



COMMONWEALTH of VIRGINIA

Karen Shelton, MD
State Health Commissioner

Department of Health
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RICHMOND, VA 23218

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STATE BOARD OF HEALTH ORDER BY CONSENT ISSUED TO THE Town of Bowling Green FOR THE Town of Bowling Green Waterworks PWSID No. 6033550

This is a Consent Order issued under authority granted by Va. Code § 32.1-26 between the State Board of Health and the Town of Bowling Green for the Town of Bowling Green waterworks for the purpose of resolving certain violations of the Public Water Supplies law and the applicable regulations.

Section A. Definitions

Unless the context clearly indicates otherwise, the following words and terms have the meaning assigned below:

1. "Board" means the State Board of Health, a permanent citizens' board of the Commonwealth of Virginia, as described in Va. Code § 32.1-5.
2. "Commissioner" means the State Health Commissioner, who supervises and manages the Department, as described in Va. Code §§ 32.1-16 and 17.
3. "Community waterworks" means a waterworks that serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.
4. "Department" or "VDH" means the Department of Health, an agency of the Commonwealth of Virginia, as described in Va. Code § 32.1-16.
5. "Human consumption" means drinking, food preparation, dishwashing, bathing, showering, hand washing, teeth brushing, and maintaining oral hygiene.
6. "Notice of Alleged Violation" or "NOAV" means a type of notice of alleged violation issued under 12VAC5-590-110 of the Regulations.
7. "ODW" means the VDH Office of Drinking Water. -

8. "Order" means this document, also known as a "Consent Order" or "Order by Consent," which the Board is authorized to issue to require any person to comply with the provisions of any law administered by it, the Commissioner or the Department or any regulations promulgated by the Board or to comply with any case decision, as defined in Va. Code § 2.2-4001, of the Board or Commissioner.
9. "Permit" means Waterworks Operation Permit VA6033550, which VDH ODW issued to the Town of Bowling Green under the PWSL and Regulations on November 15, 2013.
10. "PMCL" means the primary maximum contaminant level of a contaminant based on health considerations. The PMCL for gross alpha emitters (excluding radon and uranium) is 15 picocuries per liter (pCi/L) and compliance is based on a running annual average of four consecutive quarters of results.
11. "Public Water Supplies Law" or "PWSL" means Chapter 6, Article 2 of Title 32.1 of the Va. Code.
12. "Pure water" means water fit for human consumption that is (i) sanitary and normally free of minerals, organic substances, and toxic agents in excess of reasonable amounts and (ii) adequate in quantity and quality for the minimum health requirements of the persons served.
13. "PWSID" means Public Water System Identification.
14. "RAA" means running annual average.
15. "Regulations" means the Waterworks Regulations, 12VAC5-590-10, *et seq.*
16. "RFO" means the ODW Richmond Field Office, located in Richmond, Virginia.
17. "Town" means the Town of Bowling Green.
18. "Town Waterworks" means the Town of Bowling Green waterworks.
19. "Va. Code" means the Code of Virginia (1950), as amended.
20. "VAC" means the Virginia Administrative Code.
21. "Waterworks" means a system that serves piped water for human consumption to at least 15 service connections or 25 or more individuals for at least 60 days out of the year. Waterworks includes all structures, equipment, and appurtenances used in storage, collection, purification, treatment, and distribution of pure water except the piping and fixtures inside the building where such water is delivered.

Section B. Findings of Fact and Conclusions of Law

1. The Town owns and operates the Town Waterworks, a community waterworks located in Caroline County that serves 841 service connections and approximately 1,152 year-round residents. The Town Waterworks consists of three drilled wells, one 60,000-gallon elevated storage tank, one 100,000-gallon

elevated storage tank, one 200,000-gallon ground storage tank, two booster pumps, three chlorination treatment systems, and the distribution system.

2. On June 24, 1977, ODW issued an operation permit to the Town to operate the Town Waterworks in compliance with the PWSL and the Regulations. The most recent revision of the operation permit is dated November 15, 2013.
3. A letter from ODW to the Town dated October 15, 2002, informed the Town of the EPA Radionuclides Rule which was published in the Federal Register on December 7, 2000. The letter indicated that the rule included new sampling requirements beginning with initial sampling of four quarterly samples from each entry point beginning in the compliance period of 2004-2007. The letter explained that grandfathered data could be used in lieu of initial sampling requirements and that the Town had not collected samples meeting the grandfather criteria.
4. A letter from the Town received by ODW on October 30, 2002, expressed the Town's desire to collect radionuclide samples under the grandfather provisions of the Radionuclides Rule starting in the third quarter of 2003.
5. On April 2, 2004, the drilling of Well 5 was completed.
6. A letter from the Town to ODW dated May 27, 2004, stated that Well 2 was taken offline due to three consecutive quarterly samples above the PMCL in order to avoid getting a violation while the details of the new Radionuclides Rule were clarified.
7. On January 26, 2005, ODW issued a construction permit, No. 600105, to the Town for the construction of Well 5 and associated chlorination treatment system and appurtenances.
8. On March 28, 2006, ODW received a letter of substantial completion and satisfactory results of bacteriological testing of construction for Well 5 from the consulting engineer, R. Stuart Royer & Associates, Inc.
9. On September 21, 2006, ODW conducted a routine sanitary survey which acknowledged that Well 2 was disconnected from the water system and capped due to the presence of high gross alpha results. The sanitary survey also served as ODW's final inspection for Well 5.
10. On August 9, 2007, the Town issued a public notice that Well 5 was taken offline on July 6, 2007, due to exceeding the PMCL for gross alpha emitters.
11. On July 11, 2007, ODW issued the Town an NOAV for exceeding the PMCL for gross alpha emitters from Well 5 during the 12-month compliance period of October 2006 to September 2007. The RAA for gross alpha emitters for Well 5 during the compliance period was 16 pCi/L. On July 6, 2007, personnel for the Town stated that the Town planned to take Well 5 offline but the Town would continue to report quarterly radiological samples.
12. On July 25, 2007, ODW held a meeting with the Town to discuss the PMCL violation at Well 5. The meeting notes indicate that Wells 1 and 4 were sufficient to meet the capacity requirements of the community at that time.

13. On February 26, 2008, ODW contacted the Town via email to indicate that sample results from January 17, 2008, brought the RAA for gross alpha emitters below the PMCL. ODW informed the Town that Well 5 could be placed online.
14. In March 2008, the Town placed Well 5 back online.
15. On June 6, 2023, radiological results from Entry Point 5, served by Well 5, were 40 pCi/L for gross alpha emitters. The sample schedule for Entry Point 5 for radiological sampling was changed to quarterly, starting in the third quarter of 2023.
16. On June 7, 2023, radiological results from Entry Point 4, served by Well 4, were 21 pCi/L for gross alpha emitters. The sample schedule for Entry Point 4 for radiological sampling was changed to quarterly, starting in the third quarter 2023.
17. On July 14, 2023, radiological results from Entry Point 5 were 16 pCi/L for gross alpha emitters.
18. On July 19, 2023, radiological results from Entry Point 4 and 5 for gross alpha emitters were 25 pCi/L and 28 pCi/L, respectively.
19. On November 13, 2023, radiological results from Entry Point 4 and 5 for gross alpha emitters were 31 pCi/L and 28 pCi/L, respectively.
20. On January 18, 2024, radiological results from Entry Point 4 and 5 for gross alpha emitters were 26 pCi/L and 30 pCi/L, respectively. The RAA of gross alpha emitters at Entry Point 4 and 5 were 26 pCi/L and 30 pCi/L, respectively. The PMCL for gross alpha particle activity (excluding radon and uranium) is 15 pCi/L.
21. On March 4, 2024, ODW and the Town met virtually to discuss the recent sample results for gross alpha emitters. The results collected on January 18, 2024, put the RAA of gross alpha emitters at Wells 4 and 5 above the PMCL.
22. On March 8, 2024, ODW issued NOAVs for exceeding the PMCL for gross alpha emitters at both Wells 4 and 5.
23. On April 29, 2024, ODW met with the Town and University of Maryland Environmental Finance Center to discuss the NOAV and the need to explore alternatives to bring the Town Waterworks back into compliance with the Regulations. ODW requested assistance in investigating potential avenues to fund the planning, design, and construction of any necessary equipment or facilities to reduce gross alpha emitter levels below the PMCL.
24. On May 28, 2024, ODW met with the Town and its contracted engineer, Stantec, for a Preliminary Engineering Conference to investigate alternatives to bring the Town Waterworks back into compliance with the Regulations. One alternative discussed was drilling another well to replace Well 4 and analyzing water quality at the new well. Once that is complete, the next step would be determining what treatment is required for Well 5 and the replacement well for Well 4. During the meeting, both the contracted engineer from Stantec and the Town stated that all proposed action items and timelines are highly dependent on available funding provided to the Town.

25. The Regulations, at 12VAC5-590-388.B.1 (Radiological Compliance), state, "For the owner that is monitoring more than once per year, compliance with the PMCL is determined by an RAA of the analytical results at each entry point. If the average result at any entry point is greater than the PMCL, then the waterworks is out of compliance with the PMCL."
26. The Regulations, at 12VAC5-590-388.C.1, state in part, "Compliance with the radiological PMCLs shall be based on the RAA results. PMCLs are indicated in Table 340.4."
27. The Regulations, at 12VAC5-590-340 in Table 340.4, establish a PMCL for gross alpha particle activity (excluding radon and uranium) of 15 pCi/L.
28. Pursuant to Va. Code § 32.1-26, the Board may issue orders requiring compliance with any law or regulation administered by the Board.
29. Based on the review of ODW records, the Board concludes that the Town is in violation of 12VAC5-590-388.B.1, 12VAC5-590-388.C.1, and 12VAC5-590-340 of the Regulations, as described in paragraphs B.15 through B.27, above.

Section C. Agreement and Order

Accordingly, by virtue of the authority granted it in Va. Code §§ 32.1-26 and 32.1-27, the Board orders the Town, and the Town agrees, to:

1. Perform the actions described in Appendix A of this Order.

Section D. Administrative Provisions

1. This Order addresses and resolves only those violations specifically identified in Section B of this Order. This Order shall not preclude VDH from taking any action authorized by law, including but not limited to taking any action authorized by law regarding additional, subsequent, or subsequently discovered violations or taking subsequent action to enforce this Order.
2. This Order does not suspend, minimize, or otherwise alter the Town's obligation to comply with federal, state, and local laws and regulations. The Board waives no lawful means of enforcing the laws it administers, the regulations it has adopted, or this Order.
3. The Town agrees that it has received fair and due process under the Administrative Process Act (Va. Code § 2.2-4000, *et seq.*) and waives its rights to further hearings or challenges, whether civil or administrative, regarding the terms, conditions, or issuance of this Order and specifically waives its rights to a hearing under Va. Code §§ 2.2-4019 or 2.2-4020 as a predicate for issuance of this Order. The Town consents to the issuance of this Order freely, voluntarily, and after an opportunity to consult counsel of its choice.
4. Any plans, reports, schedules, or specifications submitted by the Town and approved by the Department pursuant to this Order are incorporated into this Order. Any non-compliance with such approved documents shall be considered a violation of this Order.

5. To the fullest extent authorized by law, this Order is binding on the Town and its agents and legal representatives, heirs, devisees, executors, administrators, and any successors in interest, jointly and severally as applicable.
6. The Board may modify, rewrite, or amend this Order with the consent of the Town. Additionally, the Board may modify, rewrite, or amend this Order on the Board's own motion pursuant to the Administrative Process Act, Va. Code §§ 2.2-4000, *et seq.*, after the Town has received notice and opportunity to be heard. Any request by the Town for modification of this Order shall be submitted to VDH in writing to be considered for approval by the Board or its designee.
7. This Order shall not preclude the Board, the Commissioner, or the Department from taking any action authorized by law, including but not limited to: (1) taking any action authorized by law regarding any additional, subsequent, or subsequently discovered violations; (2) seeking subsequent remediation of the facility; or (3) taking subsequent action to enforce this Order.
8. Failure by the Town to comply with any terms of this Order shall constitute a violation of an order of the Board. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of additional orders as appropriate by the Board or Department as a result of such violations. Nothing herein shall affect appropriate enforcement actions by any other federal, state, or local regulatory authority.
9. If any provision of this Order is found to be unenforceable for any reason, the remainder of the Order shall remain in full force and effect.
10. The Town shall be responsible for failure to comply with any of the terms and conditions of this Order unless compliance is made impossible by earthquake, flood, other acts of God, war, strike, or such other unforeseeable circumstances beyond its control and not due to a lack of good faith or diligence on its part. The Town shall demonstrate that such circumstances were beyond its control and not due to a lack of good faith or diligence on its part. The Town shall notify the Department in writing within three business days when circumstances are anticipated to occur, are occurring, or have occurred that may delay compliance or cause noncompliance with any requirement of this Order. Such notice shall set forth:
 - a. The reasons for the delay or noncompliance;
 - b. The projected duration of any such delay or noncompliance;
 - c. The measures taken and to be taken by the Town to prevent or minimize such delay or noncompliance; and
 - d. The timetable by which the Town will implement such measures and the date full compliance will be achieved.

Failure by the Town to notify the Department verbally within 24 hours and in writing within three business days of learning of any condition above, which the Town intends to assert will result in the impossibility of compliance, shall constitute a waiver by the Town of any claim to inability to comply with a requirement of this Order.

11. This Order shall become effective on the 15th day after a copy of it is mailed to the Town by certified mail. Va. Code § 32.1-26.
12. This Order shall continue in effect until:
 - a. The Commissioner or his designee terminates the Order after the Town has completed all of the requirements of this Order;
 - b. The Commissioner or his designee terminates the Order after finding that the circumstances that led to the Order's issuance no longer exist, and that the Order is no longer needed to enforce the PWSL and Regulations to protect the public health.
 - c. The Town petitions the Commissioner or his designee to terminate the Order after the Town has completed all of the requirements of the Order and the Commissioner or his designee approves the termination of the Order; or
 - d. The Commissioner or his designee, or Board, in their sole discretion, terminates the Order upon 30 days written notice to the Town. Termination of the Order pursuant to this authority without the Town having satisfied all terms of the Order may result in VDH pursuing further enforcement related to the violations identified in the Order.
13. Termination of this Order, or any obligation imposed in this Order, shall not operate to relieve the Town from its obligation to comply with any statute, regulation, permit condition, other order, certificate, standard, or requirement otherwise applicable.
14. The undersigned representative of the Town certifies that they are a responsible official authorized to enter into the terms and conditions of this Order and to execute and legally bind the Town to this document. Any documents to be submitted pursuant to this Order shall also be submitted by a responsible official of the Town.
15. By the Town's signature below, the Town voluntarily agrees to the issuance of this Order.

It is SO ORDERED this day, August 19, 2024.

STATE BOARD OF HEALTH
Commonwealth of Virginia



Karen Shelton, MD
State Health Commissioner

Town of Bowling Green voluntarily agrees to the issuance of this Order.

Mark Gaines
Name

Mayor
Title

Mark Gaines
Signature

8/5/24
Date

Notary Public:

Commonwealth of Virginia

City/County of Caroline

The foregoing document was signed and acknowledged before me this 5 day of

August, 2024, by the Town of Bowling Green.

KJC

Notary Public

776 4890

Registration No.

My commission expires: 3/31/2028

Notary seal:



Appendix A **Corrective Action Plan and Schedule for Compliance**

The Town of Bowling Green shall:

- a. Within 30 days of the effective date of this Order, submit to ODW a Corrective Action Plan (CAP) and Schedule for review and approval. The Town is encouraged to consult with RFO regarding the terms of the CAP and Schedule prior to submitting it to ODW for review. The CAP and Schedule shall set forth actions that the Town has taken or plans to take, and a schedule within which to take them, to comply consistently with the PWSL and the Regulations.
- b. Upon ODW's approval of the CAP and Schedule, the Town can begin implementing the CAP in accordance with the Schedule. The approved CAP and Schedule shall become a part of, and enforceable under, the terms of this Order. If the Town does not present a CAP and Schedule with terms that are acceptable to ODW such that ODW cannot approve it, and the Town and ODW are unable to reach agreement on the terms of a mutually agreeable CAP and Schedule, the Board or Commissioner may terminate this Order subject to Section D.12.d of this Order, which may result in further enforcement action against the Town as stated therein.
- c. After initial approval of the CAP and Schedule by ODW, submit any proposed modifications to the CAP and Schedule to RFO for review, discussion and consideration for approval prior to the Town taking any action. The Town shall submit any proposed modification of the CAP and Schedule to RFO at least 30 days prior to expiration of a deadline that the Town seeks to modify.
- d. Maintain compliance with the Regulations for two consecutive years to satisfy compliance with this Order.
- e. Submit to RFO quarterly reviews relating the progress on the CAP and Schedule. The Town shall send quarterly submissions to RFO by the 10th of the month following the end of the reported quarter.
- f. Upon completion of the CAP, submit to RFO a final report verifying that the CAP has been completed in accordance with the terms of this Order.
- g. Mail all submittals and reports required by this Order to:

Laura Taylor, Compliance Specialist
Richmond Field Office
109 Governor Street, 6th Floor
Richmond, Virginia 23219