

SEWER OVERFLOW RESPONSE PLAN



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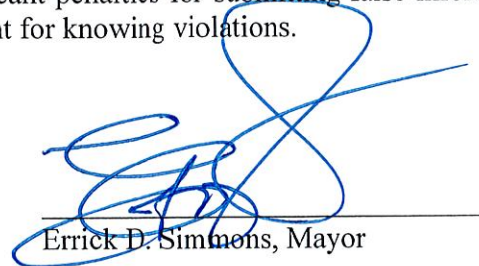


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CERTIFICATION

Sewer Overflow Response Plan (updated 10-2-2023)
Partial Consent Decree
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 such 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

09-29-23

Date

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1.0 INTRODUCTION

The City of Greenville, Mississippi (CITY), through its Public Works Department and Manchac Consulting Group, Inc. (MANCHAC), provides sanitary sewer services for residents and customers within the CITY. Under National Pollutant Discharge Elimination System (NPDES) Permit No. MS0020184, the CITY is allowed to discharge treated effluent from the CITY's Wastewater Treatment Plant (WWTP) into the Mississippi River. As it relates to this SORP, any discharge of wastewater to waters of the United States from the CITY's sewer system through a point source not specified in a NPDES permit, as well as any overflow, spill or release of wastewater to public or private property from the sewer system that may not have reached waters of the United States, including building backups, is considered a Sanitary Sewer Overflow (SSO). Also, for purposes of this Sewer Overflow Response Plan (SORP), a "Building Backup" is defined as a wastewater release or backup into a building that is caused by blockages, flow conditions, or other malfunctions in the CITY's wastewater collection transmission system (WCTS). A wastewater back-up or release that is caused by blockages, flow conditions, or other malfunctions of a private lateral is not a "Building Backup."

SSOs can occur during wet weather events or under dry weather conditions. Dry weather SSOs can result from a number of different causes such as blocked or collapsed pipes and/or mechanical malfunctions. During rain events, the capacity of the sanitary sewer may be exceeded due to excessive ground water and/or surface water, referred to as inflow and infiltration (I&I) entering the sewer collection system. Both wet weather overflows and dry weather overflows can lead to discharges to land, waters of the United States or State, and/or within a building.

This SORP presents a strategy for the timely and effective means of:

- keeping the CITY aware of SSOs;
- providing immediate and efficient response to and mitigation of SSOs;
- preventing unnecessary damage to public/private property;
- notifying the appropriate regulatory agencies and affected public; and
- ultimately, developing a plan to minimize or eliminate the recurrence of SSOs.

The goal of this SORP is to formally document the standards and practices to be followed in response to all types of SSO events in order to both minimize damage to the environment and protect the safety, health and property of those affected. A well-trained staff with a good understanding of the procedures outlined in this SORP ensures an effective and consistent response. The appropriate response procedure differs depending upon the circumstances from which the SSO occurred. The CITY must use its best professional judgment to evaluate each event and choose the appropriate plan of action, dispatching personnel with appropriate event-specific instructions and remedial tools.



2.0 PROCESS OVERVIEW

The WCTS is an integral part of CITY's unseen infrastructure, taking sanitary wastes from residences, commercial establishments and industry and conveying it to the CITY's WWTP for appropriate treatment and discharge. The CITY's WWTP is permitted to discharge 20 million gallons per day (MGD) but is designed to handle flows as great as 30 MGD.

Occasionally, SSOs occur despite the best concerted preventive efforts. This SORP combines preventative, predictive and corrective maintenance strategies to minimize the impact of SSOs to the environment and the public while complying with regulatory requirements.

2.1 Scope and Summary

The SORP provides structured guidance for a prompt and effective response to SSOs. The process involves actions necessary to:

- receive, record and dispatch reports;
- confirm the report;
- determine the apparent cause of the overflow (whether the cause lies in the publicly owned sewer or a private lateral);
- reduce the impact on the environment by containing or eliminating the SSO;
- resolve the SSO and clean up/disinfect the impacted area;
- report the occurrence to the appropriate individuals and agencies;
- track the occurrence; and
- develop a plan for long-term correction in the case of recurrent events.

2.2 Assumptions and Limitations

The SORP is initiated immediately upon notification of a possible SSO. CITY's response process will be determined based on the potential impact to the environment and/or whether the issue lies with CITY's public system or in a customer's private sewer lateral.

3.0 SYSTEM AND ORGANIZATIONAL STRUCTURES

Implementing the SORP requires effective and timely coordination among several departments. Experienced responders must be well-trained to follow the structured and concise response procedures set forth in the SORP. The plan is to be re-evaluated periodically so training must be comprehensive and ongoing.



3.1 CITY Wastewater System

The CITY’s sanitary sewer system consists of 104 pumping stations, approximately 206 miles of sanitary sewer collection lines, and one (1) WWTP. The facility currently serves approximately 13,000 customers.

Figure 1 illustrates the WCTS, which is divided into three (3) sewer sheds, all of which feed into the WWTP. Appendix A provides detail information for each of the mini-systems. Response personnel must be familiar with the sewer system to effectively execute the response procedures described in the SORP.

3.2 CITY Operational and Functional Structure

The CITY’s Sewer Maintenance Division of the Public Works Department and MANCHAC employ personnel to manage, operate, maintain and improve the WCTS and WWTP. Having a chain of command that defines clear lines of authority and responsibilities for system personnel during an emergency speeds up response time and helps eliminate confusion. System personnel need to know who to report the emergency to, who manages the emergency, who makes decisions, and/or what their own responsibilities are.

Table 1 gives contact information for the personnel responsible for implementing the SORP. Job titles are used to identify individuals that are assigned to certain responsibilities. Appendix B defines the positions responsible for implementing specific elements of the SORP. In the case that responsibilities are not assigned to a specific individual, the highest ranking responder present will be responsible for ensuring the proper implementation of this SORP.

Position	Employee	Organization	Mobile Phone Numbers
Public Works Director	Jermaine Thornton	Manchac	(662) 822-5133
Director of Streets/Wastewater	Ronnie Washington	Manchac	(662) 822-7004
WWTP Superintendent/Operator	Nadine Robertson	Manchac	(504) 223-4939
WWTP Maintenance Supervisor	Herbert Carpenter	Manchac	(870) 940-1422
Gravity Sewer Maintenance Chief	Robert King	Manchac	(662) 822-3807
Division Chief-Pump & Wells	Jeff Appleton	City of Greenville	(662) 822-1620
Supervisor Pumps & Wells	Kendrick Davis	City of Greenville	(662) 820-3083
Crew Chief Sewer Collection	Brian Cook	City of Greenville	(662) 822-1205
Gravity Sewer Maintenance	Clifton Eaton	Manchac	(662) 820-8000
Laboratory Technician	Jermaine Sleet	City of Greenville	(662) 695-9632
Maintenance Technician	Clifton Eaton	Manchac	N/A
Water Well Technical	Keeton Robinson	City of Greenville	(662) 616-0866
Water Operator	Russell Reynolds	City of Greenville	(662) 695-0612

Table 1: Contact Information for SORP Response Personnel

3.3 Equipment and Tools

Crews are instructed to have and use the job site and personal safety equipment that is appropriate for each emergency situation. Equipment is inventoried and managed by both the Sewer Maintenance Division of Public Works and



MANCHAC. All maintenance/repairs to vehicles are provided by the Fleet Management. All other equipment is maintained/repaired by CITY and MANCHAC personnel. A list of equipment that is available to response crews can be found in Appendix C:

3.4 SORP Procedures

SSOs may be detected by customers, CITY/MANCHAC employees or the supervisory control and data acquisition (SCADA) system. This SORP details the protocols to be followed from the time that a possible SSO is reported until the time that the underlying cause is identified/corrected.

The CITY's water/sewer bills contain the following language: "To report a sewer problem – Call 662-378-1699". Response crews are dispatched immediately upon receiving a report of a SSO and/or building backup. During off hours and weekends, the calls are routed to the call center and entered into the CITY's Information Management System (IMS). Resources will be made available to respond within one hour. If any other public office receives a report, that office must alert Public Works.

Gathering the most accurate information during the report is crucial so that the crew being dispatched is provided the most effective instructions and appropriate resources to meet the needs of the given situation. At a minimum, the individual logging the call must obtain the following information, which will be used to create a work order, (see Appendix D).

- time and date of the report;
- time and date of the start of the possible overflow;
- location/address of the possible overflow;
- description of the problem;
- name and contact information of the person making the report; and
- any other information that may help in response time, containment and remediation.

The first step in responding to a reported SSO is to notify the Public Works Director, Director of Streets/Wastewater and/or the WWTP Superintendent/Operator. He/she is responsible for assessing the situation and initiating a series of response actions based on the type and severity of the event. Response personnel will be dispatched as soon as reasonably possible with appropriate materials, supplies and equipment, needed to address the situation. Upon arrival, a determination must be made as to whether additional personnel or resources are necessary. The times of dispatch and arrival must be recorded on the work order. Pictures must be taken of the affected area when crews arrive and also after the work is complete. It is important to document the extent of the impacted area and any property damage.



Also, during rainfall events, the CITY/MANCHAC will take a proactive approach to dispatch personnel to surveil the CITY's WCTS/WWTP and report any observed SSO's. To facilitate this work, the CITY has been sub-divided into zones with dedicated personnel responsible for each zone. A breakdown of the personnel and zones are referenced in Appendix N.

In order to minimize the volume of untreated wastewater overflows, the cause and source must be determined so that the SSO may be eliminated. The flow must be contained. Containment can be accomplished by blocking storm drains, if necessary, and diverting into a downstream manhole. A controlled area must be established around the site of the SSO. This may be accomplished through the use of appropriate barricades, control zones with vehicles, or natural topography.

Response procedures provide guidance for the evaluation, mitigation and correction of the conditions that are causing or contributing to the SSO. The primary objectives of these emergency response procedures are to provide standard protocols, minimize risk and protect public health and the environment. A detailed plan covering appropriate response actions for different scenarios can be found in Appendix E.

For permit-required confined space entries, all personnel shall refer to the procedure in the Code of Federal Regulations, 29 CFR 1910.146.

The crew leader is responsible for reporting the findings to the supervisor immediately upon completion of the response activities. The supervisor will contact the response crew leader if no status report is received within one (1) hour of dispatch.

3.4.1 Building Backups

As defined earlier, building backup is a wastewater backup into a building that is caused by blockages, malfunctions, or flow conditions in the WCTS. A wastewater backup into a building that is the result of an obstruction in a private lateral is not considered a building backup. The process used to determine whether the backup is caused by a blockage in the main can be found in Appendix F.

If it is determined that the failure lies on the public main, the response process to correct the problem is initiated immediately. The response process is the same as other overflow causes and the CITY may be responsible for cleanup and restoration. CITY will contact their insurance company to initiate the claim. The customer will hire a provider for cleaning and sanitizing the affected indoor areas and submit the charges and detailed documentation to the insurance company. Any costs not associated directly with cleaning, disinfecting and restoring the affected



area of the building are not covered and the customer must pay that portion of the bill.

Examples of measures that can be taken to clean up building backups that are determined to be caused by conditions in CITY's sewer system are:

- wet vacuuming,
- wiping floors with cleaning solution and disinfectant,
- flushing out and disinfecting plumbing fixtures,
- carpet cleaning and/or replacement, and
- other measures and methods necessary to disinfect and/or remove items potentially contaminated.

If the overflow is determined to be the result of a private lateral failure, the customer will be advised as such and will be responsible for their own cleanup and repairs. Each complainant will be provided a Complaint Response Report (Appendix G) to sign acknowledging the findings. If the customer refuses to sign the acknowledgement, that is noted on the form, the response personnel will turn the form in to the Public Works Department with the completed work order.

3.4.2 Cleanup and Disinfection

Cleanup and recovery efforts are completed as quickly and efficiently as practical. Once the SSO has been eliminated, the impacted area must be promptly and thoroughly cleaned, including the removal of sewage solids, papers, rags, plastics, rubber products, etc. The solids and debris are to be flushed, swept, raked, or picked up by a vac truck, if needed, to be transported for proper disposal.

The entire site must be disinfected before the response crews depart or it must be secured to prevent public access until it can be thoroughly disinfected. Following the manufacturer's instructions, all surfaces impacted by the untreated waste water must be disinfected using agricultural lime. After a minimum of 24 hours, the limed areas are to be washed down and vacuumed.

After cleanup of all SSO sites, a follow up inspection will be made by one of the SSO Coordinators or his/her designee to ensure that the cleanup and disinfection were performed in accordance with the guidelines set forth in this SORP.



3.4.3 Bypass Pumping

In cases where it is not possible to clear the obstruction or blockage in an expeditious manner, bypass pumping will be necessary. “Bypass” is defined as the intentional diversion of waste streams from any portion of a treatment facility and is found in 40 CFR 122.41(m). The proper procedure to follow when bypass pumping is needed can be found in Appendix H.

4.0 SSO REPORTING PROCESS

One of the SSO Coordinators is responsible for providing a detailed event report to MDEQ and insuring that it is entered into the CITY’s IMS data base. The event report includes:

- the information collected when the complaint was received;
- a description of the cause;
- photo documentation;
- an estimate of the volume that was discharged (see Appendix I); and
- steps taken to contain, eliminate and clean up the SSO.

The SSO Coordinators will use the information from the report to update the database of SSOs, report the event to the public and to devise a plan for long term corrective action.

4.1 Regulatory Agencies

When an SSO or other collection system emergency occurs, a number of individuals must be notified. Any SSO to waters of the United States or the State or any SSO that will endanger public health or the environment must be reported. Depending on the size and severity of the problem different notifications are needed. While minimum notification procedures are in place for all overflows, more specific notification procedures are required for more severe overflows, such as those that pose a threat to public health and safety and/or those that affect surface water bodies. The Sewer Shed Maps, Figure 1, will be used to identify state waters that may be affected.

Two reports are required:

- Within 24 hours of the time the CITY becomes aware of any SSO, an oral report of the SSO must be made. The location will be identified by street address or any other appropriate method (i.e. latitude-longitude). The oral report shall be given to MDEQ by calling the Chief of the Environmental Compliance and Enforcement Division at (601) 961-5171; and



- Within five days of any SSO event, the CITY must deliver to MDEQ a formal, written Wastewater Bypass Report, Appendix J. The CITY will maintain a copy of any written reports prepared regarding each SSO event for a period of not less than five (5) years from the date of the SSO.

The written Wastewater Bypass Report will be submitted to:

Mississippi Department of Environmental Quality
Office of Pollution Control
Chief, Environmental Compliance and Enforcement Division
P.O. Box 2261
Jackson, MS 39225

The Public Works Administrative Assistant is responsible for making the required notifications to regulatory agencies.

4.2 Public Notification

The public must be notified promptly of areas potentially impacted by the unpermitted discharges from the wastewater collection system. Downstream users/drinking water intakes must be notified in the event of a catastrophic release. Methods of notification can include email, newspaper publication, press release or the placement of signage.

Only the Public Works Director, his designee or someone designated by the Mayor or City Council are authorized to communicate with the media. An example of an acceptable news release is attached as Appendix K.

The Public Works Director or his designee also has primary responsibility for determining when to post notices warning the public of potential health risks due to sewage contamination. The signage remains in place until cleanup and disinfection activities are completed.

When a more expeditious notification is needed, Sanitary Sewer Overflow Alert door hangers, Appendix L, may be distributed.

5.0 SSO RECORDING

The CITY shall maintain for a period of not less than five (5) years from the date of each SSO:

- all records documenting the steps that have been and will be taken to prevent another SSO from recurring, including work order records associated with investigation and repair activities related to the SSO; and
- a list and description of complaints from customers or others regarding the SSO.



The SSO documents are archived at the Greenville City Hall.

6.0 POST REMEDIAL INSPECTIONS AND CORRECTIVE ACTIONS

Cleaning and CCTV inspection are to be conducted of the sewer pipes where chronic SSOs occur, as well as those both upstream and downstream.

Preventative maintenance activities involving cleaning and regular inspections help to ensure the reliable performance of the WCTS and reduce the recurrence of SSOs.

6.1 Likely Overflow Sites

Certain areas of the CITY are known to be more vulnerable to system blockages and overflows than others and require additional maintenance. Appendix M lists the current likely overflow sites. This list of all SSOs for the previous 12 months and/or those locations at which a SSO is likely to occur first in the event of a pump station failure will be maintained, reviewed, and updated quarterly by the Director of Streets/Wastewater. The purpose of the list is to reduce the risk of another SSO happening in the future at the same location. Inspection routes will be developed and adjusted continually according to the list. Pump stations that are not monitored remotely and those where SSOs are most frequent will have priority. A cumulative database built from the tables and lists will be maintained and preserved. The database will aid CITY personnel in developing a plan for proper corrective action resulting in a long term solution.

An area is considered to have recurrent SSOs if SSOs have occurred at the same general location two or more times within a 12 month period. If a listed area does not experience a SSO in a period of 12 months, it may be removed from the list. The Director of Public Works must return it to the list immediately if an SSO occurs thereafter.

7.0 TRAINING AND PREPAREDNESS

Emergency response training is essential. The training educates system personnel, as well as personnel of other affected agencies, about emergency situations and the resulting effects on the wastewater system. The training plan serves as a proactive approach for the CITY/MANCHAC to manage emergency situations and to prevent and remediate the immediate effects of SSOs.

The training plan is administered by the Director of Public Works to train MANCHAC/CITY Wastewater Treatment Division and Sewer Maintenance Division employees, contractors, and personnel from other affected agencies to implement the SORP and all of its exhibits efficiently and effectively. Continuing education training is repeated at least annually, when new employees are hired, and whenever changes are made to the SORP. Storm water management techniques and the selection and use of Best Management



Practices (BMPs) will also be covered by training. Other staff training initiatives may be combined with this training.

8.0 REVIEW AND UPDATE SORP

This SORP is intended to be a working document and will be updated by the CITY annually. It may be updated more frequently to reflect any changes in staffing or notification requirements, as well as any changes in the terms of the NPDES permit. Key personnel should make suggestions for adding or revising procedures where insight and experience dictate.

[END OF REPORT]



FIGURES



FIGURE 1
SEWER SHED AND MINI-SYSTEM INDEX MAP



APPENDICES



APPENDIX A
MINI SYSTEMS



APPENDIX B
ORGANIZATIONAL CHARTS



APPENDIX C
EQUIPMENT LIST



APPENDIX D
WORK ORDER



APPENDIX E
RESPONSE PROCEDURES



APPENDIX F
BUILDING BACKUP PROCEDURES



APPENDIX G
COMPLAINT RESPONSE REPORT



APPENDIX H
BYPASS PUMPING PROCEDURES



APPENDIX I
VOLUME ESTIMATION



APPENDIX J
WASTEWATER BYPASS REPORT



APPENDIX K
NEWS RELEASE



APPENDIX L
DOOR HANGER



APPENDIX M
LIKELY OVERFLOW SITE



APPENDIX N
SSO MONITORING ZONES

