



Brunswick County Board of Commissioners

JULY 23, 2019

UPDATE OF UTILITY TREATMENT AND TRANSMISSION

County's Position

Potable Water Supply

- ▶ Cape Fear River is the only viable source of raw water that will provide an adequate and reliable supply of raw water to meet the county and the northern region's long-term residential, commercial and industrial needs.
- ▶ Advanced Water Treatment through a Low-Pressure Reverse Osmosis system provides the highest available and effective treatment for a broad range of unregulated and regulated contaminants.

County's Position

Potable Water Supply

- ▶ Water Treated Through RO sourced by the Cape Fear River is of the same high standards as water sourced by an aquifer treated by RO.
- ▶ The County will provide an adequate supply of water that has been treated with advanced processes, continuous testing, monitoring, and transparent reporting of water quality.

County's Position

Potable Water Supply

- ▶ The County will meet existing demand and support growth in the county, including industrial opportunities that present.
- ▶ The County is experienced and has staff to manage, finance, and construct water treatment facilities.
- ▶ Economies of scale and lower costs for rate payers are achieved in the long run when entities combine resources to construct and operate infrastructure projects.

County's Position

Potable Water Supply

- ▶ The County will set the lowest possible rate structure and prudently manage operations and resources.
- ▶ The County will provide transparent and accurate rate, cost, and operating information to all wholesale, industrial and residential customers.

County's Potable Water Supply

Action Plan

- ▶ Construction of a 54-inch parallel raw water main in coordination with Lower Cape Fear Water and Sewer, Cape Fear Public Utility, and Pender County
- ▶ Brunswick County's portion of the project is estimated at \$42.4 million

County's Potable Water Supply

Action Plan

- ▶ The project Timeline is to receive bids in late summer and issue debt in October 2019, Construction will commence December of 2019, Completion April 2022.
- ▶ The line will provide a stable redundant source of raw water to meet the county's anticipated needs through 2060.
- ▶ The line will provide adequate water to support Low Pressure Reverse Osmosis Treatment Processes that are more raw water intensive.

County's Advanced Water Treatment

Action Plan

- ▶ After a careful study and evaluation of alternatives to treat existing and emerging contaminants, the County determined to implement Low Pressure Reverse Osmosis.
- ▶ Nearing completion of the design of a 12 MGD expansion estimated at \$47.5 million to the Northwest Water Treatment Plant.
- ▶ The Low-Pressure Reverse Osmosis system's estimated cost \$89.5 million.
- ▶ Bids for the expansion and advanced treatment projects will be received in December 2019.

County's Advanced Water Treatment

Action Plan

- ▶ Federal WIFIA financing was awarded for 49% of the project. WIFIA will provide a lower interest rate than public bond issuance resulting in lower customer rates. The WIFIA and Revenue Bond Debt for the projects will be issued in January 2020
- ▶ Construction will begin April 2020
- ▶ The payback period will be 30 years with level payment structure to reduce interest costs and in accordance with LGC criteria.
- ▶ Distribution of advanced treated water to the public in December 2021
- ▶ Rates established by the AWWA M1 Manual are recommended for fairness to all customer classes with the first impact to customers in 2022

County's Proposed Steps

Northern Regional Working Group

- ▶ Support of the regional wholesale customers of the county's expansion of the Northwest Water Treatment Plant and implementation of low-pressure reverse osmosis advanced treatment is the best option for meeting current and future water demand in the county.
- ▶ The northern part of Brunswick County currently accounts for about 30% of annual total treated water or 18.4% of retail customers (primarily residential) within the entire county. Brunswick Regional Water & Sewer H2Go accounts for 24% of annual total treated water or 13.4% of retail (primarily residential) customers within the entire county.

County's Proposed Steps

Northern Regional Working Group

- ▶ Advanced Treated Water Through Reverse Osmosis is of the same high quality whether sourced by a river or an aquifer.
- ▶ There may be strategic benefits to the proposed H2Go treatment plant.
- ▶ County proposes that the regional group engage firms to provide the decision-makers and the public with updated independent studies and associated construction and life cycle operational costs.

County's Proposed Steps

Northern Regional Working Group

- ▶ County provide all treated water for the entire county, including the north region.
- ▶ County encourages regionalization and consolidation of systems.
- ▶ Consolidation grants may assist in regionalization costs and improving the overall system.
- ▶ County is amenable to acquiring water systems for those wholesale customers desiring to turn their system over to another entity.

County's Position

Wastewater Treatment

- ▶ County is staffed and experienced to be the regional provider of sewer treatment
- ▶ Southport has determined to remove its flow from the West Plant and construct its own treatment plant. The timely removal of flow by the city is necessary for the County to avoid fines, penalties and a moratorium.
- ▶ Due to the lengthy process of expanding plants, it is recommended that the County and participants begin the preliminary engineering to determine timing and size of the next system expansion for the West Regional System to support growth.

County's Position

Wastewater Treatment

- ▶ The County has submitted the documents to the State to request lifting of the line extension moratorium.
- ▶ The County has received the draft permit to expand the Northeast Regional Plant and will bid and finance the construction in October 2019.
- ▶ The County and participants must work together to maintain collection systems and manage flow between the H2Go Plant and NE Plant to prevent further moratoriums.
- ▶ The 2.5 MGD expansion of the Northeast WWTP is scheduled to be complete Dec. 2021.

Staff Recommendation

- ▶ Recommend that the Brunswick County Board of Commissioners approve the County's Position for providing water and wastewater services for the wholesale, retail, and industrial customers of Brunswick County Public Utilities.