

**DURHAM
COUNTY**

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**DURHAM
COUNTY
GOVERNMENT**

CIP Presentation
February 26, 2026

**ENGINEERING &
ENVIRONMENTAL SERVICES**

UTILITIES DIVISION

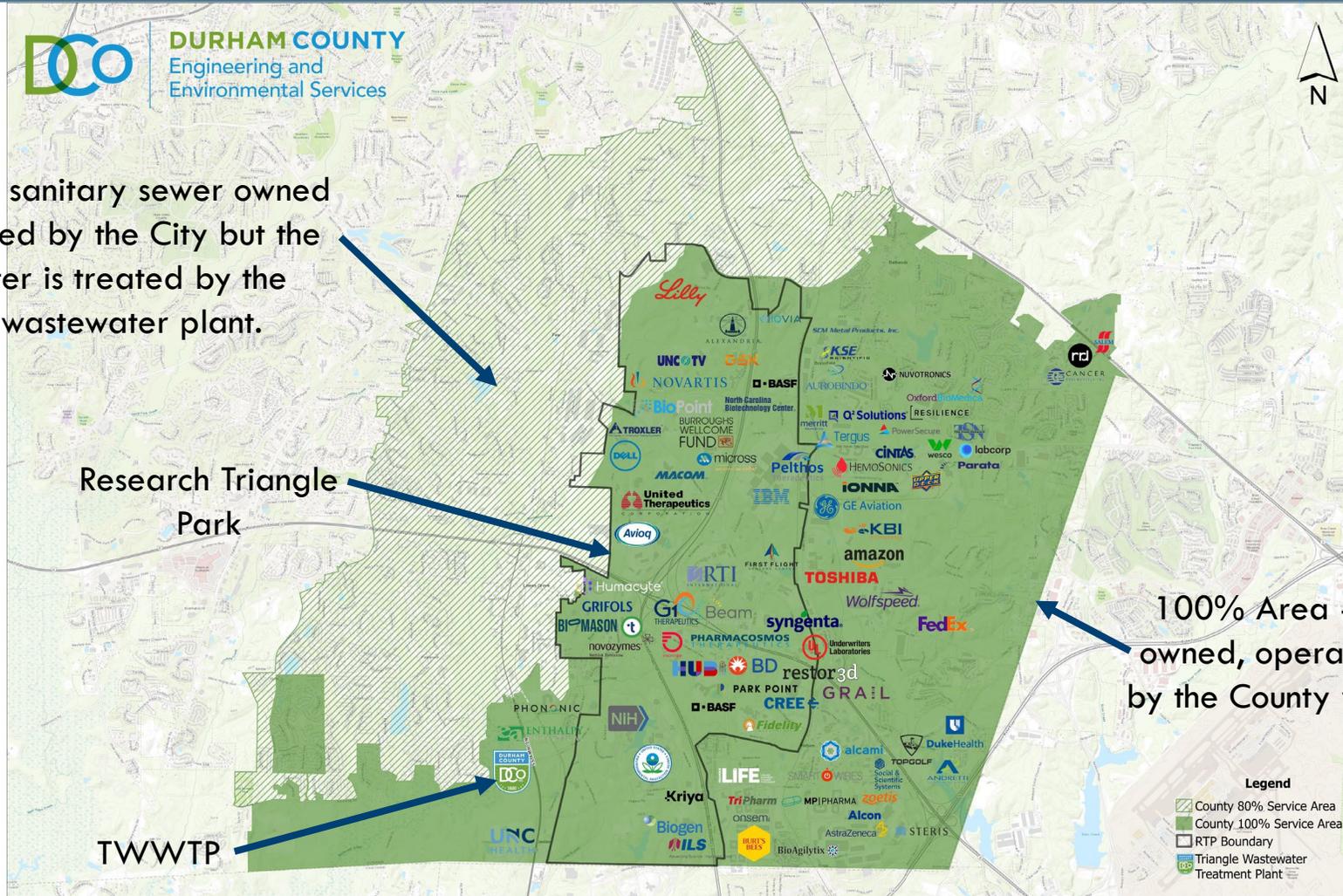
Who We Serve



80% Area - sanitary sewer owned and operated by the City but the wastewater is treated by the County wastewater plant.

Research Triangle Park

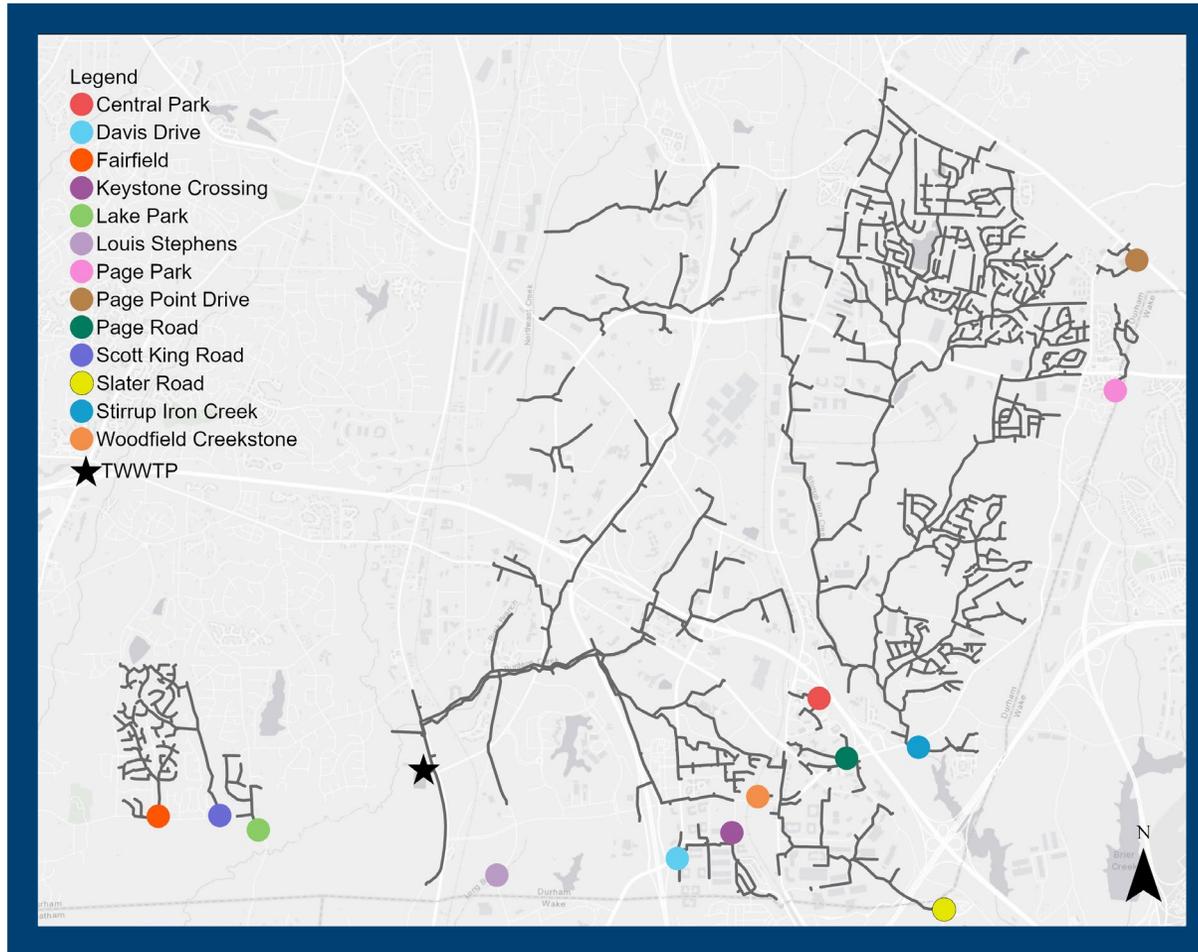
TWWTP



100% Area - sanitary sewer owned, operated, and treated by the County wastewater plant.



Collection System

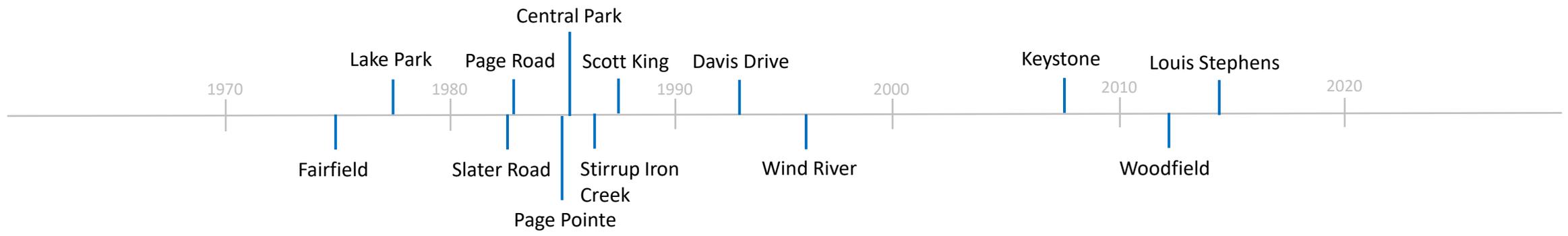
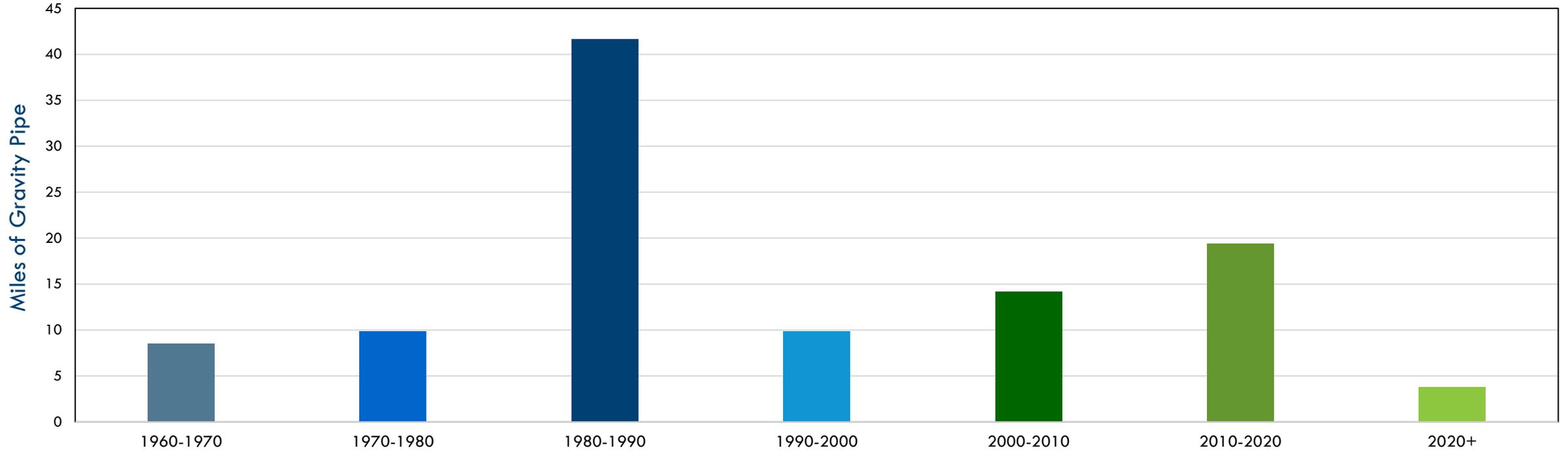


Lift stations are a vital piece of the County's collection system. There are 13 lift stations that pump wastewater from a lower elevation to a higher elevation where it can flow by gravity to the Triangle Wastewater Treatment Plant.

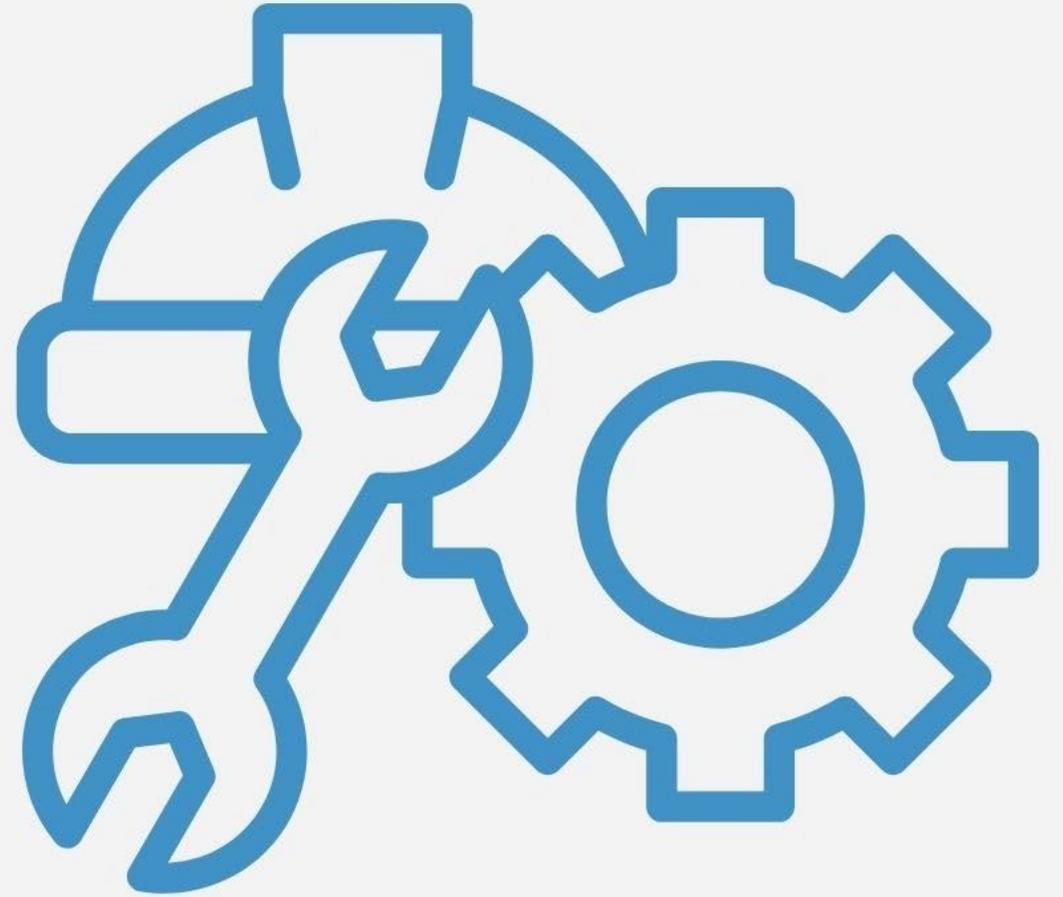
The Collection System Consists of:

- 110± miles of sanitary sewer gravity pipes
 - 2,300± manholes
 - 13 lift stations
- 11± miles of force main

Collection System Age



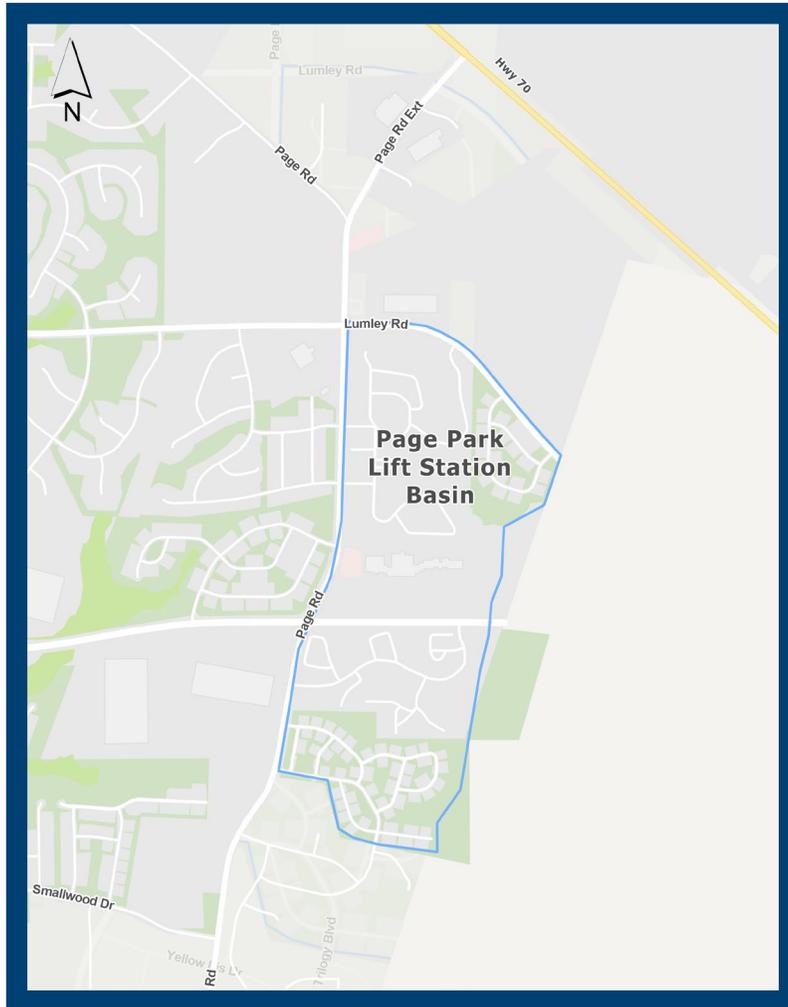
**UNDER
CONSTRUCTION**



Page Park Lift Station*



Current Construction Budget: \$4.1 Million
\$1.09 Million Community Funding & Sewer Utility Fund



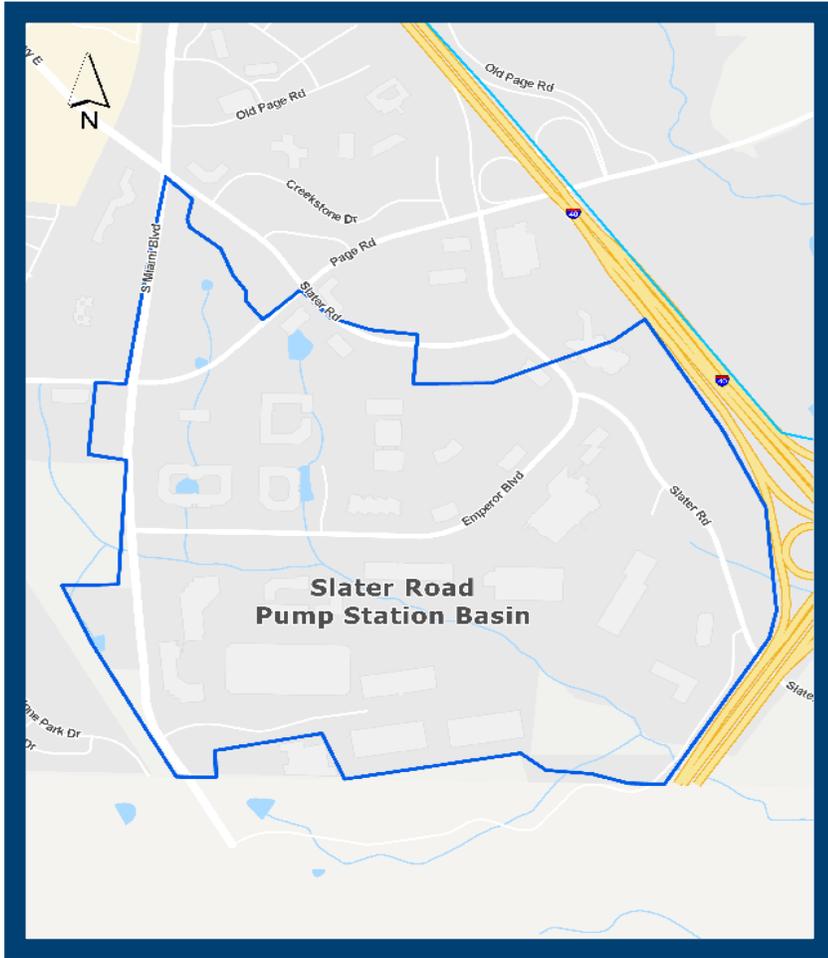
- The condition of this station was identified as critical based on a condition assessment completed in 2022.
- This project consists of new pumps, control panels, generator, and adding bypass connection.
- Currently under construction with expected completion late summer 2026.
- Project is funded through \$1.09 Million in Community Project Funding with remaining funding from Sewer Utility Fund.

* Lift station was renamed in 2025 to Wind River Lift Station.

Slater Road Lift Station



Estimated Budget: ~~\$10 Million~~ → ~\$21 Million
\$13.135 Million ARPA Funding & Sewer Utility Fund

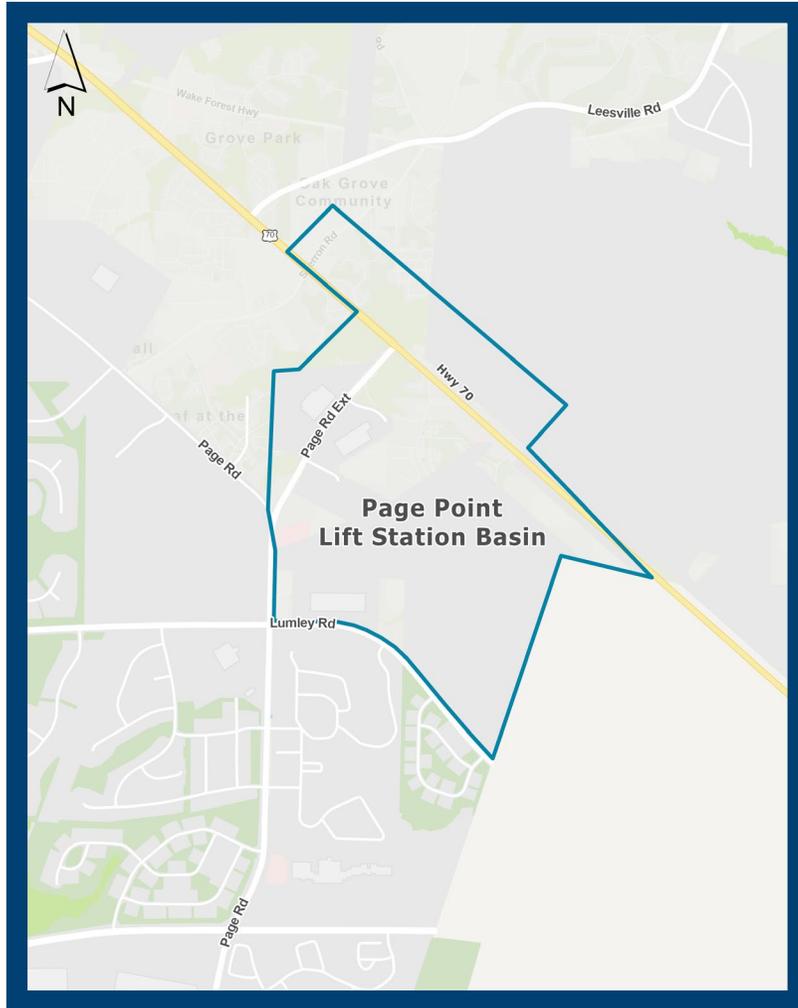


- Slater Road Lift Station services an area abundant with research, development, commercial, and industrial facilities and has reached maximum capacity.
- Currently under construction with expected completion December 2026.
- Project is funded through \$13.135 Million in ARPA Funding with remaining funding from Sewer Utility Fund.

Page Point Lift Station



Estimated Budget: \$0
Developer Funded



- The equipment at Page Point Lift Station is obsolete and can not be upgraded. Based on capacity analysis, this station cannot handle much more added flow from development.
- This station is within a proposed controlled access Right-of-Way area for two overlapping NCDOT projects.
- New station currently being built by a private developer due to timeline of DCo CIP to allow their multi-family project to move forward with expected completion date spring 2027.

TWWTP Utility Administration Bldg.



Estimated Budget: \$27 Million
Sewer Utility Fund



- Project will include a 35,000 sf facility with FF&E, A/V, security, enhanced & envelope commissioning, and ancillary warehouse.
- Project bids were received on February 18, 2026, and are currently under review.
- Funding source to be identified with assistance from the Finance Department.

IN DESIGN



Chin Page Lift Station



Estimated Budget: ~~\$20 Million~~ → ~\$40 Million
\$959k Community Funding + \$19.1 Million SRF Loan
+ ~\$20 Million TBD

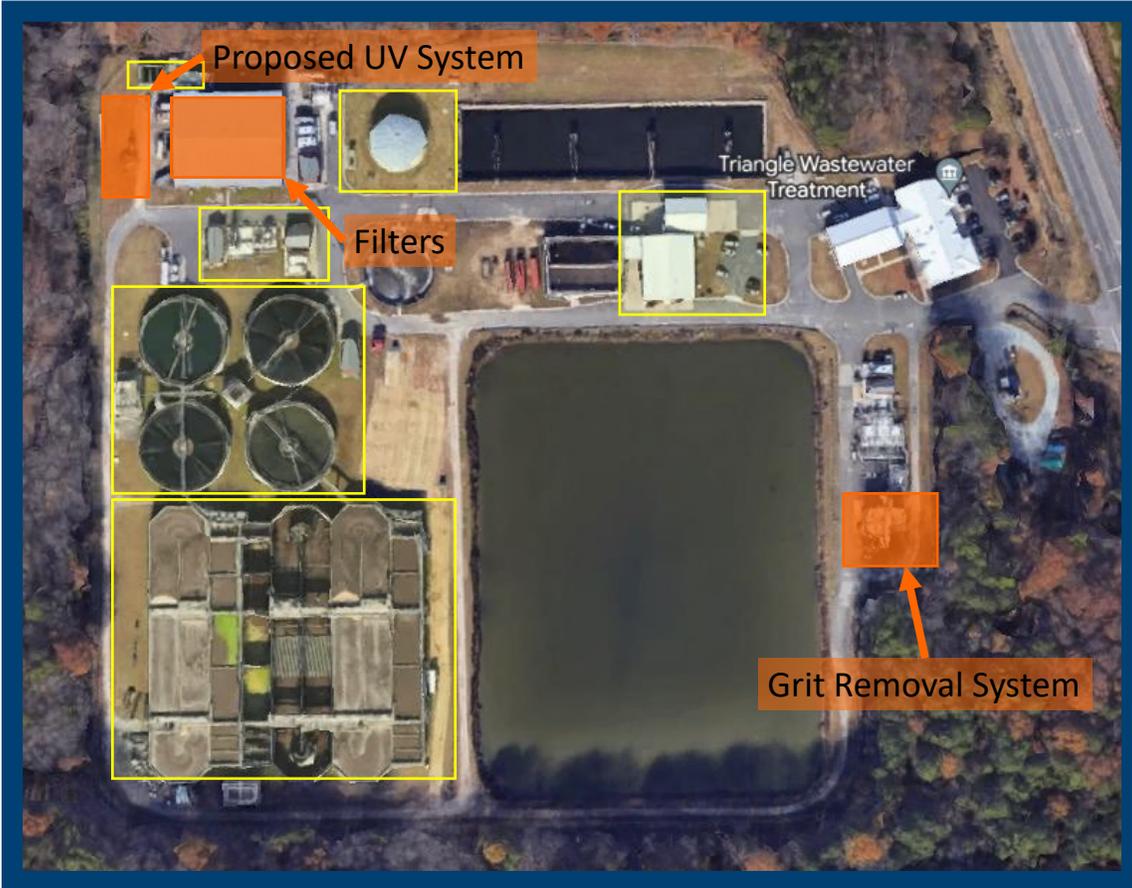


- Stirrup Iron Creek Basin is Durham County's largest basin and services residential, commercial, and industrial users.
- Without the Chin Page Lift Station, the Stirrup Iron Creek Basin would be placed on a development hold and the probability of sanitary sewer spills would increase.
- Preliminary cost estimate in 2021 was approximately \$20 million. Due to inflation and cost escalations, current estimate is approximately \$40 million.
- Currently have \$19.1 million in SRF low interest loan plus the \$959,752 in FY 2024 Community Project Funding.
- Additional funding source to be identified with assistance from the Finance Department.

TWWTP Phase IV Upgrades



Estimated Budget: \$15 Million (UV System)
\$30.36 Million SRF Loan



- This project addresses aging WWTP equipment and future reclaimed water needs for environmental stakeholders, RTP 3.0, industrial growth, and ratepayers. Upgrades will improve energy efficiency, reduce carbon footprint, and enhance employee safety.
- Last major upgrades were in 2004 and 2007.
- Rising costs require a phased approach, starting with a new UV system (Phase 1).
- SRF loan approval from LGC is needed before final Division of Water Infrastructure approval.
- Grit removal rehab should be prioritized next fiscal year, but whether filters advance to design depends on UV system cost.

Annual Collection System Rehab.



Estimated Budget: ~\$5 Million/Year
Unfunded

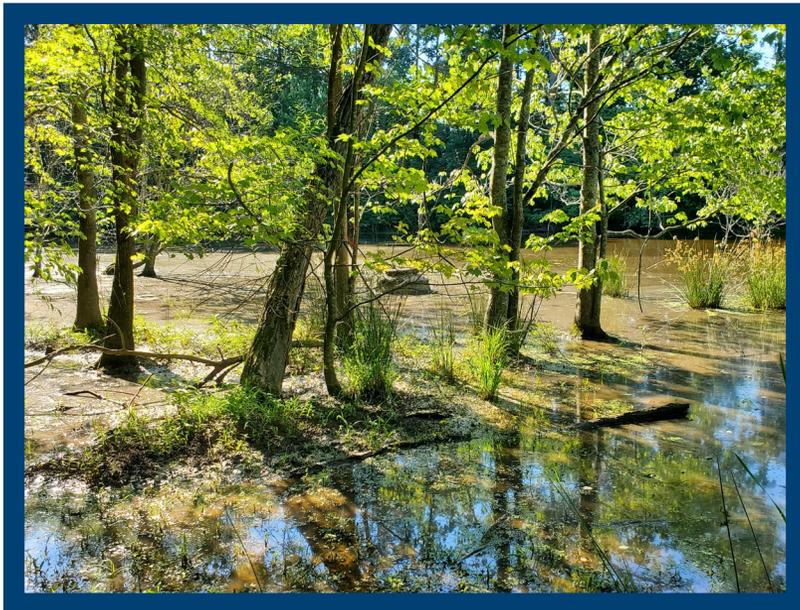


- NE Creek Sewer Basin Modeling project will guide future collection system rehab.
- Annual project to address aging and undersized infrastructure concerns.
- The cost of the system rehabilitation pales in comparison to the cost of emergency repairs or sanitary sewer overflows.
- Pipe replacement or rehabilitation will address environmental concerns by decreasing the risk of sanitary sewer spills and ensures adequate system capacity.

Outfall Remediation & Access Improvements



Estimated Budget: Unknown
TBD



- Improve access to sanitary sewer outfalls to ensure proper maintenance. Stream migration and backups have exposed or undermined infrastructure and, in some cases, restricted access, posing risks to manholes and pipes.

- Preliminary engineering report has been received:

Site 1: \$300k-\$1Mil

Site 3: \$150k-\$600k

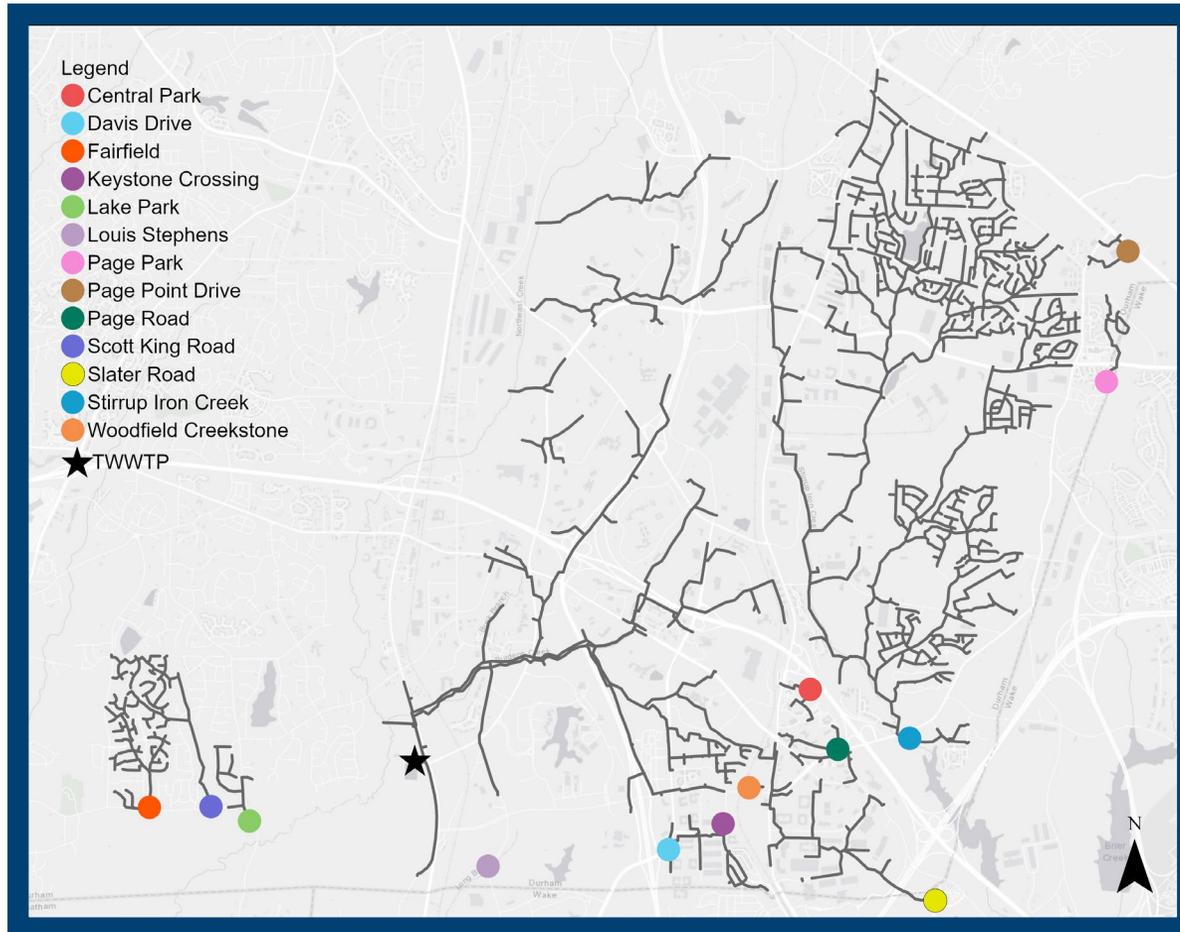
Site 2: \$250k

Site 4: \$300k-\$2.3Mil

LOOKING TO THE FUTURE



Lift Station Upgrades



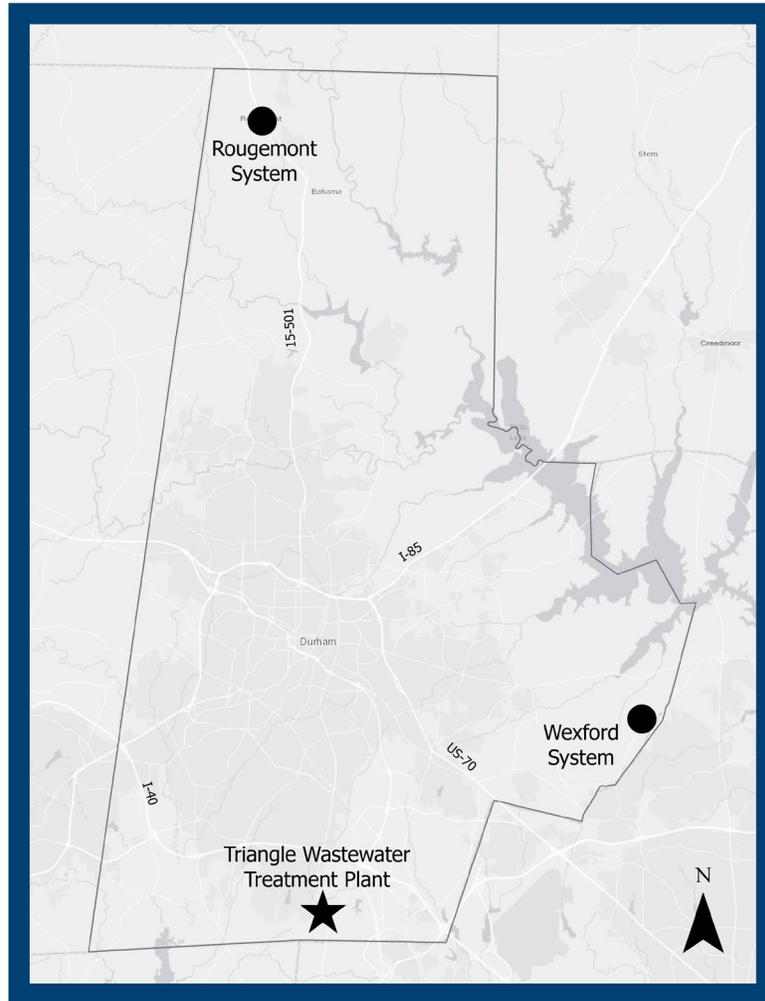
Future Lift Station Upgrades:

(Estimates are in today's dollars)

- 2028 – **Central Park** and **Page Road**.
 - Estimated Cost = \$20 Million
- 2030 – **Fairfield**, **Scott King**, and **Lake Park**.
 - Estimated Cost = \$20 Million
- 2035 – **Davis Drive** and **Stirrup Iron***.
 - Estimated Cost = \$40 Million

* Consideration needs to be given to rehabilitate Stirrup Iron Creek sooner due to size, length, floodplain, and force main route.

Satellite Systems Upgrades



Satellite Systems Upgrades:

(Estimates are in today's dollars)

- 2026 – Wexford.
 - Estimated Cost = \$20 Million
- 2040/2050 – Rougemont Water System.
 - Estimated Cost = \$10 Million

Plant & Collection System Expansion



Estimated Budget: Unknown
TBD



- TWWTP is currently rated to treat 12 MGD.
- NE Creek Sewer Basin Modeling project will project future flows based on the new Land Use Maps impacts from RTP 3.0.
- Started discussion with NCDEQ to develop speculative discharge limits.
- Once speculative limits have been established, an engineering report can be completed with high level cost estimates.

FISCAL IMPACT

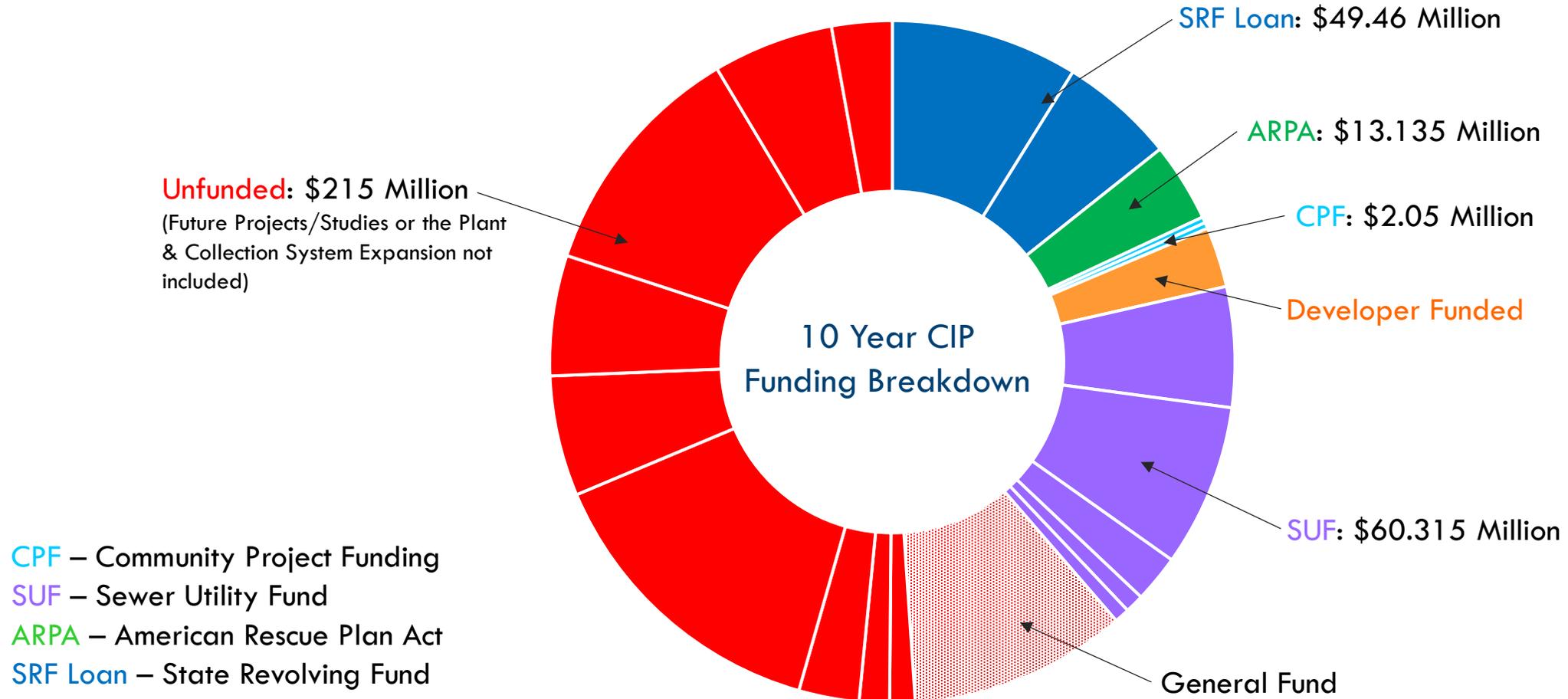


In Summary

In Construction	Page Park Lift Station	\$4.1 Million – Community Project Funding , & Sewer Utility Fund
	Slater Road Lift Station	\$21 Million – ARPA & Sewer Utility Fund
	Page Point Lift Station	\$0 Million – Developer Funded
	TWWTP SCADA & Security	\$2.5 Million – Sewer Utility Fund
	TWWTP Utility Admin Bldg.	\$27 Million – Sewer Utility Fund
	Snow Hill Road P.S. Force Main	\$36 Million – General Fund
In Design	Chin Page Lift Station	\$40 Million – SRF Loan , Community Project Funding , & Sewer Utility Fund
	TWWTP Phase IV Upgrades	\$30 Million – SRF Loan & Unfunded
	NE Creek Sewer Modeling	See Annual Collection System Rehab
	Annual Collection System Rehab	\$50 Million (\$5 Million/yr) – Unfunded
	Outfall Remediation & Access Improvements	\$4.2 Million – Unfunded
	Lift Station Flow Meters	Est. \$5 Million – Unfunded
	Hopson Road Force Main Extension	\$10 Million – Unfunded
On the Horizon	Central Park/Page Road	\$20 Million – Unfunded
	Fairfield/Scott King/Lake Park	\$20 Million – Unfunded
	Davis Drive/Stirrup Iron	\$40 Million – Unfunded
	Wexford	\$20 Million – Unfunded
	Rougemont Water System	\$10 Million – Unfunded
	Plant & Collection System Expansion	Unknown – Unfunded



Capital Project Funding Breakdown



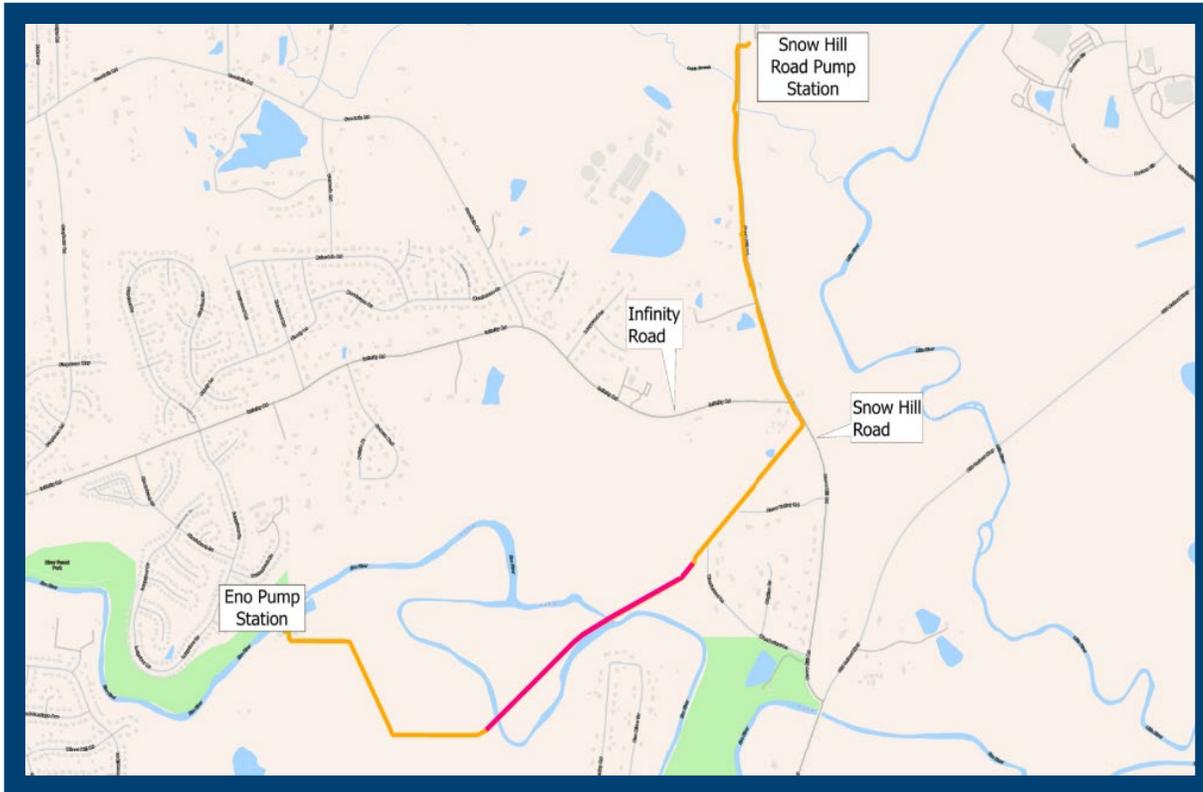
The background of the slide is a repeating pattern of the Durham County logo, which consists of the text 'DURHAM COUNTY' above a stylized 'DC' monogram. The logo is repeated in a grid across the entire page.

General Fund Capital Improvement Utility Projects

Snow Hill Road P.S. Force Main



Contracted Amount: \$36 Million
Expected Completion in March 2026



- Upgrade needed to City of Durham lift station to support economic development in the Treyburn Industrial Park.
- 2015 Preliminary Engineering Report estimated approximately \$12.5 Million for new lift station and force main.
- Construction bidding during COVID with dramatic material escalations causing project to split in two phases: Lift station and Force main.
- Current contracted amount is approximately \$36 Million.

DCO