

**MONTHLY PROGRESS REPORT
APRIL 2022**

**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

May 10, 2022



111 S. WALNUT STREET • P.O. BOX 1293 • GREENVILLE, MS 38702-1293
662.332.2619 • FAX 662.332.2622 • WWW.WLBURLE.COM

CERTIFICATION

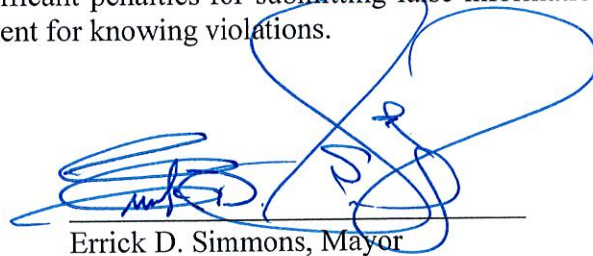
Monthly Progress Report

April 2022

Administrative Order No. CWA-04-2021-0321

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

_____ May 10, 2022

Date

File Name: Monthly Progress Report (April 2022)

Brad Ammons, EPA Region IV

Bailey Long, MDEQ

Michelle Clark, MDEQ

Allen York, P.E., Arkansas Dept. of Environmental Quality (ADEQ)

Richard Healey, ADEQ

Dwight Bradshaw, Louisiana Dept. of Environmental Quality

Les Herrington, P.E., MDH

Chris McDonald, Mississippi Department of Agriculture

Justin Haydel, P.E., Manchac Management Services, LLC

Thelma Glasco, U.S. Dept. of Agriculture Rural Development

Mayor Errick D. Simmons

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SECTION I
PERMIT EFFLUENT EXCEEDANCES

A tabulation of the WWTP's daily effluent limit exceedances for the month of April 2022, is referenced in Table 1 below. The raw data are referenced in Appendix A.

TABLE 1 – APRIL 2022 EFFLUENT PERMIT EXCEEDANCES

DATE	FLOW (MGD)	BOD5 (mg/l)	TSS (mg/l)	pH (SU)	TOTAL FECAL COLIFORM (MPN/100ml)
4-01-2022	---	---	---	---	---
4-02-2022	---	43	---	---	---
4-03-2022	---	---	---	---	---
4-04-2022	---	---	---	---	---
4-05-2022	---	---	---	---	>6,000*
4-06-2022	---	---	---	---	---
4-07-2022	---	---	---	---	---
4-08-2022	---	---	---	---	---
4-09-2022	---	---	---	---	---
4-10-2022	---	---	---	---	---
4-11-2022	---	---	---	---	---
4-12-2022	---	---	---	---	---
4-13-2022	27.7	---	---	---	---
4-14-2022	---	---	46	---	---
4-15-2022	---	---	---	---	---
4-16-2022	---	---	---	---	---
4-17-2022	---	---	---	---	---
4-18-2022	---	---	---	---	---
4-19-2022	---	---	---	---	---
4-20-2022	---	---	---	---	---
4-21-2022	---	---	---	---	---
4-22-2022	---	---	---	---	---
4-23-2022	---	---	---	---	---
4-24-2022	---	---	---	---	---
4-25-2022	---	---	---	---	---
4-26-2022	---	---	---	---	---
4-27-2022	---	---	---	---	---
4-28-2022	---	---	---	---	---
4-29-2022	---	---	---	---	---
4-30-2022	---	---	---	---	---

* Results believed to be erroneous.

In summary, the City's WWTP was in compliance with its effluent permit limitations for the month of April 2022. However, the BOD and TSS percent removals were both below permit; this was due to a weaker raw wastewater caused by seasonal inflow/infiltration (I/I) issues.

- End of Section -

SECTION II

SUMMARY OF ICAP ACTIVITIES

The following ICAP activities were performed prior to and during the month of April 2022:

1. Clarifier Cleanings – In July 2020, Hemphill Construction Company (HEMPHILL) of Florence, MS, under Contract No. 2 – Greenville WWTP Grit Chamber (CONTRACT 2) rescheduled the cleaning of Clarifier Nos. 1, 3, & 4 to begin July 15, 2020, and end December 4, 2020. In September, after the surficial groundwater fell to manageable levels, HEMPHILL began cleaning Clarifier No. 1 and completed the work in October. Manchac Management Services LLC (MANCHAC) of Baton Rouge, LA, the WWTP operator, also began removing the duckweed from Clarifier No. 2 in September 2020 and completed the work in October 2020. Towards the end of October, HEMPHILL focused their cleanup efforts on Clarifier No. 4 and completed the work on December 18, 2020.

HEMPHILL amended their construction schedules in February 2021, April 2021, August 2021 and November 2021 (See Appendix D) to delay the cleaning of Clarifier No. 3 in order to both focus their efforts on completing the grit chamber and wait for the groundwater table to fall to manageable levels. The amended schedule is referenced in Appendix C.

Also, after a prolonged rainfall event in December 2020, Clarifier Nos. 1 and 2 were again inundated with sand and grit. MANCHAC was able to remove the solids from Clarifier No. 1; however, Clarifier No. 2 was still inoperable. MANCHAC began removing the solids from Clarifier No. 2 in February 2021; however, when the groundwater table rose above 116.0' mean sea level (MSL) and the clarifiers were again threatened by the groundwater's hydrostatic force, MANCHAC postponed the work.

During April 2021, the sand and grit again inundated Clarifier No. 1 to the point that it was again inoperable. In September 2021, the groundwater table fell to a manageable level which allowed MANCHAC to clean Clarifier No. 1. During November 2021, MANCHAC also cleaned Clarifier No. 2.

MANCHAC brought Clarifier Nos. 1 and 2 back on-line on November 14, 2021.

During December 2021, HEMPHILL cleaned Clarifier No. 3. This phase of work completed the cleaning of all four clarifiers.

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 2020 and Clarifier No. 1 in November 2020. IS completed the repairs to Clarifier No. 4 in October 2021.

As noted earlier, Clarifier Nos. 1 and 2 were brought back on-line November 14, 2021. As flows increase, Clarifier No. 4 will also be brought on-line.

On December 15, 2021, Clarifier No. 3 was damaged. The center of the clarifier floor rose approximately 2 feet due to hydrostatic forces caused by a leaking sewer line; the event is described in BURLE’s engineering report (See Appendix I). Clarifier No. 3 will be repaired under the Groundwater Control Plan (GCP); the completion date is December 31, 2023. (See Section III of this report.)

3. Aeration Basins 1-7 Cleanings – On January 20, 2020, HEMPHILL began cleaning Aeration Basins 1 through 7 under CONTRACT 2. They completed cleaning Basin No. 7 in March 2020. Basin No. 2 was cleaned in April 2020, Basin No. 1 was cleaned in May 2020 and Basin No. 3 was cleaned in July 2020.

The cleaning of Basin Nos. 4 and 6 began in July 2020. In September 2020, 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 2020.

As noted under Item No. 1, in order to focus their attention on the completion of the grit chamber, in February 2021, HEMPHILL amended their construction schedule and moved the cleaning of Basins Nos. 4 and 5 back in their overall schedule. They completed the cleaning of Basin No. 4 in March 2021 and Basin No. 5 in June 2021.

In summary, as of the end of the June 2021 reporting period, Aeration Basin Nos. 1 through 8 were clean.

4. By-Pass Channel Cleaning – HEMPHILL started and completed the cleaning of the by-pass channel in March 2020; this work was also performed under CONTRACT 2.
5. UV Disinfection Chamber Cleaning – HEMPHILL rescheduled this work to occur in December 2020; however, as noted earlier, HEMPHILL amended 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.

HEMPHILL completed the cleaning of the UV chamber in March 2021. The work was completed under CONTRACT 2.

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 COVID-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/specifications for Contract No.4-WWTP Sludge Disposal Project, 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, 2020, 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, 2020, council meeting.

BURLE again redesigned the project's bid proposal and submitted it again to MDEQ for review/approval. After receiving MDEQ's approval, the CITY bid the project on November 5, 2020. Synagro-WWT, Inc. (SYNAGRO) of Baltimore, MD was the low bidder (\$2,259,003). The City Council awarded the project to SYNAGRO during the November 17, 2020 council meeting.

In October 2021, SYNAGRO began excavating Lagoon No. 2 and disposing of the sludge at the Republic-Big River Landfill in Washington County, MS. They completed the project in March 2022, prior to the May 23, 2022 completion date.

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 were 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 was included in 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, 2020, council meeting. The CITY executed the agreement with HEMPHILL on September 21, 2020. The original completion date was August 7, 2021; however, due to equipment delivery delays, the CITY issued a change order moving the completion deadline back to December 14, 2021. In October 2021, HEMPHILL completed the WAS valve replacement work along the north side of the aeration basins.

Also, during February 2021, BURLE requested quotes from utility contractors to replace valving on the WAS discharge piping system to the sludge belt press building. The CITY received quotes in March and awarded the work to HEMPHILL. The work was completed on August 23, 2021.

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 consisted 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 which brought the total to 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 were ordered. MANCHAC performed the work as basins were cleaned and the diffusers were inspected.

In April 2020, MANCHAC oversaw the replacement of the diffusers in Basin Nos. 2 and 7. In July 2020, MANCHAC started replacing the diffusers in Basin No. 1; the work was completed in August 2020. In September 2020, MANCHAC began replacing the diffusers in the remaining basins; they completed the work in August 2021.

As noted earlier, the aeration basins were brought back on-line November 14, 2021.

- c. Aeration Basin Aeration Valves – By the end of November 2020, MANCHAC had replaced the aeration valves for Basin Nos. 1 through 8.
- d. Aeration Basin No. 8 Cleaning – In February 2020, MANCHAC began cleaning Basin No. 8, using MANCHAC’s crew, and completed the work in April 2020. In May 2021, the CITY began using Basin No. 8 as the interim grit chamber and continued using it in this capacity until the grit chamber was brought on line November 14, 2021.

- e. 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 were in need of concrete wall repairs. The repairs were made by HEMPHILL under a change order which was brought before the CITY Council for review/approval in July 2020. This work was completed in January 2021.
- f. Slide Gate/Stop Gate Installations – MANCHAC planned to use Basin No. 8 as an interim grit chamber until the new grit chamber is operational. To accomplish this, MANCHAC reconfigured the flow through the aeration basins from parallel flow to serpentine, series flow as shown in Figure 4. This was accomplished by installing four (4) slide gates and two (2) stop plates as shown in the drawing. The CITY issued purchase orders for both the equipment and to IS for the installation of the equipment. The work began in July 2020 and was completed in February 2021 when the final gate was 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, 2020 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 completed the work in February 2021.

- g. Temporary Sludge Dewatering – In order to provide interim sludge dewatering services prior to the completion of the Sludge Lagoon No. 2 project, the CITY planned to rebuild the belt press sludge dewatering system and dispose of the sludge at a landfill. This consisted of:
 - Existing Belt Press Building Repairs – 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. 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 2020, 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 belt press system was rebuilt in May 2021 and is ready for testing. Ancillary work, such as the polymer storage area construction, sludge prep tank mixer installation, electrical work, debris clean-up and lab reconstruction, has continued to date.

- 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 wasted from the WWTP will be disposed of on a land application site. The CITY plans to use CITY-owned property at the Mid-Delta Regional Airport as a biosolids land application site. In November 2020, the CITY authorized BURLE to begin the permitting process. BURLE worked on the project through the end of this reporting period and is currently awaiting Federal Aviation Administration approval.

10. WWTP Grit Chamber Construction Project – HEMPHILL began construction of CONTRACT 2 in February 2020.

In December 2020, HEMPHILL submitted a by-pass plan to BURLE which proposed to divert the influent WWTP flow around the WWTP directly to the effluent pump station. This would allow HEMPHILL to install the necessary piping/gates to redirect the flow to the new grit chamber. HEMPHILL estimated that the by-pass system would remain in operation for approximately three (3) months.

BURLE submitted the by-pass plan to MDEQ for review and received subsequent approval from MDEQ on December 21, 2020. HEMPHILL began by-passing the WWTP on December 29, 2020. HEMPHILL finished the work and terminated the by-pass on April 2, 2021.

HEMPHILL submitted a revised construction schedule (Appendix D) referencing a new completion date of November 14, 2021 which they met. This deadline did not include the cleaning of Clarifier No.3; that deadline was moved back to December 17, 2021, and was met on December 9, 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. From February 2020 to December 2021, HEMPHILL 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 installed two (2) by-pass pumps to assist Pump No. 3 in meeting demand. While they were in use, MANCHAC made 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. Lockett Pumps (LUCKETT) of Tutwiler, MS, was hired to inspect, repair and re-install the pump.
 - Pump No. 3 (West Pump) – LUCKETT was also hired to inspect the pump. The pump was repaired and served 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, 2020. It is now 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, involved 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 2020. The CITY received bids September 2, 2020; the low bidder was HEMPHILL (\$928,000.00). During the September 15, 2020, council meeting, the CITY awarded the project to HEMPHILL. The project was completed on December 14, 2021.

Currently, the effluent pump station has two pumps, Pump Nos. 1 and 3, with electrical problems. The City has mobilized a diesel, emergency by-pass pump to assist the station in processing the effluent flow. Webb Electric, LLC of Greenville, MS, has been hired to install Variable Frequency Drives (VFD’s) on both pumps and to install new electrical wiring from the motor control cabinet to Pump No. 3. With the VFD delivery anticipated in 6 to 8 weeks, the repairs will not be completed until July 2022.

13. UV Disinfection Chamber Repair Project – The CITY has hired ETEC of Baton Rouge, LA to repair the UV disinfection system. ETEC has ordered the parts. In April 2020, ETEC technicians arrived on site to repair the unit. Upon inspection, ETEC ordered additional equipment which should arrive in 10 to 12 weeks. This moved the completion date from May 15, 2022 to September 30, 2022.
14. Temporary Treatment Plant (TTP) – The TTP was the CITY’s contingency plan in the event the WWTP was not in compliance with the AOC on or before January 1, 2022. It consisted of a scope of work, schedule and budget to install/operate/maintain temporary secondary clarifiers and supporting equipment at the WWTP over a six-month period, or until such time that the WWTP was in compliance with the AOC. WesTech of Salt Lake City, Utah was selected as the contractor who would supply/install/operate/maintain the equipment.

BURLE drafted the TTP and submitted it to the CITY on October 29, 2021. After receiving CITY approval, BURLE forwarded the draft TTP to MDEQ and EPA for review/approval on November 5, 2021. The CITY received an EPA response letter requesting an edit concerning project funds; BURLE edited the TTP and submitted the amended version to EPA in December 2021. EPA approved the amended TTP in correspondence dated December 13, 2021.

15. Structural Engineering Report – BURLE inspected the clarifiers and prepared the structural engineering report as requested in the AOC. The report was delivered to EPA on December 15, 2021. EPA requested additional information regarding the clarifiers’ existing concrete strength. BURLE prepared a revised scope of work to address this issue and submitted it to EPA on January 14, 2022. EPA approved the scope of work on January 28, 2022. The report was amended and submitted to EPA on February 28, 2022 for review.
16. Groundwater Control Plan (GCP) – The GCP consisted of the preparation of a feasibility study to evaluate viable options available to the CITY to control the groundwater so that the WWTP clarifiers can be emptied and/or repaired without the risk of damage from groundwater buoyancy forces. Three (3) options were considered:
- Installation of structural floor slabs and anchors within each clarifier;
 - Rehabilitation of the original clarifier under drain system; and
 - Installation of a groundwater dewatering system.

The groundwater dewatering system was the most complicated system of the three to evaluate because it required a soils investigation and a groundwater pumping test, both of which required prior approval/permits from MDEQ and the U.S. Army Corps of Engineers (USACE). Permit applications were submitted to both agencies; however, the CITY only received the USACE permit.

The CITY notified EPA of the permitting delays and also of some COVID-related issues which delayed the delivery of the feasibility study. EPA recognized the situation and rescheduled the delivery date for the feasibility study to January 14, 2022.

The GCP Feasibility Study was delivered to EPA by the January 14, 2022 deadline. In it, the CITY and BURLE selected the Clarifier Anchoring Project as the most viable option. Preliminary construction plans and specifications for the Clarifier Anchoring Project were prepared and submitted to EPA prior to the January 1, 2022 deadline. EPA requested complete sets of plans and specifications for all four clarifiers; BURLE submitted the documents to EPA on April 29, 2022. EPA is currently reviewing the documents.

- End of Section -

SECTION III
ICAP SCHEDULE

During the July 10, 2020 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 recognized 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.

In February 2021, HEMPHILL amended their construction schedule to focus their immediate attention on the grit chamber and move the basin/clarifier/chamber/sewer cleaning activities back in the schedule. Their new compliance deadline was July 1, 2021.

In April 2021, HEMPHILL again amended their construction schedule due to the delays they experienced during the 2021 Mississippi River Spring Flood Event and the subsequent rise in the surficial groundwater table; these events prevented them from both cleaning the remaining clarifiers/chambers and installing the WAS piping/valves from the pump building to the sludge belt press building. BURLE reviewed revised HEMPHILL's schedule to move the basin/clarifier/chamber cleaning work up in the schedule so the WWTP could be brought back on line in advance of the completion of the grit chamber. HEMPHILL agreed to the revised schedule.

Based on the revised schedule, the new AO compliance deadline was August 15, 2021.

On May 11, 2021, the CITY prepared an Extension of Time request, and submitted same to EPA/MDEQ for review/approval.

On May 21, 2021, EPA submitted a letter granting the ICAP extension to August 15, 2021.

Even with the continued drop of the Mississippi River gage during the Summer of 2021, groundwater conditions remained above the benchmark of 116.0 MSL at the WWTP through September 2021. Groundwater data referenced in Appendix E shows an elevated groundwater table above the 116.0' MSL benchmark dating back to February 22, 2021, a total of 190 consecutive days into September 2021. The situation, as noted earlier, prohibited clarifier cleaning/repair work due to the risk of damage from the groundwater hydrostatic forces.

The CITY submitted another deadline extension request to EPA (Appendix F) to budget time for the water table to fall so that the CITY could perform the clarifier cleaning and repair work. The ICAP construction schedule was amended accordingly (Appendix C).

On August 16, 2021, the CITY received EPA's ICAP Delay Letter (Appendix G). In it, EPA granted a 30-day extension (until September 14, 2021) to complete the implementation of the ICAP. EPA also wanted to negotiate a new AOC that would address the remaining work under the ICAP and the additional time needed to comply with the ICAP.

On October 11, 2021, after several weeks of negotiation, the CITY and EPA executed AOC No. CWA-04-2021-0321. In it, EPA granted an AOC compliance deadline extension to January 1, 2021, but also added several deliverables (TTP, Structural Engineering Report and GCP) which were made part of the AOC compliance requirements. A copy of the AOC is referenced in Appendix H.

On November 14, 2021, HEMPHILL started the grit chamber and MANCHAC brought the WWTP on-line. During December 2021, MANCHAC grew the biomass for the activated sludge process. Effluent water quality data steadily improved, such that AOC compliance was reached prior to the January 1, 2022, deadline.

The WWTP has maintained permit effluent compliance with both the AOC and the City's NPDES permit through the end of this reporting period. The WWTP did, however, have a permit exceedance in March 2022 for TSS percent removal and in April 2022 for both BOD and TSS percent removal; this was due to a weaker influent concentration caused by seasonal I/I issues and was not due to poor WWTP performance.

EPA is currently amending the AOC to incorporate the latest changes and new deadlines. EPA should submit the document to the City in May 2022.

- End of Section -

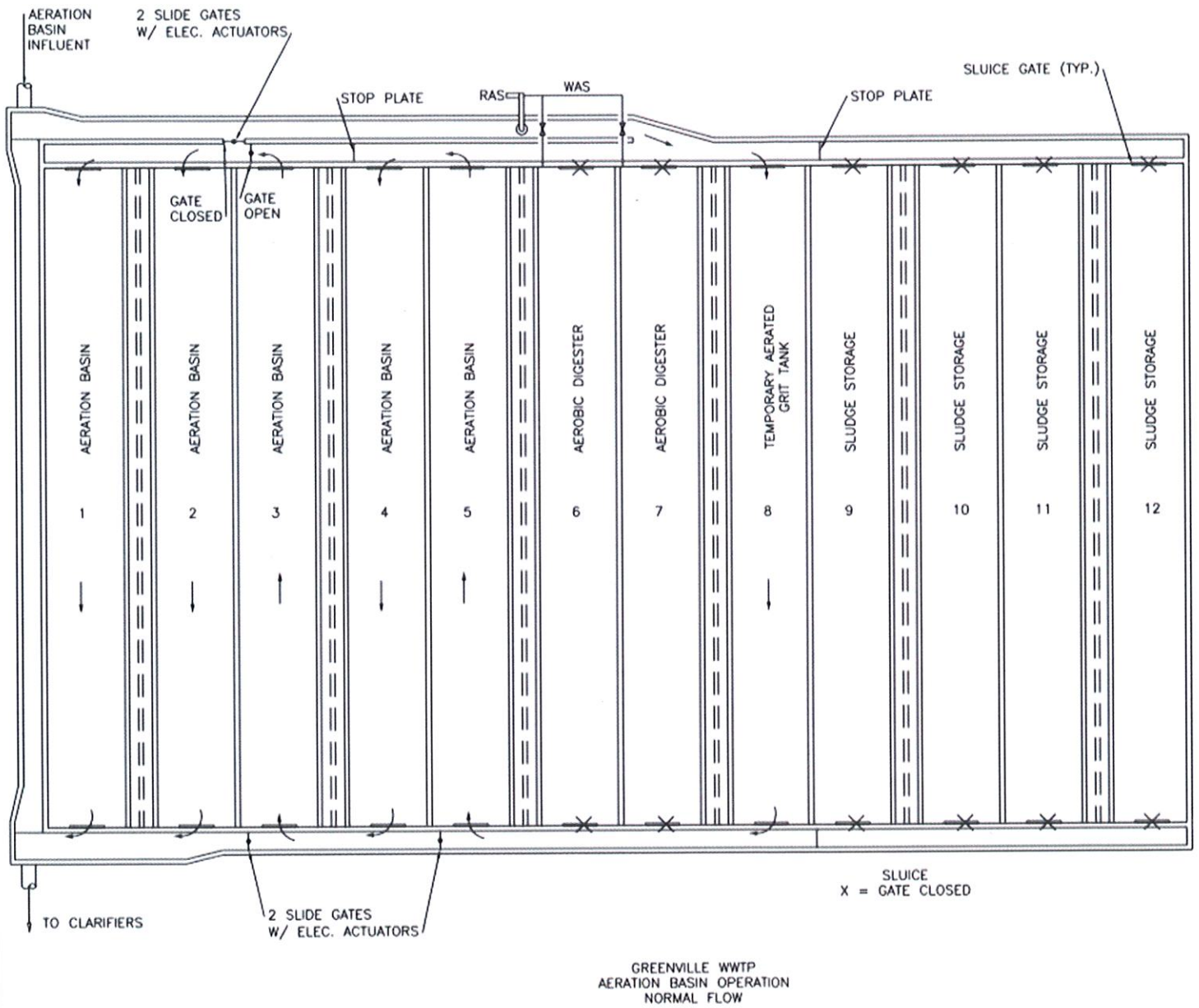
FIGURES

FIGURE 1
VICINITY MAP

FIGURE 2
WWTP MAP NO. 1

FIGURE 3
WWTP MAP NO. 2

FIGURE 4
AERATION BASIN RE-CONFIGURATION PLAN



GREENVILLE WWTP
AERATION BASIN OPERATION
NORMAL FLOW



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

MONTHLY PROGRESS REPORT
APRIL 2022
WASTEWATER TREATMENT PLANT
REPAIR PROJECT
GREENVILLE, MISSISSIPPI

FIGURE 4
AERATION BASIN
RECONFIGURATION
PLAN

Proj. No. 02500-1-0419	
CAD File No. GreenvilleWWTP Layout.dwg	
Drawn By: HJJ	Dwg. No.
Chkd. By: WLB, Jr.	4
Date: 5/6/2022	
Scale: N.T.S.	

APPENDICES

APPENDIX A

WWTP EFFLUENT DATA (APRIL 2022)

APPENDIX B

MISSISSIPPI RIVER @ GREENVILLE GAGE – APRIL 2022

APPENDIX C

EMERGENCY WWTP REPAIR PROJECT CONSTRUCTION SCHEDULE

APPENDIX D

HEMPHILL CONSTRUCTION CONTRACT 2 SCHEDULE

APPENDIX E
GROUND WATER ELEVATION DATA