



MISSISSIPPI STATE DEPARTMENT OF HEALTH

REPORT OF INSPECTION OF DRINKING WATER SUPPLY

PWS: 0250012 **Class:** D

An inspection of the CITY OF JACKSON-MADDOX RD. water supply in HINDS county was made on 11/09/2021. Present at the time of inspection was MARY D CARTER, OPERATOR; CHARLES E WILLIAMS JR, OWNER; TERENCE BYRD, CERTIFIED OPERATOR; JAMES PERRY, CERTIFIED OPERATOR; WRITER. Official CHARLES E WILLIAMS JR Address PO BOX 17 JACKSON MS 39205 W.W. Operator MARY D CARTER Address 1053 WHITSETT WALK JACKSON MS 39206 No. Connections 5762 No. Meters ___ Population Served 16555 Field Chemical Analysis: pH ___ Cl2(free) 3.8 Cl2(total) ___ H2S N/A Iron ___ Fluoride 0.8 Point of Sampling SIWELL RD FD Water Rates ___ This inspection included a sanitary survey for compliance with the Ground Water Rule.

COMMENTS

Technical: 1 Managerial: 5 Financial: 4

OVERALL CAPACITY RATING: 3.3 / 5.0

1. This annual inspection also served as a Sanitary Survey as required under the Ground Water Rule. The significant deficiency from the March 2020 Sanitary Survey has been partially completed. The TV Road ground tank is inactive and the work needed on that site will be done once the City is ready to re-activate that site. The Maddox Road tank portion of that significant deficiency is still active and is outlined below in 'e.' A new significant deficiency was cited and it relates to multiple sites. Details are in the following comments. (T1, T2-2, T3-3)
 - a. The fence at Well #2 needs some work near the gate.
 - b. At Well #3, the old well materials need to be hauled off and the site should be graded so that water does not stand near the well foundation. The well insulation should either be removed completely or redone.
 - c. It was reported by field staff that when the well was initially repaired and brought back online, the contractor failed to fully replace the fence to the pre-repair state. Two sides of the fence are missing barbed wire.
 - d. At Well #7, the fencing along Hwy 18 has become severely overgrown with vegetation. It all needs to be removed and kept away from the fence line.
 - e. The Maddox Rd tank needs drainage work done around the base. It appeared that the tank had been overflowing and water was holding near the base. Work needs to be done so that water flows away from the tank.

2. The system is conducting triggered monitoring to comply with the Ground Water Rule.
3. Since the last inspection, all well houses have been painted and have had all doors replaces. All doors were locked at the time of inspection.
4. The water loss report presented at the inspection showed an annual water loss of greater than 40%.
5. Credit was not given for T5-1 because the system does not have the ability to provide water during a prolonged power outage. In order to get credit next year, the City will need to obtain generators capable of operating enough of the wells to keep pressure in the system during a prolonged power outage.
6. Ms. Carter reported that while a cut-off list is generated each billing cycle, the City is still not cutting off delinquent accounts. (F3)

GENERAL & REMINDER COMMENTS:

7. 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, Officials should notify all customers in the affected area to boil their drinking water until clear bacteriological samples have been obtained.
8. All dead-end water lines should be flushed on a routine schedule to clear the lines of sediment and stagnant water.
9. 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.
10. To prevent unauthorized entrance, Officials should ensure that all gates, doors, latches on tanks, etc. are kept locked at all time

Completed by Amy L. McLeod, E.I. on 11/24/2021.

Reviewed by Greg Caraway, P.E. on 11/29/2021.

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

pc:

CHARLES E WILLIAMS JR, OFFICIAL
MARY D CARTER, OPERATOR

Mississippi State Department of Health Bureau of Public Water Supply

FY 2022 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#: 0250012 Class: D Survey Date: 11-09-2021 County: HINDS

Public Water System: CITY OF JACKSON-MADDOX RD. Conn: 5762

Certified Waterworks Operator: MARY D CARTER Pop: 16555

CAPACITY RATING DETERMINATION

Technical (T) Capacity Rating: [1] Managerial (M) Capacity Rating [5] Financial (F) Capacity Rating [4]

$$\text{Capacity Rating} = \frac{T+M+F}{3} = \frac{10}{3} = 3.3$$

Overall Capacity Rating = 3.3

Completed by Amy L. McLeod, E.I. on 11/21/2021

Reviewed by Greg Caraway, P.E. on 11/29/2021

Comments: _____

Technical Capacity Assessment	Point Scale	Point Award
[T1] Does the water system have any significant deficiencies? <input checked="" type="radio"/> Y <input type="radio"/> N	N - 1pt. Y - 0pt.	0
[T2] 1) Was the water treatment process functioning properly? <input checked="" type="radio"/> Y <input type="radio"/> 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? <input checked="" type="radio"/> Y <input type="radio"/> 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? <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> 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? <input checked="" type="radio"/> Y <input type="radio"/> N 2) Was PWS Operations record up to date and properly maintained? <input checked="" type="radio"/> Y <input type="radio"/> N (Are minimum days being met based on system classification) 3) Was the water system properly maintained at the time of survey? <input checked="" type="radio"/> Y <input type="radio"/> 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? <input checked="" type="radio"/> Y <input type="radio"/> N (NOTE: All YESs required to receive point)	All Y - 1 pt. Else - 0 pt.	0
[T4] 1) Does water system routinely track water loss and were acceptable record available for review? <input checked="" type="radio"/> Y <input type="radio"/> N 2) Is water system overloaded? (i.e. serving customers in excess of MSDH approved design capacity)? <input checked="" type="radio"/> Y <input type="radio"/> N 3) Was there any indication that the water system is/has been experiencing pressure problems in any part(s) of the distribution system? <input checked="" type="radio"/> Y <input type="radio"/> N (based on operator information, customer complaints, MSDH records, other information) 4) Are well pumping tests performed routinely? <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> 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.) <input checked="" type="radio"/> Y <input type="radio"/> N 2) Does the water system have a usable backup source of water? <input checked="" type="radio"/> Y <input type="radio"/> N (NOTE: Must be documented on survey report)	All Y - 1 pt. Else - 0 pt.	0
TECHNICAL CAPACITY RATING = [<u>1</u>] (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? <input checked="" type="radio"/> Y <input type="radio"/> 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? <input checked="" type="radio"/> Y <input type="radio"/> N 2) Have all board members (in office more than 12 months) completed Board Member Training? <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> 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) <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> 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? <input type="radio"/> Y <input checked="" type="radio"/> 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? <input checked="" type="radio"/> Y <input type="radio"/> N	Y - 1pt. N - 0pt.	1
[M5] 1) Does the water system have an effective cross connection control program in compliance with MSDH regulations? <input checked="" type="radio"/> Y <input type="radio"/> 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? <input checked="" type="radio"/> Y <input type="radio"/> N (NOTE: All YESs required to receive point)	All Y - 1 pt. Else - 0 pt.	1
MANAGERIAL CAPACITY RATING = [<u>5</u>] (Total Points)		

Financial Capacity Assessment	Point Scale	Point Award
[F1] Has the water system raised water rates in the past 5 years? <input checked="" type="radio"/> Y <input type="radio"/> 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? <input checked="" type="radio"/> Y <input type="radio"/> 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? <input type="radio"/> Y <input checked="" type="radio"/> N	Y - 1pt. N - 0pt.	0
[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? <input checked="" type="radio"/> Y <input type="radio"/> 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? <input checked="" type="radio"/> Y <input type="radio"/> N 2) Does this audit report clearly show that water and sewer fund account(s) are maintained separately from all other municipal accounts? <input checked="" type="radio"/> Y <input type="radio"/> N (NOTE: Yes answer to all questions required to receive point.)	All Y - 1 pt. Else - 0 pt.	1
[F5 - Rural Systems] 1) Was the latest financial report / audit report available for review? <input type="radio"/> Y <input type="radio"/> N 2) Does the latest financial report show that receipts exceeded expenditures? <input type="radio"/> Y <input type="radio"/> N (NOTE: Yes answer to both questions required to receive point)	All Y - 1 pt. Else - 0 pt.	1
FINANCIAL CAPACITY RATING = [<u>4</u>] (Total Points)		



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BUREAU OF PUBLIC WATER SUPPLY
DESIGN CAPACITY SHEET

System: CITY OF JACKSON-MADDOX RD.
ID: 0250012 Class: D County: HINDS

Date Completed: 11/21/2021
Connections - Actual: 5762 Equivalent: 5506
Design Capacity: 8486 Percent Design Capacity: 5506/8486 = 64.9%

WELL CAPACITY:

Well #1 Capacity = 627 GPM
Well #2 Capacity = 446 GPM
Well #3 Capacity = 548 GPM
Well #4 Capacity - ABANDONED
Well #5 Capacity = 1080 GPM
Well #6 Capacity = 771 GPM
Well #7 Capacity = 771 GPM
Total Well Capacity = 4,243 GPM
*All pump tests April 2021

STORAGE CAPACITY:

3,000,000 gallon Ground Storage Tank
250,000 gallon Elevated Tank at Cedar Hills
2,000,000 gallon Standpipe on Springridge Rd
Total Storage = 5,250,000 gallons

DESIGN CAPACITY:

Total Design Capacity = Total Well Pump Capacity + Total Storage/200 minutes
= 4243 + 5,250,000/200
= 30,493

This value exceeds two times the total well pump capacity (4,243 x 2 = 8,486), therefore

TOTAL DESIGN CAPACITY = 8,486 CONNECTIONS

CALCULATE ADJUSTED CONNECTIONS FOR UN-METERED APARTMENTS/MOBILE HOMES:

Total number of unmetered connections (assumed to be apartment units/mobile homes) = 776
Apartment Adjusted Connections = (776 X 0.67) = 520 connections
(need to subtract total number of meters to calculate more accurately)

CALCULATE EQUIVALENT CONNECTIONS TAKING INTO ACCOUNT HIGH COMMERCIAL/INDUSTRIAL USAGE:

No high users reported. All connections are considered residential.

Number of Actual Connections = metered connections + unmetered connections
Number of Actual Connections = 4986 + 776 = 5762

FINAL EQUIVALENT CONNECTIONS = metered + apartment adjusted = 4986 + 520 = 5,506

THEREFORE THIS SYSTEM IS CURRENTLY AT 5506/8486 = 65% CAPACITY.

GROUND WATER RULE CALCULATIONS:

System is conducting triggered monitoring to comply with the Ground Water Rule.