STRATEGIC INVESTMENT IN INFRASTRUCTURE

PROPOSED CAPITAL IMPROVEMENT PROGRAM FY2019-FY2023

Raleigh

BUDGET AND MANAGEMENT SERVICES DEPARTMENT

Capital Improvement Program
FY2019 to FY2023
City of Raleigh, North Carolina

Recommended to the City Council by the City Manager ..... May 15, 2018

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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. The CIP is the primary mechanism for implementing the city's long-term vision and strategic plan.

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

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

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

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

Major funding sources for the CIP are described below:

- Debt Financing: The largest revenue source for the city's CIP, both in FY19 and across the five-year horizon, is bonds. In 2017, for example, Raleigh's citizens approved the use of general obligation bonds for various transportation and transit-related 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.

- Grants and Interlocal Funds: This category includes any revenue the City receives from Federal and State grants, as well as revenue from the Wake Transit Plan. These revenues typically align with a specific project identified within the CIP and have increased in the last couple of fiscal years due largely to the City's continued and growing participation in the Wake Transit Plan project implementation process.

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

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

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

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

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

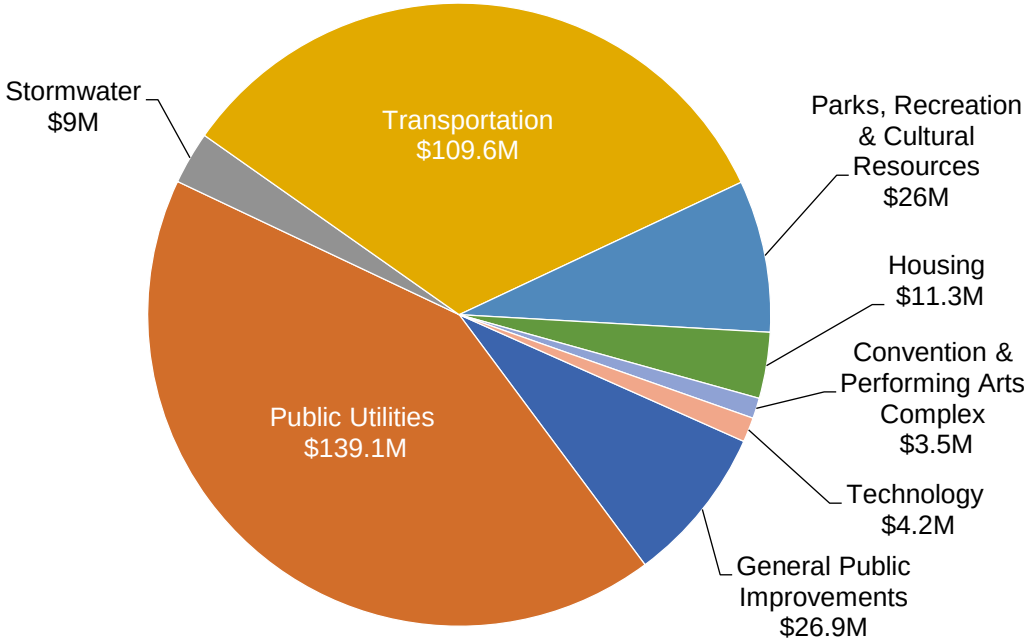
CIP Policies and Practices

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

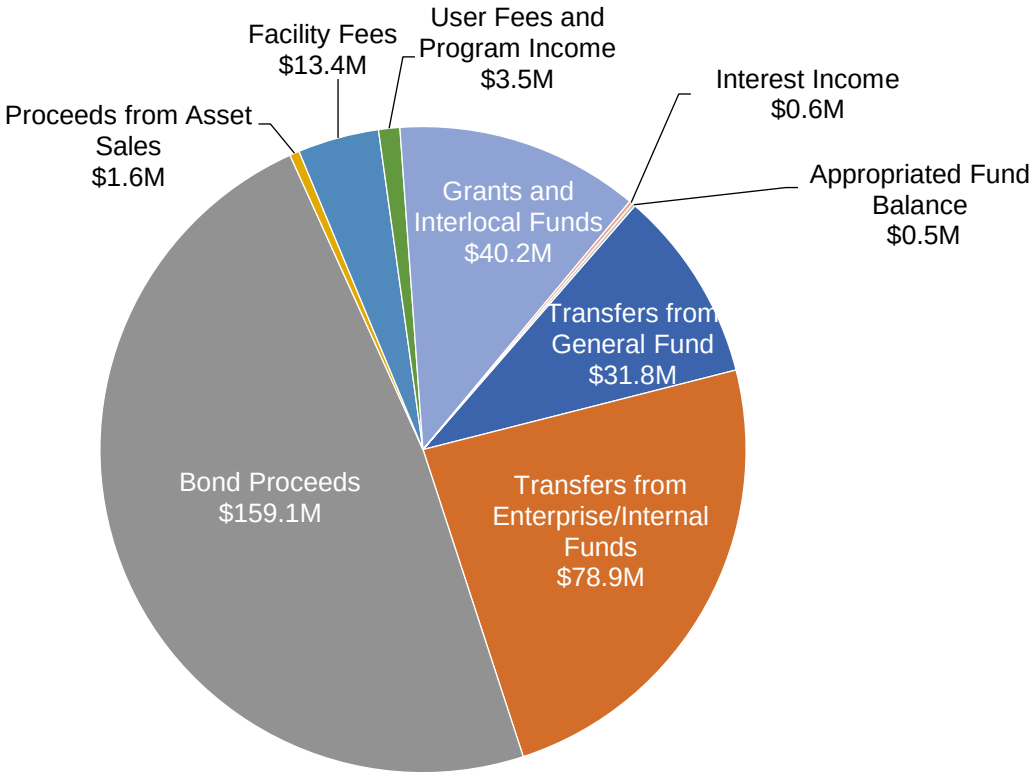
- Alignment with City-wide Strategic Plan: The Strategic Plan, adopted by City Council in April 2015, serves as the primary guide for capital investments. The plan articulates areas of strategic focus which will target the City's efforts and resources in ways intended to have the greatest impact in the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

Summary of the FY2019-FY2023 CIP

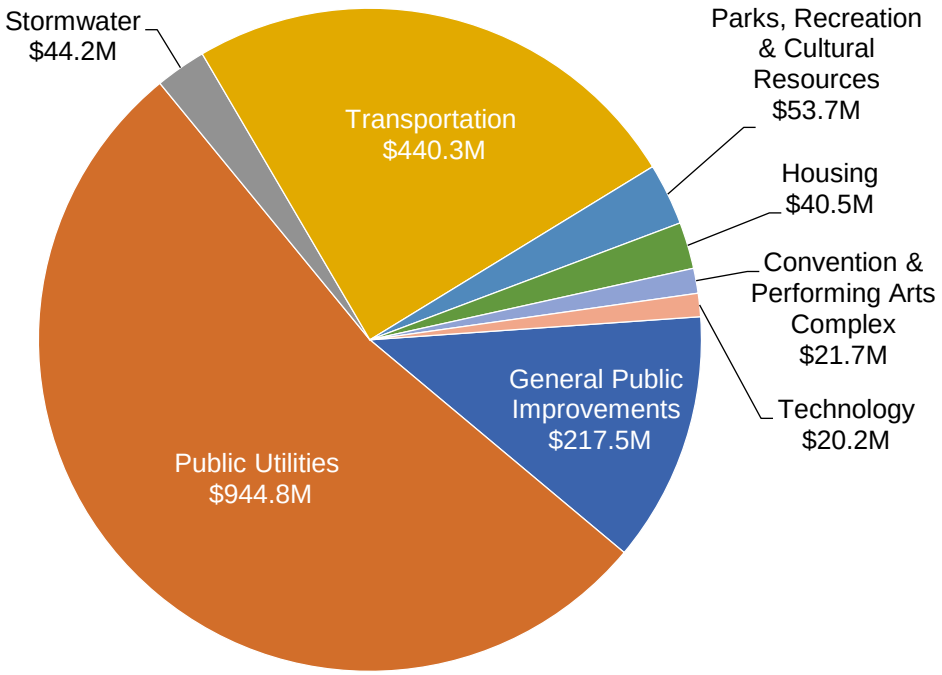
FY2019 Expenditures by Element (Year 1 of the 5-Year Plan)
Grand Total: $329.6 Million



FY2019 Revenues by Source
Grand Total: $329.6 Million



Total Five Year Expenditures by Element
Grand Total: $1.78 Billion



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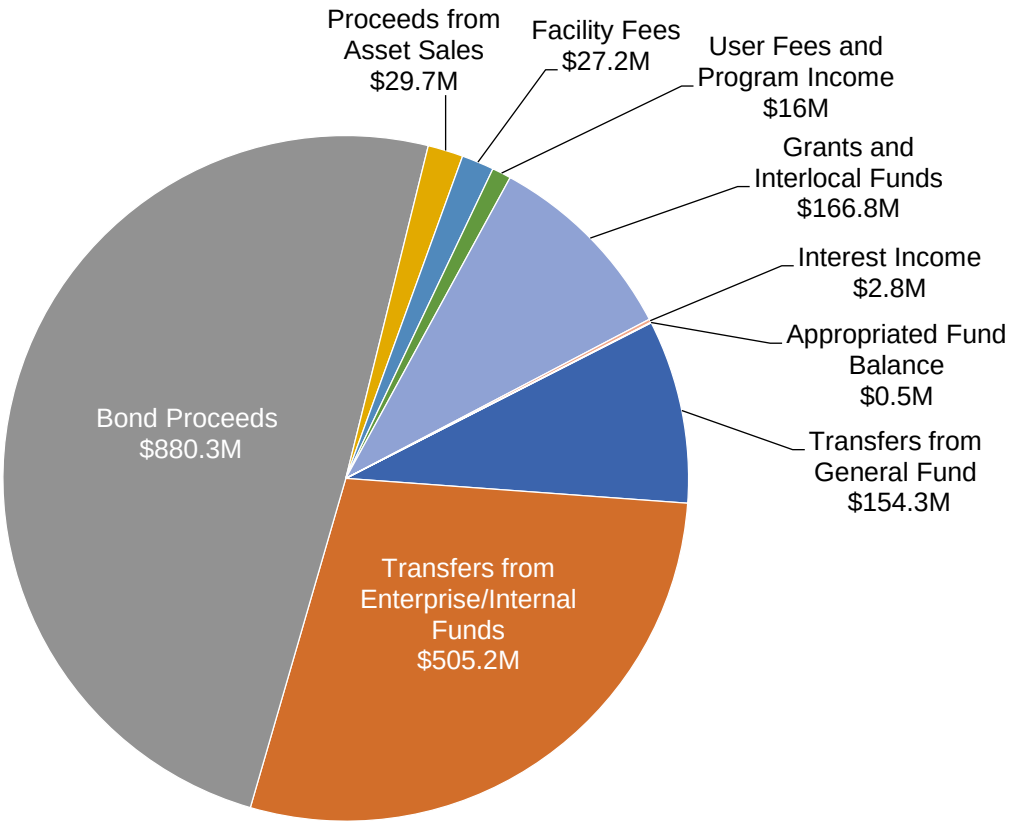

CIP Summary by Category

General Public Improvements	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Economic Development	650,000	550,000	550,000	550,000	550,000	2,850,000
General Government Facility Maintenance	1,320,000	1,880,000	600,000	700,000	575,000	5,075,000
New Facilities	22,741,763	23,396,000	138,052,000	11,877,000	-	196,066,763
Public Safety Facility Maintenance	2,230,000	1,605,000	1,755,000	1,605,000	1,848,000	9,043,000
Reserve for Future Projects	-	415,000	1,545,000	1,695,000	227,000	3,882,000
Planning Studies	-	150,000	150,000	150,000	150,000	600,000
Total	**$26,941,763**	**$27,996,000**	**$142,652,000**	**$16,577,000**	**$3,350,000**	**$217,516,763**

Public Utilities	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Asset Management	35,750,000	37,600,000	37,750,000	37,750,000	37,750,000	186,600,000
Capital Equipment	6,290,000	6,690,000	7,990,000	3,590,000	3,590,000	28,150,000
EMJWTP Expansion	2,600,000	11,400,000	29,000,000	50,200,000	28,600,000	121,800,000
Interceptors	22,900,000	162,200,000	84,450,000	29,500,000	26,650,000	325,700,000
Little River Projects	500,000	500,000	1,000,000	1,000,000	1,000,000	4,000,000
Misc Water and Wastewater	2,500,000	2,400,000	2,400,000	6,900,000	1,400,000	15,600,000
NRWWTP Expansion	26,400,000	1,500,000	12,200,000	1,800,000	57,300,000	99,200,000
Reuse System	-	3,000,000	3,000,000	3,000,000	3,000,000	12,000,000
Wastewater Pump Stations	16,200,000	1,200,000	1,200,000	1,900,000	18,200,000	38,700,000
Water Main Expansions	900,000	11,120,000	4,770,000	3,100,000	100,000	19,990,000
Water Pump Stations	300,000	900,000	2,430,000	500,000	1,650,000	5,780,000
Water Tanks Upgrades	500,000	900,000	900,000	900,000	900,000	4,100,000
Watershed Initiatives	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	11,250,000
WTP Maintenance	10,275,000	11,200,000	17,750,000	1,350,000	2,350,000	42,925,000
WWTP Maintenance	11,750,000	3,550,000	2,950,000	7,050,000	3,750,000	29,050,000
Total	**$139,115,000**	**$256,410,000**	**$210,040,000**	**$150,790,000**	**$188,490,000**	**$944,845,000**

Stormwater Management	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
General Drainage Infrastructure	2,000,000	2,500,000	2,200,000	2,450,000	3,050,000	12,200,000
Lake Preservation	-	350,000	2,050,000	1,500,000	-	3,900,000
Neighborhood Drainage System Impvts	4,710,000	1,025,000	2,950,000	1,950,000	2,250,000	12,885,000
Stream Restoration	-	150,000	500,000	1,250,000	2,000,000	3,900,000
Street Drainage System Improvements	1,200,000	2,025,000	-	100,000	550,000	3,875,000
Reserve for Future Projects	300,000	300,000	275,000	300,000	500,000	1,675,000
Water Quality	650,000	1,250,000	625,000	850,000	950,000	4,325,000
COR SCM and Dam Program	100,000	200,000	200,000	400,000	500,000	1,400,000
Total	**$8,960,000**	**$7,800,000**	**$8,800,000**	**$8,800,000**	**$9,800,000**	**$44,160,000**

Transportation	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Bicycle and Pedestrian Improvements	10,542,000	5,280,000	5,330,000	4,785,000	2,011,000	27,948,000
Major Street Projects	49,702,000	55,833,400	41,022,400	34,790,000	2,500,000	183,847,800
Parking	1,340,000	1,290,000	1,290,000	1,290,000	1,290,000	6,500,000
Street Improvement Program	13,718,000	13,619,000	13,465,000	13,549,000	10,743,000	65,094,000
Studies and Planning Projects	-	175,000	150,000	175,000	175,000	675,000
Transit	10,993,104	7,737,000	7,737,000	9,018,000	5,987,000	41,472,104
Wake Transit Plan	23,254,908	22,250,000	27,750,000	20,750,000	20,750,000	114,754,908
Total	**$109,550,012**	**$106,184,400**	**$96,744,400**	**$84,357,000**	**$43,456,000**	**$440,291,812**

Parks, Recreation & Cultural Resources	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
2014 Bond Projects	20,300,000	5,425,000	-	-	-	25,725,000
Cultural Resources	300,000	750,000	235,000	330,000	235,000	1,850,000
Facility Improvements	2,685,000	2,380,000	2,795,000	2,850,000	2,800,000	13,510,000
Greenway System	300,000	300,000	300,000	300,000	300,000	1,500,000
Land Acquisition	100,000	125,000	125,000	125,000	125,000	600,000
Plans, Studies & Development	925,000	225,000	520,000	705,000	500,000	2,875,000
Site Improvements	1,415,000	1,745,000	1,600,000	1,265,000	1,615,000	7,640,000
Total	**$26,025,000**	**$10,950,000**	**$5,575,000**	**$5,575,000**	**$5,575,000**	**$53,700,000**

Housing Element	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Homeowner Rehabilitation	-	-	700,000	700,000	700,000	2,100,000
Loan Servicing	600,000	600,000	600,000	600,000	600,000	3,000,000
Rental Development	10,332,906	6,177,000	5,539,000	5,664,000	5,700,000	33,412,906
Transfer to Debt Services	400,000	400,000	400,000	400,000	400,000	2,000,000
Total	**$11,332,906**	**$7,177,000**	**$7,239,000**	**$7,364,000**	**$7,400,000**	**$40,512,906**

Convention & Performing Arts Complex	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Performing Arts Center	500,000	1,300,000	1,300,000	1,300,000	1,300,000	5,700,000
Raleigh Convention Center	2,709,000	2,709,000	2,709,000	2,948,000	2,948,000	14,023,000
Walnut Creek Amphitheater	295,000	495,000	495,000	345,000	345,000	1,975,000
Total	**$3,504,000**	**$4,504,000**	**$4,504,000**	**$4,593,000**	**$4,593,000**	**$21,698,000**

Technology	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Institutional Fiber Network	400,000	150,000	-	-	-	550,000
Office 365 and Exchange	-	100,000	100,000	-	-	200,000
PeopleSoft Roadmap	356,000	400,000	285,000	500,000	500,000	2,041,000
Planning and Evaluation Studies	50,000	50,000	50,000	50,000	50,000	250,000
Recreation and Event Mgt Sys (REMS)	350,000	-	-	-	-	350,000
Small Projects Fund	75,000	75,000	75,000	75,000	75,000	375,000
TECH - Reserve for Future Projects	170,190	1,728,370	3,403,190	3,322,000	3,322,000	11,945,750
Cyber Security Program	300,000	-	-	-	-	300,000
SeeClickFix Replacement	-	400,000	-	-	-	400,000
PCI Annual Attestation	54,000	75,000	-	-	-	129,000
RaleighNC.Gov Redesign - Phase 2	75,000	-	-	-	-	75,000
Project Management Software Implementation	100,000	100,000	-	-	-	200,000
Smart Cities	375,000	350,000	-	-	-	725,000
Public Safety Initiatives	1,112,300	-	-	-	-	1,112,300
Disaster Recovery	700,000	500,000	-	-	-	1,200,000
Learning Management Software	75,000	-	-	-	-	75,000
Auditing Software	-	30,000	-	-	-	30,000
Variable Message Signs	-	240,000	-	-	-	240,000
Total	**$4,192,490**	**$4,198,370**	**$3,913,190**	**$3,947,000**	**$3,947,000**	**$20,198,050**

Grand Total	**$329,621,171**	**$425,219,770**	**$479,467,590**	**$282,003,000**	**$266,611,000**	**$1,782,922,531**

Revenue Sources	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Transfers from General Fund	31,790,508	30,604,800	30,612,800	31,105,800	30,226,800	154,340,708
Transfers from Enterprise/Internal Funds	78,907,490	96,638,370	117,353,190	101,727,000	110,581,000	505,207,050
Bond Proceeds	159,114,963	259,864,400	259,735,400	112,573,000	89,046,000	880,333,763
Proceeds from Asset Sales	1,588,893	-	28,154,000	-	-	29,742,893
Facility Fees	13,402,400	3,450,000	3,450,000	3,450,000	3,450,000	27,202,400
User Fees and Program Income	3,542,455	3,195,000	3,195,000	3,045,000	3,045,000	16,022,455
Grants and Interlocal Funds	40,224,462	30,917,200	36,417,200	29,552,200	29,712,200	166,823,262
Interest Income	550,000	550,000	550,000	550,000	550,000	2,750,000
Appropriated Fund Balance	500,000	-	-	-	-	500,000
Total	**$329,621,171**	**$425,219,770**	**$479,467,590**	**$282,003,000**	**$266,611,000**	**$1,782,922,531**

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 FY2019 General Fund budget will include roughly $1.7 million in additional operating costs, including 12 new positions, to open new facilities and implement new bond projects and programs. 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 2019	FY 2020	FY 2021	FY 2022	FY2023
Technology					
Construction Management Software	100,000	100,000	100,000	100,000	100,000
Digital Signature Software	21,000	21,000	21,000	21,000	21,000
Agenda Management Software	21,000	21,000	21,000	21,000	21,000
Parks, Recreation and Cultural Resources					
Walnut Creek Athletic Center	205,000	205,000	205,000	205,000	205,000
Kiwanis Park	-	93,000	93,000	93,000	93,000
Pullen Art Center	-	15,000	15,000	15,000	15,000
Eastgate Park	-	93,000	93,000	93,000	93,000
Perry Creek Rd Park	-	25,000	25,000	25,000	25,000
Walnut Creek Wetlands Center	-	-	125,000	125,000	125,000
Brentwood Park	-	-	125,000	125,000	125,000
John Chavis Memorial Park	-	-	175,000	175,000	175,000
Baileywick Community Center	-	-	-	400,000	400,000
Transportation					
Transportation Bond	918,000	1,215,000	1,280,000	1,470,000	1,500,000
Union Station	480,000	480,000	480,000	480,000	480,000
Cumulative Total	**$1,745,000**	**$2,268,000**	**$2,758,000**	**$3,348,000**	**$ 3,378,000**

There are some future capital investments for which staff have not yet estimated operating impacts. During FY19, staff will continue analyzing operating needs for these projects, which include the future Dorothea Dix Park, Civic Campus, Fire Station 1 and Fire Administration offices, and Police Training Center.

Horizon Issues

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

- In Summer 2015, the City acquired the Dorothea Dix property from the State for $52 million. Master planning for the park started in Summer 2016 with a DRAFT master plan coming to the City Council in September 2018 and FINAL master plan expected in Spring 2019. Recently, the City and State completed a remediation project on site addressing contaminated soils. In the future, developing the property will involve a wide range of recreational and cultural services, which will require additional capital and operating investments. The FINAL master plan will include a broader spectrum of funding models for the City Council to consider including but not limited to Public Private Partnerships, Concessions, Programming/Special Events Revenues, Real Estate Value Capture, Philanthropy and more. City Staff and consultants will collaborate on developing these recommendations for the City Council to consider as a part of the final master plan.

- To continue the city's transit improvements, staff continues to analyze the need for future transit facilities. These facilities include bus stations, park-and-ride facilities, multi-modal facilities like Union Station, and transit centers along the City's major corridors. The passage of the recent sales tax referendum in Fall 2016 has allowed staff to continue to work with regional stakeholders to prioritize transit system needs and determine how the new funds will be used to support the Wake Transit Plan. Funds are programmed in FY2019 for the City of Raleigh, along with other stakeholders, to continue implementation of projects included in the Wake Transit Plan. Continued improvements and funding efforts will occur every fiscal year and the Transportation element will continue to see these funds allocated to support implementation and improvement of the regional and local transit system.

- Staff from Information Technology are working with other stakeholders to consider how technology needs are identified and prioritized for funding. Staff completed an inventory of software systems and other technology assets to provide a starting point of assets and needs. Staff prioritized those needs for the FY2019-FY2023 CIP, and will continue building on these process improvements. Going forward, the long-term operating costs of new systems will be a major criterion in determining which systems to implement.

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

- Implementation of additional fueling stations and carwashes at remote locations throughout the city may need to be considered in future CIP planning efforts.

General Public Improvements

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General Public Improvements

Categories	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Economic Development	650,000	550,000	550,000	550,000	550,000	2,850,000
General Govt Facility Maintenance	1,320,000	1,880,000	600,000	700,000	575,000	5,075,000
New Facilities	22,741,763	23,396,000	138,052,000	11,877,000	-	196,066,763
Public Safety Facility Maintenance	2,230,000	1,605,000	1,755,000	1,605,000	1,848,000	9,043,000
Reserve for Future Projects	-	415,000	1,545,000	1,695,000	227,000	3,882,000
Planning Studies	-	150,000	150,000	150,000	150,000	600,000
Total	**$26,941,763**	**$27,996,000**	**$142,652,000**	**$16,577,000**	**$3,350,000**	**$217,516,763**

Revenue Sources	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Transfers from General Fund	4,800,000	4,500,000	4,500,000	4,600,000	3,250,000	21,650,000
Bond Proceeds	22,041,763	23,396,000	109,898,000	11,877,000	-	167,212,763
Proceeds from Asset Sales	-	-	28,154,000	-	-	28,154,000
Interest Income	100,000	100,000	100,000	100,000	100,000	500,000
Total	**$26,941,763**	**$27,996,000**	**$142,652,000**	**$16,577,000**	**$3,350,000**	**$217,516,763**

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, public safety training centers, and a new downtown Civic Campus.

Recent Accomplishments

- Recently completed upgrade on 310 West Martin Street Elevator
- A roof replacement at the Police Headquarters
- The Raleigh Municipal Buildings boiler was recently replaced
- Interior improvements at the Police Training Center were completed
- Fire Stations 3, 7, and 8 and Keeter Training Center Roof Replacements were completed

Work Plan Highlights

- Interior upgrades to various downtown facilities will include: repairing, replacing and upgrading damaged interior walls, wallpaper, carpet, flooring, insulation, light fixtures, electrical wiring, electrical outlets, plumbing, as well as, repainting and resurfacing walls, and ceilings.
- Downtown ADA projects are a part of the transition plan to bring downtown city facilities into compliance over the next five years.

- Additional public safety needs are funded, such as the Police Evidence Expansion Space Needs Assessment, the Emergency Vehicle Operations Course, additional funds allocated to Fire Station 11, and the continued funding of the new Police Training Center.
- Downtown Facilities Upfits, as part of the interim plan to deal with growth and realignment, will include renovations, retrofitting, furniture reconfigurations, cabling, moving costs and other purchases for several departments to provide better customer service and collaboration at One Exchange Plaza, Raleigh Municipal Building, 310 W. Martin Street buildings and to deal with lease updates and changes associated with lease deadlines.
- Energy efficient concepts will be applied into the design and project implementation, for lighting control system expansion for Raleigh Municipal Building and One Exchange plaza, along with, enhancements to HVAC air distribution system at One Exchange Plaza.

Horizon Items

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

General Government Facility Maintenance

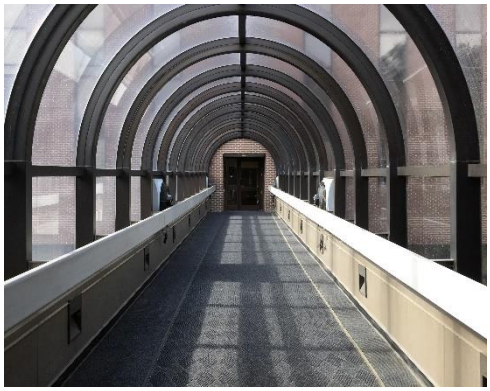
This category of projects funds major capital needs at the city's general government facilities in downtown Raleigh Municipal Building (RMB), One Exchange Plaza (OEP), and the Dillon Building. City staff analyzes, audits, and assesses facilities on a periodic schedule. Then staff identifies necessary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

General Govt Facility Maintenance	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Solar LED Batteries Replacement	75,000	-	-	-	75,000	150,000
City Plaza Maintenance	200,000	-	-	-	-	200,000
Downtown ADA Improvements	250,000	350,000	400,000	400,000	400,000	1,800,000
HVAC Air Distribution	-	650,000	-	-	-	650,000
Caulking and Packaging	-	250,000	-	-	-	250,000
Sprinkler Replacement	200,000	-	-	-	-	200,000
General Maintenance Improvements	-	-	200,000	100,000	100,000	400,000
Downtown Facilities Interior Upgrades	-	300,000	-	-	-	300,000
HVAC Replacement	400,000	-	-	-	-	400,000
RMB Booster Pump Replacement	50,000	-	-	-	-	50,000
NEROC Mechanical/Gates	145,000	105,000	-	-	-	250,000
Tenant Aesthetic Improvements	-	25,000	-	-	-	25,000
Downtown Facilities Upfits	-	200,000	-	200,000	-	400,000
Total	**$1,320,000**	**$1,880,000**	**$600,000**	**$700,000**	**$575,000**	**$5,075,000**

Highlighted Projects

Downtown ADA Improvements: $1,800,000

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



Downtown Facility Upfits: $400,000

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

HVAC Air Distribution: $650,000

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

City Plaza Maintenance: $200,000

Raleigh City Plaza opened in the fall of 2009 and has become a premier programming space in the downtown core. The Plaza is in need of maintenance which will ensure that it continues to be a vibrant and usable space for the future needs of the City. The project may include paver replacement, construction of additional small programming areas, furniture, and removal of fountain and planters. The City anticipates private contributions from partners to assist with these improvements.

Prior appropriations for this project totaled $2.3 million with scheduled funding for FY2019 at $200,000. The total amount allocated to this project is $2,500,000.

Public Safety Facility Maintenance

This category of projects addresses maintenance and improvements in the city's public safety facilities including fire stations and 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 Maintenance	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Lead Paint & Asbestos	100,000	100,000	100,000	100,000	343,000	743,000
Deferred Maintenance Program	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	6,500,000
Workspace Improvements	205,000	205,000	205,000	205,000	205,000	1,025,000
Exterior Waterproofing	310,000	-	-	-	-	310,000
Elevator Hydraulics	250,000	-	-	-	-	250,000
Cabarrus Parking Lot Resurfacing	-	-	150,000	-	-	150,000
Space Needs Assessment - Police Evidence Expansion	65,000	-	-	-	-	65,000
Total	**$2,230,000**	**$1,605,000**	**$1,755,000**	**$1,605,000**	**$1,848,000**	**$9,043,000**

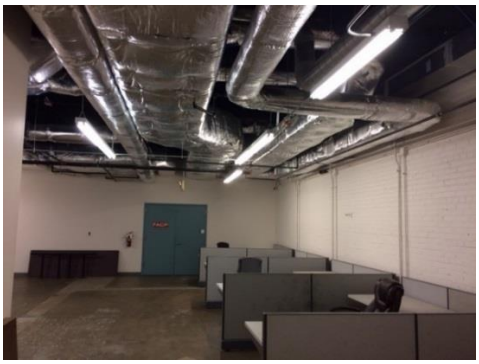
Highlighted Projects

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.

Space Needs Assessment – Police Evidence Expansion: $65,000

This project provides an assessment of the space needs for the Raleigh Police Department's Evidence Unit. The evidence unit is reaching maximum capacity for its 10,000 sq.ft. space, due to growth factors as well as additional police services resulting in the collection of evidence.



Economic Development

Economic Development	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Building Upfit Grant	500,000	500,000	500,000	500,000	500,000	2,500,000
Façade Improvements	50,000	50,000	50,000	50,000	50,000	250,000
Innovation Fund	100,000	-	-	-	-	100,000
Total	**$650,000**	**$550,000**	**$550,000**	**$550,000**	**$550,000**	**$2,850,000**

Highlighted Projects

Building Upfit Grant: $2,500,000

This funding supports a program to assist property owners and small business owners in improving existing buildings throughout the City.

Façade Grants Program: $250,000

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

Innovation Fund: $100,000

The Innovation Fund provides support to help encourage innovation and growth of entrepreneurs, startups, and small businesses in the City of Raleigh. Funds are awarded in multiple ways to include: public/private matching grants, beta testing and prototyping programs, start-up challenge programs, crowd funding or kick-starter matching funds, and entrepreneur exchange with other cities. By improving the chances of entrepreneurial success, this program also increases the likelihood that startups will need and benefit from later services like incubation, acceleration, and angel and venture capital investment. The JobsRaleigh Grant provides funding to small businesses based upon the creation of new jobs in the City of Raleigh. City staff are refining criteria for these two programs.

The Innovation Fund was funded as a five-year program, as decided by Council in June of 2014. FY2019 represents the fifth year of the program.

New Facilities

New Facilities	FY2019	FY2020	FY 2021	FY 2022	FY 2023	5 Year Total
Fire Station 1 and Administration Office	-	15,635,000	-	-	-	15,635,000
Police Training Center	22,041,763	-	-	-	-	22,041,763
Civic Campus	-	7,761,000	138,052,000	11,877,000	-	157,690,000
Emergency Vehicle Operations Course	200,000	-	-	-	-	200,000
Fire Station 11 Expansion	500,000	-	-	-	-	500,000
Total	**$22,741,763**	**$23,396,000**	**$138,052,000**	**$11,877,000**	**-**	**$196,066,763**

Highlighted Projects

Fire Station 1 and Administration Office: $15,635,000

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

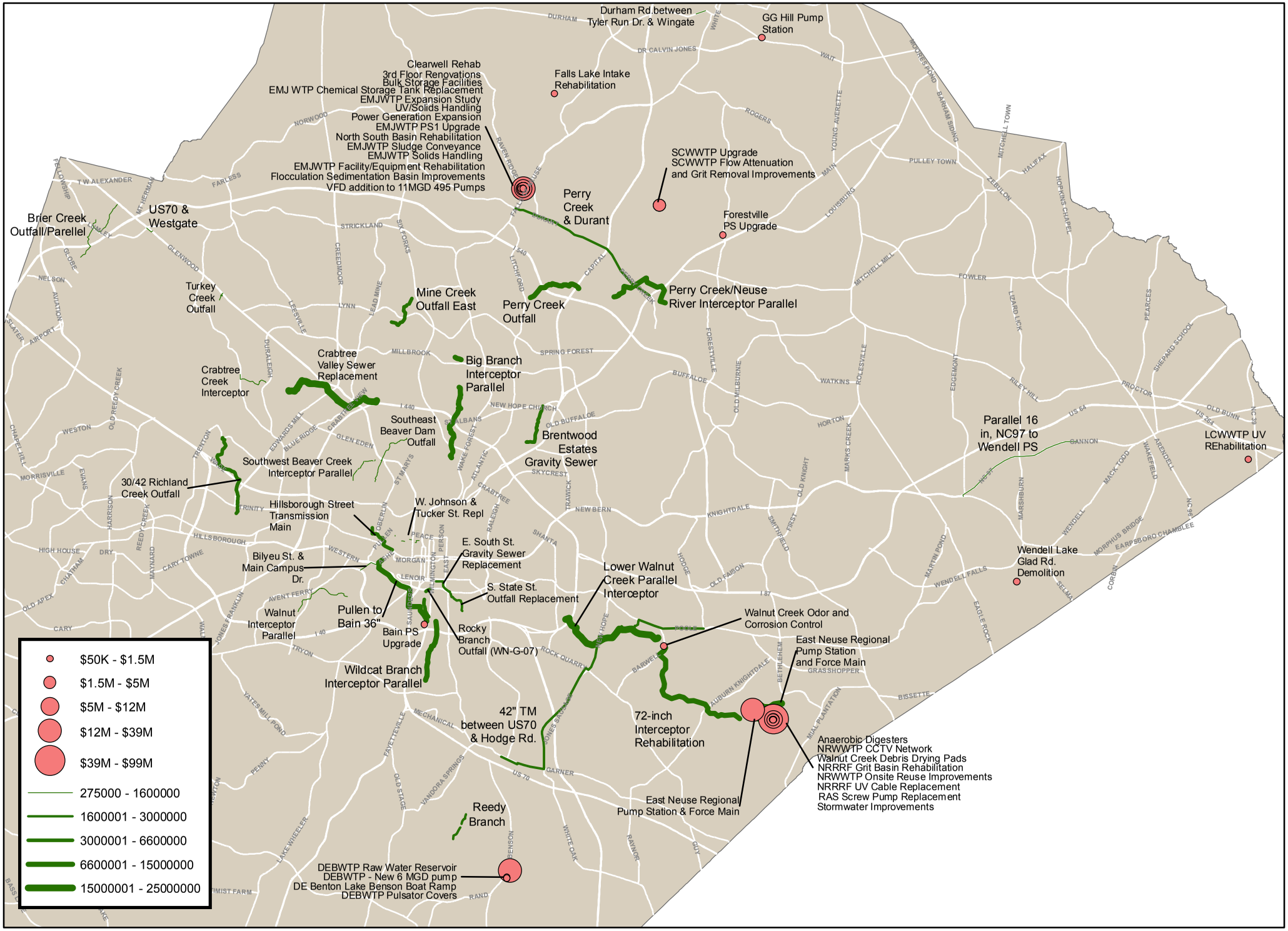
With funds appropriated in FY2017, the total project budget is $23,885,000.

Police Training Center: $22,041,763

The Raleigh Police Department currently uses a 30-year old 12,000 square foot facility located on Spring Forest Road as its primary training facility. However, this facility is no longer adequate to accommodate the Department's current and projected growth or the training standards as prescribed by various accrediting agencies. The City plans to construct a new facility on Battlebridge Road adjacent to the Wake County Sheriff's Office training center, consistent with an interlocal agreement with Wake County. The new facility will accommodate projected RPD growth through 2040 and will be located near the Raleigh Police Department's Firearms and Driving Training Centers. With funds appropriated in FY2017, the total project budget is $26,087,763.

Emergency Vehicle Operations Course: $200,000

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



Public Utilities

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Public Utilities

Categories	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Asset Management	35,750,000	37,600,000	37,750,000	37,750,000	37,750,000	186,600,000
Capital Equipment	6,290,000	6,690,000	7,990,000	3,590,000	3,590,000	28,150,000
EMJWTP Expansion	2,600,000	11,400,000	29,000,000	50,200,000	28,600,000	121,800,000
Interceptors	22,900,000	162,200,000	84,450,000	29,500,000	26,650,000	325,700,000
Little River Projects	500,000	500,000	1,000,000	1,000,000	1,000,000	4,000,000
Miscellaneous Water and Wastewater	2,500,000	2,400,000	2,400,000	6,900,000	1,400,000	15,600,000
Wastewater Treatment Expansion	26,400,000	1,500,000	12,200,000	1,800,000	57,300,000	99,200,000
Reuse System	-	3,000,000	3,000,000	3,000,000	3,000,000	12,000,000
Wastewater Pump Stations	16,200,000	1,200,000	1,200,000	1,900,000	18,200,000	38,700,000
Water Main Expansions	900,000	11,120,000	4,770,000	3,100,000	100,000	19,990,000
Water Pump Stations	300,000	900,000	2,430,000	500,000	1,650,000	5,780,000
Water Tanks Upgrades	500,000	900,000	900,000	900,000	900,000	4,100,000
Watershed Initiatives	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	11,250,000
WTP Maintenance	10,275,000	11,200,000	17,750,000	1,350,000	2,350,000	42,925,000
WWTP Maintenance	11,750,000	3,550,000	2,950,000	7,050,000	3,750,000	29,050,000
Total	**$139,115,000**	**$256,410,000**	**$210,040,000**	**$150,790,000**	**$188,490,000**	**$944,845,000**

Revenue Sources	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Bond Proceeds	60,500,000	169,160,000	102,790,000	59,200,000	89,046,000	480,696,000
Transfer From Public Utilities Operations	48,760,000	65,000,000	85,000,000	69,340,000	78,394,000	346,494,000
Water Infrastructure Fees	4,305,000	6,100,000	6,100,000	6,100,000	6,100,000	28,705,000
Sewer/Reuse Infrastructure Fees	13,000,000	13,900,000	13,900,000	13,900,000	12,700,000	67,400,000
Watershed Protection Fees	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	11,250,000
Water Capital Facility Fee	4,300,000	-	-	-	-	4,300,000
Sewer Capital Facility Fee	6,000,000	-	-	-	-	6,000,000
Total	**$139,115,000**	**$256,410,000**	**$210,040,000**	**$150,790,000**	**$188,490,000**	**$944,845,000**

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 administered through the North Carolina Department of Environmental Quality. The utility system plans to invest a total of $1,749,800,000 in capital needs over the next 10 years, including $139,115,000 in FY19.

The Public Utilities program includes projects for:

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

Recent Accomplishments

The Public Utilities Department completed several important projects during FY18 including:

- Completed construction of EMJWTP Flocculation and Sedimentation Pilot Project. This project includes upgrading a flocculation and sedimentation process train with new process equipment, modifications to the existing tanks, new chemical feed systems and necessary electrical changes. The new equipment will increase capacity of the pilot treatment train from 12 MGD to 20 MGD with the future expansion capability to 30 MGD.
- Completed construction of the Zebulon Beaverdam Creek Interceptor Improvements, which installs 22,100 linear feet of sewer interceptor and construction of a new pump station.
- Completed Crabtree North Bank Sewer emergency replacement, which installed approximately 8,000 linear feet of 54" sewer interceptor to replace existing line that had collapsed.
- Completed EMJWTP Reservoir Sludge Removal project, which involved the removal of years of sediment accumulated in the west raw water reservoir.
- Completed construction of the NRRRF Expansion Phases III and IV. This project expands wastewater treatment capacity from 60 MGD to 75 MGD.
- Replaced over nine linear miles of water main.
- Replaced over eight linear miles of sanitary sewer main.

Work Plan Highlights

Notable projects that are a continuation of the FY18 budget include:

- Continue construction of the Crabtree Pipeline, which installs 21,000 linear feet of 54" gravity sewer interceptor along Crabtree Creek to reduce sanitary sewer overflows in the basin.
- Continue construction of the Walnut Creek Sanitary Sewer Improvements, which installs 18,000 linear feet of 72" gravity sewer interceptor along Walnut Creek to reduce sanitary sewer overflows in the basin.
- Continue construction on the Crabtree Creek Lift Station Expansion. This project includes extensive concrete rehabilitation and the replacement of all five Archimedes lift screws with larger ones that expand the station's capacity from 80 MGD to 100 MGD. The increase in capacity was necessary to accommodate the additional wet weather flow from the new Crabtree Pipeline project.
- Continued rehabilitation of the NRRRF Secondary Clarifiers. This project will rehabilitate concrete and coat the 12 secondary clarifiers, along with electrical upgrades and installation of fiberglass covers to help with odor control.
- Began replacement of 5,100 linear feet of 36-inch water main along Hillsborough Street, Clark Avenue and Oberlin Road, as well as another 6,000 linear feet of smaller diameter water and sewer mains. This project was identified as part of our asset management program's condition assessment.

Notable projects added or modified as part of the FY19 Budget include:

- The addition of eight wastewater collection and treatment projects totaling $168.6M, as recommended by the 2017 Wastewater Treatment Master Plan.
- Revisited 2007 plan for EMJWTP Expansion to update and to re-evaluate assumptions and cost estimates considering new technology, water consumption patterns and rehabilitation needs.
- The City's condition assessment efforts through the Asset Management program have identified a large diameter sewer interceptor along the west bank of the Neuse River that needs to be replaced or rehabilitated. Due to the length of the line and varying degrees of criticality, the project will be executed in two phases. Design money for the initial phase has been included in FY19.
- Additional funds were included for the Anaerobic Digester project, also known as Bioenergy Recovery, to cover construction of the facility and associated components.

Horizon Items

- Major initiatives for the Public Utilities Department over the next three to seven years revolve around infrastructure stability, regulatory compliance, and planning for future growth.
- Continued condition assessment efforts within the Asset Management program are identifying future infrastructure stability projects to rehabilitate or replace water and sanitary sewer mains, treatment plant facilities and equipment, pump stations, and elevated storage tanks.
- Compliance related projects comprise a large portion of the CIP and include such projects as the Neuse River East Parallel Interceptor System, the Perry Creek Interceptor System and Lower Walnut Creek Wastewater System Improvements. These compliance related projects address existing wet weather flow conveyance issues as well as accommodate projected growth for the basin.
- The utility system is in the final stages of all capital projects related to the mergers with surrounding towns.

Abbreviations Used in the Public Utilities Project Descriptions

DEBWTP – Dempsey E. Benton Water Treatment Plant

LCWWTP – Little Creek Wastewater Treatment Plant

SCWWTP – Smith Creek Wastewater Treatment Plant

EMJWTP – E.M. Johnson Water Treatment Plant

NRRRF – Neuse River Resource Recovery Facility

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

MGD – Million Gallons per Day

Asset Management

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

Asset Management	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Force Main Condition Assessment	-	200,000	200,000	200,000	200,000	800,000
Highest Priority Action Projects	750,000	750,000	750,000	750,000	750,000	3,750,000
Gravity Sewer Condition Assessment	-	1,000,000	1,000,000	1,000,000	1,000,000	4,000,000
Highest Priority Action Aerial Projects	2,500,000	-	-	-	-	2,500,000
Thoroughfare Mains	500,000	500,000	500,000	500,000	500,000	2,500,000
Main Replacement	29,250,000	32,200,000	32,350,000	32,350,000	32,350,000	158,500,000
Force Main Replacement/Rehab	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000	8,000,000
Galvanized Service Replacement	750,000	750,000	750,000	750,000	750,000	3,750,000
Manhole Rehab Replacement	100,000	100,000	100,000	100,000	100,000	500,000
Large Valve Replacements	300,000	500,000	500,000	500,000	500,000	2,300,000
Total	**$35,750,000**	**$37,600,000**	**$37,750,000**	**$37,750,000**	**$37,750,000**	**$186,600,000**

Highlighted Projects

Main Replacement $326,905,000 (10-year total)

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

Sewer Interceptor Upgrades

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

Interceptors	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Lower Walnut Creek Parallel Interceptor	-	-	22,000,000	-	-	22,000,000
72-inch Interceptor Rehabilitation	-	15,000,000	-	-	-	15,000,000
Neuse River East Parallel Interceptor Phase III	1,500,000	65,250,000	-	-	-	66,750,000
Neuse River East Parallel Interceptor Phase IV	1,000,000	1,000,000	31,000,000	-	-	33,000,000
Perry Creek/Neuse River Interceptor Parallel	-	10,200,000	-	-	-	10,200,000
Upper Pigeon House Rehabilitation	2,000,000	-	-	-	-	2,000,000
Crabtree Valley Sewer Replacement	-	35,000,000	-	-	-	35,000,000
Poplar Creek Interceptor	5,000,000	-	-	-	-	5,000,000
Big Branch Interceptor Parallel	700,000	11,200,000	-	-	-	11,900,000
Southwest Beaver Creek Interceptor Parallel	-	-	400,000	-	3,000,000	3,400,000
Wildcat Branch Interceptor Parallel	-	1,500,000	-	13,400,000	-	14,900,000
W. Johnson & Tucker St. Repl	200,000	1,400,000	-	-	-	1,600,000
Perry Creek Outfall	1,000,000	-	8,100,000	-	-	9,100,000
S. Saunders St. Outfall	6,300,000	-	-	-	-	6,300,000
Mine Creek Outfall Parallel	900,000	-	10,200,000	-	-	11,100,000
Mine Creek Outfall East	-	550,000	-	4,000,000	-	4,550,000
Reedy Branch	-	-	450,000	2,200,000	-	2,650,000
30/42 Richland Creek Outfall	600,000	-	5,200,000	-	-	5,800,000
S. State St. Outfall Replacement	-	300,000	2,300,000	-	-	2,600,000
Rocky Branch Outfall Parallel	500,000	-	4,200,000	-	-	4,700,000
Turkey Creek Outfall	1,200,000	-	-	-	-	1,200,000
Southeast Beaver Dam Outfall	-	800,000	-	6,000,000	-	6,800,000
Big Branch South Parallel	-	-	-	-	1,700,000	1,700,000
Brier Creek Outfall/Parallel	-	-	600,000	600,000	6,000,000	7,200,000
Crabtree Creek Interceptor	-	-	-	800,000	150,000	950,000
Harris Creek Parallel	-	-	-	-	1,500,000	1,500,000
Walnut Creek Interceptor Parallel	-	-	-	1,500,000	300,000	1,800,000
West Neuse Interceptor	2,000,000	20,000,000	-	1,000,000	14,000,000	37,000,000
Total	**$22,900,000**	**$162,200,000**	**$84,450,000**	**$29,500,000**	**$26,650,000**	**$325,700,000**

Highlighted Projects

Neuse River East Parallel Interceptor Phase III & IV $99,750,000 (10-year total)

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

West Neuse Interceptor $37,000,000 (10-year total)

Rehabilitation and/or replacement of interceptor along the west side of the Neuse River, upstream of the Neuse River Pump Station. Preliminary condition assessment work completed in 2017 indicated serious deficiencies in the existing interceptor that could lead to failure.

Lower Walnut Creek $22,000,000 (10-year total)

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

Wastewater Treatment Plant Expansion

This category includes the construction of additional waste treatment facilities at all three wastewater treatment plants. This category includes the construction of anaerobic digesters at the Neuse River Resource Recovery Facilty (NRRRF) to provide a fuel source (methane gas) for fueling a generator to produce electricity or producing compressed natural gas for pipeline injection and/or bus fleet fuel. Growth in the Wake Forest service area necessitates the expansion of the Smith Creek Wastewater Treatment Plant from 3 MGD to 6 MGD.

NRWWTP Expansion	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Anaerobic Digesters	25,000,000	-	-	-	-	25,000,000
Nitrogen Credit Purchase	-	1,000,000	1,000,000	1,000,000	1,000,000	4,000,000
SCWWTP Upgrade	1,400,000	-	2,700,000	-	43,100,000	47,200,000
New East Raleigh RRF	-	-	-	-	3,000,000	3,000,000
Phase II Gas Treatment System - Bioenergy Recovery Program	-	-	-	500,000	5,100,000	5,600,000
NRRRF Sidestream Treatment Facility	-	500,000	8,500,000	-	-	9,000,000
NRRRF FOG Receiving and Handling Facility	-	-	-	300,000	4,600,000	4,900,000
NRRRF Effluent/Reuse Modifications	-	-	-	-	500,000	500,000
Total	**$26,400,000**	**$1,500,000**	**$12,200,000**	**$1,800,000**	**$57,300,000**	**$99,200,000**

Highlighted Projects

Neuse River Resource Recovery Facility Anaerobic Digesters $25,000,000

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

Smith Creek Wastewater Treatment Plant Upgrade $47,200,000 (10-year total)

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

Wastewater Pump Stations

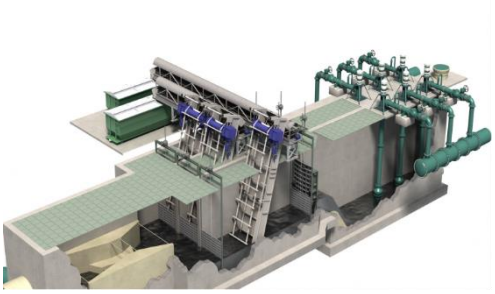
The CIP funding for wastewater pump stations includes the construction, rehabilitation, replacement or removal of sanitary sewer pump station facilities.

Water Pump Stations	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Removal/Rehab/Replacement	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
East Neuse Reg Pump Station & Force Main	15,000,000	-	-	-	-	15,000,000
Pump Station Generator Replacement	200,000	200,000	200,000	200,000	200,000	1,000,000
Regional Pump Stations	-	-	-	500,000	15,000,000	15,500,000
Whitley Way PS Upgrade	-	-	-	200,000	2,000,000	2,200,000
Total	**$16,200,000**	**$1,200,000**	**$1,200,000**	**$1,900,000**	**$18,200,000**	**$38,700,000**

Highlighted Projects

East Neuse Regional Pump Station $15,000,000 (10-year total)

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



Reuse System

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

Reuse System	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Reuse Expansion-Improvements	-	3,000,000	3,000,000	3,000,000	3,000,000	12,000,000
Total	**-**	**$3,000,000**	**$3,000,000**	**$3,000,000**	**$3,000,000**	**$12,000,000**

Wastewater Treatment Plant Maintenance

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

Wastewater Treatment Plant Maintenance	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Land Purchase	200,000	200,000	200,000	200,000	200,000	1,000,000
RAS Screw Pump Replacement	4,700,000	-	-	-	-	4,700,000
Comprehensive Plan	-	-	2,000,000	-	-	2,000,000
LCWWTP UV Rehabilitation	1,400,000	-	-	-	-	1,400,000
NRRRF Grit Basin Rehabilitation	-	600,000	-	6,100,000	-	6,700,000
SCWWTP Flow Attenuation and Grit Removal Improvements	3,300,000	-	-	-	-	3,300,000
WWTP Facility/Equipment Rehab	750,000	750,000	750,000	750,000	750,000	3,750,000
NRRRF Rehabilitation Phase 1	-	-	-	-	1,100,000	1,100,000
NRRRF Grit Removal Improvements	-	-	-	-	1,700,000	1,700,000
SCADA Upgrades (Wastewater)	1,200,000	-	-	-	-	1,200,000
SCWWTP Flow Equalization	200,000	2,000,000	-	-	-	2,200,000
Total	**$11,750,000**	**$3,550,000**	**$2,950,000**	**$7,050,000**	**$3,750,000**	**$29,050,000**

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 between 12 inches to 48 inches in pipe diameter. The water mains will be primarily installed along major thoroughfares as recommended in the 2015 Water System Master plan. In addition to capacity, some of the projects in this category will address current operational problems such as tank imbalances in the 495' elevation pressure zone.

Water Main Expansions	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Service Area Growth-Water	-	-	100,000	100,000	100,000	300,000
Zebulon TM on NC97	-	500,000	4,070,000	-	-	4,570,000
US70 & Westgate	100,000	930,000	-	-	-	1,030,000
Pullen to Bain 36in	-	8,230,000	-	-	-	8,230,000
Perry Creek & Durant	400,000	1,400,000	-	-	-	1,800,000
42 TM between US70	-	-	-	3,000,000	-	3,000,000
Parallel 16 in, NC97 to Wendell PS	-	60,000	600,000	-	-	660,000
Main Campus, Trailwood Connect	400,000	-	-	-	-	400,000
Total	**$900,000**	**$11,120,000**	**$4,770,000**	**$3,100,000**	**$100,000**	**$19,990,000**

Highlighted Projects

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

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

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Water Pump Stations

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

Water Pump Stations	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Water Booster Station Rehab	-	400,000	400,000	400,000	400,000	1,600,000
G.G. Hill PS	300,000	-	1,230,000	-	-	1,530,000
Bain PS Upgrade	-	-	-	100,000	1,100,000	1,200,000
EMJWTP PS1 Upgrade	-	-	-	-	100,000	100,000
Forestville PS Upgrade	-	-	-	-	50,000	50,000
EMJWTP VFD Installation	-	-	800,000	-	-	800,000
Pressure Zone Meter Installations	-	500,000	-	-	-	500,000
Total	**$300,000**	**$900,000**	**$2,430,000**	**$500,000**	**$1,650,000**	**$5,780,000**

EM Johnson Water Treatment Plant (EMJWTP) Expansion

This category includes the phased expansion of EMJWTP to a treatment capacity to 120 MGD. The plant expansion will include projects to retrofit the existing flocculation and sedimentation basins and rapid mix structures to expand capacity, construction of new ozone facilities, a new raw water pump station/intake, and improvements to the raw water transmission lines to the plant reservoirs. Other projects will incorporate new high rate filters, expanded power generation, expanded chemical campus with additional bulk storage and chemical feeds, new ultraviolet radiation disinfection facility, and improved solids handling facilities. Plan assumptions and cost estimates were revised in 2018 to update for changes in technology, consumption patterns, and equipment condition since the original 2007 expansion study.

EMJWTP Expansion	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Power Generation Expansion	1,500,000	7,000,000	-	-	-	8,500,000
Flocc Sed Basin Improvements	600,000	2,900,000	-	46,300,000	-	49,800,000
Ozone Expansion	-	-	-	-	600,000	600,000
EMJWTP Filter Expansion	-	-	500,000	1,400,000	25,500,000	27,400,000
EMJWTP Raw Water Main	500,000	1,500,000	26,800,000	-	-	28,800,000
Raw Water PS/Intake	-	-	1,700,000	2,500,000	2,500,000	6,700,000
Total	**$2,600,000**	**$11,400,000**	**$29,000,000**	**$50,200,000**	**$28,600,000**	**$121,800,000**

Highlighted Projects

Flocculation Sedimentation Basin Improvements $49,800,000 (10-year total)

Four flocculation/sedimentation basins will be renovated with concrete/structural repairs and new mechanical equipment in the existing process trains. Each train is designed to treat 24 MGD flow (expandable to 30 MGD in the future) for an ultimate firm treatment capacity of 120 MGD. A second new rapid mix structure will also be constructed to meet these capacity needs.

Raw Water Main $28,800,000 (10-year total)

27,000 linear feet of 54-inch raw water pipeline will be installed from the Raw Water Facilities in Falls Lake to the plant site. The new parallel Raw Water Main will provide a total capacity of over 120 MGD Raw Water flow to the plant site, and also serve to address reliability concerns regarding the existing 36-inch and 54-inch raw water mains.

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. Due to jurisdictional issues, Wake County has managed all land acquisition, so this category includes an annual repayment of $500,000 to Wake County until the land acquisition costs are repaid. Some funds in this category could be reallocated dependent upon the direction of the City's next water supply; however, the City is contractually obligated to repay the land acquisition to Wake County. This category also provides funding for the City to develop other economically and environmentally feasible sources for future water supply.

Little River Projects	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Wake County Reimbursement	500,000	500,000	500,000	500,000	500,000	2,500,000
Water Supply Development	-	-	500,000	500,000	500,000	1,500,000
Total	**$500,000**	**$500,000**	**$1,000,000**	**$1,000,000**	**$1,000,000**	**$4,000,000**

Water Tank Upgrades

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

Water Tank Upgrades	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Elevated Water Tank Rehabilitation	500,000	900,000	900,000	900,000	900,000	4,100,000
Total	**$500,000**	**$900,000**	**$900,000**	**$900,000**	**$900,000**	**$4,100,000**

Water Treatment Plant Maintenance

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

Water Treatment Plant Maintenance	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Solids Handling Improvements	-	-	5,000,000	-	-	5,000,000
Bulk Storage Facilities	-	400,000	9,000,000	-	-	9,400,000
North South Basin Rehabilitation	-	-	2,400,000	-	-	2,400,000
Facility/Equipment Rehabilitation	750,000	750,000	750,000	750,000	750,000	3,750,000
Clearwell Rehab	-	7,500,000	-	-	-	7,500,000
New Laboratory Facility	2,000,000	-	-	-	-	2,000,000
DEBWTP Raw Water Reservoir	-	-	-	-	1,000,000	1,000,000
3rd Floor Renovations	-	-	-	-	500,000	500,000
Sludge Conveyance	1,725,000	-	-	-	-	1,725,000
DEBWTP Lake Benson Boat Ramp	-	250,000	-	-	-	250,000
Falls Lake Intake Rehabilitation	500,000	-	-	-	-	500,000
DEBWTP Settling Tank Dewater	3,000,000	-	-	-	-	3,000,000
EMJWTP Low Service Pump Wetwell Impvts	300,000	-	-	-	-	300,000
EMJWTP Asphalt/Curbing Replacement	-	500,000	-	-	-	500,000
PLC Replacement	500,000	500,000	500,000	500,000	-	2,000,000
SCADA Upgrades	1,200,000	-	-	-	-	1,200,000
Security Updates and Notification System	200,000	-	-	-	-	200,000
EMJWTP Lagoon Rehabilitation	-	1,200,000	-	-	-	1,200,000
Water Quality Regulatory Updates	100,000	100,000	100,000	100,000	100,000	500,000
Total	**$10,275,000**	**$11,200,000**	**$17,750,000**	**$1,350,000**	**$2,350,000**	**$42,925,000**

Highlighted Projects

Dempsey E. Benton Water Treatment Plant Raw Water Reservoir
$35,000,000 (10-year total)

This project provides for the construction of a 100-million-gallon raw water reservoir on property adjacent to the DE Benton Water Treatment Plant. The reservoir will provide for five days additional raw water storage, and will create efficiencies in water treatment at the plant.

Miscellaneous Water and Wastewater Projects

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

Miscellaneous Water and Wastewater	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Service Area Growth-Sewer	-	200,000	200,000	200,000	200,000	800,000
Sanitary Sewer Siphon Rehabilitation	1,000,000	1,000,000	1,000,000	-	-	3,000,000
Utility Field Operation Facilities Impvts	500,000	500,000	500,000	500,000	500,000	2,500,000
Access to Sanitary Sewer Mains	-	200,000	200,000	200,000	200,000	800,000
Wendell Lake Glad Rd. Demolition	200,000	-	-	-	-	200,000
Sewer System Capacity	400,000	400,000	400,000	400,000	400,000	2,000,000
Water Distribution WQ Program, Study, Eval, & Design	100,000	100,000	100,000	100,000	100,000	500,000
Lake Benson/Lake Wheeler Dam Armor	300,000	-	-	5,500,000	-	5,800,000
Total	**$2,500,000**	**$2,400,000**	**$2,400,000**	**$6,900,000**	**$1,400,000**	**$15,600,000**

Capital Equipment

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

Capital Equipment	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Capital Equipment Rehabilitation/Replacement	650,000	650,000	650,000	650,000	650,000	3,250,000
Fire Hydrant Replacement	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
2-inch Meter Replacement	240,000	240,000	240,000	240,000	240,000	1,200,000
Meter Replacement	4,400,000	4,800,000	6,100,000	1,700,000	1,700,000	18,700,000
Total	**$6,290,000**	**$6,690,000**	**$7,990,000**	**$3,590,000**	**$3,590,000**	**$28,150,000**

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	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Watershed Initiatives	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	11,250,000
Total	**$2,250,000**	**$2,250,000**	**$2,250,000**	**$2,250,000**	**$2,250,000**	**$11,250,000**

Stormwater

Map Created by COR GIS 4/2018

Stormwater Management Program

Lake and Wetland Restoration

Stream Restoration

Drainage Infrastructure Repair

Categories	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Lake Preservation	-	350,000	2,050,000	1,500,000	-	3,900,000
COR SCM and Dam Program	100,000	200,000	200,000	400,000	500,000	1,400,000
Water Quality	650,000	1,250,000	625,000	850,000	950,000	4,325,000
Stream Restoration	-	150,000	500,000	1,250,000	2,000,000	3,900,000
General Drainage Infrastructure	2,000,000	2,500,000	2,200,000	2,450,000	3,050,000	12,200,000
Neighborhood Drainage System Improvements	4,710,000	1,025,000	2,950,000	1,950,000	2,250,000	12,885,000
Street Drainage System Improvements	1,200,000	2,025,000	-	100,000	550,000	3,875,000
Reserve for Future Projects	300,000	300,000	275,000	300,000	500,000	1,675,000
Total	**$8,960,000**	**$7,800,000**	**$8,800,000**	**$8,800,000**	**$9,800,000**	**$44,160,000**

Revenue Sources	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Interest On Investments	200,000	200,000	200,000	200,000	200,000	1,000,000
Transfer from Stormwater Operating	8,760,000	7,600,000	8,600,000	8,600,000	9,600,000	43,160,000
Total	**$8,960,000**	**$7,800,000**	**$8,800,000**	**$8,800,000**	**$9,800,000**	**$44,160,000**

Element Overview

The prioritized Stormwater Capital Improvement Program (CIP) budget for FY2019 through FY2023 totals $44,160,000. This funding allows the Stormwater Program to successfully carry out its mission and provide services that include lake preservation, water quality improvement, stream restoration, stormwater system repairs and asset management, drainage assistance, flood hazard mitigation, watershed planning, neighborhood drainage improvements, and street drainage system improvements. All of these efforts directly protect and benefit Raleigh residents while improving their quality of life.

Recent Accomplishments

- During FY2018, the Stormwater Program began construction of several major infrastructure projects including: Lower Longview Lake Dam Rehabilitation and Dredging ($3.4 million); Lower Longview Lake Stream Stabilization ($300,000); Simmons Branch Drainage Improvement Project – Phase 2 ($5.2 million); Brockton Drive Lake and Dam Rehabilitation – Phase 1 ($1.9 million); Laurel Hills Road Dam and Spillway Rehabilitation ($2.1 million); Swann Street Drainage Improvement Project – Phase 1($1.5 million); West Drewry Lane Culvert Replacement ($543,000); Brentwood Today Stream Stabilization ($225,000); Beechwood-Cypress Area Drainage System Improvement ($586,000); and Lower Durant Lake Dam Repair ($750,000).
- The City acquired up to nine repetitive flood-prone single-family residential properties at a total cost of $2,071,753 through the use of Federal Emergency Management Agency (FEMA) Hazard Mitigation Grants, with $196,000 in demolition and other funding provided by the City's Stormwater CIP.
- Constructed more than two dozen high priority community Drainage Assistance projects valued at more than $2 million. FY2018 was the second year that the enhanced Drainage Assistance Program policy was implemented. The policy has continued to provide notable improvements in project approach and delivery, including the dedication of permanent public drainage easements that help sustain the City's stormwater improvements for the community.

- Significant progress has been made toward advancing the use of Green Stormwater Infrastructure (GSI) measures for stormwater management within Raleigh. Efforts include receiving approval from Raleigh City Council to amend local code to allow and facilitate innovative GSI for both public and private development and redevelopment.
- Formal Asset Management and Watershed Master Planning programs were formed in FY2018. These program offer dedicated stormwater planning services to support the Stormwater Management Program and Stormwater CIP.

Work Plan Highlights

- Funding of $4.71 million for neighborhood-wide drainage system improvements in FY2019.
- Projecting construction of the White Oak Lake Rehabilitation Project estimated at $3 million.
- Additional funding of $1.5 million for the rapidly growing Drainage Assistance Program that directly benefits Raleigh's residents and property owners who have qualifying, priority drainage system improvement needs, such as structural flooding, failing drainage infrastructure, and severe stream channel erosion.
- Funding of $1.2 million for street drainage system improvements in FY2019.
- Continued funding totaling $200,000 for stormwater system repairs and $100,000 for flood hazard mitigation.
- Funding totaling $650,000 for water quality improvement projects in FY2019.
- Funding of $200,000 for continued watershed master planning to help identify and prioritize citywide stormwater system improvements for flood hazard reduction and surface water quality.
- Creating a new line item within the Stormwater CIP to begin funding for future capital needs related to City-owned and/or operated Stormwater Control Measures (SCMs) and dams. Initial funding of $100,000 is proposed for FY2019 with projected increases in future years as needs are further assessed and prioritized.

Operating Impacts

- With dedicated staff and resources approved and beginning in FY2018, the Stormwater Program will continue to develop a comprehensive Stormwater Asset Management Program (AMP). The AMP will enhance stormwater system inventory mapping information; prioritize infrastructure rehabilitation and replacement projects for the Stormwater CIP; offer improved assessment of the City's stormwater system; and serve as an integral management, tracking, and repair resource for SCMs and dams.
- Current and proposed operating budgets will address near-term operating impacts related to maintenance of permanent stormwater easements associated with newer CIP projects. During FY2017, additional budgetary and staffing resources were approved to expand the City's in-house drainage maintenance and construction programs managed by Transportation Field Services. These resources have expanded the City's Stormwater System Maintenance capability,which has allowed the City to reach new stormwater easement areas.
- FY2019 will bring enhanced project management and inspection staff resources to the CIP Infrastructure and Drainage Assistance programs. This will add to the Stormwater Program's internal capacity to manage project delivery.

Horizon Items

- Anticipate continued growth of long-term water quality requirements, which will amplify the need for retrofit projects to further protect and improve water quality. Recent policy updates related to GSI will better support retrofits and development on private property and within the public right-of-way.
- Continue to prioritize drainage and stream system improvements on private property for areas that convey public stormwater runoff (i.e., runoff from a public street, right-of-way, or City-owned property). More emphasis will be placed on qualifying, priority backyard stream stabilization projects with increased funding beginning in FY2019. This program will be part of the expanded Drainage Assistance Program and will address one of the most common stormwater challenges in the community.

Lake Preservation and COR SCMs and Dams

Lake preservation projects focus on stormwater management retrofits and improvements to existing pond and lake facilities in critical locations within local watersheds. These projects are designed to provide significant public stormwater management benefits, including flood control and surface water quality protection. Originally established in 1994, this CIP area was reviewed by the Stormwater Management Advisory Commission (SMAC) during FY2017 for potential updates and enhancements. While program enhancements are pending, two projects are proposed for FY2019 – FY2023, including Upper Durant Lake/Wetland/Stream Restoration and Eastgate Lake Rehabilitation/Preservation. These projects are consistent with both the existing and revised lake preservation/management program. The Durant project also represents a multi-year, collaborative effort with the City's Parks, Recreation, and Cultural Resources Department.

Lake Preservation	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Upper Durant Lake,Wetland, Stream System Restoration	-	350,000	1,750,000	-	-	2,100,000
Eastgate Lake and Dam Rehabilitation	-	-	300,000	1,500,000	-	1,800,000
Total	**-**	**$350,000**	**$2,050,000**	**$1,500,000**	**-**	**$3,900,000**

COR SCM and Dam Program	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
COR Stormwater Control Measures (SCMs) and Dams	100,000	200,000	200,000	400,000	500,000	1,400,000
Total	**$100,000**	**$200,000**	**$200,000**	**$400,000**	**$500,000**	**$1,400,000**

Highlighted Projects

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

This project (pictured right) is intended to provide a structured, objective-based restoration that offers significant improvement to the water quality of the lake and Perry Creek Watershed as well as the Preserve's landscape. The design also will help control flood flows from the lake and provide opportunities to bring more awareness and educate the community about the importance of protecting and enhancing the Preserve.

Eastgate Lake/Dam Rehab/Preservation: $1,800,000

This project will rehabilitate the spillway and dam at the City's Eastgate Lake.Eastgate Lake Dam is classified as a high hazard dam by North Carolina Dam Safety. Improvements will allow the dam and spillway to meet regulatory standards along with City stormwater management goals, including flood control and water quality protection. This project is also on the City's Lake Preservation list.

City SCM and Dam Program: $1,400,000

As the Stormwater Asset Management Program develops, City staff will continue to assess the condition and valuation of natural and constructed stormwater infrastructure assets. Staff and City con sultants are currently inspecting and evaluating dams owned by the City and/or those where the City has a permanent drainage easement or other ongoing maintenance responsibility. Required repairs for both City SCMs and dams will be identified, prioritized, and funded through this CIP program element.

Water Quality Projects

Water quality improvement projects include fully funded City stormwater quality projects as well as Stormwater Quality Cost Share projects for private property owners. The Stormwater Quality Cost Share Program was renamed to “Raleigh Rainwater Rewards” in FY2018.

Water Quality	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
TMDL Streams Water Quality Projects	75,000	300,000	50,000	300,000	400,000	1,125,000
Water Quality Retrofit Projects	50,000	300,000	50,000	300,000	300,000	1,000,000
Water Quality Cost Share	25,000	250,000	25,000	250,000	250,000	800,000
Wooten Meadows Wetland	400,000	-	-	-	-	400,000
Peterson St./S. State St. Green Street Bioretention	100,000	300,000	-	-	-	400,000
Baileywick YMCA Retrofit	-	100,000	500,000	-	-	600,000
Total	**$650,000**	**$1,250,000**	**$625,000**	**$850,000**	**$950,000**	**$4,325,000**

Highlighted Projects

Water Quality Retrofit Projects: $1,000,000

These projects focus on retrofitting established or developed areas of the City that generally do not have stormwater controls in place. This category may include but is not limited to stormwater quality retrofits involving public streets, right-of-ways, and land as well as devices that would treat stormwater runoff from both public and private land in order to improve water quality in local receiving streams and lakes. Retrofit opportunities are often identified and prioritized through area or watershed studies.

Total Maximum Daily Load (TMDL) Streams Water Quality Projects: $1,125,000

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

Water quality devices help reduce both runoff pollution and volume. Devices include bioretention (rain garden), constructed wetlands (water garden), stormwater detention ponds, vegetated stream buffers, and permeable pavement.

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

Stream Restoration

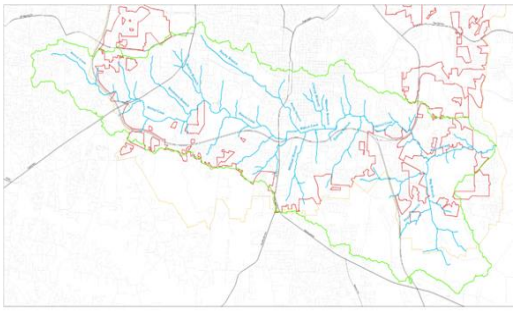
Stream restoration projects are designed to stabilize and restore streams to protect stream corridors and adjacent land from erosion as well as improve surface water quality within priority watersheds in Raleigh.

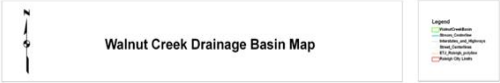
Stream Restoration	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Wade Stream Restoration	-	150,000	500,000	-	-	650,000
Walnut Creek Watershed - Stream Restoration	-	-	-	250,000	1,500,000	1,750,000
Devereau Meadows Stream Restoration	-	-	-	850,000	-	850,000
Capital Blvd Stream Restoration	-	-	-	150,000	500,000	650,000
Total	**-**	**$150,000**	**$500,000**	**$1,250,000**	**$2,000,000**	**$3,900,000**

Highlighted Projects

Walnut Creek Watershed-Stream Restoration (Priority Projects): $1,750,000

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





General Drainage Infrastructure

This category includes Stormwater System Repairs, Drainage Assistance (petition) Projects, Flood Mitigation Projects, and Watershed Planning/Program Planning.

General Drainage Infrastructure	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Watershed Planning / Program Planning	200,000	200,000	200,000	200,000	200,000	1,000,000
Stormwater System Repairs	200,000	500,000	500,000	500,000	500,000	2,200,000
Drainage Assistance (Petition) Projects	1,500,000	1,500,000	1,500,000	1,500,000	2,000,000	8,000,000
Flood Mitigation Projects	100,000	300,000	-	250,000	350,000	1,000,000
Total	**$2,000,000**	**$2,500,000**	**$2,200,000**	**$2,450,000**	**$3,050,000**	**$12,200,000**

Highlighted Projects

Stormwater System Repairs: $2,200,000

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

This category includes culvert and stormwater system repairs such as Donna Road (pictured at right - after construction), an open creek ran parallel to the road causing erosion along the shoulder which was compromising the integrity of the roadway and was a safety threat to the public.

Drainage Assistance Program: $8,000,000

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

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

Flood Mitigation Projects: $1,000,000

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

Watershed Planning Projects: $1,000,000

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

Neighborhood Drainage

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

Neighborhood Drainage System	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Grist Mill/Harps Mill/Tanbark Drainage/W. North Ridge (Ph 2)	2,300,000	-	1,600,000	-	-	3,900,000
Swann St Area Improvements (Ph 2)	-	-	200,000	1,000,000	-	1,200,000
Churchill Culvert (Beaverdam Creek Ph 2)	680,000	-	-	-	-	680,000
Walnut Creek Watershed-Drainage Impvt (Ph 1)	-	-	-	-	250,000	250,000
Future Neighborhood Drainage System Projects	50,000	800,000	-	325,000	2,000,000	3,175,000
Ramblewood Dr Drainage Improvements	1,600,000	-	-	-	-	1,600,000
Braceridge Dr Area Drainage Improvements	-	225,000	1,000,000	-	-	1,225,000
Hemingway and Hiddenbrook Area Drainage Impvt	-	-	150,000	625,000	-	775,000
Rose Lane & Glenbrook Area flood analysis	80,000	-	-	-	-	80,000
Total	**$4,710,000**	**$1,025,000**	**$2,950,000**	**$1,950,000**	**$2,250,000**	**$12,885,000**

Highlighted Projects

Swann Street Area Improvement (Phase II): $1,200,000

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

Braceridge Drive Area Drainage Improvements: $1,225,000

This neighborhood experiences both street and private property flooding. Braceridge Road flooding occurs during intense storms. There also is yard flooding of several homes along Batiste Road and periodic flooding of a garage at one home on Braceridge Road. The goal of the project is to install a storm drainage pipe system to collect and convey stormwater runoff away from these properties and safely discharge it to a tributary of Haresnipe Creek.

Ramblewood Drive Area Drainage Improvements: 1,600,000

The project will improve the stability of channel banks and reduce flooding along two streams near Ramblewood Drive. Stream bank erosion from increased stormwater flows has caused trees to fall and the stream channel to relocate. The project will include upsizing stormwater drainage pipes, providing a concrete drop structure, and providing retaining walls to reduce stream bank erosion and the frequency of flooding along Ramblewood Drive.

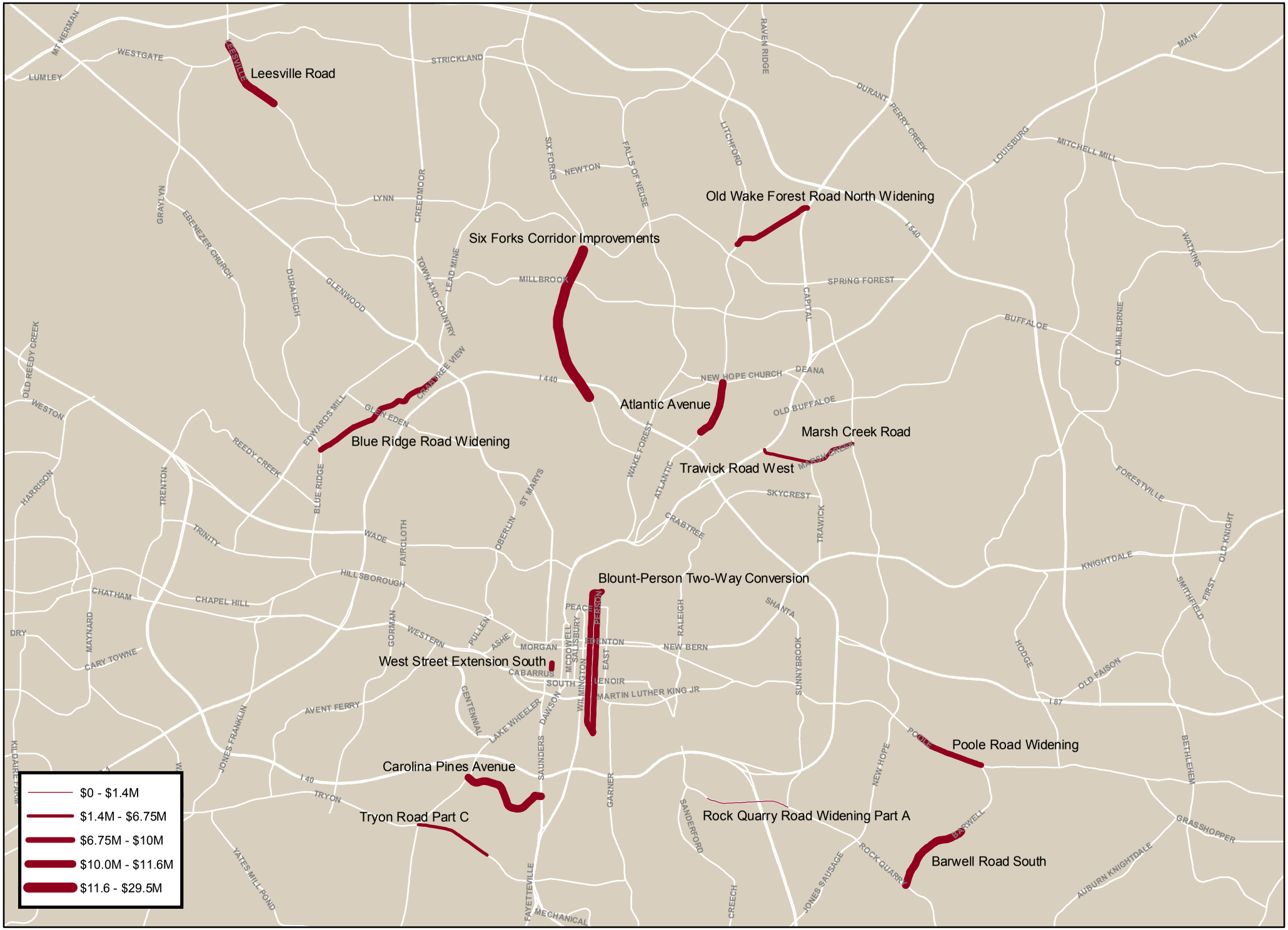
Various Neighborhood Drainage System Improvement Projects: $3,175,000

This category of CIP funding is for neighborhood or area-based drainage system improvements. Many of these projects are identified through watershed or area studies.

Street Drainage System Improvements

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

Street Drainage System Improvement	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Newton Rd Culvert Impvt Design & Construction	550,000	-	-	-	-	550,000
Various Street Drainage System Impvt Projects	-	625,000	-	100,000	550,000	1,275,000
Bragg St / State Ct Culvert Rehabiltiation	500,000	-	-	-	-	500,000
Whispering Branch Area Drainage Impvt	-	750,000	-	-	-	750,000
Dana Drive Culvert Replacement	150,000	650,000	-	-	-	800,000
Total	**$1,200,000**	**$2,025,000**	**-**	**$100,000**	**$550,000**	**$3,875,000**



Transportation

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Transportation

Categories	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Bicycle and Pedestrian Improvements	10,542,000	5,280,000	5,330,000	4,785,000	2,011,000	27,948,000
Major Street Projects	49,702,000	55,833,400	41,022,400	34,790,000	2,500,000	183,847,800
Parking	1,340,000	1,290,000	1,290,000	1,290,000	1,290,000	6,500,000
Street Improvement Program	13,718,000	13,619,000	13,465,000	13,549,000	10,743,000	65,094,000
Studies and Planning Projects	-	175,000	150,000	175,000	175,000	675,000
Transit	10,993,104	7,737,000	7,737,000	9,018,000	5,987,000	41,472,104
Wake Transit Plan	23,254,908	22,250,000	27,750,000	20,750,000	20,750,000	114,754,908
Total	**$109,550,012**	**$106,184,400**	**$96,744,400**	**$84,357,000**	**$43,456,000**	**$440,291,812**

Revenue Sources	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Federal Grants	13,760,554	5,458,200	5,458,200	5,354,200	5,514,200	35,545,354
Bond Proceeds	56,273,200	61,883,400	47,047,400	41,496,000	-	206,700,000
Interest on Investments	200,000	200,000	200,000	200,000	200,000	1,000,000
Permit Fees-Other	500,000	500,000	500,000	500,000	500,000	2,500,000
Wake Transit Fund Revenue	23,254,908	22,250,000	27,750,000	20,750,000	20,750,000	114,754,908
Transfer from General Fund	11,718,950	11,752,800	11,648,800	11,916,800	12,351,800	59,389,150
Transfer from Parking Operations	1,340,000	1,290,000	1,290,000	1,290,000	1,290,000	6,500,000
Street Facility Fees	2,152,400	2,500,000	2,500,000	2,500,000	2,500,000	12,152,400
Street Assessments	350,000	350,000	350,000	350,000	350,000	1,750,000
Total	**$109,550,012**	**$106,184,400**	**$96,744,400**	**$84,357,000**	**$43,456,000**	**$440,291,812**

Element Overview

The transportation element includes major street construction, street improvements, pedestrian and bicycle projects, downtown parking improvements and general transit projects. Total funding for the five-year program is $440.3 million with $109.6 million planned for FY2019. 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.

With the passage of the Transportation Bond Referendum in October of 2017, an additional $206.7 million is budgeted for transportation improvements. For federal fiscal year 2019, the City of Raleigh was awarded $15.2 million through the Capital Area Metropolitan Planning Organization’s (CAMPO) Locally Administered Project Program (LAPP). The program distributes federal transportation funding directly to local governments through a competitive process annually. The CIP also includes Wake Transit Plan revenues for capital allocations to GoRaleigh.

The CIP invests $183.8 million in major street projects and $65.1 million in street improvements. From all sources—City, the Wake Transit Plan, and LAPP—the CIP invests $156.2 million in the City’s transit system, including facility maintenance and equipment replacement. The bicycle and pedestrian program includes $27.9 million for sidewalk construction, maintenance, repair, streetlight installations, and bicycle facility improvements. Lastly, the CIP includes $6.5 million for maintenance and improvements at downtown parking decks.

To continue the city’s transit improvements, staff is coordinating with regional partners to implement the Wake Transit Plan. The FY2019 Wake Transit Work Plan balances the careful use of tax payer dollars with thoughtful investment in transit, such as expansion and replacement vehicles, a new transit center in East Raleigh, and improved bus stops. For FY2019, the City of Raleigh has programmed $24 million in capital projects supported by revenue from the Wake Transit

Plan. These projects include an East Raleigh transit center, a total of 16 new expansion buses and 13 replacement buses, as well as bus shelters and stop improvements.

Recent Accomplishments

The City has completed several major transportation projects including:

- Sandy Forks Road rehabilitation, widening, and complete streets implementation;
- Raleigh Union Station's ticketing hall, concourse, and intercity train platform and tracks;
- Neighborhood sidewalks on Cranbrook Road, Frank Street, Manchester Drive, Melbourne Road, Northclift Drive, Orleans Place, Ramblewood Drive, Ravenwood Drive, Tyrrell Road, Yadkin Drive, and Wimbleton Drive; and
- Corridor sidewalks on Crabtree Boulevard, Hoke Street, North Raleigh Boulevard, Oakwood Avenue, New Hope Church Road, South Bloodworth Street, South Blount Street, South Person Street, and West Millbrook Road.

Work Plan Highlights

- Implements the 2017 Transportation Bond, including design funding for all street improvement projects in FY2019. All 2017 Transportation Bond proceeds are budgeted in FY2019-2022.
- A $3 million investment in corridor sidewalks and $1 million for neighborhood sidewalks is included in FY2019, financed with the 2017 Transportation Bond.
- The CIP continues increased cash funding for street resurfacing supported by a one-cent property tax increase approved in FY2015. The revenue is transferred to the CIP for additional resurfacing contracts and brings the total resurfacing budget in FY2019 to $7.1 million and the five-year total to $37.6 million. The funding enables the City to resurface approximately 3% of its streets annually, compared to 1% prior to the allocated funding source. Curb ramp replacements associated with street resurfacing are budgeted separately for the first time in FY2019.
- There has been concern about bridge repair and maintenance, as non-critical maintenance has often been deferred and bridges age. In FY2019, these concerns are addressed with an investment of $848,000 of City funds which will leverage $712,000 of federal formula grants to complete major bridge repair and replacements. City staff will continue to monitor and evaluate these needs. Additional needs have been planned for future fiscal years.
- Construction of Fox Road improvements, from Spring Forest Road to Sumner Boulevard.
- Right-of-way and construction for Yonkers Road rehabilitation and improvements, from New Bern Avenue to Capital Boulevard.
- Wake Transit revenues are devoted to supporting the Plan's improved and expanded transit service, including stop amenities, new vehicles, and a new transit center in East Raleigh.

Operating Impacts

- Operating requirements and costs for Union Station total about $940,000 for FY2019, but facility revenues result in a net cost of $480,000. This amount represents full-year costs for required positions and operating needs to efficiently maintain the facility in FY2019. These operating costs will be partially supported by revenue anticipated from leased space and event facility income.
- A total of twelve staff positions are added in FY2019 to implement the 2017 Transportation Bond. These positions, totaling about $918,000 and include engineering project managers, survey crews, real estate, and attorneys, which will provide additional and more effective project management capabilities.

Horizon Items

- Facility fee revenue generated by development activity will be used to supplement bond and grant funding for major street projects. Facility fees for FY2019 and FY2020 are allocated to projects. Facility fees in FY2021 are allocated to projects and reserved to match future bond revenues or other funding sources. Expected facility fee revenue in FY2022 and FY2023 are reserved to match future bond revenues or other funding sources to be able to respond to changes in the economy, the construction market, and City priorities. City staff will continue monitoring legislative changes that would adversely affect this revenue stream.
- In FY2018, City Council made a policy change to not assess for curb and gutter on City-initiated street improvement projects. Over time, revenues from this source will decline.
- Despite new revenues allocated in FY2015, 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 $7.1 million in funding for FY2019 and provides a separate investment of $937,000 for curb ramp replacements separate from resurfacing funding. In FY2019, the Transportation Department will be evaluating and implementing alternative pavement preservation techniques which may be more cost effective in the long term, as well as implementing a state of the art pavement asset management system. In the future, staff anticipates a need to fund the rehabilitation of streets that have deteriorated beyond the point where simple resurfacing is cost effective.
- The City has made a significant commitment to the repair sidewalks in recent years. Trip hazards abatement has been an important part of that effort. In future years, the focus will shift to replacement of damaged sidewalk panels. There is an estimated replacement backlog of nearly three million square feet of sidewalk in need of repair city-wide.
- There is a potential need to increase local funding for transit to meet federal matching grant requirements resulting from the award of competitive grants that cannot be forecasted. Local funding for the match and support of capital projects will also need to be maintained to meet minimum local funding requirements associated with the use of the Wake County Transit Tax District's annual funding.

Major Street Projects

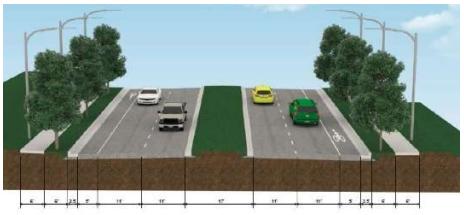
The Major Street Projects category funds road widening and other significant improvements in the City's street network. The primary source of funds for these projects is bond funding, with a smaller percentage coming from transportation impact fees and federal grants administered by CAMPO. Raleigh citizens approved bonds in 2017 to fund these projects.

Major Street Projects	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Rock Quarry Road Widening - Part A	1,400,000	-	-	-	-	1,400,000
New Bern Avenue - Spot Safety/Capacity	562,000	-	-	-	-	562,000
Fox Road Improvements	900,000	-	-	-	-	900,000
Yonkers Rd Improvements	12,800,000	-	-	-	-	12,800,000
Tryon Road - Part C	950,000	5,800,000	-	-	-	6,750,000
Old Wake Forest Road - North and Dixie Forest	1,000,000	8,600,000	-	-	-	9,600,000
Poole Road Widening	500,000	7,997,600	-	-	-	8,497,600
Blue Ridge Road Widening	1,000,000	8,500,000	-	-	-	9,500,000
Six Forks Corridor Improvements	-	9,500,000	20,000,000	-	-	29,500,000
Barwell Road - South	1,600,000	700,000	8,500,000	-	-	10,800,000
Blount-Person Two-Way Conversion	1,150,000	7,250,000	-	-	-	8,400,000
Atlantic Avenue	1,000,000	-	3,250,000	7,350,000	-	11,600,000
Carolina Pines Avenue	1,500,000	-	850,000	8,250,000	-	10,600,000
Leesville Road - Part B	1,500,000	-	2,300,000	7,800,000	-	11,600,000
Marsh Creek Road	690,000	-	1,270,000	3,840,000	-	5,800,000
Trawick Road - West	650,000	-	700,000	3,550,000	-	4,900,000
Neighborhood Corridor/Small Area Plan	500,000	500,000	500,000	500,000	-	2,000,000
Major Corridor/Small Area Plan	-	985,800	1,000,000	1,000,000	-	2,985,800
NCDOT Project Participation	10,000,000	5,000,000	-	-	-	15,000,000
Public Private Partnerships	2,000,000	1,000,000	1,000,000	-	-	4,000,000
West Street Extension - South	10,000,000	-	-	-	-	10,000,000
Facility Fee Reserve	-	-	1,652,400	2,500,000	2,500,000	6,652,400
Total	**$49,702,000**	**$55,833,400**	**$41,022,400**	**$34,790,000**	**$2,500,000**	**$183,847,800**

Highlighted Projects

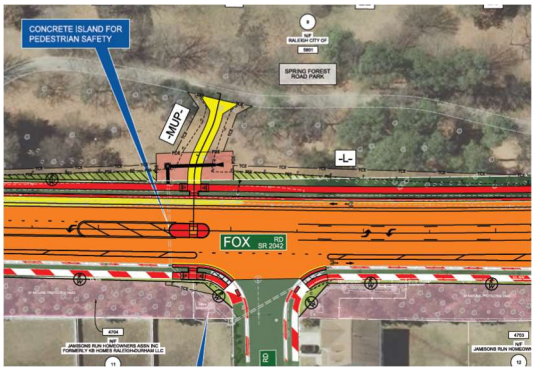
Old Wake Forest Road – North and Dixie Forest Road: $9,600,000 (Project Total - $14,400,000)

This project on Old Wake Forest Road, from Litchford Road to Capital Boulevard, will widen and improve the street. The improved street will feature a four-lane divided curb and gutter section with sidewalks on both sides, bicycle facilities, landscaping, street trees, and streetlights. The project will also complete curb and gutter, sidewalks and bike lanes on Dixie Forest between Spring Forest Road and Litchford Road, making travel to and from Millbrook High School safer. Design began in 2017 and the five-year CIP funds right-of-way and construction.



Fox Road Improvements: $900,000

This project will widen and improve Fox Road between Spring Forest Road and Sumner Boulevard. 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 2014 and the FY2019 budget funds construction.



Blue Ridge Road Widening: $9,500,000
(Project Total - $11,200,000 million)

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. Blue Ridge Road is a frequent transit corridor in the Wake Transit Plan. Funding supports design, right-of-way, and construction.

Street Improvement Program

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

Street Improvement Program	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Street Resurfacing	7,083,000	7,294,000	7,510,000	7,740,000	7,974,000	37,601,000
Minor Bridge Repair & Maintenance	300,000	300,000	300,000	300,000	300,000	1,500,000
Bridge Replacement: Shelley Road	890,000	-	-	-	-	890,000
Bridge Replacement: Future	-	580,000	580,000	450,000	650,000	2,260,000
Major Bridge Repair: Anderson Drive	315,000	-	-	-	-	315,000
Major Bridge Repair: Lassiter Mill Road	355,000	-	-	-	-	355,000
Major Bridge Repair: Future	-	820,000	425,000	365,000	400,000	2,010,000
Traffic Signal Installations	750,000	750,000	750,000	794,000	294,000	3,338,000
Intersection Improvements	400,000	400,000	450,000	450,000	450,000	2,150,000
Street Improvements & Paving Petitions	700,000	900,000	900,000	900,000	500,000	3,900,000
Streetscape Program	1,000,000	1,000,000	1,000,000	1,000,000	-	4,000,000
Neighborhood Traffic Management - Major	1,175,000	725,000	700,000	700,000	-	3,300,000
Neighborhood Traffic Management - Minor	175,000	175,000	175,000	175,000	-	700,000
Safe Routes to School Program	500,000	500,000	500,000	500,000	-	2,000,000
Right-of-Way/Easements	50,000	150,000	150,000	150,000	150,000	650,000
Highway Landscaping	25,000	25,000	25,000	25,000	25,000	125,000
Total	**$13,718,000**	**$13,619,000**	**$13,465,000**	**$13,549,000**	**$10,743,000**	**$65,094,000**

Highlighted Projects

Major Bridge Repair: $2,680,000
Bridge Replacement: $3,150,000

In the past, non-critical bridge maintenance has often been deferred. These programs will invest in repairing or replacing the highest priority city-maintained bridges. Replacement projects can be 80% funded by federal formula grants administered by the NC Department of Transportation.

Traffic Signal Installations: $3,338,000

Traffic Engineering staff evaluate intersections to determine if traffic signals should be installed. As Raleigh develops, an increasing number of new and upgraded traffic signals are needed. This program funds signals on city-maintained streets. Allocation of additional funding beyond bonds to some of the projects in the 2017 Transportation Bond Package has allowed an increased investment in new traffic signals to improve intersection operations affected by growth.

Street Resurfacing: $37,601,000

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: $3,900,000

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 Street Plan. Property owners are assessed fees for some portions of the project costs. FY2019 funding will support projects on Lorimer Road, Norris Street, and Breeze Road.

Bicycle and Pedestrian Improvements

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

Bicycle and Pedestrian Improvements	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Microgap Sidewalk	200,000	-	-	-	-	200,000
Blue Ridge Road Bike and Pedestrian Improvements	4,610,000	-	-	-	-	4,610,000
ADA Curb Ramps	937,000	960,000	985,000	1,035,000	1,061,000	4,978,000
Sidewalk Repairs	400,000	400,000	400,000	400,000	500,000	2,100,000
Corridor Sidewalk Improvements	3,000,000	2,500,000	2,500,000	2,000,000	-	10,000,000
Neighborhood Sidewalk Improvements – Petitions	1,000,000	1,000,000	1,000,000	900,000	-	3,900,000
Pedestrian Intersection Safety Projects	75,000	75,000	100,000	100,000	100,000	450,000
Thoroughfare Streetlight Installation	200,000	200,000	200,000	200,000	200,000	1,000,000
Bikeway Implementation	75,000	100,000	100,000	100,000	100,000	475,000
Bike Parking	20,000	20,000	20,000	25,000	25,000	110,000
Bike/Ped Count Program	25,000	25,000	25,000	25,000	25,000	125,000
Total	**$10,542,000**	**$5,280,000**	**$5,330,000**	**$4,785,000**	**$2,011,000**	**$27,948,000**

Highlighted Projects

Corridor Sidewalk Improvements: $10,000,000

This program funds construction of priority sidewalks along major corridors. Recently completed sidewalks include those along Hoke Street, North Raleigh Boulevard, and New Hope Church Road. This funding will allow for the design and construction of sidewalks prioritized by the Comprehensive Pedestrian Plan.

Neighborhood Sidewalk Improvements: $3,900,000

This program funds sidewalk construction on neighborhood streets, where property owners petition the City to complete sidewalks and also where area and neighborhood plans call for sidewalk construction on neighborhood streets.

Blue Ridge Road Sidewalks/Bridge: $4,610,000
(Project Total - $5,360,000)

This project is an important part of the Blue Ridge Road District Study. It will extend a greenway experience south from the Reedy Creek Trail at the North Carolina Museum of Art (NCMA) to the State Fairgrounds, including a new bridge over Wade Avenue. The project was awarded a $3.6 million federal grant through the CAMPO LAPP program. Design for the project was budgeted in the FY2015 and FY2016 CIPs. New funding is for right-of-way and construction.

Transit and Wake Transit Plan Projects

These categories fund the maintenance and expansion of the GoRaleigh fixed-route and GoRaleigh Access paratransit services. The general Transit category includes City funding as well as federal formula grants and competitive grants. The Wake Transit Plan Projects category includes projects administered by the City of Raleigh. The revenues for this category are GoRaleigh's allocation of Wake Transit funds as recommended by the Transit Planning Advisory Committee (TPAC) and adopted by CAMPO and GoTriangle boards.

Transit	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Transit Signal Priority	1,250,000	-	-	-	-	1,250,000
CNG Refueling Station	1,700,000	-	-	-	-	1,700,000
Poole Road Park and Ride Facility	813,354	-	-	-	-	813,354
Automated Data Processing (ADP) Software	300,000	-	-	-	-	300,000
SE Raleigh FY19 Bus Stops	1,095,000	-	-	-	-	1,095,000
Navaho Drive Sidewalk	440,750	-	-	-	-	440,750
Preventive Maintenance (Fixed Route)	4,450,000	4,450,000	4,450,000	4,450,000	4,450,000	22,250,000
Equipment and Facility Maintenance	114,000	114,000	114,000	114,000	114,000	570,000
Bus Shelters and Stop Improvements	750,000	1,343,000	1,343,000	1,343,000	1,343,000	6,122,000
Future Transit Supporting	-	250,000	250,000	250,000	-	750,000
Future WTP Project Participation	-	1,500,000	1,500,000	2,781,000	-	5,781,000
Union Station Capital Reserve	80,000	80,000	80,000	80,000	80,000	400,000
Total	**$10,993,104**	**$7,737,000**	**$7,737,000**	**$9,018,000**	**$5,987,000**	**$41,472,104**

Wake Transit Plan	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
ADA Transportation Facility	350,000	-	-	-	-	350,000
East Raleigh Community Transit Center	350,000	1,500,000	7,000,000	-	-	8,850,000
Bus Shelters and Stop Improvements	1,202,000	750,000	750,000	750,000	750,000	4,202,000
Expansion Vehicles	8,897,040	8,000,000	8,000,000	8,000,000	8,000,000	40,897,040
Replacement Vehicles	12,455,868	12,000,000	12,000,000	12,000,000	12,000,000	60,455,868
Total	**$23,254,908**	**$22,250,000**	**$27,750,000**	**$20,750,000**	**$20,750,000**	**$114,754,908**

Highlighted Projects

Transit Signal Priority: $1,250,000 million

This project will develop a transit signal priority system for the Capital Boulevard corridor to reduce bus travel times. The project has been awarded a $1 million grant through the CAMPO LAPP program.

Bus Shelters and Stop Improvements: $10,324,000

This program upgrades transit stops, connects sidewalks, and installs shelters. In FY2019, there is a focus on areas where services will be expanded by the Wake Transit Plan.

Expansion Vehicles (FY19): $8,897,040
Replacement Vehicles (FY19): $12,455,868

This project will fund the procurement of 16 expansion and 13 replacement fixed-route transit vehicles in FY19 to accommodate network expansion as part of the Wake Transit Plan. Additional expansion and replacement investments are anticipated in the future, as shown in the out years for this project.

Studies and Planning Projects

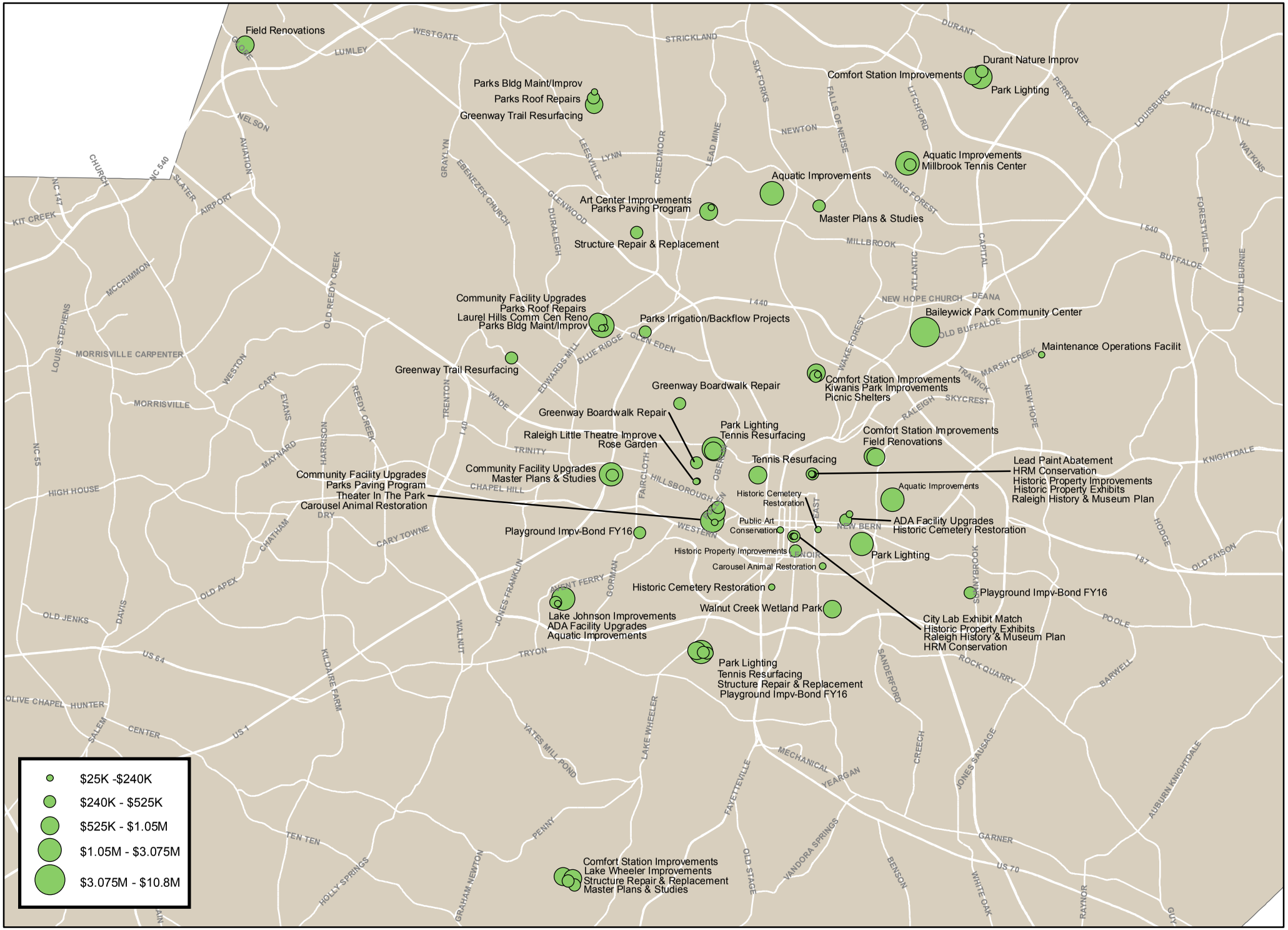
This category includes corridor studies, feasibility studies, design, preliminary engineering and resources for wetland mitigation and delineation. Studies provide recommended improvements, policy directives and design strategies. Funding supports initiatives such as corridor documentation and other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

Studies and Planning Projects	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Advanced Planning Feasibility Studies	-	150,000	150,000	150,000	150,000	600,000
Wetland Mitigation	-	25,000	-	25,000	25,000	75,000
Total	**-**	**$175,000**	**$150,000**	**$175,000**	**$175,000**	**$675,000**

Parking Projects

This category supports various parking projects and includes funding for parking deck LED lighting, security, planning, deck improvements, assessments and repairs, and studies. Moore Square Deck and Wilmington St Station will have LED replacements completed summer of 2018. City Center and Red Hat decks' LED replacement projects will begin upon completion of those decks. Emergency blue light call boxes will be installed in all parking decks to provide better security resources for parking customers. Many parking deck repair projects will be started in FY19, including repair of the ventilation systems in the underground decks, standpipe repair in the Municipal Deck and elevator replacements in the Performing Arts Deck. A parking study will be done to provide guidance on possible new deck construction or public-private partnerships.

Parking	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Parking Deck LED Lighting	785,000	460,000	310,000	300,000	400,000	2,255,000
Parking Deck Security	165,000	165,000	165,000	165,000	165,000	825,000
Parking Deck Improvements	300,000	625,000	775,000	785,000	685,000	3,170,000
Parking Deck Assessment & Repairs	40,000	40,000	40,000	40,000	40,000	200,000
Parking Study	50,000	-	-	-	-	50,000
Total	**$1,340,000**	**$1,290,000**	**$1,290,000**	**$1,290,000**	**$1,290,000**	**$6,500,000**



Parks, Recreation & Cultural Resources

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Parks, Recreation and Cultural Resources

Categories	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
2014 Bond Projects	20,300,000	5,425,000	-	-	-	25,725,000
Cultural Resources Category	300,000	750,000	235,000	330,000	235,000	1,850,000
Facility Improvements Category	2,685,000	2,380,000	2,795,000	2,850,000	2,800,000	13,510,000
Greenway System Category	300,000	300,000	300,000	300,000	300,000	1,500,000
Land Acquisition Category	100,000	125,000	125,000	125,000	125,000	600,000
Plans, Studies & Development Cat.	925,000	225,000	520,000	705,000	500,000	2,875,000
Site Improvements Category	1,415,000	1,745,000	1,600,000	1,265,000	1,615,000	7,640,000
Total	**$26,025,000**	**$10,950,000**	**$5,575,000**	**$5,575,000**	**$5,575,000**	**$53,700,000**

Revenue Sources	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Bond Proceeds	20,300,000	5,425,000	-	-	-	25,725,000
Interest On Investments	50,000	50,000	50,000	50,000	50,000	250,000
Fee in lieu -Street Trees	50,000	50,000	50,000	50,000	50,000	250,000
From Fund 100 For P&R	4,575,000	4,375,000	4,425,000	4,425,000	4,425,000	22,225,000
From Fund 130 Revolving Fund	100,000	100,000	100,000	100,000	100,000	500,000
From Fund 610 Park Acq-Fac Fees	950,000	950,000	950,000	950,000	950,000	4,750,000
Total	**$26,025,000**	**$10,950,000**	**$5,575,000**	**$5,575,000**	**$5,575,000**	**$53,700,000**

Element Overview

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

Recent Accomplishments

- The City has initiated a master planning process for Dorothea Dix Park. There are ongoing opportunities for community engagement to provide public input for the long-term vision of the park.
- Rosengarten Greenway and stream restoration project is in the design phase. This trail plays an important role in linking the greenway system with downtown, Dorothea Dix Park, the redeveloped Union Station, Boylan Heights community, and many other downtown businesses and neighborhoods.
- Improvement and restoration at historic cemeteries are under way. Seventeen surface vaults and one mausoleum were restored at Mt. Hope Cemetery. The wrought iron fencing at City Cemetery has been refurbished.
- Building improvements have been completed at Raleigh Little Theatre with a recent Gaddy Theater lobby renovation and Sutton Theater building system upgrade.
- Tennis court resurfacing was completed at Optimist Park, Lions Park and Biltmore Hills Park.
- Forest Ridge Park Phase I development was completed. Amenities include a Welcome Center, walking and mountain bike trails, playground, picnic shelters and comfort stations with associated parking.
- The farmhouse at Horseshoe Farm Nature Preserve has been renovated. The facility will accommodate environmental education, art programming and general recreation opportunities.

- The renovated Junius Sorrell Playground in southeast Raleigh was opened.
- Construction began at Moore Square in downtown Raleigh.
- Barwell Road Park Master Plan was adopted and schematic design of Phase I priorities is under way.
- The Walnut Creek Wetland Park Master Plan was adopted. Priorities identified during the master plan process will be implemented in the next fiscal year.
- Brentwood Park Master Plan was adopted. The next phase of the project will include improvements based on priorities from the adopted master plan.
- Staff completed an ADA audit at approximately 80 parks as part of the city-wide ADA Transition Plan.
- The City completed the acquisition of a 155-acre park property located at 4808 Pearl Road in southwest Raleigh. In addition to serving as a future park, this property would become a vital link in the Capital Area Greenway system.

Work Plan Highlights

- Growing maintenance demands of our parks and aging facilities continue to impact the department's resources. The 2014 Parks Bond featured maintenance of existing parks and facilities as a major priority and work will continue on a number of redevelopment projects such as John Chavis Memorial Park, Kiwanis Park, Biltmore Hills Park and Walnut Creek Athletic Park.
- Staff will continue to focus on projects as outlined in the 2014 Parks Bond Referendum. Major projects include: John Chavis Park Improvements, Pullen Art Center, Perry Creek Park Development, Building Maintenance, Playground Improvements, ADA Facility Upgrades and Aquatic Improvements.
- Staff will continue to implement ADA 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 other building improvement projects when possible.

Operating Impacts

- The 5-year capital plan focuses on repair, replacement and upgrade of existing parks facilities. Most projects have negligible operating impacts. A number of gymnasiums at community centers will receive building system upgrades to include air conditioning, which will result in increased energy consumption.
- The operating impacts of implementing the 2014 bond package will total $1.4M once all projects are complete. These impacts are funded through the tax rate. This includes approximately 15 new positions to staff new and renovated facilities.

Horizon Items

- Raleigh's park system is mature and aging. Staff continues to evaluate and prioritize maintenance needs while studying improved capacity to accommodate increasing recreation and education needs as outlined in the Parks, Recreation and Cultural Resources System Plan.
- The Parks System Plan will be evaluated and updated periodically to address planned and unforeseen needs and develop strategies to measure and reflect the directions set forth in the City Strategic Plan and Comprehensive Plan update.
- In addition to implementing the established Capital Improvement Program, staff continues to actively pursue grant and partnership opportunities and 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. 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 Master Plan. 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	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Park Site Acquisition	-	25,000	25,000	25,000	25,000	100,000
Greenway Acquisition	100,000	100,000	100,000	100,000	100,000	500,000
Total	**$100,000**	**$125,000**	**$125,000**	**$125,000**	**$125,000**	**$600,000**

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 network of interconnected trails throughout the city. The greenway category includes 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 current greenway system consists of nearly 4,000 acres of land and 117 miles of trails throughout the city.

Greenway System	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
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
Greenway Trail Resurfacing	100,000	100,000	100,000	100,000	100,000	500,000
Total	**$300,000**	**$300,000**	**$300,000**	**$300,000**	**$300,000**	**$1,500,000**

Highlighted Projects

Greenway Structure Repair and Replacement: $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 Millbrook Road and Russian Brook (Structures 22, 24), Brentwood (Structures 103), Allegheny Steps (Structure 69) as well as improvements along Crabtree Creek.

Greenway Trail Resurfacing: $500,000

This project funds repaving and repair of aging trail sections to maintain a safe, smooth travel surface. The City has over 100 miles of greenway trails with older trails being approximately 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 repair the asphalt trails at Lake Johnson, Rocky Branch and Lake Lynn.

Cultural Resources

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

Cultural Resources	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Carousel Animal Restoration	75,000	25,000	25,000	90,000	25,000	240,000
Historic Cemetery Restoration	25,000	50,000	150,000	-	-	225,000
Historic Property Exhibits	25,000	25,000	35,000	25,000	35,000	145,000
Public Art Conservation	-	25,000	-	25,000	25,000	75,000
City Lab Exhibit Match	150,000	200,000	-	-	100,000	450,000
Art Center Improvements	-	25,000	-	-	25,000	50,000
Raleigh History & Museum Plan	-	150,000	-	-	-	150,000
Historic Property Improvements	25,000	250,000	25,000	165,000	25,000	490,000
HRM Conservation	-	-	-	25,000	-	25,000
Total	**$300,000**	**$750,000**	**$235,000**	**$330,000**	**$235,000**	**$1,850,000**

Highlighted Projects

Historic Property Improvements: $490,000

The City maintains a number of properties and structures of historic significance. This project 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 and repairs at various historic properties including Tucker, Borden and Pope House.

Historic Property Exhibits: $145,000

Raleigh City Council created the Historic Resources and Museums program in 2012 with the purpose of protecting and programming identified museum and historical resource facilities, programs, and assets within the City of Raleigh. The project is responsible for supporting programs and operations at Mordecai Historic Park, the Raleigh City Museum, the Pope House, the Latta House and University Site, the Borden Building, Moore Square Park, Fred Fletcher Amphitheater and Stone Circle at Fletcher Park, and the Tucker House. Funds contribute to exhibit design and fabrication for annual and short term exhibits throughout Historic Resources and Museums program for rotating exhibits with a life span of less than five years.

City Lab Exhibit Match: $450,000

As part of its mission to “Preserve Raleigh’s Past for the Future,” the City of Raleigh Museum collects and cares for artifacts, curates exhibits, and provides educational programming that highlight and interpret Raleigh’s history and heritage. While the musuem is managerd and operated by the City, it is also supported by the non-profit Friends of COR Museum. A funding strategy has been established through a public-private partnership to fund the core exhibit production at the museum.

Facility Improvements

The facility improvements category includes projects that maintain, upgrade or replace park 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	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Theater In The Park	25,000	-	400,000	-	100,000	525,000
Lead Paint Abatement	50,000	-	50,000	50,000	50,000	200,000
P&R Electrical-Fields/Courts	175,000	175,000	275,000	275,000	300,000	1,200,000
Raleigh Little Theatre Improvements	-	-	25,000	-	25,000	50,000
Fall Protection	150,000	150,000	150,000	150,000	150,000	750,000
Dix Park Facility Improvements	250,000	-	-	-	-	250,000
Laurel Hills Comm Center Renovation	100,000	700,000	-	-	-	800,000
Park Lighting	450,000	430,000	400,000	415,000	450,000	2,145,000
Parks Bldg Maint/Improv	520,000	-	160,000	500,000	540,000	1,720,000
Parks Irrigation/Backflow Projects	185,000	25,000	75,000	75,000	105,000	465,000
Parks Roof Repairs	180,000	180,000	80,000	165,000	180,000	785,000
Community Facility Upgrades	300,000	375,000	880,000	920,000	600,000	3,075,000
Aquatic Improvements	300,000	345,000	300,000	300,000	300,000	1,545,000
Total	**$2,685,000**	**$2,380,000**	**$2,795,000**	**$2,850,000**	**$2,800,000**	**$13,510,000**

Highlighted Projects

Laural Hills Community Center: $800,000

This project funds community center renovations at Laurel Hills Park. Improvements include upgrades to the existing HVAC system to air condition the gymnasium, roof replacement, new gym floor surfacing and waterproofing the building envelope

Plans, Studies and Development

The Parks, Recreation and Cultural Resources System Plan guides park acquisition, development and improvements. Development of a particular site is based on an individual park master plan. 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 System Plan periodically. Master Plans for undeveloped park land incorporate recommendations from the System Plan and public input. 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	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
PRCR System Plan	170,000	-	-	-	-	170,000
Master Plans & Studies	125,000	-	-	125,000	50,000	300,000
Lake Wheeler Improvements	80,000	200,000	300,000	-	175,000	755,000
Kiwanis Park Improvements	95,000	-	-	-	-	95,000
Comfort Station Improvements	400,000	-	100,000	300,000	250,000	1,050,000
Picnic Shelters	55,000	25,000	120,000	280,000	25,000	505,000
Total	**$925,000**	**$225,000**	**$520,000**	**$705,000**	**$500,000**	**$2,875,000**

Highlighted Projects

Lake Wheeler Improvements: $755,000

The boat ramps and deck are in need of structural upgrades at Lake Wheeler Park. Additionally, the parking lot needs improvements to correct stormwater drainage issues. Funds will be allocated for stormwater improvements, ADA accessibility at the boat launch, a new boat house and a Watersports Center Study.

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 such as Americans with Disabilities Act and building code changes. Standardization of park furnishings and signage present an identifiable character to our park facilities.

Site Improvements	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Site Security P&R	75,000	105,000	125,000	75,000	225,000	605,000
Millbrook Tennis Center	-	-	300,000	-	-	300,000
ADA Facility Upgrades	200,000	-	100,000	100,000	150,000	550,000
Signage-Parks & Greenways	65,000	65,000	40,000	40,000	50,000	260,000
Volunteerism & Partnership Project	30,000	30,000	30,000	30,000	30,000	150,000
Safety Compliance	50,000	300,000	100,000	75,000	25,000	550,000
Maintenance Operations Facility	-	25,000	25,000	25,000	25,000	100,000
Durant Nature Improv	-	145,000	190,000	-	-	335,000
Rose Garden	-	-	-	25,000	-	25,000
Lake Johnson Improvements	-	100,000	-	-	-	100,000
Field Fencing	125,000	115,000	75,000	30,000	230,000	575,000
Park Site Improvements	155,000	220,000	165,000	190,000	175,000	905,000
Parks Paving Program	300,000	135,000	100,000	200,000	200,000	935,000
Tennis Resurfacing	100,000	150,000	150,000	150,000	150,000	700,000
Field Renovations	165,000	205,000	75,000	175,000	230,000	850,000
Tree Planting	50,000	50,000	25,000	50,000	25,000	200,000
Playground Improvements	100,000	100,000	100,000	100,000	100,000	500,000
Total	**$1,415,000**	**$1,745,000**	**$1,600,000**	**$1,265,000**	**$1,615,000**	**$7,640,000**

Highlighted Projects

Durant Nature Improvements: $335,000

The existing office space at Durant Nature Park is undersized for operation and public needs. Funding will provide renovation of office space for full- and part-time staff, as well as public space to accommodate registration, programming, interpretive displays and publicly accessible restrooms.

Millbrook Tennis Center: $300,000

The courts at Millbrook Tennis center are in need of resurfacing and crack repair. Funding will be applied towards these improvements on 23 courts and backboards at the facility.

Rose Garden Improvements: $25,000

The Rose Garden was dedicated in 1951, the finishing touch as a National Historic Landmark on the Raleigh Little Theatre campus. Since then, the Rose Garden has offered a year-round display and attraction of roses, trees, and perennials. A recent need for stormwater and drainage improvements, wayfinding, ADA accessibility and replacement roses has been identified.

2014 Parks, Recreation and Cultural Resources Bond

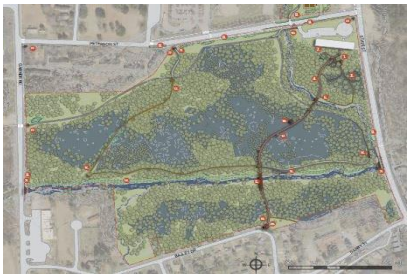
In May 2014, the Raleigh City Council voted unanimously to approve a new Parks, Recreation and Cultural Resources System Plan. The new plan guides the development and delivery of the City's parks and recreation services, facilities and programs over the next 20 years. The projects in the 2014 Raleigh 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. Projects will be implemented in phases over the next 5 years. Major projects include John Chavis Memorial Park Phase 1 Implementation, Walnut Creek Softball Complex and Walnut Creek Wetland Park development.

2014 Bond Projects	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
John Chavis Park Improvements	2,400,000	-	-	-	-	2,400,000
Brentwood Park Improvements	200,000	1,650,000	-	-	-	1,850,000
Walnut Creek Wetland Park	850,000	-	-	-	-	850,000
Pullen Art Center	1,000,000	-	-	-	-	1,000,000
Greenway Connection Trenton Rd.	200,000	800,000	-	-	-	1,000,000
Lassiter Mill / Allegheny Trail	1,700,000	-	-	-	-	1,700,000
Baileywick Park Community Center	4,800,000	-	-	-	-	4,800,000
Neighborhd Connections	250,000	250,000	-	-	-	500,000
Playground Improvements	275,000	200,000	-	-	-	475,000
Greenway Improvements	1,400,000	1,400,000	-	-	-	2,800,000
Crabtree Crk Grwy West-Bond	2,600,000	-	-	-	-	2,600,000
Laurel Hills Comm Cen Reno	100,000	100,000	-	-	-	200,000
Parks Bldg Maint/Improv	25,000	25,000	-	-	-	50,000
Aquatic Improvements	2,000,000	-	-	-	-	2,000,000
Park Site Acquisition	2,000,000	1,000,000	-	-	-	3,000,000
ADA Facility Upgrades	500,000	-	-	-	-	500,000
Total	**$20,300,000**	**$5,425,000**	**-**	**-**	**-**	**$25,725,000**

Highlighted Projects

Lassiter Mill / Allegheny Trail: $1,700,000

A continuous greenway trail connection will be developed from Herford Street extending to the east side of Lassiter Mill Road. This will strenghten the connectivity to the Crabtree Creek Greenway trail.



Walnut Creek Wetland Park Improvements: $850,000

The master plan for Walnut Creek Wetland Park was adopted by City Council. Staff will work towards implementation of pedestrian access to the wetlands and interpretive opportunities for environmental education.

Brentwood Park Improvements: $1,850,000

Following the adoption of the master plan by City Council, top priorities for Phase I improvements will be implemented.

Housing

Categories	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Homeowner Rehabilitation	-	-	700,000	700,000	700,000	2,100,000
Loan Servicing	600,000	600,000	600,000	600,000	600,000	3,000,000
Rental Development	10,332,906	6,177,000	5,539,000	5,664,000	5,700,000	33,412,906
Transfer to Debt Service	400,000	400,000	400,000	400,000	400,000	2,000,000
Total	**$11,332,906**	**$7,177,000**	**$7,239,000**	**$7,364,000**	**$7,400,000**	**$40,512,906**

Revenue Sources	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Bond Program Income (Loan Repayments)	2,261,455	1,000,000	1,000,000	1,000,000	1,000,000	6,261,455
Proceeds from Sale of Property	1,588,893	-	-	-	-	1,588,893
Miscellaneous Revenues	86,000	-	-	-	-	86,000
Transfer from General Fund	7,396,558	6,177,000	6,239,000	6,364,000	6,400,000	32,576,558
Total	**$11,332,906**	**$7,177,000**	**$7,239,000**	**$7,364,000**	**$7,400,000**	**$40,512,906**

Element Overview

In 2018, City staff continued to implement the Affordable Housing Plan (AHP) and the Affordable Housing Location Policy. Staff is implementing several top priorities within the AHP including, expanding the use of the 4% Tax Credit for Affordable Housing allocated through the North Carolina Housing Finance Agency (NCHFA) and providing gap funding with the penny previously allocated toward affordable housing projects.

Historically, the primary funding source for City of Raleigh housing programs has been general obligation bonds. General obligation bonds have played a significant role in reducing rent prices within affordable rental developments, financing the rehabilitation of low-moderate income homeowners, providing down payment assistance, supporting neighborhood revitalization, and assisting homelessness programs. The allocated General Fund contribution ("the Penny") has now replaced some of the activities carried out by past general obligation bonds. The Penny will be used for the following activities:

1. Rental Development - Affordable rental developments that receive tax credits from NCHFA. ($5,297,000 in FY19). Every year, the City of Raleigh advertises a Request for Proposals to provide gap financing for proposed affordable rental housing developments that are applying to NCHFA for housing tax credits. These funds will be awarded annually and will create housing opportunities for individuals and families making less than 60% of Area Median Income. In FY19, the $700,000 for owner-occupied home rehabilitation will be added to the $5,297,000 in order to meet the 1084 affordable rental unit goal.
2. Homeowner Rehabilitation - Owner-occupied home rehabilitation ($700,000 for each fiscal year from FY21-23). This funding will be used to continue existing City Homeownership Rehabilitation Loan programs. The loans will assist low to moderate income homebuyers with repairs to their homes that are emergency in nature or for more substantial rehabilitation to their homes. Loan terms will vary depending on the income levels of the applicants. The $700,000 for FY19 will be allocated to the affordable rental developments that receive tax credits from NCHFA.

The Penny is not able to fund all the programs that bonds funds have covered in the past. The homebuyer assistance program will now be funded through HOME Investment Partnership funds. The neighborhood revitalization activities will

be primarily funded through Community Development Block Grants, and the homelessness programs will be funded through the Emergency Solutions Grant and Community Development Block Grant Funds.

Additional funds are allocated to Loan Servicing and a transfer to Debt Service. The City of Raleigh uses bond funds to contract with a loan servicing agency called AmeriNational to perform loan collections and maintain loan balances for its growing loan portfolio. Debt Service is allocated at $400,000 a year.

Recent Accomplishments

- The construction of the elderly rental development known as Brighton Pointe Phase 2 located in Northeast Raleigh has been completed and 88 units are occupied.
- The construction of the family rental development known as Wakefield Commons located in Northeast Raleigh has been completed and 80 units are occupied.
- The acquisition of the 230-unit family rental community known as Raleigh North Millbank has been completed, thus preserving these affordable units. Renovations are underway. The units are being updated with new roofs, kitchens and bathrooms.
- The acquisition of the land for the new construction of a 180-unit family rental development known as Sunnybrook Pointe in East Raleigh has been completed. Construction will begin in FY19.
- Housing and Neighborhoods partnered with the Public Utilities Department to install infrastructure improvements to ten city blocks in East College Park. These improvements included the replacement of water and sewer mains, taps, upgrading of the storm drainage system, and paving of curb and gutter.
- The construction of single-family homes in the Martin/Haywood area has begun. Staff anticipates that three homes will be complete by the end of FY18.
- Homebuilders have begun to construct single-family affordable homes in East College Park. Staff anticipates that ten homes will be completed by the end of FY18.

Work Plan Highlights

- The implementation phase for East College Park is now moving forward. Currently, the infrastructure replacement project is complete except for the installation of the buried devices at the five townhome sites. Completion of the entire site is expected sometime between end of FY18 and beginning of FY19.
- The townhomes in East College Park are currently going through the permitting process, and staff anticipates construction beginning by the end of FY19.
- Nine proposals could be funded to create 1,090 new affordable units in Raleigh in the next three years:
    - Hampton Spring – 56 elderly units
    - Sir Walter Apartments – 158 elder rehab units
    - Beacon Ridge – 120 family units
    - Walnut Trace – 180 family units
    - The Pointe at Town Center – 144 family units
    - The Pointe at Town Center II – 120 family units
    - Sumner Pointe – 96 elderly units
    - Sumner Pointe II – 95 elderly units
    - Oak Forest Pointe – 120 elderly units

Operating Impacts

Staff does not anticipate any operating impacts from ongoing capital projects.

Horizon Items

Over the next several years, the Housing & Neighborhoods Department will continue to implement the new programs and strategies outlined in its Affordable Housing Improvement Plan in order to meet the following outcomes:

- Preserve the supply of affordable housing for homeowners.
- Increase the supply of affordable housing for renters. In FY18 & FY19 respectively, 464 and 552 rental units are expected to be available for lease.
- Remove or reduce the land cost from affordable developments when necessary.
- Preserve existing affordable rental units.
- Support tax credit developments where appropriate.

As Loans are repaid from the investment of these local funds, coupled with previous housing bond investments, the City uses this program income to help lower-wage residents maintain safe and decent living environments. Such investments also support the local job market in the design, real estate, lending, construction, and non-profit sectors.

Rental Development

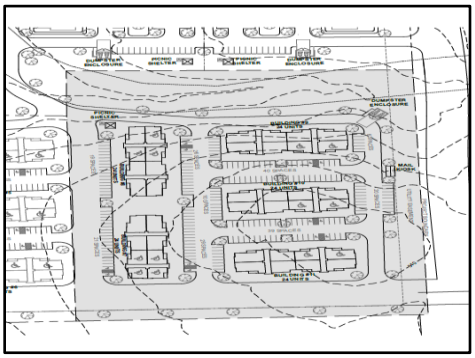
Rental Development	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Rental Development Reserve	-	6,177,000	5,539,000	5,664,000	5,700,000	23,080,000
Oak Forest Pointe	2,500,000	-	-	-	-	2,500,000
Sumner Pointe II	1,612,491	-	-	-	-	1,612,491
The Pointe at Town Center II	1,000,000	-	-	-	-	1,000,000
Beacon Ridge	1,773,725	-	-	-	-	1,773,725
The Pointe at Tower Center	395,000	-	-	-	-	395,000
Sumner Pointe	2,000,000	-	-	-	-	2,000,000
Sir Walter	1,051,690	-	-	-	-	1,051,690
Total	**$10,332,906**	**$6,177,000**	**$5,539,000**	**$5,664,000**	**$5,700,000**	**$33,412,906**

Highlighted Projects

Walnut Trace

Taft-Mills Group requests $2,250,000 in gap financing for the construction of a 180-unit development located at 1800 Rock Quarry Road for low-income individuals and families. Walnut Trace will provide 6 one-bedroom units, 108 two-bedroom units, and 66 three-bedroom units with proposed rents starting at $575. Funding is contingent upon the development receiving federal low-income housing tax credits.

The Pointe at Town Center II



Carolina Project Equities requests $1,000,000 in gap financing for the construction of a 120-unit development located at 3900 Sumner Boulevard for low-income individuals and families. The Pointe at Town Center II will provide 6 one-bedroom units, 60 two-bedroom units, and 54 three-bedroom units with proposed rents starting at $832. Funding is contingent upon the development receiving federal low-income housing tax credits.

Hampton Spring

Evergreen Construction requests $800,000 in gap financing for the construction of a 56-unit elderly development for persons 62 years of age and older. The project will be located at 216 Buck Jones Rd. Hampton Spring will provide 28 one-bedroom units and 28 two-bedroom units with proposed rents starting at $350. Funding is contingent upon the development receiving federal low-income housing tax credits.

Convention and Performing Arts Complex

Categories	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Performing Arts Center Category	500,000	1,300,000	1,300,000	1,300,000	1,300,000	5,700,000
Raleigh Convention Center Category	2,709,000	2,709,000	2,709,000	2,948,000	2,948,000	14,023,000
Walnut Creek Amphitheater Category	295,000	495,000	495,000	345,000	345,000	1,975,000
Total	**$3,504,000**	**$4,504,000**	**$4,504,000**	**$4,593,000**	**$4,593,000**	**$21,698,000**

Revenue Sources	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Amphitheater Rent	145,000	145,000	145,000	145,000	145,000	725,000
Amphitheater Naming Rights	150,000	150,000	150,000	-	-	450,000
Walnut Creek Amphitheater	-	1,000,000	1,000,000	1,000,000	1,000,000	4,000,000
Convention Center Financing Fund	3,209,000	3,209,000	3,209,000	3,448,000	3,448,000	16,523,000
Total	**$3,504,000**	**$4,504,000**	**$4,504,000**	**$4,593,000**	**$4,593,000**	**$21,698,000**

Element Overview

The five-year capital improvement plan totals $21.7 million, including $3.5 million in FY 2019, to maintain the four city facilities: the Raleigh Convention Center (RCC), Performing Arts Center (PAC), Walnut Creek Amphitheater, and the Red Hat Amphitheater. These improvements are funded through interlocal partnerships, lease revenues, and debt financing.

The 500,000 square foot Raleigh 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 obtained a facility condition analysis to guide staff on the needed capital improvements to maintain the venue as a high quality property. Also during 2012, the City of Raleigh and Wake County negotiated the use of local hotel and restaurant sales tax revenues to fund the capital improvements at the venue. The Interlocal Agreement establishes a long-term funding source to maintain this important facility.

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

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

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

Recent Accomplishments

- Replaced the Hall of Fame video wall, located in the Raleigh Convention Center, with updated equipment that promotes easier usability for staff and clients alike.
- The security system at the RCC has been updated to the latest available technology which is more advanced, user-friendly and reliable. The system assists in ensuring a more secure facility.
- Replaced all the meeting and ballroom doors throughout the RCC and included edge guards and kickplates to safeguard the doors from future damage.
- PAC recently completed a comprehensive fire safety and egress project that includes a state of the art notification system and brings the building into compliance with the current fire code.
- The facility condition analysis for the RCC and PAC were updated. Staff will continue to use the report as a guide for planning future capital improvement projects.
- The Meymandi Concert Hall roof was replaced.

Work Plan Highlights

- In design phase of utilizing the underground water source to supply water to the cooling towers in the RCC.
- Upcoming projects at the PAC will include the replacement of the elevator in Meymandi Concert Hall and the life safety/sprinkler project for the Raleigh Memorial Auditorium. Both projects are scheduled for completion in the summer of 2019.
- In partnership with the North Carolina Symphony, an acoustical canopy for the stage in Meymandi Concert Hall is projected to be installed in late 2018 or early 2019.
- PAC is in design phase for wireless upgrades throughout all four theatres and public areas. Once complete, staff will proceed with the installation of a new security system.

Operating Impacts

- The Convention Center has eliminated the chemicals needed to treat its HVAC equipment and replaced them with a more sustainable method using ProMoss and UV generators.
- The Convention Center has replaced the flush valves in all the restrooms which will improve a water conservation as compared to the original fixtures.

Horizon Items

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

Convention and Performing Arts Complex Projects

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

Performing Arts Center	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Reserve for Future Projects	-	1,300,000	1,300,000	1,300,000	1,300,000	5,200,000
RMA Fire Curtain	200,000	-	-	-	-	200,000
Security System	300,000	-	-	-	-	300,000
Total	**$500,000**	**$1,300,000**	**$1,300,000**	**$1,300,000**	**$1,300,000**	**$5,700,000**

Raleigh Convention Center	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Building Systems	-	-	-	-	48,000	48,000
Technology	-	500,000	100,000	100,000	720,000	1,420,000
Site Improvements	-	-	-	-	300,000	300,000
Building Envelope	-	-	800,000	-	-	800,000
Interior Finishes	889,000	2,209,000	1,809,000	1,991,000	1,880,000	8,778,000
Life Safety and Security	-	-	-	857,000	-	857,000
Event Equipment	200,000	-	-	-	-	200,000
Technology Updates	100,000	-	-	-	-	100,000
Kitchen Equipment	130,000	-	-	-	-	130,000
Expansion Joint Repair	500,000	-	-	-	-	500,000
3-Way Control Valve	100,000	-	-	-	-	100,000
Foundation Pumps	50,000	-	-	-	-	50,000
Generator Pump	10,000	-	-	-	-	10,000
Elevator Sump Pump	10,000	-	-	-	-	10,000
Underground Diesel Tank Repair	130,000	-	-	-	-	130,000
Wall Sealants	50,000	-	-	-	-	50,000
Corner Board Replacement	100,000	-	-	-	-	100,000
Telecom Rooms	70,000	-	-	-	-	70,000
Cooling Tower Pumps	70,000	-	-	-	-	70,000
Electrical Repairs/Updates	300,000	-	-	-	-	300,000
Total	**$2,709,000**	**$2,709,000**	**$2,709,000**	**$2,948,000**	**$2,948,000**	**$14,023,000**

Walnut Creek Amphitheater	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Walnut Creek Amphitheater Improvements	95,000	295,000	295,000	145,000	145,000	975,000
Grading Work	100,000	100,000	50,000	-	-	250,000
HVAC Updates	50,000	-	-	-	-	50,000
Electrical Upgrade	50,000	-	-	-	-	50,000
Asphalt Repaving	-	-	150,000	-	-	150,000
Painting Updates	-	100,000	-	-	-	100,000
Concessions Updates	-	-	-	100,000	200,000	300,000
Stage Updates	-	-	-	100,000	-	100,000
Total	**$295,000**	**$495,000**	**$495,000**	**$345,000**	**$345,000**	**$1,975,000**

Highlighted Projects

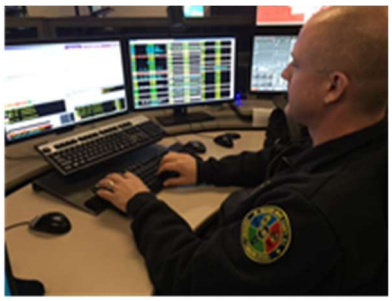
Performing Arts Center Security Camera and Access Control System: $300,000

Duke Energy Center for the Performing Arts does not have a security camera or electronic access control system. It is important for public venues to have security video monitoring and recording systems and electronic access control systems to help protect the public, staff, and tenants at the facility. Staff will work with City of Raleigh IT and RPD to design and implement a security camera and access system.

Raleigh Convention Center Electrical System Update: $300,000

As a result of the full building electrical shutdown that occurred during January 2018, staff will complete an overview of the entire building electrical system to ensure components are designed and functioning in accordance with “Best Practices” and meet the following electrical requirements: OSHA’s Arc Flash, NFPA-70E and IEEE-1584 safety standards.

Technology



Categories	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Institutional Fiber Network	400,000	150,000	-	-	-	550,000
Office 365 and Exchange	-	100,000	100,000	-	-	200,000
PeopleSoft Roadmap	356,000	400,000	285,000	500,000	500,000	2,041,000
Planning and Evaluation Studies	50,000	50,000	50,000	50,000	50,000	250,000
Recreation and Event Mgt. Sys (REMS)	350,000	-	-	-	-	350,000
Variable Message Signs	-	240,000	-	-	-	240,000
Auditing Software	-	30,000	-	-	-	30,000
Cyber Security Program	300,000	-	-	-	-	300,000
SeeClickFix Replacement	-	400,000	-	-	-	400,000
PCI Annual Attestation	54,000	75,000	-	-	-	129,000
RaleighNC.Gov Redesign - Phase 2	75,000	-	-	-	-	75,000
Project Management Software Implementation	100,000	100,000	-	-	-	200,000
Smart Cities	375,000	350,000	-	-	-	725,000
Public Safety Initiatives	1,112,300	-	-	-	-	1,112,300
Disaster Recovery	700,000	500,000	-	-	-	1,200,000
Learning Management Software	75,000	-	-	-	-	75,000
Small Projects Fund	75,000	75,000	75,000	75,000	75,000	375,000
Reserve for Future Projects	170,190	1,728,370	3,403,190	3,322,000	3,322,000	11,945,750
Total	**$4,192,490**	**$4,198,370**	**$3,913,190**	**$3,947,000**	**$3,947,000**	**$20,198,050**

Transfers in for Selected Projects:	FY2019	FY2020	FY2021	FY2022	FY2023	5 Year Total
Appropriation from Prior Year	500,000	-	-	-	-	500,000
Transfer from General Fund	3,300,000	3,800,000	3,800,000	3,800,000	3,800,000	18,500,000
Transfer from Public Utilities	210,930	214,090	60,830	79,000	79,000	643,850
Transfers from Vehicle Fleet Services	24,030	24,390	6,930	9,000	9,000	73,350
Transfer from Solid Waste Services	68,085	69,105	19,635	25,500	25,500	207,825
Transfer from Transit	4,005	4,065	1,155	1,500	1,500	12,225
Transfer from Parking Operations	12,015	12,195	3,465	4,500	4,500	36,675
Transfer from Stormwater	36,045	36,585	10,395	13,500	13,500	110,025
Transfer from RCC Operating	34,710	35,230	10,010	13,000	13,000	105,950
Transfer from Housing	2,670	2,710	770	1,000	1,000	8,150
Total	**$4,192,490**	**$4,198,370**	**$3,913,190**	**$3,947,000**	**$3,947,000**	**$20,198,050**

Element Overview

The Information Technology Capital Fund provides funding for the City's major technology infrastructure and major business system projects. The proposed five-year CIP plan enhances existing systems and invests in new systems to improve City operations. These projects continue our efforts to streamline and eliminate paper-based processes from City operations, increase efficiency and cybersecurity, and make City government more data-driven, transparent and accessible to the public through an overall digitization strategy.

Recent Accomplishments

- Two Enterprise Resource Planning (ERP) modules were successfully implemented in FY18, which completed another key component of the ERP Roadmap and delivered automated options that allow employees to enter benefit elections directly in the system.

- The implementation of Life Events increases employee productivity and eliminates paper-based forms. City employees can now easily record changes to update personal events that will have an impact on their employee benefits.
- The Open Enrollment module was made available for employees to confirm and select their medical and dental benefits online rather using a paper-based form, thus creating several process efficiencies. This also eliminated the need to schedule an employee meeting with an enrollment consultant for these benefits.

- As part of the overall Institutional Fiber Network project, the Information Technology Department and Raleigh Police Department recently completed the network infrastructure necessary for police facilities to support the high speeds and service levels required for Police In-Car and Body-Worn Cameras.
- The city-wide Office 365 implementation continued in FY18, as the migration of email and email archives was completed and the rollout of Skype for Business and OneDrive began.
- The City's Learning Management System recently launched for new employee orientation sessions. New employees can now schedule their own required onboarding training classes.
- While the overall EnerGov project has started the final year of a multiyear implementation, the project team was able to identify a portion of the effort that could be released ahead of the overall project. The Code Enforcement group within the Housing and Neighborhoods Department started using the EnerGov system. The project team was able to adjust the schedule, allowing this group to go first without impeding the overall project timeline or budget. When EnerGov is fully implemented, the system will digitally integrate all the City's land development activities, regardless of their business origination, with GIS-based identification linking all activities.
- The IT Department, in collaboration with the City Manager's Chief of Staff, implemented an Agenda Management software system. The system is a paperless-meeting solution, that is designed specifically for local municipalities, replacing a staff time and paper-intensive process of preparing and distributing the twice-monthly City Council agenda. Additionally, the system maintains City Council meeting minutes, all of which are available to anyone through the City of Raleigh website. Following the successful implementation and use of the system with the City Council agenda, several other boards, committees and commissions within the City have begun using the system.

Work Plan Highlights

- In support of the City's new annual employee performance review process, our ERP solution will be enhanced to streamline employee reviews. This new module supports goal planning, coaching and performance assessments. Managers, employees, and HR administrators can collaborate on performance evaluations and goals, review performance history, and monitor and manage the overall performance process. Workflow notifications keep all interested parties up-to-date throughout the performance cycle.
- Information Technology is partnering with the Finance department to implement ERP eSupplier and Contract Management modules. The product will provide the City's vendors and bidders self-service access, via an internet portal, which will reduce the time employees spend researching and responding to inquiries. The Contracts Management module will automate and streamline the contracts creation, routing and approval process. Both modules will eliminate paper documentation and routing, and reduce staff time required to manage and conduct this important City business function. Contracts Management will include the implementation of an electronic or digital signature application. Project planning is currently underway.
- The coming fiscal year will bring substantial work on the new raleighnc.gov website. Building from prior work assessing needs and creating a technical foundation, the City will begin the design, information architecture, and content for a new site that will incorporate the City's new brand.
- The City will implement construction management project software that will help ensure consistent tools and processes for construction projects. Engineering Services will be the first of numerous departments across the city that will use this enterprise application. Project planning is currently underway.

Operating Impacts

The following Technology Capital Projects have an operating budget impact for FY19:

- The Information Technology Department is managing the annual funding for the Agenda Management Software in the amount of $21,000 and Digital Signature software in the amount of $15,800.

- Licenses for the Construction Management software are budgeted within the Engineering Services department in the amount of $100,000 in FY19.

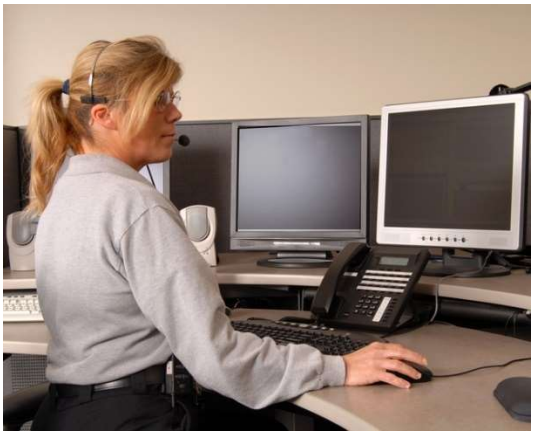
Horizon Items

- The City is continuing to invest in the Institutional Fiber Network. The major initiatives will continue to include working with our project partner to audit, inspect and remedy the existing network to ensure proper network control and management, availability and reliability of service, and direct control over network security. IT anticipates adding approximately 23 more sites to the existing network, which will bring our total to more than 40 when the project is completed.
- Project planning has started for Push to Talk within the Public Safety Initiatives capital project for FY19. This effort will transition the City of Raleigh away from the current UHF radio system and eliminates a major upcoming capital expense and significant annual operating expenses. The Push to Talk program is an important component of two other enterprise technology projects, Cybersecurity and Mobile Device Management, for its function in effective communications and in safeguarding City assets.
- The City will engage in an assessment to identify a more robust solution for citizen relationship management. This will replace our current system which has limited ability to scale to the growing needs of the city.
- The next phase of the Office 365 implementation will focus on SharePoint. The Information Technology Department will select a partner to work with us to establish an enterprise architecture and governance structure for the SharePoint platform, which will focus primarily on document management and collaboration.

Highlighted Projects

Emergency Police Dispatch System: $384,900

The Emergency Police Dispatch System protocols enhance the speed and accuracy of call takers which will enhance the standard of service for all citizens. The decrease in call taking time, and improved accuracy and efficiency, along with increased scene safety for public safety responders ensures a safe community for all.



Push to Talk: $727,400

The City is investing in a Push to Talk program for non-emergency use across departments as it transitions away from older infrastructure and the use of existing radio handsets. Non-emergency staff across the City will have the ability to communicate through a smart phone application with their mobile phone on a cellular or Wi-Fi network. The capital program budget includes funding for new and replacement vehicle mounting hardware and for the decommission of the current system.

Smart Cities: $375,000

Planning for Smart Cities initiatives will take Raleigh from a system of connected assets, such as monitoring devices and automated data collection, to a system of efficient and safe technologically connected systems that interact with each other in service to the public. To better leverage existing Smart Cities partnerships and projects that are already in planning or in place, the City will work with a consultant to bring together and align City stakeholders on strategic priorities and Smart City strategy design. This effort will identify the top near-term initiatives for investment as foundational elements for Smart City growth. Selected initiatives will demonstrate their impact by directly impacting citizen life in key areas of need, being measurable, and by providing the infrastructure, talent and governance for future initiatives.

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