UNION COUNTY YADKIN RIVER WATER SUPPLY PROJECT

Presented by: HDR &

October 15, 2013
Outline

- **WHO** is Union County, NC?
- **WHAT** is the process?
- **WHY** does Union County need water?
- **WHERE** can we find a solution?
- **WHEN** will we need it?
- **HOW** can you participate?
- Next Steps
Purpose and Need

✦ **Purpose:**
  - Union County is requesting an Interbasin Transfer (IBT) for a maximum daily amount of 28 million gallons per day (mgd) from the Yadkin River Sub-Basin to the Rocky River Sub-Basin, both of which are part of the Yadkin River Basin.

✦ **Need:**
  - The requested amount is based on 2050 water demand projections in the County’s Yadkin River Basin service area.
WHO IS UNION COUNTY?
This is Union County, NC
This is Union County, NC (Est. 1892)

- Located in south central piedmont of NC
- Population estimated at just over 200,000
- Approx. 643 square miles of land
- In the last decade Union County has been:
  - One of the fastest growing counties in NC, due to economic growth, education, and regional location
  - A top 20 fastest growing county in the nation
- Land Use
  - Western portion is suburban
  - Eastern portion is more rural with farms and open spaces
- Flourishing economic growth due to agriculture, business, and proximity to jobs
This is Union County, NC

Incorporated towns and villages:

- Fairview
- Hemby Bridge
- Indian Trail
- Lake Park
- Marshville
- Marvin
- Mineral Springs
- Monroe (County Seat)
- Stallings
- Unionville
- Waxhaw
- Weddington
- Wesley Chapel
- Wingate
WHAT IS THE PROCESS?
The Process

1. File Notice of Intent (IBT)
2. Identify Preliminary Infrastructure Requirements
3. Conduct Hydraulic & Hydrologic Modeling and Confirm Available Supply
4. Develop Agreement with Anson/Norwood
5. Flow Projections/Flow Balance Determination
6. Conduct EIS
7. Petition EMC
8. Petition Duke Energy Progress for FERC Amendment
9. File FERC Amendment
Key Initial Permitting Requirements

- SEPA - EIS
- Interbasin Transfer (IBT) Certificate
- Duke Energy Progress FERC Amendment
IBT Certification Process

I. Applicant submits Notice of Intent to file a petition.
   - 30 days notice of scoping meetings
   - 3+ Public meetings held within 90 days of NOI submittal
   - Comments accepted for 30 days after last meeting

II. Applicant submits draft environmental document (EIS or EA).
   - 30 days notice of public hearing
   - EMC holds a public hearing
   - Comments accepted for 30 days after hearing
   - EMC prepares written responses to comments
   - Settlement discussions, if requested
   - EMC determines adequacy of environmental document

III. Applicant submits petition to EMC.
   - EMC issues Draft Determination within 90 days of receiving petition
   - Public notice of draft determine and 30-day notice of hearings
   - 2+ Public hearings held within 60 days of draft determination
   - Comments accepted for 30 days after last hearing
   - EMC prepares written response to comments

Total Time ~3-5 years

EMC ISSUES FINAL DETERMINATION
WHY DOES UNION COUNTY NEED WATER?
Union County Water Service Areas
The Need for Water: Future Land Use
The Need for Water: Suburban Development
WHERE CAN WE FIND A SOLUTION?
An existing authorized IBT limits the amount of Catawba River water the County can use outside the basin.

Only 30% of Union County is in the Catawba Basin but 83% of the water currently comes from this source.

County is currently limited to an IBT of 5 MGD from the Catawba Basin.
Union County Water Supply: The Solution?

CATAWBA RIVER BASIN

ROCKY RIVER SUB-BASIN (YADKIN RIVER BASIN)

YADKIN RIVER SUB-BASIN (YADKIN RIVER BASIN)

Catawba to Yadkin Transfer

Year | Water Supply (mgd)
--- | ---
2012 | 6.0
2050 | 7.3

Transfer From Yadkin Back to Catawba

Year | Water Supply (mgd)
--- | ---
2012 | 1.0
2050 | 4.5

Catawba River Water Supply Project to Union County

Year | Water Supply (mgd)
--- | ---
2012 | 16.5
2050 | 35.4

Anson County’s Water Supply to Union County Yadkin River Service Area

Year | Water Supply (mgd)
--- | ---
2012 | 3.0
2050 | 0.0

Proposed Water Transfer from Lake Tillery to Union County’s Yadkin River Service Area

Year | Water Supply (mgd)
--- | ---
2012 | 0.0
2050 | 28.0

Exhibit 1
The Solution: Alternatives To Consider

1) Lake Tillery IBT to UC
2) Tuckertown Reservoir IBT to UC
3) Blewett Falls Lake IBT to UC
4) Main Stem Yadkin River IBT to UC
5) Rocky River Withdrawal in UC
6) Catawba River Water Supply Project Expansion
7) Interconnection with CMUD
8) Groundwater Supply
9) Demand Management/Conservation
10) Direct Potable Reuse
11) No Action
12) Water returns to the Yadkin Basin (must be evaluated)
The Solution – Alternatives To Consider

1. Tuckertown Reservoir IBT to UC
2. Lake Tillery IBT to UC
3. Catawba River Water Supply Project Expansion
4. Main Stem Yadkin River IBT to UC
5. Groundwater Supply
6. Interconnection with CMUD
7. Rocky River Withdrawal in UC
8. Demand Management / Conservation
9. Direct Potable Reuse
10. Do Nothing
11. Yadkin Returns
12. Blewett Falls Lake IBT to UC
WHEN WILL WE NEED IT?
The Timeline: Union County Yadkin Water Needs
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- **2013**: Anson Supply + Catawba Transfer
- **2022**: New Yadkin Water Supply Needed to Meet Demand = 12 mgd
- **2033**: Yadkin Water Supply Used to Meet Demand = 20 mgd
- **2044**: Yadkin Water Supply Used to Meet Demand = 28 mgd
- **2050**: Yadkin Water Supply Used to Meet Demand = 28 mgd
HOW CAN YOU PARTICIPATE?
How Can You Participate?

EIS Scoping Input

- **Public Meeting #1**
  - 10/3/2013
  - 4:30 PM
  - Stanly County Public Library
  - 133 East Main Street
  - Albemarle, NC 28001

- **Public Meeting #2**
  - 10/14/2013
  - 5:00 PM
  - Rowan-Cabarrus Community College – Salisbury Campus
  - 1333 Jake Alexander Blvd. South
  - Salisbury, NC 28146-1595

- **Public Meeting #3**
  - 10/15/2013
  - 5:00 PM
  - Northeast Technical College – Cheraw Campus
  - 1201 Chesterfield Highway
  - Cheraw, SC 29520

- **Deadline for Submission of Public Comments**
  - 11/15/2013
  - (30 days after last meeting)
How Can You Participate?

Comments

- Written comments should be mailed to:
  
  Union County – YRWSP – IBT Comments
  HDR Engineering Inc. of the Carolinas
  Attn: Mr. Kevin Mosteller, PE
  440 South Church Street
  Charlotte, NC 28202

- Handwritten comments turned in tonight on official forms.

- Comments may also be submitted electronically to:
  unioncountyYRWSP@hdrinc.com
How Can You Participate?

Comments

- Mailed and emailed comments will be given equal consideration
- Public comment period for this phase of the project closes on **November 15, 2013**
- Future opportunities to provide input during the overall IBT certificate request process
Next Steps...