



Chatham County Board of Commissioners

UTILITIES PARTNERING STUDY

April 19, 2021

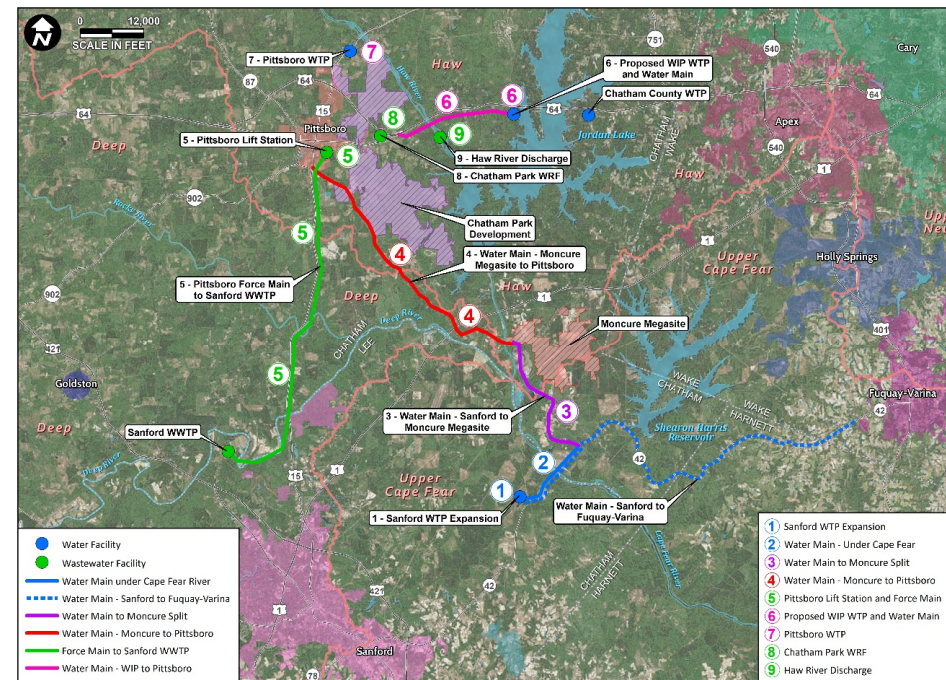
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Chatham County, Pittsboro & Sanford Partnering Study

- Purpose: Identify options for Chatham County, Town of Pittsboro and City of Sanford to share their respective resources with a goal of providing safe, reliable and sustainable water and wastewater utility services to their respective communities.
- Goal: Define an equitable path forward
- Key Considerations:
 - Water Quality
 - Water Quantity
 - Cost
 - Schedule/Timing



Water Quality

Partnering Study Water Quality

Primary Concerns

- PFAS
- 1-4 Dioxane

- Pittsboro WTP installing advanced treatment for 1 MGD of flow

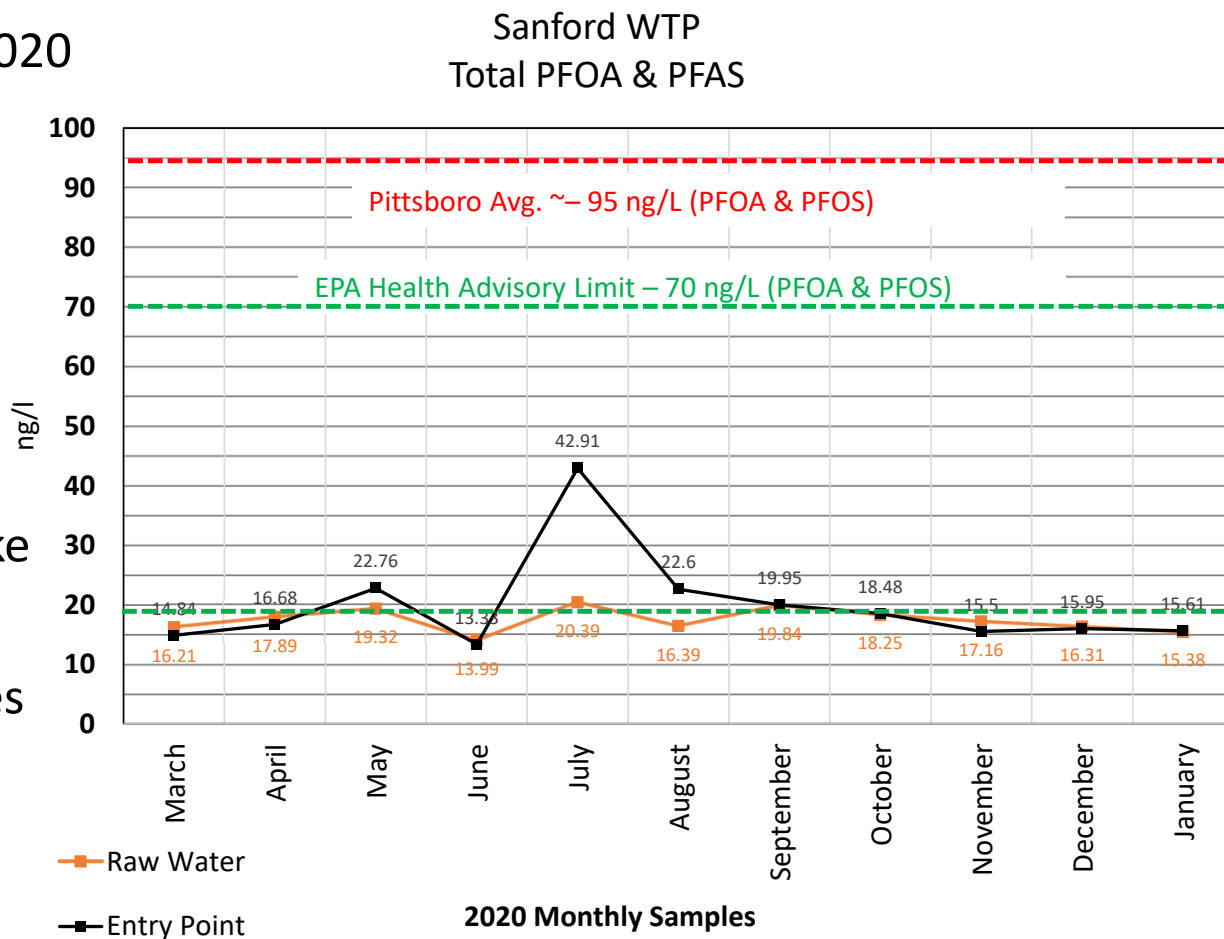
- Sanford WTP Expansion to include Advanced Treatment for contaminant removal

- 1-4 Dioxane levels have been non-detect



Partnering Study Water Quality

- Cape Fear River PFOA & PFAS 2020
 - Avg. at Entry Point = 19.9 ng/L
 - Avg. at Raw Water = 17.4 ng/L
- 70 ng/L EPA Advisory Limit
- 95 ng/L avg. Haw River Intake
- 844.8 ng/L max Haw River Intake
- Sanford WTP Expansion includes Advanced Treatment



Water Demands

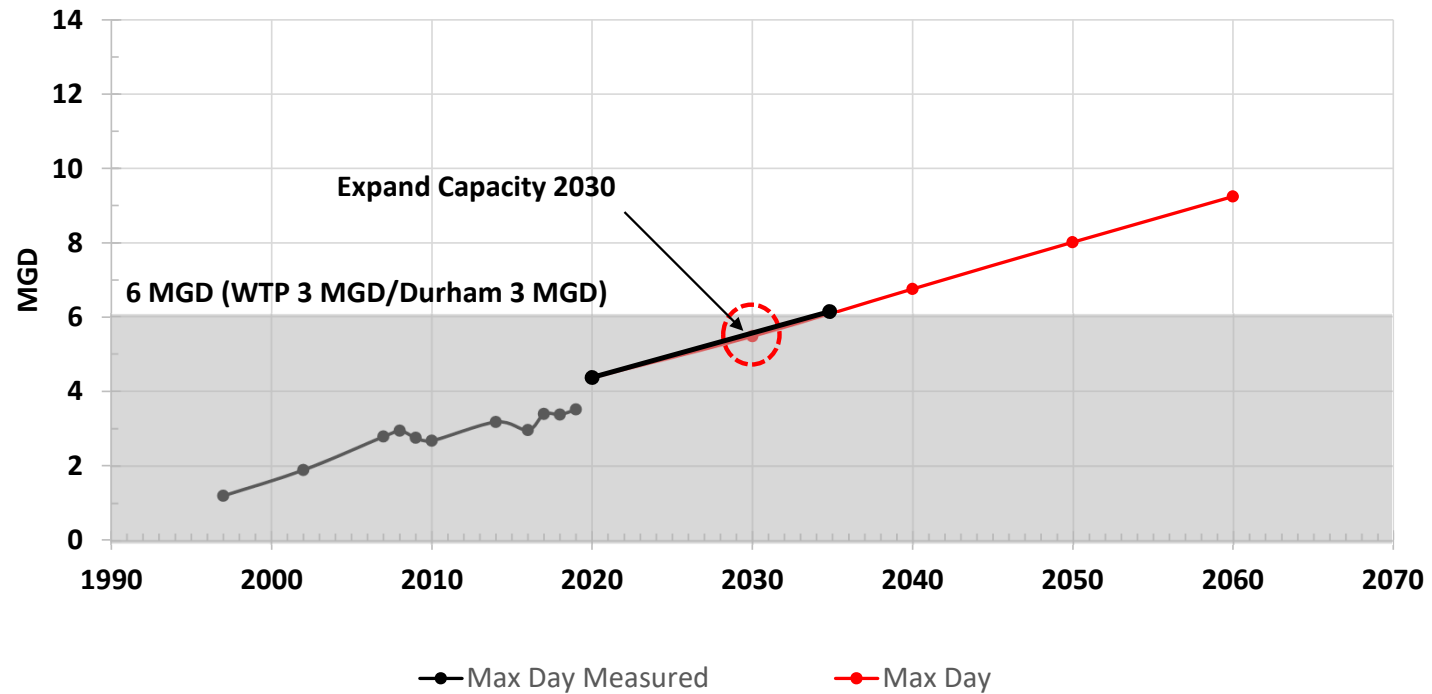
Partnering Study Chatham County Water Demands

Observations:

- Water Sources:
 - Jordan Lake: 13+ MGD
 - Durham: 3 MGD
 - Sanford: 41 MGD
- ~2 MGD Remaining
- 2040 Demand: ~7 MGD
- 2060 Demand: ~9 MGD

NOTE: Demands assume 1 MGD to Moncure in 2020

Chatham County Water Demands

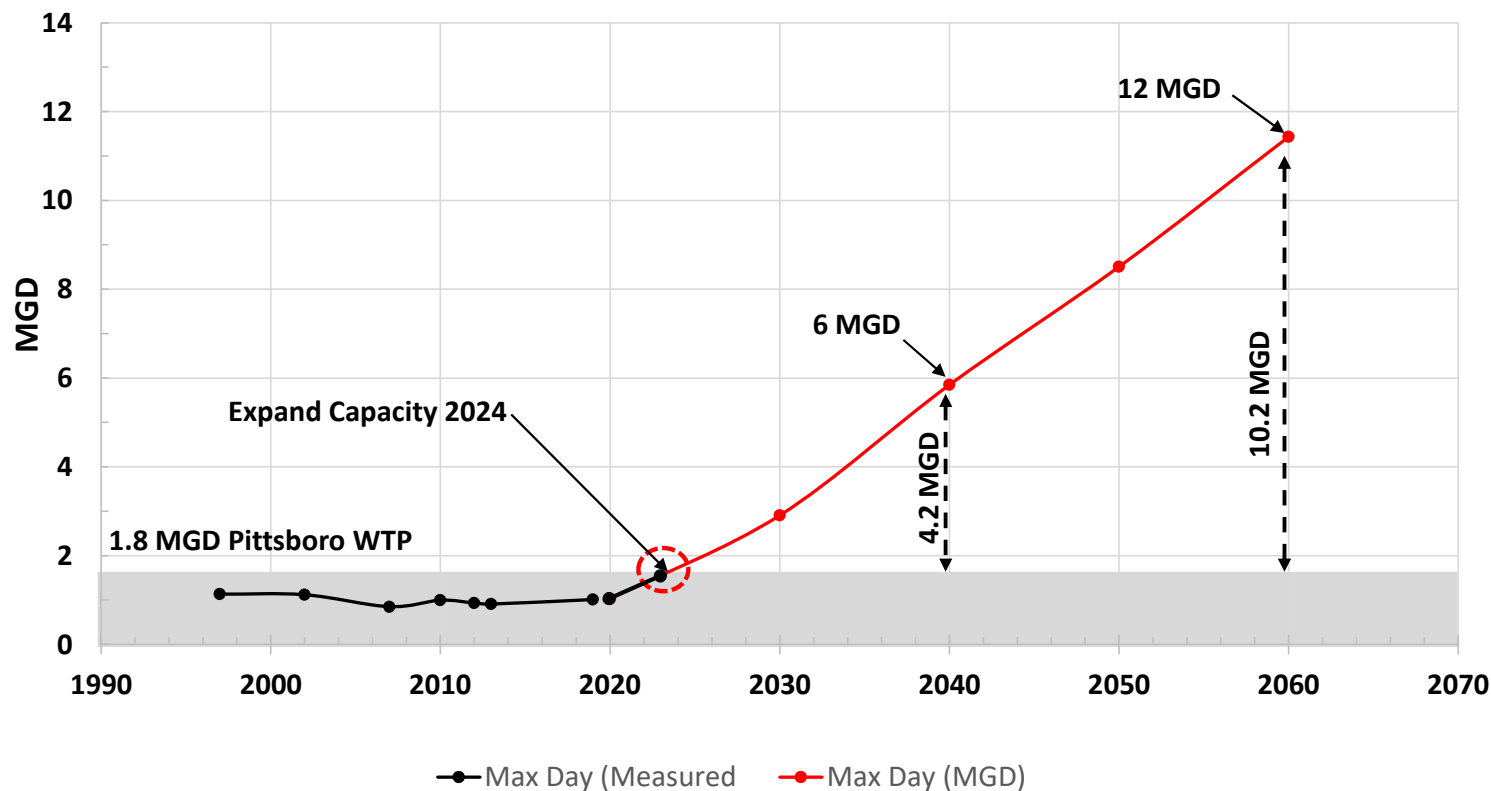


Partnering Study Pittsboro Water Demands

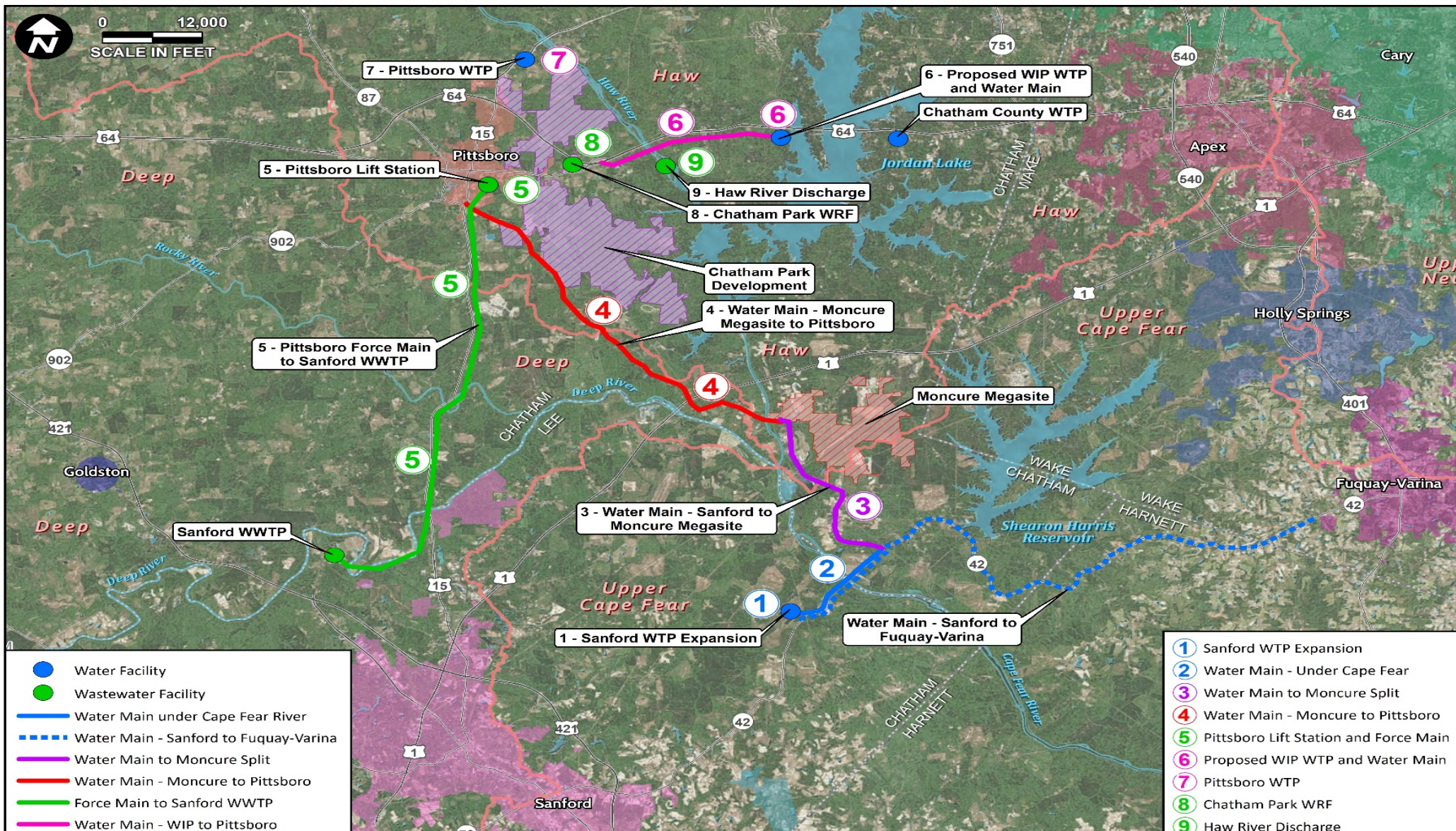
Observations:

- Water Sources:
 - Haw River: 8 MGD
 - Jordan Lake: 9+ MGD
 - Sanford: 41 MGD
- ~0.8 MGD Remaining
- Expand Capacity (Urgent)
- 2040 Demand: ~ 6 MGD
- 2060 Demand: ~ 12 MGD

Pittsboro Water Demands



Alternatives Review



Costs

Preliminary Cost Estimates*

Partner with Pittsboro/Sanford

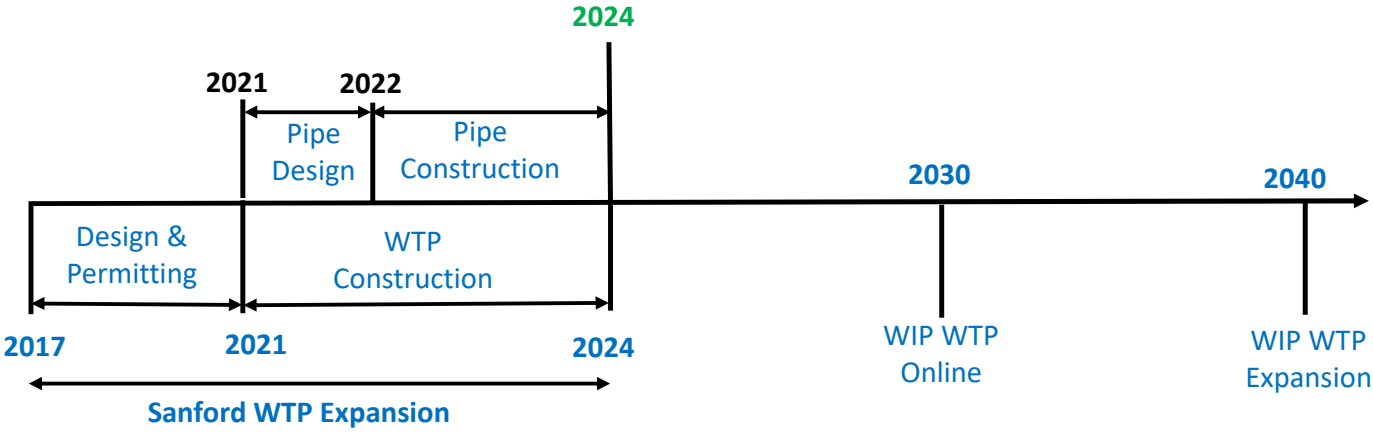
ID#	Project	Year	Total Cost
2	Water Main under Cape Fear	2024	\$7,552,740
3	Water Main to Moncure Split	2024	\$9,182,290
4	Water Main to Pittsboro	2024	\$17,515,420
	TOTAL		\$34,250,450

- Assumes wholesale water purchase agreement with Sanford
- Water transmission costs likely to be shared with Pittsboro & Sanford reducing total project cost for Chatham County

* 2021 Capital Costs.

Schedule

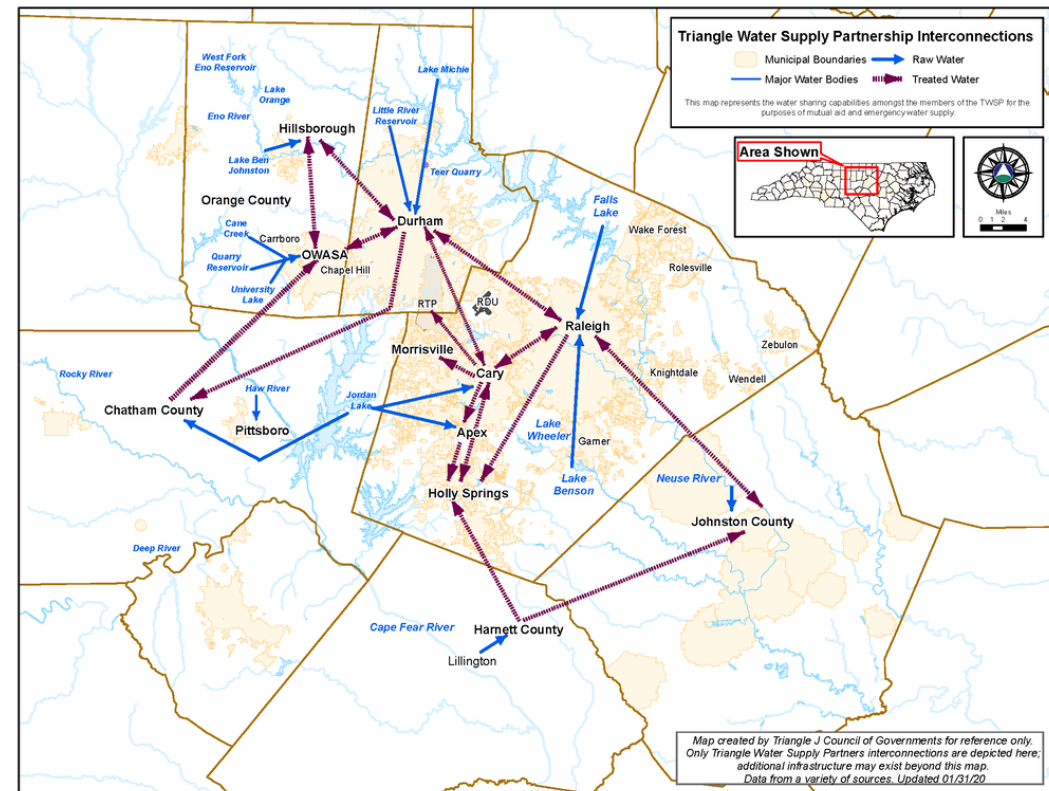
Project Timelines



Conclusions

Partnering Study Summary

- Advantages of Partnering with
Pittsboro/Sanford
 - Least Cost
 - Water Quality
 - More resilient water source
 - Interconnections with Pittsboro and Sanford
 - Provides additional water supply for the
Moncure Megasite
 - Assists Pittsboro in meeting growing water
demands to allow continued planned growth



Summary

	Partner with Pittsboro/Sanford
Schedule	<ul style="list-style-type: none">• 2024 Transmission from Sanford
Cost Share	<ul style="list-style-type: none">• Economies of scale w/multiple partners (Chatham Co/Pittsboro/Sanford)
Water Quality	<ul style="list-style-type: none">• Lower Concentration of PFAS in Cape Fear
Water Quantity	<ul style="list-style-type: none">• Cape Fear River yield 41+MGD
Costs	<ul style="list-style-type: none">• ~\$34,250,450 (shared with Pittsboro & Sanford)

A photograph of a family of four sitting at a table, each holding a glass of water. The father is on the left, wearing glasses and a denim shirt. The mother is on the right, smiling. Two young girls are in the middle, also smiling. The background shows a window with multiple panes. The entire image has a blue tint.

Thank you!
Questions?