

**Wake County Board of Commissioners**  
**Work Session**  
**October 8, 2018**  
**2:00 P.M.**  
**Wake County Justice Center Room 2800**

**Commissioners Present:**

Jessica Holmes, Chair  
Sig Hutchinson, Vice-Chair  
John Burns  
Matt Calabria  
Greg Ford  
Erv Portman  
James West

**County Staff Present:**

David Ellis, County Manager; Johnna Rogers, Chief Operating Officer; Chris Dillon, Assistant County Manager; Denise Foreman, Assistant County Manager; Nicole Kreiser, Assistant County Manager; Bill Greeves, Chief Information and Innovation Officer; Ben Canada, Assistant to the County Manager; Scott Warren, County Attorney; Ken Murphy, Senior Assistant County Attorney; Beth Smerko, Senior Deputy County Attorney; Margaret Murphy, Budget and Management Analyst; Todd Taylor, Financial Services Manager; Tim Maloney, Planning, Development and Inspections Director; Michael Gammon, Senior Budget and Management Analyst; Mark Forestieri, Facilities, Design and Construction Manager; Kevin Witchger, Facilities Engineer; Dave Goodwin, General Services Director; Eric Staehle, Senior Project Manager; Evan Kane, Water Quality Manager; Dara Demi, Communications Director; Joseph Threadcraft, Environmental Services Director; Michael Orbon, Water Quality Manager; Denise Hogan, Clerk to the Board; Yvonne Gilyard, Deputy Clerk to the Board; Portia Johnson, Executive Assistant to the Board; and Michelle Cerett, Executive Assistant to the Board.

**Others Present:** Michael Haley, Executive Director, Greater Raleigh Chamber of Commerce; Ashley Cagle, Vice-President, Greater Raleigh Chamber of Commerce; and Danya Perry, Equitable Economic Development Manager, Greater Raleigh Chamber of Commerce.

Chair Holmes called the meeting to order at 2:00 p.m. and welcomed everyone to the meeting. She asked that any additions to the agenda be added at the beginning of the meeting.

Vice-Chair Hutchinson provided information on the Open Space Bond, which will be on the ballot in November for consideration. He said the county has partnered with multiple municipalities to preserve open space. He said doing so allows for the leveraging of funds to complete projects. He commented on the Cricket tournament that was held in Morrisville recently.

Commissioner West stated an assessment should be conducted to ensure that residents in vulnerable communities have equal open space opportunities.

Vice-Chair Hutchinson provided an update on the 286 project, which has been discussed for the past year. He said this project is an amazing recreational opportunity and also has several economic development opportunities. He spoke of the benefits that Bentonville, Arkansas has seen with a very similar project. He said they have 90,000 mountain bikers per year visiting their trails. He said the 286 land is currently owned by the airport, but it neighbors several county parks. He said if the properties were combined, it would offer over 500 miles of open space and bike trails.

## Economic Development Update

Mr. Chris Dillon, Assistant County Manager, introduced Mr. Michael Haley, Executive Director, Greater Raleigh Chamber of Commerce. Mr. Haley thanked the board for their ongoing support and leadership.

Mr. Haley shared the 5 pillars the Economic Development staff have focused on.

- PILLAR 1: REGIONAL COMPETITIVENESS & COOPERATION
- PILLAR 2: NEW BUSINESS ATTRACTION & JOB CREATION
- PILLAR 3: EXISTING INDUSTRY SUPPORT, INNOVATION & ENTREPRENEURSHIP
- PILLAR 4: TALENT ATTRACTION & DEVELOPMENT
- PILLAR 5: QUALITY OF PLACE & SUSTAINABILITY

He shared information on pillar one. He said partnering with public and private entities is vital to the success of economic development.

## PILLAR 1: REGIONAL COMPETITIVENESS & COOPERATION

### FY 17-18 Successes

- Boston, Atlanta, Charlotte/Greenville Site Selection Trips
- EDPNC International Business Development Officers & Consular Corp of NC
- Consul General of the Bahamas
- NC African Diaspora Economic Forum
- Consul & Senior Trade Commissioner, Consulate General of Canada
- Global Carolina Connections Conference
- ED Forum
- [SelectUSA](#) – Washington DC



He shared information on pillar two. (two slides)

## PILLAR 2: MARKETING & PUBLIC RELATIONS

### FY 17-18 Successes

- #TriangleDelivers Campaign & Microsite
- GeekWire HQ2 (Top 4)
- South by Southwest (SXSW)
- All Things Open, Internet Summit
- Collateral Updates: Municipal Profiles, FDI, Metro Comparisons
- Reporter Visits (2)
- NYC Media Tour

### National Media Placements



## PILLAR 2: NEW BUSINESS ATTRACTION & JOB CREATION

### FY 17-18 Successes

- Aggressive Project Management (ongoing)
- BIO 2018 in Boston
- CED Life Sciences Breakfast
- Consul General of Japan – Dinner Event
- Minister of Economy and Commerce Sheikh Ahmed bin Jassim bin Mohamed al-Thani
- Site Assessment Program
- Site Selection Consultant Meetings:
  - NYC, ATL, Chicago



Ashley & John representing Wake County at BIO.

He shared the project activity for Fiscal Year 17-18.

## PROJECT ACTIVITY

### Total Projects (Oct. 1, 2017–September 30, 2018)

137  
TOTAL  
PROJECTS

33,358  
JOBS

\$8.1B  
INVESTMENT

48  
PROJECT VISITS

### Company Announcements (Oct. 1, 2017–September 30, 2018)

110  
COMPANY  
ANNOUNCEMENTS

7,958  
JOBS

\$480M  
INVESTMENT

Commissioner West commented on the cycles of the economy. Mr. Haley said the cycles are monitored and action is taken accordingly.

Mr. Haley shared the major economic announcements from Fiscal Year 17-18. Mr. Haley said these new companies are spread throughout the county.

## MAJOR ANNOUNCEMENTS



250 Jobs  
Software/IT, HQ  
\$2.1 million investment



1,500 Jobs  
Distribution Center  
\$200 million investment



365 Jobs  
Financial Services,  
Software/IT  
\$12.9 million investment



500 Jobs  
Software/IT, Call Center,  
Pharmaceutical



200 Jobs  
Software/IT, Call Center, HQ  
\$2.7 million investment

He shared information on pillar three.

## PILLAR 3: EXISTING INDUSTRY SUPPORT, INNOVATION & ENTREPRENEURSHIP

### FY 17-18 Successes

- Triangle Small Business Week Website
- Small Business Resource Guide
- 6<sup>th</sup> Annual Innovate Raleigh Summit
- AT&T First Responder Hackathon
- Innovate Raleigh & Chamber Partnership



He shared information on pillar four.

## PILLAR 4: TALENT ATTRACTION & DEVELOPMENT

### FY 17-18 Successes

- Regional Workforce Analysis consisting of 15 counties
- Updated WCPSS Collateral
- WakeEd SummerSTEM Host Site
- Moore Square Magnet School Career Fair
- Vernon Malone Mock Interviews
- Come Tech Out NC Job Fair
- State Energy Conference Job Fair



He shared information on the Triangle Talent event.

## TRIANGLE TALENT: UNDERSTANDING THE SKILLS GAP

### Focus:

- Presentation by RTI International - Sara Lawrence and Michael Hogan
- Review and analyze data from Regional Workforce Skills Analysis
- Understand hiring needs and trends, talent pipeline development, current workforce development, and strengthen the workforce across industries



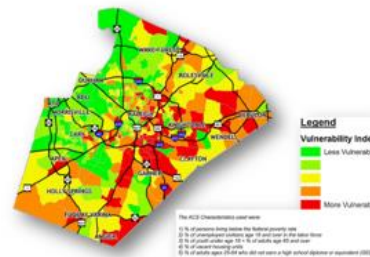
Event Stats: Attendance: 200  
Impressions: 2.9M Reach: 200k | Tweets: 500\*  
\*Trending in Raleigh

Mr. Haley shared information on pillar five.

## PILLAR 5: QUALITY OF PLACE & SUSTAINABILITY

### FY 17-18 Successes

- Equitable/Inclusive Economic Development Program of Work
- New Target Growth Areas Tier
- Black Entrepreneurship Week
  - German Media Coverage
- Southeast Raleigh Business Collective
- Equitable Economic Development Council
- Diversity, Equity, and Inclusivity Alliance



He shared information on the Diversity, Equity, and Inclusivity Conference. He said the conference was successful and will be held annually.



## DIVERSITY, EQUITY, & INCLUSIVITY CONFERENCE

### Focus:

Give tangible building blocks to promote and sustain DEI in our community and companies.



### C-Suite Panel:

- Sonja Hines, H&S Resources Corporation
- Terrence Holt, Holt Brothers Construction
- Lauren Hood, Bank of America
- Paul Rea, BASF

### Breakout Sessions:

- Pathways to Become an Ally and Accomplice
- A Roadmap for Building Your Own Innovative DEI Strategy
- Creating Equitable & Inclusive Cultures
- Cultivating & Attracting Diverse Talent

He shared the Program of Work information and five pillars associated with the program.

## PROGRAM OF WORK

- Program of Work guides WCED efforts throughout the fiscal year
- Aligned to WCED's Five Pillars

**Pillar 1:** Regional Competitiveness & Cooperation

**Pillar 2:**  
New Business Attraction & Job Creation  
Foreign Direct Investment & Trade Shows  
Product Development & Research  
Marketing/PR

**Pillar 3:**  
Existing Industry & Small Business Support  
Innovation & Entrepreneurship

**Pillar 4:** Talent Attraction, Development, & Retention

**Pillar 5:** Quality of Place & Sustainability

Mr. Haley introduced Mr. Danya Perry, Equitable Economic Development Manager, Greater Raleigh Chamber of Commerce and Ashley Cagle, Assistant Executive Director, Greater Raleigh Chamber of Commerce.

Mr. Haley shared pillar one for the Program of Work.

## PILLAR 1: REGIONAL COMPETITIVENESS & COOPERATION

- Promote and market the region through support of the Research Triangle Regional Partnership (RTRP)
- Participate with RTRP and the Economic Development Partnership of North Carolina (EDPNC) in Site Selection Consultant events
- Collaborate with regional workforce and talent development organizations
- Support economic development efforts of Wake County's 12 municipalities and the Research Triangle Park

Ms. Cagle shared information on pillar two for the Program of Work (three slides). She said Wake County has received nationwide recognition for economic development efforts.

## PILLAR 2: NEW BUSINESS ATTRACTION & JOB CREATION

- Lead economic development projects considering Wake County throughout the entire site selection decision-making process
- Coordinate and lead responses to RFP's and RFI's, site visits, and incentive proposal requests
- Generate new project opportunities by cultivating relationships with site selection consultants:
  - Atlanta, Chicago, Greenville/Charlotte, & New York City
- EDPNC Cooperative Marketing event
- Host a Site Selection Consultant event / familiarization tour
- Disseminate a targeted quarterly e-newsletter to SSCs

## PILLAR 2: FOREIGN DIRECT INVESTMENT & TRADE SHOWS

### Foreign Direct Investment

- FDI Advisory Committee
- Host international delegations
- Participate in out-of-market events such as SelectUSA and Carolinas Global Connect

### Trade Shows

- BIO
- South By Southwest (SXSW)
- Key local target industry related conferences:
  - All Things Open
  - Internet Summit
  - NCTA

## PILLAR 2: PRODUCT DEVELOPMENT & RESEARCH

### Product Development

- Implement Year 4 of the Site Assessment Program
- Work with municipalities to assess and certify sites throughout Wake County
- Support development efforts of municipal partners

### Research

- Conduct and share analysis
- Support research needs of municipal and EDGE partners
- Maintain CRM

Ms. Cagle commended Ms. Morgan Ross, Research Manager, for gathering data for the site assessment program.

Commissioner Ford asked if all twelve municipalities participated in the surveys and site assessments. Ms. Cagle said the assessments are completed on a rolling basis and all municipalities are included.

## PILLAR 2: MARKETING & PUBLIC RELATIONS

- Articulate Wake County's competitive advantages through strategic marketing initiatives, national marketing, and PR campaign in partnership with the City of Raleigh
- New York City media tour
- Host a minimum of three national reporters
- Produce and/or update marketing collateral materials
- Digital Ambassador Program
- Marketing Advisory Committee
- Video Content

Commissioner West asked for clarification on certified versus non-certified sites. Ms. Cagle said site certification is a state program. She said the site survey is a stepping stone for the owner to achieve certification if they chose to do so.

Mr. Perry shared pillar three for the Program of Work. He said it is important to support existing businesses while recruiting new ones. He said the small businesses are a great source of information when gathering information needs of the community.

## PILLAR 3: EXISTING INDUSTRY & SMALL BUSINESS SUPPORT

- Promote the growth and retention of existing industries in Wake County
- Update the annual Small Business Resource Guide and website

Vice-Chair Hutchinson asked how many businesses have completed the Launch Raleigh program. Mr. Perry said there have been 68 graduates this year.

Mr. Haley shared information on the Innovate Raleigh program.

## PILLAR 3: INNOVATION & ENTREPRENEURSHIP

- Support the partnership with Innovate Raleigh to enhance the entrepreneurial and startup ecosystem
- Innovate Raleigh Summit
- Startup & Innovation Ecosystem Collaboration
- Programs to connect entrepreneurs to the 3 core elements to fuel their growth
  - Funding, talent, and opportunities
- Email newsletter to connect the innovation community
- Amplify marketing messaging to attract more funding, talent, and opportunities for the innovation community

Ms. Cagle shared information on pillar four for the Program of Work.



## PILLAR 4: TALENT ATTRACTION, DEVELOPMENT & RETENTION

- Host weekly virtual career fair - #TriangleTuesdays
- 3<sup>rd</sup> Annual Talent Forum
- Update and rebrand the Work in the Triangle website
- 15-County Workforce Skills analysis next steps
- Support CAWDB's creation of Industry Advisory Councils

Mr. Perry shared information on pillar five for the Program of Work.

## PILLAR 5: QUALITY OF PLACE & SUSTAINABILITY

- Develop and convene an Equitable Economic Development Advisory Committee to provide insight and support in the program of work implementation
- Host the 2<sup>nd</sup> Annual Diversity, Equity, and Inclusivity Conference
- Create an Economic Mobility database and map
- Support small business and entrepreneurship in under resourced communities
- Support Black Entrepreneurship Week / National Small Business Week

Commissioner West commented on the vulnerable communities, Passage Homes, and their available programs.

Mr. Haley shared information on Edge 6 and the goals for the next several years.

## EDGE 6

- Public Private Partnership Driving Economic Development Forward in Wake County and Research Triangle
- Next 5 Year Strategic Plan
- Currently in Final Year of EDGE 5
- With Partners will create broad-based plan with metrics focused on:
  - Job Creation – Direct, Indirect, and Induced
  - Investment
  - Equitable / Inclusive Economic Development
  - Talent Pipeline, Attraction, & Retention
  - Site Assessment / Product Development
  - Entrepreneurship
  - Marketing & Public Relations

Commissioner Calabria thanked Mr. Haley and staff for the work they do for the county and the living wage incentives.

Commissioner Ford said commissioners are willing to assist where they are needed.

Chair Holmes thanked Chamber staff for everything they do for the county and said the county has a great partnership with the Chamber.

Commissioner Calabria asked for a timeline of Edge 6. Mr. Haley said the contract will be signed next week and will start accordingly.

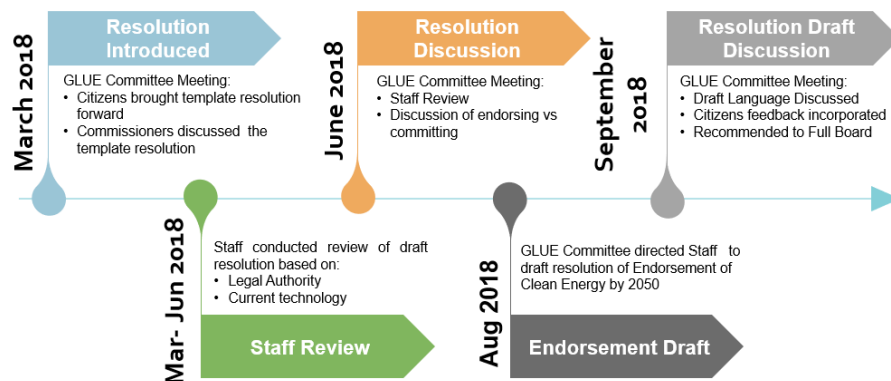
## Proposed Resolution Establishing 2050 Energy Goals

Mr. Dave Goodwin, Director, General Services, provided information on the Clean Energy 2050 Resolution. (Two slides)

- Wake County's commitment to sustainability and energy conservation.
- March 2018 - Commissioner Hutchinson introduced a resolution from 350.Org to ***adopt a county, state, and national goal of 100% clean energy by 2050 and the creation of green jobs.***
- The GLUE committee referred the resolution to staff for feasibility.
- Resolution
  - Conversion of 100% energy use from fossil fuels to Clean (renewable) Energy Sources.
- Goal
  - Reduce effects of climate change and benefit low-income communities affected by fossil fuel pollution.
  - Improve local economy through the creation of green jobs.

He shared a timeline established by the GLUE committee and the staff process.

## Timeline of GLUE Committee and Staff Process



Mr. Goodwin shared information on the staff approach.

Staff Approach: evaluation based on **current technology**

Evaluation Process\*:

- Technical
- Organizational (first today)
- Economic

He shared the organizational feasibility of the process.

**Do we have the Authority?**

- No legal authority to mandate beyond Wake County Government
- Review addresses **Wake County Government** facilities and fleet.

**Can we maintain it?**

- Yes – Future Technology and cost unknown
- Additional Contract maintenance

Mr. Kevin Witchger, Energy Manager, General Services, shared the technical feasibility of the process.

**Evaluation**

- Define Clean Energy
- Assemble Existing Usage
- Identify methods to convert to 100% Clean Energy
- Identify methods to produce/procure Clean Energy

**Clean Energy**

- Solar Power
- Wind Power
- Geothermal Energy
- Hydroelectric Power
- Tidal Power
- Wave Energy

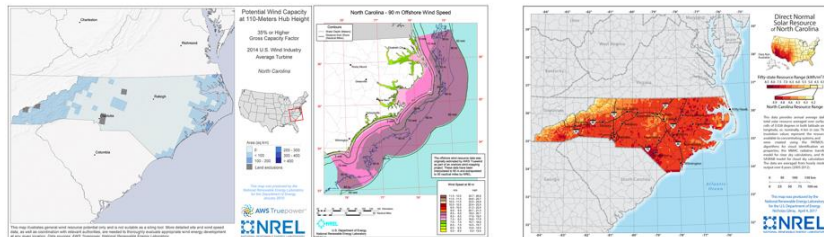
Mr. Witchger shared benefits of using solar PV.

**Wind Energy**

- Resource is geographically limited
- Renewable Energy Credit Potential

**Solar Energy**

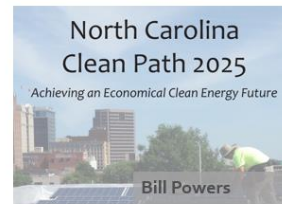
- Resource Availability
- Technology easily scaled



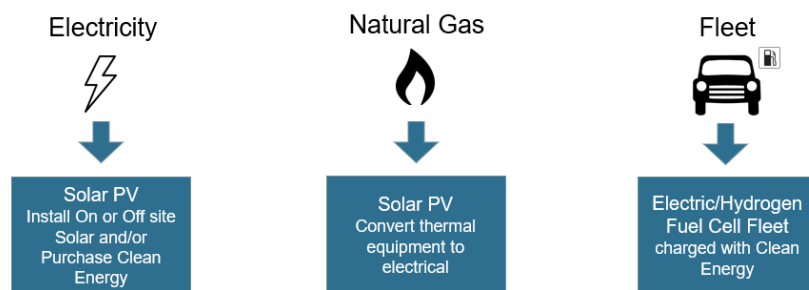
He shared two methods that can be used to reach 100% renewable energy.

## Two studies exploring 100% Clean Energy:

- 100% Clean and Renewable Wind, Water and Sunlight, *Mark Jacobson*
  - All sectors electrified by 2050
  - Solar, Wind, etc. and efficiency
- Clean Path 2025, *Bill Powers*
  - All electric Use
  - Solar and energy efficiency
  - Rooftop, Parking Lot, Ground Mounted Solar with Battery Storage



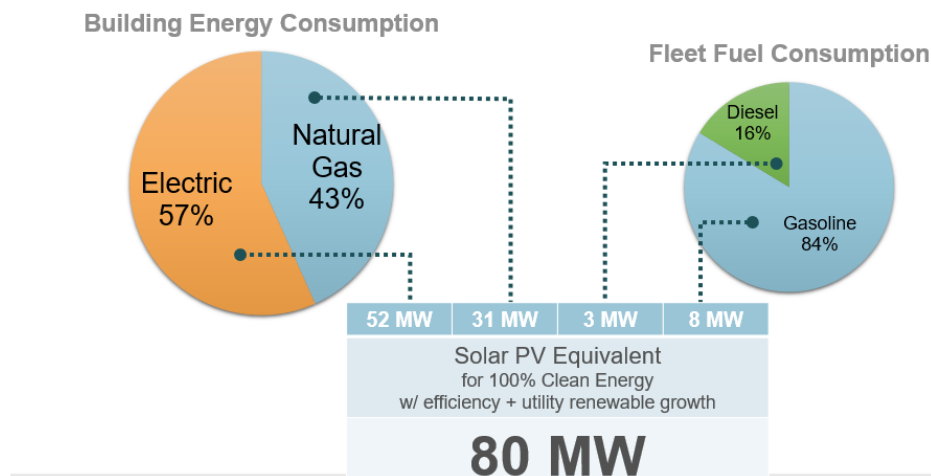
Mr. Witchger shared information on phasing out fossil fuels.



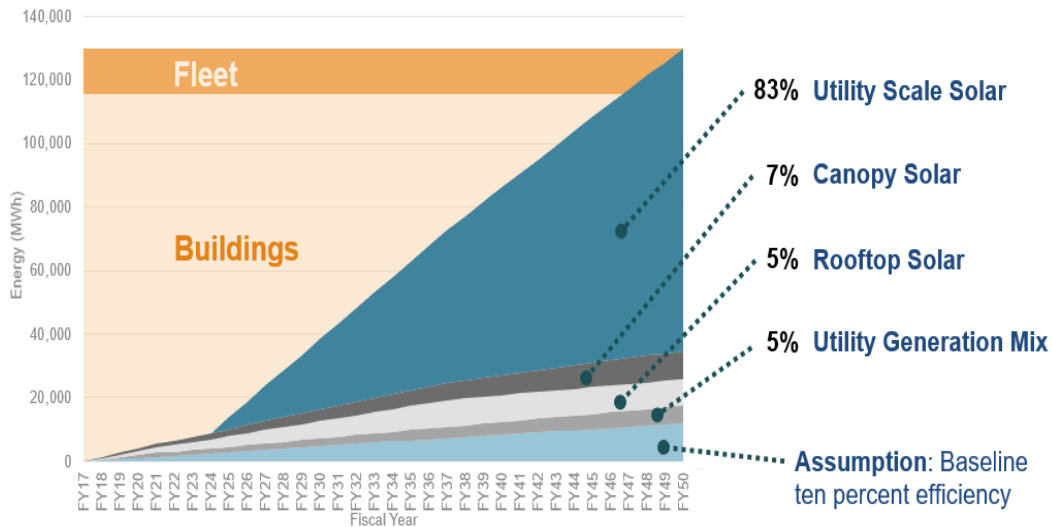
...solutions require solar. How much solar?

He shared a breakdown of county energy consumption.

## County Energy Consumption



He shared the timeline for obtaining 100% renewable energy.



Mr. Witchger shared the challenges with having downtown solar PV. (Two slides)

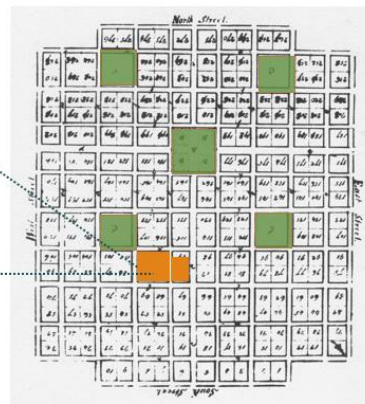
### Theoretical Area for 4 Buildings



**Downtown Quad**  
Electric and Natural  
Gas GHG Equivalent:  
38 Megawatts Solar  
PV, 190 acres

Significant Area Required

Original Raleigh Plan



\*William Christmas' Plan for Raleigh 1792

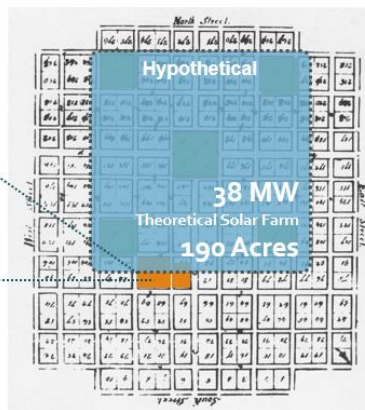
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**Downtown Quad**  
Electric and Natural  
Gas GHG Equivalent:  
38 Megawatts Solar  
PV, 190 acres

Significant Area Required

Original Raleigh Plan



\*William Christmas' Plan for Raleigh 1792

Mr. Witchger shared the challenges of having off-site solar PV.





## Significant Areas Available?

- Would require 350+ acres
- County farm land available, but within future Little River Reservoir
- May or may not be suitable for utility scale development
- Renting land could be an option

Commissioner West asked if the proximity of the land was a factor. Mr. Witchger said proximity is one of the biggest challenges.

Commissioner Burns asked if land could be purchased outside of Wake County to be used for this purpose. Ms. Beth Smerko, Senior Assistant County Attorney, said the county does have permission to purchase land outside the county but there are guidelines that must be followed.

Commissioner Burns asked if there are statutory barriers to the process. Ms. Smerko said there are no statutory barriers but the process would need to be followed closely.

Mr. Witchger shared the technical feasibility issues. He said staff has found that 100% renewable energy is not feasible with the current infrastructure.

Chair Holmes asked what the cost savings would be if 100% renewable energy was achieved. Mr. Goodwin said that figure couldn't be determined until a site was identified. She also asked if there is a funding stream available for this project. Mr. Goodwin said there is no current funding stream for this project.

Commissioner Burns said 100% renewable energy is very important to the global environment. He said a study has shown that it must be accomplished within the next 12 years in order to avoid additional global issues. He said this is an aspirational goal that should be considered in all decisions for county buildings in the future.

Vice-Chair Hutchinson said several things have already been done with respect to working towards renewable energy.

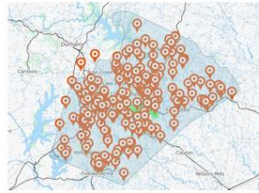
Commissioner Burns said while 100% is the goal, any progress is better than no progress.

Mr. Goodwin said the county has been heading in the right direction regarding solar energy in new buildings. He said the county is prepared to move forward when it is feasibly possible. He said staff is comfortable with the endorsement of the resolution, but not the commitment of obtaining 100% by 2050.





- 70% of County Government energy use is in 10 largest Buildings
- On-site solar offset not possible with current technology
- Renewable Energy Credits for offsets could be explored (requires legal review)



- 30% County Government Energy Use in remaining buildings
- On-site solar could offset 25% building energy use with current technology



- Future planning for fleet conversion problematic
- Electric and Fuel Cell vehicles not commercially available for current vehicle types
- Programmatic changes needed for charging times

### Not Technically Feasible

He shared the costs of on-site and off-site solar PV.

On Site		Off Site	
Building Conversions	\$10.8 million	Utility Scale Solar	\$135 Million
Vehicles	\$unknown		
Efficiency	\$1.2 million		
Rooftop Solar	\$15 million		
Canopy Solar	\$21 million		
\$48 Million Plus		\$135 Million	

He shared information on the draft resolution that has been proposed.

### GLUE Resolved to Endorse

- Staff prepared draft resolution incorporating feedback from:
  - County Commissioners on GLUE committee
  - Energy Advisory Commission
  - County Manager's office
  - GSA and FDC Staff

Mr. Witchger shared highlights of the proposed resolution.

- Endorses the goal of 100% Clean Energy by 2050
- Joins its fellow state and local governments in advocating for the use of Clean Energy
- Through reasonable and foreseeable economic payback ... subject to budget availability
- County will commit itself in its own operations, policies, and guidelines ...
- Authorizes the County Manager to support efforts toward the Clean Energy by 2050 goal through fiscally responsible budget expenditures
- Encourages all energy sectors of Wake County's economy to adopt similar goals in their own operations

He shared staff take aways. He said staff has not found 100% clean energy to be feasible, but said that a reasonable amount of progress can be made.

- Endorsing this goal authorizes the County to advance clean energy where:
  - Technically feasible
  - Organizationally feasible
  - Economically feasible
- Using the Board adopted Energy Guideline:
  - Design & Management
  - Pilot Projects
  - Emerging Technology Development

Commissioner Portman said the technology is available to obtain renewable energy and he supports the aspirational goal.

Commissioner Calabria is supportive of the resolution and commended Commissioners Hutchinson and Burns for their dedication to this issue.

Commissioner Ford thanked the GLUE committee members and staff for their work on this issue.

Chair Holmes said she is supportive of the resolution.

### **Proposed Wake County Native Plants**

Mr. Eric Staehle, Senior Project Manager, Facilities, Design and Construction, shared the discussion points for today's agenda item.

- Goal
- Background
- Understanding Native Species
- Research Process
- Challenges / Design Considerations
- Opportunities for Impact
- Recommendations
- Continued Work
- BOC Input

He shared a background of the initiative.

- OSAPAC 2017 – Initiative introduced
- GLUE March 2018 – PROS introductory presentation
- OSAPAC March 2018 – Recommend moving through GLUE
- GLUE June 2018 – FDC Planned approach
- GLUE September 2018 – Project update
  - Requested BOC Work Session
- BOC Work Session October 2018



He shared the definition of a native plant.

### Native Plants:

A plant that is part of a balance of nature that has developed over hundreds or thousands of years in a particular region or ecosystem.

Used with a qualifier:

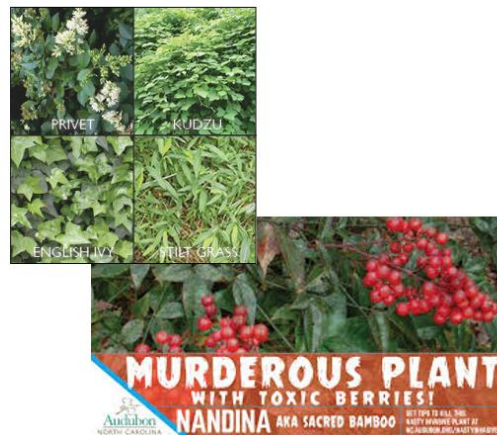
Native to the Southeast



Mr. Staehle shared the definition of an invasive plant.

### Invasive Plants:

A plant that is both non-native and able to establish on many sites, grow quickly, and spread to the point of disrupting plant communities and ecosystems.



He shared the definition of a non-native plant.

#### Non-Native Plants:

Naturalized: A species introduced from other areas that has become established in, and adapted to, a region by long continued growth. Does not require artificial inputs for survival and reproduction.



He shared reasons for using native plants.

#### Native Species:

- Encourage stewardship of the land
- Celebrate natural diversity
- Provide food and shelter for wildlife
- Create a sense of place
- Reduce water and maintenance needs
- Restore native / regional landscapes
- Withstand regional weather extremes
- Provide an educational opportunity
- Create a model for other development



Mr. Staehle shared information on the research process and resources available.

#### Contributors

NC Botanical Gardens-Dr. Damon Waitt  
Landscape Architect Summit (10)  
Wake County Planning  
Wake County GSA Field Services  
Campus Landscape Architects (2)  
Landscape Nurseries (5)  
Landscape Contractors (3)

#### Resources

Wake County Documents  
USDA-NRCS Plants Data Base  
NC Native Plant Society  
NC Botanical Gardens Lists  
NCSU Cooperative Extension  
NC Invasive Plants Council  
College Campus Design Guidelines  
Municipal Ordinances

He shared the challenges to moving forward with the initiative.

- Wake County projects located in various municipalities
- Project Types:
  - Libraries, Parks, EMS stations, Solid Waste, Historic Sites
- Perception of native plant landscapes
  - Formal, informal, transitions, entries, edges
- Availability / sourcing of native plant material
- Model examples / ordinances are scarce
- Every site / area is different
  - Urban, suburban, rural, exposure, hydrology, soil type...

## 1. Wake County Unified Development Ordinance (UDO)

## 2. Wake County Design Guidelines and Standards

### 3. Wake County Pilot Project

#### 4. Stormwater Control Measures

**Article 16 Landscaping and Tree Protection**  
16-10 Landscaping and Bufferyards

Some of these are also on the federal noxious weed lists. Please consult the USDA for the most current listing.

### 16-10-3 Plant Material, Installation and Maintenance

### (3) General Standards

Mr. Staehle shared the recommended revisions to the Unified Development Ordinance.



- Include and reference the most current invasive species list per NC Invasive Plants Council
- Include and reference the most current noxious weeds list from NC Department of Agriculture and Consumer Services
- Require design professionals to indicate native species on all required landscape plans



He shared opportunities for impact through the county design guidelines and standards.

## Opportunity for Impact

### .14 Landscaping General:

- .a Landscaping shall comply with minimum nursery standards.
- .b County preference is the use of native plant species.
- .c Turf Grass: Common Bermuda or Tall Fescue.
- .d SOD: Variety as approved by the Owner.
- .e Deciduous Trees: Container grown or Balled and Burlapped.
- .f Deciduous Shrubs: Container grown or Balled and Burlapped.
- .g Coniferous and Broadleaf Evergreens: Container grown or Balled and Burlapped.
- .h Mulch: 4" – 5" pine straw or 3" – 4" triple shredded hardwood.
- .i Soil Amendments: Compost; fertilizer/lime as determined by soil tests.
- .j Tree Protection Fencing: Comply with requirements of authorities having jurisdiction.



He shared recommendations for revisions to the design guidelines and standards.

- Provide specific references for native plants / invasive lists
  - USDA, NC Native Plant Society, NC Botanical Gardens
  - NC Invasive Plants Council, NC Dept of Ag and Consumer Services
- Increase use of native plants by establishing a minimum % of native plants required for each project
- Include native grasses in landscape plans
- Require design professionals to indicate native species on all submitted landscape plans
- Provide improved soil specifications
- Include educational signage for each project



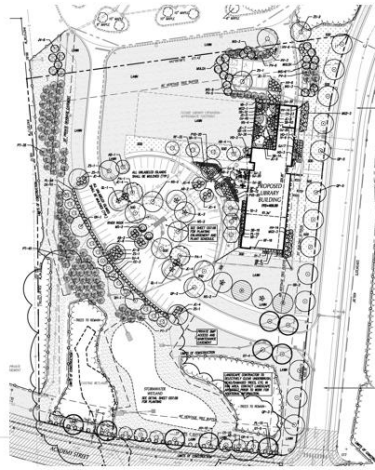
He shared an opportunity for impact with a pilot program at the new Fuquay-Varina Library.



## Opportunity for Impact

### Fuquay-Varina Public Library

- Increase native plant species to 70% minimum
- Provide educational signage
  - Use of native plants on site and storm water wetlands

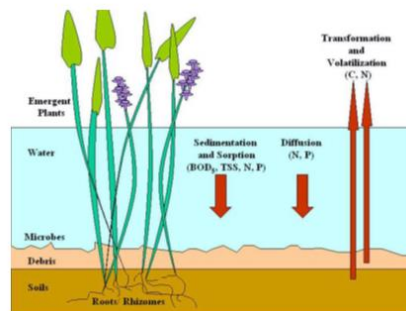


WAKE COUNTY

Mr. Staehle shared an opportunity for impact with the storm water control measures.

Wake County references NCDEQ Stormwater Design Manual

- SCM facility specific plants criteria are provided
  - Stormwater Wetlands, Bio-Retention, Wet Ponds
- **Native Plants and sourcing are required** for specific SCM areas



He shared recommended steps to continue supporting the initiative.

- WakeNature Workshop – Conservation Landscaping for Parks and Facilities
- Review opportunities to collaborate with municipalities on native plant requirements
- Continue discussion with universities, landscape nurseries, designers and other professionals
- Continue to review guidelines and standards



He shared the requested input from the Board.

- Revise and Update Wake County UDO
- Consider a Board Resolution endorsing the use of Native Plants for Wake County projects

Questions / Feedback



Mr. Staehle said staff feels that reaching 70 percent use of native plants is more feasible than 100 percent. He said the county is using 100% of native plants in parks and recreation areas.

Commissioner Ford asked if home owner associations are on the list of entities that are encouraged to use native plants. Mr. Staehle said they are not currently, but staff will be meeting with them soon to begin the conversation.

Commissioner Ford asked for a timeline of the initiative. Mr. Staehle said it is an ongoing effort, but it is already included through the Fuquay-Varina library project.

Commissioner Burns thanked staff for their work on this project. He asked if there is a sufficient supply of native plants available for use. Mr. Staehle said staff has had discussions with nurseries and they are willing to work with staff to ensure market needs are met.

Vice-Chair Hutchinson thanked Mr. Staehle and staff for their work on this initiative. He thanked Mr. Tom Earnhardt, host, Exploring North Carolina, for his guidance on this issue. He recommended changing the name of the initiative from “Keep Wake Native” to “Keep Wake Natural.”

Chair Holmes asked that staff propose changes for consideration at the next meeting.

### **Proposed Well Rules**

Mr. Evan Kane, Water Quality Manager, provided information on proposed changes to Well regulations. He said these regulations were last updated in 2003. He shared information on the current well permitting program. He said these proposed changes are aimed at new wells only.

- Covers new private drinking water wells & irrigation wells in unincorporated areas, County-wide
- Operates under Human Services Board Rules
- Permitting private wells since 1987
- All new wells inspected, ~400 new wells permitted annually
- Existing wells inspected by request
- Rules last revised and adopted July 24, 2003
- Well permitting integrated into building permit & onsite wastewater permit process

He shared the current well program requirements. He said an occupancy permit for a new home is contingent upon these rules being met.

- Siting and construction requirements
- Grout inspections
- Bacteria and inorganics testing requirement
- Additional testing required based on site-specific review
- Certificate of Occupancy dependent upon approved compliance samples

He shared the goals of the rule revisions.

- Correctly reference current state regulations
- Ensure consistency in interpretation and application of rules
- Improve compliance sampling requirements to protect public health and ensure efficient permitting
- Consider other concerns raised by stakeholders

He shared the review subcommittee.

Name	Affiliation at the time of subcommittee meeting
<b>Dr. Barbara Ann Hughes</b>	Wake County Public Health Committee
<b>Brenda Elliot</b>	Wake County Public Health Committee*
<b>David <u>Markwood</u>, PE</b>	Wake County Public Health Committee*
<b>Margaret Ann Raynor</b>	Wake County Human Services Board
<b>George Mathis</b>	Wake County Water Partnership; Well Owner
<b>Suzanne Harris</b>	Wake County Water Partnership; HBA of Raleigh- Wake County
<b>Dr. Laura Taylor</b>	Wake County Water Partnership; NCSU Economist*
<b>John <u>Boyette</u>, CWC</b>	<u>Boyette Well &amp; Septic</u> ; Past NCGWA President
<b>Kevin <u>Letchworth</u>, CWC</b>	N.W. Poole Well & Pump
<b>Dr. Joseph Threadcraft, PE</b>	WCES Director
<b>Michael Orbon, PE</b>	WCES – Water Quality Director
<b>Wilson Mize, REHS</b>	WCES - Groundwater Manager*
<b>Evan Kane, PG</b>	WCES – Groundwater Manager

Chair Holmes left the meeting at 4:20 p.m.

Mr. Kane shared the sources for additional input.

- Wake County Public Health Committee
- Wake County Human Services Board
- Wake County Water Partnership
- NC Department of Health & Human Services
- NC Department of Environmental Quality
- BOC GLUE Committee

He shared the proposed revisions.

- Revisions to reflect updated state rules
- Updated well testing requirements for new wells
- General cleanup of rule text

Mr. Kane shared the updated state rules.

- Adopt by reference:
  - NC Well Construction Standards - revised 2008
  - Permitting and Inspection of Private Drinking Water Wells - new in 2008
  - Private Drinking Water Well Sampling rules – new in 2008
- Contractor bonding & registration
  - Bonding requirement retained per GLUE Committee & Manager's office recommendation
  - Align contractor registration deadline with state certification deadlines

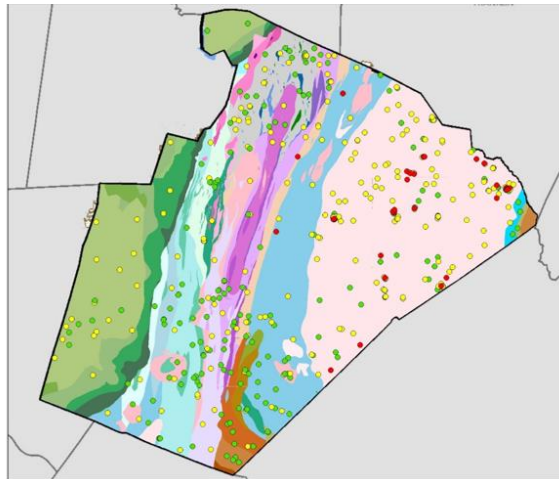
He shared the proposed improved well testing requirements. (Two slides)  
 He said these are the biggest changes being proposed.

For man-made contaminants:

- Clearly define conditions requiring additional testing
- Anticipate state requirements for notice about known contamination sites
- Add pesticide testing near mid-20<sup>th</sup> century buildings



- Source is naturally-occurring uranium in granitic rocks
- Current rules do not require radiological testing for approval of new wells



Mr. Kane shared the most common chemical health threats.

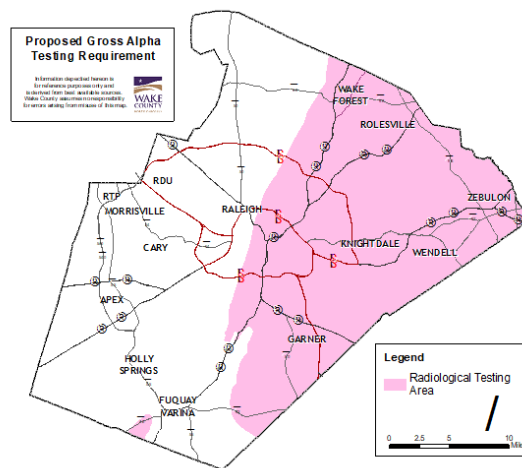
## Radionuclides are the most common chemical health threat in Wake County wells

Contaminant Group	Contaminant	Number of Initial Tests	Percentage Exceeding EPA Drinking Water Standards
Radionuclides	Uranium	441	11%
	Gross Alpha (screening test for uranium & radium)	213	19%
Pesticides	Dieldrin	610	1%
Inorganics	Nitrate	5,062	1%
	Fluoride	5,031	0.4%
Volatile Organics	TCE	806	0.5%

Period of record varies by contaminant but includes all initial samples ever collected by WCES through June 30, 2018.

He shared the proposed revision and the expanded areas of radiological testing.

- Proposed revision: Add radiological testing requirement in half of county
  - Test to screen for uranium & radium
  - Radon test not required
- Extensive discussion with Home Builders Association of Raleigh-Wake
- Anticipate 10% of new wells (40 wells annually) will require treatment before granting CO



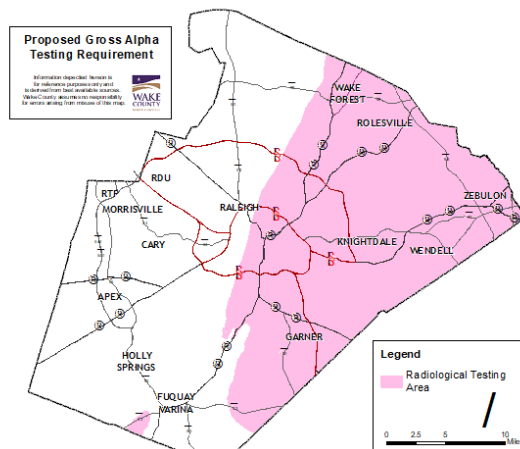
WAKE COUNTY

Commissioner Calabria asked about the health threats of the uranium and radon in drinking water. Mr. Kane said these contaminants increase a person's risk of developing various forms of cancer.

Commissioner Ford asked how the 10 percent figure was reached. Mr. Kane said that is an estimate based on past data.

Mr. Kane shared outreach suggestions.

- Estimated 4,000-6,000 existing wells have problems with radionuclides
- Already established as Priority #1 for outreach to users of existing wells
- Continue recommending "Rads Package" for voluntary testing of existing wells in same area
- Continue targeted outreach around known contaminated wells



Commissioner Ford asked how the residents of targeted areas are being notified of the issue. Mr. Kane said letters are sent to residents notifying them of the possible contaminants and the testing options.

Commissioner Portman asked if private labs are permitted to perform these tests. Mr. Kane said private companies can do it, but the county fees are more affordable.

Commissioner Burns asked about the severity of the uranium contaminants. Mr. Kane said there is no consistency in the severity. He said some contaminants are very high while others are moderate and low.

Commissioner Ford asked for clarification on a timeline of mitigating the backlog of testing. Mr. Kane said the projection is 10 years at current staff capacity. He said additional resources should be considered to mitigate the problem sooner.

Mr. Ellis asked if staff has considered contracting out the testing in order to have it completed sooner. Mr. Kane said that has been considered. Mr. Ellis said he would like to see a timeline comparison of staff versus contractor completion and the associated costs of both options.

He shared general cleanup suggestions for the well rules.

- Wordiness
- Removal of unused terms

Mr. Kane shared the potential industry financial impacts.

- Primary impact is to homebuilders from additional radiological testing and mitigation
- Countywide, annual impact estimate:

\$10,000	in additional testing fees (\$50 x 200 wells)
\$190,000	well mitigation costs (\$4,750 x 40 wells)
<u>\$2,000</u>	confirmation testing fees for mitigated wells (\$50 x 40 wells)
\$202,000	total estimated annual cost to homebuilding sector

He shared the take aways.

- Rules developed with input from multiple stakeholders
- Updated well rules will conform to current state requirements
- Improved required testing will provide better health protection to Wake County residents
- Proposed revisions have foreseeable and manageable impacts on industry

He shared the next steps.

- Your comments and feedback
- Public Notice and Comment
- Adoption by Human Services Board – Fall 2018

Commissioner Portman asked if there is any potential backlash to the increased testing. Mr. Kane said there are none that he is aware of. He said as long as the rules are clearly defined, he does not anticipate any issues.



Commissioner Calabria thanked Mr. Kane and staff for their work. He requested that if there are changes that would allow this testing to be done more quickly or efficiently, that staff notify the commissioners.

## **Adjourn**

The meeting adjourned at 5:03 p.m.

Respectfully submitted,

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Michelle L. Cerett  
Executive Assistant to the Board