



Board of Commissioners

Gates County Government

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GatesCountyNC.gov

September 19, 2025

North Carolina Department of Environmental Quality, Division of Water Infrastructure

Viability Utility Program Update per NCGS 159G-45

Gates County-Distressed Unit for Water/Wastewater – supplemental report

Introduction

November 28, 2017, NCDEQ provided notice Gates County's wastewater treatment facility was placed under a Sewer Moratorium prohibited connecting additional customers to the original WWTF on Honey Pot Road, Permit No. WQ0000267 effective January 13, 2018. The original 0.025 MGD plant (now derated to 0.015 MGD) is presently shut down for restoration. The Division of Water Resources is allowing flow to be added to new 0.40 MGD plant, however, the current moratorium remains in effect until the original plant is fully restored to operational status.

August 8, 2022, NCDEQ correspondence provided notice of *Gates County's Designation of Distressed Unit in the Viability Utility Program for Water & Wastewater*.

For Gates County's water system, in 2022 the predominant issue was financial based on the number of customers with non-functional water meters, estimated at approximately 1,000 faulty meters or 25% of the more than 4,300 active accounts.

November 10, 2022, the Gates County Board of Commissioners received Green Engineering's preliminary utility system evaluation report, noting an unaccounted water loss of thirty-seven percent (37%) and a financial operating ratio of 0.94 for the year ended June 30, 2021.

The preliminary utility system evaluation included recommendations for a rate structure study and development of an Asset Management Plan for the water & wastewater systems.

February 15, 2023, the Gates County Board of Commissioners adopted an Ordinance Amending Water Rates as Found in the Approved FY 2022-2023 Fee Schedule increasing the base rate (up to 2,000 gallons) from \$24 to \$29 and increasing the fee for additional 1,000 gallons consumed from \$3 to \$5 per month.

April 6, 2023, the Board of Commissioners approved the Gates County Capital Improvement Plan (FY 2023 to FY 2032) for Water & Sewer Projects and authorized submission of applications to NCDEQ for the following projects:

- Water System Improvements -- \$2,682,100
- 0.015 MGD Wastewater Treatment Plant Restoration -- \$2,217,816
- Gates County Water Tank Replacement & Resiliency -- \$1,397,600

April 19, 2023, the Gates County Board of Commissioners adopted an Ordinance Amending Water Rates in the Approved FY 2022-2023 Budget Ordinance to include the implementation of a ***water conservation incentive structure and rate adjustment, effective April 1, 2023.***

July 5, 2023, the Gates County Board of Commissioners adopted Resolution for the Approval of Procurement for Radio Read Water Meter and Installation Project in the amount of ***\$1,400,693.66 for replacement of water meters and associated radio drive-by communications devices and software.*** This project has experienced several delays due to vendor staffing and software data input and is ninety-eight percent (98%) complete.

September 20, 2023, the Gates County Board of Commissioners approved NCDEQ funding applications for:

- Revised Capital Improvement Plan FY 2024 to FY 2034 for Public Utilities Dept.
- Water System AIA mgmt. plan, rate study and hydraulic analysis - \$383,000
- Wastewater AIA mgmt. plan, soil remediation study for the WWTP - \$250,000
- Water Tank Replacement for Gatesville and SCADA system - \$1,453,600
- Disadvantaged Community Water System, 22,000 water main, one new deep well, three standby generators for wells, directional bore for Bennett's Creek in Gatesville to close two dead ends for water quality and hydraulics - \$2,876,634

October 4, 2023, also based on Green Engineering's November 2022 preliminary system evaluation, the Gates County Board of Commissioners receives report of North Carolina General Assembly's approval of S.L. 2023 – 134 appropriations in the amount of \$10,145,000 to Gates County for the County and the Town of Gatesville water and wastewater system.

November 1, 2023, the Gates County Board of Commissioners approved NCDEQ funding application submittal for Lead Service Line Study - \$328,000

March 20, 2024, the Gates County Board of Commissioners update of preliminary approval of NC Water Infrastructure Authority on February 2024 for the following:

- \$383,000 Water System AIA Study – 100% grant
- \$167,000 Wastewater System AIA Study - \$15,000 local match, 1.5% fee
- \$328,000 Lead Service Line Inventory Study – 35% grant (principal forgiveness) of \$114,800 with a five (5) year zero interest loan of \$213,200.
- \$2,217,816 funding for WWTP Restoration 0.015 MGD WWTP facility on Honey Pot Road as \$1,500,000 grant (principal forgiveness) and \$717,816 twenty (20) year zero interest financing from the State Revolving Loan – Vulnerable Utilities Fund.

April 10, 2024, the Gates County Board of Commissioners meets to review the draft capital improvement plan and the following projects in receipt of a “Letter of Intent to Fund” from NCDEQ:

- Water System Asset Inventory Assessment (AIA) \$383,000 and is 100% grant funded.
- Wastewater System AIA \$167,000 including \$150,000 grant with a 10% local match and 1.5% administrative fee; and \$17,000 in state ARPA funds, no local match.
- 0.015 WWTP Restoration (Honey Pot Road) \$2,217,816 NCDEQ approved financing and the terms of the loan, structured with a “grant” in the amount of \$1,500,000 in Principal forgiveness (67.6%) and \$717,816 payable loan over 20 years at 0% interest. \$35,890.80 per year for 20 years. There will also be a 2% fee from NCDEQ that will be payable for the project per their standard conditions. Before disbursement of funds, you will be required to sign the original offer and pass a resolution adopting the funding offer, but that will occur later.
- Lead Line Survey Evaluation \$328,000 approved financing and the terms of the loan, structured with a “grant” in the amount of \$114,800 Principal forgiveness (35%) and \$213,200 payable loan over 5 years at 0% interest. This will be \$42,640 per year for the next 5 years maximum under the contract. Payments would most likely begin in FY 2024-2025 after the project is completed. Green will complete the Scope of Work prior to May 1, 2024.

April 17, 2024, the Gates County Board of Commissioners approved Revised Public Utilities Capital Improvement Plan (FY 2025 to FY 2034) and priorities for project designation using S.L. 2023-134 state appropriations:

- NCDEQ – S.L. 2023-134 Water/Sewer Directed Projects Project Name: Gates County Water Supply Capacity Expansion -- \$9,557,237
- NCDEQ – S.L. 2023-134 Water/Sewer Directed Projects Project Name: Gates County Water Systems Improvements -- \$283,413

The Board of Commissioners approved two NCDEQ applications and requisite resolutions for:

- NCDEQ Division of Water Infrastructure Application for Funding Project Name: Buckland Elementary School Wastewater System Improvements -- \$1,305,333
- NCDEQ Division of Water Infrastructure Application for Funding Project Name: T.S. Cooper Elementary School Wastewater System Improvements -- \$2,816,052

Regionalization: *The Board of Commissioners also approved two draft interlocal agreements for the merger and consolidation of both school wastewater systems with the Gates County Wastewater System to address multiple notices of violations from NCDEQ:*

- DRAFT Interlocal Agreement to Merger Wastewater System NPDES WW Permit NC0043974 – located at the Buckland School
- DRAFT Interlocal Agreement to Merger Wastewater System NPDES WW Permit NC0033804 – located at T.S. Cooper School

May 15, 2024, the Gates County Board of Commissioners approved the following Project Ordinances for ARPA and NCDEQ/WIA/SRF funding:

- Project Ordinance – 24-001 Wastewater System AIA, NCDEQ Project No.: AIA-W-ARP-0287 and Project No.: AIA-W-0289
- Project Ordinance – 24-002 Water System AIA, NCDEQ Project No.: AIA-D-ARP-0286
- Project Ordinance – 24-003 Lead Line Investigation Study, NCDEQ Project No.: SRF-D-LSL-0069
- Project Ordinance – 24-004 0.015 MGD Wastewater Treatment Plant Restoration NCDEQ Project No.: SRF-W-0011

July 17, 2024, the Gates County Board of Commissioners received report of NCDEQ funding approval for the following:

- \$4,121,385 in project funding for the Gates County Public Utilities Department to expand sewer line connections to T.S. Cooper Elementary and Buckland Elementary Schools; both schools are served by aged onsite wastewater systems, and experienced numerous permit violations from NCDEQ in recent years. Mr. Sauer also noted the State is strongly encouraging consolidation (regionalization) of wastewater collection and sewer treatment plants as proposed in Gates County.

- State funding for the Buckland and T.S. Cooper connections will provide a combined grant amount of \$2,326,333 to be allocated in the form of principle forgiveness through the Clean Water State Revolving Fund (CWSRF), combined with a project grant of \$695,682 from the Wastewater State Revolving Fund, and CWSRF financing with a twenty-year, zero percent interest (0%), loan amount of \$1,099,370 with approximately \$55,000 in annual debt service payments.

September 10, 2024, the Gates County Board of Commissioners and the Town of Gatesville's Town Council met to review the S.L. 2023-134 state appropriations and approved a Joint Resolution in support of the infrastructure projects proposed by the County and submitted to NCDEQ, by unanimous vote.

September 18, 2024, the Gates County Board of Commissioners receives report that NCDEQ has approved the Well Head Protection Plan, thanks to the support of the NC Rural Water Association.

The Board of Commissioners received the Gates County Water Quality Update related to ***elevated Fluoride levels, naturally occurring in regional groundwater*** from Public Utilities Director Brad Arnold, County Manager Scott Sauer and from the North Carolina General Assembly, Senator Bobby Hanig and Representative Bill Ward.

NC Senator Hanig came to the podium and shared his concern for protecting the public water supply and the lack of effort by the State to address the fluoridation study required by S.L. 2023-134, and when the **National Toxicity Program (NTP)** report was released August on 21st he called the County Manager. We, Representative Bill Ward, and I are here to help Gates County as he stated.

NC Representative Bill Ward also addressed the governing body and explained that he and his colleague Senator Hanig work closely together to serve our counties, and tonight we need to learn what you need in Gates County.

Public Utilities Director Brad Arnold explained that upon review of the information shared by Senator Hanig, Ms. Jenny Kelvington (a staff member for the NC General Assembly), Gates County immediately initiated an accelerated water quality sampling protocol with weekly testing our three water supply wells.

Mr. Arnold reviewed current NC regulations and explained public water supply systems are required to test for fluoride every three years. Gates County's most recent sampling for Fluoride occurred in *November 2023 and the Fluoride concentration was 2.9mg/L*.

The federal limit for acceptable fluoride is 4.0 mg/L which is set by the EPA and fluoride concentrations exceeding this level require treatment.

Sampling results exceeding 2.0 mg/L require notice to the public and further study.

Our health department, Albemarle Regional Health Services, has communicated with NCDHHS and reported that “Gates County has been compliant with all testing and reporting requirements that are currently in place,” noted County Manager Scott Sauer.

According to Mr. Arnold, weekly testing will occur at all three water supply wells for three (3) months, then transition to once per month testing for six (6) months to develop a current baseline to measure the Fluoride concentration. The recent NTP study used sampling data for Gates County from a two-year period 2017—2019. Mr. Arnold also noted that the County’s annual water quality report indicated high fluoride levels for ten years or more.

Mr. Arnold noted initial sampling occurred September 4, 2024, and yielded the following results, (max limit is 4.0):

Well #1 sample = 3.2 mg/L flow rate is 150 gpm

Well #2 sample = 1.0 mg/L flow rate is 625 gpm

Well #3 sample = 1.1 mg/L flow rate is 900 gpm

Mr. Arnold also explained *the blended effluent* leaving the water plant, sampled on the same date (9-4-2024) indicated 3.1 mg/L and the County’s action in response to those sampling results--Gates County Public Utilities Department shut down Well #1 indefinitely.

September 11, 2024, Ms. Ashley Stoop, Health Director for the Albemarle Regional Health Services (8 counties) and her management team visited Gates County and toured the water plant facilities in preparation for the Board of Commissioners meeting on September 18th according to County Manager Sauer.

Mr. Sauer explained for the long range, Gates County has State appropriation project funding of \$10,145,000 (thanks to the efforts of Representative Bill Ward and Senator Bobby Hanig) for water infrastructure improvements, and number one on the list is construction of two new deep wells. This project development will entail subsurface groundwater survey analysis to identify the most desirable locations for the new wells. And concurrently, the County has consultants engaged to perform a hydraulic analysis of the entire Gates County Water System.

The Board of Commissioners also approved the NCDEQ Revised Funding for Gates County Wastewater System AIA study to fully fund the County’s initial application request, increasing from \$167,000 to \$250,000 and requisite project adjustments to include:

- Approval of replacement Resolution to accept Revised Funding for Gates County Wastewater System AIA study, Project Numbers AIA-W-ARP-0287 and AIA-W-VUR-0030 in the amount of \$250,000 with no local match required.
- Approval of revised Project Ordinance 24-001, Wastewater System AIA study, Project Numbers AIA-W-ARP-0287 and AIA-W-VUR-0030.

- Gates County 0.015 MGD Wastewater Treatment Plant Restoration Project No. SRF-W-0011

On the recommendation of the County Manager, the Gates County Board of Commissioners directed staff to prepare correspondence to NC Representative Bill Ward and NC Senator Bobby Hanig requesting a special state appropriation in the amount of \$750,000 to assist with addressing the fluoride issue facing the County. The requested amount will cover construction of six test wells conducting hydrogeological studies and water quality analysis.

October 16, 2024, the Board of Commissioners voted unanimously to allocate the remaining ARPA funds in the amount of \$200,000 for well testing for the County's water system and continued monitoring of Fluoride levels.

The Gates County Board of Commissioners received report that NCDEQ funded Lead Service Line Study project is complete. The final project cost for the Lead Service Line Study is estimated at \$111,050 as compared to the original project estimate of \$328,000 and total cost savings of \$141,017.50 for this project. The County's revised loan principal is \$72,182.50 (65%) with annual payments of \$14,436.50 over five years, zero interest.

Additionally, the Board received report the State released the "Letters of Intent to Fund" all the S.L.2023-134 appropriations this afternoon in email correspondence from NCDEQ dated 10-16-2024. The state appropriation to the County, and all grant recipients, was reduced by three percent (3.0%) for NCDEQ administration costs resulting in available funding of \$9,840,650 for Gates County. Reports that the administrative fee has been reduced to one and a half percent (1.5%) for a net gain of \$152,175 for Gates County projects, and the correspondence noted that the administrative fee has been reduced to one and a half percent (1.5%) for a net gain of \$152,175 for Gates County projects.

Project Ordinances for Buckland Elementary School and T.S. Cooper Elementary School wastewater connections and construction of four-inch force main sewer lines were approved by unanimous vote, based on the NCDEQ "Letter of Intent to Fund" for both schools dated August 23, 2024.

November 20, 2024, the Board of Commissioners voted unanimously to approve budget amendment F25-015 which included the reallocation of the remaining CAB broadband ARPA funds to the Public Utilities Department for expanded well testing and detailed water sampling associated with Fluoride monitoring efforts.

They also approved by unanimous vote, the following:

- Resolution to Accept and Approve NCDEQ Funding Offers in the amount of \$9,992,825 as revised by the State's reduction of administrative fees to 1.5%.
- Project Ordinance 24-005, Revised to establish Capital Project Fund 64 to proceed with capital projects consistent with the County's Joint Resolution with the Town of Gatesville.

- Interlocal Agreement to Consolidate Wastewater Systems serving Buckland and T.S. Cooper Elementary Schools, transferring ownership and operational responsibilities from the Board of Education to the County of Gates, and constructing the sewer connection for both schools.

December 2, 2024, the Board of Commissioners approved the following:

- Resolution to accept NCDEQ State Revolving Fund, Funding Offer in the amount of \$2,217,816 with \$1,500,000 Principal Forgiveness and \$717,816 loan repayable in twenty years at zero percent interest, for the Gates County 0.015 MGD Wastewater Treatment Plant Restoration Project No. SRF-W-0011.
- Project Ordinance 24-004, Revised to reflect reduction in professional engineering fees per contract amendment approved October 16th, 2024, meeting for the Gates County 0.015 MGD Wastewater Treatment Plant Restoration, NCDEQ Project No. SRF-W-0011.

January 21, 2025, the Gates County Board of Commissioners work session at the Merchants Millpond State Park Visitor Center to review active projects currently funded by the NC General Assembly's S.L. 2023-134 appropriation of \$10,145,000 and NCDEQ SRF project funding and ARPA grants totaling \$7.3 million.

The Board of Commissioners was also briefed on the \$1.4 million radio read meter replacement, software configuration & testing in preparation for the transition to a monthly billing cycle from the current bi-monthly billing cycle, which was instituted in 2021 during COVID due to staffing shortages.

January 21, 2025, continued, the Board of Commissioners was also briefed on the continued Fluoride mitigation efforts including a commitment of \$200,000 local funds (ARPA) for the analysis of the County's existing three water supply wells and more frequent testing to isolate the Fluoride source in each well. Additionally, the Board discussed the priority for examining filtration system options for Fluoride level reduction.

January 27, 2025, the Board of Commissioners received a Water Quality/Fluoride Update from Brad Arnold, Gates County Public Utilities Director and Green Engineering representatives Leo Green, III, Rodney Tart and Mr. Leo Green of Wilson, NC.

Two PowerPoint presentations (copies attached to this report) were shared with the Board and recorded on the Gates County YouTube channel entitled:

- Gates County's brief history of naturally occurring fluoride in groundwater impacting public water supply & private wells.
- Fluoride Reduction Project by Green Engineering

February 19, 2025, the Board of Commissioners received a detailed status report on all current project engagements with Gates County, including the Fluoride mitigation strategies and hydrogeological analysis under the direction of Dr. Richard Spruill of Groundwater Management Associates, Greenville, NC.

See Meeting Minutes Attached

March 19, 2025, Public Utilities Director Brad Arnold updated the Board of Commissioners regarding the continued high frequency of water line cuts and service interruptions for County water customers due to fiber optic lines installed throughout the County by various subcontractors. He noted that since January 1, Public Utilities staff have experienced nine (9) water line cuts by contractors for various telecommunications companies: six (6) were the result of inaccurate County maps (50 year old as-built drawings) used by County staff to locate existing water lines and three (3) water line cuts due to contractors who began boring without waiting to receive proper utility locates. He mentioned that the County is pursuing reimbursement for these water line cuts, and in one single day, the Public Utilities Department has received fifty (50) request tickets for locates, more than County staff can handle in a reasonable amount of time.

The Board also received updates from Mr. Arnold regarding well performance testing on Well 1A, using “packer testing” to isolate the upper screen initially, followed by the middle and lower screen.

April 16, 2025, the Board of Commissioners approved a budget amendment in the amount of \$349,721 for the Public Utilities Department as follows:

- \$48,950 for Well 1A to install a 40hp submersible pump to replace the 25hp existing above ground pump.
- \$63,676 for Well 3 to install a 100hp submersible pump to replace the existing 100hp ground pump.
- \$62,095 to replacement of 30-year-old CPU controller for the SCADA system which has failed.
- \$175,000 for additional vendor support for meter replacement project closeout.

June 18, 2025, the Board of Commissioner approved the FY 2025-2026 Budget Ordinance, including one additional Senior Meter Technical (1.0 FTE) for the Public Utilities Department to support the County’s commitment to improved water and wastewater system operations.

July 16, 2025, Public Utilities Director Brad Arnold reported to the Board that Well 1A which was producing 150 gallons per minute in September 2024 has improved significantly due to the backwashing exercise known as “raw hiding” for the middle screen which was block with sediment and clay. **Well 1A** now consistently produces 320 gpd, and with the installation of a 40hp submersible pump, the engineers have calculated the yield should be 500 gpm or greater. The

County is seeking a permit from NCDEQ for this upgrade. **Well 2** performance has improved during the testing period from 650 gpm to 700 gpm. **Well 3**, the County's highest yield production water supply well is consistently 1,050 gpm and the new 40hp submersible pump will increase its reliability and future production.

August 27, 2025, at the Board's work session the County Manager and Public Utilities Director provided Fluoride testing results, packer testing data for County supply wells, and Fluoride sampling from five (5) agricultural wells—in addition to other project updates.

Of significant note, is the Board of Commissioners continued its discussion that the County's goal for reduction of Fluoride to the NCDEQ Washington Regional Office's target of 0.7 mg/L or as low as practicable to protect the public health in Gates County.

August 27, 2025, at the Board's regular monthly meeting the Board of Commissioners approved Budget Amendment F26-013 in the amount of \$706,355 for the Department of Utilities, of which **\$352,793 reflects FY25 carryover unexpended funds committed to the Fluoride mitigation project. During FY25 Fluoride mitigation expenditures totaled \$257,350 for a total of \$610,143 in local funds** in Gates County appropriations for this important endeavor.

September 17, 2025, the Gates County Board of Commissioners reviewed the well sampling data and Fluoride levels reported over the past twelve months, and received findings and analytics as reported by Dr. Richard Spruill of Groundwater Management Associates and Green Engineering.

The Board received recommendations for next steps to achieve greater water supply volume production and redundant capacity given the limited number of active wells; and strategies to improve water quality (Fluoride reduction/elimination to the extent possible) and next steps evaluate the advanced level of water treatment.

The Gates County Board of Commissioners unanimously adopted a motion to establish a project target for Fluoride at 0.7 mg/L or lower; directing our working group to develop an advanced technology water treatment system to significantly reduce the naturally occurring Fluoride in their finished drinking water provided for Gates County citizens and protecting the County's public health for decades to come. The County is preparing to receive results from a reverse osmosis pilot test of the existing water supply wells, scheduled for early 2026 to assist in charting this course of action.

Twelve months ago, the Gates County Board of Commissioners was advised by public health officials that ***Gates County's water system is number one in the State of North Carolina for the reported level of Fluoride in its finished drinking water.*** Our local governing body is committed to fully addressing this issue to protect the public health and the water supply for Gates County residents, with these initiatives:

- **\$7,300,201-- NCDEQ** project funds secured by Gates County since designated as a "distressed unit" for its water and wastewater systems, for six projects over several application cycles.
- **\$9,992,825 – North Carolina General Assembly S.L. 2023-134** appropriations for Directed Project funds for Gates County and the Town of Gatesville for water and wastewater projects for nine projects.
- **\$2,001,835 – Gates County local funds** committed for necessary water system improvements (\$1,400,693) for AMR meter replacement; and Fluoride mitigation (\$601,142) water quality sampling, well performance testing and groundwater analysis.

End of Report