



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
Johnson City Environmental Field Office
2305 Silverdale Road
Johnson City, Tennessee, 37601
Phone 423-854-5400 Statewide 1-888-891-8332 Fax 423-854-5401

May 24, 2021

Mr. Bob Culler, Naturalist
Bays Mountain Park
853 Bays Mountain Park Road
Kingsport, Tennessee 37660

RE: **Sanitary Survey of Non-Community Water System**
Bays Mountain Park
PWSID #0002618
Sullivan County

Dear Mr. Culler:

On April 16, 2021, personnel with the Division of Water Resources (DWR) visited Bays Mountain Park and performed a Sanitary Survey. The Survey consisted of a records review to document the operational performance of the system and an on-site inspection of the water treatment and distribution system. The Survey covered the time period from April 2019 – April 2021. The Division would like to thank you for your courtesy, willingness to work with the Division, and timely responses to Division requests. In accordance with the Sanitary Survey Manual, Bays Mountain Park earned 596 points out of a possible 599 points for a numerical score of ninety nine percent (99%). This rating retains Bays Mountain Park in the State's "**Approved**" category.

The following deficiencies, comments, and/or recommendations as outlined in the Sanitary Survey Rating Form were identified during the Survey and should be addressed as applicable:

1. Section 5: Monitoring and Data Verification
• **Subsection G. Primary Chemical Monitoring**

Regulation 0400-45-01-.09(5)(d) requires transient non-community water systems to conduct nitrate monitoring annually.

On March 1, 2021, the system was issued a Notice of Violation for failing to submit the results of a nitrate sample during the 2020 monitoring period. The system has

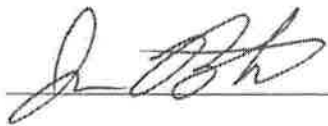
conducted public notification for the violation and nitrate monitoring was conducted on May 20, 2021.

General Observations, Comments, and Other Recommendations

1. The system has an approved Wellhead Protection Plan that was most recently updated in June 27, 2019, per Regulation 0400-45-01-.34(1)(g)(3)(i). The next update is required to be completed by June 30, 2022.
1. As part of the Survey, monitoring was conducted for iron, pH, alkalinity, hardness, and turbidity. The results were within the acceptable ranges and were consistent with results obtained during previous Surveys. The results of these samples are detailed on the Sanitary Survey Rating form. In addition, chlorine residuals were measured at three locations throughout the park, with acceptable results.
2. The Enforcement Targeting Tool (ETT) tracks violations incurred by public water systems and assigns a score for each system based on the number and types of violations. Violations remain on the ETT list for a period of five (5) years and the system's total score determines enforcement potential. Currently, the score assigned to Bays Mountain Park is eleven (11).

Again, I would like to thank Bays Mountain Park personnel for their assistance and courtesy. If you have any questions or need additional information, please contact me at the Johnson City Environmental Field Office at (423) 579-4752.

Sincerely,



Jason Benton, Environmental Scientist
Division of Water Resources
Johnson City Environmental Field Office
Phone: (423) 579-4752
Jason.benton@tn.gov

cc: Ms. Sophia, DeMarse, DWR-NCO
DWR/JCEFO File #0002618
WaterLog database

Sanitary Survey Rating

 PWSID: 0002618

 Water System Name: Bays Mountain Park

 Survey Date: Apr 16, 2021

 System Category (Points): 599

 421 - Consecutive Systems/Distribution Only
 488 - Treatment Systems/Wholesalers
 599 - Both Treatment and Distribution

1. System Management and Operation (94)

<u>Requirement</u>	<u>Points Range</u>	<u>Deduction</u>	<u>Comments</u>
A. Record Keeping 0400-45-01-.20	(0)	Narrative	No comment
B. Construction Projects 0400-45-01-.05, 0400-45-01-.17	(1-5)	0	No comment
C. Submission of Monthly Operations Reports 0400-45-01-.17	(0)	Narrative	No comment
D. Reporting Requirements 0400-45-01-.18	(4-30)	0	No comment
E. Public Notification 0400-45-01-.19	(3-10)	0	No comment
F. Facility Maintenance Fee	(0)	Narrative	No comment
G. Enforcement – TCA §68-221-701 et seq.	(4-10)	0	No comment
H. Emergency Operations Plan 0400-45-01-.17	(3)	0	No comment
	Deficiency Subtotal	0	

2. Operator Compliance (23)

<u>Requirement</u>	<u>Points Range</u>	<u>Deduction</u>	<u>Comments</u>
A. Certified Operator – Plant and Distribution System 0400-45-01-.17(1) and 0400-49-01-.04	(3-15)	0	Certified operator is Mr. Bob Culler.
	Deficiency Subtotal	0	

3. Source (25)

<u>Requirement</u>	<u>Points Range</u>	<u>Deduction</u>	<u>Comments</u>
A. Source Adequacy 0400-45-01-.02, .05, .16, .17(13) and .34(3)	(3-5)	0	No comment
B. Intake 0400-45-01-.05, .17	(2)	0	No comment
C. Wellhead/Springbox Construction 0400-45-01-.05(12), .16 and .17(3) and (16)	(2)	0	No comment
D. Source Protection Plans 0400-45-01-.34	(1-2)	0	Wellhead Protection Plan updated June 27, 2019.
	Deficiency Subtotal	0	

4. Treatment (153)

<u>Requirement</u>	<u>Points Range</u>	<u>Deduction</u>	<u>Comments</u>
A. Aerator 0400-45-01-.05, .17	(2)	0	No comment
B. Chemicals/Chemical Feeders 0400-45-01- .05(8), and .17, .36	(2)	0	No comment
C. Mixing 0400-45-01-.02, .05, .17	(2)	0	No comment
D. Flocculation 0400-45-01-.02, .05, .17	(2)	0	No comment
E. Sedimentation 0400-45-01-.02, .05, .17	(2)	0	No comment
F. Filtration/Alternative Technology 0400-45-01-.17(12) and (27)	(2-30)	0	No comment
G. Re-wash/Filter-to-waste 0400-45-01-.17 (35)	(2)	0	No comment
H. Turbidimeters/Calibration 0400-45-01-.05 (11).17, .31, .39	(2-4)	0	No comment
I. Disinfection 0400-45-01-.02, .17, .31, .36	(2-30)	0	No comment
J. Disinfection Contact Time 0400-45-01-.02, .17, .31	(2-4)	0	No comment
K. Master Meter 0400-45-01-.17 (2) and (3)	(1-2)	0	No comment
L. Maintenance of Equipment, Buildings and Grounds 0400-45-01-.02, .17(3), (17) and (19)	(1)	0	No comment
M. Laboratory Facilities 0400-45-01-.02, .14, .17(3)	(1-3)	0	No comment
N. Safety 0400-45-01-.02	(2)	0	No comment
O. Sludge Handling/Backwash Handling 0400-45-1-.05	(2)	0	No comment
P. Sanitary Conditions 0400-45-01-.17 (17)	(2)	0	No comment
Q. Fluoridation Techniques 0400-45-01-.06, .12, .17	(2)	0	No comment
R. Design Capacity 0400-45-01-.05 (10)	(2-4)	0	No comment
S. Filter Backwash Recycling 0400-45-01-.31 (9)	(1)	0	No comment
	Deficiency Subtotal	0	

5. Monitoring, Data Verification and Compliance (175)

Requirement	Points Range	Deduction	Comments
A. Laboratory-Process Monitoring (excluding Turbidity and Chlorine Residual) 0400-45-01-.17(3)	(5)	0	No comment
B. Bacteriological Monitoring	(2-6)	0	No comment
C. Bacteriological Compliance 0400-45-01-.06	(4-7)	0	No comment
D. Turbidity Monitoring	(2-3)	0	No comment
E. Turbidity Compliance	(4-7)	0	No comment
F. Chlorine Residual Monitoring 0400-45-01-.17, .31, .36	(2-3)	0	1.4 mg/l chlorine residual measured during survey.
G. Primary Chemicals Monitoring	(2-3)	3	System failed to submit 2020 nitrate sample.
H. Primary Chemicals Compliance	(4)	0	No comment
I. Lead and Copper Monitoring 0400-45-01-.33	(2-3)	0	No comment
J. Lead and Copper Action Level 0400-45-01-.33	(3-5)	0	No comment
K. Disinfection/Disinfection By-Products and Precursors Monitoring 0400-45-01-.36, .37, .38	(2-3)	0	No comment
L. Disinfection/Disinfection By-Products and Precursors Compliance 0400-45-01-.06, .36	(2-30)	0	No comment
M. Secondary Chemicals 0400-45-01-.12	(2)	0	No comment
N. Secondary Chemicals Compliance 0400-45-01-.12	(3)	0	No comment
O. Cryptosporidium Monitoring 0400-45-01-.39	(0)	Narrative	No comment
	Deficiency Subtotal	3	

6. Finished Water Storage (25)

Requirement	Points Range	Deduction	Comments
A. Adequate Storage 0400-45-01-.17 (14)	(2-4)	0	No comment
B. Inspection and Maintenance of Reservoirs, Tanks and Clearwell 0400-45-01-.17 (16), (17), (33) and (34)	(1-10)	0	No comment
	Deficiency Subtotal	0	

7. Pumps, Pump Facilities and Controls (18)

Requirement	Points Range	Deduction	Comments
A. Pump Facilities 0400-45-01-.17 (9) and (13)	(1-4)	0	No comment
B. Maintenance of Pumping Equipment 0400-45-01-.17(13)	(1-3)	0	No comment
	Deficiency Subtotal	0	

8. Distribution System and Cross Connection Controls (86)

Requirement	Points Range	Deduction	Comments
A. Notification, Inspection, Disinfection and Sample Collection of New or Existing Facilities 0400-45-01-.17 (8) and (19)	(3-5)	0	No comment
B. Flushing Program/Blow Offs 0400-45-01-.17(10) and (23)	(3-4)	0	No comment
C. Fire Hydrants 0400-45-01-.17 (18)	(0)	Narrative	No comment
D. Adequate Pressure 0400-45-01-.17 (9)	(5)	0	No comment
E. Map of Distribution System 0400-45-01-.17 (15)	(3)	0	No comment
F. Approved Cross Connection Policy or Ordinance and Plan 0400-45-01-.17 (6)	(4)	0	No comment
G. Working Cross Connection Program 0400-45-01-.17(6)	(3-9)	0	Statement on Controlling Cross-Connection completed during inspection.
H. Unaccounted Water Loss	(0)	Narrative	No comment
	Deficiency Subtotal	0	

Total Deficiency Points: 3

Points Available: 599

Overall Rating: 99

Points Available

421 - Consecutive Systems/Distribution Only
 488 - Treatment Systems/Wholesalers
 599 - Both Treatment and Distribution

Inspector: Jason Benton

Additional Comments/Explanations:

Additional sampling conducted during Sanitary Survey: Iron - non-detect, pH 6.6, Alkalinity - 100, Hardness - 100, turbidity - 0.06 NTU.