# MONTHLY PROGRESS REPORT DECEMBER 2020

# EMERGENCY WWTP REPAIR PROJECT GREENVILLE, MS

#### **Submitted To:**

U.S. Environmental Protection Agency, Region 4 Clean Water Enforcement Branch 61 Forsythe Street, S.W. Atlanta, GA 30303-8960

and

Mississippi Department of Environmental Quality P.O. Box 2261 Jackson, MS 39225



# **Prepared For:**

City Hall 340 Main Street Greenville, MS 38701

January 11, 2021



#### **CERTIFICATION**

Monthly Progress Report
December 2020
Administrative Order No. CWA-04-2020-0303
City of Greenville, MS

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Errick D. Simmons, Mayor

January 11, 2021

Date

File Name: Monthly Progress Report (December 2020)

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# **SECTION I**

# PERMIT EFFLUENT EXCEEDANCES

A tabulation of the permit effluent limit exceedances for the month of December 2020 is referenced in Table 1 below. The raw data are referenced in Appendix A.

**TABLE 1 - EFFLUENT PERMIT EXCEEDANCES** 

					TOTAL
DATE	FLOW	BOD5	TSS	рН	FECAL
DATE	(MGD)	(mg/l)	(mg/l)	(SU)	COLIFORM
	, ,	, ,		, ,	(MPN/100ml)
12-01-2020		98	188		43,333
12-02-2020		172	136		30,000
12-03-2020		183	82		111,667
12-04-2020		205	92		86,667
12-05-2020		180	74		70,000
12-06-2020		155	46		103,333
12-07-2020		160	68		111,667
12-08-2020		129	84		133,333
12-09-2020		210	114		13,333
12-10-2020		248	272		135,333
12-11-2020		331	248		115,000
12-12-2020		264	74		126,667
12-13-2020		198	272		103,333
12-14-2020	33.4	152	228		81,667
12-15-2020		116	254		36,667
12-16-2020		194	254		8,333
12-17-2020		163	264		41,667
12-18-2020		149	136		26,667
12-19-2020		174	136		41,667
12-20-2020		136	112		53,333
12-21-2020		57	82		11,667
12-22-2020		78	58		16,667
12-23-2020		132	46		13,333
12-24-2020		207	170		35,000
12-25-2020		77	80		35,000
12-26-2020		90	108		56,667
12-27-2020		97	120		51,667
12-28-2020		95	66		38,333
12-29-2020		118	66		106,667
12-30-2020		188	54		125,000
12-31-2020		187	106		63,333

<sup>-</sup> End of Section -



#### **SECTION II**

#### SUMMARY OF ICAP ACTIVITIES

The following ICAP activities were performed prior to and during the month of December 2020:

1. Clarifier Cleanings – Hemphill Construction Company (HEMPHILL) of Florence, MS, rescheduled the cleaning of Clarifier Nos. 1, 3, & 4 to begin July 15, 2020, and end December 4, 2020. After the surficial aquifer fell to manageable levels, HEMPHILL began cleaning Clarifier No. 1 in September and completed the work in October. Manchac Management Services LLC (MANCHAC) of Baton Rouge, LA, the WWTP operator, began removing the duckweed from Clarifier No. 2 in September 2020 and completed the work in October. Towards the end of October, HEMPHILL focused their cleanup efforts on Clarifier No. 4 and completed the work on December 18, 2020. HEMPHILL has not started cleaning Clarifier No. 3; they plan to amend their construction schedule in January 2021 to move this work, along with the aeration basin cleaning work, back in their overall project schedule so that they can focus their efforts on completing the grit chamber. The amended schedule will be documented in the January Progress Report.

Also, during September 2020, Chicot Irrigation (CHICOT) of Lake Village, AR, installed a groundwater pump in the clarifier piezometer. This gives the City of Greenville, MS, (CITY) the option, during high groundwater events, to dewater the groundwater in the vicinity of the clarifiers to manageable levels.

- 2. Clarifier Repairs W. L. Burle Engineers, P.A. (BURLE) worked with Industrial Services, Inc. (IS) of Greenville, MS, to reschedule the clarifier repair work to sync with HEMPHILL's cleaning schedule. IS began repairing Clarifiers Nos. 1 and 2 in September 2020 and completed Clarifier No. 2 in October and Clarifier No. 1 in November. Both are now operational. IS will focus on repairing Clarifier No. 4 in January 2021.
- 3. Aeration Basins 1-7 Cleanings On January 20, 2020, HEMPHILL began cleaning Basin No. 7 and completed the work March 18, 2020. Basin No. 2 was cleaned in April, Basin No. 1 was cleaned in May and Basin No. 3 was cleaned in July 2020. The cleaning of Basin Nos. 4 and 6 began in July 2020. In September, HEMPHILL stopped cleaning Basin Nos. 4 and 6 and moved their crew to the clarifier cleaning project. In October, HEMPHILL completed the cleaning of Clarifier No. 1 and moved their crew back to Basin Nos. 4 and 6. They completed the cleaning of Basin No. 6 in October. The work continued on Basin Nos. 4 and 5 through the end of this reporting period. As noted under Item No. 1, in order to focus their attention on the completion of the grit chamber, HEMPHILL plans to amend their



construction schedule in January 2021 to move the cleaning of Basins Nos. 4 and 5 back in their overall schedule.

- 4. By-Pass Channel Cleaning HEMPHILL started and completed the cleaning of the by-pass channel in March 2020.
- 5. UV Disinfection Chamber Cleaning HEMPHILL had rescheduled this work to be completed in December 2020; however, as noted earlier, HEMPHILL plans to amend their construction schedule to move the UV disinfection chamber cleaning work back in their overall construction schedule so that they could focus their efforts on the completion of the grit chamber. The amended construction schedule will be referenced in the January 2021 Progress Report.
- 6. Interim Disinfection Systems Upon receipt of the administrative order in December 2019, the CITY began disinfecting the WWTP's effluent using chlorine tablets and chlorine gas and continued using chlorine until the CITY's interim NaClO disinfection system was installed and operational.

Also in December 2019, the CITY retained BURLE to prepare the construction plans and specifications for the project. BURLE immediately specified the NaClO disinfection equipment and recommended to the CITY that they directly purchase the equipment. The CITY voted to purchase the equipment during the December 3, 2019, council meeting; delivery was expected in 10 to 12 weeks.

In order to expedite construction, BURLE broke the project into two (2) phases: Phase I – Foundation and Phase II – Equipment Installation. The phases are discussed below:

- Phase I was bid on January 3, 2020. Avis Construction Company (AVIS) of Avon, MS, was the low bidder (\$37,000) and was awarded the project. AVIS finished the project January 21, 2020.
- Phase II was bid January 30, 2020. AVIS was again the low bidder (\$24,800), and was awarded the project. The 10,000-gallon aboveground storage tank arrived on February 28, 2020, and was installed by AVIS that day. The balance of equipment (pumps, controls, housing, etc.) was delivered in March 2020, with the exception of an eyewash station which was received in April 2020. The installation of the remaining equipment followed.

Start-up was delayed due to Pandemic-related supply disruptions/travel restrictions. On April 21, 2020, the equipment representative for the disinfection equipment company conducted a training session for the WWTP staff. Sodium hypochlorite was then ordered and



delivered the following week. Startup occurred April 29, 2020, and the system has remained operational since.

7. Sludge Lagoon No. 2 Project – BURLE completed the construction plans and specifications, and submitted same to the MDEQ SRF Division for review on January 31, 2020. MDEQ reviewed and approved the documents in March. The project was bid May 27, 2020. Two (2) bids were received; both were over budget. The bids were rejected during the June 2<sup>nd</sup> council meeting.

BURLE redesigned the project to emphasize landfill disposal instead of land application and also extended the construction period by 110 days, bringing the total construction period to 475 days. MDEQ reviewed/approved the amended plans and specifications. The CITY bid the project August 26, 2020. The low bidder was Mitchell Contracting of Madisonville, LA; however, their bid was unbalanced and the CITY rejected the bids during the September 1<sup>st</sup> council meeting.

BURLE redesigned the project's bid proposal and submitted it again to MDEQ for review/approval. After receiving MDEQ's approval, BURLE obtained the CITY's approval to advertise and performed the bid opening on November 5, 2020. Synagro was the low bidder (\$2,259,003). The City Council awarded the project to them during the November 17, 2020 council meeting. The CITY is currently in the process of executing the contract.

8. Wasted Activated Sludge (WAS) Pumps/Piping – In December 2019, the CITY voted to purchase three (3) WAS pumps from NOV Process and Flow Technologies (NOV) of Dallas, TX, for \$46,023. The CITY issued a purchase order (No. 200995) on January 21, 2020. NOV delivered the pumps in April 2020. The WAS comminutors and control panels were delivered on May 1, 2020. The pumps, grinders and control panels are scheduled to be installed by MANCHAC after the discharge lines have been inspected and cleaned.

Also, the valving on the WAS suction lines from Aeration Basin Nos. 1 through 8 will be replaced under Contract No. 6 - WWTP Effluent Pump Station Improvement Project. Construction documents were prepared/delivered to MDEQ for review in June 2020. MDEQ approved the construction documents in July. The bid opening was September 2, 2020. HEMPHILL was the low bidder (\$928,000). The CITY awarded the project to HEMPHILL during the September 15<sup>th</sup> council meeting. The CITY executed the agreement with HEMPHILL on September 21<sup>st</sup>. The project is now underway.

9. Additional WWTP Improvements – During the February 4, 2020, CITY council meeting, the CITY approved additional WWTP improvements which were proposed by MANCHAC, the CITY's WWTP operator.



#### The improvements consist of:

a. Blowers – MANCHAC proposed to rebuild three (3) of the existing blowers. On February 6, 2020, MANCHAC removed Blower No. 4 from the blower building and transported it to Erichson Company, Inc. (ERICHSON) of Metairie, LA, for rehabilitation. ERICHSON rebuilt the blower in March 2020, and returned it to the WWTP.

In April 2020, two blowers, Blower Nos. 5 and 6, were delivered to ERICHSON in hopes of rebuilding the better of the two and using the other for parts. ERICHSON rebuilt Blower No. 5 and MANCHAC transported it to the WWTP in June. The motor for Blower No. 6 was taken to Mid-South Electric (MID-SOUTH) of Greenville, MS, for repair.

In July 2020, MANCHAC installed the blowers and now have four (4) operational blowers.

- b. Aeration Basin Diffusers MANCHAC asked the CITY to purchase sufficient diffusers to replace all of the diffusers for eight (8) aeration basins. The CITY issued a purchase order for the diffusers in February 2020. As many as 14,000 diffusers will be replaced. MANCHAC is preforming the work as basins are cleaned and the diffusers are inspected. In April, MANCHAC oversaw the replacement of the diffusers in Basin Nos. 2 and 7. In July, MANCHAC started replacing the diffusers in Basin Nos. 1 and 2; the work was completed in August. In September, MANCHAC began replacing the diffusers in the remaining clean basins. As of the end of the reporting period, the diffusers in six of the eight basins have been replaced.
- c. Aeration Basin Aeration Valves By the end of November 2020, MANCHAC had replaced the aeration valves for Basin Nos. 1 through 8.
- d. Barrack Replacement BURLE is now under contract to design a new automated bar screen and conveyor/compactor for the aeration basin. The new bar screen, along with the new grit chamber bar screen, will give the WWTP gross solids removal redundancy.
- e. Aeration Basin No. 8 Cleaning In February 2020, MANCHAC began cleaning Basin No. 8, using MANCHAC's crew, and completed the work in April.
- f. Exercise/Repair Frozen Sluice Gates for Aeration Basin Nos. 1 through 8 The CITY hired IS to exercise and/or repair eleven (11) frozen sluice gates in Basin Nos. 1 through 8. The work began in June 2020. Several of the gates in Basin Nos. 1, 2, 6 and 7 are in



need of concrete wall repairs. The repairs will be performed by HEMPHILL under a change order which was brought before the CITY Council for review/approval in July 2020. This work continued through the end of this reporting period.

g. Slide Gate/Stop Gate Installations – MANCHAC plans to use Basin No. 8 as an interim grit chamber until the new grit chamber is operational. To accomplish this, MANCHAC will reconfigure the flow through the aeration basins from parallel flow to serpentine, series flow as shown in Figure 4. This will be accomplished by installing four (4) slide gates and two (2) stop plates as shown in the drawing. The CITY has issued purchase orders for both the equipment and to IS for the installation of the equipment. The work began in July 2020 and should be completed in January 2021 when the final gate is installed during the shutdown of the WWTP (See Item II.10).

In June 2020, BURLE prepared construction documents for the installation of the slide gate electrical services. The project was bid on July 29. 2020. McInnis Electric was the lone bidder with a bid of \$228,570. The CITY discussed the bid during the August 4<sup>th</sup> council meeting and voted to table the award. In November, MANCHAC received and the CITY approved a quote from Scott Electric Company (SCOTT) (\$40,938.00) to perform the work. SCOTT is currently under contract for the project.

- h. Temporary Sludge Dewatering In order to provide interim sludge dewatering services prior to the completion of the Sludge Lagoon No. 2 project, the CITY plans to rebuild the belt press sludge dewatering system and dispose of the sludge at a landfill. This will consist of:
  - Existing Belt Press Building Repairs The existing belt press building will be repaired. In July 2020, the CITY inspected the WWTP's two (2) belt presses, a 2-meter Phoenix press and a 1-meter Carter press, and scheduled an equipment representative to evaluate the condition of both presses. Phoenix Process Equipment provided a quote to rebuild the 2-meter Phoenix belt press; the 1-meter Carter belt press was not repairable. The CITY also received quotes in July to repair the belt press building and electrical system. BURLE brought these quotes before the CITY on August 18, 2020; the CITY voted to schedule the work to begin in October 2020. The work is currently being scheduled.
  - Leasing Belt Press Equipment MANCHAC plans to lease and operate a trailer-mounted, 2-meter belt press. The system will be installed adjacent to the existing, belt press building.



- Biosolids Land Application Site The biosolids currently stored in Aeration Basin Nos. 9 through 12 and Lagoon Nos. 1 and 3 will be disposed of on a land application site. The landowner for the proposed biosolids land application site terminated the project September 2020. The CITY is currently permitting another site on a parcel of CITY-owned property at the Mid-Delta Regional Airport. In November, the CITY authorized BURLE to begin the permitting process. BURLE began work on the project during this reporting period.
- 10. Grit Chamber Construction Project HEMPHILL began construction of the grit chamber in February 2020. The work has continued through the end of this reporting period.

During December 2020, HEMPHILL submitted a by-pass plan to BURLE which diverted the influent WWTP flow around the WWTP and directly to the effluent pump station. This will allow HEMPHILL to install the necessary piping/gates to redirect the flow to the new grit chamber. The by-pass system will remain in place and operational for approximately six (6) weeks.

BURLE submitted the plan to MDEQ for review and subsequent approval on December 21<sup>st</sup>. HEMPHILL began the by-pass installation work on December 29<sup>th</sup> and should be finished in January 2021.

11. WWTP Biosolids Land Application Site – In January 2020, MANCHAC constructed the WWTP biosolids land application site which was approved of by MDEQ and referred to in their approval letter (dated December 3, 2019) as the "Basin Material Removal Plan". MANCHAC made the site available to HEMPHILL for disposal of the aeration basin material in January.

During the January 23, 2020, public works committee meeting, a neighbor living south of the WWTP, Ms. Sarah Moorman, complained about both the odor from the land application activities and the land application site's stormwater run-off. The CITY told Ms. Moorman that they were operating the land application site within the terms of their MDEQ-approved plan. She stated she would attend the February 4, 2020, council meeting to object to the disposal practices.

On January 30, 2020, MDEQ inspected the site and subsequently instructed MANCHAC to discontinue land application work until the site was dryer and the biosolids could be properly incorporated into the surficial soils as required in MDEQ's approval plan. This action temporarily forced HEMPHILL to cease basin cleaning activities.

In February 2020, HEMPHILL installed a HDPE pipeline from the aeration basins to the sludge lagoons. This pipeline gave HEMPHILL the option of pumping the biosolids to either



the sludge lagoons, as originally planned under the grit chamber project, or to the biosolids land application site. Since February, HEMPHILL has used the pipeline to convey the solids from the basins/clarifiers to the sludge lagoons.

12. WWTP Effluent Pump Station Repair – In March 2020, MANCHAC informed the CITY that the effluent pumps were in poor condition. Of the three pumps, only two were marginally operational. The situation was such that the pump station could not process the CITY's anticipated wastewater flow during a rain fall event.

The following actions were taken to address the problem:

- MANCHAC has installed two (2) by-pass pumps to assist Pump No. 3 in meeting demand. While they are in use, MANCHAC is making the following repairs:
  - ➤ Pump No. 1 (East Pump) The motor was removed and taken to MID-SOUTH for repair. The motor was repaired and returned on May 20, 2020.
  - ➤ Pump No. 2 The motor was removed and taken to MID-SOUTH for repair; the motor was repaired and returned on May 20, 2020. Luckett Pumps (LUCKETT) of Tutwiler, MS, was hired to inspect, repair and re-install the pump; the work continued through this reporting period.
  - ➤ Pump No. 3 (West Pump) LUCKETT was also hired to inspect the pump. The pump is operational and serves as the pump station's primary pump.
- The CITY issued a purchase order to MANCHAC to purchase one (1) new effluent pump for Pump No. 1. The CITY installed the pump October 6<sup>th</sup>. It is not currently operational.
- BURLE moved the effluent pump station repair and aeration basin valve replacement project up in order of design under MDEQ SRF Loan 11 and called it "Contract No. 6 WWTP Effluent Pump Station Improvement Project". The project, as it relates to the effluent pump station, will involve the complete replacement of two pumps (Pump Nos. 2 and 3) and the valves for all three pumps.

The design of the project was expedited. Plans/specifications were delivered to MDEQ for review/approval in June 2020, instead of the original deadline of September 30, 2020. MDEQ approved the plans/specifications in July. The CITY received bids September 2, 2020. HEMPHILL was the low bidder (\$928,000.00). During the September 15<sup>th</sup> council meeting, the CITY awarded the project to HEMPHILL. The CITY has issued a Notice to Proceed to HEMPHILL for the work. HEMPHILL began work on the project during this reporting period.

- End of Section -



#### **SECTION III**

#### **ICAP SCHEDULE**

During the July 10<sup>th</sup> conference call with EPA, DOJ and MDEQ, the CITY discussed the impact the COVID-19 pandemic, the 2020 Spring Flood Event and the complexity of the repair work have had on the CITY's Emergency WWTP Repair Project. EPA requested an amended ICAP Schedule which recognizes the impacts and delays.

The CITY sent the amended schedule to EPA/MDEQ on August 7, 2020, for review and comment (See Appendix C).

In correspondence dated October 16, 2020, EPA approved the amended ICAP Schedule.

The CITY's construction schedule, which was amended in the October 2020 Progress Report, is referenced under Appendix C. It will be amended in the January 2021 Progress Report to reference HEMPHILL's revised construction schedule.

- End of Section -



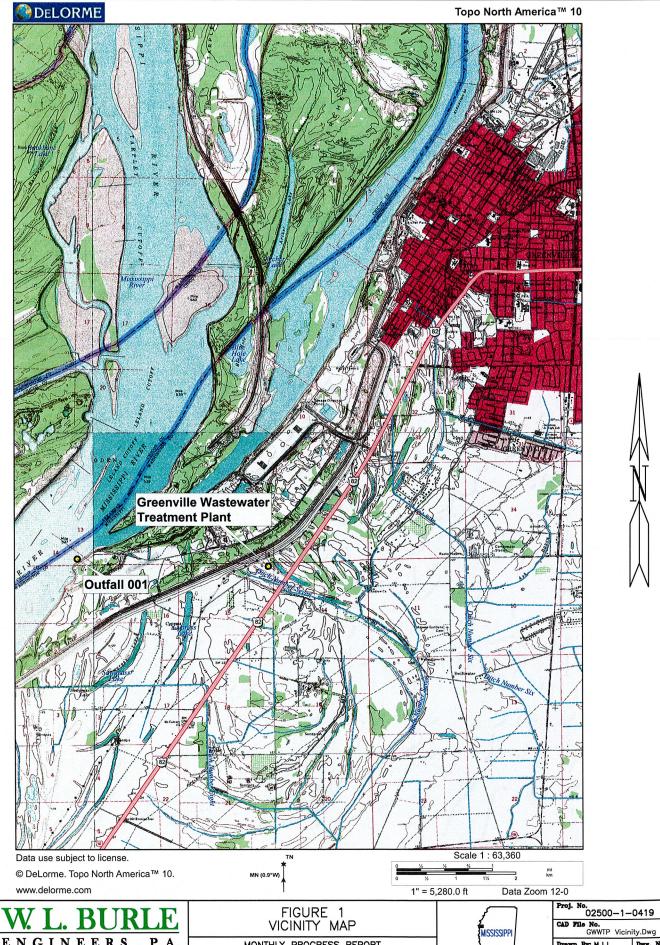
# **FIGURES**



# FIGURE 1

**VICINITY MAP** 





ENGINEERS, P.A. 111 South Walnut Street Greenville, MS 38701

MONTHLY PROGRESS REPORT
DECEMBER 2020
WASTEWATER TREATMENT PLANT REPAIR PROJECT
GREENVILLE, MISSISSIPPI



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# FIGURE 2 WWTP MAP NO. 1







MONTHLY PROGRESS REPORT
DECEMBER 2020
WASTEWATER TREATMENT PLANT
REPAIR PROJECT
GREENVILLE, MISSISSIPPI

FIGURE 2 WASTEWATER TREATMENT PLANT MAP Proj. No. 02500-1-0419

CAD File No.

GreenvilleWWTP Layout.dwg

 Drawn
 By:
 MJJ
 Dwg.
 No.

 Chkd.
 By:
 WLB, Jr.
 Jr.
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 Date:
 1/4/2021
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 Scale:
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# FIGURE 3

WWTP MAP NO. 2







111 South Walnut Street Greenville, MS 38701

MONTHLY PROGRESS REPORT DECEMBER 2020 WASTEWATER TREATMENT PLANT REPAIR PROJECT GREENVILLE, MISSISSIPPI

FIGURE 3 WASTEWATER **TREATMENT** PLANT MAP

Proj. No. 02500-1-0419

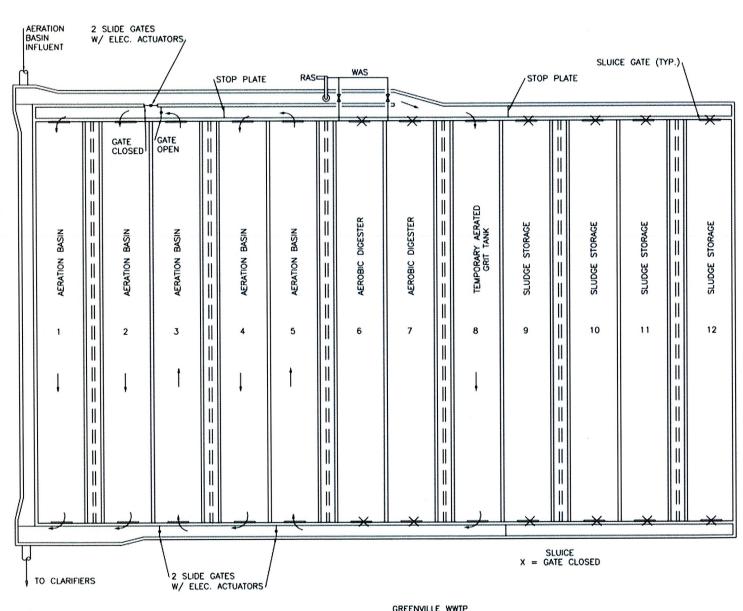
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GreenvilleWWTP Layout.dwg

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# FIGURE 4 AERATION BASIN RE-CONFIGURATION PLAN





GREENVILLE WWTP AERATION BASIN OPERATION NORMAL FLOW





MONTHLY PROGRESS REPORT DECEMBER 2020 WASTEWATER TREATMENT PLANT REPAIR PROJECT GREENVILLE, MISSISSIPPI

FIGURE 4 AERATION BASINS PLAN

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# **APPENDICES**



# APPENDIX A

WWTP EFFLUENT DATA (DECEMBER 2020)



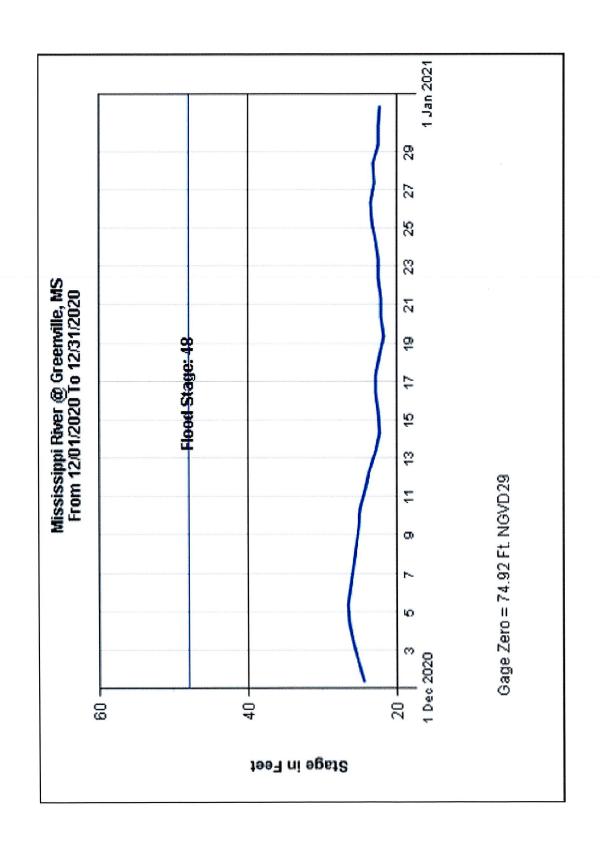
Greenville Daily WWTP Report	MGD Effluent (ppm) colonies/100mL	ent	pH BOD TSS Total N Residual Co	cember 1, 2020 5.9 7.4 98 188 1.57 4333	cember 2, 2020 6.0 7.3 172 136 2.20 30000	ember 3, 2020 5.7 7.2 183 82 0.01 111667	ember 4, 2020 6.8 7.2 205 92 0.02 86667	cember 5, 2020 5.2 7.3 180 74 0.01 70000 7000	cember 6, 2020 4.9 7.3 155 46 0.28 103333	cember 7, 2020 5.1 7.4 160 68 0.01 111667	cember 8, 2020 5.0 7.4 129 84 0.01 133333	cember 9, 2020 5.9 7.3 210 114 1.25 1.25 13333	ember 10, 2020 5.8 7.3 248 272 1.31 1.31 135333	ember 11, 2020 7.2 7.0 331 248 0.27 115000	ember 12, 2020 5.9 7.1 264 74 0.01 126667	ember 13, 2020 16.5 7.2 198 272 0.06 103333	ember 14, 2020 33.3 7.3 152 228 1.87 81667	ember 15, 2020 9.4 7.4 116 254 2.20 36667	ember 16, 2020 9.5 7.2 194 254 1.54 8333	ember 17, 2020 8.4 7.3 163 264 0.51 41667	ember 18, 2020 7.4 7.2 149 136 0.29 2.29 26657	ember 19, 2020 16.9 7.2 174 136 0.06 41667	ember 20, 2020 10.1 7.2 136 112 0.85 53333	ember 21, 2020 7.2 7.4 57 82 0.46 11667	ember 22, 2020 6.6 7.2 78 58 0.96 16667	ember 23, 2020 12.0 7.2 132 46 0.10 13333	ember 24, 2020 7.2 7.3 207 170 0.01 35000	ember 25, 2020 7.3 7.3 77 80 0.04 35000	ember 26, 2020 6.1 7.3 90 108 0.02 56667	ember 27, 2020 6.8 7.3 97 120 0.06 51667	ember 28, 2020 6.0 7.5 95 66 0.52 38333	
	Ž	<b>E</b> :	flo	Tuesday, December 1, 2020	Wednesday, December 2, 2020	Thursday, December 3, 2020	Friday, December 4, 2020	Saturday, December 5, 2020	Sunday, December 6, 2020	Monday, December 7, 2020	Tuesday, December 8, 2020	Wednesday, December 9, 2020	Thursday, December 10, 2020	Friday, December 11, 2020	Saturday, December 12, 2020	Sunday, December 13, 2020	Monday, December 14, 2020	Tuesday, December 15, 2020	Wednesday, December 16, 2020	Thursday, December 17, 2020	Friday, December 18, 2020	Saturday, December 19, 2020	Sunday, December 20, 2020	Monday, December 21, 2020	Tuesday, December 22, 2020	Wednesday, December 23, 2020	Thursday, December 24, 2020	Friday, December 25, 2020	Saturday, December 26, 2020	Sunday, December 27, 2020	Monday, December 28, 2020	

Wednesday, December 30, 2020	20.7	7.4	188	54		0.16	125000	
Thursday, December 31, 2020	15.4	7.3	187	106		0.50	63333	
Dec. 2020 Total	280 xxxx		XXXX	XXXX	XXXX	XXXX	XXXX	
Dec 2020 Average	6	7.3	159	132	#DIV/0i	1	20620	
Dec. 2020 Max	33	7.5	331	272	0	2	135333	
Dec.2020 Min	4	7.0	57	46	0	0	8333	

# APPENDIX B

MISSISSIPPI RIVER @ GREENVILLE GAGE - DECEMBER 2020





# APPENDIX C

EMERGENCY WWTP REPAIR PROJECT CONSTRUCTION SCHEDULE



