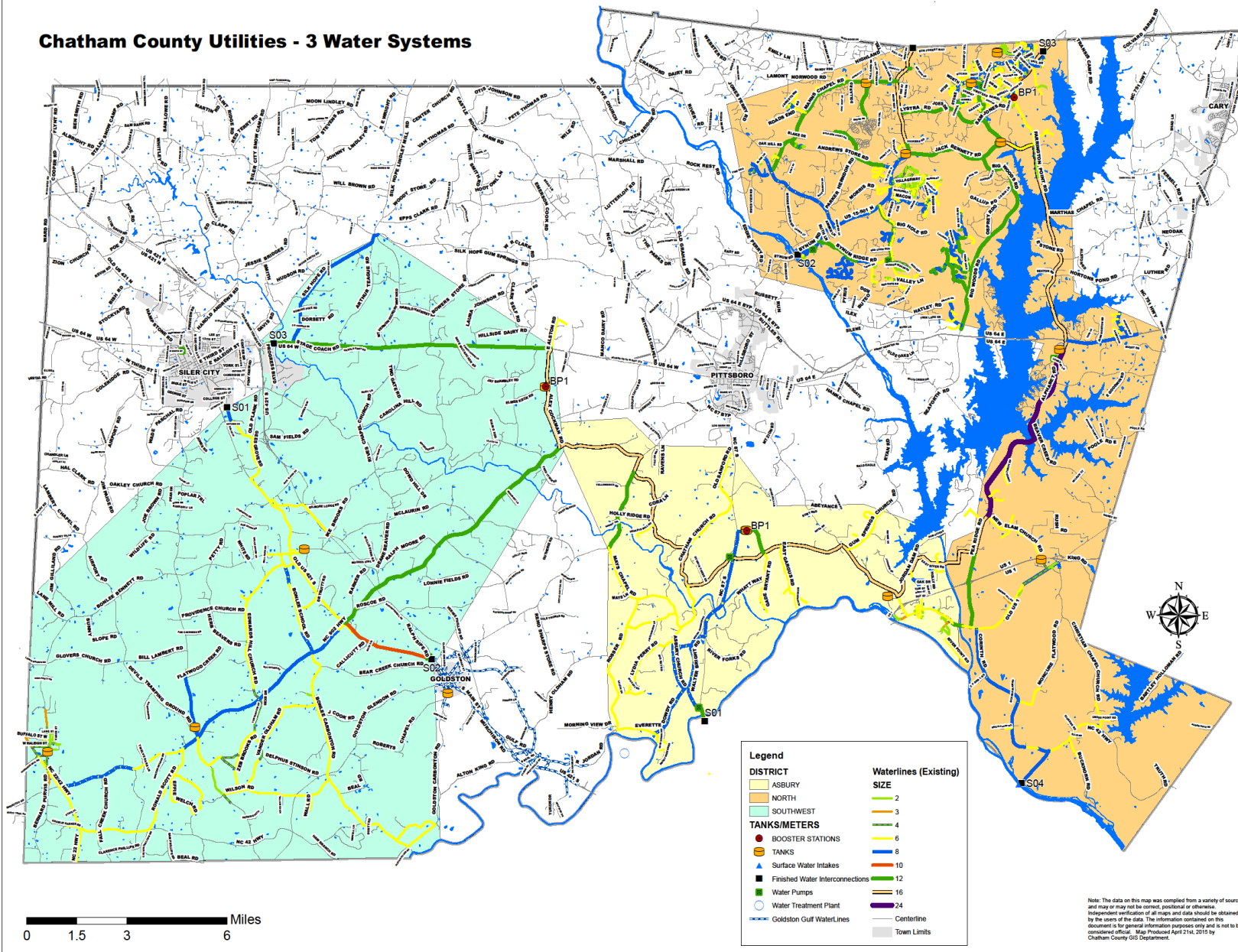


Chatham County Future Water Supply Planning



Water Distribution Systems

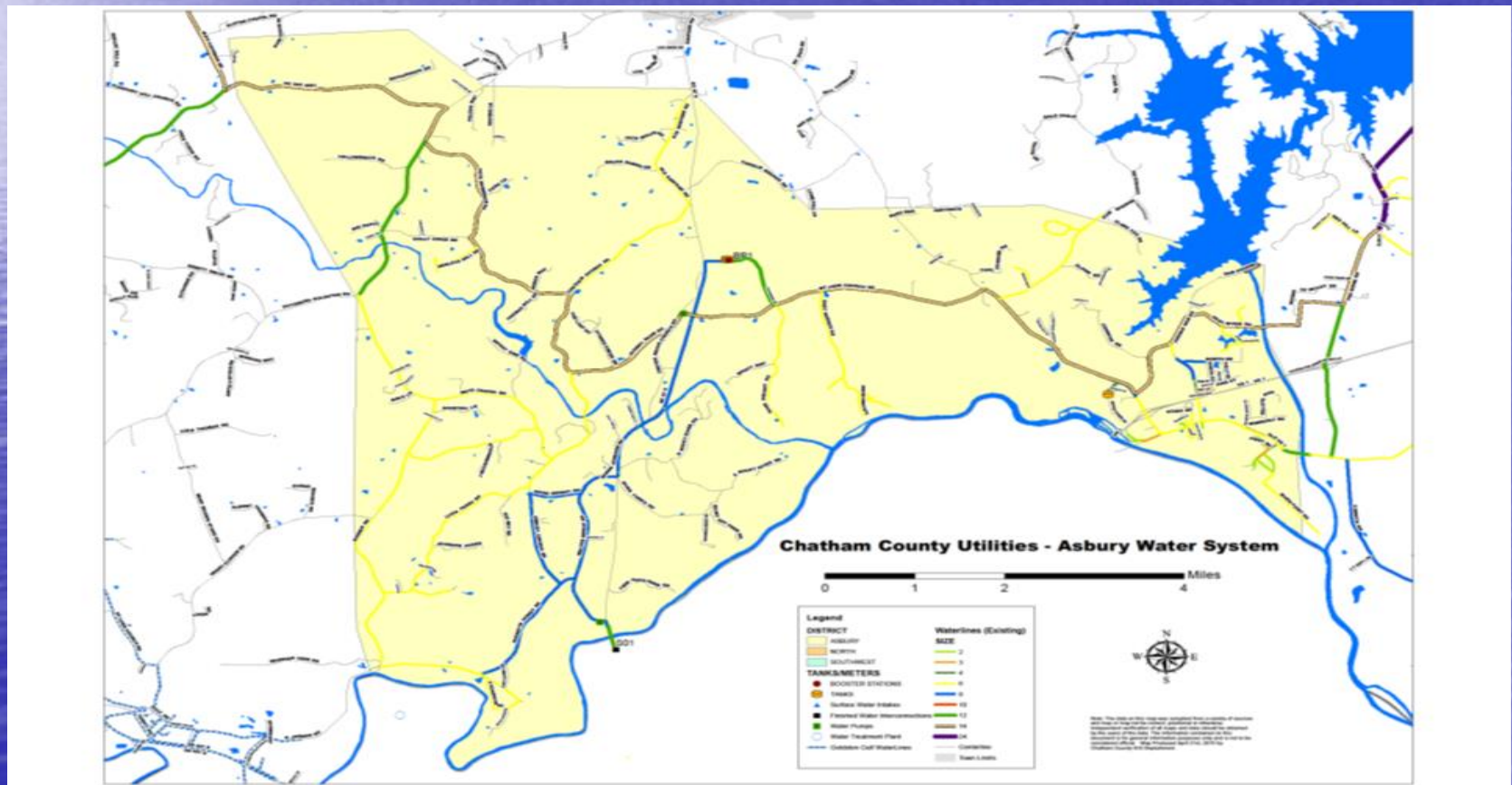
Chatham County Utilities - 3 Water Systems



Water Distribution Systems

Asbury Water Distribution System

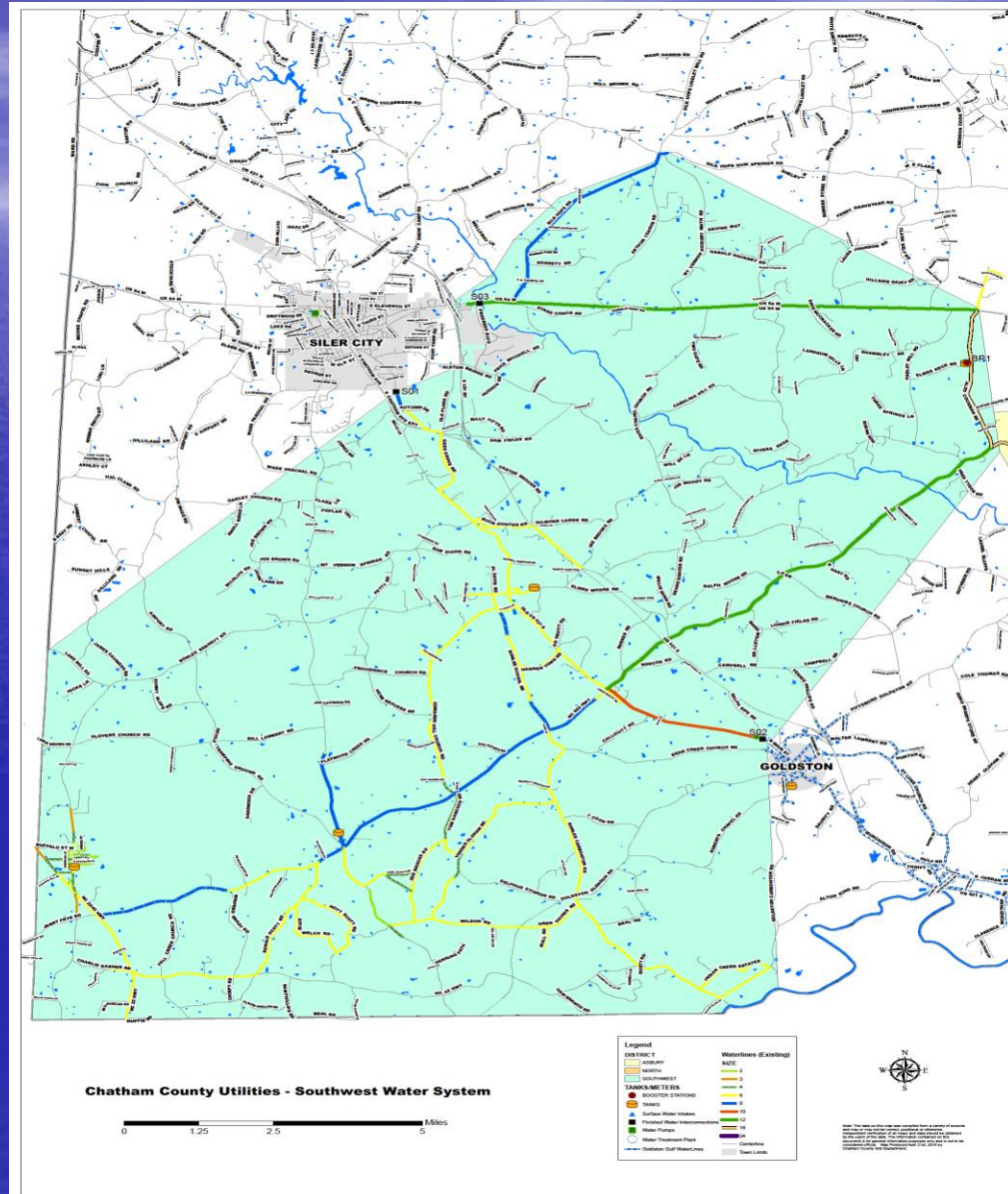
- DENR Permit # NC 40-19-010
- 603 Connections
- Water supplied by the City of Sanford (Cape Fear River)- approximately 6.5 MG per month
- 85+ miles of Water Main and 250+ Fire Hydrants



Water Distribution Systems

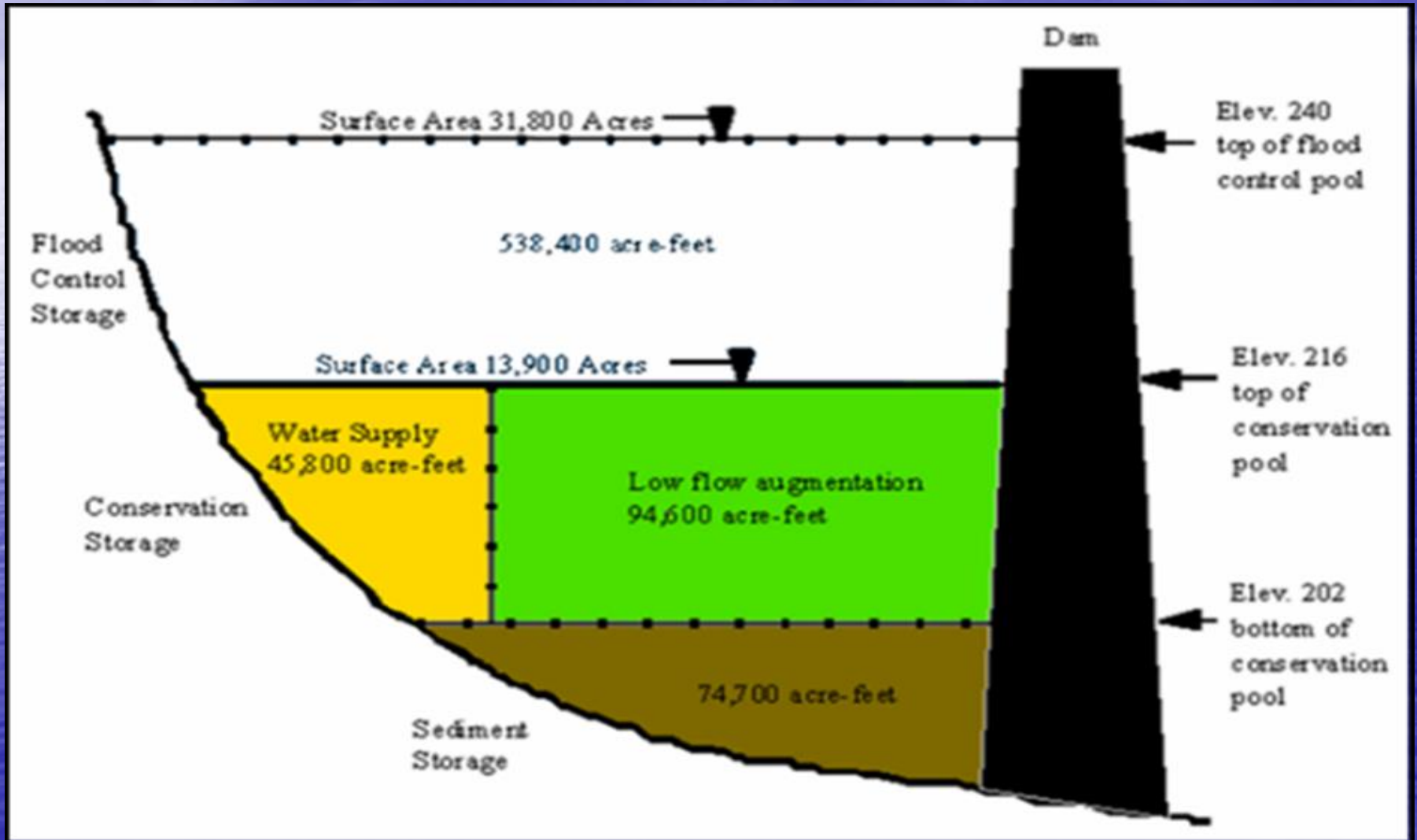
Southwest Water Distribution System

- DENR Permit # NC 03-19-050
- 1,043 Connections
- Water supplied by the Town of Siler City (Rocky River) and the Asbury Water System through the City of Sanford Interconnection – approximately 8.7 MG per month
- 115 miles of Water Main and 250+ Fire Hydrants



Jordan Lake Water Supply Allocations

(Understanding Allocation Process)



Understanding Allocation Process

- The Jordan Lake water supply storage pool was designed to reliably provide 100 million gallons per day of water supply.
- The Environmental Management Commission (EMC) was delegated the authority to allocate water supply, by the General Assembly, to units of local government, upon request and proof of need.
- Allocations are made as a percentage of the water supply pool (100 MGD) to address documented needs for 30 years in the future (year 2045).
- Chatham County was allocated 6% of the water supply pool during Round 3 allocation distribution
- Chatham County currently, through Round 4 allocations, is allocated 13 % of the water supply pool

Round 4 Allocation Recommendations

Jordan Lake Water Supply Pool			
Applicant	Current Allocation Percent	Requested Allocation Percent	EMC Approved Allocation Percent March 2017
Cary, Apex, Morrisville, Wake Co. - RTP	39	46.2	46.2
Chatham Co.- North*	6	13	13.1
Durham*	10	16.5	16.5
Fayetteville PWC	0	10	0
Hillsborough	0	1	1
Holly Springs	2	2	2
Orange County	1	1.5	1.5
OWASA*	5	5	5
Pittsboro*	0	6	6
Raleigh	0	4.7	4.7
Total Percentage	63	105.9	95.9
*Western Intake Partners			

Jordan Lake Partnership

- In 2009 thirteen local governments and public entities formed the Jordan Lake Regional Water Supply Partnership to cooperatively plan for meeting the region's water resource needs.
- Partnership and its members are dedicated to coordinating community water supply needs into a regional water resources approach
- In December 2018 the Partnership change its name to Triangle Water Supply Partnership. While the focus and mission is the same new partners have been added in an effort to broaden the scope and magnitude of regionalizing water supply

Future Water Supply Alternatives

- Regional Water Treatment Plant (Western Intake Partners)
- Interconnections with surrounding city/county utilities
- Inter-local agreements with surrounding county/municipal government agencies



Regional Water Treatment Plant

LEGEND

◆ Raw Water Pump Station

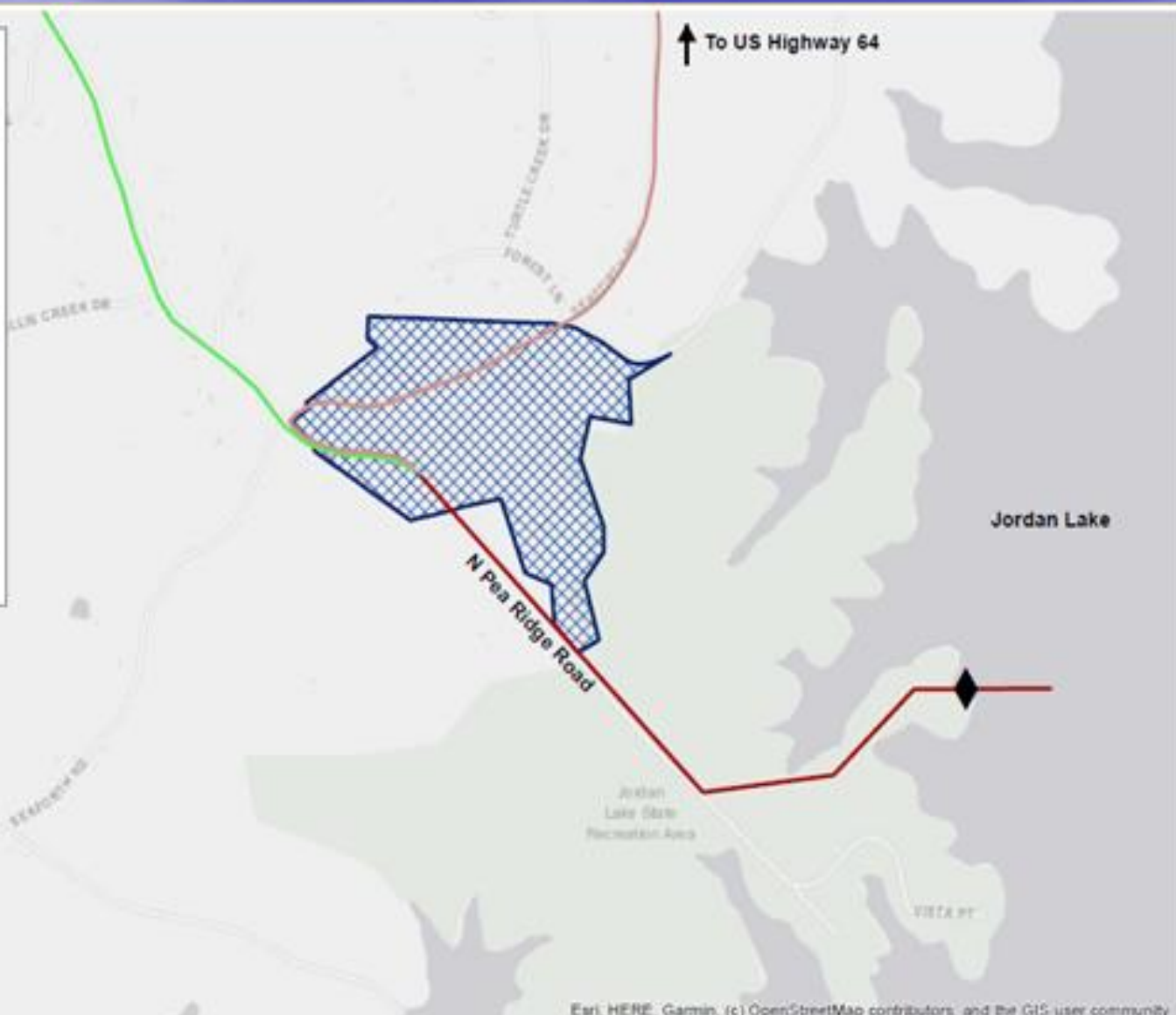
▣ WIP Regional Water Treatment Facility Site

Pipeline

— Chatham County/OWASA/Durham FW Transmission Line
— Pittsboro FW Transmission Line
— Raw Water Transmission Line



↑ To US Highway 64



Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

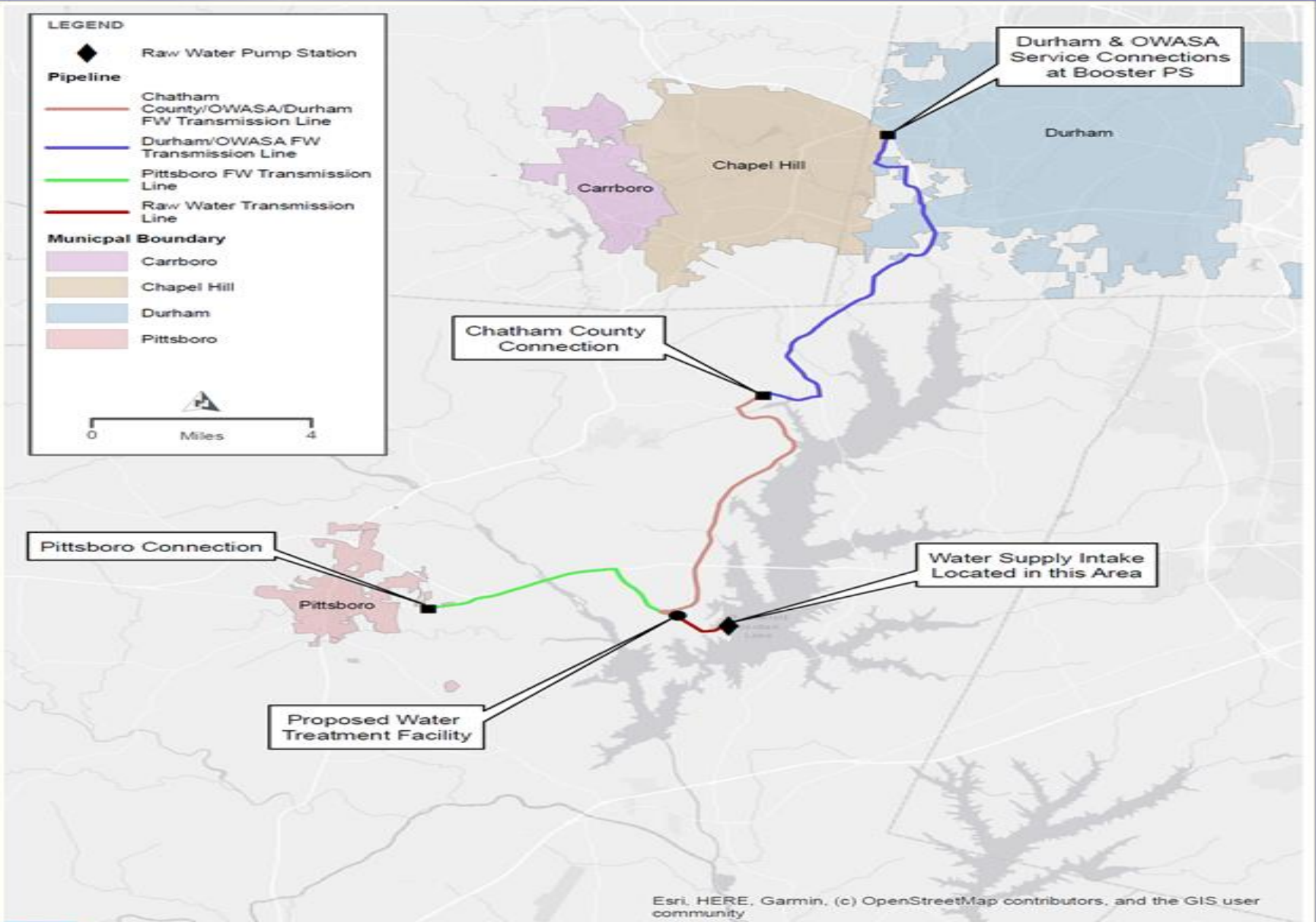


PROPOSED REGIONAL WTF SITE, WITH PRELIMINARY TRANSMISSION LINE ROUTING IN 2014 WESTERN INTAKE FEASIBILITY STUDY

LEGEND

- ◆ Raw Water Pump Station
- Pipeline**
 - Chatham County/OWASA/Durham FW Transmission Line
 - Durham/OWASA FW Transmission Line
 - Pittsboro FW Transmission Line
 - Raw Water Transmission Line
- Municipal Boundary**
 - Carrboro
 - Chapel Hill
 - Durham
 - Pittsboro

0 Miles 4










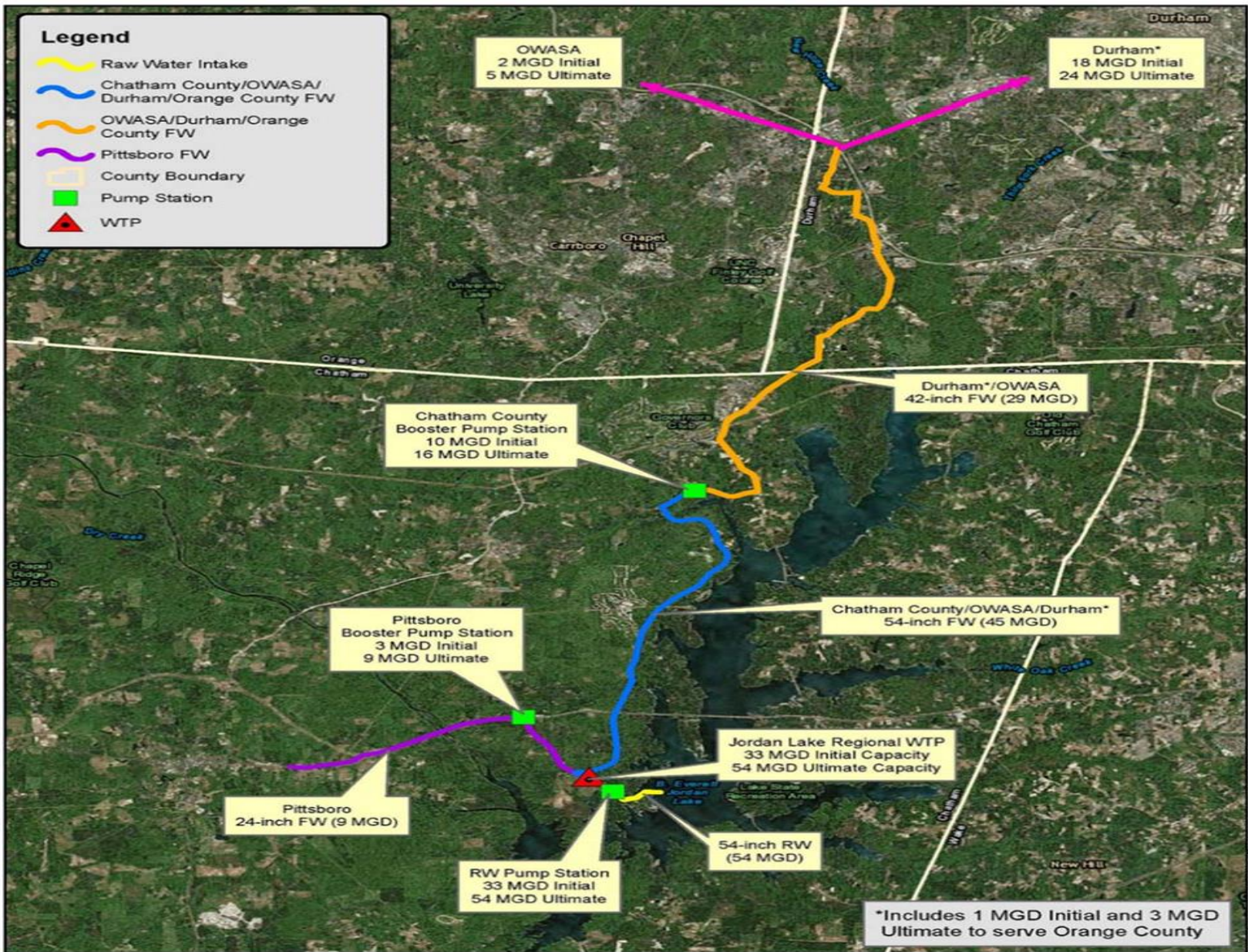
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

WESTERN INTAKE PARTNERSHIP PRELIMINARY FACILITY LOCATIONS AND TRANSMISSION LINE ROUTE OPTIONS, FROM 2014 WESTERN INTAKE FEASIBILITY STUDY



Legend

-  Raw Water Intake
-  Chatham County/OWASA/
Durham/Orange County FW
-  OWASA/Durham/Orange
County FW
-  Pittsboro FW
-  County Boundary
-  Pump Station
-  WTP



Hazen and Sawyer
Environmental Engineers & Scientists

Regional Water Treatment Facility
 Jordan Lake Partners

Regional Water Treatment Plant

- Western Intake Partners (WIP) – Chatham County, Orange Water and Sewer Authority (OWASA), Durham and Pittsboro
- Proposed Raw Water Intake located near Vista Point (western side of lake south of Hwy 64)
- Proposed location of Water Treatment Plant is on property owned by OWASA (intersection of N. Pea Ridge Rd. and Seaforth Rd.)
- Initial built capacity of 33 Million Gallons per day (MGD) with the ability to expand to 54 MGD
- Proposed completion date – approx. 2033

Regional Water Treatment Plant

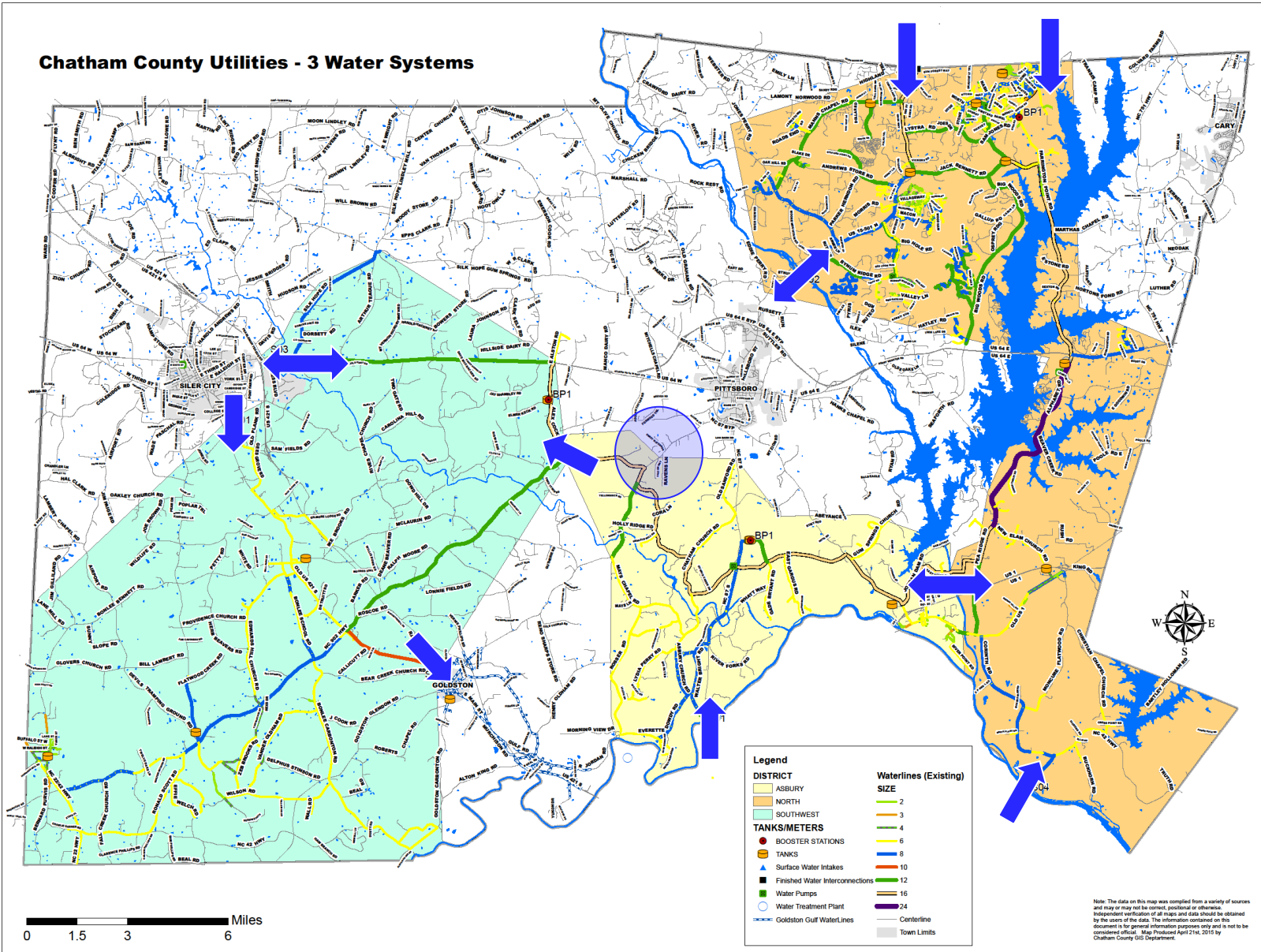
- Western Intake Partners have hired consulting firm HDR to be the project manager for this project
- Have conducted initial meetings with Army Corps of Engineers and the North Carolina Department of Environmental Quality – Public Water Supply Section
- Over the coming months the WIP will be soliciting proposals for the following:
 - RFP- WIP Governance
 - RFQ – WIP Environmental Permitting
 - RFQ – WIP Regional Water Treatment Facility PER
 - RFQ – WIP Water Intake and Transmission Infrastructure PER



Interconnections with surrounding City/County Utilities

Connecting the Water Systems

Chatham County Utilities - 3 Water Systems



Existing Interconnections

- Sanford Interconnection (Hwy 15-501/87) – serves Asbury Water System and Southwest Water System
- Sanford Interconnection (Hwy 42 – Corinth) – Emergency connection
- Siler City Interconnection – 2 interconnections that supplement service to Southwest Water System (Chatham County can provide and has provided water to Siler City through the Hwy 64 interconnection)
- Goldston Interconnection – Emergency connection
- OWASA Interconnection – Emergency connection (Have provided OWASA water on multiple occasions)
- Pittsboro Interconnection – Emergency connection
- Durham Interconnection – used during water treatment plant shut-downs and peak demand usage months as supplemental supply



Inter-local agreements with
surrounding county/municipal
government agencies

Inter-local agreements with surrounding county/municipal government agencies

- Evaluate current agreements to determine if terms meet current needs
- Determine if amendments (or new agreements) must be made to meet future supply demands
- Evaluate what infrastructure (pump stations, waterlines, tanks etc.) upgrades must have to happen to meet these future needs

Inter-local agreements with surrounding county/municipal government agencies (City of Sanford Water Plant Expansion)

- Partnered with Holly Springs, Fuquay-Varina and the City of Sanford to conduct a Preliminary Engineering Report (PER) on the feasibility of a large scale (additional 6 MGD – 18 MGD) water plant expansion of Sanford's current water plant and intake.
- Plan is to run larger water distribution line across the Cape Fear River along Hwy 42 to Corinth Rd.
- Line would head west along Corinth Rd. to connect to County's current system near Pea Ridge Rd. and Old US 1
- Another line would head east along Hwy 42 to provide water to Holly Springs and Fuquay-Varina

QUESTIONS?

COMMENTS?

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