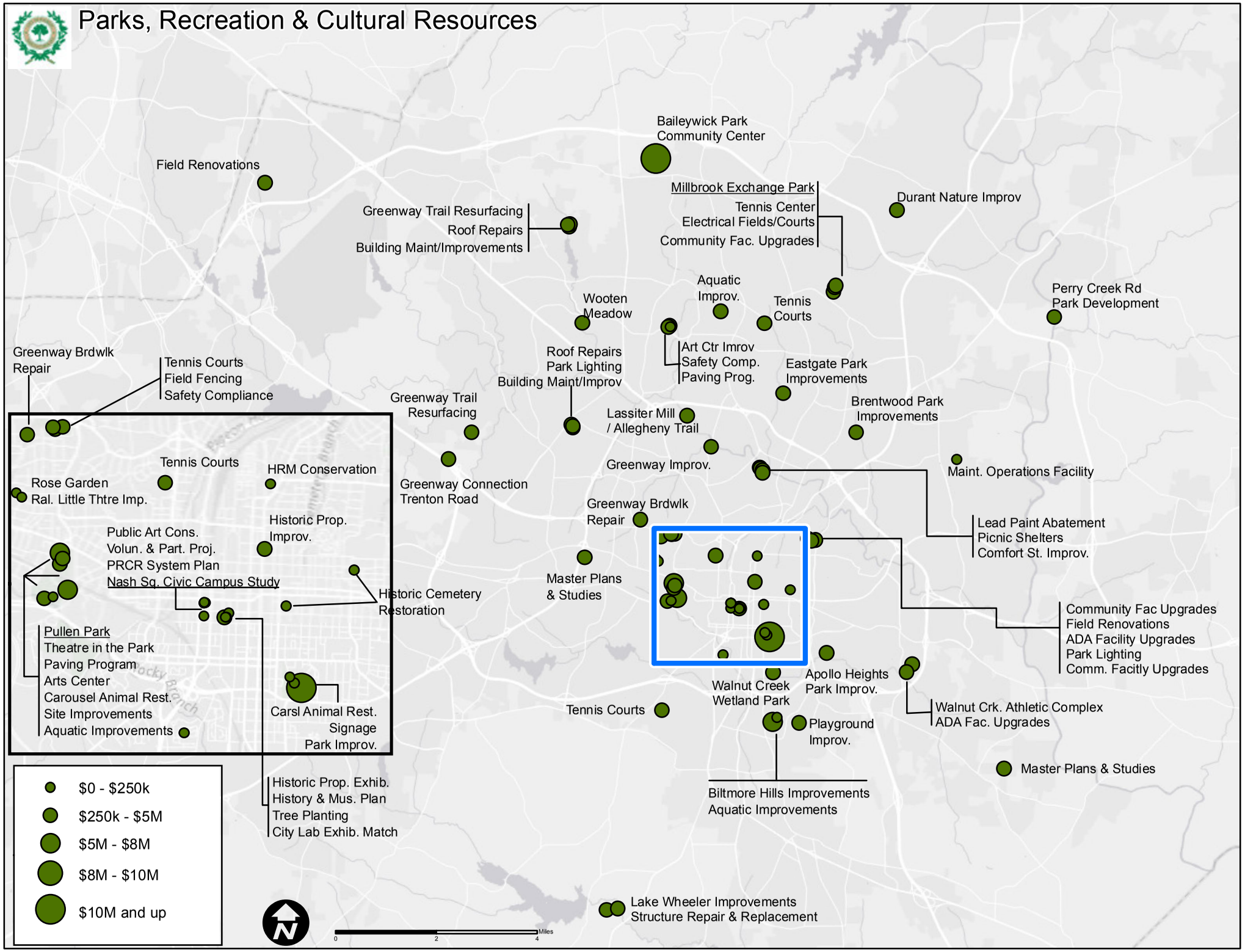
Studies and Planning Projects

This category includes corridor studies, feasibility studies, design, preliminary engineering and resources for wetland mitigation and delineation. Studies provide recommended improvements, policy directives and design strategies. Funding supports initiatives such as corridor documentation and other special studies as directed.

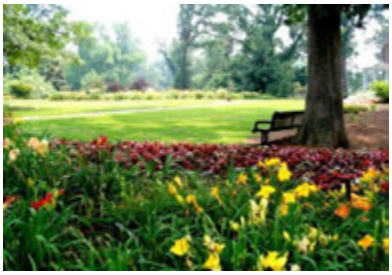
Studies and Planning Projects	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Advanced Planning Feasibility Studies	100,000	100,000	150,000	150,000	150,000	650,000
Wetland Mitigation	25,000	-	25,000	-	25,000	75,000
Total	**125,000**	**100,000**	**175,000**	**150,000**	**175,000**	**725,000**

Parking	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Parking Deck LED Lighting	350,000	785,000	460,000	310,000	300,000	2,205,000
Parking Deck Security	165,000	165,000	165,000	165,000	165,000	825,000
Parking Deck Improvements	615,000	300,000	625,000	775,000	785,000	3,100,000
Parking Deck Assessment & Repairs	40,000	40,000	40,000	40,000	40,000	200,000
Total	**1,170,000**	**1,290,000**	**1,290,000**	**1,290,000**	**1,290,000**	**6,330,000**

Parks, Recreation & Cultural Resources



Parks, Recreation and Cultural Resources



Categories	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
2014 Bond Projects	29,525,000	7,500,000	18,225,000	-	-	55,250,000
Cultural Resources	110,000	300,000	750,000	235,000	330,000	1,725,000
Facility Improvements	2,960,000	2,435,000	2,430,000	2,845,000	2,900,000	13,570,000
Greenway System	300,000	300,000	300,000	300,000	300,000	1,500,000
Land Acquisition	125,000	100,000	125,000	125,000	125,000	600,000
Plans, Studies & Development	1,500,000	845,000	325,000	220,000	705,000	3,595,000
Site Improvements	2,516,000	1,495,000	1,595,000	1,850,000	1,215,000	8,671,000
Total	**$37,036,000**	**$12,975,000**	**$23,750,000**	**$5,575,000**	**$5,575,000**	**$84,911,000**

Revenue Sources	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Bond Proceeds	28,525,000	7,500,000	18,225,000	-	-	54,250,000
Interest On Investments	50,000	50,000	50,000	50,000	50,000	250,000
Fee in lieu -Street Trees	50,000	50,000	50,000	50,000	50,000	250,000
Approp From Prior Year	2,506,000	-	-	-	-	2,506,000
Transfers from General Fund	4,855,000	4,325,000	4,375,000	4,425,000	4,425,000	22,405,000
Transfer From Revolving Fund	100,000	100,000	100,000	100,000	100,000	500,000
Parks Facilities Fees	950,000	950,000	950,000	950,000	950,000	4,750,000
Total	**$37,036,000**	**$12,975,000**	**$23,750,000**	**$5,575,000**	**$5,575,000**	**$84,911,000**

Element Overview

The City of Raleigh Strategic Plan, the City of Raleigh Comprehensive Plan, and the Parks, Recreation and Cultural Resources System Plan are the primary guiding documents for park maintenance and development, level of service and land acquisition. Existing feasibility studies, reports and strategic plans also guide staff on the timing, scope and location of capital investments required to sustain a maturing Parks, Recreation and Cultural Resources system. This element consists of seven project categories: Land Acquisition; Greenway System; Cultural Resources; Facility Improvements; Plans, Studies and Development; Site Improvements; and 2014 bond projects.

Recent Accomplishments

- Sassafras All Children's Playground was built with the help of volunteers throughout the community. This inclusive playground provides children of all abilities the opportunity to socialize and grow together through parallel, nature and interactive play.
- The Thomas G. Crowder Woodland Center at Lake Johnson Park has been completed and features indoor and outdoor programs in environmental, health and wellness education.
- Dr. Martin Luther King, Jr. Memorial Gardens were renovated and expanded to include improved pedestrian and vehicular accessibility, a new picnic and restroom facility for events and group activities.
- Field renovations and grading were completed at Buffaloe Road Athletic Park and Baileywick Park.
- City Council unanimously approved the selection of landscape architectural firm Michael Van Valkenburgh Associates, Inc. to lead the creation of a comprehensive master plan for Dorothea Dix Park.

- The Walnut Creek Athletic Complex Feasibility Study has been completed and was approved by City Council. Construction documentation is underway.
- Security cameras and systems were installed at Tarboro Road, John P. “Top” Greene and Worthdale Community Centers.
- The design and construction of the City of Raleigh’s first public off-leash dog run facility were completed at Jaycee Park.
- River Bend Master Plan and Erinsbrook Park Master Plan were both adopted by City Council.
- Consultant selection for the Public Art Plan has completed which marks the beginning of the comprehensive planning process of City of Raleigh’s first public art master plan.

Work Plan Highlights

- Growing maintenance demands of our parks and aging facilities continue to impact the department’s resources. The 2014 Parks Bond featured maintenance of our parks and facilities as a major priority and work will continue on a number of redevelopment projects such as John Chavis Memorial Park, Kiwanis Park, Biltmore Park and Walnut Creek Athletic Park.
- Staff will continue to focus on projects for FY 2018 as outlined in the 2014 Parks Bond Referendum. Major projects include: John Chavis Park Improvements, Pullen Art Center, Perry Creek Park Development, Building Maintenance, Playground Improvements, ADA Facility Upgrades and Aquatic Improvements.
- Staff will continue to implement ADA facility upgrades as documented in the 2012 ADA Assessment Study of the Parks and Recreation Facilities. To maximize efficiency and minimize interruption to user activities, ADA upgrades will be paired with Building Improvements and Community Facility Upgrades when possible.

Operating Impacts

- The 5-year capital plan focuses on repair, replacement and upgrade of existing parks facilities. These projects have negligible operating impacts.
- The operating impacts of implementing the 2014 bond package will total $1.4M once all projects are complete. This includes approximately 15 new positions to staff new and renovated facilities.

Horizon Items

- Raleigh’s park system is mature and aging. Staff will continue to evaluate and prioritize maintenance needs while studying improved capacity to accommodate increasing recreation and education needs as outlined in the Parks System Plan.
- In addition to working with the established Capital Improvement Program, staff is actively pursuing grant and partnership opportunities to introduce supplemental funds and resources.

Land Acquisition

City staff identifies and purchases land for future parks and greenways as directed by the Comprehensive Plan and the Parks System Plan. The primary method of acquiring land is accomplished through a targeted acquisition process. The 2004 Parks Plan identifies Level of Service (LOS) goals and recommended Park Service Areas. Areas in need of parks are identified by combining these measures with geographic information system (GIS) data on the size and locations of existing parks. Properties in these areas are then analyzed to determine their suitability as park sites. City Council approves all park land acquisitions. Greenway land is usually conveyed to the City through greenway easements and fee simple transactions. The City’s acquisition of greenways is guided by the Capital Area Greenway System corridors. The City requires dedication of land for greenways from residential developments that fall along these corridors or other planned greenway connectors. Developers of non-residential properties may also be required to reserve a portion of their property for greenways. Additionally, planned greenway trail

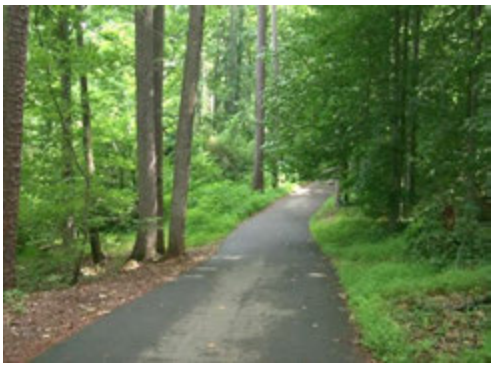
projects may require greenway land to be acquired. The limited annual funds in this category typically cover cost for appraisal and legal procedures associated with land acquisition.

Land Acquisition	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Park Site Acquisition	25,000	-	25,000	25,000	25,000	100,000
Greenway Acquisition	100,000	100,000	100,000	100,000	100,000	500,000
Total	**$125,000**	**$100,000**	**$125,000**	**$125,000**	**$125,000**	**$600,000**

Highlighted Projects

Greenway Acquisition: $500,000

This project funds annual greenway acquisition. This is an ongoing program to acquire greenway land including missing greenway segments and reimbursements for dedicated greenway easements that become available during development site plan approval procedures.



Greenway System

The Capital Area Greenway System is a network of public open spaces and recreational trails, which provides for activities such as walking, jogging, hiking, bird watching, nature study, fishing, picnicking and outdoor fun. In addition to recreation, users appreciate ecological features in their natural state along the greenway. Trails connect many of Raleigh's parks and neighborhoods. The goal is to establish a completed network of interconnected trails throughout the city. The greenway category includes greenway development, trail repaving, structures and boardwalk repairs. The Capital Area Greenway master plan has been adopted by City Council and sustained funding is necessary to work towards completion, repair and maintenance of the existing facilities and enhancement of older facilities. The greenway system consists of over 4,000 acres of land and over 100 miles of trails throughout the city.

Greenway System	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Greenway Trail Resurfacing	100,000	100,000	100,000	100,000	100,000	500,000
Greenway Boardwalk Repair	100,000	100,000	100,000	100,000	100,000	500,000
Structure Repair & Replacement	100,000	100,000	100,000	100,000	100,000	500,000
Total	**$300,000**	**$300,000**	**$300,000**	**$300,000**	**$300,000**	**$1,500,000**

Highlighted Projects

Greenway Bridge/Boardwalk: $500,000

This project funds repairs to and replacement of infrastructure that go beyond the capability of the operating budget. Structures play a critical role in preserving connectivity of the trail system and to parks and adjacent neighborhoods. The structures proposed to be repaired and/or replaced over the next five years included Beaver Dam (Structures 56, 121), Gardner St (Structures 51, 52), Brentwood (Structure 103), Allegheny Steps (Structure 69) as well as improvements along Crabtree Creek.

Greenway Trail Resurfacing: $500,000

This project funds resurfacing and repair of aging trail surfaces to maintain a safe, smooth travel surface. Life expectancy of trail surfaces is approximately 10 to 15 years. The City has over 100 miles of greenway trails with older trails being nearly 30 years old. Trail sections that have met and/or exceeded their life cycle are identified and prioritized by staff assessment. The five year resurfacing plan will be used to completely repair the asphalt trails at Reedy Creek and Lake Lynn.

Cultural Resources

The City manages and cares for many of the cultural assets consisting of historic and art properties. This includes the historic carousels at Pullen Park and John Chavis Memorial Park; Mordecai Historic Park; Pope House Museum; City of Raleigh Museum; Borden Building and Tucker House; and the City owned, Mt. Hope and O'Rorke-Catholic historic cemeteries. The City also maintains a municipal art collection. All of these assets require dedicated, consistent and specialized upkeep specific to their unique historic or artistic context. Concurrent with the conservation mission for cultural resources, staff strives to extend the historic significance of these assets to citizens through the development and fabrication of exhibits. The cultural resources category funds maintenance and improvement projects at the city's historically and culturally significant properties including historic cemeteries, historic parks and homes, museums, public art, and carousels. Major maintenance work includes replacing historic fences, restoring carousel animals, repairing cemetery headstones, and major facility and property maintenance. This program also funds new exhibits at Mordecai Historic Park, Raleigh City Museum and other historic properties.

Cultural Resources	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Carousel Animal Restoration	25,000	25,000	25,000	25,000	90,000	190,000
Historic Cemetery Restoration	-	25,000	50,000	150,000	-	225,000
Historic Property Exhibits	35,000	25,000	25,000	35,000	25,000	145,000
Public Art Conservation	25,000	-	25,000	-	25,000	75,000
City Lab Exhibit Match	-	200,000	200,000	-	-	400,000
Art Center Improvements	-	-	25,000	-	-	25,000
Raleigh History & Museum Plan	-	-	150,000	-	-	150,000
Historic Property Improvements	25,000	25,000	250,000	25,000	165,000	490,000
HRM Conservation	-	-	-	-	25,000	25,000
Total	**$110,000**	**$300,000**	**$750,000**	**$235,000**	**$330,000**	**$1,725,000**

Highlighted Projects

Historic Property Improvements: $490,000

The Department maintains a number of properties and structures of historic significance. This program supports capital improvements at historic and cultural resources properties to keep them in condition for public access and historic preservation. The project funds the continuation of phased maintenance for the Mordecai Historic Park buildings as well as lead paint abatement at various historic properties including Tucker, Borden and Pope House.

Carousel Animal Restoration: $190,000

The carousel animals at Pullen and John Chavis Memorial Park entertain hundreds of thousands of riders per year, a tremendous amount of use for designated historic spaces. Annually a percentage of animals are removed and restored to the original condition, in accordance with direction from the Carousel Task Force, before being reinstalled for use by citizens. Funding is also used to restore the train at Pullen Park.

Historic Property Exhibits: $145,000

This project funds design and fabrication for annual, bi-annual and/or short-term exhibits throughout the Historic Resources and Museums program. Locations for these exhibits include Mordecai House, Tucker House, and the City of Raleigh Museum.

Facility Improvements

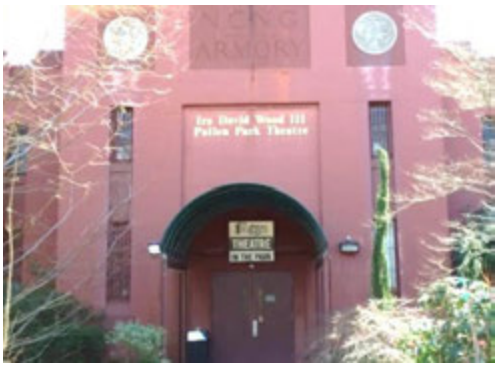
The facility improvements category includes projects that maintain, upgrade or replace infrastructure and facilities. Continued investments in infrastructure and facilities are critical to support and enhance neighborhoods, stimulate the economy and improve services. Many of these improvements focus on, but are not limited to regulatory compliance, building automation, and equipment modernization.

Facility Improvements	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Park Lighting	525,000	450,000	430,000	400,000	415,000	2,220,000
Parks Facility Maintenance	920,000	520,000	600,000	160,000	500,000	2,700,000
Parks Irrigation Projects	80,000	185,000	25,000	75,000	75,000	440,000
Parks Roof Repairs	180,000	180,000	180,000	80,000	165,000	785,000
Theater In The Park	100,000	25,000	-	400,000	-	525,000
Community Facility Upgrades	455,000	400,000	525,000	930,000	970,000	3,280,000
Aquatic Improvements	300,000	300,000	345,000	300,000	300,000	1,545,000
Lead Paint Abatement	125,000	50,000	-	50,000	50,000	275,000
P&R Electrical-Fields/Courts	125,000	175,000	175,000	275,000	275,000	1,025,000
Raleigh Little Theatre Improve	150,000	-	-	25,000	-	175,000
Fall Protection	-	150,000	150,000	150,000	150,000	600,000
Total	**$2,960,000**	**$2,435,000**	**$2,430,000**	**$2,845,000**	**$2,900,000**	**$13,570,000**

Highlighted Projects

Building Improvements: $2,700,000

This project funds interior lighting upgrades, boilers, gas packs, water fountain and HVAC replacement. System efficiencies are analyzed and the operational impacts are assessed and compared to new equipment technology and efficiency standards. As facility systems age, it becomes advantageous and necessary to replace and upgrade systems to ensure proper operation and continued services. Code compliance and governmental regulations also drive interior lighting upgrades and system replacements particularly concerning air condition and quality in buildings. Additional funds of $1,525,000 are planned in the 2014 Bond Referendum for this project.



Community Facility Upgrades: $3,280.000

This project funds interior/exterior painting, gym floor repairs, partitions, countertops, maintaining, repairing, replacing and upgrading center lighting, interiors, and façades of the Department's aging facilities. Programming requirements and the American Disabilities Act direct specific replacements and upgrades to ensure park facilities are safe, code compliant and suitable for programmed activities.

Aquatic Improvements: $1,545,000

This project funds upgrade and replacement of aquatic facility components, including but not limited to water treatment systems (filters and chemical feed systems), replacement of pool blankets, aquatic controls, lighting, diving boards, stanchions, starting blocks, locker replacement, decks and other supporting structures. The bond funding for this project will include an analysis of existing pools shells and address deferred maintenance. Additional funds of $7,000,000 are planned in the 2014 Bond Referendum for this project.

Parks Roof Repairs: $785,000

Roof repairs and replacements are scheduled based on consultant evaluations and recommendations at various facilities throughout the park system. Facilities in the five-year plan for repairs are Lake Lynn, Laurel Hills and Sertoma Arts Center.

Plans, Studies and Development

The Parks, Recreation and Cultural Resources System Plan guides all subsequent park acquisition, development and improvements. Development of a particular site is based on an individual park master plan study. Specific strategic studies are also called for by the System Plan and the Comprehensive Plan.

This category funds studies of new and replacement park amenities as well as initial implementation of specific projects based on recently adopted Master Plans that are critical to maintain public participation momentum and meet citizen expectations. Continued strategic development of phases in individual parks is included as well. Implementation of the System Plan will include specific recommendations for park land acquisition, strategic studies, and an update to the Plan in five years. Master Plans for undeveloped park land incorporate recommendations from the System Plan and public input. Additional master plan processes or sub-system studies are estimated at one per year, with site selection to be determined by potential partnerships and recommended major development by future park bonds. In addition to plans and studies, this category also funds major site amenities such as comfort stations and picnic shelters to encourage and accommodate growing recreational opportunities on public parks.

Plans, Studies & Development	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Comfort Station Improvements	-	400,000	-	100,000	300,000	800,000
Wooten Meadow	600,000	-	-	-	-	600,000
Picnic Shelters	25,000	55,000	25,000	120,000	280,000	505,000
PRCR System Plan	75,000	170,000	-	-	-	245,000
Master Plans & Studies	30,000	220,000	-	-	125,000	375,000
Biltmore Hills Improvements	250,000	-	-	-	-	250,000
Lake Wheeler Center and Stormwater	-	-	300,000	-	-	300,000
Nash Square	250,000	-	-	-	-	250,000
Kiwanis Park Improvements	270,000	-	-	-	-	270,000
Total	**$1,500,000**	**$845,000**	**$325,000**	**$220,000**	**$705,000**	**$3,595,000**

Highlighted Projects

Kiwanis Park Improvements: $270,000

Funding for Kiwanis Park Improvements will be used to upgrade the existing park amenities including picnic shelter, comfort station, playground, and signage. New structures will meet current design, safety, and access standards.

Biltmore Hills Improvements: $250,000

Biltmore Hills Park has been selected as the site for the Southeast Raleigh Tennis Center. In addition to the Tennis Center, capital funding will be applied to supplement Community Center renovations, gym and HVAC upgrades, ballfield lighting and improvements, paving and ADA improvements.

Barwell Park Improvements: $440,000

Priorities for Barwell Park Improvements will be determined by the park's Master Plan that is currently being developed. City staff and the consultant are in the process of site analysis and community input.

Site Improvements

The site improvements category funds site-related maintenance and improvement projects at the City's numerous parks properties. Exterior components needing maintenance and improvements include parking lots, roads, trails, playgrounds, fields, fences, sport courts, trees, landscapes, site furnishings and signage. Over time these components reach the end of their life-cycles and require substantial renovation to remain safe, functional and attractive. There is an ongoing need to repair and replace park facilities and infrastructure as they degrade over time, become outdated, or become unsafe. This category also addresses critical and legally mandated regulatory changes (Americans with Disabilities Act, building code, etc.). Standardization of park furnishings and signage present an identifiable character to our park facilities.

Site Improvements	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Site Security P&R	-	75,000	105,000	125,000	75,000	380,000
Field Fencing	160,000	125,000	115,000	150,000	30,000	580,000
Park Site Improvements	205,000	155,000	220,000	165,000	190,000	935,000
Parks Paving Program	300,000	300,000	135,000	100,000	200,000	1,035,000
Tennis Courts	100,000	100,000	100,000	100,000	100,000	500,000
Playground Improvements	125,000	100,000	100,000	100,000	100,000	525,000
Millbrook Tennis Center	-	-	-	300,000	-	300,000
ADA Facility Upgrades	-	200,000	-	100,000	100,000	400,000
Signage-Parks & Greenways	30,000	65,000	65,000	40,000	40,000	240,000
Volunteerism & Partnership Project	30,000	30,000	30,000	30,000	30,000	150,000
Safety Compliance	180,000	50,000	300,000	100,000	75,000	705,000
Maintenance Operations Facilities	25,000	-	25,000	25,000	25,000	100,000
Durant Nature Improvements	-	-	145,000	190,000	-	335,000
Field Renovations	200,000	165,000	205,000	-	175,000	745,000
Tree Planting	25,000	50,000	50,000	25,000	50,000	200,000
Rose Garden	50,000	-	-	-	25,000	75,000
Lake Wheeler Improvements	-	80,000	-	300,000	-	380,000
Marsh Creek Operations Improvements	1,086,000	-	-	-	-	1,086,000
Total	**$2,516,000**	**$1,495,000**	**$1,595,000**	**$1,850,000**	**$1,215,000**	**$8,671,000**

Highlighted Projects

Field Fencing: $580,000

Repair and replacement to existing athletic field fences is needed on an annual basis. Field fencing priorities in the five-year plan are: Worthdale, Jaycee, North Hills, Kiwanis, Sanderford, Oakwood, Carolina Pines, Green Road, Spring Forest, Halifax and Optimist Park.

.

Field Renovations: $745,000

This project funds an ongoing program to renovate existing open space areas at park facilities to accommodate departmental athletic programming and rental of space by outside agencies. Renovation consists of grading, site preparation, irrigation system installation and repair of sod or sprigs to establish a quality playing surface. This project also funds the addition or upgrades of dugout facilities, concrete pads and walks for dugouts, scorer's tables and bleachers, scoreboards and foul poles where necessary.

Parks Paving Program: $810,000

This project funds an ongoing program to repair and replace existing paved areas, as well as creating new paved surfaces. Types of surfaces include paved walking trails in parks, interior roadways and parking lots, basketball court surfaces, sidewalks, etc. The identified locations are sites that have met and/or exceeded their life cycle. Damage and wear/tear can be attributed to use, adjacent environmental impacts (i.e. tree root intrusion), and other factors. Project priorities are identified through annual visual assessment.

Tennis Courts: $500,000

The City has over 100 courts in the parks system. In order to prevent major structural failure, tennis court resurfacing is prioritized and performed annually based on condition.

Park and Greenway Signage: $290,000

In order to maintain consistency and ease of wayfinding, park and greenway signage throughout the system are replaced and installed to reflect the recent sign standards.

Marsh Creek Operations Center Improvements: $1,086,000

Life safety and maintenance needs at Marsh Creek Operations Center will include improvements to fencing, site security, replacement and renovation of storage and other buildings, exterior lightings, office space, greenhouse, ADA restroom, and equipment storage areas. This project is funded with $456,000 from paygo capital funds and $630,000 from General Fund capital reserves.

2014 Parks, Recreation and Cultural Resources Bond

In May 2014, the Raleigh City Council voted unanimously to approve a new Parks, Recreation and Cultural Resources System Plan. The new Plan guides the development and delivery of the City's parks and recreation services, facilities and programs over the next 20 years. The projects in the 2014 Raleigh Parks Bond referendum reflect highest priority needs identified in the System Plan including investing in the existing system facilities. Additional projects include new facilities and opportunities that address future growth of the city and expanding needs and desires of residents. A 1.72-cent increase in Raleigh's property tax rate will be needed to support the debt service and operating impacts of this bond package. Projects will be implemented in phases over the next 5 years. Major projects include John Chavis Memorial Park Phase 1 Implementation, Walnut Creek Softball Complex and Walnut Creek Wetland Park development.

2014 Bond Projects	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Neighborhood Connections	-	250,000	250,000	-	-	500,000
Playground Improvements	300,000	275,000	200,000	-	-	775,000
John Chavis Park Improvements	11,750,000	-	-	-	-	11,750,000
Brentwood Park Improvements	-	200,000	1,650,000	-	-	1,850,000
Apollo Heights Park Improvements	500,000	-	-	-	-	500,000
Eastgate Park Improvements	500,000	-	-	-	-	500,000
Walnut Creek Wetland Park	-	850,000	-	-	-	850,000
Pullen Art Center	5,425,000	-	-	-	-	5,425,000
Greenway Improvements	200,000	1,400,000	1,400,000	-	-	3,000,000
Greenway Connection Trenton Road	-	200,000	800,000	-	-	1,000,000
Lassiter Mill / Allegheny Trail	300,000	1,700,000	-	-	-	2,000,000
Baileywick Park Community Center	1,200,000	-	10,800,000	-	-	12,000,000
Perry Creek Rd Park Development	1,650,000	-	-	-	-	1,650,000
Parks Bldg Maint/Improv	600,000	125,000	125,000	-	-	850,000
Aquatic Improvements	5,000,000	-	2,000,000	-	-	7,000,000
Park Site Acquisition	-	2,000,000	1,000,000	-	-	3,000,000
Kiwanis Park Improvements	600,000	-	-	-	-	600,000
ADA Facility Upgrades	500,000	500,000	-	-	-	1,000,000
Walnut Creek Softball Complex	1,000,000	-	-	-	-	1,000,000
Total	**$29,525,000**	**$7,500,000**	**$18,225,000**	**-**	**-**	**$55,250,000**

Highlighted Projects

Greenway Improvements: $3,000,000

The remaining bond funds allotted for greenway improvements will go towards repaving asphalt trails, repair and/or replacement of bridges and structures and adding connections to existing greenway trails. Upcoming greenway development projects include: Lake Johnson, Crabtree Creek West, Shelley Lake and Reedy Creek.

Chavis Park Improvements: $11,750,000

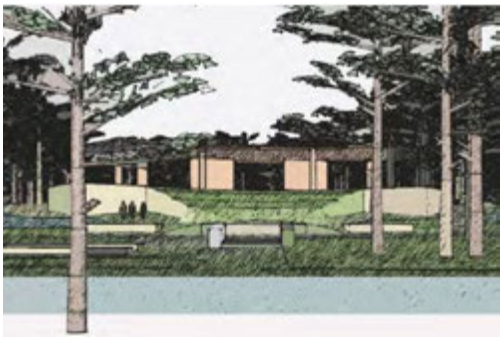
John Chavis Memorial Park Phase 1 development will include a new community center and gym, multi-functional central plaza, expanded playground and restoration of the historic carousel building.

Pullen Art Center Improvements: $4,500,000

The renovated Pullen Art Center will provide additional studio and gallery spaces throughout the building, more parking spaces that are conveniently located to the building, and an outdoor area for patrons to congregate.

Perry Creek Road Park Development: $1,650,000

Following the adoption of the River Bend Master Plan, park developments such as comfort station, picnic shelter, play area, outdoor amphitheater and kayak launch will be implemented into the site.



Walnut Creek Athletic Complex Improvements: $1,000,000

This project funds site and facility improvements at Walnut Creek Athletic Complex. In FY18, this project budget was increased by $1,000,000 from capital reserves to re-establish maintenance facilities at the site necessitated by the construction of the new ADA compliant entrance. The Complex has hosted numerous notable events such as North Carolina High School Athletic Association, National Collegiate Athletic Association and numerous youth and adult softball events. It is currently the host for Shaw University Women's softball program.

2014 Parks, Recreation and Cultural Resources Bond

In May 2014, the Raleigh City Council voted unanimously to approve a new Parks, Recreation and Cultural Resources System Plan. The new Plan guides the development and delivery of the City's parks and recreation services, facilities and programs over the next 20 years. The projects in the 2014 Raleigh Parks Bond referendum reflect highest priority needs identified in the System Plan including investing in the existing system facilities. Additional projects include new facilities and opportunities that address future growth of the city and expanding needs and desires of residents. A 1.72-cent increase in Raleigh's property tax rate will be needed to support the debt service and operating impacts of this bond package. Projects will be implemented in phases over the next 5 years. Major projects include John Chavis Memorial Park Phase 1 Implementation, Walnut Creek Softball Complex and Walnut Creek Wetland Park development.

2014 Bond Projects	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Neighborhood Connections	-	250,000	250,000	-	-	500,000
Playground Improvements	300,000	275,000	200,000	-	-	775,000
John Chavis Park Improvements	11,750,000	-	-	-	-	11,750,000
Brentwood Park Improvements	-	200,000	1,650,000	-	-	1,850,000
Apollo Heights Park Improvements	500,000	-	-	-	-	500,000
Eastgate Park Improvements	500,000	-	-	-	-	500,000
Walnut Creek Wetland Park	-	850,000	-	-	-	850,000
Pullen Art Center	5,425,000	-	-	-	-	5,425,000
Greenway Improvements	200,000	1,400,000	1,400,000	-	-	3,000,000
Greenway Connection Trenton Road	-	200,000	800,000	-	-	1,000,000
Lassiter Mill / Allegheny Trail	300,000	1,700,000	-	-	-	2,000,000
Baileywick Park Community Center	1,200,000	-	10,800,000	-	-	12,000,000
Perry Creek Rd Park Development	1,650,000	-	-	-	-	1,650,000
Parks Bldg Maint/Improv	600,000	125,000	125,000	-	-	850,000
Aquatic Improvements	5,000,000	-	2,000,000	-	-	7,000,000
Park Site Acquisition	-	2,000,000	1,000,000	-	-	3,000,000
Kiwanis Park Improvements	600,000	-	-	-	-	600,000
ADA Facility Upgrades	500,000	500,000	-	-	-	1,000,000
Walnut Creek Softball Complex	1,000,000	-	-	-	-	1,000,000
Total	**$29,525,000**	**$7,500,000**	**$18,225,000**	**-**	**-**	**$55,250,000**

Highlighted Projects

Greenway Improvements: $3,000,000

The remaining bond funds allotted for greenway improvements will go towards repaving asphalt trails, repair and/or replacement of bridges and structures and adding connections to existing greenway trails. Upcoming greenway development projects include: Lake Johnson, Crabtree Creek West, Shelley Lake and Reedy Creek.

Chavis Park Improvements: $11,750,000

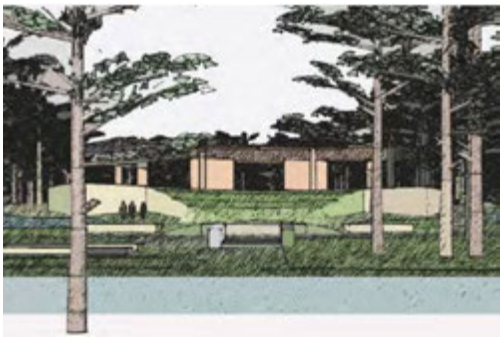
John Chavis Memorial Park Phase 1 development will include a new community center and gym, multi-functional central plaza, expanded playground and restoration of the historic carousel building.

Pullen Art Center Improvements: $4,500,000

The renovated Pullen Art Center will provide additional studio and gallery spaces throughout the building, more parking spaces that are conveniently located to the building, and an outdoor area for patrons to congregate.

Perry Creek Road Park Development: $1,650,000

Following the adoption of the River Bend Master Plan, park developments such as comfort station, picnic shelter, play area, outdoor amphitheater and kayak launch will be implemented into the site.



Walnut Creek Athletic Complex Improvements: $1,000,000

This project funds site and facility improvements at Walnut Creek Athletic Complex. In FY18, this project budget was increased by $1,000,000 from capital reserves to re-establish maintenance facilities at the site necessitated by the construction of the new ADA compliant entrance. The Complex has hosted numerous notable events such as North Carolina High School Athletic Association, National Collegiate Athletic Association and numerous youth and adult softball events. It is currently the host for Shaw University Women's softball program.

Housing

Categories	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Homeowner Rehabilitation	700,000	700,000	700,000	700,000	700,000	3,500,000
Loan Servicing	100,000	100,000	100,000	100,000	100,000	500,000
Rental Development	11,136,000	5,297,000	5,477,000	5,539,000	5,664,000	33,113,000
Transfer to Debt Service	400,000	400,000	400,000	400,000	400,000	2,000,000
Total	**$12,336,000**	**$6,497,000**	**$6,677,000**	**$6,739,000**	**$6,864,000**	**$39,113,000**

Revenue Sources	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Bond Proceeds	2,250,000	-	-	-	-	2,250,000
Program Income	1,000,000	500,000	500,000	500,000	500,000	3,000,000
Appropriated Fund Balance	3,207,000	-	-	-	-	3,207,000
Transfer From General Fund	5,879,000	5,997,000	6,177,000	6,239,000	6,364,000	30,656,000
Total	**$12,336,000**	**$6,497,000**	**$6,677,000**	**$6,739,000**	**$6,864,000**	**$39,113,000**

Element Overview

In 2016, City Council approved the Affordable Housing Plan (AHP) and the Affordable Housing Location Policy (AHLP). Staff has since implemented several top priorities within the AHP, including the expanded the use of the 4% Tax Credit for Affordable Housing Allocated through the North Carolina Housing Finance Agency (NCHFA). City Council has also applied the new AHLP to several different tax credit projects. Then, in FY2017, the City began allocating one cent of property tax revenue for affordable housing, in the annual operating budget. This permanent funding source, known as the Affordable Housing Fund, will replace a portion of funding previously provided with general obligation bonds. Activities funded with Affordable Housing Funds include:

- Affordable rental developments that receive tax credits from NCHFA: Every year, the City of Raleigh advertises a Request for Proposals to provide gap financing for proposed affordable rental housing developments that are applying for NCHFA housing tax credits. Awarded annually, these funds will create housing opportunities for individuals and families making less than 60% of area median income.

- Owner-occupied home rehabilitation: Funds will also finance existing City Homeownership Rehabilitation Loan programs. The loans assist low-to-moderate income homebuyers with emergency home repairs and more substantial rehabilitation projects. Loan repayment terms vary, dependent upon an applicant's income.

Recent Accomplishments

- In December 2016, staff partnered with Wake County to select an operator and a site for the proposed multi-intake center, which will serve the growing homeless population.
- Provided second mortgage loans to 66 first-time homebuyers for down payment and closing cost assistance.
- Provided deferred, forgivable loans to 31 homeowners to make home repairs that, if left unattended, could pose a threat to occupants' health or safety.

Work Plan Highlights

- Plan the redevelopment of City-owned property in the Sawyer Road and Peterson Street area and the seven-acre Brown Birch site, now owned by Passage Home.
- In East College Park, staff aims to select a townhome builder and begin the permitting process for 51 single-family townhomes, by mid-year 2018. Currently, the infrastructure replacement project is nearing the end of Phase 1. Phase 2 and 3 should be complete by the end of FY2018.

Operating Impacts

- At this time, staff does not anticipate any operating impacts from ongoing capital projects.

Horizon Items

Over the next several years, implementation of the AHP aims to achieve the following outcomes:

- Preserve the supply of affordable housing for homeowners.
- Increase the supply of affordable housing for renters. In FY2018 and FY2019 respectively, 464 and 552 rental units are expected to be available for lease.
- Remove or reduce the land cost from affordable developments when necessary.
- Support tax credit developments where appropriate.

The City also uses repayments from loan and bond investments to help lower-wage residents maintain safe and decent living environments. Such investments also support the local job market in the design, real estate, lending, construction, and non-profit sectors.

Homeowner Rehabilitation

Homeowner Rehabilitation	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Homeowner Rehabilitation	700,000	700,000	700,000	700,000	700,000	3,500,000
Total	**$700,000**	**$700,000**	**$700,000**	**$700,000**	**$700,000**	**$3,500,000**

Highlighted Project

Project Name: Walton Street $132,680

In 2016, the city loaned $132,680 for a reconstruction, at 412 Walton Street, which was so dilapidated that the rear of the home was separating from the front. The new property was designed to be easily accessible and maneuverable for the elderly homeowner. Doorways were widened and the layout is open. An energy efficient HVAC unit and water heater was installed along with LED lights throughout the property. Fiber cement siding and-40 year architectural shingles were also used to pro-long the life of the property.

Rental Development

Rental Development	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Rental Development Reserve	1,679,000	5,297,000	5,477,000	5,539,000	5,664,000	23,656,000
Capital Towers	1,752,000	-	-	-	-	1,752,000
Booker Park	2,200,000	-	-	-	-	2,200,000
Walnut Trace	1,500,000	-	-	-	-	1,500,000
Raleigh North and Millbank	2,000,000	-	-	-	-	2,000,000
Southeast Raleigh Affordable Housing	2,005,000	-	-	-	-	2,005,000
Total	**$11,136,000**	**$5,297,000**	**$5,477,000**	**$5,539,000**	**$5,664,000**	**$33,113,000**

Highlighted Project

Allen Grove Court: $1,500,000

On November 3, 2015, City Council committed $1,500,000 in bond funds to CASA, Inc. to purchase a 42-unit existing development. Eleven of the units will house renters earning less than 40% Area Median Income (AMI), 23 renters earning less than 60% AMI and 8 units for renters earning less than 80% AMI. The development consists of 2 studios, 22 one-bedroom units and 18 two-bedroom units. The site is located at 231-241 Allen Grove Court.

Capital Towers: $1,752,000 (Project total: $2,800,000)

On May 3, 2016, Council approved a loan of bond proceeds, to DHIC, Inc., for up to $2,800,000 for the acquisition and rehabilitation of a 298-unit development for low-income elderly renters. The development will provide 120 efficiency units and 178 one-bedroom units with 125 apartments for renters earning at or below 50% AMI and 173 units for renters at 60% AMI. A portion of project budget was appropriated during FY2017; the FY2018-2022 CIP will appropriate the remaining funds. The site is located at 4808-4812 Six Forks Road.

Booker Park: $2,200,000

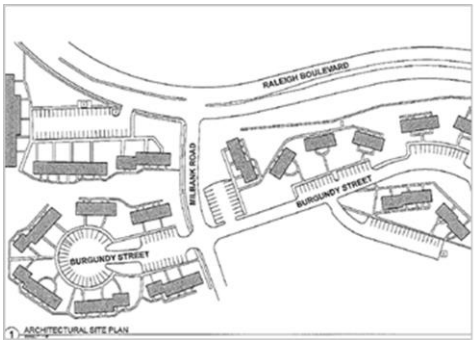
This proposed development is included in the City's recently Council-adopted East College Park and Washington Terrace Neighborhood Revitalization Strategy Area (NRSA).On May 3, 2016, Council approved a $2,200,000 loan, to DHIC, Inc., for the construction of a 72-unit development for persons ages 62 and older. The project will provide 58 one-bedroom units and 14 two-bedroom units. Fifteen apartments will assist renters at or below 50% AMI and 57 apartments will assist renters at 60% of AMI. The site is located at 2001 Booker Drive.

Walnut Trace: $1,500,000

On April 18, 2017, Council approved $1,500,000, from the City's new Affordable Housing Fund, for a construction a 180-unit development for low-income renters and families. The development would benefit 9 renters and families earning 40% AMI and 171 renters or families earning 60% AMI. The development would provide 6 one-bedroom units, 108 two-bedroom units, and 66 three-bedroom units. The site is located at 1800 Rock Quarry Road.

Raleigh North and Millbank: $2,000,000

On April 18, 2017, Council appropriated $2,000,000, from the City's Affordable Housing Fund, for the acquisition and rehabilitation of the 229-unit Raleigh North and Millbank Court development. The development would provide 115 two-bedroom units and 114 three-bedroom units, which will benefit 229 individuals and families earning less than 60% AMI. The site is located at 1500 Raleigh Blvd.



Southeast Raleigh Affordable Housing: $2,005,000

City Council directed that the proceeds from the sale of the Stone's Warehouse assemblage be used in the Southeast Raleigh area. The Housing and Neighborhoods Department has earmarked the proceeds from the sale to be used as funding for rental development. The rental development activity will likely include the future redevelopment of property in the Brown Birch and Sawyer Road area. Staff anticipates beginning the associated planning effort in the next fiscal year.

Convention and Performing Arts Complex

Categories	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Performing Arts Center Category	500,000	500,000	1,300,000	1,300,000	1,300,000	4,900,000
Raleigh Convention Center Category	2,709,000	2,709,000	2,709,000	2,709,000	2,948,000	13,784,000
Walnut Creek Amphitheater Category	350,000	350,000	550,000	550,000	550,000	2,350,000
Total	**$3,559,000**	**$3,559,000**	**$4,559,000**	**$4,559,000**	**$4,798,000**	**$21,034,000**

Revenue Sources	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Amphitheater Rent	200,000	200,000	200,000	200,000	200,000	1,000,000
Amphitheater Naming Rights	150,000	150,000	150,000	150,000	150,000	750,000
Walnut Creek Amphitheater	-	-	1,000,000	1,000,000	1,000,000	3,000,000
Convention Center Financing Fund	3,209,000	3,209,000	3,209,000	3,209,000	3,448,000	16,284,000
Total	**$3,559,000**	**$3,559,000**	**$4,559,000**	**$4,559,000**	**$4,798,000**	**$21,034,000**

Element Overview

The five-year capital improvement plan includes $17.2 million, including $3.4 million in FY 2018, to maintain the four city facilities: the Raleigh Convention Center (RCC), Performing Arts Center (PAC), Walnut Creek Amphitheater, and the Red Hat Amphitheater. These improvements are funded through interlocal partnerships, lease revenues, and debt financing.

The 500,000 square foot RCC opened in 2008 and hosts approximately 400,000 attendees annually. The Center has extensive meeting space, exhibit halls, and catering service. It is nationally recognized as a premier facility for conferences and events. The center's design and location makes it a key component to the City's downtown economy. In Spring 2012, the City obtained a facility condition analysis to guide staff on the needed capital improvements to maintain the venue as a high quality property. Also during 2012, the City of Raleigh and Wake County negotiated the use of local hotel and restaurant sales tax revenues to fund the capital improvements at the venue. The Interlocal Agreement establishes a long-term funding source to maintain this important facility.

The Raleigh Memorial Auditorium was originally constructed in 1932 and additional performance spaces were opened in 2001. The City completed an over $20 million capital renovation project in 2016 and continues to focus on improving the infrastructure of the venue. The PAC is an iconic building on the southern end of Fayetteville Street and serves as a book end to the State Capital on the northern end of the street. The venue provides rehearsal and performance facilities for the North Carolina Symphony, North Carolina Theatre, Carolina Ballet, Pinecone, North Carolina Opera, and other local organizations. Following the solicitation of the facility condition analysis for the RCC, staff procured a similar document for the PAC to guide staff on the needed future capital improvements.

The Red Hat Amphitheater opened in 2010. The 5,990 person capacity venue hosts concerts, festivals, and other events. The amphitheater has been recognized by the Independent Weekly, Midtown Magazine, Raleigh Magazine and Triangle Downtowner as the best outdoor music venue in the Triangle.

The Walnut Creek amphitheater, located on Rock Quarry Road, holds over 20,000 attendees. Live Nation leases and operates the facility. The City utilizes proceeds from the lease to fund needed capital improvements.

Recent Accomplishments

- Staff at the RCC replaced the dual 600 gallon water heaters to more energy efficient On Demand system.
- Continue to work on updating the security system at the RCC to the latest available technology that is more advanced and user friendly that also offers greater reliability and results in a more secure facility.
- Staff at the RCC continues to replace the original lighting throughout the building with more energy efficient LEDs which increases bulb life to 5+ years and reduces man hours needed to replace.
- PAC completed a $20 million dollar capital improvement project which included the replacement of the heating, ventilation and air conditioning system, interior finishes updates and life safety enhancements.
- Staff utilized the interlocal funds dedicated to the PAC capital projects to update the facility condition analysis from 2012 and make up the needed difference to have the Meymandi Concert Hall roof replaced.

Work Plan Highlights

- In design phase of utilizing the underground water source to supply makeup water to the cooling towers.
- Upcoming projects at the PAC will include the replacement of the elevator in Meymandi Concert. Hall and the life safety/sprinkler project for the Raleigh Memorial Auditorium prior to the beginning of the 2019 season of shows.
- With the design phase of rebuilding of the wireless network completed, the build out will occur in 2018 which will enable the RCC to attract high profile technology events.

Operating Impacts

- The Convention Center is working towards eliminating chemicals needed to treat its HVAC equipment and replacing them with a more sustainable method.
- The Convention Center has replaced 90% of the old mercury vapor lighting throughout the building to more energy efficient LEDs which increase bulb life to 5 plus years and reduces man hours needed to replace.

Horizon Items

- In the future, the City will consider expansion of the Raleigh Convention Center. A next step, which has not been initiated, would include evaluating and programming needs. This process would include stakeholders from the City, tourism industry, downtown businesses, and other areas.

Convention and Performing Arts Complex Projects

These projects include safety and security enhancements, exterior site improvements, building system repair and maintenance, technology upgrades, interior finishes and general facility maintenance. Specific examples include carpet replacement, roof repairs, painting and pavement work.

Performing Arts Center	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Elevator	500,000	-	-	-	-	500,000
Reserve for Future Projects	-	500,000	1,300,000	1,300,000	1,300,000	4,400,000
Total	**500,000**	**500,000**	**1,300,000**	**1,300,000**	**1,300,000**	**4,900,000**

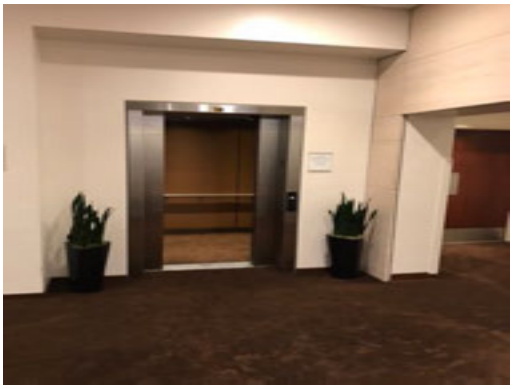
Raleigh Convention Center	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Building Systems	-	120,000	-	-	-	120,000
Technology	-	100,000	500,000	100,000	100,000	800,000
Site Improvements	-	17,083	375,000	-	-	392,083
Building Envelope	-	-	-	800,000	-	800,000
Interior Finishes	544,000	2,471,917	1,834,000	1,809,000	1,991,000	8,649,917
Life Safety and Security	-	-	-	-	857,000	857,000
Flush Valve Replacement	50,000	-	-	-	-	50,000
Update Transfer Relays	50,000	-	-	-	-	50,000
Par Level Replacement	100,000	-	-	-	-	100,000
Event Equipment	200,000	-	-	-	-	200,000
Technology Updates	100,000	-	-	-	-	100,000
Kitchen Equipment	300,000	-	-	-	-	300,000
Roof Assessment	5,000	-	-	-	-	5,000
Distributed Antenna System Replacement	300,000	-	-	-	-	300,000
Monumental Stair Repair	60,000	-	-	-	-	60,000
Building Recommissioning	300,000	-	-	-	-	300,000
Underground Water Supply	350,000	-	-	-	-	350,000
New Floor Boxes	150,000	-	-	-	-	150,000
LED Lighting Retrofit	100,000	-	-	-	-	100,000
Painting	100,000	-	-	-	-	100,000
Total	**2,709,000**	**2,709,000**	**2,709,000**	**2,709,000**	**2,948,000**	**13,784,000**

Walnut Creek Amphitheater	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Walnut Creek Amphitheater Improvements	150,000	150,000	350,000	350,000	350,000	150,000
Grading Work	-	100,000	100,000	50,000	-	250,000
HVAC Updates	-	50,000	-	-	-	50,000
Electrical Upgrade	50,000	50,000	-	-	-	100,000
Asphalt Repaving	-	-	-	150,000	-	150,000
Painting Updates	-	-	100,000	-	-	100,000
Sprinkler Updates	80,000	-	-	-	-	80,000
Fencing Updates	50,000	-	-	-	-	50,000
Sound Trough Updates	20,000	-	-	-	-	20,000
Concessions Updates	-	-	-	-	100,000	100,000
Stage Updates	-	-	-	-	100,000	100,000
Total	**350,000**	**350,000**	**550,000**	**550,000**	**550,000**	**2,350,000**

Highlighted Projects

Performing Arts Center Elevator Replacement: $500,000

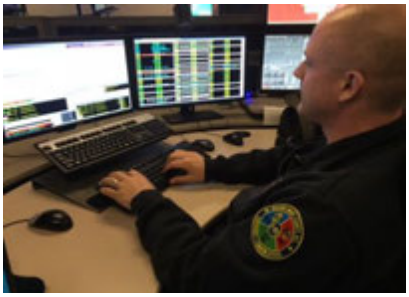
The PAC will begin replacement of elevator located on the Westside of the building in Meymandi Concert Hall.

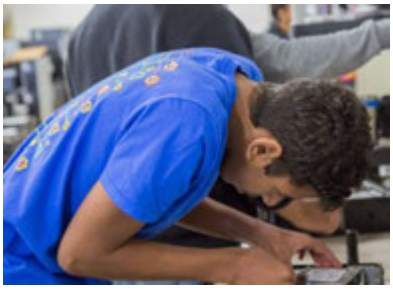


Raleigh Convention Center Technology: $350,000

Convention Center building systems planned projects include utilizing underground water sources to supply cooling tower reserve water.

Technology





Categories	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
ERP Debt Transfer	3,027,864	-	-	-	-	3,027,864
Computer Aided Dispatch System	1,000,000	-	-	-	-	1,000,000
PeopleSoft Roadmap	600,000	775,000	-	-	-	1,375,000
Planning and Evaluation Studies	50,000	50,000	50,000	50,000	50,000	250,000
Recreation and Event Mgt Sys (REMS)	100,000	-	-	-	-	100,000
Small Projects Fund	93,136	75,000	75,000	75,000	75,000	393,136
Digital Signature Assessment	30,000	-	-	-	-	30,000
Cyber Security Program	560,000	67,000	-	-	-	627,000
SeeClickFix Replacement	150,000	450,000	-	-	-	600,000
PCI Annual Attestation	290,000	-	-	-	-	290,000
Data Visualization	30,000	50,000	-	-	-	80,000
RaleighNC.Gov Redesign - Phase 2	300,000	-	-	-	-	300,000
Reserve for Future Projects	-	2,708,000	3,675,000	3,675,000	3,675,000	13,733,000
Total	**6,231,000**	**4,175,000**	**3,800,000**	**3,800,000**	**3,800,000**	**21,806,000**

Transfers in for ERP Debt Services	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Transfer From General Fund	1,063,714	-	-	-	-	1,063,714
Transfer From Public Utilities	1,503,455	-	-	-	-	1,503,455
Transfer From Vehicle Fleet Services	39,831	-	-	-	-	39,831
Transfer from Solid Waste Services	162,871	-	-	-	-	162,871
Transfer from Transit	8,675	-	-	-	-	8,675
Transfer from Parking Operations	13,652	-	-	-	-	13,652
Transfer from Stormwater	138,344	-	-	-	-	138,344
Transfer from RCC Operating	74,708	-	-	-	-	74,708
Transfer from Housing	22,614	-	-	-	-	22,614
Subtotal	**$3,027,864**	**-**	**-**	**-**	**-**	**$3,027,864**

Transfers in for Selected Projects:	FY2018	FY2019	FY2020	FY2021	FY2022	5 Year Total
Transfer from General Fund	2,736,286	3,800,000	3,800,000	3,800,000	3,800,000	17,936,286
Transfer from Public Utilities	262,190	210,694	-	-	-	472,884
Transfer From Vehicle Fleet Services	29,310	23,396	-	-	-	52,706
Transfer from Solid Waste Services	83,500	67,100	-	-	-	150,600
Transfer from Transit	3,340	2,684	-	-	-	6,024
Transfer from Parking Operations	15,030	12,078	-	-	-	27,108
Transfer from Stormwater	23,380	18,788	-	-	-	42,168
Transfer from RCC Operating	41,750	33,550	-	-	-	75,300
Transfer from Housing	8,350	6,710	-	-	-	15,060
Subtotal	**$3,203,136**	**$4,175,000**	**$3,800,000**	**$3,800,000**	**$3,800,000**	**$18,778,136**
Total Revenues	**$6,231,000**	**$4,175,000**	**$3,800,000**	**$3,800,000**	**$3,800,000**	**$21,806,000**

Program Overview

The Information Technology Capital Fund funds the City's major technology infrastructure and major business system projects. The proposed five-year CIP maintains existing systems and invests in new systems to improve City operations.

Recent Accomplishments

- Implemented Cityworks asset, work order, and service request management for multiple Public Utilities divisions, with planning for additional division functionality underway. This project also saw the development of an interface between Cityworks and PeopleSoft. Cityworks is now deployed in four departments, Public Utilities, Parks, Recreation and Cultural Resources, Public Works, and Solid Waste Services.
- Implementation of the Enterprise Land Management system, EnerGov, with an implementation vendor, Tyler Technologies, is well underway and is projected for a late 2018 launch. The new system will track and manage a collaborative multi-departmental land management process. The system will integrate all land development activities, regardless of their business origination, in a hierarchical, systematic and rational basis, with GIS-based identification linking all activities.
- Implemented Oracle's replacement budgeting system—Oracle Planning and Budgeting Cloud Service— throughout the City to facilitate budget development, tracking, and reporting.

Work Plan Highlights

- A joint RFP has been developed and issued by the Parks, Recreation and Cultural Resources Department and the Office of Emergency Management and Special Events to identify and implement a replacement for the current Parks and Recreation CLASS system. The RFP is scheduled to close in March 2017 followed by vendor and tool selection and implementation through the rest of calendar year 2017. The exact timing of the project will be dependent on the tool selected and its interaction with other systems.
- A key recommendation from the Finance Department Purchasing study is to enable additional modules in Peoplsoft to support the supplier, bidding, and contracts business processes. As such, the Finance department has selected an implementation partner and is working to launch these additional services in the winter of 2017.
- Work is continuing to connect over 40 sites to the City's institutional fiber backbone, prioritizing locations critical to the Police body camera project, locations with a high number of City employees, and high customer service impact. Build-out will continue over the course of FY18.
- The Information Technology Department selected Planet Technology as an implementation partner to build the foundation for the City's transition to Microsoft Office 365. The first phase will include migrating our email and archive to the Exchange cloud and readying Skype for Business, OneDrive, and SharePoint for future City use.
- Implementation of an enterprise learning management system, Oracle's Taleo, is underway with an initial implementation of core on-boarding and new hire orientation topics. Department-level learnings and requirements will follow in subsequent phases over the course of 2017.
- In an effort to stay ahead of Payment Card Industry (PCI) compliance for our customer-facing applications, the City has organized a planning group made up of members from the Auditor's Office, Finance, IT, and the application owners to plan efforts, coordinate on activities, and share knowledge. This work has led to the TechFund project listed below, which supports comprehensive compliance efforts versus application by application planning and response.

Operating Impacts

The following Technology Capital Projects have an operating budget impact for FY 2018:

- The Recreation and Event Management System (REMS) will require $165,000 in annual operating budget for software maintenance and support.
- Office 365 and Exchange project requires $750,000 in FY 2018 for software licenses, hosting and maintenance.
- PCI Annual Attestation will require a total of $35,000 annually for department attestation services and city-wide penetration testing.
- Emergency Communications continues to work toward replacement of the Computer Aided Dispatch System. $250,000 in operating funds is required annually for equipment and software licence.

Horizon Items

- The City will conduct an evaluation to select an enterprise data visualization tool to assist Departments with analyzing, displaying, and sharing data with internal and external stakeholders.
- The City will continue to ensure that necessary applications achieve and maintain Purchase Card Industry compliance with independent attestation and testing services.
- The Peoplesoft Executive Committee continues to identify additional enhancements across its pillars and is developing a multi-year roadmap that prioritizes efforts based on need.
- The City will conduct an initial assessment and implementation of a citizen engagement tool that includes integration with existing Department-level tools, knowledge management, and workflows.

Highlighted Projects

Cyber Security Program: $560,000

This program will enable the City to take additional measures to protect itself against the criminal or unauthorized use and loss of electronic data by adapting to meet evolving threats, maintaining compliance, and keeping up with changing business and technology needs. This program will include funding for physical security for networking equipment, network and application security tools, additional training for security staff and City employees, and licenses for advanced threat protection and authentication services.

RaleighNC.Gov Redesign: $ 300,000

This program involves the migration and implementation of a new and more flexible web and content architecture for the City of Raleigh website, an effort the City has not undertaken since 2009. Specific deliverables include site templates, mobility and ADA compliance, social media integration, language translation, site search, and the migration of all existing content. System integration with existing enterprise systems, open data, training, and testing will also be included.

Digitial Signature Assessment: $30,000

The purpose of this assessment is to hire consulting services to advise the City about the selection of a digital signature tool (such as DocuSign) that can be used across all departments to assist in electronically approving and authorizing forms and approvals. The scope of this project is limited to an assessment; the selection and implementation of the tool will be considered a separate project. The goal of this effort is to assist the City in reducing it reliance on paper-based processes, increasing staff efficiency, and improving customer service.