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CITY OF RALEIGH ADOPTED CAPITAL IMPROVEMENT PROGRAM

FY2017 – FY2021

The City of Raleigh

Capital Improvement Program
FY2017 to FY2021
City of Raleigh, North Carolina

Recommended to the City Council by the City Manager ……..May 17, 2016
Adopted by the City Council……..June 20, 2016

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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

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CITY OF RALEIGH

ESTABLISHED 1792

NORTH CAROLINA

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 general needs.
- The **public utilities** element funds the ongoing maintenance and improvement of water and sewer infrastructure. These projects include main replacements, water treatment plant renovations, filter rehabilitation, 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 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 new land use planning system.

Capital revenues can be classified into two broad types: cash (or "paygo") and debt-financing. Cash sources include property and sales tax revenues transferred from the city's General Fund. Other cash sources include state-shared revenues, 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 FY17 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.

- Interlocal Funds: In Spring 2012, the City of Raleigh and Wake County agreed to dedicate a portion of the county-wide hotel/motel tax and prepared food tax revenues to maintain the Raleigh Convention Center. The interlocal agreement between the two jurisdictions includes a long-term funding schedule to maintain the facility.

- 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.

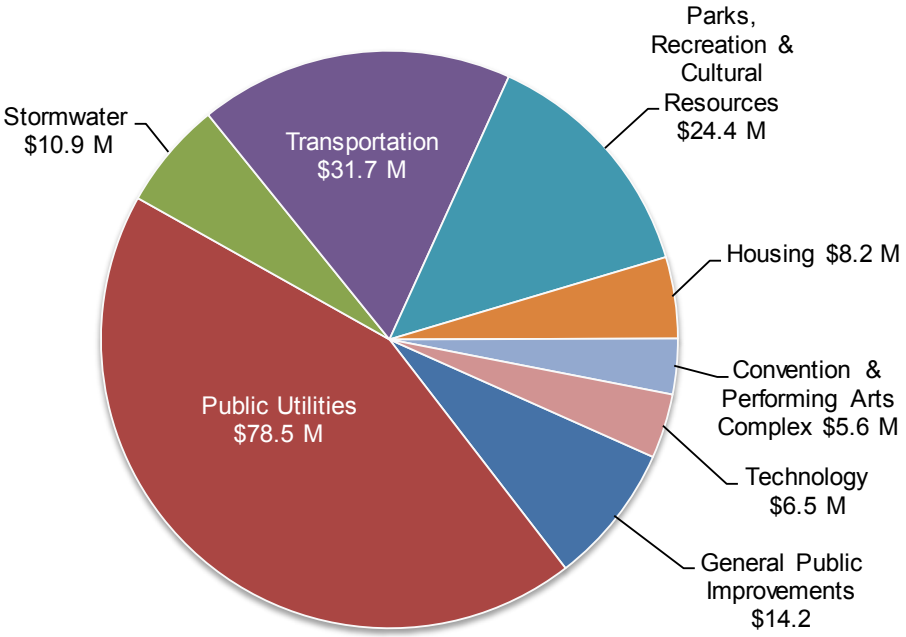
CIP Policies and Practices

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:

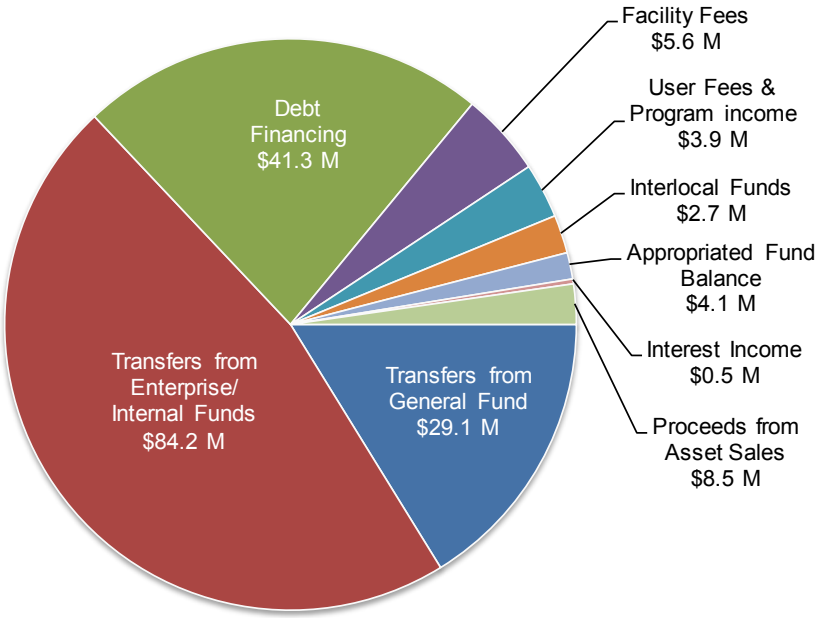
- Alignment with city-wide Strategic Plan: The Strategic Plan, adopted by City Council in April 2015, serves as the primary guide for capital investments. The plan articulates areas of strategic focus which will target the City's efforts and resources in ways intended to have the greatest impact in the 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 FY2017-FY2021 CIP

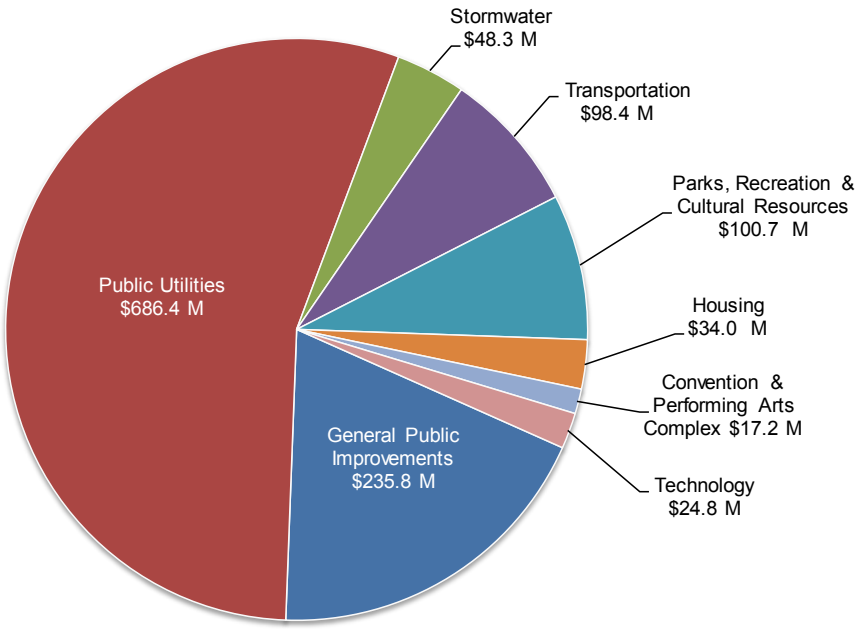
FY2017 Expenditures by Element (Year 1 of the 5-Year Plan)



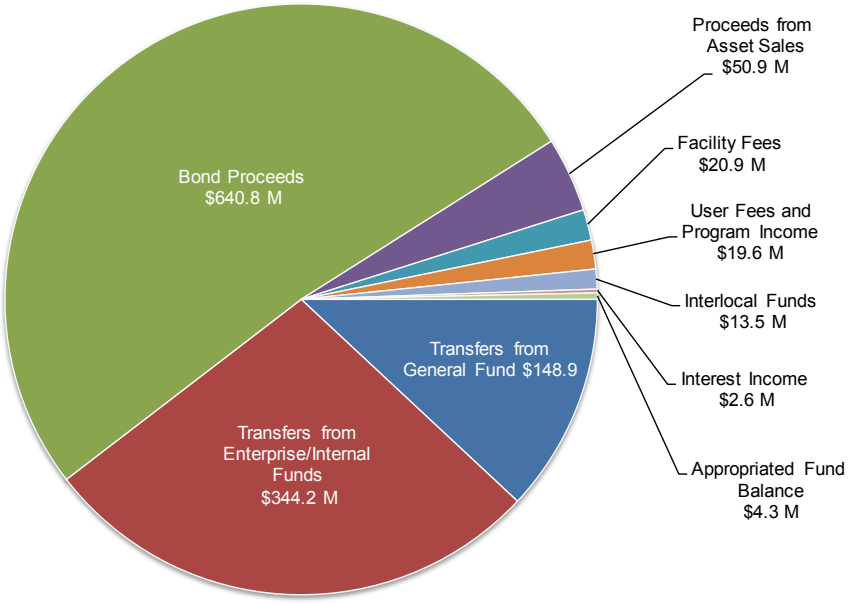
FY2017 Revenues by Source



Total Five Year Expenditures by Element



Total Five Year Revenues by Source



CIP Summary by Category

General Public Improvements	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
General Government Facility Maintenance	2,215,000	1,058,000	1,325,000	500,000	400,000	5,498,000
Public Safety Facility Maintenance	2,940,000	2,480,000	2,165,000	1,605,000	1,755,000	10,945,000
New Facilities	8,528,000	11,237,000	26,348,000	153,687,000	11,877,000	211,677,000
Economic Development	550,000	550,000	550,000	550,000	550,000	2,750,000
Reserve for Future Projects	-	512,000	560,000	1,945,000	1,895,000	4,912,000
Total	**$ 14,233,000**	**15,837,000**	**30,948,000**	**158,287,000**	**16,477,000**	**235,782,000**

Public Utilities	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Asset Management	24,352,000	34,802,000	26,912,000	37,542,000	26,545,000	150,153,000
Interceptors	7,300,000	16,350,000	82,950,000	83,600,000	47,650,000	237,850,000
NRWWTP Expansion	5,750,000	87,700,000	-	-	-	93,450,000
Wastewater Pump Stations	5,200,000	27,000,000	1,000,000	1,000,000	1,000,000	35,200,000
Reuse System	-	-	3,000,000	3,000,000	3,000,000	9,000,000
WWTP Maintenance	4,850,000	3,600,000	4,700,000	200,000	1,700,000	15,050,000
Water Main Expansions	100,000	3,640,000	1,525,000	3,180,000	12,400,000	20,845,000
Water Pump Stations	740,000	1,000,000	550,000	1,630,000	1,200,000	5,120,000
EMJWTP Expansion	4,350,000	-	220,000	3,850,000	-	8,420,000
Little River Projects	500,000	500,000	1,000,000	1,000,000	1,000,000	4,000,000
Water Tanks Upgrades	-	900,000	900,000	900,000	900,000	3,600,000
WTP Maintenance	10,150,000	9,550,000	11,500,000	11,000,000	5,750,000	47,950,000
Misc Water and Wastewater	8,250,000	2,000,000	2,850,000	3,000,000	1,250,000	17,350,000
Capital Equipment	4,700,000	5,700,000	6,800,000	5,000,000	5,000,000	27,200,000
Watershed Initiatives	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	11,250,000
Total	**$ 78,492,000**	**194,992,000**	**146,157,000**	**157,152,000**	**109,645,000**	**686,438,000**

Stormwater	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Lake Preservation	3,750,000	-	-	-	-	3,750,000
Water Quality Improvements	100,000	-	700,000	100,000	400,000	1,300,000
General Water Quality	650,000	550,000	550,000	550,000	550,000	2,850,000
Stream Restoration	-	500,000	850,000	1,775,000	-	3,125,000
General Drainage Infrastructure	2,106,000	2,200,000	2,200,000	2,200,000	2,450,000	11,156,000
Neighborhood Drainage System Improvements	3,525,000	5,800,000	4,230,000	3,610,000	4,100,000	21,265,000
Street Drainage System Improvements	775,000	750,000	450,000	1,100,000	1,750,000	4,825,000
Total	**$ 10,906,000**	**9,800,000**	**8,980,000**	**9,335,000**	**9,250,000**	**48,271,000**

Transportation	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Major Street Projects	13,635,000	4,974,000	3,000,000	2,500,000	2,500,000	26,609,000
Street Improvement Program	12,798,000	9,090,000	9,370,000	9,704,000	9,945,000	50,907,000
Bicycle and Pedestrian Improvements	1,573,000	960,000	1,045,000	920,000	1,113,000	5,611,000
Studies and Planning Projects	575,000	125,000	125,000	200,000	200,000	1,225,000
Transit	1,908,000	1,525,000	1,480,000	1,525,000	1,430,000	7,868,000
Parking	1,170,000	1,170,000	1,290,000	1,290,000	1,290,000	6,210,000
Total	**$ 31,659,000**	**17,844,000**	**16,310,000**	**16,139,000**	**16,478,000**	**98,430,000**

Parks, Recreation, and Cultural Resources	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Land Acquisition	100,000	125,000	100,000	125,000	125,000	575,000
Greenway System	300,000	300,000	300,000	300,000	300,000	1,500,000
Cultural Resources	100,000	110,000	300,000	750,000	235,000	1,495,000
Facility Improvements	2,325,000	2,860,000	2,635,000	2,580,000	3,045,000	13,445,000
Plans, Studies & Development	590,000	500,000	845,000	175,000	220,000	2,330,000
Site Improvements	1,660,000	1,500,000	1,315,000	1,615,000	1,670,000	7,760,000
2014 Bond Projects	19,375,000	28,525,000	7,500,000	18,225,000	-	73,625,000
Total	**24,450,000**	**33,920,000**	**12,995,000**	**23,770,000**	**5,595,000**	**100,730,000**

Housing	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Homeowner Rehabilitiation	700,000	700,000	700,000	700,000	700,000	3,500,000
Rental Development	7,000,000	5,100,000	5,200,000	5,300,000	5,400,000	28,000,000
Loan Servicing	100,000	100,000	100,000	100,000	100,000	500,000
Transfer to Debt Service	400,000	400,000	400,000	400,000	400,000	2,000,000
Total	**$ 8,200,000**	**6,300,000**	**6,400,000**	**6,500,000**	**6,600,000**	**34,000,000**

Convention and Performing Arts Complex	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Raleigh Convention Center	2,709,000	2,709,000	2,709,000	2,709,000	2,709,000	13,545,000
Performing Arts Center	2,650,000	-	-	-	-	2,650,000
Walnut Creek Amphitheater	200,000	200,000	200,000	200,000	200,000	1,000,000
Total	**$ 5,559,000**	**2,909,000**	**2,909,000**	**2,909,000**	**2,909,000**	**17,195,000**

Technology	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
ERP Debt Transfer	3,081,387	3,027,864	-	-	-	6,109,251
Office 365 and Exchange	1,375,000	-	-	-	-	1,375,000
Institutional Fiber Network	-	300,000	-	-	-	300,000
PeopleSoft Roadmap	500,000	800,000	-	-	-	1,300,000
Computer Aided Dispatch System	1,000,000	1,000,000	-	-	-	2,000,000
Recreation and Event Mgt Sys (REMS)	500,000	100,000	-	-	-	600,000
Planning and Evaluation Studies	-	50,000	50,000	50,000	50,000	200,000
Small Projects Fund	75,000	75,000	75,000	75,000	75,000	375,000
Reserve for Future Projects	12,613	931,136	3,875,000	3,875,000	3,875,000	12,568,749
Total	**$ 6,544,000**	**6,284,000**	**4,000,000**	**4,000,000**	**4,000,000**	**24,828,000**

Grand Total	**$ 180,043,000**	**$ 287,886,000**	**$ 228,699,000**	**$ 378,092,000**	**$ 170,954,000**	**$ 1,245,674,000**

Revenue Sources	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Transfers from General Fund	29,161,126	29,194,530	29,715,000	30,194,000	30,683,000	148,947,656
Transfers from Enterprise/Internal Funds	84,220,874	69,848,470	64,939,000	78,124,000	47,042,000	344,174,344
Bond Proceeds	41,342,000	175,544,000	122,943,000	218,318,000	82,627,000	640,774,000
Proceeds from Asset Sales	8,528,000	1,472,000	-	40,854,000	-	50,854,000
Facility Fees	5,550,000	4,450,000	3,950,000	3,450,000	3,450,000	20,850,000
User Fees and Program Income	3,900,000	3,925,000	3,925,000	3,925,000	3,925,000	19,600,000
Interlocal Funds	2,709,000	2,709,000	2,709,000	2,709,000	2,709,000	13,545,000
Interest Income	518,000	518,000	518,000	518,000	518,000	2,590,000
Appropriated Fund Balance	4,114,000	225,000	-	-	-	4,339,000
Total	**$ 180,043,000**	**287,886,000**	**228,699,000**	**378,092,000**	**170,954,000**	**1,245,674,000**

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 FY2017 General Fund budget will include roughly $3.2 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 2017	FY 2018	FY 2019	FY 2020	FY 2021
General Public Improvements					
Northeast Remote Operations	83,300	83,300	83,300	83,300	83,300
Central Operations Facility	302,350	302,350	302,350	302,350	302,350
Technology					
Energov (Planning and Permits)	646,602	672,466	699,365	727,339	756,433
Budget and Planning System	-	95,000	95,000	95,000	95,000
Office365 and Exchange	-	750,000	750,000	750,000	750,000
Recreation and Event Management	-	165,000	165,000	165,000	165,000
Computer Aided Dispatch (CAD)	-	250,000	250,000	250,000	250,000
Parks, Recreation and Cultural Resources					
Thomas G. Crowder Woodlands Center	336,613	309,000	309,000	309,000	309,000
Moore Square	300,000	397,000	397,000	397,000	397,000
Forest Ridge Park	366,566	446,000	446,000	446,000	446,000
Horseshoe Farm Nature Preserve	118,440	118,440	118,440	118,440	118,440
Crabtree Creek West	65,000	65,000	65,000	65,000	65,000
Playgrounds Improvements	70,000	70,000	70,000	70,000	70,000
Historic Site Improvements	-	70,000	70,000	70,000	70,000
Lineberry Neighborhood Park	-	55,000	55,000	55,000	55,000
Eastgate Park	-	-	93,000	93,000	93,000
Kiwanis Park	-	-	93,000	93,000	93,000
Perry Creek Rd Park	-	-	25,000	25,000	25,000
Walnut Creek Athletic center	-	-	85,000	85,000	85,000
Walnut Creek Wetlands Center	-	-	-	125,000	125,000
Pullen Art Center	-	-	-	15,000	15,000
Brentwood Park	-	-	-	125,000	125,000
John Chavis Memorial Park	-	-	-	175,000	175,000
Baileywick Community Center	-	-	-	-	400,000
Transportation					
Bike Share	35,000	285,000	285,000	285,000	285,000
Union Station	50,000	1,040,000	480,000	480,000	480,000
Cumulative Total	**1,988,221**	**4,787,906**	**4,550,805**	**5,018,779**	**5,447,873**

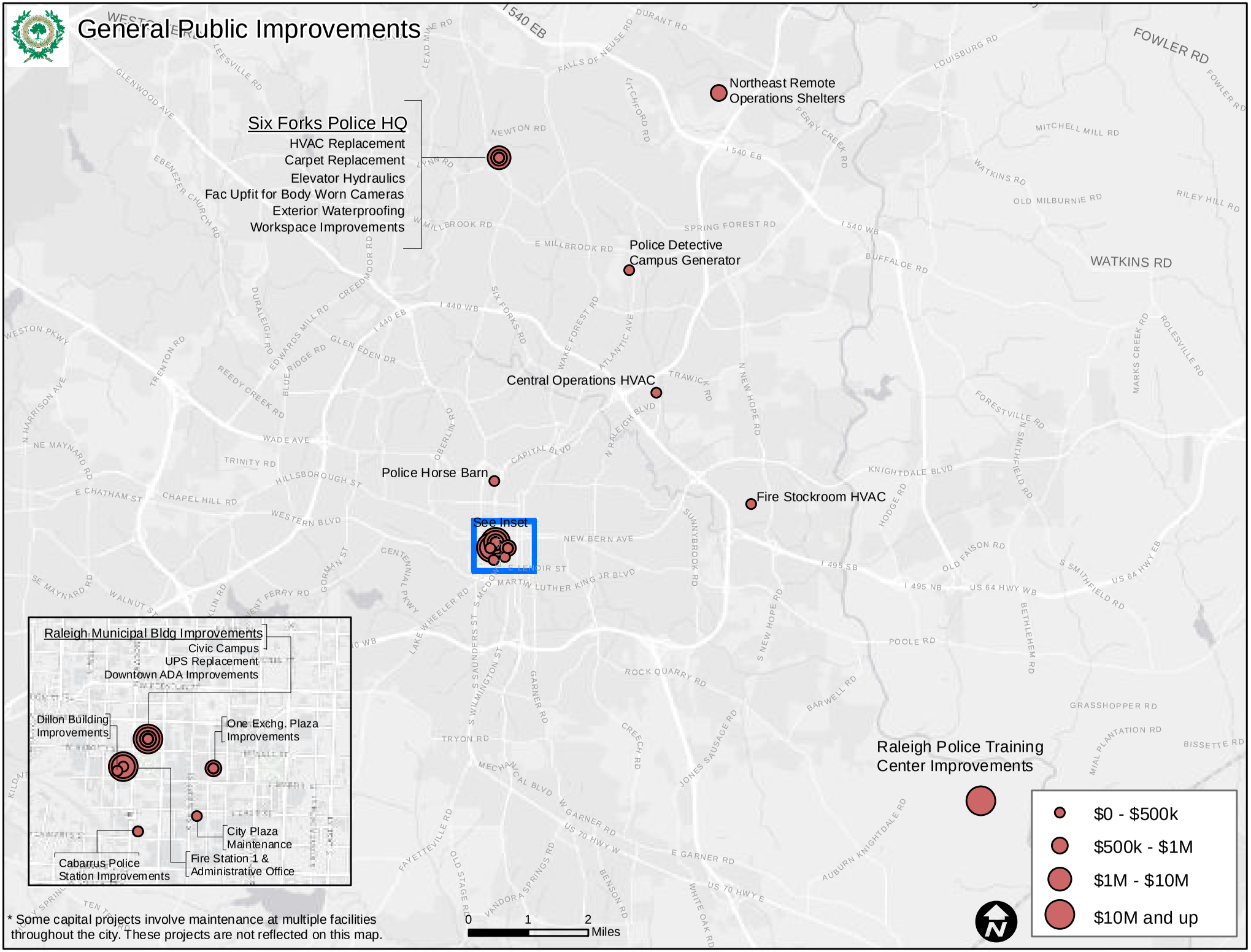
There are some future capital investments for which staff have not yet estimated operating impacts. During FY17, staff will continue analyzing operating needs for these projects, which include the future Dorothea Dix Park, new civic campus, Fire Station 1 and Fire Administration offices, and Police Training 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 continue to analyze need for future transit facilities. These may include transit centers along the City's major corridors. Pending the outcome of the sales tax referendum in Fall 2016, staff will work with regional stakeholders to prioritize transit system needs and determine how the new funds are used.
- Staff has begun identifying projects that could be included in a future transportation bond referendum. These projects would include additional road widenings, streetscapes, traffic management, and other needs. As with the 2013 transportation bond, additional funding could be included to provide city matches for State-funded highway, bridge, and other infrastructure projects.
- 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. The police training facility on Spring Forest Road is not large enough to accommodate the needs of law enforcement officers. By the end of 2016, staff will complete a study to identify needs, assess options, and develop a long-term plan to address public safety training facilities.
- Staff from Information Technology are working with other stakeholders to reconsider 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. The new technology capital process will begin this Summer with early discussions about needs. Going forward, the long-term operating costs of new systems will be a major criterion in determining which systems to implement.

General Public Improvements



General Public Improvements

Funded Projects	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
General Government Facility Maintenance	2,215,000	1,058,000	1,325,000	500,000	400,000	5,498,000
Public Safety Facility Maintenance	2,940,000	2,480,000	2,165,000	1,605,000	1,755,000	10,945,000
New Facilities	8,528,000	11,237,000	26,348,000	153,687,000	11,877,000	211,677,000
Economic Development	550,000	550,000	550,000	550,000	550,000	2,750,000
Reserve for Future Projects	-	512,000	560,000	1,945,000	1,895,000	4,912,000
Total General Public Improvements	**$ 14,233,000**	**15,837,000**	**30,948,000**	**158,287,000**	**16,477,000**	**235,782,000**

Revenue Sources	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Transfers from General Fund	5,040,000	4,500,000	4,500,000	4,500,000	4,500,000	23,040,000
Bond Proceeds	-	9,765,000	26,348,000	112,833,000	11,877,000	160,823,000
Proceeds From Asset Sales	8,528,000	1,472,000	-	40,854,000	-	50,854,000
Fund Balance Appropriation	565,000	-	-	-	-	565,000
Interest Income	100,000	100,000	100,000	100,000	100,000	500,000
Total Revenue Sources	**$ 14,233,000**	**15,837,000**	**30,948,000**	**158,287,000**	**16,477,000**	**235,782,000**

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

- Completion of Phase I carpet replacement at Police Headquarters on Six Forks Rd.
- Completion of freight elevator replacement at Municipal Building.
- Completion of roof assessment of all Fire Stations.
- Completion of Keeter Training Center HVAC replacement.
- Completion of air handler unit replacement used to cool the emergency critical equipment room at Municipal Building.

Work Plan Highlights

- Renovations of Fire Stations 2 and 5 will include asbestos and lead abatement, selective demolition, structural repairs, site enhancements, and building system and material replacement or repair. Work on Station 2 is expected to be completed in fall of 2016 and Station 5 in summer of 2016.
- Inclusion of emergency and backup generators in FY17 for various locations is directly linked as a priority in the city's Energy Assurance Plan.
- Downtown ADA projects are a part of the transition plan to bring downtown city facilities into compliance over the next five years.
- Energy efficient concepts will be applied into the design and project implementation, for lighting control system expansion for various downtown facilities, enhancements to HVAC Air Distribution system at Downtown Police District (Cabarrus St); and lifecycle replacement of boiler at Municipal Building.

Horizon Items

- Evaluate the condition of existing training facilities and the need for renovations or new facilities in the future.
- Evaluating emergency backup generators current inventory vs. needs in order to maintain and enhance energy assurance for all facilities.
- Continue to combine space configuration and security services opportunities for enhancement.

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	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
One Exchange Plaza						
Tenant Aesthetic Improvements	-	163,000	-	-	-	163,000
Generator	-	200,000	-	-	-	200,000
Light System Controls	-	125,000	-	-	-	125,000
HVAC Air Distribution	-	-	650,000	-	-	650,000
Raleigh Municipal Building						
Restroom Lifecycle	200,000	-	-	-	-	200,000
Caulking and Packaging	-	250,000	-	-	-	250,000
Lighting Control System	105,000	70,000	-	-	-	175,000
Dillon Building						
Electrical Panel	-	50,000	-	-	-	50,000
Generator	95,000	-	-	-	-	95,000
Sprinkler Replacement	-	-	200,000	-	-	200,000
Central Operations HVAC	285,000	-	-	-	-	285,000
City Plaza Maintenance	-	-	200,000	-	-	200,000
Northeast Remote Operations Shelters	525,000	-	-	-	-	525,000
Downtown ADA Improvements	200,000	200,000	200,000	200,000	200,000	1,000,000
Downtown Facilities Interior Upgrades	-	-	-	300,000	-	300,000
Downtown Facilities Upfits	780,000					
Solar LED Batteries Replacement	25,000	-	75,000	-	-	100,000
General Maintenance Improvements	-	-	-	-	200,000	200,000
Subtotal	**$ 2,215,000**	**$ 1,058,000**	**$ 1,325,000**	**$ 500,000**	**$ 400,000**	**$ 4,718,000**

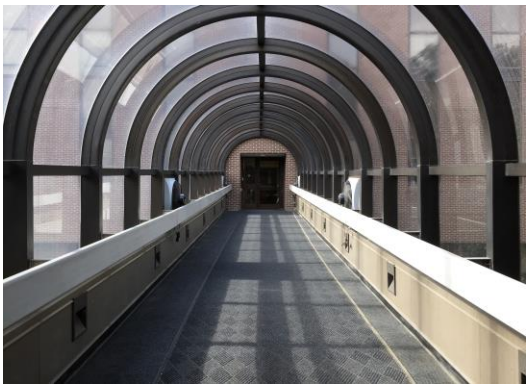
Highlighted Projects

RMB Restroom Lifecycle: $200,000

Scope of work includes removal of existing toilet partitions in bathrooms throughout the city and replacement with new partitions, inclusive of all fasteners, brackets and other hardware needed to guarantee institutional grade. In addition, this project includes removal and installation of new low flow fixtures throughout the building.

Downtown ADA Improvements: $1,000,000

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



Northeast Remote Operations Shelters: $525,000

Replace existing shelter and racks at Northeast Remote Operations Center which have exceeded their life expectancy. Scope includes demolition of the existing shelter, elevation of platform, rebuilding shelter as a steel structure which is at the same level of materials used at other remote operation centers for durability to prevent damage to the materials being stored at the location.

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	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Police Headquarters						
Carpet Replacement	90,000	-	-	-	-	90,000
HVAC Replacement	25,000	225,000	-	-	-	250,000
Exterior Waterproofing	-	-	310,000	-	-	310,000
Elevator Hydraulics	-	-	250,000	-	-	250,000
Facility Upfit for Body Worn Cameras	540,000	-	-	-	-	540,000
Police Detective Campus Generator	335,000	-	-	-	-	335,000
Police Downtown Station Roof Replacement	-	250,000	-	-	-	250,000
Police Horse Barn	150,000	-	-	-	-	150,000
Cabarrus Air Quality Improvements	50,000	-	-	-	-	50,000
Cabarrus Parking Lot Resurfacing	-	-	-	-	150,000	150,000
Fire Stations					-	
Deferred Maintenance Program	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	6,500,000
Lead Paint & Asbestos	100,000	100,000	100,000	100,000	100,000	500,000
Workspace Improvements	205,000	205,000	205,000	205,000	205,000	1,025,000
Fire Stockroom HVAC	145,000	-	-	-	-	145,000
UPS Replacement	-	400,000	-	-	-	400,000
Subtotal	**$ 2,940,000**	**$ 2,480,000**	**$ 2,165,000**	**$ 1,605,000**	**$ 1,755,000**	**10,945,000**

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.

Facility Upfit for Body Worn Cameras: $540,000

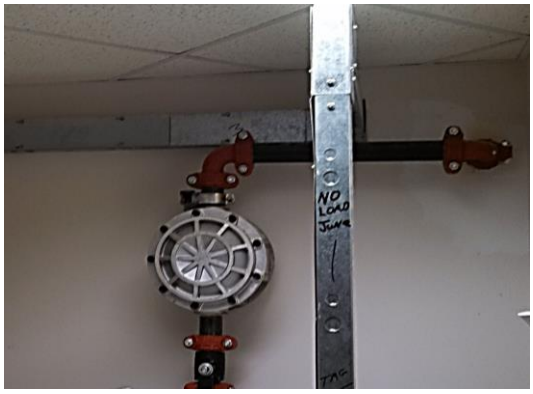
Hardware, software, docking stations, cost for nine facilities to allow for staff to efficiently dock cameras or download at any site. Funding of cameras, ongoing maintenance and storage are included in the operating budget.

Police Six Forks HVAC Replacement: $250,000

Scope of work includes the replacement of three HVAC units that have high efficiency with combination gas heat and air conditioning. All three units will be 28 years old in 2018 and will have reached the end of their life expectancy.

Police Six Forks Elevator Hydraulics and Air Conditioning: $250,000

Rehabilitation of the existing hydraulic passenger elevators to include replacement of hydraulic pump unit system complete with electric motor, hydraulic pump, oil tank, control valve, and hydraulic line and oil. Installation of hoist way vent to conform to code requirements and provide air conditioning to maintain temperature and humidity in the elevator room.



Police Atlantic Avenue Generator: $335,000

Scope of work includes installation of an emergency back-up generator for critical police hub for all service areas. If this is cancelled or delayed the ability to assist during power outage situations and the ability to work during critical weather events will be impacted negatively.

Economic Development

Economic Development	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	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
Subtotal	**$ 550,000**	**$ 550,000**	**$ 550,000**	**$ 550,000**	**$ 550,000**	**$ 2,750,000**

Highlighted Projects

Building Upfit Grant: $2,500,000

This new program will help property owners and small business owners improve existing buildings throughout the City. The goal of this grant program is to encourage new retail development throughout the City. The CIP programs $500,000 per year for these grants. Staff continue to refine criteria and policies to use in making awards.

Façade Grants Program: $250,000

This program helps small businesses rehabilitate older commercial properties with matching cash grants for exterior improvements. Improvements must comply with design standards specific to Pedestrian Business Overlay Districts (PBOD) streetscape plans and the Downtown Element of 2030 Comprehensive Plan.

New Facilities

New Facilities	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Civic Campus	-	7,499,000	7,761,000	138,052,000	11,877,000	165,189,000
Fire Station 1 and Administration Office	6,624,000	1,596,000	-	15,635,000	-	23,855,000
Police Training Center	1,904,000	2,142,000	18,587,000	-	-	22,633,000
Subtotal	**$ 8,528,000**	**$ 11,237,000**	**$ 26,348,000**	**$ 153,687,000**	**$ 11,877,000**	**211,677,000**

Civic Campus: $165,189,000

In Summer 2016, staff will begin master planning 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.

One major assumption for this project is that, after consolidating staff onto one site, unused City properties will be sold and the proceeds would offset a portion of the construction. These properties include One Exchange Plaza, Dillon Building, and City-owned parcels adjacent to Moore Square. Proceeds from the sale of 301 Hillsborough St., Charter Square, and 616 S. Salisbury St. will also be applied to this project.

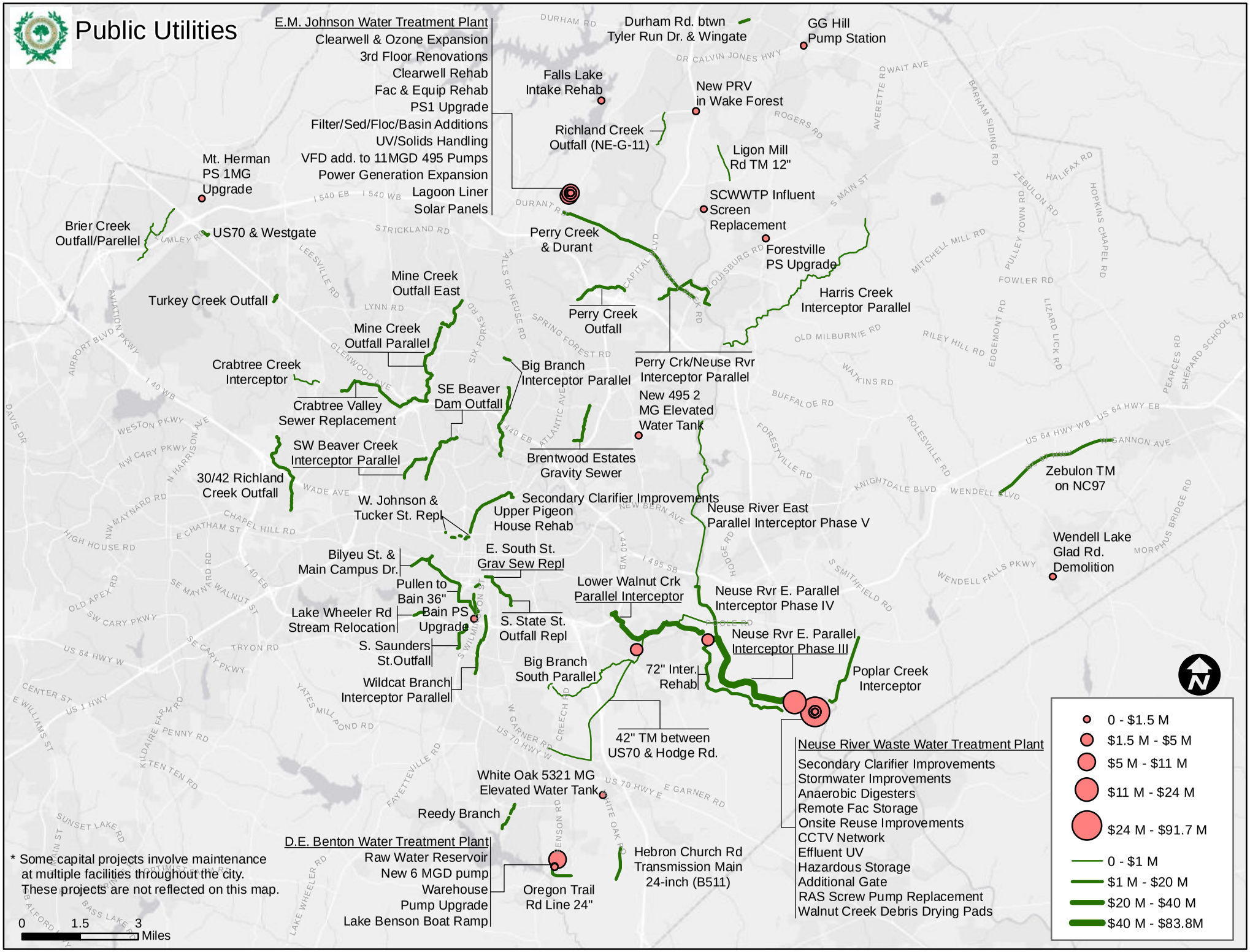
Fire Station 1 and Administration Office: $23,855,000

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, 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.

Police Training Center: $22,633,000

The Raleigh Police Department currently uses a 30-year old, 12,000 square foot facility as its primary training location. Given the large recruit academies, substantial ongoing training requirements, and physical fitness standards, the City will design and construct a new, larger training center. The City plans to construct the new facility at the Battlebridge Road property adjacent to the Wake County Sheriff's Office training center, consistent with an interlocal agreement with Wake County. This also locates the new structure next to the City's existing shooting range and other training facilities.

Public Utilities



Public Utilities

Funded Projects	FY 2017	FY 2018	FY 2019	FY 2020	FY2021	5 Year Total	FY 2022 to FY 2026	10 Year Total
Asset Management	24,352,000	34,802,000	26,912,000	37,542,000	26,545,000	150,153,000	199,986,000	350,139,000
Interceptors	7,300,000	16,350,000	82,950,000	83,600,000	47,650,000	237,850,000	170,969,000	408,819,000
NRWWTP Expansion	5,750,000	87,700,000	-	-	-	93,450,000	-	93,450,000
Wastewater Pump Stations	5,200,000	27,000,000	1,000,000	1,000,000	1,000,000	35,200,000	5,000,000	40,200,000
Reuse System	-	-	3,000,000	3,000,000	3,000,000	9,000,000	15,000,000	24,000,000
WWTP Maintenance	4,850,000	3,600,000	4,700,000	200,000	1,700,000	15,050,000	1,000,000	16,050,000
Water Main Expansions	100,000	3,640,000	1,525,000	3,180,000	12,400,000	20,845,000	45,620,000	66,465,000
Water Pump Stations	740,000	1,000,000	550,000	1,630,000	1,200,000	5,120,000	6,730,000	11,850,000
EMJWTP Expansion	4,350,000	-	220,000	3,850,000	-	8,420,000	156,400,000	164,820,000
Little River Projects	500,000	500,000	1,000,000	1,000,000	1,000,000	4,000,000	5,300,000	9,300,000
Water Tanks Upgrades	-	900,000	900,000	900,000	900,000	3,600,000	19,900,000	23,500,000
WTP Maintenance	10,150,000	9,550,000	11,500,000	11,000,000	5,750,000	47,950,000	3,750,000	51,700,000
Misc Water and Wastewater	8,250,000	2,000,000	2,850,000	3,000,000	1,250,000	17,350,000	8,400,000	25,750,000
Capital Equipment	4,700,000	5,700,000	6,800,000	5,000,000	5,000,000	27,200,000	25,000,000	52,200,000
Watershed Initiatives	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	11,250,000	11,250,000	22,500,000
Total Public Utilities Capital	**$ 78,492,000**	**194,992,000**	**146,157,000**	**157,152,000**	**109,645,000**	**686,438,000**	**674,305,000**	**1,360,743,000**

Revenue Sources	FY 2017	FY 2018	FY 2019	FY 2020	FY2021	5 Year Total	FY 2022 to FY 2026	10 Year Total
Transfer-Public Utilities (water)	35,200,000	26,670,000	28,720,000	20,350,000	22,303,000	133,243,000	112,216,000	245,459,000
Watershed Projection Fees	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	11,250,000	11,250,000	22,500,000
Transfer-Public Utilities (wastewater)	35,332,000	30,292,000	26,092,000	47,292,000	14,342,000	153,350,000	180,120,000	333,470,000
Bond Proceeds (water)	660,000	5,840,000	5,895,000	18,910,000	18,600,000	49,905,000	224,450,000	274,355,000
Bond Proceeds (wastewater)	5,050,000	129,940,000	83,200,000	68,350,000	52,150,000	338,690,000	146,269,000	484,959,000
Total Revenues	**$ 78,492,000**	**194,992,000**	**146,157,000**	**157,152,000**	**109,645,000**	**686,438,000**	**674,305,000**	**1,360,743,000**

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 over $1 billion in capital needs over the next 10 years, including $78 million in FY17.

The Public Utilities program includes projects for:

- Treatment and distribution of the city's drinking water supply
- Collection and treatment of wastewater
- Maintenance 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 processed by the wastewater treatment plant

Recent Accomplishments

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

- Completed rehabilitation of filters at NRRRF by replacing sand media in the 12 oldest filters. This restores the effectiveness of those filters in the waste water treatment process.
- Completed Aversboro Pump Station expansion from 1.7 to 4.7 MGD and the associated installation of parallel force main to increase sanitary sewer capacity in the south Garner service area
- Completed emergency water interconnects with the Town of Cary and City of Durham
- Completed Wake Forest Smith Creek Sanitary Sewer Interceptor Improvements
- Replaced over 8,000 linear feet of water main
- Replaced over 5,000 linear feet of sanitary sewer main

Work Plan Highlights

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

- Continue construction of the NRWWTP Expansion to 75 MGD Phase III and began construction on Phase IV
- Continue construction of the Crabtree Pipeline project
- Began construction of the EMJWTP Plate Settler Pilot project
- Began construction of the EMJWTP Sodium Permanganate Facility
- Began construction of the Zebulon Beaverdam Creek Interceptor Improvements

Notable projects added or modified as part of the FY17 Budget include:

- The addition of a 3 water main system expansion projects totaling $25.5 million, as recommended by the 2015 water master plan.
- The reduction of approximately $34 million in Little River projects. As other alternatives to the reservoir have developed, many permitting and wetland mitigation costs have been moved beyond the 10 year planning window.
- Additional funds for the Anaerobic Digester project to cover costs identified in preliminary engineering as process decisions are settled.
- Additional funds were added to the Customer Care & Billing Software Upgrade, EMJWTP laboratory facility and clearwell rehabilitation to cover revised scope and cost estimates.

Horizon Items

- Major initiatives for the Public Utilities Department over the next three to seven years revolve around infrastructure stability, compliance, completion of the merger capital improvements 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.
- Compliance related projects comprise a large portion of the CIP and include such projects as the Crabtree Pipeline, 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. Notable projects that remain to be completed include: Wake Forest Richland and Smith Creek Parallel Interceptors and Zebulon Beaverdam Creek Interceptor Improvements.

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

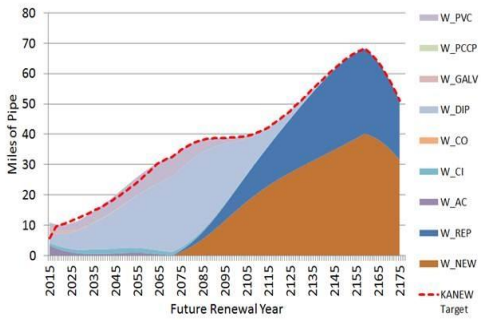
NRWWTP – Neuse River Wastewater Treatment Plant (former name of NRRRF)

MGD – Million Gallons per Day

Asset Management

This category funds the City's recently developed an Asset Management Plan (AMP), which is a proactive, sustainable, and continuous infrastructure replacement prioritization plan. The AMP was completed in August 2013, and the recommendations for condition assessment as well as 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.

Figure 6-7. Water Distribution System Pipe Replacement Target



Asset Management	FY 2017	FY 2018	FY 2019	FY 2020	FY2021	5 Year Total	FY 2022 to FY 2026	10 Year Total
Asset Management Gravity Sewer R&R	7,000,000	12,000,000	4,000,000	12,850,000	-	35,850,000	67,140,000	102,990,000
Asset Management Water Main R&R	3,100,000	3,700,000	4,000,000	6,100,000	6,253,000	23,153,000	31,266,000	54,419,000
Data Management Program	-	-	350,000	100,000	-	450,000	-	450,000
FCA and HPPR Assessment	-	-	-	-	1,800,000	1,800,000	9,000,000	10,800,000
Force Main Condition Assessment	182,000	182,000	182,000	-	-	546,000	-	546,000
Force Main FCA and HPPR Assessment	-	-	-	282,000	282,000	564,000	1,410,000	1,974,000
Force Main Replacement/Rehab	-	1,590,000	1,600,000	1,610,000	1,610,000	6,410,000	8,170,000	14,580,000
Gravity Sewer Condition Assessment	550,000	550,000	-	-	-	1,100,000	-	1,100,000
Gravity Sewer FCA and HPPR Assessment	-	-	-	2,100,000	2,100,000	4,200,000	10,500,000	14,700,000
Highest Priority Action Aerial Projects	-	1,360,000	1,360,000	-	-	2,720,000	-	2,720,000
Highest Priority Action Projects	920,000	920,000	920,000	-	-	2,760,000	-	2,760,000
Main Replacement	12,000,000	14,000,000	14,000,000	14,000,000	14,000,000	68,000,000	70,000,000	138,000,000
Pump Station and ARC Flash Assessment	100,000	-	-	-	-	100,000	-	100,000
Thoroughfare Mains	500,000	500,000	500,000	500,000	500,000	2,500,000	2,500,000	5,000,000
Subtotal	**$ 24,352,000**	**34,802,000**	**26,912,000**	**37,542,000**	**26,545,000**	**150,153,000**	**199,986,000**	**350,139,000**

Highlighted Projects

Project Name: Main Replacement $138,000,000 (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.

Project Name: Asset Management Gravity Sewer Rehabilitation & Replacement $102,990,000 (10 year total)

This project funds additional replacement of high priority, poor condition gravity sewer mains to meet the replacement targets projected in the asset management plan developed in 2013. That plan projected long term replacement needs for our system due to the expected service lives of the current stock of pipe comprising our sewer system. Based on that analysis, this project will fund increased replacement above and beyond the Main Replacement budget line of Gravity Sewer mains to keep pace with our expected rate of failure. This project is funded by the sanitary sewer infrastructure replacement fee.

Project Name: Asset Management Water Main R&R $54,419,000 (10 year total)

This project funds additional replacement of high priority, poor condition water mains to meet the replacement targets projected in the asset management plan developed in 2013. That plan projected long term replacement needs for our system due to the expected service lives of the current stock of pipe comprising our water system. Based on that analysis, this project will fund increased replacement above and beyond the Main Replacement budget line of water mains to keep pace with our expected rate of failure. This project is funded by the water infrastructure replacement fee.

Sewer Interceptor Upgrades

The 30 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	FY 2017	FY 2018	FY 2019	FY 2020	FY2021	5 Year Total	FY 2022 to FY 2026	10 Year Total
30/42 Richland Creek Outfall	-	-	600,000	-	5,200,000	5,800,000	-	5,800,000
72-inch Interceptor Rehabilitation	1,500,000	-	15,000,000	-	-	16,500,000	-	16,500,000
Big Branch Interceptor Parallel	-	-	1,400,000	-	11,200,000	12,600,000	-	12,600,000
Big Branch South Parallel	-	-	-	-	-	-	15,200,000	15,200,000
Brentwood Estates Gravity Sewer	-	4,400,000	-	-	-	4,400,000	-	4,400,000
Brier Creek Outfall/Parellel	-	-	-	-	-	-	12,250,000	12,250,000
Crabtree Creek Interceptor	-	-	-	-	-	-	4,750,000	4,750,000
Crabtree Valley Sewer Replacement	-	-	19,600,000	-	-	19,600,000	-	19,600,000
E. South St. Gravity Sewer Replacement	350,000	2,500,000	-	-	-	2,850,000	-	2,850,000
Harris Creek Interceptor Parallel	-	-	-	-	-	-	28,800,000	28,800,000
Lower Walnut Creek Parallel Interceptor	-	-	22,000,000	-	-	22,000,000	-	22,000,000
Mine Creek Outfall East	-	-	550,000	-	4,000,000	4,550,000	-	4,550,000
Mine Creek Outfall Parallel	-	450,000	900,000	-	10,200,000	11,550,000	-	11,550,000
Neuse River East Parallel Interceptor Phase III	3,500,000	2,000,000	3,000,000	75,300,000	-	83,800,000	-	83,800,000
Neuse River East Parallel Interceptor Phase IV	1,500,000	1,000,000	2,000,000	-	-	4,500,000	39,700,000	44,200,000
Neuse River East Parallel Interceptor Phase V	-	-	-	-	-	-	34,000,000	34,000,000
Perry Creek Outfall	-	-	1,000,000	-	8,100,000	9,100,000	-	9,100,000
Perry Creek/Neuse River Interceptor Parallel	450,000	850,000	10,200,000	-	-	11,500,000	-	11,500,000
Poplar Creek Interceptor	-	-	6,000,000	-	-	6,000,000	-	6,000,000
Reedy Branch	-	-	-	-	350,000	350,000	2,600,000	2,950,000
Richland Creek Outfall	-	-	-	-	-	-	11,269,000	11,269,000
Rocky Branch Outfall Parallel	-	-	500,000	-	4,200,000	4,700,000	-	4,700,000
S. Saunders St. Outfall	-	5,000,000	-	-	-	5,000,000	-	5,000,000
S. State St. Outfall Replacement	-	-	-	300,000	2,300,000	2,600,000	-	2,600,000
Southeast Beaver Dam Outfall	-	-	-	800,000	-	800,000	6,000,000	6,800,000
Southwest Beaver Creek Interceptor Parallel	-	-	-	-	400,000	400,000	3,000,000	3,400,000
Turkey Creek Outfall	-	150,000	-	1,200,000	-	1,350,000	-	1,350,000
Upper Pigeon House Rehabilitation	-	-	-	4,500,000	-	4,500,000	-	4,500,000
W. Johnson & Tucker St. Repl	-	-	200,000	-	1,700,000	1,900,000	-	1,900,000
Wildcat Branch Interceptor Parallel	-	-	-	1,500,000	-	1,500,000	13,400,000	14,900,000
Subtotal	**$ 7,300,000**	**16,350,000**	**82,950,000**	**83,600,000**	**47,650,000**	**237,850,000**	**170,969,000**	**408,819,000**

Highlighted Projects

Project Name: Neuse River East Parallel Interceptor Phase III & IV $128,000,000 (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: Harris Creek Interceptor Parallel
$28,800,000 (10 year total)

Replace approximately 35,000 linear (LF) of 30/24" gravity sewer main on the existing Harris Creek Outfall. The sewer will follow the alignment of the existing line along Harris Creek that serves Rolesville. The existing sewer is not adequately sized to carry future wet weather flows.

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

Replace 16,000 LF of 42" sanitary sewer main with a 66" 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.

Neuse River Resource Recovery Facility (NRRRF) Expansion

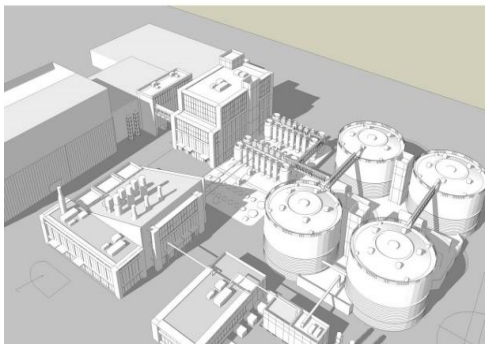
This category includes the construction of additional waste treatment facilities at the NRRRF. The project also includes the construction of anaerobic digesters at the NRRRF to provide a fuel source (methane gas) for fueling a generator to produce electricity or producing compressed natural gas for pipeline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

NRWWTP Expansion	FY 2017	FY 2018	FY 2019	FY 2020	FY2021	5 Year Total	FY 2022 to FY 2026	10 Year Total
Anaerobic Digesters	4,000,000	87,700,000	-	-	-	91,700,000	-	91,700,000
Effluent UV	1,500,000	-	-	-	-	1,500,000	-	1,500,000
Hazardous Storage	250,000	-	-	-	-	250,000	-	250,000
Subtotal	**$ 5,750,000**	**87,700,000**	**-**	**-**	**-**	**93,450,000**	**-**	**93,450,000**

Highlighted Projects

Project Name: NRRRF Anaerobic Digesters $91,700,000 (10 year total)

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



Wastewater Pump Stations

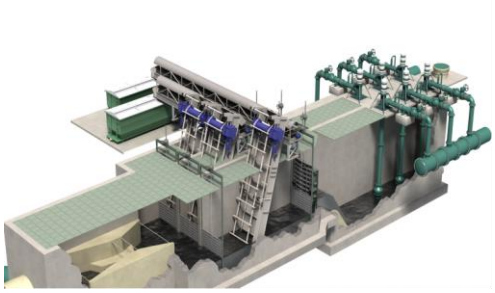
The CIP funding requested for wastewater pump stations includes the construction, rehabilitation, replacement or removal of sanitary sewer pump station facilities.

Wastewater Pump Stations	FY 2017	FY 2018	FY 2019	FY 2020	FY2021	5 Year Total	FY 2022 to FY 2026	10 Year Total
Big Branch Pump Station	4,000,000	-	-	-	-	4,000,000	-	4,000,000
East Neuse Regional Pump Station & Force Main	-	24,000,000	-	-	-	24,000,000	-	24,000,000
Removal/Rehab/Replacement	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000	5,000,000	10,000,000
Walnut Creek Odor	200,000	2,000,000	-	-	-	2,200,000	-	2,200,000
Subtotal	**$ 5,200,000**	**27,000,000**	**1,000,000**	**1,000,000**	**1,000,000**	**35,200,000**	**5,000,000**	**40,200,000**

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 is currently undertaking an update to the Reuse Master Plan. The original Master Plan was adopted in 2007. Since the adoption, the City has constructed more than 18 miles of reuse pipeline and one elevated 750,000 gallon storage tank. Now entering the second phase, the Reuse Master Plan Update is focused on constructing the smartest reuse system possible.

Reuse System	FY 2017	FY 2018	FY 2019	FY 2020	FY2021	5 Year Total	FY 2022 to FY 2026	10 Year Total
Neuse River Off-site Reuse System Expansion	-	-	2,000,000	2,000,000	2,000,000	6,000,000	10,000,000	16,000,000
NRWWTP Onsite Reuse Improvements	-	-	1,000,000	1,000,000	1,000,000	3,000,000	5,000,000	8,000,000
Subtotal	**$ -**	**-**	**3,000,000**	**3,000,000**	**3,000,000**	**9,000,000**	**15,000,000**	**24,000,000**

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 to continue reliable daily system operations.

WWTP Maintenance	FY 2017	FY 2018	FY 2019	FY 2020	FY2021	5 Year Total	FY 2022 to FY 2026	10 Year Total
Comprehensive Plan	-	-	-	-	1,500,000	1,500,000	-	1,500,000
Additional Gate	150,000	-	-	-	-	150,000	-	150,000
RAS Screw Pump Replacement	-	400,000	4,500,000	-	-	4,900,000	-	4,900,000
Remote Facilities Storage	150,000	-	-	-	-	150,000	-	150,000
CCTV network	-	2,000,000	-	-	-	2,000,000	-	2,000,000
Land Purchase	200,000	200,000	200,000	200,000	200,000	1,000,000	1,000,000	2,000,000
Secondary Clarifier Improvements	3,600,000	-	-	-	-	3,600,000	-	3,600,000
Stormwater Improvements	-	1,000,000	-	-	-	1,000,000	-	1,000,000
SCWWTP Influent Screen Replacement	750,000	-	-	-	-	750,000	-	750,000
Subtotal	**$ 4,850,000**	**3,600,000**	**4,700,000**	**200,000**	**1,700,000**	**15,050,000**	**1,000,000**	**16,050,000**

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 in pipe diameter is between 12 inches to 48 inches. 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	FY 2017	FY 2018	FY 2019	FY 2020	FY2021	5 Year Total	FY 2022 to FY 2026	10 Year Total
42" TM between US70 & Hodge Rd.	-	-	-	-	-	-	29,800,000	29,800,000
Bilyeu St. & Main Campus Dr.	100,000	1,000,000	-	-	-	1,100,000	-	1,100,000
Durham Rd. between Tyler Run Dr. & Wingate	-	-	25,000	250,000	-	275,000	-	275,000
EMJWTP Discharge Pipe	-	-	-	-	-	-	620,000	620,000
Hebron Church Road 24"	-	1,140,000	-	-	-	1,140,000	-	1,140,000
Ligon Mill Rd TM 12"	-	-	-	-	-	-	1,200,000	1,200,000
Oregon Trail Rd Line 24"	-	1,500,000	-	-	-	1,500,000	-	1,500,000
Perry Creek & Durant	-	-	400,000	1,400,000	-	1,800,000	13,500,000	15,300,000
Pullen to Bain 36"	-	-	900,000	-	8,230,000	9,130,000	-	9,130,000
Service Area Growth-Water	-	-	100,000	100,000	100,000	300,000	500,000	800,000
US70 & Westgate	-	-	100,000	930,000	-	1,030,000	-	1,030,000
Zebulon TM on NC97	-	-	-	500,000	4,070,000	4,570,000	-	4,570,000
Subtotal	**$ 100,000**	**3,640,000**	**1,525,000**	**3,180,000**	**12,400,000**	**20,845,000**	**45,620,000**	**66,465,000**

Water Pump Stations

This category includes rehabilitation and upgrades of existing water booster pumping 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	FY 2017	FY 2018	FY 2019	FY 2020	FY2021	5 Year Total	FY 2022 to FY 2026	10 Year Total
48- and 42-inch Valve Additions	-	-	-	-	-	-	480,000	480,000
Bain PS Upgrade	-	-	-	-	-	-	1,200,000	1,200,000
Benton WTP Pump Upgrade	-	-	-	-	-	-	1,200,000	1,200,000
DEBWTP - New 6 MGD pump	60,000	600,000	-	-	-	660,000	-	660,000
EMJWTP PS1 Upgrade	-	-	-	-	-	-	1,200,000	1,200,000
Forestville PS Upgrade	-	-	-	-	-	-	550,000	550,000
G.G. Hill PS	-	-	150,000	1,230,000	-	1,380,000	-	1,380,000
Mt. Herman PS 1MG Upgrade	280,000	-	-	-	-	280,000	-	280,000
New PRV in Wake Forest	-	-	-	-	-	-	100,000	100,000
VFD addition to 11MGD 495 Pumps	-	-	-	-	800,000	800,000	-	800,000
Water Booster Station Rehab	400,000	400,000	400,000	400,000	400,000	2,000,000	2,000,000	4,000,000
Subtotal	**$ 740,000**	**1,000,000**	**550,000**	**1,630,000**	**1,200,000**	**5,120,000**	**6,730,000**	**11,850,000**

EM Johnson Water Treatment Plant (EMJWTP) Expansion

This project group includes Phase 1, 2 and 3 of the 120 MGD EMJWTP expansion. The initial phase of the plant expansion will incorporate new high rate filters, power generation expansion, improvements to the raw water transmission lines to the plant reservoirs, various chemical improvements, and the installation of miscellaneous electrical/instrumentation/controls. Phase 1 also provides reliability and redundancy to the existing clearwell storage needs and the installation of a 4th Ozone Generator and associated Destructor. Phase 2 involves the addition of flocculation and sedimentation basin improvements to the existing basins and the installation of new rapid mix basins, as well as installation of new raw water yard piping, chemical injection, site electrical and instrumentation/controls. Phase 3 EMJWTP expansion includes the construction of a new ultraviolet radiation disinfection facility, and improved solids handling facilities. The need for these facilities will be highly dependent upon the location and quantity of the City's next water resource.

EMJWTP Expansion	FY 2017	FY 2018	FY 2019	FY 2020	FY2021	5 Year Total	FY 2022 to FY 2026	10 Year Total
Clearwell Expansion	-	-	-	-	-	-	21,000,000	21,000,000
Filter/Sed/Floc Basin Additions	-	-	-	-	-	-	38,500,000	38,500,000
Flocculation Sedimentation Basin Improvements	-	-	-	-	-	-	36,400,000	36,400,000
Ozone Expansion	-	-	-	-	-	-	24,500,000	24,500,000
Power Generation Expansion	4,250,000	-	220,000	3,850,000	-	8,320,000	-	8,320,000
UV/Solids Handling	-	-	-	-	-	-	36,000,000	36,000,000
DEBWTP Filter/Pulsator Uprate Study	100,000	-	-	-	-	100,000	-	100,000
Subtotal	**$ 4,350,000**	**-**	**220,000**	**3,850,000**	**-**	**8,420,000**	**156,400,000**	**164,820,000**

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 funds the wetland mitigation monitoring that will be used to quantify the impacts associated with the eventual reservoir construction. Finally, funding is provided for the City to develop other economically and environmentally feasible sources for future water supply.

Little River Projects	FY 2017	FY 2018	FY 2019	FY 2020	FY2021	5 Year Total	FY 2022 to FY 2026	10 Year Total
Mitigation Monitoring	-	-	-	-	-	-	300,000	300,000
Wake County Reimbursement	500,000	500,000	500,000	500,000	500,000	2,500,000	2,500,000	5,000,000
Water Supply Development	-	-	500,000	500,000	500,000	1,500,000	2,500,000	4,000,000
Subtotal	**$ 500,000**	**500,000**	**1,000,000**	**1,000,000**	**1,000,000**	**4,000,000**	**5,300,000**	**9,300,000**

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. Also included is the construction of two new elevated water storage tanks to support increase in water demand and to address storage and system reliability.

Water Tank Upgrades	FY 2017	FY 2018	FY 2019	FY 2020	FY2021	5 Year Total	FY 2022 to FY 2026	10 Year Total
Elevated Water Tank Rehabilitation	-	900,000	900,000	900,000	900,000	3,600,000	4,500,000	8,100,000
New 495 2 MG Elevated Water Tank	-	-	-	-	-	-	11,200,000	11,200,000
Tank	-	-	-	-	-	-	4,200,000	4,200,000
Subtotal	**$ -**	**900,000**	**900,000**	**900,000**	**900,000**	**3,600,000**	**19,900,000**	**23,500,000**

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 operational efficiency.

WTP Maintenance	FY 2017	FY 2018	FY 2019	FY 2020	FY2021	5 Year Total	FY 2022 to FY 2026	10 Year Total
DEBWTP Warehouse	300,000	-	-	-	-	300,000	-	300,000
DEBWTP Lake Benson Boat Ramp	-	-	-	250,000	-	250,000	-	250,000
DEBWTP Raw Water Reservoir	-	-	1,000,000	10,000,000	-	11,000,000	-	11,000,000
EMJ WTP Clearwell Rehab	1,000,000	-	7,500,000	-	-	8,500,000	-	8,500,000
3rd Floor Renovations	-	-	500,000	-	-	500,000	-	500,000
Bulk Storage Facilities	300,000	2,200,000	-	-	-	2,500,000	-	2,500,000
Chemical Storage Tank Replacement	-	-	250,000	-	-	250,000	-	250,000
Clearwell Rehab	-	1,000,000	-	-	-	1,000,000	-	1,000,000
Facility/Equipment Rehabilitation	750,000	750,000	750,000	750,000	750,000	3,750,000	3,750,000	7,500,000
Falls Lake Intake Rehabilitation	-	-	500,000	-	-	500,000	-	500,000
Lagoon Liner	900,000	-	-	-	-	900,000	-	900,000
New Laboratory Facility	5,500,000	-	-	-	-	5,500,000	-	5,500,000
North South Basin Rehabilitation	300,000	2,400,000	-	-	-	2,700,000	-	2,700,000
Raw Water Reservoir Covers	400,000	-	-	-	-	400,000	-	400,000
Settling Basin Rehabilitation	-	200,000	1,000,000	-	-	1,200,000	-	1,200,000
Sludge Conveyance	-	3,000,000	-	-	-	3,000,000	-	3,000,000
Solids Handling Improvements	700,000	-	-	-	5,000,000	5,700,000	-	5,700,000
Subtotal	**$ 10,150,000**	**9,550,000**	**11,500,000**	**11,000,000**	**5,750,000**	**47,950,000**	**3,750,000**	**51,700,000**

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	FY 2017	FY 2018	FY 2019	FY 2020	FY2021	5 Year Total	FY 2022 to FY 2026	10 Year Total
Access to Sanitary Sewer Mains	-	200,000	200,000	200,000	200,000	800,000	1,000,000	1,800,000
CCB Upgrade	5,000,000	-	-	-	-	5,000,000	-	5,000,000
EMJWTP Solar Panels	400,000	-	-	-	-	400,000	-	400,000
Lake Wheeler Stream Relocation	650,000	-	-	-	-	650,000	-	650,000
Sanitary Sewer Siphon Rehabilitation	1,000,000	1,000,000	1,000,000	1,000,000	-	4,000,000	-	4,000,000
Service Area Growth-Sewer	-	-	200,000	200,000	200,000	600,000	1,000,000	1,600,000
Sewer System Capacity	200,000	200,000	250,000	1,000,000	250,000	1,900,000	2,700,000	4,600,000
Utility Field Operation Facilities Improvements	-	500,000	500,000	500,000	500,000	2,000,000	2,500,000	4,500,000
Walnut Creek Debris Drying Pads	350,000	-	-	-	-	350,000	-	350,000
Water Distribution WQ Program, Study, Eval, & Design	100,000	100,000	700,000	100,000	100,000	1,100,000	1,200,000	2,300,000
Wendell Lake Glad Rd. Demolition	250,000	-	-	-	-	250,000	-	250,000
Zebulon Wtp Basin Demolition	300,000	-	-	-	-	300,000	-	300,000
Subtotal	**$ 8,250,000**	**$ 2,000,000**	**$ 2,850,000**	**$ 3,000,000**	**$ 1,250,000**	**$ 17,350,000**	**$ 8,400,000**	**$ 25,750,000**

Capital Equipment

This category includes the hydrant and nozzle replacement plan (10 and five year respectively) 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 line provides funds to purchase operational related capital equipment needs such as meter replacement.

Capital Equipment	FY 2017	FY 2018	FY 2019	FY 2020	FY2021	5 Year Total	FY 2022 to FY 2026	10 Year Total
2-inch Meter Replacement	-	-	1,100,000	-	-	1,100,000	-	1,100,000
Capital Equipment Rehabilitation/Replacement	4,700,000	4,000,000	4,000,000	4,000,000	4,000,000	20,700,000	20,000,000	40,700,000
Fire Hydrant Nozzle Replacement	-	700,000	700,000	-	-	1,400,000	-	1,400,000
Fire Hydrant Replacement	-	1,000,000	1,000,000	1,000,000	1,000,000	4,000,000	5,000,000	9,000,000
Subtotal	**$ 4,700,000**	**$ 5,700,000**	**$ 6,800,000**	**$ 5,000,000**	**$ 5,000,000**	**$ 27,200,000**	**$ 25,000,000**	**52,200,000**

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.

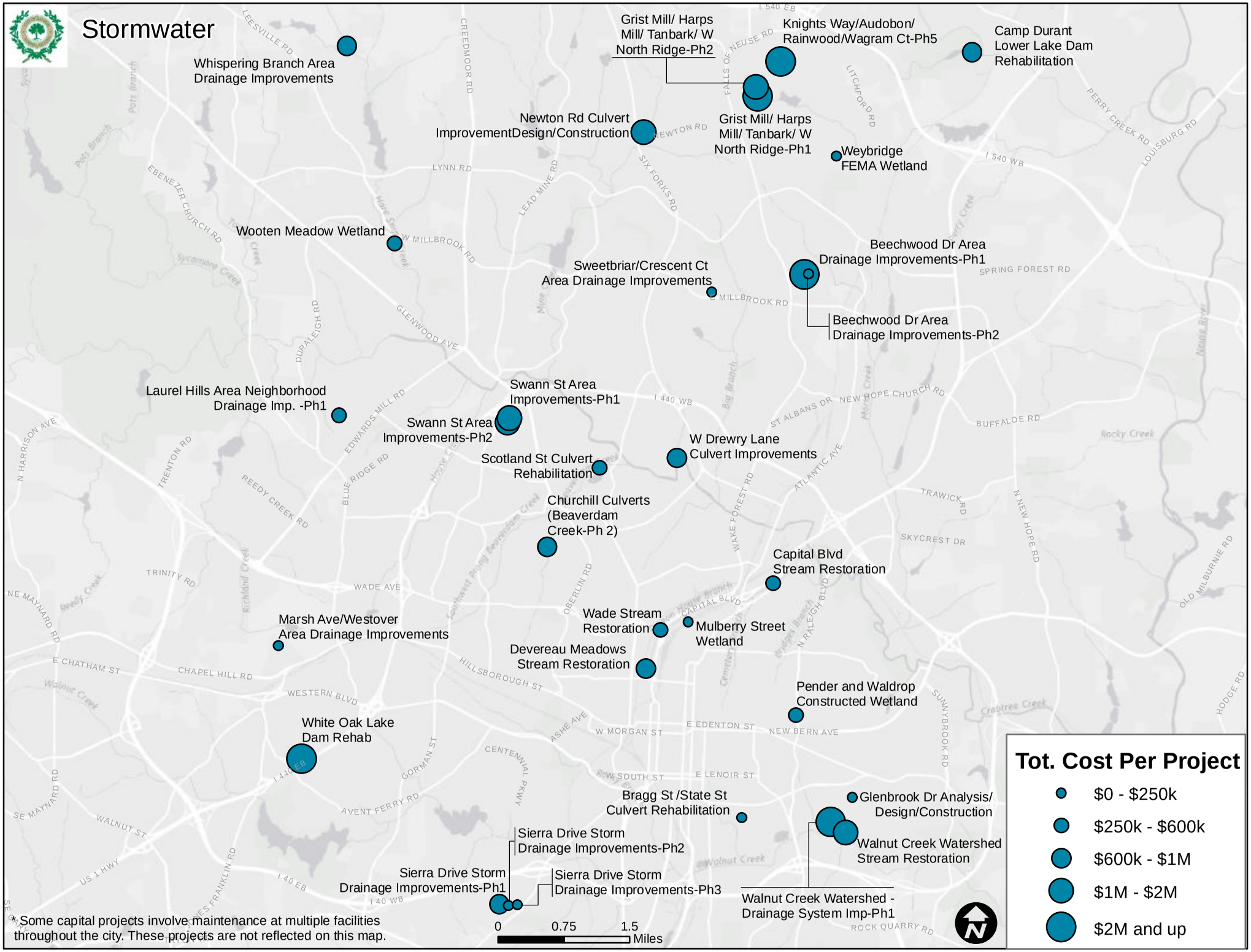
Watershed Initiatives	FY 2017	FY 2018	FY 2019	FY 2020	FY2021	5 Year Total	FY 2022 to FY 2026	10 Year Total
Watershed Initiatives	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	11,250,000	11,250,000	22,500,000
Subtotal	**$ 2,250,000**	**2,250,000**	**2,250,000**	**2,250,000**	**2,250,000**	**11,250,000**	**11,250,000**	**22,500,000**

CITY OF RALEIGH

ESTABLISHED 1792

NORTH CAROLINA

Stormwater



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

Stormwater Management

Funded Projects	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Lake Preservation	3,750,000	-	-	-	-	3,750,000
Water Quality Improvements	100,000	-	700,000	100,000	400,000	1,300,000
General Water Quality	650,000	550,000	550,000	550,000	550,000	2,850,000
Stream Restoration	-	500,000	850,000	1,775,000	-	3,125,000
General Drainage Infrastructure	2,106,000	2,200,000	2,200,000	2,200,000	2,450,000	11,156,000
Neighborhood Drainage System Improvements	3,525,000	5,800,000	4,230,000	3,610,000	4,100,000	21,265,000
Street Drainage System Improvements	775,000	750,000	450,000	1,100,000	1,750,000	4,825,000
Total	**$ 10,906,000**	**$ 9,800,000**	**$ 8,980,000**	**$ 9,335,000**	**$ 9,250,000**	**$ 48,271,000**

Revenue Sources	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Transfers from Stormwater Operations	10,232,000	9,332,000	8,737,000	9,092,000	9,007,000	46,400,000
Drainage Petition Fees	75,000	75,000	75,000	75,000	75,000	375,000
Interest On Investments	168,000	168,000	168,000	168,000	168,000	840,000
Appropriated Fund Balance	431,000	225,000	-	-	-	656,000
Total Revenues	**10,906,000**	**9,800,000**	**8,980,000**	**9,335,000**	**9,250,000**	**48,271,000**

Element Overview

With a core Stormwater Management Program mission focused on preserving and protecting life, supporting healthy natural resources, and complementing sustainable growth for the vibrant Raleigh community, priority project categories within the Stormwater Capital Improvement Program 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. The Stormwater Capital Improvement Program for FY2017 through FY2021 totals $48.3 million.

Recent Accomplishments

- Completed construction of the $4 million, multi-objective Northshore Lake rehabilitation project that will provide both public safety and water quality benefits. Northshore Lake is the largest single stormwater capital improvement project planned, designed, and constructed by the City to date. Also completed construction on six other priority stormwater capital improvement projects valued at approximately $2.6 million.
- Completed construction of 22 high priority community Drainage Assistance projects valued at approximately $1.2 million.
- Completed four stormwater quality cost share retrofit projects valued at more than $50,000.
- After completion of the first study phase, continued work by the program in advancing the use of Green Infrastructure/Low Impact Development (GI/LID) measures for stormwater management. The Program anticipates providing further recommendations to City Council as work plan implementation teams develop draft code changes that will provide encouragement and reduce the number of barriers to the use of GI/LID development and redevelopment techniques.

- Ongoing implementation and regulatory compliance with the City's NPDES MS4 Stormwater Discharge Permit and Stormwater Program. The City's NPDES MS4 program also demonstrated regulatory compliance with only a relative few minor required adjustments through a formal EPA audit within the last two years.
- Through the use of FEMA Hazard Mitigation Grants, the flood prone Milner Inn property along Capital Boulevard was acquired at a total cost of $1,075,000. This acquisition was funded wholly by State and Federal grant money, and the City incurred no cost. The project further enhanced program efforts to reduce property damage due to flooding and will also advance the City's longer-term vision for restoration of Pigeon House Branch along the Capital Boulevard gateway corridor.

Work Plan Highlights

- Funded by a $1 per month increase in the stormwater management fee, staff will expand the 5-year CIP by 33% from $36 million to over $48 million. Staff will complete a higher volume of drainage assistance projects and system repairs and conduct more watershed planning. The City will also have more funding available to acquire flood-prone property.
- Continued funding of $3 million for the construction rehabilitation of the high priority White Oak Lake. This project will address public safety and dam safety concerns, reduce the frequency and severity of area flooding, protect and improve water quality, and remain consistent with the City's Lake Preservation Policy.
- Funding of $3 million for final design, permitting, and construction of the highest priority drainage system improvements within the Beechwood-Cypress area community to help alleviate street and structural flooding while protecting receiving water quality.
- Continued funding totaling $250,000 for the water quality cost share program and $500,000 for water quality improvement projects.
- Increased funding totaling $1,250,000 for the growing drainage petitions program.
- $3 million in funding for continued neighborhood-wide drainage system improvement projects.

Operating Impacts

- Implementation of priority capital stormwater improvement projects will necessitate continuing maintenance of permanent stormwater easement areas by the City and/or contracted maintenance forces.
- Near-term operating impacts of contractual maintenance for permanent stormwater easements are included within current and proposed operational budgets.

Horizon Items

- Anticipate continued growth of water quality regulatory requirements necessitating retrofit projects to improve water quality.
- Continue to prioritize drainage and stream system improvements on private property that convey public runoff. The proposed enhancements to the drainage assistance program in FY17 will begin this effort.
- Continue to implement the Integrated Stormwater Project Prioritization Model for identifying and ranking stormwater capital improvement projects.

Lake Preservation

Lake preservation projects focus on 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.

Lake Preservation	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
White Oak Lake Dam Rehab	3,000,000	-	-	-	-	3,000,000
Camp Durant Lower Lake Dam Rehabilitation	750,000	-	-	-	-	750,000
Subtotal	**3,750,000**	**-**	**-**	**-**	**-**	**3,750,000**

Highlighted Projects

White Oak Lake Dam: $3,000,000

White Oak Lake is not classified with the North Carolina Dam Safety Division; however, it is does provide stormwater management benefits to the Simmons Branch drainage system. The total drainage area to the lake is approximately 109 acres consisting of mostly residential areas. The existing spillway for the lake consists of four 24-inch corrugated metal pipes which are corroded and in poor condition. The concrete lined emergency spillway is also in poor condition with broken concrete slabs and severe erosion. The existing spillway is also blocked with debris and sediment deposits causing the normal water level to be higher than ideal and limited any online water storage. The existing dam embankment contains mature trees which are not permitted by North Carolina Dam Safety standards.

The North Carolina Department of Transportation is anticipating that the existing White Oak Lake dam embankment area will be required for traffic control during the I-440 widening project. The proposed design will relocate the lake's dam embankment, improve the spillway, and provide additional stormwater storage which will benefit the downstream Simmons Branch drainage system.

This project will provide water quantity and quality management benefits.

Water Quality, General Water Quality, and Stream Restoration

The water quality program area plans and delivers both fully-funded city stormwater quality projects and provides Raleigh property owners with financial assistance to install devices that improve and treat stormwater runoff from their properties. Priority is given to projects that drain to streams designated by the State and U.S. Environmental Protection Administration (USEPA) as impaired, that have high benefit-to-cost relationships based on pollutant removal, and that are in areas designated as Priority Water Quality Target Areas.

Stream restoration projects are designed to stabilize and restore streams and protect and improve surface water quality within priority watersheds in Raleigh.

Water Quality Improvements	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Pender and Waldrop Constructed Wetland	-	-	-	100,000	400,000	500,000
Weybridge FEMA Wetland	-	-	150,000	-	-	150,000
Mulberry St Wetland	-	-	250,000	-	-	250,000
Wooten Meadows Wetland	100,000	-	300,000	-	-	400,000
Subtotal	**100,000**	**-**	**700,000**	**100,000**	**400,000**	**1,300,000**
						-
General Water Quality	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Water Quality Cost Share	250,000	250,000	250,000	250,000	250,000	1,250,000
Water Quality Retrofit Projects	200,000	100,000	100,000	100,000	100,000	600,000
TMDL Streams Water Quality Projects	200,000	200,000	200,000	200,000	200,000	1,000,000
Subtotal	**650,000**	**550,000**	**550,000**	**550,000**	**550,000**	**2,850,000**
Stream Restoration	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Walnut Creek Watershed - Stream Restoration	-	-	350,000	1,000,000	-	1,350,000
Wade Stream Restoration	-	-	150,000	450,000	-	600,000
Devereau Meadows Stream Restoration	-	500,000	350,000	-	-	850,000
Capital Blvd Stream Restoration	-	-	-	325,000	-	325,000
Subtotal	**-**	**500,000**	**850,000**	**1,775,000**	**-**	**3,125,000**

Highlighted Projects

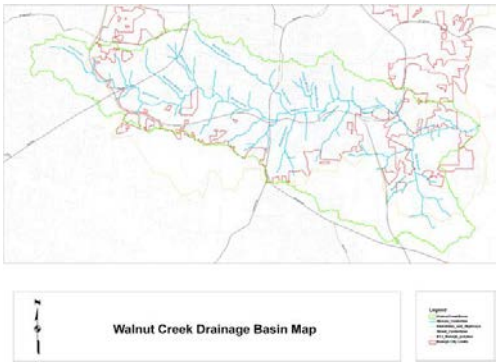
Water Quality Cost Share: $1,250,000

This program provides funding assistance to Raleigh property owners to help pay for installing devices that improve and treat stormwater runoff from their properties, also thereby benefitting local receiving waters. Examples of projects are bioretention beds, rainwater harvesting systems, stream and buffer restoration, green roofs, infiltration devices, cisterns, and pervious pavers. Funded projects may not contribute to a property owners' required compliance with City or State stormwater management ordinances or regulations.

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

This category of projects includes installation of devices that protect and improve the quality of stormwater runoff that flows into streams that USEPA has designated as impaired and for which the City is required to reduce stormwater-source pollutant “loading” of the stream to a target level (total maximum daily load, or TMDL). Similar to Water Quality Retrofit Projects, many of these devices reduce runoff pollutants and volume. Included are bioretention cells, constructed wetlands, pavers, stormwater detention ponds, vegetated stream buffers, and pervious pavers and pavements.

Walnut Creek Watershed-Stream Restoration (Priority Projects): $1,350,000



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 the available floodplain mapping within the watershed; update information for previously recommended water quality Best Management Practices; and to provide stormwater master planning for key locations currently experiencing flooding. The study recommends approximately 118 potential stormwater retrofit projects to address street and structural flooding and improve streams and water quality. This project is to move forward with prioritizing and designing the highest priority stream stabilization and restoration improvement areas identified in the master plan.

General Drainage Infrastructure

This category projects includes the storm drainage petitions program, emergency drainage repairs, and flood mitigation. Storm drainage petition projects are on private property and help reduce flooding to homes and businesses, repair eroded streams, and replace failing drainage infrastructure.

General Drainage Infrastructure	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Stormwater System Repairs	500,000	500,000	500,000	500,000	500,000	2,500,000
Drainage Assistance (Petition) Projects	1,456,000	1,250,000	1,250,000	1,250,000	1,250,000	6,456,000
Flood Mitigation Projects	-	200,000	200,000	200,000	200,000	800,000
Watershed Planning / Program Planning	150,000	250,000	250,000	250,000	500,000	1,400,000
Subtotal	**2,106,000**	**2,200,000**	**2,200,000**	**2,200,000**	**2,450,000**	**11,156,000**

Stormwater System Repairs: $2,500,000

Stormwater system repair projects focus on unplanned, emergency maintenance repairs of existing stormwater infrastructure. These projects typically exceed current resource and staffing capabilities within the Transportation Field Services Unit to maintain or repair.

This category includes culvert repairs such as Blenheim Drive (pictured), where a large tree situated above the culvert fell causing five sections of 54-inch pipe to become separated. Severe erosion has occurred along the fill slope above the culvert which is threatening the sidewalk and roadway. The steep eroding slope is a safety hazard for the citizens in the area. The proposed solution is to replace the structure from the catch basin at the roadway to the outfall and stabilize the slope with an estimated total cost of $345,000.

Drainage Petitions Program: $6,456,000

This category includes cost-share projects, focused on remediating and repairing drainage problems on private property. Projects must include a public contribution of water (runoff from a public street, right-of-way or City owned property) and typically involve 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 typically involve upgrades to stormwater infrastructure on private property but may also include improvements within the right-of-way where necessary. Examples of projects recently completed or in the construction queue include replacement of failing, aging or undersized CMP pipe with new concrete (RCP) or high density polyethylene pipe (HDPE), 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 is the completed drainage petition project at Maram Court.

Project costs typically vary anywhere from $5,000 to $250,000, and can involve anywhere from one to ten property owners. The City of Raleigh, through the administration of the Drainage Assistance Program and Policy, has retrofit and repaired several thousand linear feet of stormwater pipe and open channel over the last decade and is poised to upgrade even more stormwater infrastructure in the years to come through the development of the program.

Flood mitigation program: $800,000

This project provides matching funds for the Federal Emergency Management Agency's (FEMA) hazard mitigation grant program to acquire repetitive flood loss properties helping to reduce major flood hazards. City staff manages and maintains a priority of list of properties that experience multiple losses during large flooding events for the purpose of applying for grants to acquire highly flood prone properties.

Watershed planning/Program planning: $1,400,000

These projects help identify and classify stormwater management needs and improvement opportunities citywide. Watershed-based planning ensures that system improvements 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. Stormwater has a strategic goal to increase funding and effort in watershed planning in the coming fiscal year and beyond. Future watershed planning will also integrate and apply the new Integrated Stormwater Project Prioritization Model.

Neighborhood Drainage and Street Drainage System Improvements

Neighborhood drainage improvement projects and Street Drainage System improvements include major storm drainage system improvements to prevent 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 neighborhood areas.

Neighborhood Drainage System Improvements	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Knights Way/Audobon/Rainwood/Wagram Ct (Ph 5)	-	2,500,000	-	-	-	2,500,000
Sierra Drive Storm Drainage Improvements (Ph 1)	-	1,000,000	-	-	-	1,000,000
Beechwood Dr Area Drainage Improvements (Ph 1)	3,000,000	-	-	-	-	3,000,000
Churchill Culvert (Beaverdam Creek Ph 2)	-	-	680,000	-	-	680,000
Grist Mill/Harps Mill/Tanbark Drainage/W. North Ridge (Ph 1)	-	2,300,000	-	-	-	2,300,000
Grist Mill/Harps Mill/Tanbark Drainage/W. North Ridge (Ph 2)	-	-	1,300,000	-	-	1,300,000
Laurel Hills Area Neighborhood Drainage Improvements (Ph 1)	525,000	-	-	-	-	525,000
Swann St Area Improvements (Ph 1)	-	-	1,700,000	-	-	1,700,000
Swann St Area Improvements (Ph 2)	-	-	-	1,750,000	-	1,750,000
Walnut Creek Watershed-Drainage Improvements (Ph 1)	-	-	-	1,500,000	2,000,000	3,500,000
Future Neighborhood Drainage System Projects	-	-	550,000	360,000	2,100,000	3,010,000
Subtotal	**3,525,000**	**5,800,000**	**4,230,000**	**3,610,000**	**4,100,000**	**21,265,000**

Highlighted Projects

Swann Street Area Improvement (Phase I & II): $3,450,000

This area experiences significant street and private property flooding conditions. Water has overflowed the creekbank and the street in torrents. The drains across from homes are undersized, and , as a result, adjacent property and street right of way floods.The goal of the project is to upgrade the undersized storm drainage system serving Swann Street and other areas of the Swann Street drainage basin that are currently contributing to street and structural flooding. It will reduce significant street flooding.

Beechwood Drive Area Drainage Improvements (Phase 1):
$3,000,000

The greater Beechwood Drive area experiences both street and private property structural flooding. A drainage basin study has been completed by the City for this area in recent years to help identify, evaluate, and prioritize phased improvements for the drainage system. The Phase 1 project proposed for FY17 will finalize recommendations for the highest priority drainage system improvements as well as fund final engineering design and construction for the initial phase of improvements. Much of the Beechwood area including Quail Ridge Road lacks adequate drainage infrastructure. The Beechwood project begins the work of retrofitting the drainage system to alleviate street and structural flooding concerns while also protecting water quality.

Newton Road Culvert Improvement Design & Construction:
$1,450,000

This project will consist of replacing two undersized culverts under Newton Rd. Preliminary studies recommend the replacement of the two existing 72-inch pipes with 2-10 ft by 8 ft box culverts. In addition, the slope along the culvert and right of way embankment is failing at this location.

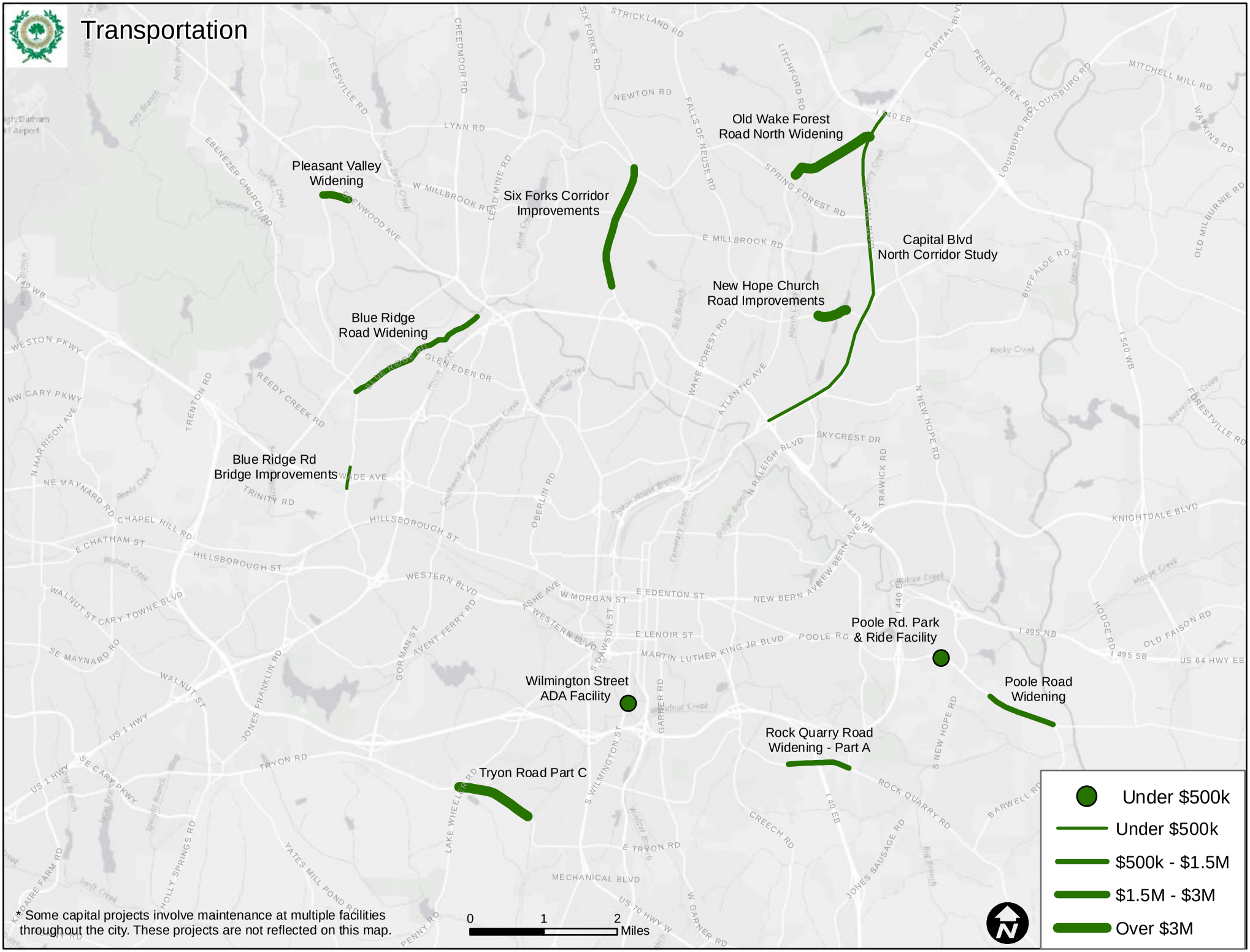
The project is moving forward as the failure could eventually compromise the sidewalk and Newton Road roadway section. City staff has made temporary repairs to the area however the required project scope is beyond the capacity of the City Maintenance staff.

CITY OF RALEIGH

ESTABLISHED 1792

NORTH CAROLINA

Transportation



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

Transportation

Funded Projects	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Major Street Projects	13,635,000	4,974,000	3,000,000	2,500,000	2,500,000	26,609,000
Street Improvement Program	12,798,000	9,090,000	9,370,000	9,704,000	9,945,000	50,907,000
Bicycle and Pedestrian Improvements	1,573,000	960,000	1,045,000	920,000	1,113,000	5,611,000
Studies and Planning Projects	575,000	125,000	125,000	200,000	200,000	1,225,000
Transit	1,908,000	1,525,000	1,480,000	1,525,000	1,430,000	7,868,000
Parking	1,170,000	1,170,000	1,290,000	1,290,000	1,290,000	6,210,000
Total Transportation	**$ 31,659,000**	**17,844,000**	**16,310,000**	**16,139,000**	**16,478,000**	**98,430,000**

Revenue Sources	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
2013 Bond Proceeds	13,632,000	1,474,000	-	-	-	15,106,000
Transfers from General Fund	10,572,000	10,650,000	10,970,000	11,299,000	11,638,000	55,129,000
Streets Facility Fees	3,500,000	3,500,000	3,000,000	2,500,000	2,500,000	15,000,000
Streets Facility Fees-Fund Balance	1,000,000	-	-	-	-	1,000,000
Assessments and Fees	825,000	850,000	850,000	850,000	850,000	4,225,000
Interest Income	200,000	200,000	200,000	200,000	200,000	1,000,000
Appropriated Fund Balance - Transportatio	760,000	-	-	-	-	760,000
Transfers from Parking Operating Fund	812,000	1,170,000	1,290,000	1,290,000	1,290,000	5,852,000
Appropriated Fund Balance - Parking	358,000	-	-	-	-	358,000
Total Revenues	**$ 31,659,000**	**$ 17,844,000**	**$ 16,310,000**	**$ 16,139,000**	**$ 16,478,000**	**$ 98,430,000**

Element Overview

The transportation capital program includes major street construction, street improvements, pedestrian and bicycle projects, downtown parking improvements, and transit projects. Total funding for the five-year program is $98.4 million with $31.7 million planned for FY2017. The CIP programs the final $15.1 million from the 2013 Transportation Bond. 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 matching funds for a transit technology project 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. Raleigh was able to successfully receive $9.4 million in FY16 and $4.6 million in FY17 for select roadway, transit, bicycle, and pedestrian projects by leveraging City project funds.

The CIP also invests $7.9 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 $6.2 million for maintenance and improvements at downtown parking decks including funding in FY17 for upgraded parking equipment.

Recent Accomplishments

The City has completed several major transportation projects including:

- Leesville Road widening north of I-540;
- Kaplan Drive and Brookside Drive traffic calming projects;
- Bicycle pavement markings for 27 miles of new facilities across the City;
- Bicycle Plan Update; and
- Recertification as APBP Bike-Friendly City – Bronze Level.

Work Plan Highlights

- The CIP continues increased cash funding for street resurfacing supported by a 1¢ property tax increase approved in FY2015. The revenue is transferred to the CIP for additional resurfacing contracts and brings the total resurfacing budget in FY2017 to $7.6 million and the five year total to $39.5 million. The funding enables the City to resurface approximately 3% of its streets annually, compared to 1% prior to the dedicated funding source.
- Continued implementation of projects from the 2013 Transportation Bond with construction of Buck Jones Road, Mitchell Mill Road, Sandy Forks Road, and Hillsborough Street Phase II and construction funding for New Hope Church Road and Pleasant Valley Road.
- Continued design and future acquisition of right-of-way for Yonkers Road, New Bern Avenue, Tryon Road Part C, and Old Wake Forest Road North Widening.
- Design work will begin on three widening projects in preparation for future transportation bonds: Blue Ridge Road (Duraleigh Road to Crabtree Valley Avenue), Poole Road (Maybrook Road to Barwell Road), and Six Forks Road (Rowan Street to Lynn Road).
- Work on streetscape improvement projects continues with design construction of three neighborhood projects on Currituck Drive, Crosslink Road, and Town & Country Road as well as planning and design work for Peace Street east of Capital Boulevard.
- Increased facility fee revenue generated by increased development activity will be used to supplement bond funding for major street projects.

Operating Impacts

- Staff continues to estimate the operating requirements and costs for Union Station. The facility will likely require additional positions and funds to maintain and operate efficiently. These costs will be added to a future operating budget.
- With approval of the City's bike share program approved in March, staff is currently working to facilitate the design and implementation of the system. As station locations and a vendor are selected, the City will begin to identify specific operating requirements, staffing, and budget. In FY17 a bike share coordinator position is funded beginning January 1st, 2017.

Horizon Items

- 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 $7.2 million in funding.
- The city will need to continue to identify funding for local matches on upcoming North Carolina Department of Transportation projects including I-440 Beltline widening, bridge replacements, Martin Luther King Boulevard bike facilities, and the Western/Avent Ferry pedestrian underpass.

- The CIP funds the construction of two Major Streets projects. Construction or right-of-way acquisition for projects, as well as for programs such as neighborhood traffic management, streetscapes, sidewalk petitions, and sidewalk repairs, after Fiscal Year 2017 will depend on the identification of substantial funding through future transportation bonds or other sources.
- To continue the city's transit improvements, staff is analyzing the need for future transit facilities. All new options and plans are being considered in the context of the Wake County Transit Plan and are contingent on citizen approval of funding through the Transit Half-cent Sales Tax referendum.

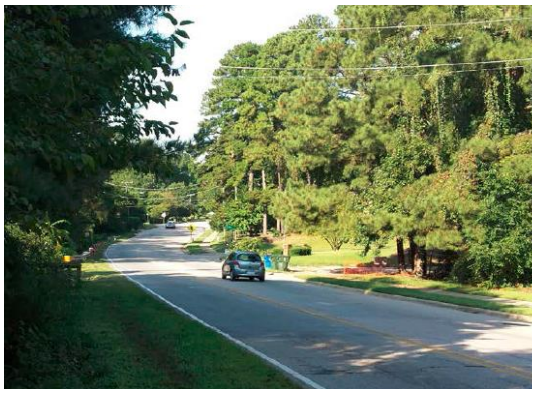
Major Street Projects

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. Raleigh citizens approved bonds in 2013 to fund these projects.

Major Streets Projects	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5-Year Total
New Hope Church Road Improvements	1,450,000	1,811,000	-	-	-	3,261,000
Pleasant Valley Road Widening	1,130,000	1,663,000	-	-	-	2,793,000
Old Wake Forest Road North Widening	3,600,000	-	-	-	-	3,600,000
Tryon Road Part C	3,325,000	-	-	-	-	3,325,000
Rock Quarry Road Widening - Part A	-	1,500,000	-	-	-	1,500,000
Six Forks Road Corridor Improvements	1,850,000	-	-	-	-	1,850,000
Poole Road Widening	1,030,000	-	-	-	-	1,030,000
Blue Ridge Road Widening	1,250,000	-	-	-	-	1,250,000
Reserve for Future Projects	-	-	3,000,000	2,500,000	2,500,000	8,000,000
Subtotal	**$ 13,635,000**	**4,974,000**	**3,000,000**	**2,500,000**	**2,500,000**	**26,609,000**

Highlighted Projects

New Hope Church Road Improvements: $3,261,000
(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 budget funds the right-of-way acquisition mitigation and construction.

Pleasant Valley Road Widening: $2,793,000
(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 budget funds the right-of-way acquisition, mitigation, and construction.

Old Wake Forest Road North Widening: $3,600,000
(Project Total - $4,800,000)

This project will widen Old Wake Forest Road to a four-lane median-divided section with curb and gutter, sidewalks, bicycle lanes, and streetlights from Litchford Road to Capital Boulevard (US 1). This project was partially funded for design and right-of-way as part of the 2013 Transportation Bond referendum and will require additional funding in FY18 to complete construction.

Rock Quarry Road Widening Part A: $1,500,000
(Project Total - $3,000,000)

This project will widen Rock Quarry Road from Olde Birch Road to Sunnybrook Road. The project will widen the segment to four lanes with a median, curb and gutter, sidewalks, bicycle lanes, and streetlights. This project will require the widening of the existing I-40 overpass and will eliminate a bottleneck within the Rock Quarry Road corridor. Current funding supports design and right-of-way efforts for the project, with construction funding required in later years.

Tryon Road Part C: $3,325,000
(Project Total - $4,525,000)

This project will widen Tryon Road between Lake Wheeler Road and Par Drive. The improved street will feature a four-lane curb and gutter section with a raised median, bike lanes, sidewalks, landscaping, street trees, and streetlights. This project will complete the entire corridor from US 1/64 in Cary to Garner Road. This project is funded for design and right-of-way with 2013 Transportation Bonds and will require additional construction funding in later years.

Six Forks Road Corridor Improvements: $1,850,000

This project will improve Six Forks Road from Rowan Street to Lynn Road based on the recommendations of the Corridor Plan. As currently proposed, the project will widen the link to six lanes with sidewalks, separated bicycle lanes, low-impact development features, enhanced transit stops, and streetlights. Current funding only supports design for the project, with construction funding required in later years.

Poole Road Widening: $1,030,000

This project will widen Poole Road to a four-lane median divided section with curb and gutter, bicycle lanes, and streetlights from Maybrook Road to Barwell Road. It would revise two traffic signals and construct a new sidewalk on both sides of the street. Current funding only supports design efforts for the project, with construction funding required in later years.

Blue Ridge Road Widening: $1,250,000

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. A portion of the street must be realigned due to a sharp curves and topography. There are planned to be two revised and one new traffic signal. 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 matching funds for NCDOT projects affecting city streets.

Street Improvement Program	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5-Year Total
Street Resurfacing	7,563,000	7,640,000	7,870,000	8,104,000	8,345,000	39,522,000
Street Improvements & Paving Petitions	2,400,000	500,000	500,000	500,000	500,000	4,400,000
Intersection Safety	-	450,000	450,000	450,000	450,000	1,800,000
Traffic Signal Installations	200,000	200,000	200,000	200,000	200,000	1,000,000
Bridge Repair & Maintenance	250,000	300,000	300,000	300,000	300,000	1,450,000
Right-of-Way/Easements	170,000	-	50,000	150,000	150,000	520,000
Neighborhood Traffic Management - Major	1,640,000	-	-	-	-	1,640,000
Neighborhood Traffic Management - Minor	175,000	-	-	-	-	175,000
Capital Streetscape Program	400,000	-	-	-	-	400,000
Subtotal	**$ 12,798,000**	**9,090,000**	**9,370,000**	**9,704,000**	**9,945,000**	**50,907,000**

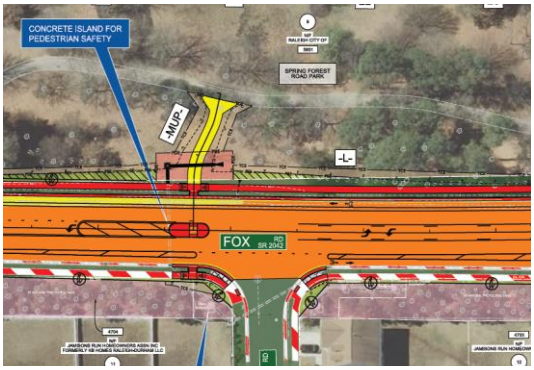
Highlighted Projects

Street Resurfacing: $39,522,000

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: $4,400,000

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. FY17 funding will support projects on Lorimer Road, Fox Road, Pineview Drive, and Churchill Road.



Neighborhood Traffic Management Program: $1,815,000

The City of Raleigh promotes safe and efficient public streets that contribute to a positive quality of life for residents. The city is also committed to mitigating impacts that may detract or adversely affect the places where we live. Positive street design and good traffic management within our neighborhoods are important elements of this goal. The program includes the Neighborhood Streetscape (major) and Traffic Calming (minor) programs.

Bicycle and Pedestrian Programs

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	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Sidewalk Repairs	400,000	400,000	300,000	200,000	200,000	1,500,000
Thoroughfare Streetlight Installation	-	300,000	350,000	450,000	493,000	1,593,000
Pedestrian Intersection Safety Projects	-	-	150,000	-	150,000	300,000
ADA Curb Ramps	-	175,000	150,000	150,000	150,000	625,000
Blue Ridge Rd Bridge Improvements	500,000	-	-	-	-	500,000
Microgap Sidewalk	162,000	-	-	-	-	162,000
Bicycle Lane Marking and Signage	71,000	70,000	75,000	100,000	100,000	416,000
Bicycle Facilities/Parking and Stations	15,000	15,000	20,000	20,000	20,000	90,000
Bike Share	425,000	-	-	-	-	425,000
Subtotal	**$ 1,573,000**	**960,000**	**1,045,000**	**920,000**	**1,113,000**	**5,611,000**

Highlighted Projects

Blue Ridge Road Sidewalks/Bridge: $500,000

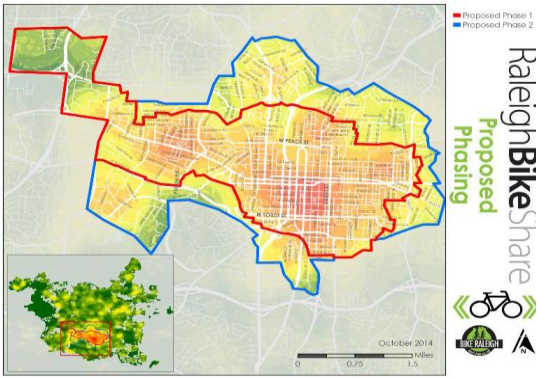
The project will fund the final designs to fill sidewalk gaps along Blue Ridge Road between Reedy Creek Road and Trinity Road. The planning phase is underway and will include the development of concepts to widen the existing bridge over Wade Avenue to improve pedestrian and bicycle connectivity along the corridor between the NCSU Biomedical Campus, State Fairgrounds, Arena complex, the NC Museum of Art, and Reedy Creek Greenway.

Microgap Sidewalks: $153,000

The program is aimed at filling in identified sidewalk gaps of 400 feet or less on both major and neighborhood streets. The program currently has approximately 85 projects identified across the City.

Bike Share: $425,000

This amount represents a 20% city match against a federal grant for the purchase and installation of 30 bike share stations across downtown, the N.C. State campus, and westward to the North Carolina Art Museum. The City is working to partner with other organizations on this project. This City contribution will be reduced should other entities contribute to the construction.



Transit

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 at intersections, bicycle facilities markings, and street light installations. In addition, this category programs matching funds for projects awarded to the city through the Capital Area MPO's LAPP process.

Transit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5-Year Total
Bus & Van Replacements	148,000	-	-	-	-	148,000
Equipment & Facility Maintenance	100,000	125,000	200,000	200,000	200,000	825,000
Corridor Improvements (Shelters/Benches)	50,000	167,000	250,000	250,000	200,000	917,000
Preventative Maintenance (Fixed Route)	820,000	825,000	850,000	895,000	850,000	4,240,000
Preventative Maintenance (Paratransit)	180,000	180,000	180,000	180,000	180,000	900,000
Wilmington Street ADA Facility	340,000	-	-	-	-	340,000
AVL/CAD/Wireless on Buses	270,000	-	-	-	-	270,000
Poole Road Park & Ride Facility	-	228,000	-	-	-	228,000
Subtotal	**$ 1,908,000**	**1,525,000**	**1,480,000**	**1,525,000**	**1,430,000**	**7,868,000**

Highlighted Projects

Wilmington Street ADA Facility: $340,000

This project will renovate the existing Transportation Operations facility on Wilmington Street in order to convert it to an administrative facility for the City's ADA paratransit program (Accessible Raleigh Transportation). The center will house GoRaleigh's paratransit call center, administrative offices, an ADA assessment center, and a transit ID service center. The rear of the facility will also serve as a storage and maintenance facility serving all on-street amenities for GoRaleigh.

AVL/CAD/Wireless on Buses: $270,000

This project represents the City's match for CAMPO LAPP funding to upgrade on-vehicle systems in order to greatly improve the operation of the GoRaleigh system. New technologies will integrate with and upgrade the existing equipment, including the public announcement system, automated passenger counters, electronic signage, fareboxes, and camera system. The project will modernize transit controls to provide drivers with schedule information on display monitors and send detour information directly to buses impacted by unexpected incidents.

Other Transportation Categories

Parking	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Parking Deck Improvements	695,000	615,000	300,000	625,000	775,000	3,010,000
Parking Deck Assessment & Repairs	40,000	40,000	40,000	40,000	40,000	200,000
Parking Deck LED Lighting	270,000	350,000	785,000	460,000	310,000	2,175,000
Parking Deck Security	165,000	165,000	165,000	165,000	165,000	825,000
Subtotal	**$ 1,170,000**	**1,170,000**	**1,290,000**	**1,290,000**	**1,290,000**	**6,210,000**

Parking Deck Improvements: $3,010,000

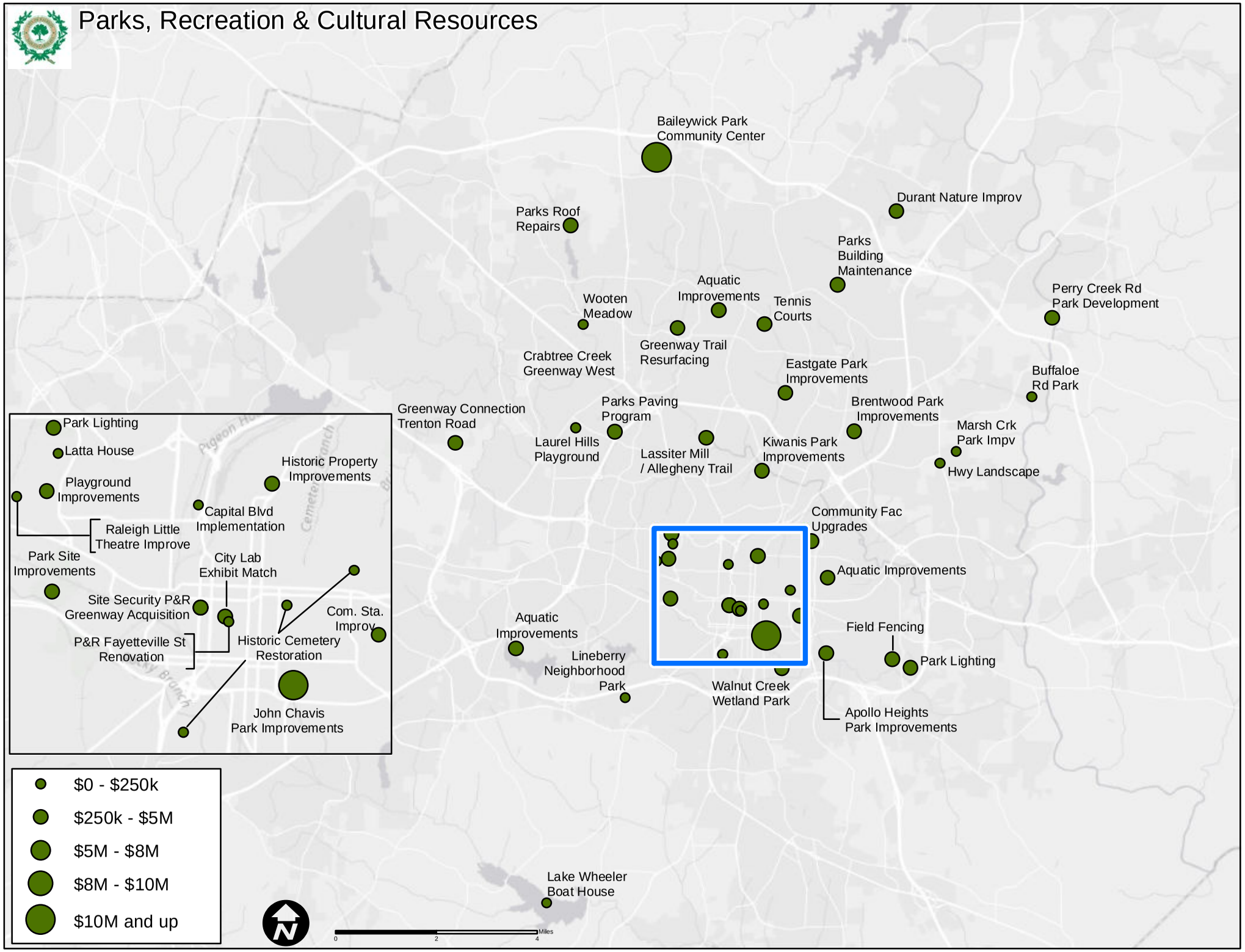
This project includes repairs at the Municipal Deck, Moore Square Deck and Convention Center Deck. Repairs will include concrete floor repair, concrete ceiling repair, column and joint repairs, water proofing, and electrical repairs. Work on Cabarrus, Wilmington, City Center and Performing Arts Decks began in FY16.

CITY OF RALEIGH

ESTABLISHED 1792

NORTH CAROLINA

Parks, Recreation & Cultural Resources



Parks, Recreation and Cultural Resources

Parks, Recreation and Cultural Resources Projects	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Land Acquisition	100,000	125,000	100,000	125,000	125,000	575,000
Greenway System	300,000	300,000	300,000	300,000	300,000	1,500,000
Cultural Resources	100,000	110,000	300,000	750,000	235,000	1,495,000
Facility Improvements	2,325,000	2,860,000	2,635,000	2,580,000	3,045,000	13,445,000
Plans, Studies & Development	590,000	500,000	845,000	175,000	220,000	2,330,000
Site Improvements	1,660,000	1,500,000	1,315,000	1,615,000	1,670,000	7,760,000
2014 Bond Projects	19,375,000	28,525,000	7,500,000	18,225,000	-	73,625,000
Total Parks, Recreation and Cultural Resources Capital	**$ 24,450,000**	**33,920,000**	**12,995,000**	**23,770,000**	**5,595,000**	**100,730,000**

Revenue Sources	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
2014 Bond Proceeds	19,375,000	28,525,000	7,500,000	18,225,000	-	73,625,000
Transfers from General Fund	3,825,000	4,245,000	4,345,000	4,395,000	4,445,000	21,255,000
Tree Conservation Area Fee	50,000	50,000	50,000	50,000	50,000	250,000
Parks Facility Fees	1,050,000	950,000	950,000	950,000	950,000	4,850,000
Transfers from Revolving Fund	100,000	100,000	100,000	100,000	100,000	500,000
Interest Income	50,000	50,000	50,000	50,000	50,000	250,000
Total Revenue Sources	**$ 24,450,000**	**33,920,000**	**12,995,000**	**23,770,000**	**5,595,000**	**100,730,000**

Element Overview

The *City of Raleigh Comprehensive Plan, the City of Raleigh Strategic 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. The PRCR department Capital Improvement Program consists of seven project categories: Land Acquisition; Greenway System; Cultural Resources; Facility Improvements; Plans, Studies and Development; Site Improvements; and 2014 Parks, Recreation and Cultural Resources Bond. Major funding sources for the program include general fund transfers, facility fees, and bond proceeds.

Recent Accomplishments

- The Department opened a new facility at Abbotts Creek Park south of the North Wake Landfill Park in northeast Raleigh. The project is a joint venture with Wake County Public School System. The building was designed with sustainable features targeting a Silver LEED certification from the US Green Building Council.
- Renovations and accessibility upgrades on three existing facilities were completed at Worthdale Community Center, Millbrook Exchange Community Center and Campbell Lodge at Durant Nature Preserve.
- The Schematic Design for Moore Square was approved by City Council and will move forward with construction documents and the permitting process.
- Powell Drive Park playground renovation was completed with a generous contribution from the Alpha Kappa Alpha Sorority, Inc., Alpha Theta Omega Chapter. Play equipment was installed by volunteers at a Community Build event.

- The City of Raleigh and the State of North Carolina completed the closing process for the City's acquisition of 308 acres of the Dorothea Dix Campus. The purpose of the City's acquisition of the property is to eventually plan and develop a new destination park.
- The Arts Plan was adopted by City Council. The Arts Plan provides a vision for the arts and creates an aspirational roadmap to fulfill the 2015 Strategic Plan's goal for the Arts and Cultural Resources Key Focus Area: "Embrace Raleigh's diverse offerings of arts and cultural resources as iconic celebrations of our community that provide entertainment, community, and economic benefit."
- Phase 1 improvements at Horseshoe Farm have been completed including: improvements to the entrance drive and dam, parking, signage, walking trails, a picnic shelter, a restroom facility and connection to the Neuse River Greenway system. This project is part of a pilot program for sustainable landscapes that is recognized internationally.
- City Council adopted the Master Plan for Wooten Meadow. The proposed plan will address priority items that were identified during an 18-month long process of public input.
- Ballfield fencing upgrades were completed at Pullen Park, Buffaloe Road Athletic Park, and Optimist Park.
- Tennis courts were resurfaced at Worthdale Park and Spring Forest Park.

Work Plan Highlights

- PRCR will continue to focus on projects for FY 2017 as outlined in the 2014 Parks Bond Referendum. Bond projects included are: Park Lighting, Land Acquisition, Greenway Improvements, Building Maintenance, Historic Property Improvements, Walnut Creek Softball Complex improvements, Shelly Lake Comfort Station replacement, Aquatic Improvements, and Pullen Arts Center Improvement.
- The Department 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.
- CIP funds for PRCR will continue to be supplemented with bond funds in order to achieve completion of long awaited park projects.

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 roughly 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 to develop the Capital Improvement Program.
- 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

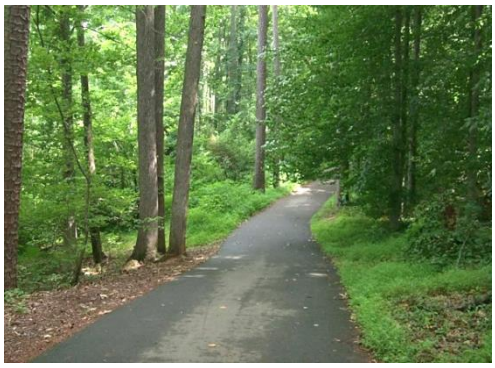
with geographic information system (GIS) data on the size and locations of existing parks. Properties in these areas are then analyzed to determine their suitability as park sites. City Council approves all park land acquisitions. Greenway land is usually conveyed to the City through greenway easements 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	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Park Site Acquisition	-	25,000	-	25,000	25,000	75,000
Greenway Acquisition	100,000	100,000	100,000	100,000	100,000	500,000
Subtotal	**$ 100,000**	**125,000**	**100,000**	**125,000**	**125,000**	**575,000**

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	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	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
Subtotal	**$ 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 Sawmill (Structures 3, 5), Beaver Dam (Structures 56, 121), Gardner St (Structures 51, 52), Lake Park Segment to Shelley Lake (Structures 22, 24), Brentwood (Structure 103), Allegheny Steps (Structure 69).

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 2.1 mile asphalt trail around Shelley Lake.

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 and John Chavis Memorial parks; Mordecai Historic Park; Pope House Museum; City of Raleigh Museum; Latta House and University site; Borden Building and Tucker House; and the City, Mt. Hope and O'Rorke-Catholic historic cemeteries. This 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. These properties include historic cemeteries, historic parks and homes, museums, public art, and carousels. Major maintenance work includes replacing 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	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Carousel Animal Restoration	25,000	25,000	25,000	25,000	25,000	125,000
Historic Cemetery Restoration	25,000	-	25,000	50,000	150,000	250,000
Historic Property Improvements	25,000	25,000	25,000	250,000	25,000	350,000
Historic Property Exhibits	25,000	35,000	25,000	25,000	35,000	145,000
Public Art Conservation	-	25,000	-	25,000	-	50,000
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
Subtotal	**$ 100,000**	**110,000**	**300,000**	**750,000**	**235,000**	**1,495,000**

Highlighted Projects

Historic Property Improvements: $350,000

The Department now 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 along with lead paint abatement at various historic properties including: Tucker, Borden, Garris, Raleigh Little Theatre, Theatre in the Park, and Pope House.

Carousel Animal Restoration: $125,000

The carousel animals at Pullen and John Chavis Memorial Park entertain more than 300,000 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.

Historic Cemetery Restoration: $250,000

This project funds repairs to and replacement of infrastructure at the three City Cemeteries (headstones, markers, plot fencing, mausoleums, iron gates) and provision of park furnishings and other amenities (benches, trash cans, signage). The project will also include consulting services for a landscape plan at all three cemeteries, and preparation of a maintenance manual. Cemetery improvements include repairs that currently pose a safety threat to the visiting public and maintenance staff.

City Lab Core Exhibit – Private Match: $400,000

This project funds the proposed “City Lab: Your Space in this Place” core exhibit that explores present Raleigh and highlights various historic aspects of daily life in Raleigh and explores these issues from today’s perspective and prompts visitors to consider these issues as the city develops. The transition from private to public management of the museum included a plan to produce a "core" exhibit. The project is budgeted at $1 million and will consist of a 50/50 public-private match with half of the money coming from the city and half coming from the private COR Friends organization. The total match will be $500,000 including the available $100,000 from FY2016.

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	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Park Lighting	400,000	525,000	450,000	430,000	400,000	2,205,000
Parks Bldg Maint/Improv	500,000	920,000	520,000	600,000	160,000	2,700,000
Parks Irrigation Projects	50,000	50,000	125,000	-	25,000	250,000
Parks Roof Repairs	180,000	180,000	180,000	180,000	80,000	800,000
Theater In The Park	50,000	100,000	25,000	-	400,000	575,000
Community Facility Upgrades	505,000	455,000	400,000	525,000	930,000	2,815,000
Backflow Prevention Upgrade	30,000	30,000	35,000	-	25,000	120,000
Aquatic Improvements	300,000	300,000	300,000	345,000	300,000	1,545,000
Lead Paint Abatement	35,000	125,000	50,000	-	50,000	260,000
P&R Electrical-Fields/Courts	100,000	125,000	175,000	175,000	275,000	850,000
Raleigh Little Theatre Improve	25,000	50,000	100,000	-	25,000	200,000
Reused Water Line Extension	-	-	25,000	25,000	25,000	75,000
Fall Protection	150,000	-	150,000	150,000	150,000	600,000
Future Facility Improvements	-	-	100,000	150,000	200,000	450,000
Subtotal	**$ 2,325,000**	**2,860,000**	**2,635,000**	**2,580,000**	**3,045,000**	**13,445,000**

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: $2,815,000

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.

Park Lighting: $2,205,000

This project funds upgrade and replacement of the lighting system at ball fields, tennis courts, and parking lots. A recent assessment revealed that many of the existing sports and tennis lighting systems are in need of replacement. Many existing systems do not conform to contemporary lighting standards. This project emphasizes security lighting as well as energy conservation. As lighting systems age it becomes advantageous and necessary to replace and upgrade systems to ensure proper operation and continued services as well as use technology advances to reduce energy consumption while maintaining an appropriate lighting level. Additional funds of $3,500,000 are planned in the 2014 Bond Referendum for this project.

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: $800,000

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	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Comfort Station Improvements	175,000	175,000	400,000	-	100,000	850,000
Wooten Meadow	100,000	100,000	-	-	-	200,000
Picnic Shelters	155,000	25,000	150,000	25,000	120,000	475,000
PRCR System Plan	-	75,000	170,000	-	-	245,000
Master Plans & Studies	75,000	125,000	125,000	150,000	-	475,000
Latta House	85,000	-	-	-	-	85,000
Subtotal	**$ 590,000**	**500,000**	**845,000**	**175,000**	**220,000**	**2,330,000**

Highlighted Projects

Comfort Station Improvements: $850,000

Comfort stations provide park patrons with the necessary amenities for sports events and group gatherings in the park. Funding will be used to build comfort stations in parks where they do not currently exist as well as to renovate comfort stations that are in need of repair.

Wooten Meadow: $200,000

Wooten Meadow is a 20.5 acre site is near the intersection of Leesville Road and Millbrook Road in northwest Raleigh. The park Master Plan was adopted by City Council in 2016. The funds will be used for phase 1 implementation of the Master Plan.

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	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Site Security P&R	75,000	75,000	75,000	105,000	125,000	455,000
Field Fencing	75,000	160,000	125,000	115,000	150,000	625,000
Field Renovations	100,000	200,000	165,000	205,000	-	670,000
Park Site Improvements	200,000	125,000	100,000	175,000	150,000	750,000
Parks Paving Program	150,000	175,000	200,000	135,000	150,000	810,000
Tennis Courts	130,000	100,000	100,000	100,000	75,000	505,000
Playground Improvements	145,000	125,000	100,000	100,000	100,000	570,000
Millbrook Tennis Center	-	-	-	-	300,000	300,000
ADA Facility Upgrades	100,000	100,000	100,000	-	100,000	400,000
Signage-Parks & Greenways	75,000	40,000	75,000	75,000	50,000	315,000
Volunteerism & Ptnship Project	30,000	30,000	30,000	30,000	30,000	150,000
P&R Fayetteville St Renovation	50,000	40,000	40,000	30,000	50,000	210,000
Safety Compliance	280,000	180,000	50,000	300,000	100,000	910,000
Lake Wheeler Replacement Deck	-	-	30,000	-	-	30,000
Marsh Crk Park Impv	75,000	-	-	-	-	75,000
Maintenance Operations Facilit	50,000	25,000	-	25,000	25,000	125,000
Durant Nature Improv	-	-	-	145,000	190,000	335,000
Hwy Landscape	25,000	25,000	25,000	25,000	25,000	125,000
Rose Garden	50,000	50,000	-	-	-	100,000
Tree Planting	50,000	50,000	50,000	50,000	50,000	250,000
Lake Wheeler Boat House	-	-	50,000	-	-	50,000
Subtotal	**$ 1,660,000**	**1,500,000**	**1,315,000**	**1,615,000**	**1,670,000**	**7,760,000**

Highlighted Projects

ADA Facility Upgrade: $400,000

Current codes, standards and expectations have changed with regards to the extent of accessibility to park and recreation services. The ADA Study, completed in 2012, identified over $5.7 million in critical repairs and upgrades needed at facilities and sites throughout the Parks, Recreation and Cultural Resources system. Funds will be used to implement changes in buildings, access routes, etc. and make facilities compliant to current accessibility codes. Additional funds of $1,500,000 are planned in the 2014 Bond Referendum for this project.

Field Renovations: $670,000

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 and site preparation, irrigation system installation and installation of sod or sprigs to establish a quality playing surface. This project also funds the addition of concrete pads and walks for dugouts, scorer's tables and bleachers including the installation of covers for the dugout, scorer table area, the purchase and installation of player benches, scorer's tables, bleachers, scoreboards and the continuation of the installation of permanent 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.

Playground Improvements: $570,000

18This project funds playground repairs and replacements of existing playground components to address safety issues and play value. Removal of old wooden structures, correction of entrapments, surfacing materials, and borders to meet Consumer Product Safety Council Guidelines in addition to compliance with accessibility codes. There are 69 playground sites across the City that require routine inspection, repair and maintenance. Six additional playgrounds have been added to the system in recent years. Funding is necessary to maintain safety and minimize liability issues. Additional funds of $1,150,000 are planned in the 2014 Bond Referendum for this project.

Park Site Improvements: $750,000

Park Site Improvements funding is used to purchase site furnishings and repair park infrastructure. The five year plan is specific to stormwater infrastructure and Lake Howell at Pullen Park. Repairs to Lake Howell will be based on the study that was completed this year.

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, Crabtree Creek West greenway trail development and Sierra Lineberry Park development.

2014 Bond Projects	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Park Lighting	3,500,000	-	-	-	-	3,500,000
Park Site Acquisition	5,000,000	-	2,000,000	1,000,000	-	8,000,000
Parks Building Maintenance	675,000	600,000	125,000	125,000	-	1,525,000
Walnut Creek Softball Complex	4,500,000	-	-	-	-	4,500,000
Shelley Lake Comfort Station	400,000	-	-	-	-	400,000
Aquatic Improvements	-	5,000,000		2,000,000	-	7,000,000
ADA Facility Upgrades	500,000	500,000	500,000	-	-	1,500,000
Neighborhood Connections	250,000	-	250,000	250,000	-	750,000
Playground Improvements	375,000	300,000	275,000	200,000	-	1,150,000
John Chavis Park Improvements	-	11,750,000	-	-	-	11,750,000
Historic Property Improvements	1,000,000	-	-	-	-	1,000,000
Brentwood Park Improvements	150,000	-	200,000	1,650,000	-	2,000,000
Apollo Heights Park Improvements	100,000	500,000	-	-	-	600,000
Kiwanis Park Improvements	100,000	600,000	-	-	-	700,000
Eastgate Park Improvements	100,000	500,000	-	-	-	600,000
Walnut Creek Wetland Park	150,000	-	850,000	-	-	1,000,000
Pullen Art Center	575,000	5,425,000	-	-	-	6,000,000
Greenway Improvements	2,000,000	200,000	1,400,000	1,400,000	-	5,000,000
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
Subtotal	**$ 19,375,000**	**28,525,000**	**7,500,000**	**18,225,000**	**-**	**73,625,000**

Highlighted Projects

Greenway Improvements: $5,000,000

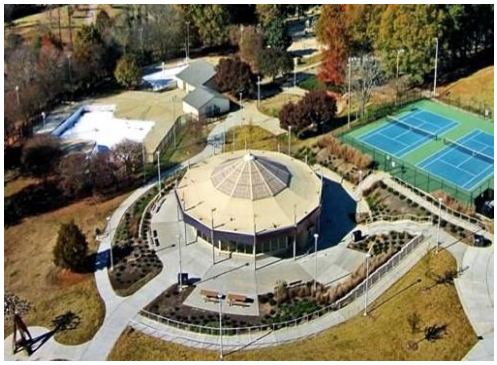
The remaining bond funds allotted for greenway improvements will go towards repaving asphalt trails, repair and/or replacement of bridges and structures and adding connections to existing greenway trails. Upcoming greenway development projects include: Trenton Road multi-purpose path, Rosengarten rail development, Crabtree Creek/Lassiter Mill Gap junction and connection of Crabtree Creek Greenway to Umstead State Park.

Walnut Creek Wetland Park Improvements: $1,000,000

The proposed improvements to Walnut Creek Wetland Park will include a park master plan, built boardwalks and interpretive opportunities for sustainable access to the wetland areas.

Chavis Park Improvements: $11,750,000

John Chavis Memorial Park development steps, beginning with Phase 1 design plans, will be underway in the summer of 2016 including public review of the schematic design. Upon City Council approval of the schematic design, the project team will proceed with construction documentation, engineering, and permitting, followed by construction in late 2017.



Walnut Creek Athletic Complex Improvements: $4,500,000

This project funds site and facility improvements at Walnut Creek Athletic Complex. Improvements may include field renovation, new fencing, drainage improvements, lighting upgrades, utility infrastructure, additional site amenities, walks and tower renovations. The Complex has hosted numerous notable events such as North Carolina High School Athletic Association and NC ASA Girls Fastpitch event. It is currently the host for Shaw University Women's softball program.

Kiwanis Park Improvements: $ 700,000

Neighborhood center renovations for Kiwanis Park may include building envelope and system improvements, increased programmatic and functionality of the center and aesthetics. Additionally, site improvements will be evaluated and may include accessibility improvements and comfort station upgrades.

Brentwood Park Improvements: $2,000,000

This project will start with a public process to engage the community on potential master plan revision. Based upon the outcomes of this process, priorities and mandatory upgrades needed related to the playground replacement, site and facility needs, ADA compliance and other deferred capital infrastructure issues will be addressed.

Eastgate Park Improvements: $600,000

Park improvements at Eastgate Park will primarily include neighborhood center renovation targeting building envelope, HVAC system and aesthetics. Additionally, site improvements will be prioritized to improve accessibility.

Housing

Funded Projects	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Homeowner Rehabilitiation	700,000	700,000	700,000	700,000	700,000	3,500,000
Rental Development	7,000,000	5,100,000	5,200,000	5,300,000	5,400,000	28,000,000
Loan Servicing	100,000	100,000	100,000	100,000	100,000	500,000
Transfer to Debt Service	400,000	400,000	400,000	400,000	400,000	2,000,000
Total	**$ 8,200,000**	**6,300,000**	**6,400,000**	**6,500,000**	**6,600,000**	**34,000,000**

Revenue Sources	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Transfer from General Fund	5,700,000	5,800,000	5,900,000	6,000,000	6,100,000	29,500,000
Appropriated Fund Balance	2,000,000	-	-	-	-	2,000,000
Program Income	500,000	500,000	500,000	500,000	500,000	2,500,000
Total Revenues	**$ 8,200,000**	**$ 6,300,000**	**$ 6,400,000**	**$ 6,500,000**	**$ 6,600,000**	**$ 34,000,000**

Element Overview

City Council adopted the new Affordable Housing Improvement Plan in October 2015. The plan lays out several strategies to increase the City's supply of affordable housing and revitalize neighborhoods. Despite previous efforts, the percentage of Raleigh's households who are "cost burdened" has continued to increase. For example, the City has nearly 32,000 households whose housing rent exceeds 30% of their income. Over 16,000 households have rent costs exceeding 50% of their income.

Historically, the main funding source for the housing program has been bond proceeds and federal grants. The FY2017 budget allocates one cent of property tax revenue to provide a permanent funding source to expand the City's affordable housing program. The majority of the funding will be used to incentivize developers to build more affordable rental units. Over time, this will accumulate to significantly more affordable rental opportunities for Raleigh's families and individuals. Staff expects to increase production of rental units by 100-150 units annually.

The CIP appropriates the proposed allocates one cent tax increase as well as program income from previous projects.

Recent Accomplishments

- Development and adoption of the Affordable Housing Location Policy and Affordable Housing Improvement Plan.
- Successful launch of 4% bond program.
- Affordable housing preserved on three sites by CASA.

Work Plan Highlights

- Implementing the objectives of the affordable housing plan including increasing the supply of affordable rental units and preserving existing affordable units.
- Rental development projects include DHISC's Villages at Washington Terrace, CASA's Sunnybrook Village Apartments, and Taft Development Group's Wakefield Commons Apartments totaling 284 units.
- Optimize production by utilizing proposed one cent permanent funding source for rental development and homeowner rehabilitation loans, and continuing to utilize federal funds for homeowner repair loans, homebuyer loans, neighborhood revitalization, and infill homeownership.

Operating Impacts

- At this time, staff do not anticipate that any city-funded affordable housing programs will require ongoing operational support.

Highlighted Projects

Homeowner Rehabilitation: 3,500,000

This program provides financing to low- to moderate-income homeowners earning at or below 80% area median income whose homes are in need of limited repairs or substantial rehabilitation. The homeowner rehabilitation program allows low income homeowners the ability to remain in their homes when they are unable to make necessary repairs. This activity continues the housing availability goal by mitigating the aging conditions of existing neighborhoods.

Rental Development: 28,000,000

The rental development program will continue the City's investment in affordable rental housing for low income renters by leveraging funds with private and other public lending institutions. Financing is available to both non-profit and for-profit developers for the construction of new rental units or preservation of existing rental units. Staff expects to increase annual production of rental units by 100-150 units per year over the current levels of 200 units per year.

Convention and Performing Arts Complex

Funded Projects		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Raleigh Convention Center		2,709,000	2,709,000	2,709,000	2,709,000	2,709,000	13,545,000
Performing Arts Center		2,650,000	-	-	-	-	2,650,000
Walnut Creek Amphitheater		200,000	200,000	200,000	200,000	200,000	1,000,000
Total Convention and Performing Arts Complex Capital	**$**	**5,559,000**	**2,909,000**	**2,909,000**	**2,909,000**	**2,909,000**	**17,195,000**

Revenue Sources		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Interlocal Funding		2,709,000	2,709,000	2,709,000	2,709,000	2,709,000	13,545,000
Future Bond Proceeds		2,625,000	-	-	-	-	2,625,000
Amphitheatre Rent		200,000	200,000	200,000	200,000	200,000	1,000,000
Transfer from General Fund		25,000	-	-	-	-	25,000
Total Revenue Sources	**$**	**5,559,000**	**2,909,000**	**2,909,000**	**2,909,000**	**2,909,000**	**17,195,000**

Element Overview

The five-year capital improvement plan includes $17.8 million, including $5.0 million in FY 2017, to maintain the four city facilities: the Raleigh Convention Center (RCC), Performing Arts Center (PAC), Walnut Creek Amphitheater, and the downtown amphitheater. These improvements are funded through interlocal partnerships, lease revenues, and debt financing.

The 500,000 square foot Convention Center 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 of Raleigh and Wake County negotiated the use of local hotel and restaurant sales tax revenues for RCC capital needs. This agreement establishes a long-term funding source to maintain this important facility.

The Performing Arts Center, located downtown, provides rehearsal and performance facilities for the North Carolina Symphony, North Carolina Theatre, Carolina Ballet, Pinecone, North Carolina Opera, and other groups. The Raleigh Memorial Auditorium was originally constructed in 1932 and most recently renovated in 1990. Additional performance spaces were opened in 2001.

The downtown amphitheater opened in 2010. This 5,990 person capacity venue hosts concerts, festivals, and other events. The amphitheater was recognized as "2011 Concert Industry Award for Best New Major Concert Venue" by *Pollstar* a leading worldwide trade magazine.

The Walnut Creek amphitheater, located on Rock Quarry Road, holds over 20,000 attendees. Live Nation leases and operates the facility.

Recent Accomplishments

- Completed construction of a new women's restroom in Memorial Auditorium as well as renovated the old box office and added a satellite location in the main lobby.
- The City finished the installation of new direct digital controls in both Fletcher Theatre and Meymandi Concert Hall at the PAC to give better controllability of the HVAC system.
- Continuation of lighting replacement program with LED bulbs as well as upgrading to new LED fixtures and sensors in various locations of the Convention Center.
- VIP restrooms and new office space at Walnut Creek was completed in July 2015.

Work Plan Highlights

- PAC interior finish improvements will include replacement of carpet, bathrooms, wall treatments, drapery, ceiling tiles, painting, new lobby furniture, lighting upgrades, and digital signage. The interior upgrades are expected to be completed in the fall of 2016.
- Electrical upgrades will begin in the coming months on systems in the Raleigh Memorial Auditorium in which some of the components date back to 1950's.
- In the design phase of updating and improving the Life Safety & Fire Protection System that services PAC
- In the Design phase of rebuilding of the wireless network to continue to be able to attract high profile technology events to RCC.
- In design phase of replacing the security system throughout the Convention Center with more updated cameras and command station.
- In design phase of updating our Building Automation System to integrate with our booking system to promote a more efficient HVAC scheduling process throughout the RCC.

Operating Impacts

- HVAC replacement at the PAC should produce significant savings in energy cost as well as a reduction in the cost of maintenance as some of the equipment being replaced dates from the 1950s.
- Replacement of old condensing water heaters with 77% efficiency with new On-Demand water heaters with 98% efficiency that serves all of the Convention Center.
- The Convention Center recently replaced the Mercury Vapor lighting in the Exhibit Hall to a more energy efficient LED that will reduce energy consumption by 318,230 kWh for a 77% energy saving per hour.

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.

Convention and Performing Arts Complex	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	5 Year Total
Raleigh Convention Center						
Life Safety and Security	-	100,000	-	-	-	100,000
Site Improvements	35,000	250,000	-	-	325,000	610,000
Building Systems	435,000	105,000	1,140,000	-	-	1,680,000
Technology	500,000	550,000	400,000	500,000	100,000	2,050,000
Interior Finishes	1,739,000	1,704,000	1,169,000	2,209,000	2,164,000	8,985,000
Building Envelope	-	-	-	-	120,000	120,000
Performing Arts Center						
Life Safety and Security	2,625,000	-	-	-	-	2,625,000
Amphitheater Maintenance	25,000	-	-	-	-	25,000
Walnut Creek Amphitheater						
Restroom Renovations	50,000	50,000	50,000	-	-	150,000
HVAC Updates	50,000	50,000	-	-	-	100,000
Electrical Upgrade	-	-	50,000	-	-	50,000
Asphault Repaving	-	-	-	-	150,000	150,000
Painting Updates	-	-	-	100,000	-	100,000
Grading Work	100,000	100,000	100,000	100,000	50,000	450,000
Total	**$ 5,559,000**	**2,909,000**	**2,909,000**	**2,909,000**	**2,909,000**	**17,195,000**

Highlighted Projects

Performing Arts Center Life Safety and Security: $2,625,000

The Performing Arts Center Life Safety and Security improvements will identify critical life safety needs to provide the continued safety and security of PAC event attendees, performers, and staff.

Raleigh Convention Center Technology: $2,050,000

Convention Center IT planned projects include the rebuilding of the wireless network, which is scheduled approximately every four years in order to continue to be able serve the needs of high profile technology events. Maintaining Convention Center competiveness in this arena requires a continual investment in technology systems

CITY OF RALEIGH

ESTABLISHED 1792

NORTH CAROLINA

Technology

Technology Projects		FY 2017	FY 2018	FY 2019	FY 2020	FY2021	5 Year Total
ERP Debt Transfer		3,081,387	3,027,864	-	-	-	6,109,251
Office 365 and Exchange		1,375,000	-	-	-	-	1,375,000
Institutional Fiber Network		-	300,000	-	-	-	300,000
PeopleSoft Roadmap		500,000	800,000	-	-	-	1,300,000
Computer Aided Dispatch System		1,000,000	1,000,000	-	-	-	2,000,000
Recreation and Event Mgt Sys (REMS)		500,000	100,000	-	-	-	600,000
Planning and Evaluation Studies		-	50,000	50,000	50,000	50,000	200,000
Small Projects Fund		75,000	75,000	75,000	75,000	75,000	375,000
Reserve for Future Projects		12,613	931,136	3,875,000	3,875,000	3,875,000	12,568,749
Total	**$**	**6,544,000**	**6,284,000**	**4,000,000**	**4,000,000**	**4,000,000**	**24,828,000**

Revenue Sources		FY 2017	FY 2018	FY 2019	FY 2020	FY2021	5 Year Total
Transfers in for ERP Debt:							
Transfer from General Fund		1,082,517	1,063,714			-	2,146,231
Transfer from Public Utilities		1,530,032	1,503,455	-	-	-	3,033,487
Transfer from Vehicle Fleet Services		40,535	39,831	-	-	-	80,366
Transfer from Solid Waste		165,750	162,871	-	-	-	328,621
Transfer from Transit		8,829	8,675	-	-	-	17,504
Transfer from Parking Operations		13,893	13,652	-	-	-	27,545
Transfer from Stormwater Utilitiy		140,789	138,344	-	-	-	279,133
Transfer from RCC Operating		76,029	74,708	-	-	-	150,737
Transfer from Community Development		23,014	22,614	-	-	-	45,628
Subtotal	**$**	**3,081,388**	**3,027,864**	**-**	**-**	**-**	**6,109,252**
Transfers in for Selected Projects:							
Transfer from General Fund		2,916,609	2,935,816	4,000,000	4,000,000	4,000,000	17,852,425
Transfer from Public Utilities		311,438	182,710	-	-	-	494,148
Transfer from Vehicle Fleet Services		31,500	18,480	-	-	-	49,980
Transfer from Solid Waste		96,938	56,870	-	-	-	153,808
Transfer from Transit		3,938	2,310	-	-	-	6,248
Transfer from Parking Operations		17,438	10,230	-	-	-	27,668
Transfer from Stormwater Utilitiy		23,250	13,640	-	-	-	36,890
Transfer from RCC Operating		50,438	29,590	-	-	-	80,028
Transfer from Community Development		11,063	6,490	-	-	-	17,553
Subtotal	**$**	**3,462,612**	**3,256,136**	**4,000,000**	**4,000,000**	**4,000,000**	**18,718,748**
Total Revenues	**$**	**6,544,000**	**6,284,000**	**4,000,000**	**4,000,000**	**4,000,000**	**24,828,000**

Program Overview

The Information Technology Fund provides funding for 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. The CIP also funds debt service on the City's financial system. Initiatives currently underway include the additional expansion of the city's institutional fiber network, planning for the next phases of the PeopleSoft ERP system and enabling this functionality within the system, implementation of the land management system and the Oracle Planning and Budgeting Cloud Service. These technology initiatives are fundamental in the support of City operations and enhance productivity and service delivery.

Recent Accomplishments

- Implemented Cityworks asset, work order, and service request management for Solid Waste Services. The collaborative project also included the Public Utilities call center. The call center now receives calls from citizens regarding Solid Waste Services activities and utilizes Cityworks for assigning and tracking each request. Cityworks is now deployed in three departments, Parks, Recreation and Cultural Resources, Transportation, and Solid Waste Services. Public Utilities is the next department to be implemented.
- Completed Land Management assessment with Tyler Technologies to capture and document all internal process workflows to be configured in the new system. 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. The contract for the Land Management implementation phase has been executed and will begin soon.
- Completed the institutional fiber backbone and connected the new Central Communication Center, Central Operations Center, Lake Woodard Public Utilities Campus, and downtown City facilities to a 10-gigabit network. The institutional fiber network will enable additional City facilities to be connected to a reliable, high-speed, City-owned and controlled network.
- Selected Sirius, formerly Varrow, as the implementer for the mobile device management (MDM) solution. Meetings were held with departments to identify their requirements for mobile device management and to verify that the solution meets their needs. Implementation is tentatively planned for the fall of 2016.

Work Plan Highlights

- A team has been assembled to select an implementer for Oracle Planning and Budgeting Cloud Service through the RFP process. The RFP is scheduled to be submitted in mid-March with the intent of starting the project in the May–June period.
- The Information Technology Department will implement Microsoft Office 365 and Exchange. Replacing current unsupported Office 2010 and Exchange email service is necessary. This effort will provide the City with 6,000 user licenses for up to five devices, and cloud-based email archiving and storage.
- Funding for the PeopleSoft Roadmap is an estimate for the next known phases of the PeopleSoft project plan and roadmap. A key recommendation from the Purchasing study was technology enhancements to support the supplier, bidding, and contracts business process. As such, the Finance and Purchasing groups support a budget request to enable functionality in the contracts management module—PeopleSoft Supplier Contract Management, PeopleSoft Strategic Sourcing, and the PeopleSoft eSupplier Connection.

Operating Impacts

The following Technology Capital Projects have an operating budget impact for FY 2017:

- Institutional Fiber Network – Annual operating budget with the Information Technology Department includes $271,500 for maintenance, support, and direct Internet access for the fiber network project.
- Oracle Planning and Budgeting Cloud Service – Funding of $145,000 is needed in FY 2017 for software maintenance and will be funded by the Information Technology Department operating budget.
- Land Management System – Funding of $646,602 is needed in FY 2017 for the annual software maintenance and hosting of the EnerGov application and will be funded by the Information Technology Department operating budget.
- Cityworks System - We propose upgrading the Cityworks contract with Azteca from individually licensed components to an enterprise license agreement (ELA) premium contract. An ELA premium contract provides the City access to extended application program interfaces, modules, and functionality to better support the business users and the evolving business requirements. The additional cost will be $68,000 and is proposed in the Information Technology operating budget.
- Recreation and Events Management Software – There is no operating budget impact in FY 2017 as the first year of software maintenance is included in the capital project. The Parks, Recreation, and Cultural Resources Department will manage the project and provide funding for ongoing software maintenance—estimated to be $165,000 in FY 2018—in their departmental operating budget.

Horizon Items

- The Institutional Fiber Network will be expanded to the other high priority City-owned facilities to provide additional high-speed and reliable network connectivity. We expect to connect, at least, 36 high-value sites this year. Evaluation criteria included: a Tier-1 or Tier-2 emergency site; the number of staff at the location; significant credit card transactions; rentable indoor spaces with Wi-Fi expectations; and rapid return on investment

- Parks, Recreation and Cultural Resources, along with the Special Events Office, expects to complete the documentation of applicable business processes and functional requirements for the future Recreation and Event Management System (REMS) in the summer of 2016. Selection and implementation of the future REMS are anticipated to be completed by the winter of 2017/2018.

Technology Capital

The Capital Improvement Program is an annual process that takes a five-year view of funding for major City projects. The Technology Capital portfolio of funded projects adheres to the City's technology governance process and reflects the priorities of the organization.

Highlighted Projects

Messaging and Collaboration Platforms $1,375,0000

Microsoft delivers in Office 365 and Exchange in a highly capable set of offerings that offer a robust email, calendaring, scheduling, task management, desktop productivity, telephony, real-time communications, and collaboration experience. Organizations can substantially reduce their cost of ownership for communications, reduce ongoing costs by minimizing the amount of IT labor required to manage these capabilities and shift problems to Microsoft's carrier-grade data center infrastructure and staff.

Computer Aided Dispatch System Replacement $2,000,000

A replacement Computer Aided Dispatch (CAD) system will be utilized by the Raleigh-Wake Emergency Communications Center to enter 9-1-1 calls for service, track the dispatch of 9-1-1 calls, and maintain a log of emergency vehicle locations and assignments. In addition, it provides hazard information to first responders and serves as a gateway to a variety of other services essential for first responder safety. This project will replace the existing CAD system, which has reached end of life, and adds new capabilities available with technology advances. The city is partnering with Wake County on this project and sharing in the costs of the project equally.

PeopleSoft Roadmap $1,300,000

This project will be for the City to engage a PeopleSoft vendor to assist with the implementation of the findings of the 2015 Procurement Study using the existing PeopleSoft 9.2 application. In addition to configuration, the vendor will support documentation and training on the new functionality to relevant staff. Work in these areas improves the City's ability to manage our vendors/suppliers, to monitor contracts, and to streamline workflows, items that benefit general Organizational Excellence.

Recreation and Events Management System: $600,000

The goal of the project is to formulate requirements, select and implement a management system to replace Active Network's Class software. Class is used to manage programs and services provided to citizens, as well as the usage of facilities. This system processed transactions that accounted for approximately $10,000,000 in revenue during FY14 and over 90,000 program registrations. In 2017, Class will reach its end of life when maintenance and support will cease. Functionality required of the new system will include the management of registrations, facility reservations, memberships, e-commerce and point-of-sale transactions.

CITY OF RALEIGH

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NORTH CAROLINA