MISSISSIPPI STATE DEPARTMENT OF HEALTH

REPORT OF INSPECTION OF DRINKING WATER SUPPLY

PWS: 0750003 **Class:** B

An inspection of the EAGLE LAKE WATER DISTRICT water supply in WARREN county was made on 12/09/2025. Present at the time of inspection was TERENCE F MURPHY, OPERATOR; WRITER. Official PAUL BANCHETTI Address P O BOX 820037 VICKSBURG MS 39182 W.W. Operator TERENCE F MURPHY Address 112 MELANIE LANE VICKSBURG MS 39183 No. Connections 683 No. Meters ___ Population Served 1815 Field Chemical Analysis: pH 8.5 Cl2(free) 3.0 Cl2(total) ___ H2S N/A Iron 0.08 Fluoride ___ Point of Sampling ENTRY POINT Water Rates ___

COMMENTS

Technical: 51/51 Managerial: 33/33 Financial: 16/16

OVERALL CAPACITY RATING: 100 / 100

1. System officials are doing a great job operating and maintaining the water system.
2. Pressure filters were rehabbed, and media has replaced since the last inspection. Iron levels on the day of inspection were 0.08 ppm.
3. The system has made several other improvements including replacing coke in the aerators, recoating aerators, rehabbing flocculation tanks, recoating pump suction tanks, adding a generator, and repainting the plant elevated tank. A new maintenance building and controls are in process as well.
4. Water loss records indicated an annual average of 7%.
5. Logbook and MOR entries contained the required information.
6. This system has a working asset management program. This system should continue to develop its plan.
7. Water rates were raised in 2024.

8. The remote tank was inspected in February 2024 and is in generally good condition.

9. The system is conducting 4-log virus inactivation to comply with the Ground Water Rule.

GENERAL & REMINDER COMMENTS

10. 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.

11. All dead-end water lines should be flushed on a routine schedule to clear the lines of sediment and stagnant water.

12. 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.

Completed by Ashlyn Page, EIT on 12/17/2025.

Reviewed by Greg Caraway, P.E. on 12/18/2025.

If you have any questions, please call (601)576-7840.

pc:

PAUL BANCHETTI, OFFICIAL
TERENCE F MURPHY, OPERATOR

MISSISSIPPI STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply

FY 2026 Public Water System Capacity Assessment Form

Standard Form

PWS ID#	PUBLIC WATER SYSTEM
0750003	EAGLE LAKE WATER DISTRICT
SURVEY DATE	COUNTY
12-09-2025	WARREN
CONNECTIONS	POPULATION
683	1815
CLASS	CERTIFIED WATERWORKS OPERATOR
B	TERENCE F MURPHY

A+

100

Overall Score

Technical	Managerial	Financial
51/51	33/33	16/16

Technical Capacity Assessment — 51 of 51 points

T1	Does the water system have any significant deficiencies? ○ Y ◉ N	Points **7/7**
T2	Was the water treatment process functioning properly? ◉ Y ○ N	Points **4/4**
T3	Was needed water system equipment in place and functioning properly at the time of survey? ◉ Y ○ N	Points **3/3**
T4	Were records available to the RE clearly showing that all water storage tanks have been inspected and cleaned or painted (if needed) within the past 5 years? ◉ Y ○ N ○ NA	Points **3/3**
T5	Was the certified waterworks operator or his/her authorized rep present for survey? ◉ Y ○ N	Points **3/3**
T6	Was PWS Operations record up to date and properly maintained? ◉ Y ○ N	Points **3/3**
T7	Was the water system properly maintained at the time of survey? ◉ Y ○ N	Points **3/3**
T8	Does the system have adequate capabilty for testing the water quality of the system and could operator personnel perform all water quality tests required to properly operate this water system? ◉ Y ○ N	Points **2/2**
T9	Does water system routinely track water loss and were acceptable records available for review? ◉ Y ○ N	Points **3/3**

T10	Is the water system overloaded? Cannot exceed MSDH design capacity, consecutive systems overloaded if supplier overloaded or based on hydraulic calculations or pressure recording. ○ Y ◉ N	Points **3/3**
T11	Was there any indication that the water system is/has been experiencing low pressure in any part(s) of the distribution system? ○ Y ◉ N	Points **3/3**
T12	Are well pumping tests performed routinely? ◉ Y ○ N ○ NA	Points **3/3**
T13	Does the water system have the ability to provide water during power outages? ◉ Y ○ N	Points **3/3**
T14	Does the water system have a usable backup source of water? ◉ Y ○ N	Points **3/3**
T15	For Groundwater systems – can the water system meet maximum daily demands with the largest producing source/ treatment facility out of service? OR For Surface Water systems – Can the water system meet maximum daily demands based on 1 in 50-year drought calculations or the extreme drought of record? ◉ Y ○ N ○ NA	Points **3/3**
T16	Does the system have a functioning control system for facility operations? (SCADA, Automatic Controls, etc.) ◉ Y ○ N ○ NA	Points **2/2**

Managerial Capacity Assessment — 33 of 33 points

M1	Does the PWS maintain or can the system access, via the PWS Portal, all SDWA required records? (Physical records in logical and orderly manner?) ● Y ○ N	Points **3/3**
M2	Have acceptable written policies and procedures for operating this water system been formally adopted and available for review? ● Y ○ N	Points **3/3**
M3	Have all Board Members (in office more than 12 months) completed Board Member Training? ● Y ○ N ○ NA	Points **3/3**
M4	Does the Board meet monthly and were minutes of Board meetings available for review? ● Y ○ N ○ NA	Points **2/2**
M5	Has the water system had any SDWA violations since the last Capacity Assessment? ○ Y ● N	Points **6/6**
M6	Has the water system developed or is in the process of developing its asset management plan to support its long-range improvements plan and were these plans available for review during the survey? ● Y ○ N	Points **3/3**
M7	Does the water system have an effective cross connection program in compliance with MSDH regulations? ● Y ○ N	Points **2/2**

M8	Were copies of the MSDH approved sample site plans (RTCR, LCR, and DPB) available for review? Do results show site plans are being followed? ● Y ○ N	Points **3/3**
M9	Does the system keep records of all customer complaints? ● Y ○ N	Points **2/2**
M10	Does the system have an adequate backup plan for staffing to ensure that vital operational action are covered? ● Y ○ N	Points **2/2**
M11	Does the System have a up to date Security Vulnerability Analysis or Risk and Resilience Assessment in place and available for review? ● Y ○ N	Points **2/2**
M12	Does the System have an up to date Emergency Response Plan available for review at the time of inspection? ● Y ○ N	Points **2/2**

Financial Capacity Assessment — 16 of 16 points

F1	Has the water system raised water rates in the past 3 years? ● Y ○ N	Points **3/3**
F2	Has the water system performed a rate study within the past 5 years ? ● Y ○ N	Points **2/2**
F3	If the rate study was performed, did the system act upon its recommendations? ● Y ○ N ○ NA	Points **2/2**
F4	Is the water system following an official cut-off policy? ● Y ○ N	Points **3/3**
F5	Was a copy of system's adopted annual budget available for review and does financial accounting system clearly and accurately track receipts and expenditures? ● Y ○ N	Points **2/2**
F6	Was the latest financial report/audit report available for review? ● Y ○ N	Points **2/2**
F7	Does the latest report show that receipts exceed expenditures? Excluding out of pocket for major improvements or for Municipal govts - Are the water and sewer fund accounts separate from other accounts? ● Y ○ N	Points **2/2**

Completed by Ashlyn Page, EIT on 12/10/2025

Reviewed by Greg Caraway, P.E. on 12/18/2025

MISSISSIPPI DEPARTMENT OF HEALTH
BUREAU OF PUBLIC WATER SUPPLY
DESIGN CAPACITY SHEET

System: **EAGLE LAKE WATER DISTRICT**
ID: **0750003** Class: **B** County: **WARREN**

Date Completed: **12/17/2025**
Connections - Actual: **683** Equivalent: **630**
Design Capacity: **1120** Percent Design Capacity: **630/1120 = 56.3%**

PLANT CAPACITY

TRAIN 1	TRAIN 2	
Well #3 = 273 GPM	Well #2 = 252 GPM	The treatment plant is limited
Aerator = 400 GPM	Aerator = 400 GPM	by the pumps at 400 GPM.
Pump = 200 GPM	Pump = 200 GPM	
Filter = 400 GPM	Filter = 400 GPM	

STORAGE CAPACITY = 2 * 100,000 = 200,000 GALLONS
Usable Storage = 400 * 6 * 60 = 144,000 GALLONS filled in 6 hours
*One tank is on site with the pumps, so full credit is given (design capacity not limited to twice the pump capacity), and 44,000 gallons of the remote tank can be credited.

DESIGN CAPACITY = Treatment Plant Capacity + Usable Storage/200 min
= 400 GPM + 144,000 gal/200 min = 400 GPM + 720 GPM
= 1,120 CONNECTIONS

EQUIVALENT CONNECTIONS
All connections are metered.
The system has 150 mobile homes and 1 apartment complex with 8 units.
Adjusted Connections = 158 * 2/3 = 105
Total Equivalent Connections = 683 - 158 + 105 = 630

THEREFORE, THIS SYSTEM IS CURRENTLY AT (630/1120) 56% CAPACITY.

T15: If the largest producing well (Well #3) were out of service, the system would be at (630/710) 89% capacity.
Well #2 = 252 GPM (limiting factor); Pumps = 400 GPM
Usable Storage = 252 * 6 * 60 = 90,720 gallons
Design Capacity = 257 + 453 = 710 CONNECTIONS

GROUNDWATER RULE CALCULATIONS FOR 4LOG INACTIVATION

Assume a baffling factor of 0.5; Water comes into top of tank and leaves through bottom
- Train 1 = 7,500 gallons / 200 gpm * 0.5 = 18.8 min - Minimum Detention Time
- Train 2 = 9,025 gallons / 200 gpm * 0.5 = 22.6 min

Based on water temperature (65F), CT = 3.3 mg/l min
Minimum required chlorine concentration C = CT/T
= 3.3 mg-min/L / 18.8 min
= 0.18 mg/L

Therefore, the minimum required chlorine concentration is 0.20 mg/L if measured past the control tanks.