



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
KNOXVILLE ENVIRONMENTAL FIELD OFFICE
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December 11th, 2023

Certified Mail 9489 0090 0027 6129 2571 30
Return Receipt Requested

The Honorable Marilyn Parker, Mayor
Town of Tellico Plains
405 Veterans Memorial Drive
Tellico Plains, TN 37385

RE: **Sanitary Survey of Community Water System and Notice of Violation**
Tellico Plains Water Department
PWSID #TN0000693
Monroe County

Dear Mayor Parker:

On September 28-29, 2023, Brad Antone, Hailey Kraft, and Jenna Williams from the Division of Water Resources (The Division) visited the Tellico Plains Water Department 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 the previous survey in October 2021, through September 2023. The Division would like to thank Mr. Troy Taubert and Mr. Cody Debty for their courtesy and timely responses to Division requests. In accordance with the Sanitary Survey Manual, Tellico Plains Water Department earned 568 points out of a possible 599 points for a numerical score of ninety-four percent (94%). This rating places Tellico Plains Water Department in the State's "**Provisionally Approved**" category. This letter also serves as a **Notice of Violation**, for redundant survey deficiencies as discussed in sections 4.L and 6.A, as well as failure to meet certified operator requirements as discussed in section 2.A which is a critical survey deficiency.

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 1: System Management and Operation

• **Subsection A. Record Keeping**

A copy of the Division's record retention policy was provided during the survey. Many records were not available for review due to being misplaced with the former system operator leaving. Moving forward, Tellico Plains Water Department should ensure that records are kept for their specific retention time and organize them in such a way that they can easily be referenced as needed. System staff were still in the process of going through existing unfiled records looking for current pertinent items.

On December 13th, 2022, the system was notified that the consumer notification and certification form for the 2022 lead and copper sampling period had not been received. This violation is discussed as a narrative in the survey score; however, it requires that a Tier 3 Public Notice and the missing documentation be completed by **December 23rd, 2023**. Division staff have been in communication with

Mr. Taubert regarding this submission, and this violation should also be included in the 2023 Consumer Confidence Report (CCR).

- **Subsection H. Emergency Operations Plan (EOP)**

The system has an approved 2019 EOP on file with the Division, the Drought Management Plan (DMP) was submitted separately to the Division in 2020. Both plans are required to be updated every 3 years. Failure to update the EOP has resulted in a one-point deduction in the survey score. Please submit an updated version of both plans to the Knoxville Field Office **by January 31st, 2024**. The updated DMP should be submitted as an addendum to the EOP so both plans are on the same update schedule.

2. Section 2: Operator Compliance

- **Subsection A. Certified Operator- Plant and Distribution System**

On July 21st, 2023, correspondence from the Division was sent to The Town of Tellico Plains notifying the system that a water treatment (WT) and distribution system (DS) Certified Operator in Direct Charge (COIDC), with minimum license grades WT1 and DS1 respectively, needed to be obtained by August 19th, 2023, as the former operator who held both licenses was no longer employed by the city. A Notice of Violation was issued on August 22nd, 2023, when the Division had not received notification by the city that a certified operator had been hired. Following the issuance of the notice, the Division was informed that Tellico Plains was in the process of hiring Mr. Troy Taubert to be the water treatment operator. Another notice was sent on September 26, 2023, when the Division still had not been notified of a distribution COIDC being obtained.

Tennessee Code Annotated § 68-221-904 states: *“it is unlawful for any person, firm or corporation, both municipal and private, operating a water supply system or wastewater system, to operate the water treatment plant, wastewater treatment plant, water distribution system, or wastewater collection system unless the competency of the operators in direct charge of such system are duly certified by the commissioner under the provisions of this part in effect on and after May 25, 1984, or under the provisions of former chapter 13, part 3 of this title in effect prior to May 25, 1984.”*

Failure to meet certified distribution operator requirements is considered a critical survey deficiency which are pursuant to enforcement action by the Division. This has resulted in a 7-point deduction in the survey score and the issuance of this **Notice of Violation**. The Division was notified in November that Tellico Plains had hired Mr. Johnathan Dixon as the distribution system operator.

3. Section 3: Source

- **Subsection D. Source Protection Plans**

An updated Wellhead Protection Plan must be completed for any ground water source every three years. Tellico Plains Water Department last submitted these plans in 2020 and are required to be submitted in 2023. Please submit these plans to Annabelle Dempsey (Annabelle.Dempsey@tn.gov) in the Division's drinking water unit located in the Nashville Central Office.

4. Section 4: Treatment

- **Subsection J. Disinfection Contact Time**

On September 15th, 2023, failure of the continuous chlorine analyzer resulted in a 0.0 mg/L free chlorine residual being recorded at the Main Water Treatment Plant. This breakdown resulted in the system being unable to show meeting 4-log treatment of viruses before the first customer, resulting in a four-point deduction in the survey score. This violation requires a Tier 2 public notice to be issued. Division

staff have been in communication with Mr. Taubert on completing this notice before the **December 14th, 2023** due date. This violation must also be included in the 2023 CCR.

- **Subsection L. Maintenance of Equipment, Buildings, and Grounds**

In the previous survey conducted in 2021, stormwater damage to the Main Plant was noted and the Division asked that Tellico Plains Water Department make immediate plans to address the reoccurring flooding issues. In July 2023, the Main Plant experienced a significant flooding event where water damage to the plant could be seen during the inspection. This is considered a redundant deficiency, resulting in a one-point deduction in the survey score and this **Notice of Violation**.

While it is understood that the system would like to build a new water treatment plant to alleviate this issue, immediate action needs to be taken to address the flooding in the interim. The Division requests that Tellico Plains Water Department include in the survey response intermediate actions that can be taken at the current plant to address the reoccurring flooding.

- **Subsection R. Design Capacity**

The design capacity of both water treatment plants was verified with the Division following the 2019 Sanitary Survey. over the past 12 months, the Main Plant has had a Gallons per Day (GPD) average production of 656,000, which is 91% of its 720,000 GPD design capacity. The Rural Vale plant has had a 296,000 GPD average production, which is 51.3% of its 560,000 GPD design capacity.

Division Rule 0400-45-01-.05(10) states: *"Whenever a public water system reaches eighty (80) per cent of the design capacity based on average day usage, the supplier of water shall immediately obtain the services of a competent engineer to prepare plan documents for expansion of said system."*

While the system as a whole is at 73% of its total design capacity, Tellico Plains Water Department should continue to monitor the increased demand placed on the Main Plant to prevent supply and pressure issues arising in the system.

5. Section 5: Monitoring, Data Verification and Compliance

- **Subsection B. Bacteriological Monitoring**

During this survey period, Tellico Plains WD was required to take seven bacteriological monthly distribution samples. In July 2023 no samples were collected, and in August 2023 only six were collected. Failure to submit any valid samples during a monitoring period and failure to submit all required samples during a monitoring period as required, each result in a three-point deduction in the survey score. These violations require a Tier 3 public notice and should be included in the 2023 CCR.

As a part of each Sanitary Survey, Division staff request an updated count of the connections in the system. This includes active, inactive, and multi-user connections in accordance with Division Rule 0400-45-01-.32. Tellico Plains WD provided 3,154 as their total connections. When multiplied by the Monroe County household factor of 2.46, the estimated population served is by the system 7,759.

In accordance with Division Rule 0400-45-01-.07(1), this population increases the requirement to nine (9) bacteriological monthly samples in the distribution system. This increase will be effective **February 1st, 2024**. The water system's Revised Total Coliform Rule site-sampling plan will need to be updated to reflect this increase and add additional sampling sites. An updated plan is due to the Division by **January 31st, 2024**.

- **Subsection F. Chlorine Residual Monitoring**

In July and August 2023, the continuous chlorine analyzer was not functioning properly resulting in the data being collected not being logged. Grab samples were not taken every four hours as required in the event of a monitoring or recording equipment breakdown. Failure to repair the equipment in 14

days and to monitor chlorine as required have resulted in a three- and two-point deduction in the survey score. These violations require a Tier 3 Public Notice to be performed in the 2023 CCR.

- **Subsection G. Primary Chemicals Monitoring**

The system did not conduct Volatile Organic Contaminants for both water plants as required in 2021, resulting in a three-point deduction in the survey score. Public notice was included in the 2021 CCR and this violation is considered returned to compliance.

6. Section 6: Finished Water Storage

- **Subsection A. Adequate Storage**

Per Division Rule 0400-45-01-.17(14): *“All community water systems serving 50 connections or more are required to have 24 hours of distribution storage based on the average daily demand for the past twelve months”*

As discussed in section 4.R of this letter, the average daily production of 952,000 gallons exceeds the 734,000-gallon storage capacity from the systems six distribution tanks. This results in a 4-point deduction in the survey score. This is also considered a redundant deficiency, as it was also noted in the 2021 survey, resulting in this **Notice of Violation**.

While it is understood that factors such as inaccurate meters and water loss are contributors to not meeting storage requirements, these items need to be addressed and mitigated to ensure the storage requirements are met as the system has continued to increase in connections over multiple surveys. The Division requests that the Tellico Plains WD review available data and include within the survey response a corrective action plan and estimated timeline to address the factors which result in storage requirements not being met.

- **Subsection B. Inspection and Maintenance of Reservoirs, Tanks, and Clearwell**

Tank inspections for the six distribution storage tanks were performed in July 2022, and will be due for reinspection in 2027. A reminder that with the Rule 0400-45-01-.17(33) update in 2019, the clearwells (contact time tanks at both water treatment plants) are also required to be inspected. The initial inspection must take place by **February 2024**.

7. Section 8: Distribution System and Cross Connection Controls

- **Subsection A. Notification, Inspection, Disinfection, and Sample Collection of New or Existing Facilities**

Tellico Plains Water Department should work to improve the documentation of waterline repairs that take place in the system. Records were available for review, but they were unclear if the repair took place on a service or main line. Repairs that were clearly on a dewatered mainline did have results for a bacteriological sample being collected. A template of a repair logging sheet can be provided if requested.

General Observations, Comments, and Other Recommendations:

1. The updated Drinking Water Monitoring Program for the system in accordance with Rule 0400-45-01-.17(3), is enclosed. In accordance with Rule 0400-45-01.14(1)(a), State approval for the analysis of free chlorine residual, temperature, pH, alkalinity, calcium conductivity, orthophosphate and/or daily chlorite is hereby granted to Mr. Troy Taubert, along with other

personnel designated by the water system. This approval is effective until the next Sanitary Survey and is contingent upon use of approved methodologies and proper operation of the analytical equipment.

2. The Division of Water Resources utilizes EPA's Enforcement Tracking Tool (ETT) in tracking violations. Violation types are assigned a point value and if a public water system reaches a point score of 11, the Division must pursue enforcement action against the public water system. Point values are cumulative over a rolling five-year period. At the time of this letter, Tellico Plains Water Department has an ETT score of 19. Violations are considered *returned to compliance* and points can be subtracted from the score when: a valid Public Notice has been issued **and** the monitoring for a specific violation is performed as required. Performing the Public Notices as discussed in this letter will work to lower the systems' score.
3. The Division requests that Tellico Plains Water Department **respond in writing within 45 days of receipt** to the Knoxville Environmental Field Office. This response should include how and when the deficiencies identified during the sanitary survey will be addressed. The system may also request a re-survey within 60 days of receipt of this letter if desired.

I again want to thank system staff for their assistance, courtesy, and cooperation during this sanitary survey. While there were deficiencies noted, Division staff were impressed with Mr. Taubert's knowledge and strive to help bring the system back into compliance. If you have any questions or need additional information, please contact Ms. Jenna Williams at (865) 347-4849 or Mr. Robert Ramsey at (865) 203-3523, in the Knoxville Environmental Field Office

Sincerely,



Michael Atchley, Field Office Operations Manager
Knoxville Environmental Field Office
Division of Water Resources

cc: Mr. Troy Taubert, Water Treatment COIDC (e-copy)
Mr. Johnathan Dixon, Distribution System COIDC (e-copy)

DRINKING WATER MONITORING PROGRAM

Tellico Plains Water Department (PWSID #0000693)

Water Treatment I, Distribution I

TRUE GROUNDWATER SOURCES

February 2024

I. Finished Water

A. Collect and report a representative finished water sample for each parameter according to its designated monitoring frequency.

1. Turbidity – **Exempt (True Groundwater)**
2. Chlorine Residual (free) – **Continuously**
3. Fluoride – **Not Required**
4. Alkalinity (total) – **Weekly**
5. Hardness – **Weekly**
6. pH – **Weekly**
7. Carbon Dioxide – **Not Required**
8. Iron – **Weekly**
9. Manganese – **Weekly, unless above 0.05 mg/L, then 3X per week for rest of month.**

II. Distribution System

A. Collect and report a distribution sample for each parameter from representative lines. Locations must be listed on MOR or as attachment to MOR (**5 days per week**).

1. Chlorine Residual (free)
2. Fluoride (**Not Required**)

B. Bacteriological: Nine (9) samples must be analyzed each month for bacteriological quality by a State Certified Laboratory. Chlorine residual must be collected at the same time and frequency of bacteriological samples, with residuals and locations reported on the MOR.

III. Reporting

A. The lowest free chlorine residual must be reported each day that water enters the distribution system.

Sanitary Survey Rating

PWSID: TN0000693

Water System Name: Tellico Plains Water Department

Survey Date: 28-Sep-23

System Category (Points): 421

488

599

421 - Consecutive Systems/Distribution Only

488 - Treatment Systems/Wholesalers

599 - Both Treatment and Distribution

1. System Management and Operation (94)

	Requirement	Points Range	Deduction	Comments
A.	Record Keeping 0400-45-01-.20	(0)	Narrative	See survey letter
B.	Construction Projects 0400-45-01-.05, 0400-45-01-.17	(1-5)	0	okay
C.	Submission of Monthly Operations Reports 0400-45-01-.17	(0)	Narrative	okay
D.	Reporting Requirements 0400-45-01-18	(4-30)	0	System should report major breakdowns to Division
E.	Public Notification 0400-45-01-.19	(1-10)	0	See sections 1.A, 4.J, 5.B, 5.F
F.	Facility Maintenance Fee	(0)	Narrative	okay
G.	Enforcement - TCA §68-221-701 et seq	(4-10)	0	See survey letter regarding current ETT of 19
H.	Emergency Operations Plan 0400-45-01-.17	(1-2)	1	See survey letter
Deficiency Subtotal			1	

2. Operator Compliance (23)

	Requirement	Points Range	Deduction	Comments
A.	Certified Operator – Plant and Distribution System 0400-45-01-.17(1) and 0400-49-01- 04	(3-15)	7	See survey letter
Deficiency Subtotal			7	

3. Source (25)

	Requirement	Points Range	Deduction	Comments
A.	Source Adequacy 0400-45-01-.02, .05, .16, .17(13) and .34(3)	(3-5)	0	8 wells total, okay
B.	Intake 0400-45-01-.05, .17	(2)	0	N/A
C.	Wellhead/Springbox Construction 0400-45- 01-.05(12),16 and 17(3) and (16)	(2)	0	Work to improve coverings of main plant wells, all 8 wells visited
D.	Source Protection Plans 0400-45-01-.34	(1-2)	0	See survey letter
Deficiency Subtotal			0	

4. Treatment (153)

	Requirement	Points Range	Deduction	Comments
A.	Aerator 0400-45-01-.05, .17	(2)	0	N/A
B.	Chemicals / Chemical Feeders 0400-45-01- .05 (8) and .17,36	(2)	0	Chlorine Bleach
C.	Mixing 0400-45-01-.02, .05, .17	(2)	0	okay
D.	Flocculation 0400-45-01-.02, .05, .17	(2)	0	N/A
E.	Sedimentation 0400-45-01-.02, .05, .17	(2)	0	N/A
F.	Filtration / Alternative Technology 0400-45- 01-.17(12) and (27)	(2-30)	0	N/A- 8 true groundwater wells
G.	Re-Wash / Filter-to-Waste 0400-45-01- .17(35)	(2)	0	N/A
H.	Turbidimeters / Calibration 0400-45-01- .05(11), .17, .31, .39	(2-4)	0	N/A-true groundwater
I.	Disinfection/Calibration 0400-45-01-.02, .17, .31, .36	(2-30)	0	
J.	Disinfection Contact Time 0400-45-01-.02, .17,31	(2-4)	4	See survey letter
K.	Master Meter 0400-45-01.17(2) and (3)	(1-2)	0	Meters should be calibrated for accurate water loss reporting
L.	Maintenance of Equipment, Buildings and Grounds 0400-45-01-.02, .17(3), (17) and (19)	(1)	1	See survey letter
M.	Laboratory Facilities 0400-45-01-.02, .14, .17(3)	(1-3)	0	DWMP samples analyzed at WWTP
N.	Safety 0400-45-01-.02	(2)	0	
O.	Sludge Handling/Backwash Handling 0400- 45-01-.05	(2)	0	N/A
P.	Sanitary Conditions 0400-45-01-.17(17)	(2)	0	
Q.	Fluoridation Techniques 0400-45-01-.06, .12, .17	(2)	0	N/A
R.	Design Capacity 0400-45-01-.05(10)	(2-4)	0	See survey letter
S.	Filter Backwash Recycling 0400-45-01-.31(9)	(1)	0	N/A
Deficiency Subtotal			5	

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)	(2)	0	See survey letter for drinking water monitoring program
B.	Bacteriological Monitoring	(3-6)	6	See survey letter
C.	Bacteriological Compliance 0400-45-01-.06	(4-7)	0	
D.	Turbidity Monitoring	(2-3)	0	NA- 8 true ground water wells
E.	Turbidity Compliance	(4-7)	0	NA- 8 true ground water wells
F.	Chlorine Residual Monitoring 0400-45-01-.17,31,36, 40	(2-3)	5	See survey letter
G.	Primary Chemicals Monitoring	(2-3)	3	See survey letter
H.	Primary Chemicals Compliance	(4)	0	
I.	Lead and Copper Monitoring 0400-45-01-.33	(2-3)	0	Last monitored in 2021
J.	Lead and Copper Action Level 0400-45-01-.33	(3-5)	0	No action level concerns noted
K.	Disinfection/Disinfection By-Products and Precursors Monitoring 0400-45-01-.36, .37, .38	(2-3)	0	Two sites annually
L.	Disinfection/Disinfection By-Products and Precursors Compliance 0400-45-01-.06, .36	(2-30)	0	
M.	Secondary Chemicals 0400-45-01-.12	(2)	0	okay
N.	Secondary Chemicals Compliance 0400-45-01-.12	(3)	0	
O.	Cryptosporidium Monitoring 0400-45-01-.39	(0)	Narrative	N/A
Deficiency Subtotal			14	

6. Finished Water Storage (25)

	Requirement	Points Range	Deduction	Comments
A.	Adequate Storage 0400-45-01-.17(14)	(2-4)	4	See survey letter
B.	Inspection and Maintenance of Reservoirs, Tanks and Clearwell 0400-45-01-.17(16), (17), (33) and (34)	(1-10)	0	See survey letter
Deficiency Subtotal			4	

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	okay, pump stations visited during survey
B	Maintenance of Pumping Equipment 0400-45 - 01-.17(13)	(1-3)	0	okay
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), (19)	(3-5)	0	See survey letter
B	Flushing Program / Blow Offs 0400-45-01-.17(10) and (23)	(3-4)	0	Work to document flushing that is already being performed
C.	Fire Hydrants 0400-45-01-.17(18)	(0)	Narrative	okay
D.	Adequate Pressure 0400-45-01-.17(9)	(5)	0	okay
E.	Map of Distribution System 0400-45-01-.17(15)	(3)	0	Working to retrieve previously made GIS map
F.	Approved Cross Connection Policy or Ordinance and Plan 0400-45-01-.17(6)	(4)	0	
G.	Working Cross Connection Program 0400- 45-01-.17(6)	(3-9)	0	System should update inventory of devices in system to ensure annual testing
H.	Percent Estimated Water Loss(real loss/water produced)	(0)	Narrative	System should work to reduce high water loss
Deficiency Subtotal			0	

Rating

95% - 100% Approved
 90% - 94% Provisionally Approved
 0% - 89 % Unsatisfactory

Total Deficiency Points	-31
System Category Points	568
Overall Rating	94

Inspectors Signature

Jenna Williams

Digitally signed by Jenna Williams
 Date: 2023.12.08 12:25:17 -05'00'

Additional Comments/Explanation: