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Chatham County Comprehensive Water and Wastewater Master Plan

July 16, 2019

*When and
how much
Water and
Wastewater
Capacity do
we need?*

Presentation Agenda

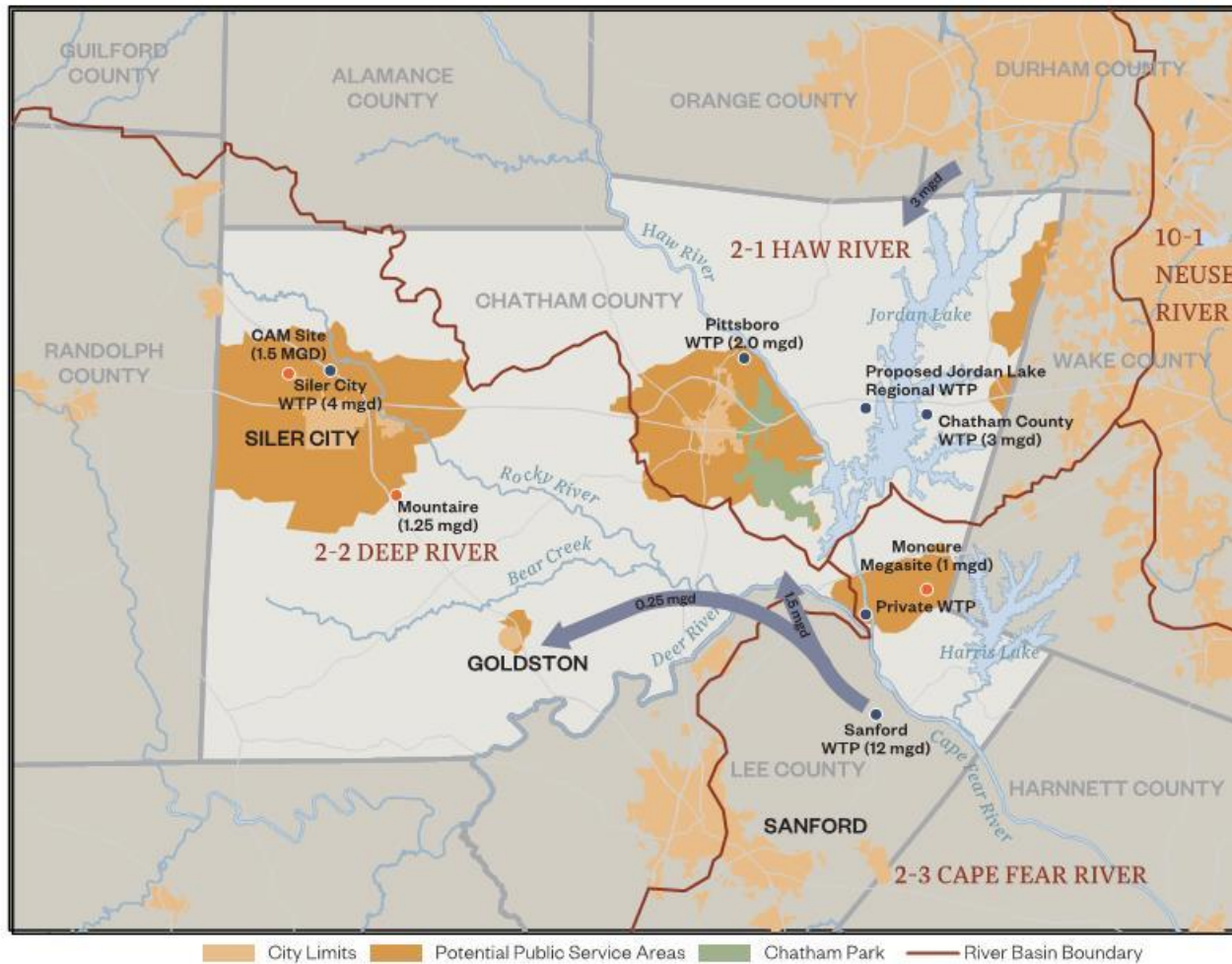
- Project Overview
- Water system existing capacity, demand projections, and alternatives.
- Wastewater system existing capacity, demand projections, and alternatives.
- Dashboard review
- Next steps/
recommendations

Scope of Work

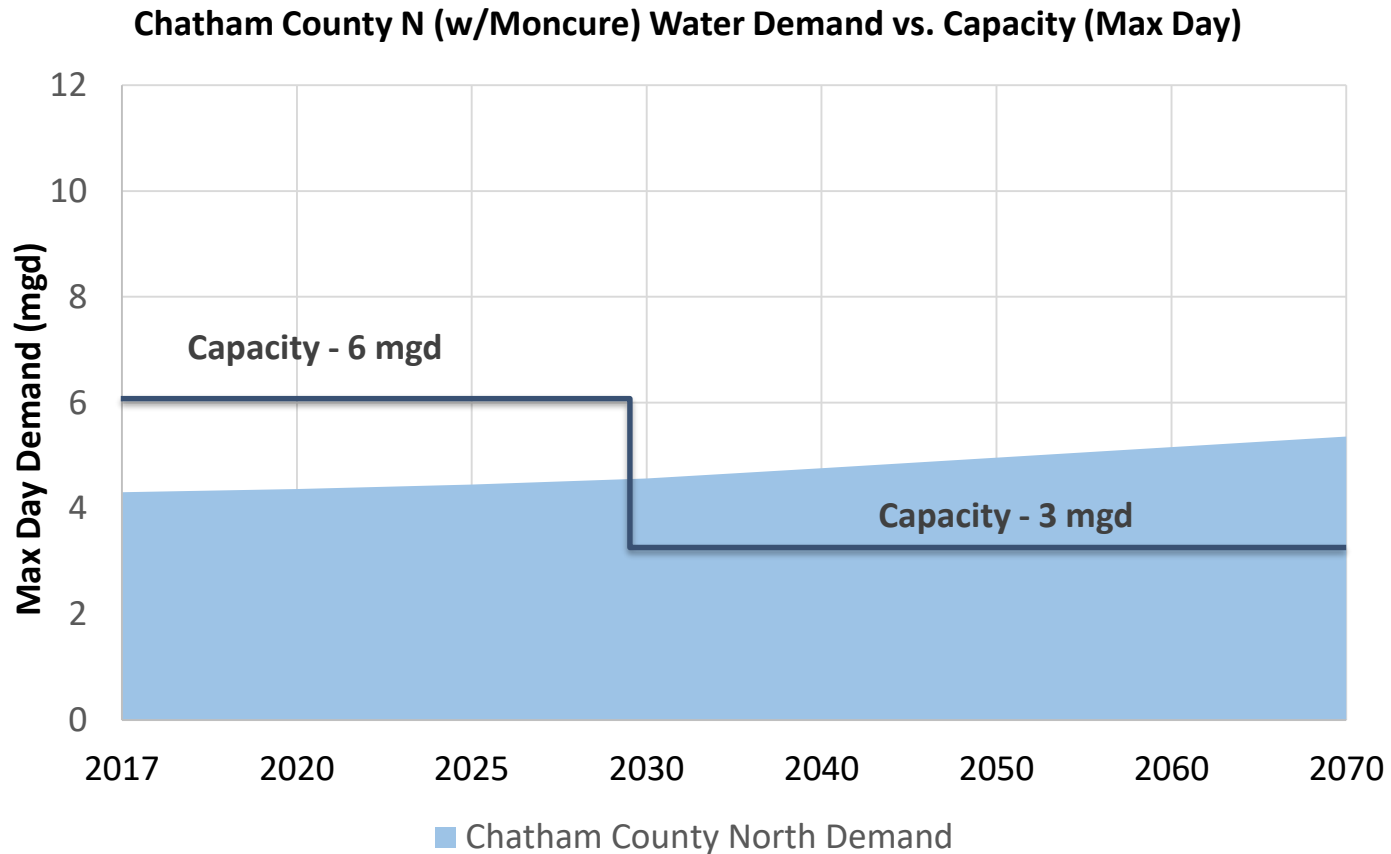
- Water and Wastewater Near-term and Long-term Demands for all of Chatham County
 - Chatham County, Goldston, Pittsboro, & Siler City
 - 5-year Increments to build-out (assumed to be year 2070)
- Water Treatment Alternatives
- Wastewater Treatment Alternatives
- Recommended Alternative(s)
- Masterplan deliverable – Updateable Dashboard Data Management Tool

Water Treatment

Existing Water Treatment Facilities

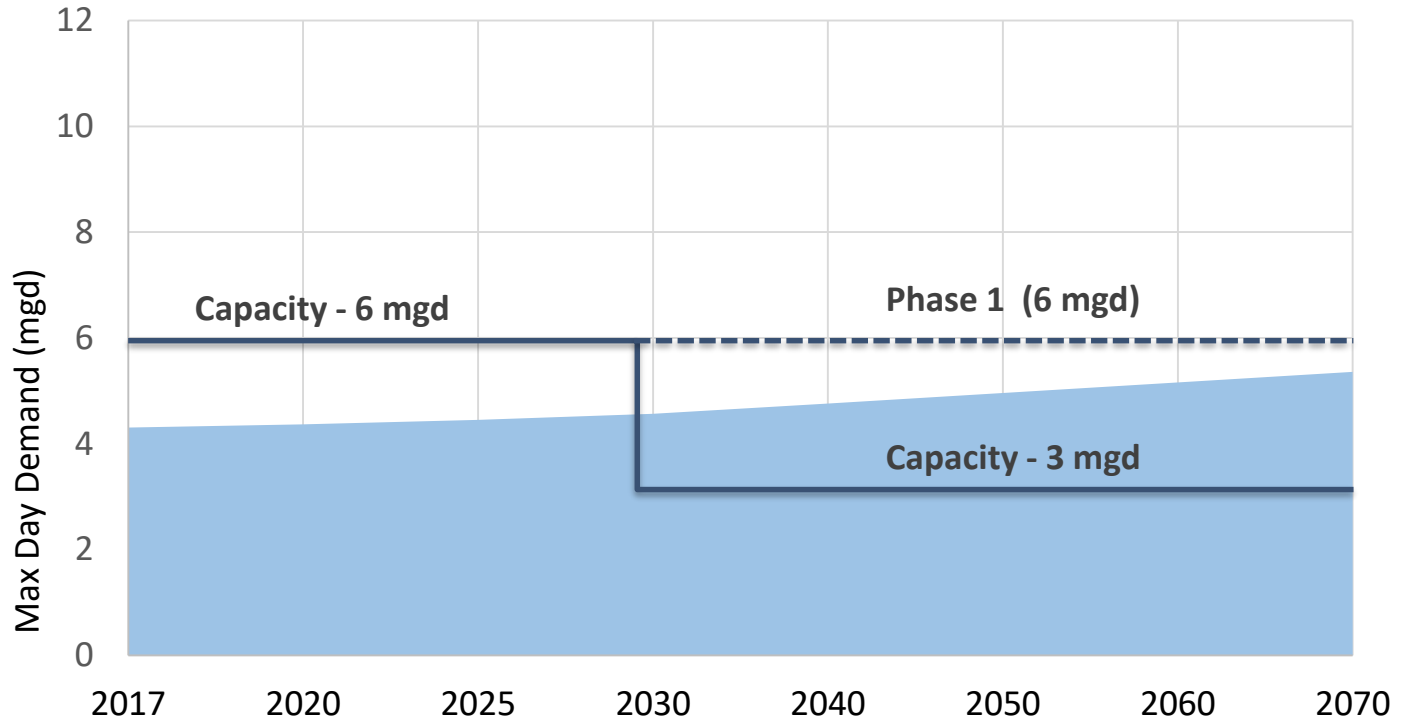


Chatham North Water Demands – Max Day (mgd)



Water Supply Recommendations – Chatham

Chatham County N (w/Moncure) Water Demand vs. Capacity (Max Day)

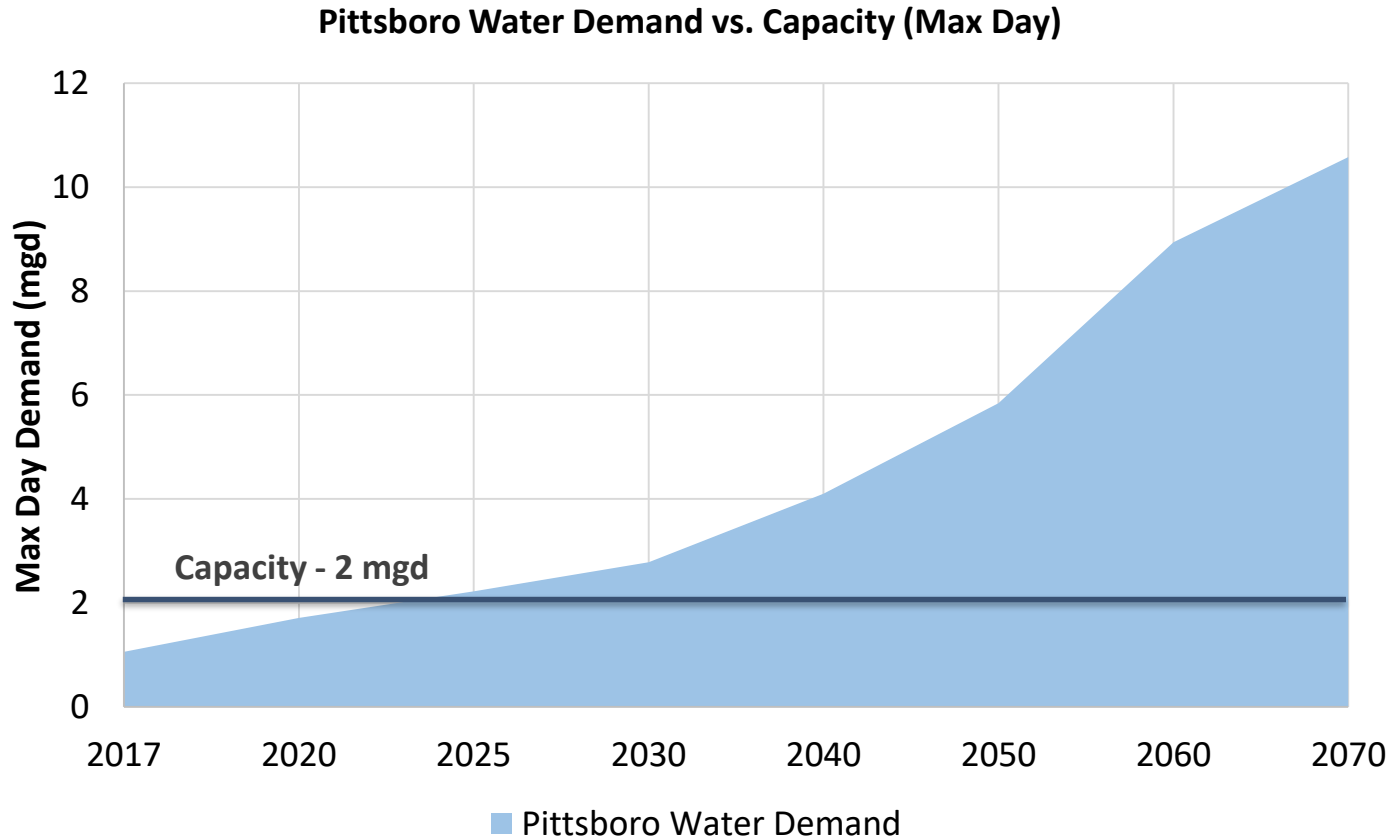


ALTERNATIVES

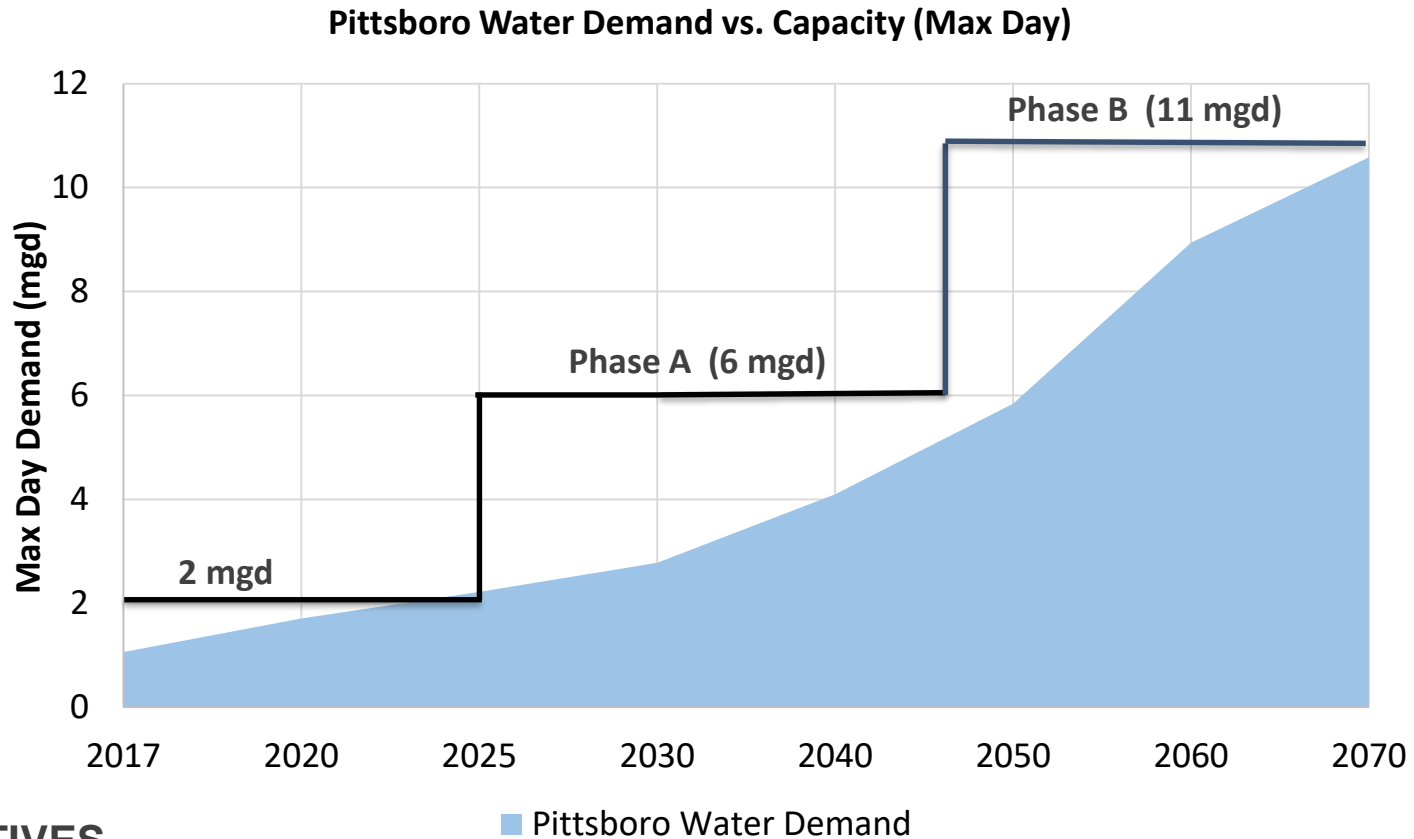
- Expand Existing Jordan WTP
- Purchase Capacity from Sanford's WTP
- New WTP on Jordan Lake (Western Intake)
- Purchase Capacity from Cary/Apex WTP

■ Chatham County North Demand

Pittsboro Water Demands – Max Day (mgd)



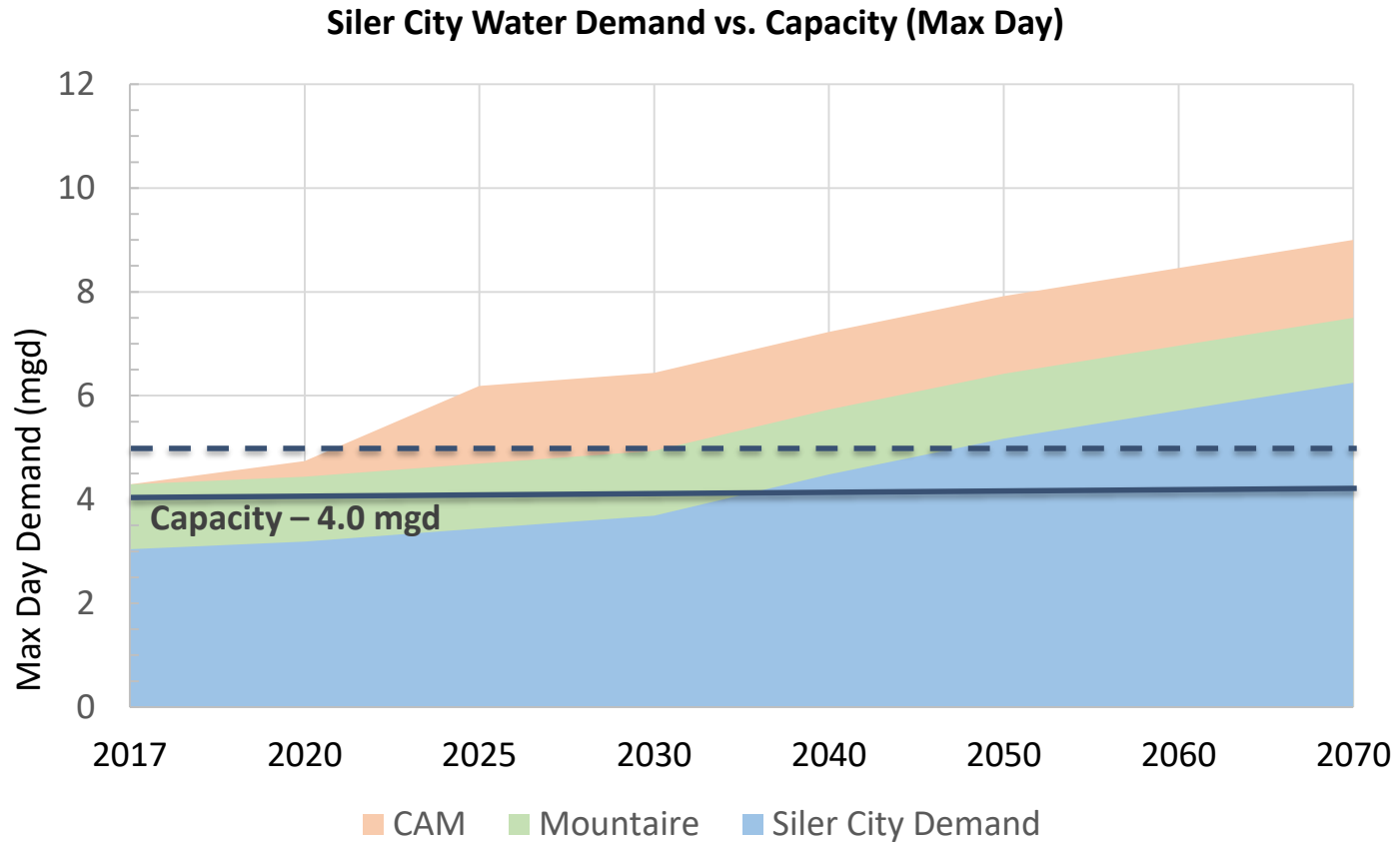
Water Supply Phasing - Pittsboro



ALTERNATIVES

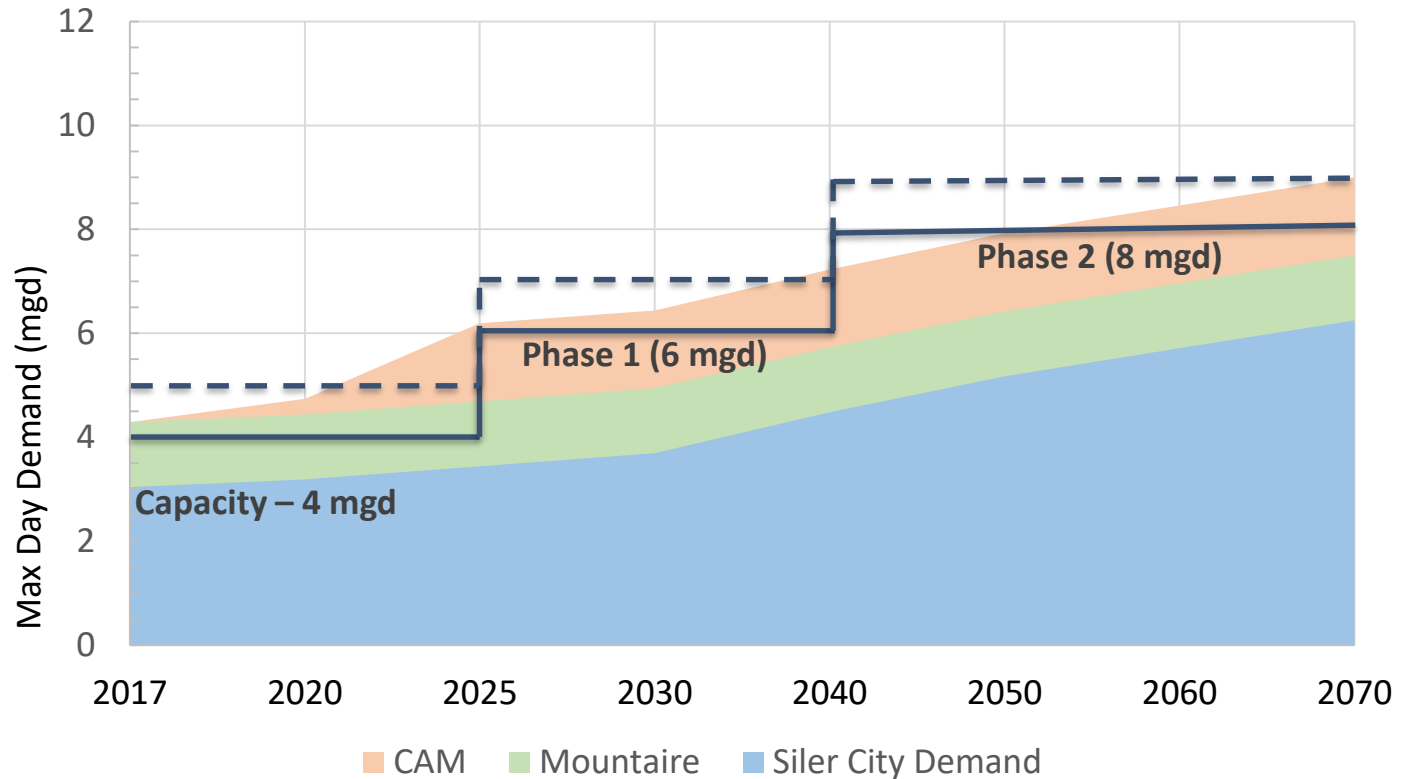
- Purchase Capacity from Sanford's WTP
- Expand Existing WTP
- New WTP on Jordan Lake

Siler City Water Demands – Max Day (mgd)



Water Supply Recommendations – Siler City

Siler City Water Demand vs. Capacity (Max Day)

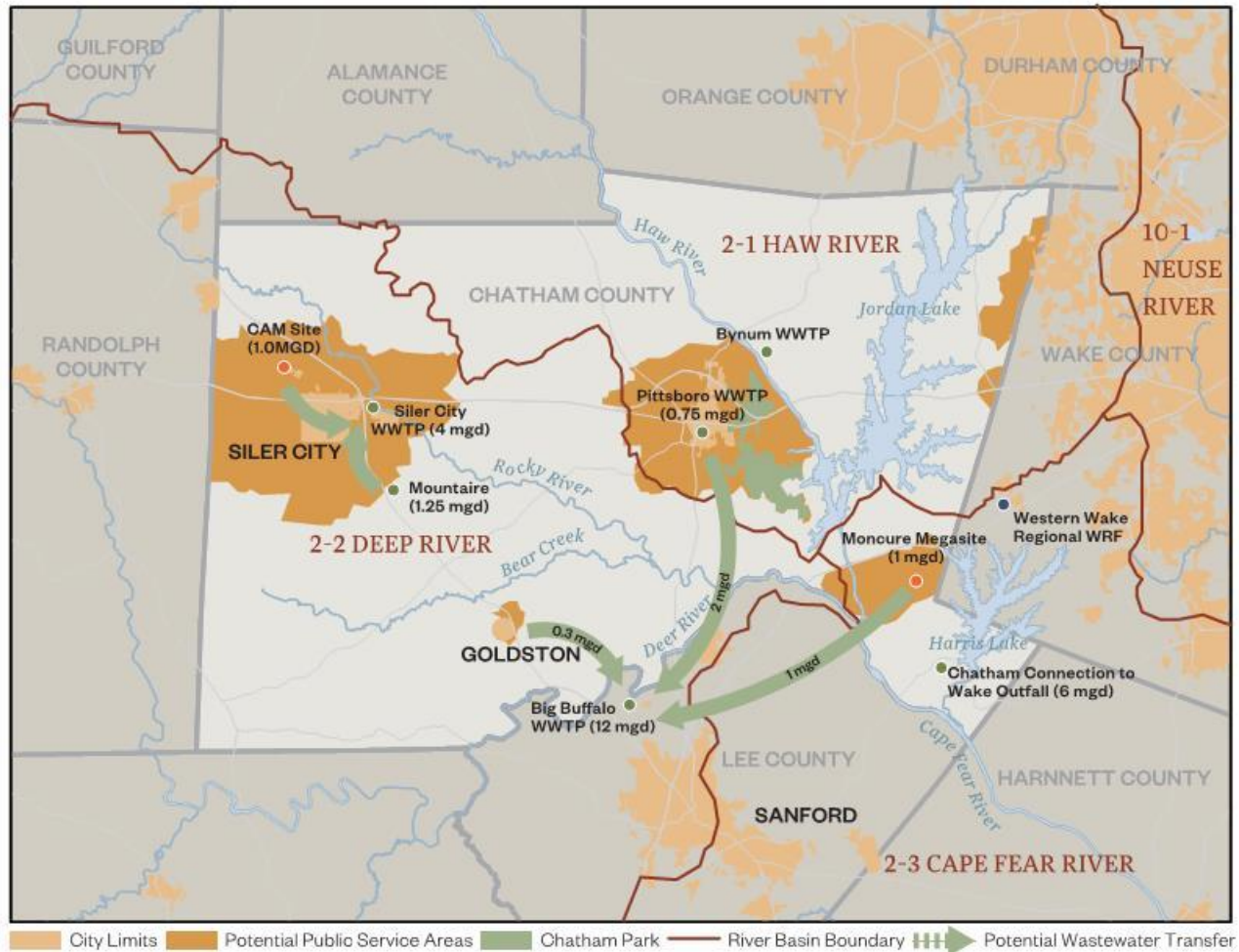


ALTERNATIVES

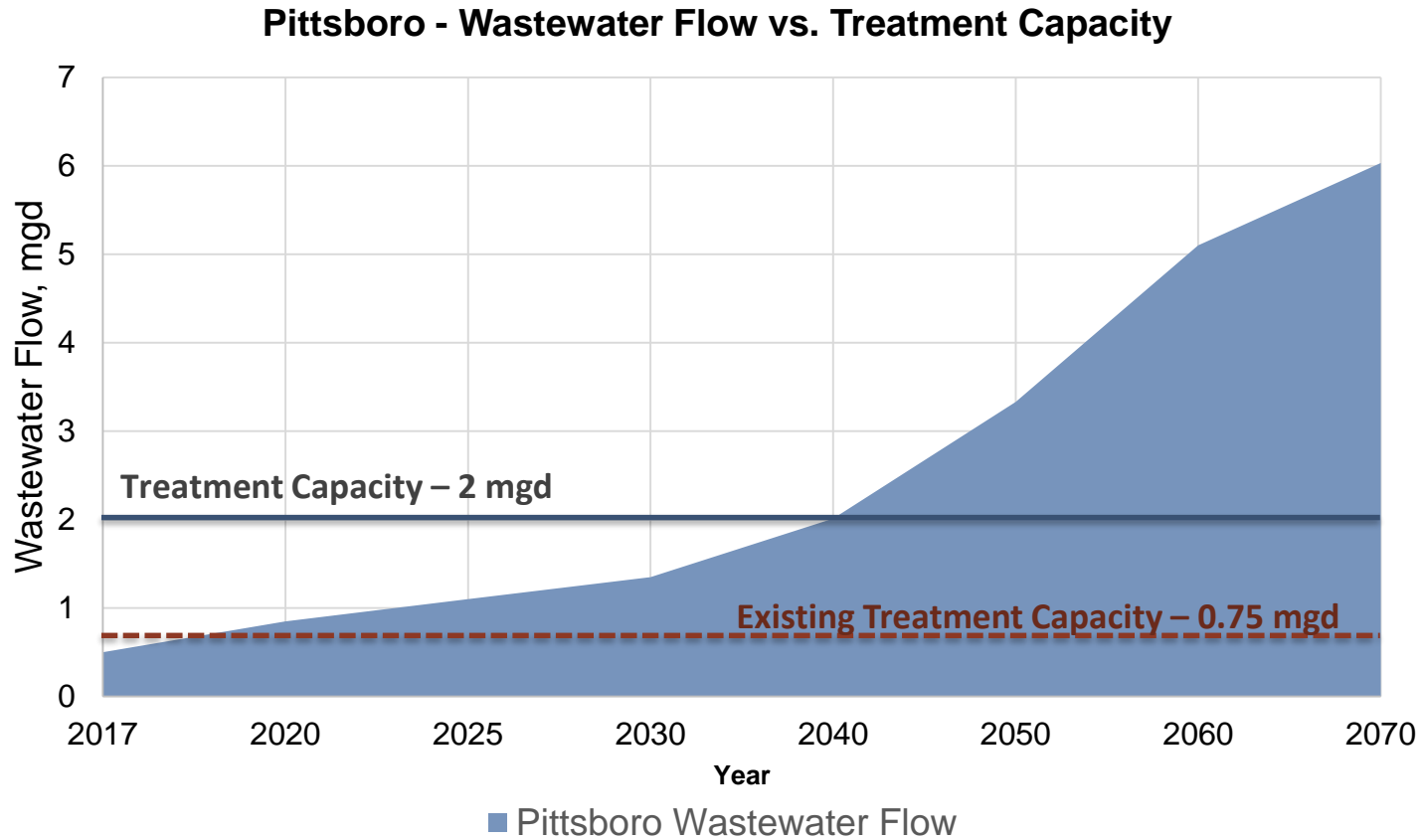
- Transfer from Chatham County SW (1.0 mgd currently tested and available)
- Purchase capacity from Sanford's WTP
- Expand existing WTP

Wastewater Treatment

Existing/Planned Wastewater Facilities

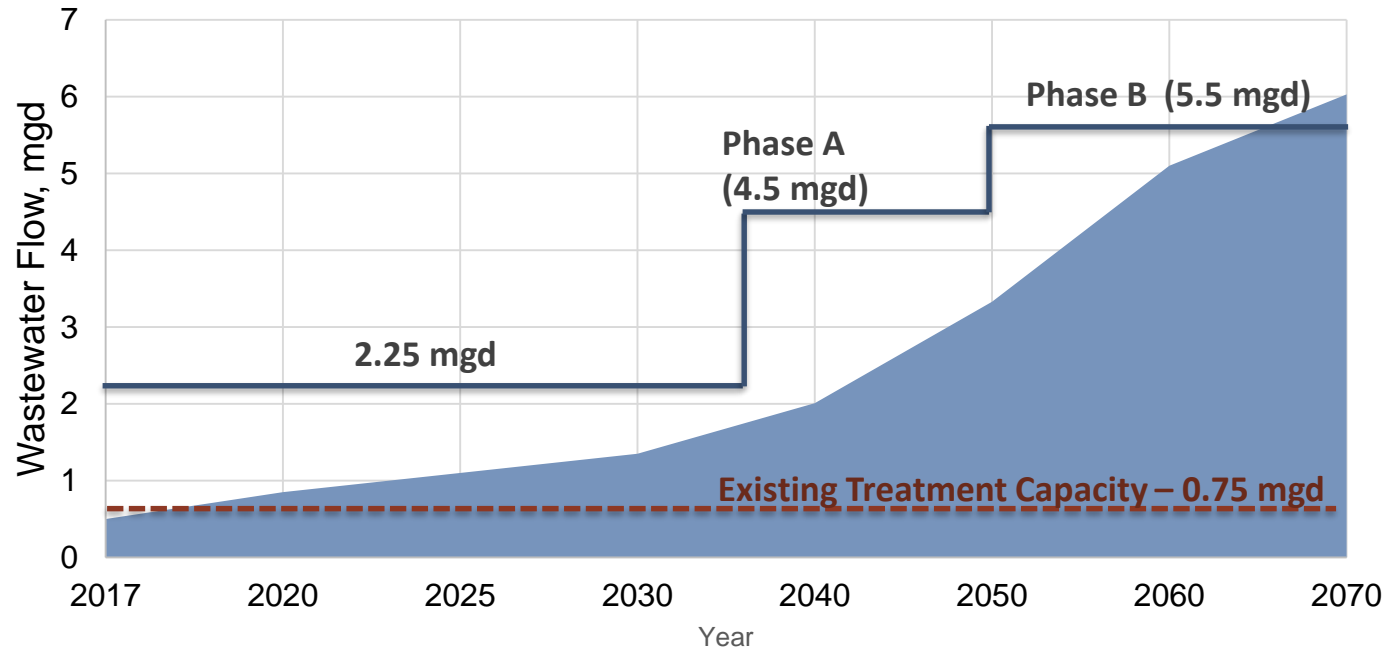


Wastewater Treatment– Max Month (MGD)



Wastewater Treatment – Phasing

Pittsboro - Wastewater Flow vs. Treatment Capacity

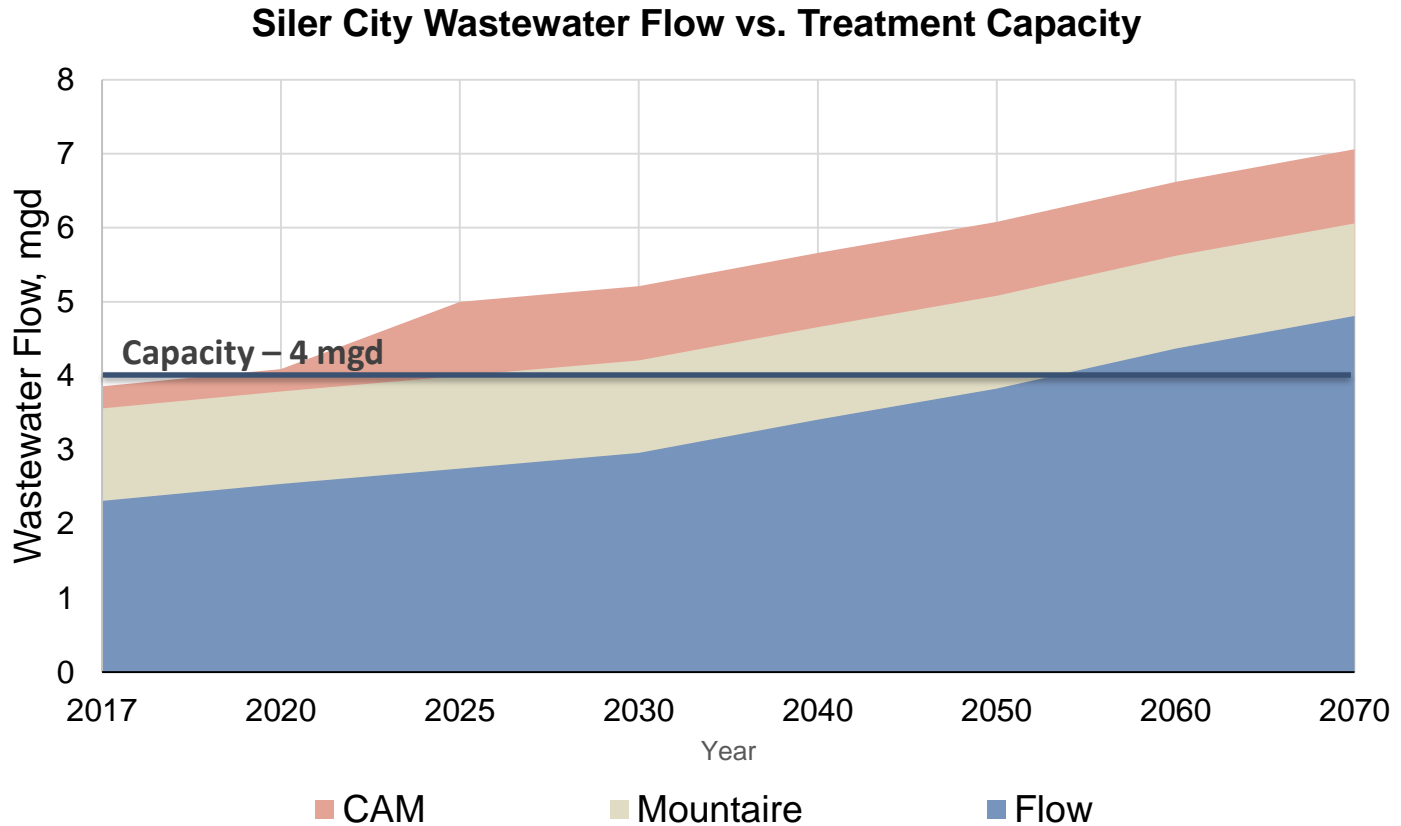


■ Pittsboro Wastewater Flow

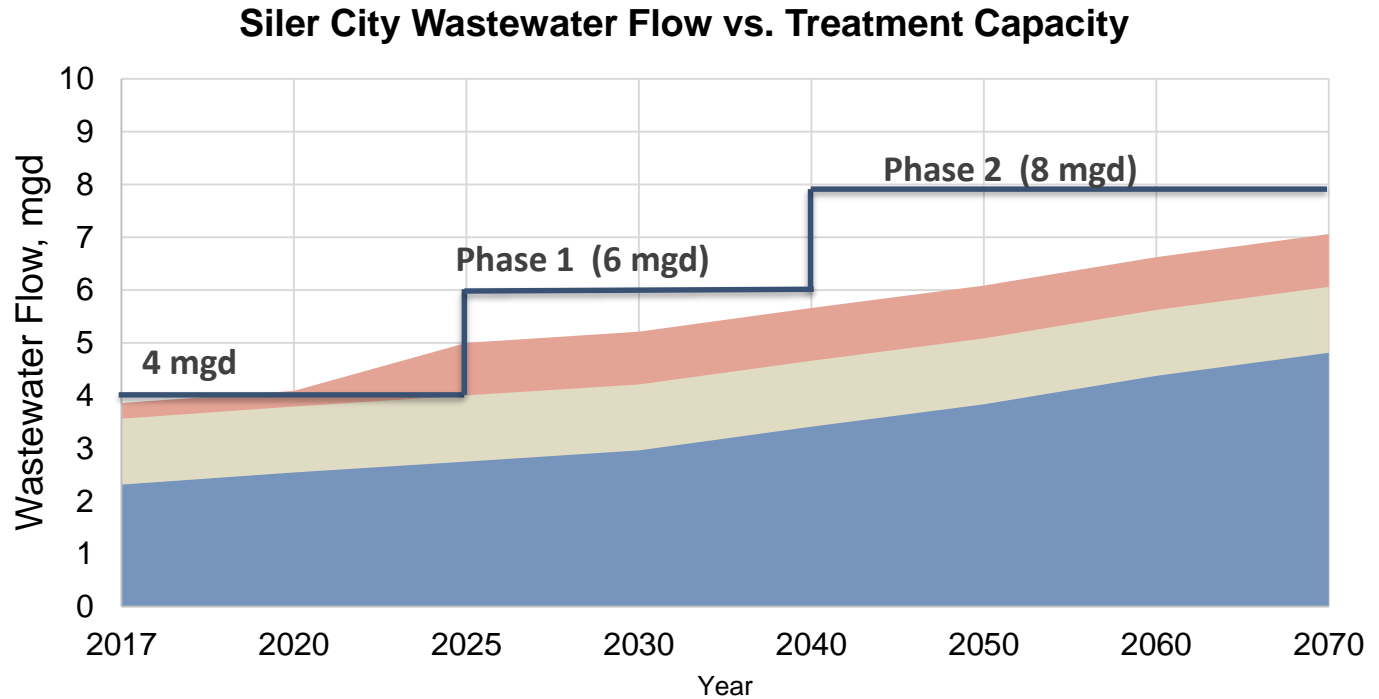
ALTERNATIVES

- Chatham Park WWTP (assumed .25 for all alternatives)
- New WWTP
- Purchase Additional Capacity at Sanford's Big Buffalo WWTP (IBT if the flow is not offset with water purchase)

Wastewater Treatment– Max Month (MGD)



Wastewater Treatment – Recommendations



ALTERNATIVES

■ CAM ■ Mountaire ■ Flow

- Land Application Facility near Mountaire or CAM site
- Expand/improve existing WWTP
- Purchase Capacity at Sanford’s Big Buffalo WWTP (IBT if the flow is not offset with water purchase)

Dashboard Review



Chatham County Water & Wastewater Utility Master Plan

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Next Steps

- Preliminary Engineering for Preferred Alternatives
 - Develop detailed implementation schedule(s) for preferred facilities
 - System modeling to identify additional vulnerabilities/costs
 - Water quality analysis/modeling

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Chatham County Comprehensive Water and Wastewater Master Plan

September 16, 2019