

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. W-354, SUB 400

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of
Application by Carolina Water Service, Inc.)
of North Carolina for Authority to Adjust and)
Increase Rates and Charges for Water and)
Sewer Utility Service in All Service Areas of)
North Carolina and Approval of a Three-)
Year Water and Sewer Investment Plan)

**REBUTTAL TESTIMONY OF
DONALD H. DENTON III ON
BEHALF OF CAROLINA WATER
SERVICE, INC. OF NORTH
CAROLINA**

November 10, 2022

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1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Donald H. Denton III. My business address is 5821 Fairview
3 Road, Suite 401, Charlotte, North Carolina 28209.

4 **Q. WHERE ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am Senior Vice President, East Operations for Corix Group of Companies
6 (“Corix”). In this capacity, I oversee the operations of Carolina Water
7 Service, Inc. of North Carolina [“CWSNC” or the “Company”, Blue Granite
8 Water Company (“BGWC”) in South Carolina, and Sunshine Water Services
9 in Florida, all of which are subsidiaries of Corix Regulated Utilities (“CRU”).
10 In addition, I serve as President of CWSNC and BGWC.

11 **Q. ARE YOU THE SAME DONALD H. DENTON WHO SUBMITTED CASE-**
12 **IN-CHIEF TESTIMONY ON BEHALF OF CWSNC IN THIS**
13 **PROCEEDING?**

14 A. Yes, I am.

15 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

16 A. The purpose of my testimony is to respond to positions of the Public Staff
17 in its direct testimony filed in this Docket, particularly as they relate to: the
18 Danby sewer system; project management and contingencies in CWSNC’s
19 capital improvement project cost estimates; performance metrics; use of
20 state revolving funds; and Staff’s proposed change to rate design.

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I. DANBY SEWER SYSTEM

Q. PUBLIC STAFF WITNESS DARDEN TESTIFIES THAT STAFF DISCOVERED THAT SOME DANBY CUSTOMERS ARE ACTUALLY LOCATED IN SOUTH CAROLINA. AS A RESULT, WITNESS DARDEN RECOMMENDS THAT SUCH CUSTOMERS BE REMOVED FROM THE SERVICE REVENUES BECAUSE THOSE CUSTOMERS SHOULD BE SERVED BY CWSNC'S SOUTH CAROLINA AFFILIATE (BGWC) RATHER THAN CWSNC. IN ADDITION, STAFF RECOMMENDS ADJUSTING CERTAIN EXPENSES TO REFLECT THE REMOVAL OF THOSE CUSTOMERS FROM CWSNC'S FILING. DOES THE COMPANY AGREE WITH THIS TREATMENT?

A. The Company acknowledges that this situation is complicated, it has an orderly plan for resolution, and—in the meantime---it does not agree with the Public Staff approach. These customers have been served by CWSNC for over 30 years, so the situation is long-standing. CWSNC is gathering data currently and plans to engage with the Office of Regulatory Staff in South Carolina and with the Public Staff on a sensible path to resolution. By immediately moving these customers to the BGWC tariff, their monthly bills will increase. It should also be noted that these customers have been paying rates under the Company's North Carolina tariff and contributing to the revenue requirement in NC for years. They represent 27 customers in

1 a community of over 1,600 served by a CWSNC-owned wastewater
2 treatment plant – which is located in South Carolina.

3 **II. PROJECT MANAGEMENT; CONTINGENCIES IN PROJECT COST**
4 **ESTIMATES**

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6 **Q. PUBLIC STAFF CONTENDS THAT CWSNC’S PROPOSED CAPITAL**
7 **IMPROVEMENT PLAN CONTAINS “OVERLY BURDENSOME COST**
8 **CONTINGENCIES, WHICH MAY OR MAY NOT BE INCURRED.” PUBLIC**
9 **STAFF RECOMMENDS A FLAT 10% REDUCTION TO THE ESTIMATED**
10 **COSTS AT COMPLETION OF THE PROJECTS IN THE CAPITAL**
11 **IMPROVEMENT PLAN. (SEE PUBLIC STAFF JOINT TESTIMONY OF**
12 **JUNIS, HINTON, SUN, ZHANG, AT PAGES 43-49.) IS THIS**
13 **RECOMMENDATION REASONABLE?**

14 **A.** No, it reflects a fundamental misunderstanding of the purpose and use of
15 contingency in capital project planning and execution.

16 **Q. PLEASE ELABORATE.**

17 **A.** Contingency is typically broken down into two categories – Estimate
18 Uncertainty and Project Risk. Estimate uncertainty is based on cost
19 variances due to change in quantities, productivity, wages, product pricing,
20 and many other factors.

21 When building a detailed “bottoms up” contingency, the main inputs
22 in developing the contingency are the quantification of a risk register and a
23 quantitative analysis technique used to calculate the cost of estimate line-

1 item uncertainty. Expected Monetary Value (“EMV”) is one quantitative
2 analysis technique used to develop risk-based contingency values. Despite
3 its name, EMV doesn't have to be just a monetary cost; it can also measure
4 the expected time delay in terms of person-hours or person-days. The two
5 inputs to EMV are the probability of a risk occurring (expressed as a
6 percentage) and the impact of the risk occurring (expressed in some time
7 or monetary measure). Obtaining this data through meetings with the
8 project team and key stakeholders makes it more accurate. The formula for
9 EMV is:

$$\text{EMV} = \text{probability} \times \text{impact}$$

10
11 For example, assume a risk has a 60 percent probability of occurring
12 and a cost impact of \$10,000. The EMV for this risk event is $(0.6 * \$10,000)$,
13 or \$6,000. To compensate for this risk, the contingency reserve needs
14 \$6,000. Totaling the EMV for each risk results in the total risk based
15 contingency reserve for the project.

16 Once the line-item uncertainty and Risk Register EMV's are
17 developed, they are added together to create the project level
18 contingency. During a project's execution, contingency is used when a risk
19 occurs as part of the risk response strategy, or a line item within the original
20 estimate is verified. The actual impact of the variance is added to the cost
21 or schedule, the estimates are updated, and contingency reserve
22 decreases or increases accordingly. If identified risks do not occur, the

1 contingency reserve associated with those risks is not spent, and the project
2 comes in ahead of time and/or under budget. It is up to the Project Manager
3 to stay on top of risks and line-item estimates and manage contingency
4 reserve as the project progresses, and to adjust the Estimate at Completion
5 (“EAC”) accordingly.

6 The contingency reserve tends to be higher near the beginning of the
7 project and lower near the end. This effect is typically consistent with project
8 risk and uncertainty, which tends to be greater at the beginning of the
9 project due to more unknowns and will diminish near the end of the project.
10 Also, as the project proceeds and risks either happen or do not happen, the
11 reserves associated with those risks are either spent or not spent, lowering
12 the overall reserve. As risk reserves are reassessed, reserve analysis can
13 be performed to reallocate reserve to a risk or take some away, depending
14 on the new risk probability and impact. It should be noted that contingency
15 is planned to be spent as part of the project and is not to be considered as
16 a “cushion.”

17 Another approach for contingency planning utilizes industry best
18 practices for ranges of contingency, in-lieu of a bottom-up calculation for
19 contingency that meets a typical contingency, based on the maturity and
20 level of project definition. An example of this can be seen in the table below:

AACE Class ¹	Typical Use	Project Definition	Low Expected Actual Cost	High Expected Actual Cost	Other Nomenclature
Class 5	Strategic Planning; Concept Screening	0%-2%	-50% to -20%	+30% to +100%	Rough Order of Magnitude
Class 4	Feasibility Study	1%-15%	-30% to 15%	+20% to +50%	Feasibility; Pre-Design
Class 3	Budgeting	10%-40%	-20% to -10%	+10% to +30%	Budget; Prelim Engineering Phase
Class 2	Bidding; Project Controls; Change Management	30%-75%	-15% to -5%	+5% to +20%	Engineering; Bid; Forced Detail
Class 1		65%-100%	-10% to -3%	+3% to +15%	Bottoms Up; Firm Price; Full Detail

1 In either case for project-level contingency development, CWSNC plans for
 2 uncertainty and risks on all of its projects, and the proposed default
 3 reduction of 10% contingency by the Public Staff has no basis in industry
 4 standard for contingency development or management.

5 **III. PERFORMANCE METRICS**

6 **Q. PLEASE DESCRIBE THE PUBLIC STAFF'S POSITION ON**
 7 **PERFORMANCE METRICS.**

8 A. The Public Staff disagrees with the Company's proposed performance
 9 metrics in three ways. (See Joint Testimony of Hinton, Junis, Sun, and
 10 Zhang, at pages 56-61.) First, Staff recommends additional performance
 11 metrics be included. Second, Staff recommends that benchmarks be
 12 included for many of the performance metrics. Third, Staff recommends that
 13 financial incentives and/or penalties be attached to certain performance
 14 metrics.

¹ AACE – Association for the Advancement of Cost Engineering

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Q. DO YOU HAVE ANY GENERAL COMMENTS ABOUT THE PUBLIC STAFF’S APPROACH TO PERFORMANCE METRICS?

A. Yes. We do not agree that the intent of performance metrics in N.C. Gen. Stat. § 62.133B (“Statute”) was to compare CWSNC to other water and sewer companies. Rather, CWSNC believes the metrics were added to enhance transparency and monitoring of utility performance over time. As a general matter, benchmarking is appropriate when trying to determine how one company is performing against a similar set of peers, and often benchmarking is fraught with issues simply because of the lack of standardization of utility data, as well as the fact that each utility faces uniquely different circumstances. For example, utilities differ as to service territory density, which can make benchmarking – which necessarily assumes an “apples to apples” comparison -- inappropriate. Instead, performance metrics are usually better assessed through a comparison of a company’s current performance to its recent historical performance.

The WSIP Statute itself includes a comprehensive financial incentive and penalty mechanism through the earnings band and excess earnings test. A second set of individual incentives/penalties is unnecessary, especially given this is the first WSIP plan. We request that the Commission not leap into incorporating financial incentives and penalties with the use of performance metrics in this case. Financial incentives can often inadvertently create perverse incentives and unintended consequences, or

1 may not be set appropriately to have the desired effect. Given that the
2 Commission's monitoring through performance metrics for water and sewer
3 utilities is newly available through the Statute, I strongly believe that in the
4 initial WSIP filing the Commission should (a) focus on implementing a broad
5 and robust group of performance metrics, and (b) monitor the Company's
6 performance for the WSIP term, in conjunction with historical data for the
7 pre-WSIP period. We do not recommend financial incentives or penalties in
8 the initial case, as a baseline of Company performance must be established
9 upon which to make assessments and align goals related to the provision
10 of quality service to customers.

11 In addition, the Public Staff implies that the Company's data
12 collection processes are inadequate. CWSNC has a significant amount of
13 data available in a number of operational areas. While, like any company,
14 not all data is collected and formatted in a metric format for ongoing
15 analysis, this does not mean that the data cannot be utilized for metrics in
16 the future.

17 **Q. DOES THE PUBLIC STAFF OPPOSE ANY OF THE COMPANY'S**
18 **RECOMMENDED PERFORMANCE METRICS?**

19 A. Not as I understand their testimony. The Public Staff accepted all of the
20 Company's proposed performance metrics, although they modified the
21 Water Service Quality Customer Complaints metric to require inclusion of
22 subdivision and system names, which is acceptable to the Company. The

1 Public Staff modified several of the proposed metrics to include
2 incentives/penalties, which we do not agree with, for the reasons stated
3 above. (See Public Staff WSIP Exhibit 5). Note that we have interpreted
4 their “Clean Water Compliance” metric to be a “Wastewater Compliance”
5 metric, as was proposed by the Company.

6 **Q. DOES THE PUBLIC STAFF PROPOSE ANY ADDITIONAL**
7 **PERFORMANCE METRICS?**

8 A. Yes. The Public Staff proposes the following additional performance
9 metrics:

- 10 ▪ Timely Completion of Capital Improvement Plan (“CIP”) Projects
- 11 ▪ Completion of CIP Projects on Budget
- 12 ▪ Expense Efficiency
- 13 ▪ Utilization of the SRF Program

14 In addition, the Public Staff proposes two additional metrics for
15 tracking and future benchmarking: (1) Water Loss; and (2) Employee
16 Turnover. See Public Staff WSIP Exhibit 5.

17 **Q. DO YOU ACCEPT THE PUBLIC STAFF’S RECOMMENDED**
18 **ADDITIONAL PERFORMANCE METRICS, FOR TRACKING AND**
19 **BENCHMARKING?**

20 A. The Company is agreeable to tracking the latter two additional metrics, but
21 for the reasons I previously stated, we do not believe benchmarking would
22 be appropriate or useful at this time.

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Q. ARE ANY OF THE PUBLIC STAFF'S OTHER RECOMMENDED ADDITIONAL PERFORMANCE METRICS ACCEPTABLE TO THE COMPANY?

A. The following four additional performance metrics proposed by Staff are problematic and as proposed are not acceptable to the Company:

- Timely Completion of CIP Projects
- Completion of CIP Projects on Budget
- Expense Efficiency
- Utilization of the SRF Program

Q. PLEASE EXPLAIN YOUR CONCERNS WITH THE PROPOSED METRIC REGARDING TIMELY COMPLETION OF CIP PROJECTS.

A. CWSNC focuses on effective project execution fundamentals, including schedule management. Schedules inherently are uncertain due to external influencing factors in most projects such as requests by key stakeholders (including customer groups) to delay/move projects, environmental permit approval timelines, DOT approvals, and various project risks being realized. Any or all of these factors which are outside the company's control can result in a change in timing and cost to a given project. Schedule contingencies based on these uncertainties are typically evaluated in the project planning phase and updated as the project progresses – however not all can be foreseen. If the goal is to come in ahead of schedule, then enough contingency will be added to achieve that goal or other sacrifices

1 would be made (such as not accommodating a request by a key
2 stakeholder, such as a Homeowners' Association, to delay the construction
3 – which has occurred). In addition, CWSNC has recently seen significant
4 delays in project schedules due to supply chain issues in addition to labor
5 shortages. As a result, many projects have required adjusted schedules to
6 accommodate various risk factors. Finally, when looking at the portfolio
7 level of project management, it is not uncommon to shift projects due to
8 critical need, resource availability, or operational requirements. In the
9 context of the WSIP, the Company has added incentive to complete projects
10 on time, due to the various periodic filing requirements and reviews, and
11 without the need for performance metrics. The imposition of performance
12 metrics that do not allow for a portfolio perspective management of capital
13 needs restricts the Company's management decisions related to specific
14 projects and creates an inverse incentive to actively managing capital
15 outlays.

16 **Q. PLEASE EXPLAIN YOUR CONCERNS WITH THE PROPOSED METRIC**
17 **REGARDING COMPLETION OF CIP PROJECTS ON BUDGET.**

18 A. CWSNC focuses on additional project execution fundamentals such as cost
19 management. Budgets for projects may need to be adjusted based on
20 multiple criteria once a project is underway. Influencers include contract
21 level change orders, actual line-item cost coming in different than estimated,
22 and project-level changes which can vary in many ways, including scope

1 changes. The goal of CWSNC is to plan for uncertainties using effective
2 project management practices and include those costs in our estimates.
3 Variances will occur, but the goal of any project manager within CWSNC is
4 to target the budgeted project cost as closely as possible by managing risks,
5 and not to aim below target as proposed by the Public Staff.

6 While an estimate and final cost of a project may go up, it is possible
7 that the overall impact of the project may have a higher beneficial impact
8 for customers over time. This can be seen when value added to a project
9 has a life cycle cost lower than the original project by reducing operating
10 cost over time. We would not want to undermine this type of benefit by
11 having a metric that would preclude this type of thinking and change
12 management during a project.

13 For purposes of the WSIP, CWSNC believes the best approach for
14 looking at the cost impact is to look at the portfolio-level of planned
15 expenditures, not at the individual project level. By using reports and
16 reviews that focus at the portfolio-level, there are clear lines of sight to what
17 has been filed in the WSIP and is included in the resulting rate recovery, as
18 well as of the overall impacts of the WSIP. Notwithstanding the Public Staff's
19 recommended performance metrics, the Company further affirms that the
20 customers are adequately protected from any potential excess earnings as
21 a result of not executing to the capital investment levels approved, and
22 because the Public Staff and Commission are provided regular and novel

1 insight and transparency by virtue of the Company's periodic reporting and
2 Annual Review filing requirements.

3 Additionally, by using the portfolio-level view and acknowledging the
4 above-noted inherent variability in capital project execution, projects that
5 experience lengthy delays can be swapped with other necessary projects.
6 This allows CWSNC to be nimble in project planning and scheduling, and
7 allows the yearly project investments to remain consistent with authorized
8 levels, thus meeting the spirit of the WSIP, including having fair and
9 consistent rate increases that recover investments in infrastructure that
10 benefits customers.

11 **Q. PLEASE DISCUSS YOUR CONCERNS WITH THE PROPOSED METRIC**
12 **REGARDING EXPENSE EFFICIENCY.**

13 A. CWSNC does not have a concern in principle with an O&M expense metric,
14 but the one proposed (cost per customer by Rate Division) lends itself to
15 comparisons among Rate Divisions, which is not advisable or valuable. A
16 more reasonable metric may be O&M/ERC that is inflation-adjusted and
17 includes only the O&M that is largely within the control of CWSNC (e.g. does
18 not include purchased water/sewer services, purchased power, rate case
19 expense) and compares to historical performance. However, as noted
20 above, the WSIP's extensive and regular reporting requirements allow for
21 access to such data without the need for a defined performance metric.

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Q. PLEASE DISCUSS YOUR CONCERNS WITH THE PROPOSED METRIC REGARDING UTILIZATION OF THE STATE REVOLVING FUND (“SRF”) PROGRAM.

A. CWSNC fully supports the idea of obtaining funds within the Drinking Water SRF program. However, to have a metric that would require every “eligible” project to seek those funds as proposed by the Public Staff ignores the fact that there are incremental costs (sometimes significant) to apply for and, if successful, administer those grants and loans. Examples of such costs include: additional headcount, legal costs, engineering costs, and other professional service costs. Those potential O&M costs are not budgeted currently and have not been calculated in the current proceeding by the Company or the Public Staff. In addition, there are certain projects where the benefit of a grant or loan may be outweighed by these incremental costs. Indeed, in the Spring 2022 semi-annual cycle of Drinking Water SRF approvals in the State, only 83 out of 222 complete and eligible applications were approved for funding, and only 3 of them were not related to the Viable Utility and State Reserves.² CWSNC believes this metric should be removed from the recommended metrics, but agrees to continue to evaluate and look for opportunities to apply for these funds, as CWSNC sees

² See <https://deq.nc.gov/media/30648/download?attachment?attachment>. The Company would generally not be eligible for or be prioritized for Viable Utility or State Reserve Funds, as they target Local Government Units or financial distressed systems.

1 potential benefits to the customer base to obtain SRF funds when possible
2 and feasible.

3 **Q. IS THE COMPANY AGREEABLE TO INCORPORATING**
4 **BENCHMARKING INTO ANY OF THE PROPOSED PERFORMANCE**
5 **METRICS?**

6 A. No. The terms “benchmarking” and “KPIs” do not mean the same thing. As
7 stated above, benchmarks are metrics used to compare a company’s
8 performance against other peer companies. These are used widely in
9 competitive markets to evaluate where companies stand relative to peers,
10 and are often used in strategic planning and initiative setting. However, it
11 is very difficult to define a benchmarking metric such that it can be used in
12 an “apples to apples” comparison and have useful function. As Public Staff
13 did not provide any available benchmarks for their proposed metrics,
14 CWSNC does not believe the best use of metrics under the WSIP would be
15 for benchmarking. Instead, the metrics used should be KPI’s, which are
16 used to compile data over time to analyze performance against strategies
17 and goals, and analyze trends in various business categories of
18 performance, such as the operational categories noted in Rule R1-
19 17A(c)(10).

20 **Q. IS THE COMPANY AGREEABLE TO INCORPORATING ANY**
21 **FINANCIAL INCENTIVES AND/OR PENALTIES INTO THE**
22 **PERFORMANCE METRICS APPLICABLE TO CWSNC?**

1 A. No, for the reasons stated previously. The WSIP Statute already contains a
2 comprehensive incentive/penalty structure through the earnings band and
3 excess earnings test. Moreover, the Company believes it is premature to
4 incorporate incentives and/or penalties into any of the metrics an approved
5 WSIP.

6 **IV. RATE DESIGN**

7 **Q. WHAT DOES THE COMPANY PROPOSE WITH RESPECT TO RATE**
8 **DESIGN?**

9 A. As Mr. Schellinger's testimony discusses, the Company proposes to
10 maintain the fixed and volumetric rate recovery proportions approved in Sub
11 384 by the Commission on April 8, 2022. These were a 40%/60%
12 fixed/volume ratio for the Water Rate Divisions, and a 60%/40%
13 fixed/volume ratio for the Uniform Sewer Rate Division, as well as
14 maintaining the existing ratios for the BF/FH sewer rate division.

15 **Q. WHAT DOES PUBLIC STAFF PROPOSE WITH RESPECT TO RATE**
16 **DESIGN?**

17 A. The Public Staff has proposed a shift to 30%/70% fixed/volume ratio for the
18 Water Rate Divisions, and a shift to 40%/60% fixed/volume ratio for Uniform
19 Sewer.

1 **Q. MR. SCHELLINGER DISCUSSES THIS ISSUE IN HIS REBUTTAL**
2 **TESTIMONY, BUT DO YOU HAVE ANY COMMENT ON THIS TOPIC?**

3 A. Yes. As Mr. Schellinger’s rebuttal testimony indicates, the Company does
4 not agree with the Public Staff’s position on changing rate design –
5 especially so soon after a sharp rate design change that was only adopted
6 in April of this year. Mr. Schellinger notes that another rate design shift as
7 proposed by Public Staff could have significant customer impacts, such as
8 customer bill volatility and resulting customer dissatisfaction. In sum, I
9 believe Mr. Schellinger is accurate to conclude that there has not been
10 sufficient time for customers, the Company, or the Commission to
11 understand the full implications of such significant changes in rate design.
12 Accordingly, we strongly recommend that the Commission reject the Public
13 Staff’s proposed rate design ratio changes in this case.

14 **Q. IS THIS TESTIMONY TRUE AND ACCURATE TO THE BEST OF YOUR**
15 **KNOWLEDGE, INFORMATION, AND BELIEF?**

16 A. Yes, it is.

17 **V. CONCLUSION**

18 **Q. DOES THIS CONCLUDE YOUR PREPARED REBUTTAL TESTIMONY?**

19 A. Yes, it does. However, I reserve the right to update for or amend this
20 testimony upon receipt of additional relevant data or other information that
21 may become available.