MISSISSIPPI STATE DEPARTMENT OF HEALTH

REPORT OF INSPECTION OF DRINKING WATER SUPPLY

PWS: 0360014 **Class:** C

An inspection of the TAYLOR WATER ASSOCIATION water supply in LAFAYETTE county was made on 05/04/2023. Present at the time of inspection was CHAD D MCLARTY, OPERATOR; WRITER. Official JOHN D MILAM Address P O BOX 8 TAYLOR MS 38673 W.W. Operator CHAD D MCLARTY Address 32 CR 3066 OXFORD MS 38655 No. Connections 705 No. Meters ___ Population Served 1800 Field Chemical Analysis: pH 7.3 Cl2(free) 1.3 Cl2(total) ___ H2S N/A Iron ___ Fluoride ___ Point of Sampling Plant Water Rates ___ This inspection included a sanitary survey for compliance with the Ground Water Rule.

COMMENTS

Technical: 4 Managerial: 4 Financial: 5

OVERALL CAPACITY RATING: 4.3 / 5.0

1. This was the Sanitary Survey for Taylor Water Association. No significant deficiencies were identified during the inspection.

2. This system is currently providing 4-Log Inactivation of viruses. The minimum free chlorine residual needed to meet 4-Log at the water plant is 0.7 mg/L.

3. The system's 4-Log Monthly Operating Reports were available for review.

4. Chlorine bottle, whether empty or full, should be stored upright and out of direct sunlight.

5. The pH was measured at 7.3 at the time of the inspection. The concentration of soda ash solution should be increased and the pump should be inspected to make sure it is not loosing its prime. (T2-2)

6. System officials inspected the elevated tank in 2023.

7. The system's average water loss is approximately 20%.

8. The operator should be sure to continue to check all applicable water quality parameters and record them in the operations record on a daily basis.

9. The system has 2 new board members. Officials should be sure all board members attend board management training within a year of being elected.

10. System officials should adopt and implement a Long Range Improvement plan that outlines what the system will do over the next 5 to 10 years and how the system will may increase their capacity. (M4)

11. The system's monthly operating reports were available for review during the inspection and they reflected the sampling point being at the water plant.

12. Pump Tests from August 2021 were available for review at the time of the inspection.

13. Rates were raised in 2023.

14. This system has an emergency connection with the City of Oxford.

15. No pressure problems were reported.

16. Mr. McClarty stated that the generator runs every Monday for an hour. The generator will help provide water during emergencies.

17. When repairs are made on the water distribution system, all lines affected should be properly chlorinated and flushed before they are placed back in service.

18. All dead-end water lines should be flushed on a routine schedule to clear the lines of sediment and stagnant water. Full scale flushing should be carefully planned and carried out, beginning at the well or water plant and going to the outer edges of the distribution system. This flushing should be done during periods of low usage.

19. Pump tests are now required at least every two years on all wells that are greater than three (3) years old, and every year on wells at systems whose design capacity exceeds 80%. The purpose of this change is to ensure that water production and capacity, master meter accuracy, and other information pertaining to the proper functioning of your wells are gathered regularly.

20. Whenever system pressure is lost, even for brief periods of time, contaminants may be introduced to the system through back flow or back-siphonage. When this occurs, system officials should notify all customers in the affected area to boil their drinking water until clear bacteriological samples have been obtained.

Completed by Eric Williams, E.I. on 05/18/2023.

Reviewed by Scooter Lockhart on 05/18/2023.

If you have any questions, please call (601)576-7518.

pc:

JOHN D MILAM, OFFICIAL
CHAD D MCLARTY, OPERATOR

STANDARD FORM

Mississippi State Department of Health
Bureau of Public Water Supply

FY 2023 Public Water System Capacity Assessment Form

NOTE: This form must be completed whenever a routine sanitary survey of a public water system is conducted by a regional engineer of the Bureau of Public Water Supply

PWS ID#: 0360014 Class: C Survey Date: 05-04-2023 County: LAFAYETTE
Public Water System: TAYLOR WATER ASSOCIATION Conn: 705
Certified Waterworks Operator: CHAD D MCLARTY Pop: 1800

CAPACITY RATING DETERMINATION

Technical (T) Capacity Rating: [**4**] Managerial (M) Capacity Rating [**4**] Financial (F) Capacity Rating [**5**]

Capacity Rating $= \frac{T + M + F}{3} = \frac{13}{3} = 4.3$

Overall Capacity Rating = 4.3

Completed by Eric Williams, E.I. on 05/18/2023
Reviewed by Scooter Lockhart on 05/18/2023

Comments:

Technical Capacity Assessment	Point Scale	Point Award
[T1] Does the water system have any significant deficiencies? [Y (N)]	N - 1pt. Y - 0pt.	1
[T2] 1) Was the water treatment process functioning properly? [Y (N)] (i.e. Is pH, iron, chlorine, fluoride, etc. within acceptable range?) **2)** Was needed water system equipment in place and functioning properly at the time of survey? [Y (N)] (**NOTE:** Equipment deficiencies must be identified in survey report.) **3)** Were records available to the regional engineer clearly showing that all water storage tanks have been inspected and cleaned or painted (if needed) within the past 5 years? [(Y) N NA] (**NOTE:** All YESs required to receive point)	All Y - 1 pt. Else - 0 pt.	0
[T3] 1) Was the certified waterworks operator or his/her authorized representative present for the survey? [(Y) N] **2)** Was PWS Operations record up to date and properly maintained? [(Y) N] (Are minimum days being met based on system classification) **3)** Was the water system properly maintained at the time of survey? [(Y) N] **4)** Did operator/system personnel satisfactorily demonstrate to the regional engineer that he/she could fully perform all water quality tests required to properly operate this water system? [(Y) N] (**NOTE:** All YESs required to receive point)	All Y - 1 pt. Else - 0 pt.	1
[T4] 1) Does water system routinely track water loss and were acceptable record available for review? [(Y) N] **2)** Is water system overloaded? (i.e. serving customers in excess of MSDH approved design capacity)? [Y (N)] **3)** Was there any indication that the water system is/has been experiencing pressure problems in any part(s) of the distribution system? [Y (N)] (based on operator information, customer complaints, MSDH records, other information) **4)** Are well pumping tests performed routinely? [(Y) N NA] (**NOTE:** YES FOR #1 & YES OR N/A FOR #4 AND NOs FOR #2 & #3 required to receive point)	1)Y - pt. 2)N - pt. 3)N - pt. 4)Y - pt.	1
[T5] 1) Does the water system have the ability to provide water during power outages? (i.e. generator, emergency tie-ins, etc.) [(Y) N] **2)** Does the water system have a usable backup source of water? [(Y) N] (**NOTE:** Must be documented on survey report)	All Y - 1 pt. Else - 0 pt.	1
TECHNICAL CAPACITY RATING = [4] (Total Points)		

Managerial Capacity Assessment	Point Scale	Point Award
[M1] Were all SDWA required records maintained in a logical and orderly manner and available for review by the regional engineer during the survey? [(Y) N]	Y - 1pt. N - 0pt.	1
[M2] 1) Have acceptable written policies and procedures for operating this water system been formally adopted and were these policies available for review during the survey? [(Y) N] **2)** Have all board members (in office more than 12 months) completed Board Member Training? [(Y) N NA] **3)** Does the Board of Directors meet monthly and were minutes of Board meetings available for review during the survey? (**NOTE:** Quarterly meetings allowed if system has an officially designated full time manager) [(Y) N NA] (**NOTE:** ALL YESs or NAs required to receive point. NA - Not Applicable)	All Y - 1 pt. Else - 0 pt.	1
[M3] Has the water system had any SDWA violations since the last Capacity Assessment? [Y (N)]	N - 1pt. Y - 0pt.	1
[M4] Has the water system developed a long range improvements plan and was this plan available for review during the survey? [Y (N)]	Y - 1pt. N - 0pt.	0
[M5] 1) Does the water system have an effective cross connection control program in compliance with MSDH regulations? [(Y) N] **2)** Was a copy of the MSDH approved bacti site plan and lead/copper site plan available for review during the survey and do the bacti results clearly show that this approved plan is being followed? [(Y) N] (**NOTE:** All YESs required to receive point)	All Y - 1 pt. Else - 0 pt.	1
MANAGERIAL CAPACITY RATING = [4] (Total Points)		

Financial Capacity Assessment	Point Scale	Point Award
[F1] Has the water system raised water rates in the past 5 years? [(Y) N] (**NOTE:** Point may be awarded if the water system provides acceptable financial documentation clearly showing that a rate increase is not needed, i.e. revenue has consistently exceeded expenditures by at least 10%, etc.)	Y - 1pt. N - 0pt.	1
[F2] Does the water system have an officially adopted policy requiring that water rates be routinely reviewed and adjusted as appropriate and was this policy available for review during the survey? [(Y) N]	Y - 1pt. N - 0pt.	1
[F3] Does the water system have an officially adopted cut-off policy for customers who do not pay their water bills, was a copy of this policy available for review by the regional engineer, and do system records (cut-off lists, etc.) clearly show that the water system effectively implements this cut-off policy? [(Y) N]	Y - 1pt. N - 0pt.	1
[F4] Was a copy of the water system's officially adopted annual budget available for review by the regional engineer and does the water system's financial accounting system clearly and accurately track the expenditure and receipt of funds? [(Y) N]	Y - 1pt. N - 0pt.	1
[F5 - Municipal Systems] 1) Was a copy of the latest audit report available for review at the time of the survey? [Y N] **2)** Does this audit report clearly show that water and sewer fund account(s) are maintained separately from all other municipal accounts? [Y N] (**NOTE:** Yes answer to all questions required to receive point.)	All Y - 1 pt. Else - 0 pt.	
[F5 - Rural Systems] 1) Was the latest financial report / audit report available for review? [(Y) N] **2)** Does the latest financial report show that receipts exceeded expenditures? [(Y) N] (**NOTE:** Yes answer to both questions required to receive point)	All Y - 1 pt. Else - 0 pt.	1
FINANCIAL CAPACITY RATING = [5] (Total Points)		

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BUREAU OF PUBLIC WATER SUPPLY
DESIGN CAPACITY SHEET

System: **TAYLOR WATER ASSOCIATION**
ID: **0360014** Class: **C** County: **LAFAYETTE**

Date Completed: **05/18/2023**
Connections - Actual: **705** Equivalent: **705**
Design Capacity: **1188** Percent Design Capacity: **705/1188 = 59.3%**

08/2021 Pump Tests: #01 - 340 @ 10 psi
#02 - 348 @ 10 psi

Well Capacity = 688 gpm (total)

Treatment Capacity = 700 gpm

Service Pump Capacity = 700 gpm

Limiting Factor = 688 gpm

If service pump is limiting factor, then service pump capacity = useable service pump capacity

Customer Design Capacity = Useable Service Pump Capacity + Elevated Storage / 200
Customer Design Capacity = 688 + 100,000/200
Customer Design Capacity = 1188

% of Design Capacity = # of Existing Connections / Customer Design Capacity *100
% of Design Capacity = 705/1188
% of Design Capacity = 59%

GROUNDWATER RULE CALCULATIONS

Useable Service Pump Capacity = 700 gpm
Clearwell = 30,000 (Use baffling efficiency 10%) = 3000 gallons
Temperature of water = 66 degrees Fahrenheit

CT = 3.2

Residual = CT/detention time
Residual = 3.2/(3000 gal/700 gpm)
Residual = 3.2/4.3
Residaul = 0.7 mg/L

*Therefore the minimum residual of free chlorine required to achieve 4-Log inactivation of viruses should be 0.7 mg/L leaving the water plant.