



MISSISSIPPI STATE DEPARTMENT OF HEALTH

**REPORT OF INSPECTION OF DRINKING WATER SUPPLY**

**PWS:** 0240036 **Class:** D

An inspection of the CITY OF BILOXI-FRENCH water supply in HARRISON county was made on 09/20/2016. Present at the time of inspection was TRACEY L FOREHAND, OPERATOR; BRENT HODGE, OPERATOR; WRITER. Official Address PO BOX 429 BILOXI MS 39533 W.W. Operator TRACEY L FOREHAND Address P O BOX 429 BILOXI MS 39533 No. Connections 868 No. Meters     Population Served 2818 Field Chemical Analysis: pH     Cl2 (free) 0.5 Cl2 (total) 0.6 H2S N/A Iron     Fluoride     Point of Sampling DISTRIBUTION Water Rates    

**COMMENTS**

Technical: 5 Managerial: 5 Financial: 5

**OVERALL CAPACITY RATING: 5.0 / 5.0**

1. At the time of inspection, the water system appeared to be well maintained and operating properly.
2. The design capacity calculations attached to this report and the table below give the required minimum chlorine residual near each entry point. Should system officials choose to conduct 4-log virus inactivation to comply with the Groundwater Rule, the free chlorine residual will have to be measured and recorded at least daily at or before the first customer near each entry point and must meet the minimum residuals given below.

Location	Required minimum
Well #2 Pressure Tank	0.2 mg/l
Well #3 Pressure Tank	0.3 mg/l
Well #5 First Connection	1.3 mg/l

3. No pressure problems were reported at the time of inspection.
4. 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.



## Mississippi Department of Health Bureau of Public Water Supply

STANDARD FORM

### FY 2017 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#: 0240036 Class: D Survey Date: 09-20-2016 County: HARRISON  
 Public Water System: CITY OF BILOXI-FRENCH Conn: 868  
 Certified Waterworks Operator: TRACEY L FOREHAND Pop: 2818

#### CAPACITY RATING DETERMINATION

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

$$\text{Capacity Rating} = \frac{T+M+F}{3} = \frac{15}{3} = 5$$

**Overall Capacity Rating = 5.0**

Completed by Wendy Ferrill, P.E. on 09/22/2016

Reviewed by Ralph Hayes, P.E. on 09/23/2016

Comments: \_\_\_\_\_

Technical Capacity Assessment	Point Scale	Point Award
[T1] Does the water system have any significant deficiencies? [ <u>Y</u> <u>N</u> ]	N - 1 pt. Y - 0 pt.	1
[T2] 1) Was the water treatment process functioning properly? [ <u>Y</u> <u>N</u> ] (i.e. Is pH, iron, free chlorine, fluoride, etc. within acceptable range?) 2) Was needed water system equipment in place and functioning properly at the time of survey? [ <u>Y</u> <u>N</u> ] (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? [ <u>Y</u> <u>N</u> <u>NA</u> ] (NOTE: All YESs required to receive point)	All Y - 1 pt. Else - 0 pt.	1
[T3] 1) Was the certified waterworks operator or his/her authorized representative present for the survey? [ <u>Y</u> <u>N</u> ] 2) Was log book up to date and properly maintained and did it show that MSDH Minimum JOB Guidelines for W. W. Operators were being met? [ <u>Y</u> <u>N</u> ] 3) Was the water system properly maintained at the time of survey? [ <u>Y</u> <u>N</u> ] 4) Did operator satisfactorily demonstrate to the regional engineer that he/she could fully perform all water quality tests required to properly operate this water system? [ <u>Y</u> <u>N</u> ] (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 water loss records available for review by the regional engineer? [ <u>Y</u> <u>N</u> ] 2) Is water system overloaded? (i.e. serving customers in excess of MSDH approved design capacity)? [ <u>Y</u> <u>N</u> ] 3) Was there any indication that the water system is/has been experiencing pressure problems in any part(s) of the distribution system? [ <u>Y</u> <u>N</u> ] (based on operator information, customer complaints, MSDH records, other information) 4) Are well pumping tests performed routinely? [ <u>Y</u> <u>N</u> <u>NA</u> ] (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.) [ <u>Y</u> <u>N</u> ] 2) Does the water system have a usable backup source of water? [ <u>Y</u> <u>N</u> ] (NOTE: Must be documented on survey report)	All Y - 1 pt. Else - 0 pt.	1
<b>TECHNICAL CAPACITY RATING = [<u>5</u>] (Total Points)</b>		

<b>Managerial Capacity Assessment</b>	<b>Point Scale</b>	<b>Point Award</b>
[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 checked="" 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
<b>MANAGERIAL CAPACITY RATING = [ <u>5</u> ] (Total Points)</b>		

<b>Financial Capacity Assessment</b>	<b>Point Scale</b>	<b>Point Award</b>
[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 checked="" type="radio"/> Y <input type="radio"/> 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? <input checked="" type="radio"/> Y <input type="radio"/> N	Y - 1pt. N - 0pt.	1
[F5 - Municipal Systems] 1) Is the municipality current in submitting audit reports to the State Auditor's Office? <input checked="" type="radio"/> Y <input type="radio"/> N 2) 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 3) 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) Has the rural water system filed the required financial reports with the State Auditor's Office and were these reports 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.	
<b>FINANCIAL CAPACITY RATING = [ <u>5</u> ] (Total Points)</b>		

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

System: **CITY OF BILOXI-FRENCH**ID: **0240036** Class: **D** County: **HARRISON**Date Completed: **09/22/2016**Connections - Actual: **868** Equivalent: **868**Design Capacity: **5150** Percent Design Capacity: **868/5150 = 16.9%**

Design Capacity = Well Capacity + Elevated Storage / 200  
Well Capacity = 150 + 525 + 1500 + 400  
Well Capacity = 2575

Design Capacity = 2575 + 1,000,000 / 200  
Design Capacity = 2575 + 5000  
Design Capacity = 7575

\*\* Design Capacity is limited to twice the well capacity.

Design Capacity = 5150

% of Design Capacity = ( # of existing connections / design capacity ) \* 100

% of Design Capacity = ( 868 / 5150 ) \* 100

% of Design Capacity = 16.9

**GROUNDWATER RULE CALCULATIONS:**Well #1: T = 68F + 6 = 74F  
CT = 2.3mg\*min/L

C = 2.3mg\*min/L / ((1/6)\*17,000gal)/150GPM

C = 0.2mg/L \*Therefore, the minimum residual of free chlorine at the tank  
should be 0.2mg/L.Well #3: T = 68F + 8 = 76F  
CT = 2.1mg\*min/L

C = 2.1mg\*min/L / ((1/6)\*20,000gal)/525GPM

C = 0.3mg/L \*Therefore, the minimum residual of free chlorine at the tank  
should be 0.3mg/L.Well #5: T = 68F + 8 = 76F  
CT = 2.1mg\*min/LC = 2.1mg\*min/L / ((25ft\*4.1gal/ft)/1500GPM + (250ft\*4.1gal/ft)/750GPM +  
(20ft\*4.1gal/ft)/375GPM)

C = 2.1 mg\*min/L / (0.068 + 1.37 + 0.22)

C = 1.3mg/L \*Therefore, the minimum residual of free chlorine at the tank  
should be 1.3mg/L.

**MISSISSIPPI STATE DEPARTMENT OF HEALTH  
DIVISION OF WATER SUPPLY  
PUBLIC WATER SUPPLY - MASTER DATA SHEET**

Name of Supply: City of Biloxi – French Owner: City County: Harrison

PWS ID# 0240036 Class: D Date of Last Inspection: 09-20-2016 Master Meter: Yes

Actual Connections: 868 Equivalent Connections: 868 Design Capacity: 5150

% of Design Capacity: 16.9 GWR Status: Triggered Monitoring

Source Supply: Purchase \_\_\_\_\_ Surface \_\_\_\_\_ Ground X Number of Wells: Five

<u>Well ID</u>	<u>Location</u>	<u>Year Constructed</u>	<u>Capacity (gpm)</u>	<u>Pressure (psi)</u>	<u>Casing (in)</u>	<u>Screen (in)</u>	<u>Depth (ft)</u>	<u>Cl2 Setting</u>
0240036-01	Doty Rd.	1961						<b>Abandoned</b>
0240036-02	Oaklawn Rd.	1989	150	60	10	6	560	22
0240036-03	Oaklawn Rd.	1996	525	60	12	8	817	25
0240036-04	Oaklawn S/D	1961		60	4		350	<b>Abandoned</b>
0240036-05	I-10 Service Rd.	2006	1500	60	20	10	782	100
0240036-06	Bradford Place	1997	400		10	6	751	30

Treatment: Iron \_\_\_\_\_ Softening \_\_\_\_\_ Corrosion \_\_\_\_\_ Chlorine X Fluoride \_\_\_\_\_

<u>Treatment:</u>	<u>No</u>	<u>Location</u>	<u>Type</u>	<u>Capacity (max)</u>	<u>Settings</u>	<u>Remarks</u>
Chlorinator	2		Advance 480	100 ppd		Switchover
	1		Advance 200	200 ppd		Switchover

<u>Storage:</u>	<u>Location</u>	<u>Year Constructed</u>	<u>Material</u>	<u>Capacity (gallons)</u>	<u>Remarks</u>	<u>Inspection Date</u>
Pressure	Well #1		Steel	9,000	Not in Use	
Pressure	Well #2		Steel	17,000		02-09-2016
Pressure	Well #3		Steel	20,000		02-09-2016
Pressure	Well #4		Steel	525		
Pressure	Well #4		Steel	525		
Elevated	Oaklawn		Steel	1,000,000	156' to OF	02-26-2016
Pressure	Well #6		Steel	12,000		02-09-2016

<u>Generator:</u>	<u>Type</u>	<u>Location</u>	<u>Rating</u>	<u>Fuel</u>	<u>Routine</u>

