



Department Update

Wastewater Overview

- Biosolids

- - Future Wastewater Treatment Plant

-Wastewater Capacity

APRIL 9, 2018

Presentation Objectives

- Discuss upcoming Council agenda items:
 - Biosolids Management Contract Extension
 - Future Wastewater Treatment Plant
 - Belmont/Mt. Holly Agreements
- Discuss Wastewater Capacity Planning

CLTWater by the Numbers

2 Drinking Water Supply Intakes

2 Raw Water Reservoirs

3 Drinking Water Treatment Plants

4 Field Operations Facilities

5 Wastewater Treatment Plants

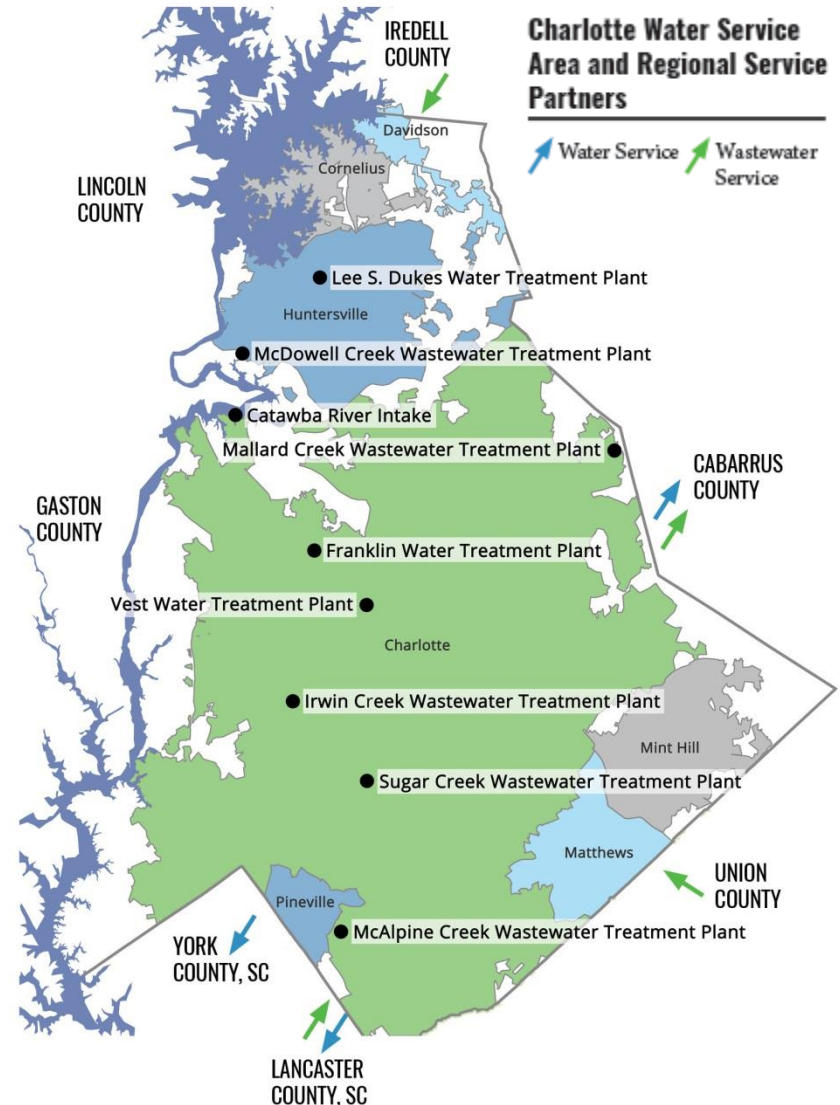
Governments Served (Mecklenburg County, Town of Davidson, Town of Cornelius, Town of Huntersville, City of Charlotte, Town of Mint-Hill, Town of Matthews, Town of Pineville)

12 Governments & Authorities Supported

17 Staffed Facilities

80 Wastewater Lift Stations

912 Full-time Positions



Drink



CHARLOTTE
WATER



Wash

Flush

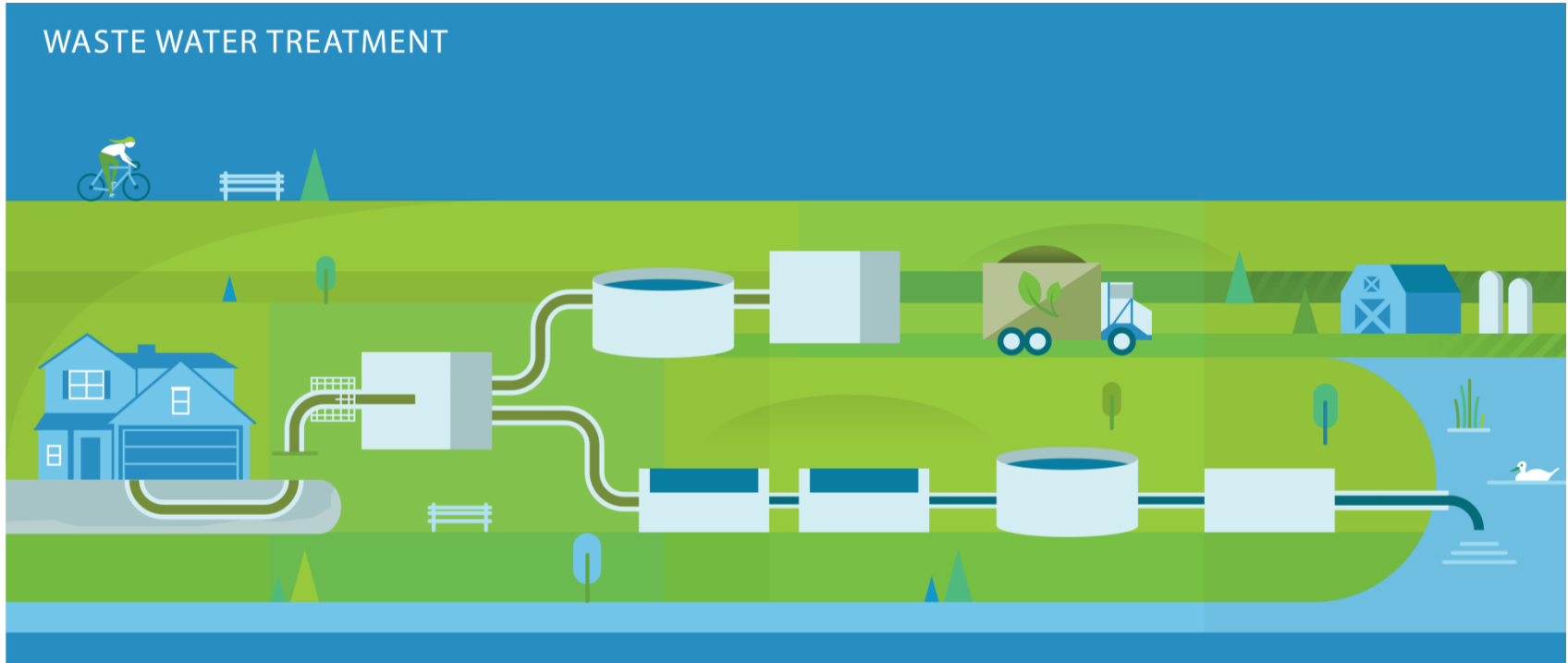


Brush

BIOSOLIDS AGREEMENT EXTENSION & FUTURE COUNCIL AGENDA ITEM

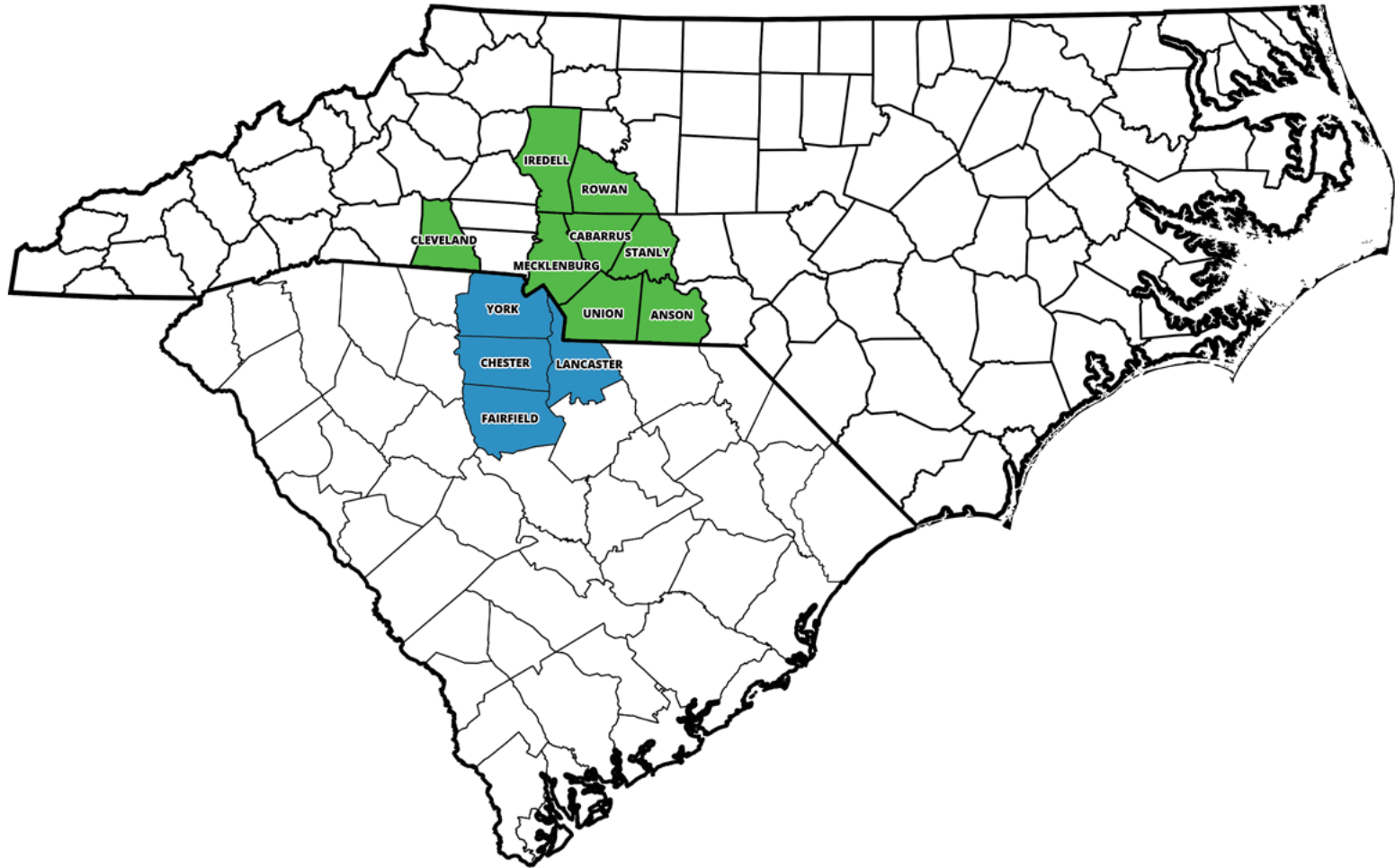


Biosolids Production & Disposal



Biosolids are land applied by a contractor to farms
Approximately 17,400 acres are permitted in NC and SC
Current program is ISO 14001 certified

Regional Biosolids Program



Land Application of Biosolids

Biosolids are spread on field at agronomic rates based on the amount of nitrogen plants consume as they grow



Biosolids Management Contract

- In 1999, Synagro was selected for comprehensive solids management
- Annual operational spending is ~\$4 - 5 million
 - \$25/ton for land application
 - \$60/ton for landfilling
- Contract expires June 30, 2019
- Biosolids master plan implementation 6-10 years
- Council will receive request for contract extension for up to 10 years (two five year extension options)

WASTEWATER SYSTEM PLANNING AND CAPACITY



Wastewater System Planning

Development patterns & trends

Population

Jobs

Evaluation of system

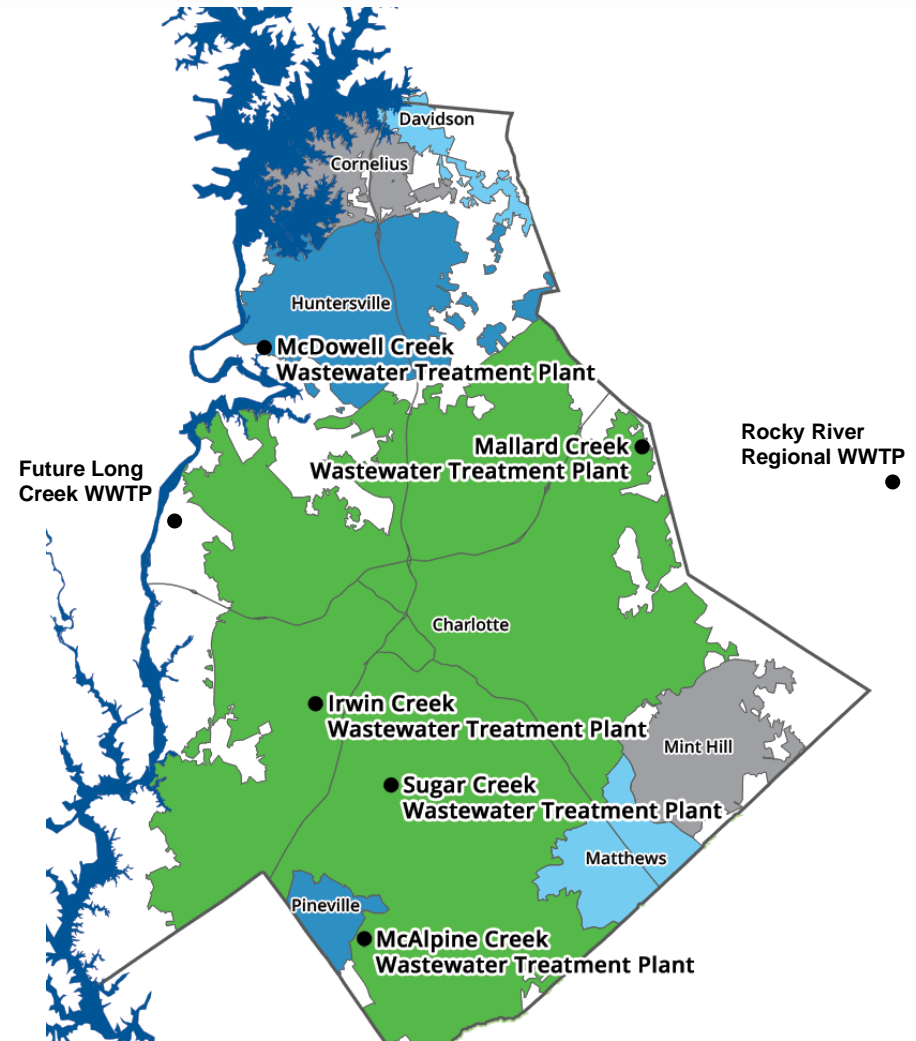
Flow projections

Pipe capacity analysis

Condition assessments

Regulatory requirements

Wastewater treatment plant capacity
analysis



Future WWTP Project Overview

Current Situation

Pipe distance 27 miles

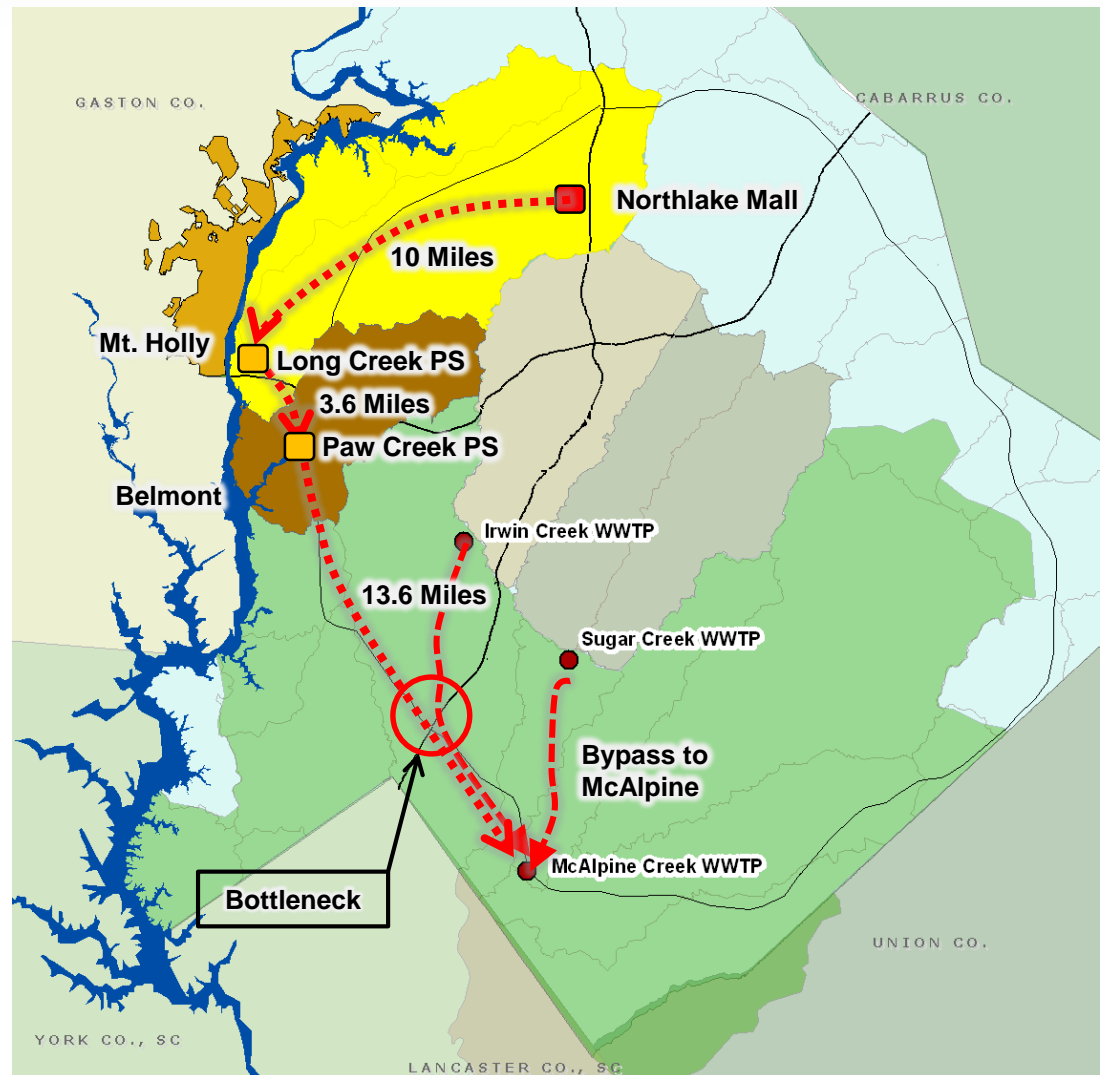
Two pumping stations

Proximity of:

- Mount Holly plant
- Belmont plant
- Clariant plant
- Long Creek PS

Flows are increasing

Lake Wylie nutrient limits



Future Regional Wastewater Treatment Plant

Provides a regional approach to wastewater treatment

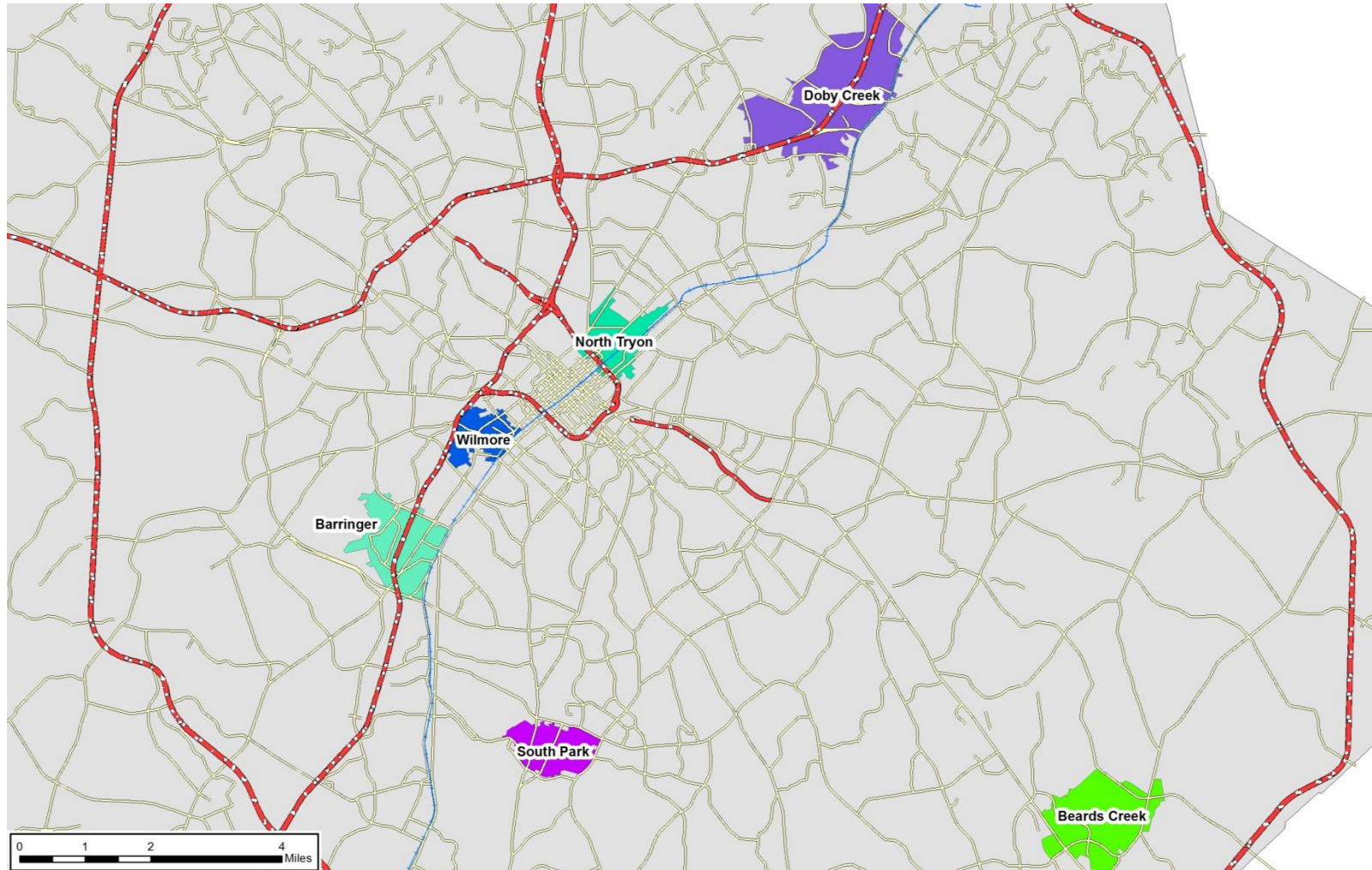
Creates partnership with neighboring communities (Belmont & Mt. Holly)

Ensures ability to serve western part of Mecklenburg County

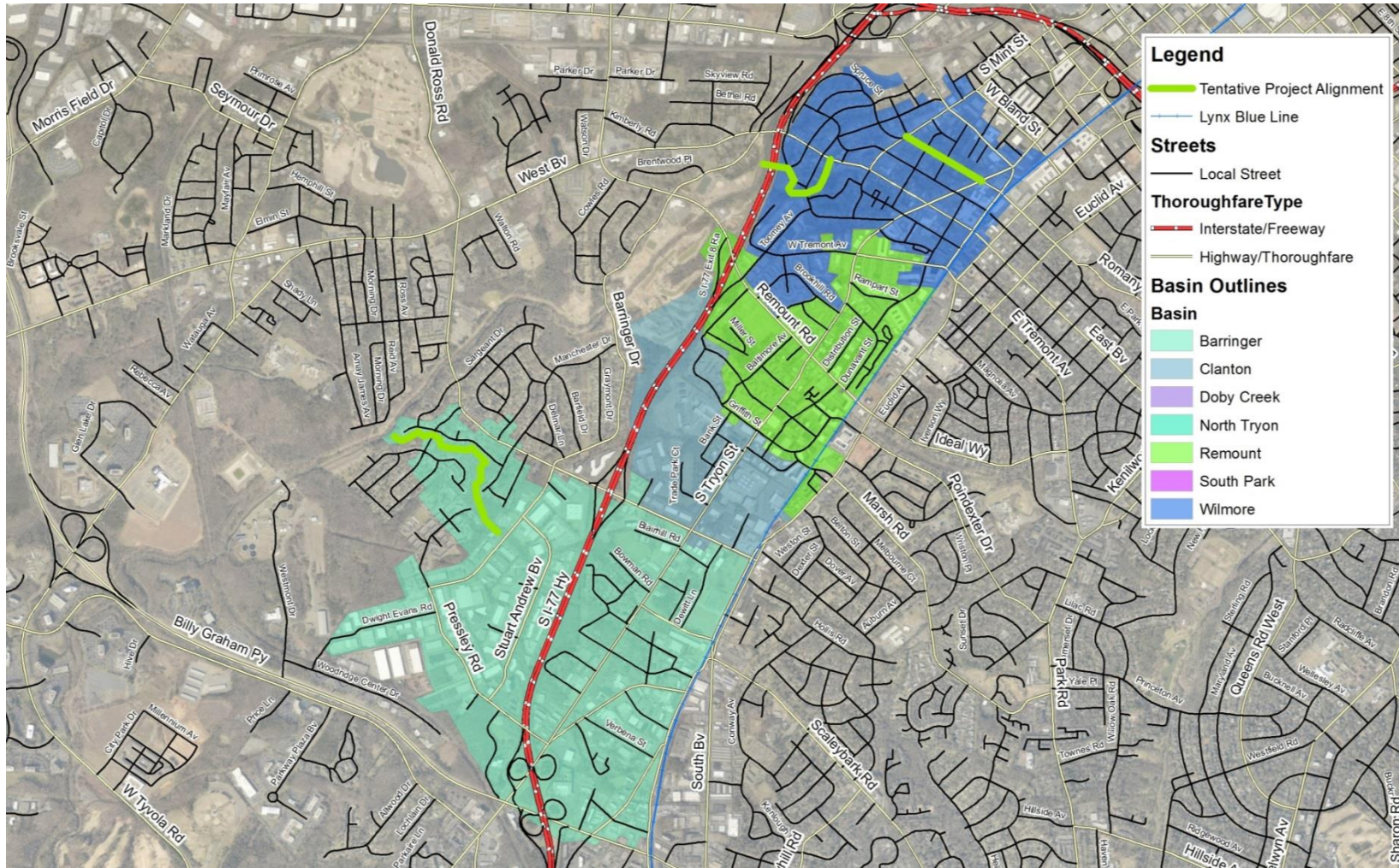
Postpones need to expand largest plant and large sewer pipes



Capacity Project Planning



Capacity Project Planning – South End



Future Council Actions

- Biosolids Contract Extension (~May 2018)
- Future WWTP
 - Engineering Services
 - Agreements with Belmont & Mt. Holly
- Pipeline projects
- **Questions?**