**To: Yadkin-Pee Dee Water Management Group**

**From: Warren Miller/Fountainworks**

**Date: March 2017**

**Subject: Yadkin-Pee Dee Water Management Group – Proposal for Local Water Supply Plan Summary**

Purpose

The Yadkin-Pee Dee Water Management Group (YPDWMG), made up of 17 governmental, public water utility and reservoir operator parties providing service, has the goal to enhance the welfare of Yadkin-Pee Dee residents by jointly planning for the sustainable use of water from the Yadkin-Pee Dee River Basin. This project is a first step in that joint planning, designed to pull together and put into larger context individual members’ Local Water Supply Plans. The maps and summary document will provide a “big picture” perspective on the region’s water supply issues - identifying key issues the group may want to investigate further for regional water supply planning and coordination of drought response – and to prepare for the State’s upcoming Yadkin River Basin planning process.

Project Description

This task is modeled on the initial tasks done by the Jordan Lake Partnership as that group defined water supply needs for the future. The objective will be to summarize available information about current and future water supply needs of the partners, put that information into some context, and identify potential issues for further analysis by the group.

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| --- | --- |
| **Member** | **2015 LWSPs on File (Basin)** |
| City of Albemarle | Yes (Yadkin) |
| Cube Yadkin Generation, LLC | NA |
| Cabarrus County Water & Sewer Authority | Yes (Rocky) |
| City of Charlotte | Yes (Catawba) |
| City of Concord | Yes (Rocky) |
| Davidson County | No |
| Davidson Water, Inc. | Yes (Yadkin) |
| Davie County | Yes (Yadkin) |
| Duke Energy | NA (Duke Energy will provide water demand projections) |
| City of Kannapolis | Yes (Rocky) |
| City of Monroe | Yes (Catawba) |
| Rowan County | No |
| City of Salisbury | Yes (Yadkin) |
| City of Statesville | Yes (Catawba) |
| Union County | Yes (Catawba) |
| Town of Wilkesboro | Yes (Yadkin) |
| City of Winston-Salem | Yes (Yadkin) |

Scope of Work

1. Collect and review Information
   1. Meet with NC Division of Water Resources (DWR) to review information available, obtain hard copies of most recent basin plans, if available, and discuss most useful format for obtaining digital LWSP data from them.
   2. Review Union County proposed Inter-basin Transfer (IBT) documents and follow up as needed with any questions (this was suggested by DWR to get context for basin issues).
   3. Contact Barry Gullet/Ron Hargrove to discuss Catawba-Wateree River Basin issues, for background, as they relate to the YPDWMG (this was suggested by DWR to get context for basin issues).
   4. Provide Davidson and Rowan Counties with a list of data needed for future water supply needs, if applicable, since they do not have LWSPs.
   5. Review LWSPs and basin plans and follow up with individual members and/or DWR by phone with any questions.
   6. Meet with Duke Energy (or go over by phone) to obtain long-range water demand projections.
2. Summarize water supply information
   1. Develop tabular and graphical summaries of member information from LWSPs. Draft 2016 (meaning, not yet approved by DWR) LWSPs will be used where available; otherwise 2015 data will be used.
   2. Include Davidson and/or Rowan County
   3. Total non-member water supply data as available in LWSPs for relevant raw water sources and/or basins as needed to provide context for discussion.
   4. List Duke Energy water demand projections separately.
3. Develop maps (Interconnections, Current Water Supply, Future Water Supply)
   1. Decide on overall area for maps in consultation with member utilities as needed.
   2. Provide Salisbury staff with digital versions of the Jordan Lake Partnership maps as examples.
   3. Provide Salisbury staff with the data, in tabular form, to be shown on the maps.
   4. Work with Salisbury staff to finalize maps (including comments from members after meeting in item 6).
4. Evaluate and summarize future water supply issues. The objective will be to provide a broad overview and identify issues for focus as the group formulates future work.
5. Write and finalize report
6. Meet with YPDWMG
   1. One meeting with technical group to review initial summaries and issues
   2. One meeting with full group to present draft report

Assumptions

1. DWR will provide LWSP data in database format – either Excel or Access.
2. Davidson and Rowan Counties, if applicable, will provide requested data on future water supply needs (will be same information required in LWSPs).
3. City of Salisbury staff will develop and produce GIS-based maps. Pdf format will be used for development/review. Assume two draft plotter-sized copies of each map for review at the technical team meeting (one for the facilitator to keep), and 20 final copies. The group will decide on final size (plotter size, 11x17, etc.).
4. Draft report will be revised one time.
5. Work will be invoiced monthly at $125 per hour for senior associate and $75 per hour for associate. The total cost will be $10,250. If it appears more than 10 percent over the estimated time will be required, Fountainworks will immediately consult with YPDWMG to agree on the approach to finishing the work.

Deliverables

1. Reports
   1. One draft report
   2. One final report
2. Maps
   1. Interconnection map
   2. Current Water Supply
   3. Future Water Supply maps
3. Meetings
   1. One meeting with DWR in Raleigh
   2. Conference call with Duke Energy
   3. Technical team meeting, including presentation, in Salisbury
   4. YPDWMG meeting, including presentation, in Salisbury

Estimated Level of Effort

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| --- | --- | --- |
|  | **Senior Associate hours** | **Associate hours** |
| Collect and Review Information | 14 | 8 |
| Summarize water supply information | 14 | 12 |
| Develop maps | 4 |  |
| Evaluate and summarize water supply issues | 14 |  |
| Write and finalize report | 8 |  |
| Meet with YPDWMG (2) | 16 |  |
| **TOTAL** | **70** | **20** |

Estimated Schedule

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| --- | --- |
|  | Estimated Schedule |
| Collect and Review Information | April 2017 |
| Summarize water supply information |
| Develop maps |
| Evaluate and summarize water supply issues |
| Technical team meeting with YPDWMG | Early-mid May 2017 |
| Draft report | (3 weeks) Late May/Early June 2017 |
| Full YPDWMG meeting | June 2017 |
| Final report | (2 weeks) Late June/Early July 2017 |

Qualifications of Fountainworks Staff

Leila Goodwin, PE, joined Fountainworks as a Senior Associate in 2016. Leila has over 30 years of experience in water resources engineering, as a consultant, working primarily with local governments and public utilities, and as Water Resources Manager at the Town of Cary, NC. Her technical background includes engineering, planning and regulatory projects related to potable and reclaimed water supply, wastewater management, and stormwater management. While at the Town of Cary, Ms. Goodwin played a key role in partnering initiatives and regional projects such as the Jordan Lake Partnership; interconnection implementation with Raleigh, Durham and OWASA; Western Wake Regional Wastewater Management Facilities development; and the Upper Cape Fear and Middle Cape Fear basin associations. She has extensive service and leadership experience with professional organizations, technical committees, civic organizations, stakeholder groups, and appointed boards; currently she serves as a member of the State Water Infrastructure Authority. Ms. Goodwin holds a B.S. and M.S. in Civil Engineering, is a registered NC Professional Engineer, and completed the UNC School of Government Municipal Administration course.