



NORTH CAROLINA  
PUBLIC STAFF  
UTILITIES COMMISSION

August 10, 2017

The Honorable Chris Millis  
North Carolina House of Representatives  
300 N. Salisbury Street, Room 609  
Raleigh, NC 27603-5925

Re: Docket No. W-354, Sub 356 – Rate Increase Application of Carolina Water Service, Inc. of North Carolina

Dear Representative Millis:

I am one of the Public Staff attorneys handling the above-referenced rate increase application of Carolina Water Service, Inc. of North Carolina (CWSNC). Your e-mail regarding several complaints of your constituents was forwarded to my attention by our Executive Director, Christopher Ayers.

I have forwarded the information you provided to the Public Staff engineers assigned to this case and they have followed up on the specific complaints with CWSNC. We requested that CWSNC provide a report on the conditions in Belvedere and how they have resolved or will resolve the problems. Attached are e-mail responses regarding Belvedere from the President of CWSNC and Mr. Brian Lievre, an engineer with the Public Water Supply Division of the Department of Environmental Quality, respectively. Additionally, as noted in the e-mails you forwarded, a public hearing is scheduled in Wilmington on August 23, 2017. Representatives of the Company and the Public Staff will be present. During the hearing, customers will have an opportunity to provide testimony, which will be transcribed and become a part of the official record of this case.

If you need any additional information please let me or my colleague, Bill Grantmyre, know. We can be reached at 919-733-6110 or by e-mail at [gina.holt@psncuc.nc.gov](mailto:gina.holt@psncuc.nc.gov), or [william.grantmyre@psncuc.nc.gov](mailto:william.grantmyre@psncuc.nc.gov).

Best regards,

Gina C. Holt  
Staff Attorney  
Public Staff-North Carolina Utilities Commission

Enclosures

c: Christopher J. Ayers  
David Drooz  
William Grantmyre  
Gina Y. Casselberry

Executive Director (919) 733-2435	Communications (919) 733-2810	Economic Research (919) 733-2902	Legal (919) 733-6110	Transportation (919) 733-7766
Accounting (919) 733-4279	Consumer Services (919) 733-9277	Electric (919) 733-2267	Natural Gas (919) 733-4326	Water (919) 733-5610

**Holt, Gina**

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**From:** Matthew Klein <MKlein@uiwater.com>  
**Sent:** Thursday, July 27, 2017 3:57 PM  
**To:** Casselberry, Gina  
**Cc:** Holt, Gina; Jo Anne Sanford; Bryce Mendenhall; Danny Lassiter; Eddie Baldwin  
**Subject:** CWSNC - Response to Questions

Gina, thank you for sharing with us concerns expressed by customers of our Belvedere Plantation system. We appreciate the opportunity to respond.

The concerns raised involve (1) the recent, unexpected failure of the pump at Well No. 1 and the resultant "discolored" water; (2) the recent reports related to GenX; and (3) the rate case pending before the North Carolina Utilities Commission (Commission).

First, the episode of "discolored" water was initiated by an unexpected failure of a pump at Well No. 1, one of two wells serving Belvedere Plantation. Previously, in 2012, Well No. 1 was upgraded. This included new pumps and a water storage tank. Currently, Well No. 2 is undergoing similar improvements, including a larger pump within the well, a SCADA system (to communicate between the two wells), new piping, new meters, and a new (larger) generator.

On the morning of July 13, 2017, technicians were checking the wells and discovered that the pump in Well No. 1 was "locked up" and would not pump any water. While there was approximately eight hours of water storage available within the Well No. 1 storage tank, it was determined that two options were available to ensure reliable access to water. Option one involved making Well No. 2 operational, which could be accomplished by accelerating the improvements, obtaining emergency operational authority from Wilmington Regional Office of the North Carolina Division of Environmental Quality (DEQ), and then flushing the system. Option two involved opening a temporary interconnection with Pender County. Both options could be accomplished within a similar time frame.

Option No. 1 was selected due to concerns about introducing into our system surface water that originated from the Cape Fear River, prior to assessing GenX contamination concerns. That same afternoon, technicians were able to obtain emergency approval, "flush" Well No. 2, and make it operational. Unfortunately, introducing water from Well No. 2 stirred up some sediments within the system and staff began to receive "discolored water" complaints from our customers. We immediately contacted customers through our automated contact system notifying them of the situation and the efforts to flush out the "discolored water." On July 14, 2017, the day following the Well No.1 pump failure, the water from Well No. 2 was clear of any "discolored water."

The second issue concerned the reports of GenX contamination of the surface water within the Cape Fear River. Our staff continues to monitor the events and activities by DEQ and the North Carolina Department of Health and Human Services. We intend to work closely with these agencies as efforts are made to determine the extent of possible contamination.

Finally, there is a rate case pending before the Commission. Interested parties may attend an upcoming public field hearing and provide testimony before the Commission. The field hearing closest to this community will be held on Wednesday, August 23, 2017, at 7:00 pm, at the New Hanover County Courthouse.

Please feel free to contact me at [mklein@uiwater.com](mailto:mklein@uiwater.com) if you have any questions.

Thank you.

Matt

OFFICIAL COPY

Aug 10 2017

Matthew Klein  
President of North Carolina & Tennessee  
Utilities, Inc.  
4944 Parkway Plaza Boulevard, Suite 375  
Charlotte, North Carolina 28217  
[mklein@uiwater.com](mailto:mklein@uiwater.com)

**Holt, Gina**

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**From:** Jo Anne Sanford <sanford@sanfordlawoffice.com>  
**Sent:** Wednesday, August 02, 2017 4:27 PM  
**To:** Holt, Gina; Casselberry, Gina; Furr, David; Grantmyre, William; Junis, Charles M; Quant, Lindsay A  
**Subject:** FW: "Bad Water in Hampstead"

Hi to all,

I wanted to share, on behalf of CWSNC, a very welcome outreach from Brian Lievre, Engineer, Public Water Supply (DENR), in the form of an explanation of the Belvedere situation to Pender County officials.

Please feel free to contact Bryce or Danny if you have any questions.

Best,  
Jo Anne

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**From:** Eddie Baldwin  
**Sent:** Wednesday, August 2, 2017 9:06 AM  
**To:** Danny Lassiter <[DWLassiter@uiwater.com](mailto:DWLassiter@uiwater.com)>; Matthew Klein <[MKlein@uiwater.com](mailto:MKlein@uiwater.com)>; Bryce Mendenhall <[BMendenhall@uiwater.com](mailto:BMendenhall@uiwater.com)>  
**Subject:** FW: "Bad Water in Hampstead"

Talking with our State Inspector for Water (Bryan Lievre) this morning he commented that he had sent this e-mail out to Pender County Commissioners and Pender Health Dept. for better understanding of Belvedere water system.

CWS acquired system in 8-25-1987 not 1980

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**From:** Lievre, Bryan K [<mailto:Bryan.Lievre@ncdenr.gov>]  
**Sent:** Wednesday, August 2, 2017 8:38 AM  
**To:** Eddie Baldwin <[ERBaldwin@uiwater.com](mailto:ERBaldwin@uiwater.com)>  
**Subject:** FW: "Bad Water in Hampstead"

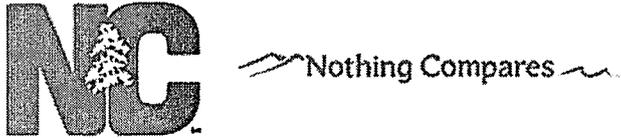
Hey Eddie,

Provided below is the message I sent.

**Bryan K. Lievre, P.E.**  
Engineer  
Water Resources  
Public Water Supply  
Department of Environmental Quality

910-796-7369 office  
910-465-1775 cellular  
[Bryan.Lievre@ncdenr.gov](mailto:Bryan.Lievre@ncdenr.gov)

127 Cardinal Drive Extension  
Wilmington, NC 28405



*Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties.*

**From:** Lievre, Bryan K  
**Sent:** Friday, July 21, 2017 9:36 AM  
**To:** 'cmoser@pendercountync.gov' <cmoser@pendercountync.gov>  
**Cc:** Heidi Cox (heidi.cox@ncdenr.gov) <heidi.cox@ncdenr.gov>  
**Subject:** RE: "Bad Water in Hampstead"

Good morning Ms. Moser,

The Belvedere Plantation water system is regulated by the North Carolina Department of Environmental Quality, Public Water Supply Section (PWSS). The system has been assigned an identification number of NC0471111 by PWSS. The system currently has a valid operating permit and does not have any outstanding violations. The water system generally consists of two water supply wells with treatment, finished water ground storage tanks and booster pumps at both wells, in addition to the distribution piping and appurtenances. Treatment systems at both wells currently consists of sand separators, injection of orthophosphate (for sequestration of iron) and chlorination (for disinfection). The original system (including Well 1) was installed circa 1973 and the system has had numerous expansions and renovations since that time. Information on the system, including recent laboratory results can be found at the link provided below and by inserting the name or ID number of the water system.

<https://www.pwss.enr.state.nc.us/NCDWW2/>

Carolina Water Service, Inc. purchased the system in about 1980 and more recently authorized the completion of upgrades to the system. These upgrades included repairs to Well 2, installation of a new pump and motor at Well 2, and replacement of raw water pipe and appurtenances at Well 2. The work at Well 2 was initiated in March 2017 and is still underway. On about July 13, 2017, the pump for Well 1 locked-up. Subcontractors performing work at Well 2 provided immediate response by temporarily providing power to the newly installed replacement pump in Well 2 to ensure that the system had an adequate supply of water. At the request of the system owners, the same subcontractors also are currently installing a replacement pump within Well 1. Once the replacement well is properly installed within Well 1, and the well is disinfected and samples obtained to demonstrate that the water is free of bacterial contamination, Well 1 will be placed back into operation. Once work has been completed at Well 1, Well 2 will be taken back off-line to complete proposed upgrades.

When Well 2 was previously offline while work was being performed, the system experienced issues which resulted in the system issuing loss of pressure advisories to the residents. In addition, within the last few months, our office has responded to numerous complaints from residents regarding water quality issues. Generally speaking, the Loss of Pressure Advisories were issued due to momentary lapses in pressure which were only encountered since the system only had one functioning well. It should also be noted that the issuance of a Loss of Pressure Advisory is not an uncommon situation and does not necessarily mean that contamination is present within the system. The advisories recently issued by the system were due to low or no pressure within the distribution system, which could only increase the potential for back siphonage and the introduction of bacteria into the system. Subsequent tests have since indicated that bacterial contamination was not present within the system as a result of each occurrence.

The water quality issues presented to our office have been indicative of water discolored by the presence of total dissolved solids. These complaints seem to have been generally resolved when the system flushes the line(s) in the area of the complainant. For this reason, our offices first response to a complaint is to request that each resident first contact the system owner so that the owner has an opportunity to address and hopefully resolve the issue. On one occasion, I travelled to a residence located at 208 Hickory Lane. Upon inspection, I observed that the resident had cartridge filtration installed to treat water before entering the house. Although the resident had numerous cartridges that were obviously fouled by solids, the water was clear on the day of my inspection. Attached are a copy of the lab results for inorganics and coliform, which were obtained from an outdoor spigot at the residence. As you will note, the tests were negative for total coliform and the results for inorganics were all within acceptable ranges.

It is our understanding that upon being informed of this issue, the system has responded and flushed the lines in the vicinity of each incident. To our knowledge, none of the residents have ongoing issues after the lines are properly flushed. The system operator plans on performing a comprehensive flushing program once both wells are placed back in operation, but have expressed concern about over flushing the lines with only one well operational. Until the comprehensive flushing program is initiated and the work on both wells is completed, additional complaints regarding water quality may occur. I have expressed my desire for the system owners to inform the residents of these temporary issues and to keep them informed of local water quality issues so that a quicker response can be provided.

I hope that the above information provides information to help you understand that matter at hand, but please feel free to contact me if you have any additional questions or comments regarding this or other matters.

Respectfully yours,  
**Bryan K. Lievre, P.E.**  
Engineer  
Water Resources  
Public Water Supply  
Department of Environmental Quality

910-796-7369 office  
910-465-1775 cellular  
[Bryan.Lievre@ncdenr.gov](mailto:Bryan.Lievre@ncdenr.gov)

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Wilmington, NC 28405



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