STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. W-218, SUB 526A

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of Applications by Aqua North Carolina, Inc., 202 MacKenan Court, Cary, North Carolina 27511, for Approval to Implement Secondary Water Quality System Improvement Projects Pursuant to N.C. Gen. Stat. § 62-133.12	)	ORDER APPROVING SECONDARY WATER QUALITY IMPROVEMENT PROJECTS

BY THE COMMISSION: N.C. Gen. Stat. § 62-133.12 authorizes the Commission in a general rate case proceeding to approve a rate adjustment mechanism to allow water and sewer utilities to recover the incremental depreciation expense and capital costs associated with reasonable and prudently incurred investments in eligible water and sewer system improvements. By Order issued May 2, 2014, in Docket No. W-218, Sub 363, the Commission approved Aqua North Carolina, Inc.'s (Aqua's) request to utilize a Water System Improvement Charge/Sewer System Improvement Charge (WSIC/SSIC) mechanism pursuant to N.C.G.S. § 62-133.12, finding that the mechanism is in the public interest.

Commission Rules R7-39(f) and R10-26(f) provide that once WSIC/ SSIC mechanisms are approved and eligible water and sewer system improvements are in service, the utility (in this case, Aqua) may file a request with the Commission for authority to impose water and sewer system improvement charges pursuant to the mechanisms.

N.C.G.S. § 62-133.12(c)(2) and (c)(4) provide, in pertinent part, that specific approval from the Commission is necessary before Aqua may undertake and recover its incremental depreciation expense and capital costs through the WSIC mechanism for eligible water system improvements implemented to comply with secondary drinking water standards.

On January 12, January 27, and February 19, 2021, Aqua filed applications for approval to implement secondary water quality system improvement projects pursuant to N.C.G.S. § 62-133.12 and Commission Rule R7-39 (Applications). The four filter projects and the estimated costs are summarized below.

System	County	Pumping Capacity Gallons Per Minute	Aqua Estimated Cost
High Meadows Wells 2 and 3	Wake	84	$350,000-$375,000
Blue Water Cove Well 1	Forsyth	25	$170,000-$195,000
Mountain Vista at Luther Cove Well 1	Buncombe	88	$234,000-$259,000
Shannon Woods Well 4	Wake	100	$343,000-$368,000
Total			$1,097-$1,197 Million

On March 8, 2021, the Public Staff filed its Secondary Water Quality Report and Recommendations regarding Aqua's Applications. The Public Staff stated that it had thoroughly reviewed the filter projects proposed by Aqua. Based upon its review of documents and other information provided by Aqua, site visits, and discussions with customers and Aqua's engineers and operations managers, the Public Staff recommended that the Commission approve the implementation of the proposed secondary water quality projects.

In recommending approval of the projects, the Public Staff advised that decisions to install filters, such as greensand or manganese dioxide, should be made judiciously, as installation of such filters is many times more costly than sequestration coupled with adequate flushing. According to the Public Staff, the annual revenue requirement increase for the minimum estimated capital expenditure of $1,097,000 for these four filtration systems is approximately $134,341, compared to the annual revenue requirement for the chemical cost for sequestration of approximately $1,387. The Public Staff stated that the sequestration treatment of iron and manganese with polyphosphates and orthophosphates, coupled with comprehensive water main flushing programs, has provided adequate secondary standard water quality on many water systems at a very reasonable cost. Testing to determine whether iron and manganese are soluble (clear liquid) or insoluble (solid particles and visible) in raw untreated water at the well head after treatment with polyphosphate/orthophosphate or SeaQuest ® at the entry point, and in the distribution system, has been widely used in North Carolina for many years and provides extremely valuable information to assist in evaluations of whether filtration is necessary. These measures are exponentially less expensive than the installation of an iron and manganese filtration system. The Public Staff recognized, however, that for secondary water quality issues of considerable magnitude and consistency, sequestration treatment and flushing may not be effective and filtration may be necessary.

As discussed in previous reports, the Public Staff strongly supports the implementation of two secondary water quality processes: a comprehensive customer education program and an upgraded, comprehensive water main flushing program. Regarding customer education, the Public Staff noted that with its input, Aqua has prepared and posted on its website (https://www.aquaamerica.com/our-states/north-carolina.aspx) a fact sheet titled "Flushing Water Mains" and a best practices document titled "Iron and Manganese in Drinking Water." According to Aqua, these documents have been made available to its employees to distribute to customers they visit who experience

a discolored water issue. The Public Staff stated that it considers the documents useful resources to help customers better understand flushing and minimize the negative effects of discolored water caused by the presence of iron and manganese. The Public Staff stated that Aqua most recently created the dedicated website (www.ncwaterquality.com) for the Company to provide customers information pertaining to iron and manganese. In addition, as part of Aqua's Water Quality Plan, the Company has begun a strategic communications initiative.

In summary, the Public Staff stated that it will continue to carefully and thoroughly review secondary water quality information and documentation presented by Aqua, including participating in meetings with Aqua engineers and operations managers, conduct selected site visits, discuss secondary water quality issues with customers, and, when appropriate, recommend Commission approval of equipment and infrastructure installations.

The Public Staff presented this matter to the Commission at its Staff Conference on March 15, 2021. The Public Staff stated that the proposed filters are necessary for Aqua to provide adequate secondary standard water quality. The Public Staff therefore recommends that the Commission approve Aqua's proposed secondary water quality projects.

Based upon the foregoing, Aqua's Applications, the Public Staff's Secondary Water Quality Report and Recommendations, and the entire record in this matter, the Commission finds and concludes that Aqua should proceed to implement secondary standard water quality improvements through the installation of Aqua's proposed filtration projects.

IT IS, THEREFORE, ORDERED that Aqua North Carolina, Inc., is authorized to implement the four filtration projects proposed in its January 12, January 27, and February 19, 2021 Applications to comply with secondary water quality standards.

ISSUED BY ORDER OF THE COMMISSION.

This the 16th day of March, 2021.

NORTH CAROLINA UTILITIES COMMISSION

Kimberley A. Campbell, Chief Clerk