



ENVIRONMENTAL NEEDS FOR NC MANUFACTURING PROJECTS

FOR NC MANUFACTURERS ASSOCIATION

DAVID LAMBERT, DIRECTOR OF INTERGOVERNMENTAL AFFAIRS & ECONOMIC DEVELOPMENT



ECONOMIC DEVELOPMENT APPROACH



A WHOLE-OF-DEPARTMENT APPROACH

To provide a single point of contact for large projects to ensure that we have a whole-of-department approach to protecting public health and the environment while growing as a state.

INTER-AGENCY TEAMWORK

Point of Contact between Economic Development partners (EDPNC and Dept. of Commerce) for large projects and initiatives.

INTRA-AGENCY COLLABORATION

Maintain strong communication between DEQ divisions and coordinate opportunities to maximize collaboration and increase efficiency for large, complex projects.

PERMIT COORDINATION

Make stakeholders aware of permitting needs and minimize "surprises" for all parties. Ensure that permit reviewers have the information necessary to complete a thorough, science-based evaluation.

PROJECT COORDINATION

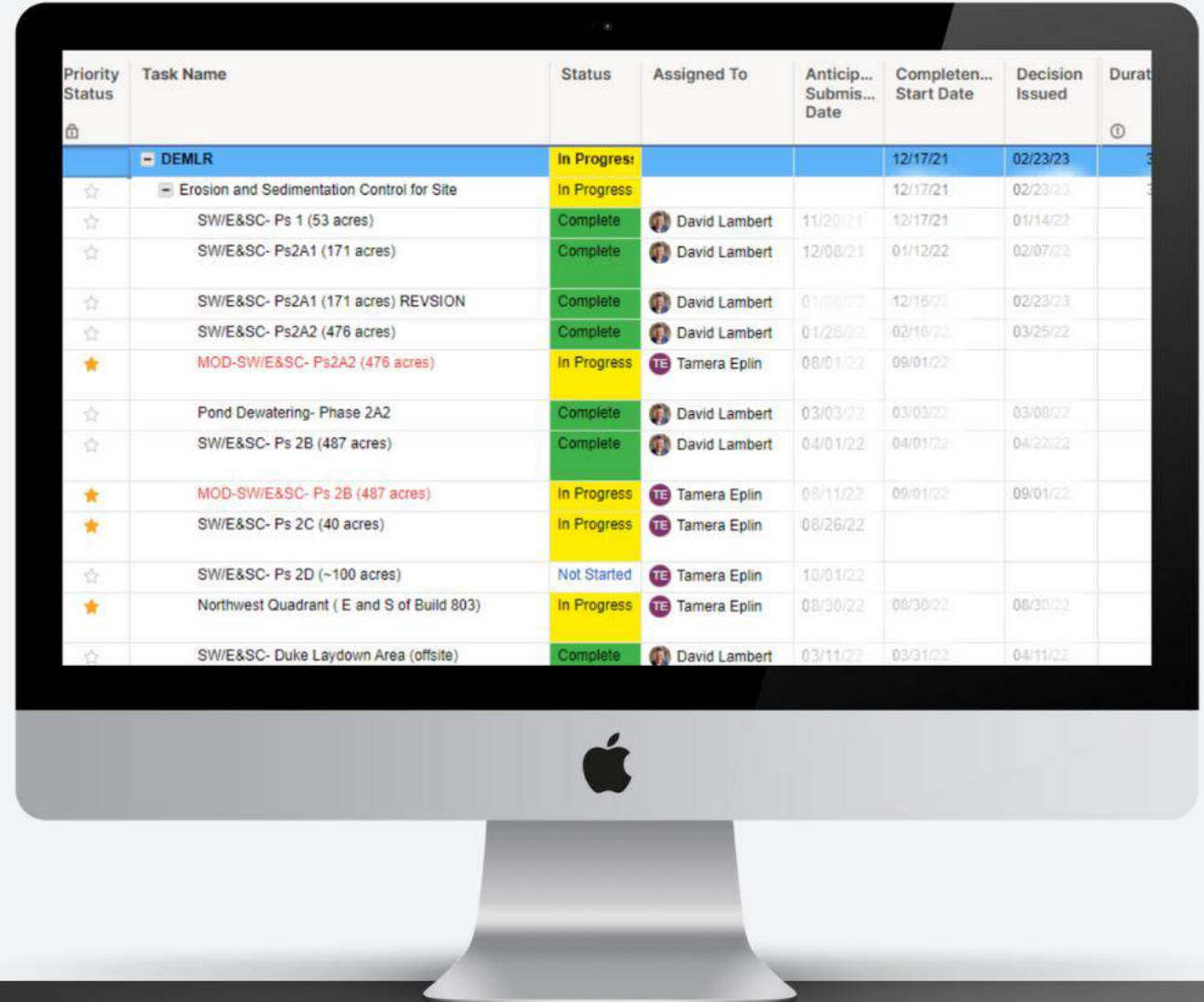


Wolfspeed[®]

TOYOTA | NC

 **epsilon**
CARBON

....and many more



Priority Status	Task Name	Status	Assigned To	Anticip... Submis... Date	Completen... Start Date	Decision Issued	Durat
	DEMLR	In Progress			12/17/21	02/23/23	3
☆	Erosion and Sedimentation Control for Site	In Progress			12/17/21	02/23/23	3
☆	SW/E&SC- Ps 1 (53 acres)	Complete	David Lambert	11/20/21	12/17/21	01/14/22	
☆	SW/E&SC- Ps2A1 (171 acres)	Complete	David Lambert	12/08/21	01/12/22	02/07/22	
☆	SW/E&SC- Ps2A1 (171 acres) REVISION	Complete	David Lambert	01/08/22	12/16/22	02/23/23	
☆	SW/E&SC- Ps2A2 (476 acres)	Complete	David Lambert	01/28/22	02/16/22	03/25/22	
★	MOD-SW/E&SC- Ps2A2 (476 acres)	In Progress	Tamera Eplin	08/01/22	09/01/22		
☆	Pond Dewatering- Phase 2A2	Complete	David Lambert	03/03/22	03/03/22	03/08/22	
☆	SW/E&SC- Ps 2B (487 acres)	Complete	David Lambert	04/01/22	04/01/22	04/22/22	
★	MOD-SW/E&SC- Ps 2B (487 acres)	In Progress	Tamera Eplin	08/11/22	09/01/22	09/01/22	
★	SW/E&SC- Ps 2C (40 acres)	In Progress	Tamera Eplin	08/26/22			
☆	SW/E&SC- Ps 2D (~100 acres)	Not Started	Tamera Eplin	10/01/22			
★	Northwest Quadrant (E and S of Build 803)	In Progress	Tamera Eplin	08/30/22	08/30/22	08/30/22	
☆	SW/E&SC- Duke Laydown Area (offsite)	Complete	David Lambert	03/11/22	03/31/22	04/11/22	

WATER QUANTITY & QUALITY

Prospective companies typically offer projections for the quantity of water and wastewater needed.

- Water and wastewater projections need to be fairly accurate.
 - These **projections are consequential for funding needs**, and construction schedules.
 - **“Future” project phases** need to be contemplated during the initial site location decision (even if they are yet to be incentivized).
- Smaller, distressed municipal systems need time & money to meet environmental health needs.
 - Meeting environmental needs allows economic needs to be met.
- **Example “typical” quantity demands by business sector:**
 - Automotive: 1.05 MGD (water) & 1.80MGD (wastewater) + **other industries/residential**
 - Clean Energy 1.43 MGD (water) & 1.25 MGD (wastewater) + **other industries/residential**
 - EV Battery 3.25 MGD (water) & 1.18 MGD (wastewater) + **other industries/residential**
 - Semiconductor 22.60 MGD (water) & 20.75MGD (wastewater) + **other industries/residential**

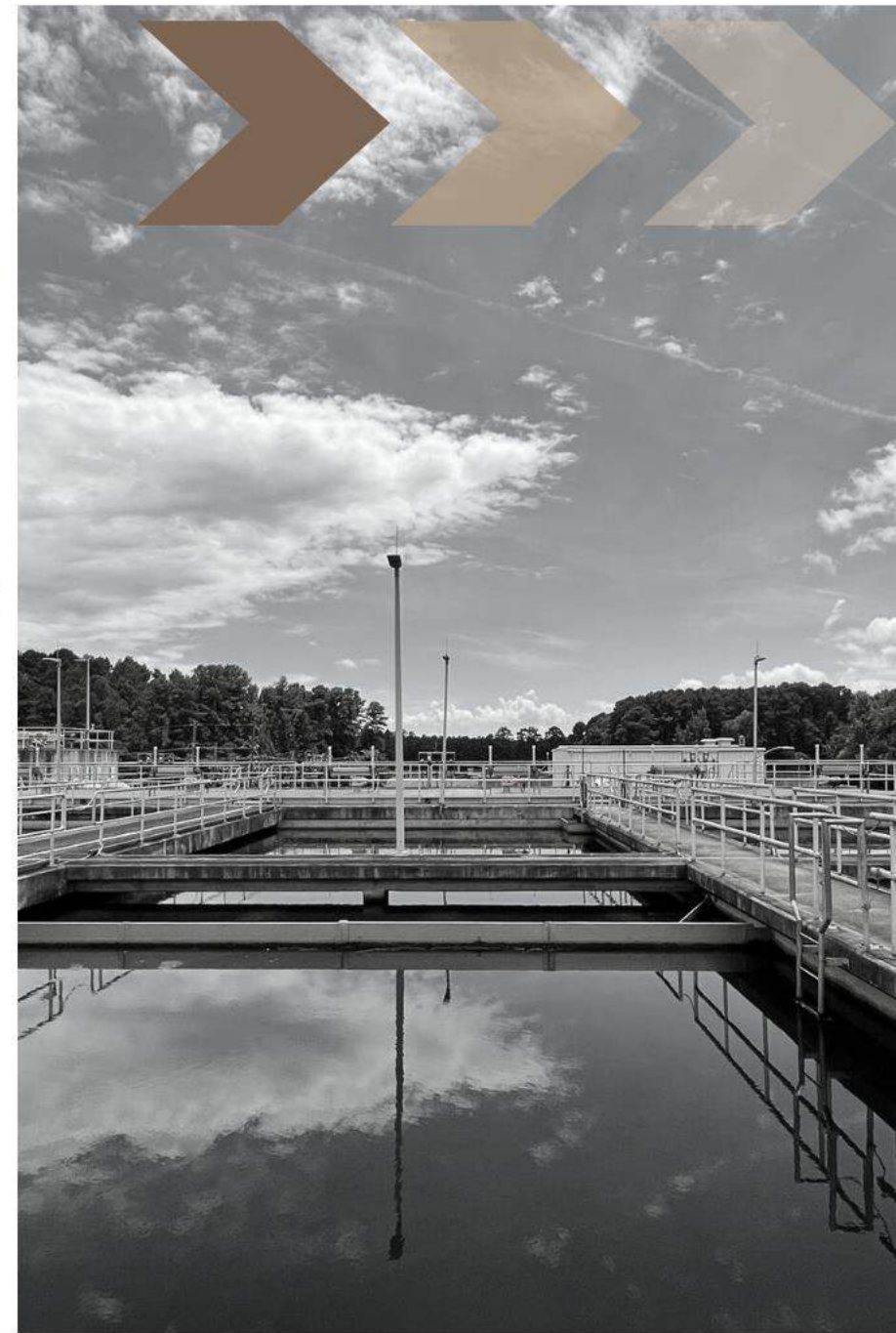


Treatment quality is one of the most important factors to consider... but companies do not generally offer any details on this.

- ***Does the specific wastewater treatment plant have the capability to treat the waste?***
 - ***Industrial waste can be comprised of various constituents*** (metals, chemicals, pharmaceuticals, and many other parameters).
- ***Each Wastewater Treatment Plant has an individualized set of "limits" that can be discharged.*** (Based on the quality of treatment, amount of flow, receiving stream characteristics, etc).
- ***Pretreatment is often necessary*** before it is received at the wastewater treatment plant-- But there are limits to technology!
 - Industrial users are regulated by the local governments.
 - DEQ regulates the local governments.

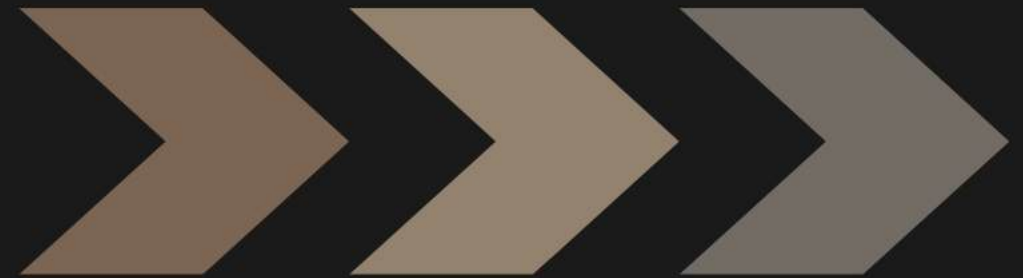
TREATMENT QUALITY IMPACTS QUANTITY.

WATER → WASTEWATER → WATER → WASTEWATER → ETC.

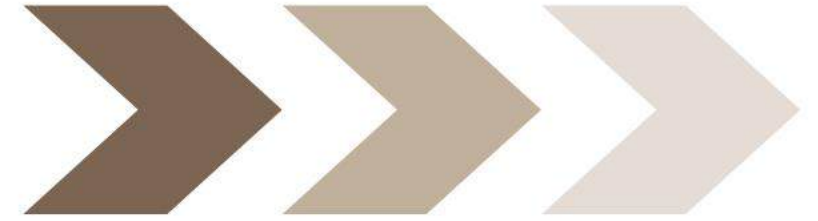


**WATER & WASTEWATER INFRASTRUCTURE
CONSIDERATIONS ARE NECESSARY IN SITE
SELECTION-NOT JUST SITE PREPARATION.**

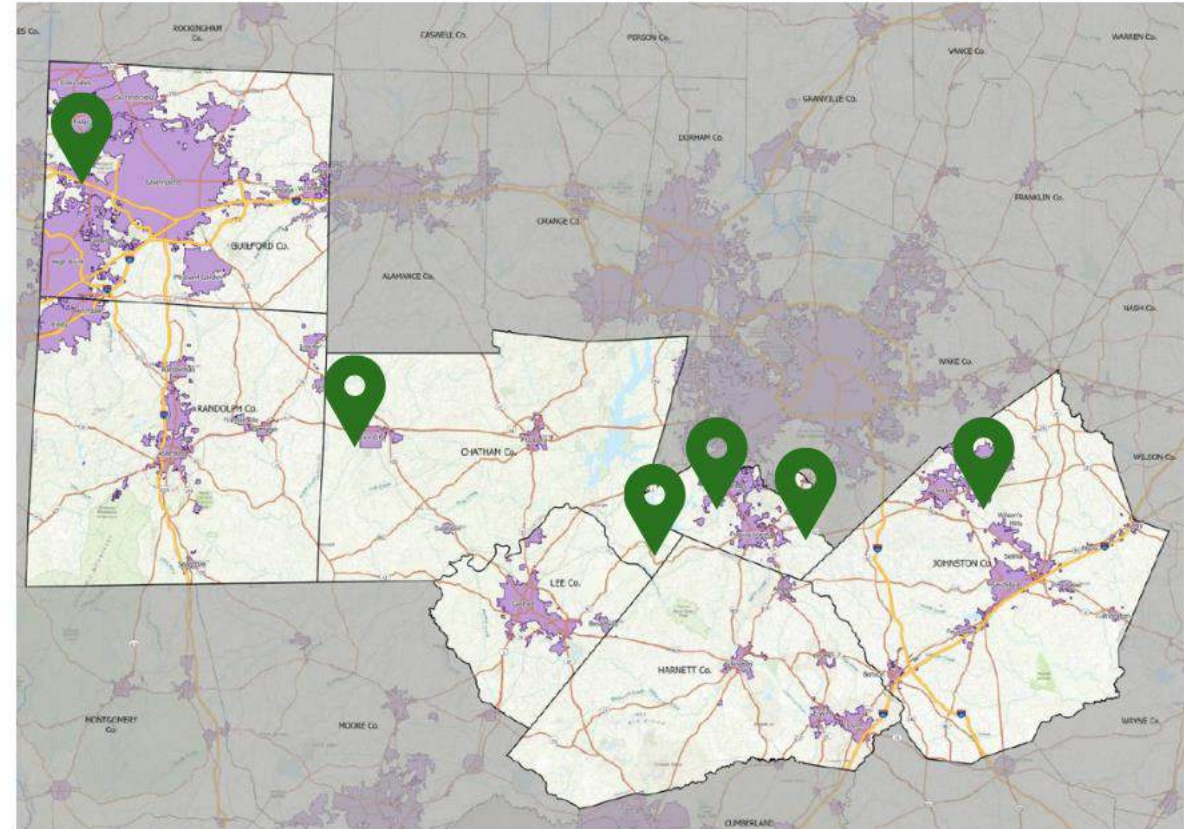
NOT EVERY INDUSTRY CAN GO ANYWHERE.



US 421 INFRASTRUCTURE STUDY



- **S.L 2023-134** directed DEQ to review infrastructure needs and economic projects in the region and make recommendations.
- **EQ: Do we have enough infrastructure to meet the expected economic development needs in the region? (no)**
- Used data from NC Commerce and EDPNC to project utility needs (business and residential).
- Identified potential concepts that are worth exploring that could address anticipated economic and environmental trends
 - Additional studies are necessary and all proposals require data to support permitting.



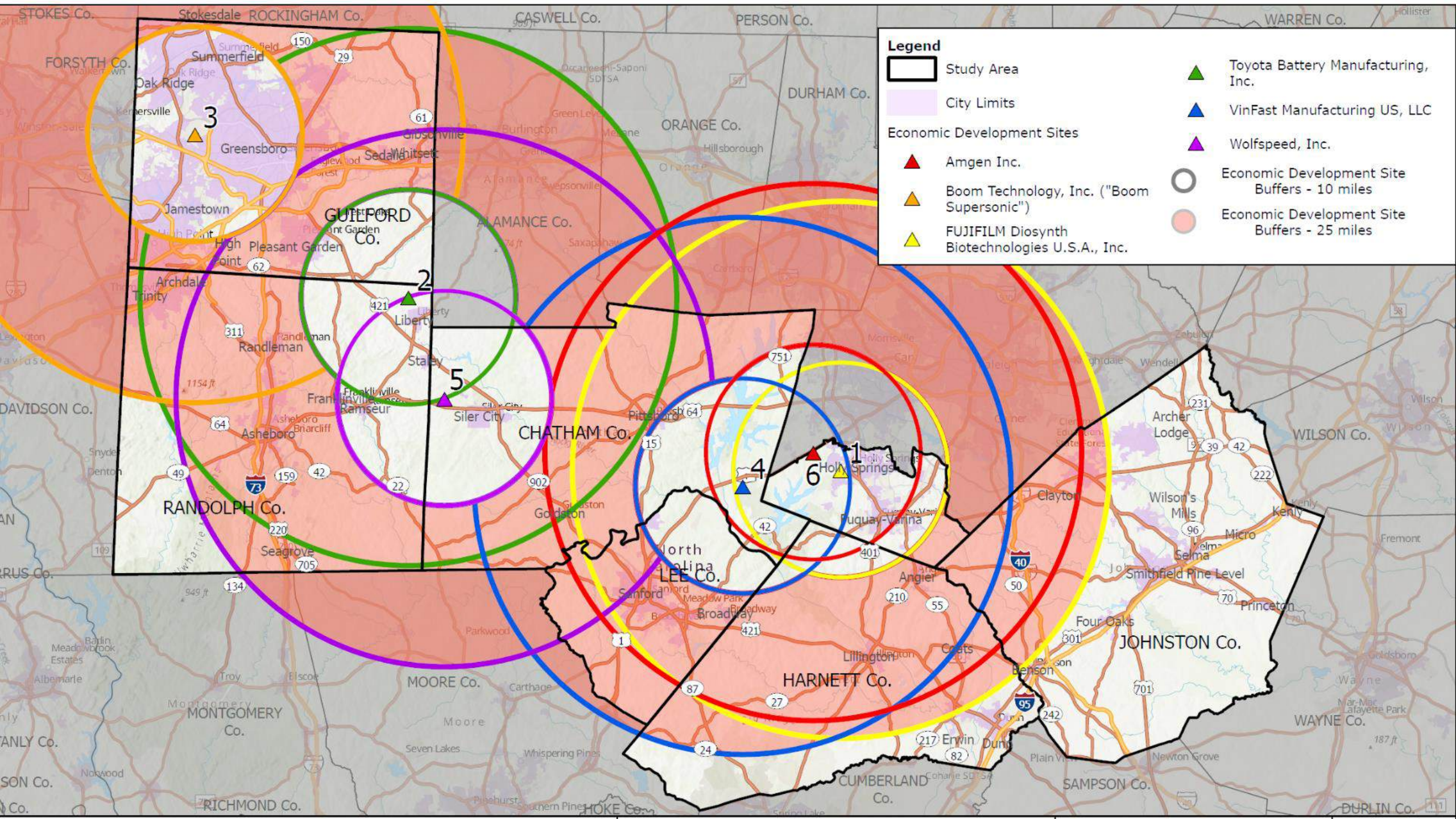
EXAMPLE OF INDUSTRIAL & RESIDENTIAL DEMAND



WOLFSPEED

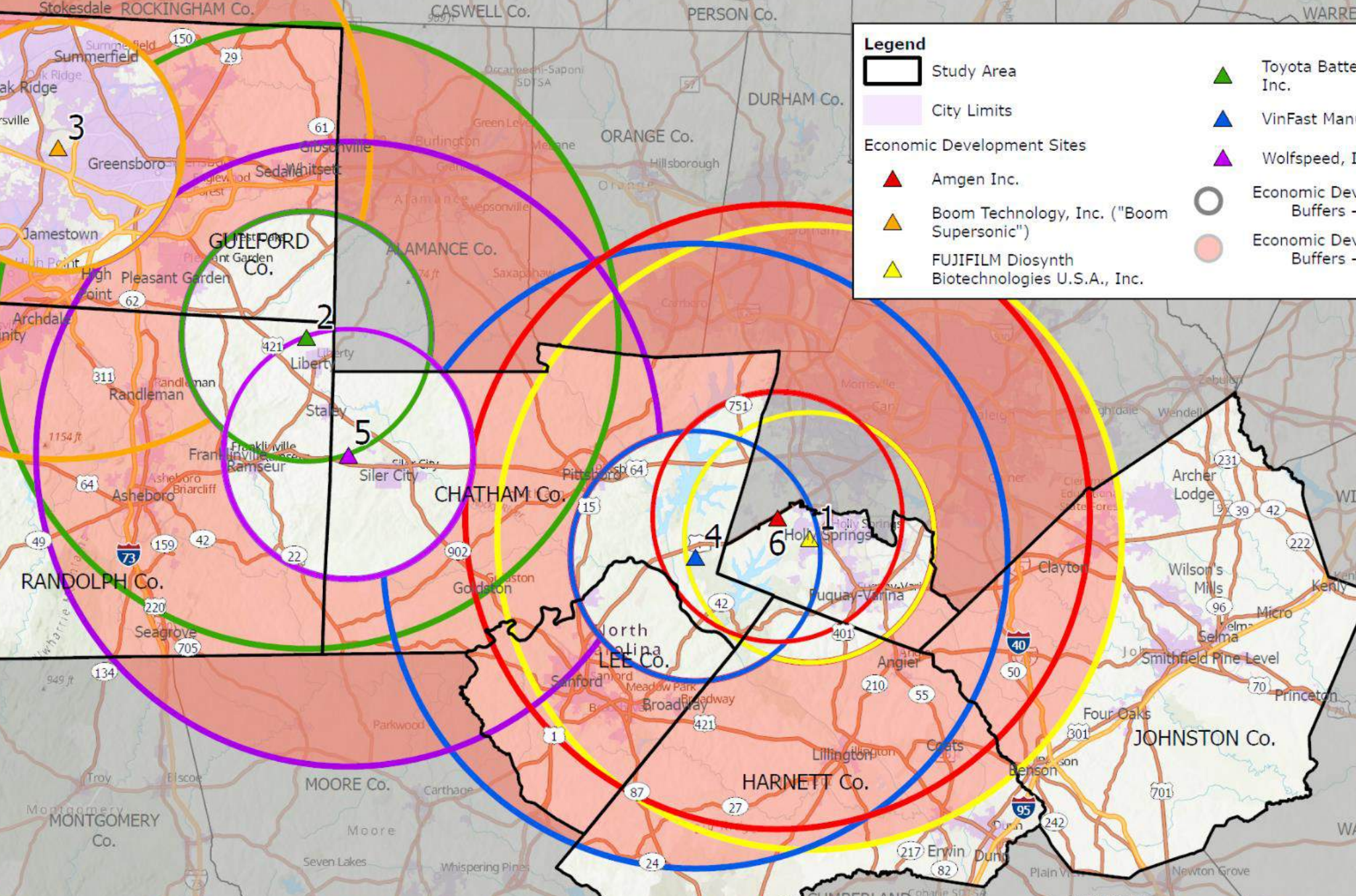
ANTICIPATED JOBS WITHIN REGION	
Direct	1,802
Indirect	2,476
Induced	2,196
Total	6,475

ANTICIPATED RESIDENTS WITHIN REGION	
New Direct Resident Employees	829
New Indirect Resident Employees	1,079
New Induced Resident Employees	957
Total	2,866



Legend

- Study Area
- City Limits
- Economic Development Sites
 - Amgen Inc.
 - Boom Technology, Inc. ("Boom Supersonic")
 - FUJIFILM Diosynth Biotechnologies U.S.A., Inc.
 - Toyota Battery Manufacturing, Inc.
 - VinFast Manufacturing US, LLC
 - Wolfspeed, Inc.
- Economic Development Site Buffers - 10 miles
- Economic Development Site Buffers - 25 miles



BY THE NUMBERS:

Region-Wide Infrastructure
Need for Economic Development
(All Sectors)

122.52 MGD

Total amount of additional water demand
necessary by 2050 (Average Day)

103.50 MGD

Total amount of additional wastewater
flow necessary by 2050 (Average Day)

\$10.1B

Total Costs for regional infrastructure
updates

What is the cost of not addressing the capacity
issues on State and Local Government ED?

Recently Incentivized
Project Impact within Study Area

45,883

of Direct, Indirect, and Induced
Jobs related to recently incentivized
projects in the region

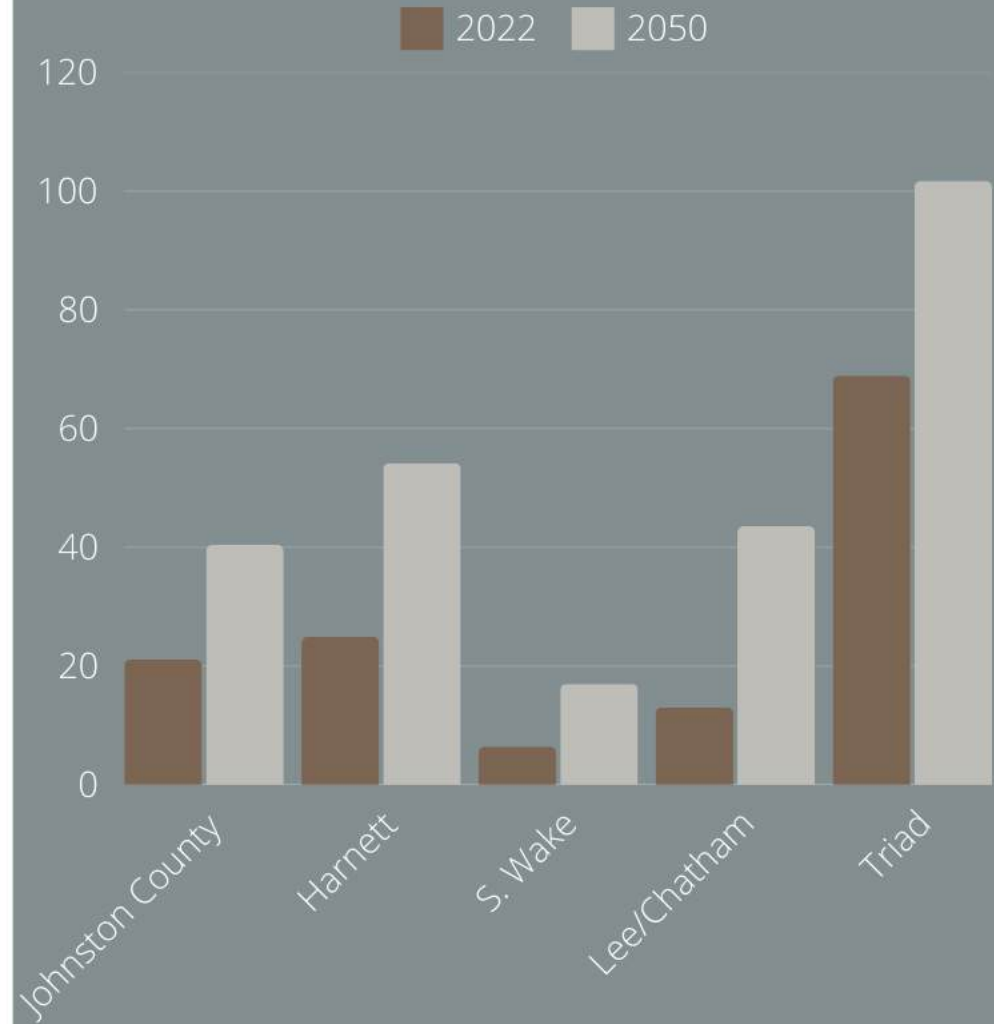
21,594

of people moving to the
Study Area to fill direct, indirect, and
induced jobs.

3.23 MGD

Additional residential water demand
necessary within the Study Area.

Avg. Day Demand (Water)



CONTACT INFORMATION



For the full 421 report:

SCAN ME

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