SANITARY SEWER OVERFLOW RESPONSE PLAN

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Marion Water and Sewer
SANITARY SEWER OVERFLOW RESPONSE PLAN

I. AUTHORITY

A. National Pollutant Discharge Elimination System ("NPDES")
NPDES Permit for City of Marion # AR0021971
Issued by Arkansas Department of Environmental Quality ("ADEQ")

II. GENERAL

The **Sanitary Sewer Overflow Response Plan ("SSORP")** is designed to ensure that every report of a confirmed sanitary sewage overflow is immediately dispatched to the appropriate crew so that the effects of the overflow can be minimized with respect to the impacts on public health, sewer system integrity, quality of surface waters, and customer service. The SSORP further includes provisions to ensure safety pursuant to the directions provided by ADEQ and that notification and reporting is made to the appropriate local, state, and federal authorities. For purposes of this SSORP, "confirmed sewage spill" is also sometimes referred to as "sewer overflow," "overflow," or "sanitary sewer overflow" or ("SSO").

A. Objectives

The primary objectives of the SSORP are to protect public health and the environment, as well as, to satisfy regulatory agencies and waste discharge permit conditions which address procedures for managing SSOs, and to minimize risk of enforcement actions against the City of Marion.

Additional objectives of the SSORP are as follows:

- Provide appropriate customer service;
- Protect wastewater treatment plant and collection system personnel;
- Protect the collection system, wastewater treatment facilities, and the assets of LRW; and
- Protect private and public property beyond the collection and treatment facilities.

This plan shall not supersede existing emergency plans or standard operating procedures (SOPs) unless directed by the Mayor or Director of Utilities.

B. Organization of Plan

The key elements of the SSORP are addressed individually as follows:

Section III Overflow Response Procedure
Section IV Public Advisory Procedure
Section V Regulatory Agency Notification Plan
Section VI Media Notification Procedure
Section VII Distribution and Maintenance of SSORP

C. SSO Tracking

A procedure to track the frequency, type and location of SSOs has been prepared under *Appendix A*.

Data on each SSO occurrence is maintained in a database that can be analyzed based on any recorded SSO parameter. The database is maintained and backed up on a regular basis by the Information Services Department.

III. OVERFLOW RESPONSE PROCEDURE

The Overflow Response Procedure presents a strategy for Marion to mobilize labor, materials, tools, and equipment to correct or repair any condition which may cause or contribute to an unpermitted discharge. The plan considers a wide range of potential system failures that could create an overflow to surface waters, land, or buildings.

A. Receipt of Information Regarding a SSO

A SSO may be detected by Marion Utility employees or by others. The Collection System Maintenance Dispatcher is primarily responsible for receiving phone calls from the public of possible SSOs from the wastewater collection system, and for forwarding service requests to the Responding Crew(s).

Generally, the office workers or the on-call staff accept the call for an SSO.

1. The office worker or on-call staff obtains all relevant information available regarding the possible overflow including:

    a. Time and date call was received;

    b. Specific location;

    c. Description of problem;

    d. Time and date overflow was observed;

    e. Caller's name and phone number;

    f. Observations of the caller (e.g., odor, duration, back, or front of property); and

    g. Other relevant information that will enable the Responding Crews to quickly locate, assess and stop the SSO.

Once the SSO has been confirmed by the Responding Crew, the office worker records/inputs the SSO information and creates work order for assignment to the Responding Crew.

2. Pump station failures are monitored and received by operators on duty. The operator on duty immediately conveys all information regarding alarms to the Director of Utilities in order

to initiate the investigation. Investigating crew determines if the failure resulted in an overflow and then reports the findings to the Director of Utilities.

3. SSOs detected by any personnel in the course of their normal duties are reported immediately to the Director of Utilities who records all relevant SSO information and dispatches a Response Crew and additional response crews as needed.

4. Collection System Maintenance Emergency Crew or Response Crew confirms the SSO. Until verified, the report of a possible spill will not be referred to as a "sewer overflow."

LITTLE ROCK WASTEWATER UTILITY

SANITARY SEWER OVERFLOW OR BYPASS REPORTING FORM

SERVICE REQUEST NUMBER: _____

REPORTED BY: _____ ADDRESS: _____

CALL TIME: _____ **AM or PM** (circle one) CALL DATE: _____

RESPONSE DATA:

CREW LEADER: _____

ARRIVAL TIME _____ **AM or PM** DATE: _____

COMPLETED TIME: _____ **AM or PM** DATE: _____

ACTION(S) TAKEN:

_____ **HC** = Hydro-cleaned/Jet-Vac

_____ **HR** = Hand/Machine Rodded

_____ **PN** = Public Notification

_____ **WO** = Work Order

_____ **DD** = Disinfected & Deodorized/Environmental Cleanup

_____ **LIME** = Lime Applied to Affected Area/Environmental Cleanup

_____ **GPPE** = Generator Used to Power Pumps/Equipment

_____ **EN** = Notify Engineering

SSO DATA:

DATE OF SSO: _____ TIME OF SSO: _____ **AM or PM**

LOCATION: _____ ADDRESS: _____

CAUSE:

_____ **RO** = Root(s)

_____ **G** = Grease

_____ **R** = Rainfall/I&I

_____ **CO** = Construction

_____ **D** = Debris

_____ **LF** = Line Failure/Break

_____ **HC** = Hydro Cleaning

_____ **VA** = Vandalism

_____ **EF** = Equipment Failure

_____ **PF** = Power Failure

IMPACT OF SSO INCIDENT:

_____ **GRPUB** = SSO Reached Public Land Only

_____ **GRPVT** = SSO Reached Private Property

_____ **TP** = SSO Occurred at Treatment Plant

ACTIVE DISCHARGE: _____ YES _____ NO (Evidence of Discharge)

OBSERVED FLOWRATE: _____ **GALLONS PER MINUTE**

ESTIMATED DURATION: _____ **MINUTES**

ESTIMATED VOLUME: _____ **GALLONS**

NOTE: IF SSO is active when found, the actual volume may be greater than the known volume.

ENVIRONMENTAL _____ **NEAH** = No Evidence of Adverse Health or Environmental Impacts

B. Dispatch of Appropriate Crews to Site of Sewer Overflow

Failure of any element within the wastewater collection system that threatens to cause or causes a SSO triggers an immediate response to isolate and correct the problem. Crews and equipment are on call to respond to any SSO location 24-hours a day. Appendix B summarizes the SSO Action Plan.

1. Dispatching Crews

   - Staff receive notification of possible SSOs (as outlined in Section III-A entitled "Receipt of Information Regarding an SSO") and dispatch an Emergency Crew as required.

   - Dispatchers notify the Supervisor by phone regarding SSOs and field crew locations.

2. Crew Instructions and Work Orders

   - Responding crews are dispatched by phone. The responding crews or their Supervisors regarding the appropriate crews, materials, supplies, and equipment needed.

   - All standard communications procedures are followed. All employees being dispatched to the site of a SSO proceed immediately to the site of the overflow. Any delays or conflicts in assignments are reported immediately to the Supervisor for resolution.

   - In all cases Response Crews report their findings to Supervisor immediately upon making their investigation, including possible damage to private and public property. If Supervisor has not received findings from the field crew within 1 hour, Supervisor contacts the response crew to determine the status of the investigation.

3. Additional Resources

- The Supervisor receives requests for additional personnel, material, supplies, and equipment from crews working at the site of a SSO, and conveys the requests to the appropriate parties.

4. Preliminary Assessment of Damage to Private and Public Property

- The focus is to resolve the problem. The Response Crews use discretion in assisting the property owner/occupant as reasonably as they can. Be aware that the City of Marion could face increased liability for any further damages inflicted to private property during such assistance. In the event the SSO occurs inside a structure, the Director shall be notified and shall personally assess and document all damages as well as notify the Mayor of the event. The Response Crew shall enter private property for purposes of overflow reporting. All communication regarding damage claims will take place between the property owner and the Mayor. The crew shall take appropriate still photographs, if possible, of the area of the SSO and the impacted area in order to thoroughly document the nature and extent of impact.

5. Field Supervision and Inspection

- The Responding Crew (or whomever confirmed the SSO), visits the site of the SSO, if possible, and takes photos and installs warning signage to ensure that provisions of this Overflow Response Plan and other directives are met.

6. Coordination with Hazardous Material Response

- Upon arrival at the scene of an SSO, should a suspicious substance (e.g., oil sheen, foamy residue) be found on the ground surface, or should a suspicious odor (e.g., gasoline)

not common to the sewer system be detected, the responding crew should secure the immediate area and should contact the Director. **Remember that any vehicle engine, portable pump or open flame (e.g., cigarette lighter) can provide the ignition for an explosion or fire should flammable fluids or vapors be present. Keep a safe distance and observe caution until assistance arrives.**

- Only when the Director determines it is safe and appropriate for personnel to resume activities can they then proceed under the SSORP with the containment, clean- up activities, and correction.

C. Overflow Correction, Containment, and Clean-Up

SSOs of various volumes occur from time to time in spite of concerted prevention efforts. Spills may result from blocked sewer lines, pipe failures, or mechanical malfunctions among other natural or man-made causes. City of Marion is constantly on alert and ready to respond upon notification and confirmation of an overflow.

This section describes specific actions to be performed by the crews during a SSO.

The objectives of these actions are:

- To protect public health, the environment and property from sewage overflows and to restore the surrounding area back to normal as soon as possible;

- To promptly notify the regulatory agency's communication center of preliminary overflow information and potential impacts;

- To contain the SSO to the maximum extent possible including preventing the discharge of sewage into surface waters; and

- To minimize the City of Marion exposure to any regulatory agency penalties and fines.

Under most circumstances, City of Marion handles all response actions with its own maintenance forces. They have the skills and experience to respond rapidly and in the most

appropriate manner. An important issue with respect to an emergency response is to ensure that the temporary actions necessary to divert flows and repair the problem do not produce a problem elsewhere in the system. For example, repair of a force main could require the temporary shutdown of the pump station and diversion of the flow at an upstream location. If the closure is not handled properly, sewage system backups may create other overflows.

Circumstances may arise when City of Marion could benefit from the support of private-sector construction assistance. This may be true in the case of large diameter pipes buried to depths requiring sheet piling and dewatering should excavation be required. City of Marion may also choose to use private contractors for open excavation operations that might exceed one day to complete.

1. **Responsibilities of Response Crew upon Arrival**

   It is the responsibility of the initial Responding Crew that arrives at the site of an SSO to protect the health and safety of the public by mitigating the impact of the SSO to the extent possible.

   Upon arrival at an SSO, the initial response crew:

   - Determines the cause of the overflow, e.g. sewer line blockage, pump station mechanical or electrical failure, sewer line break, etc.;
   - Identifies and requests, if necessary, assistance or additional resources to correct the overflow or to assist in the determination of its cause;
   - Takes immediate steps to stop the overflow, e.g. relieves pipeline blockage, manually operates pump station controls, repairs pipe, etc. Extraordinary steps may be considered where overflows from private property threaten public health and safety (e.g., an overflow running off of private property into the public right-of-way); and
   - Requests additional personnel, materials, supplies, or equipment that will expedite and minimize the impact of the SSO.

2. **Initial Measures for Containment**

   Measures to contain and / or recover the overflowing sewage are initiated in order to minimize the impact to public health or the environment.

- Identify and request the necessary materials and equipment to contain or isolate the overflow if not readily available; and

- Take immediate steps to contain the overflow, e.g., block or bag storm drains, recover through vacuum truck, divert into downstream manhole, etc. if conditions allow.

- In the event an SSO has discharged into a creek, stream, or river, immediate measures to eliminate and contain the discharge will be taken. Immediate steps to eliminate the SSO discharging into a creek, stream, or river can include the following:

    - Establish bypass pumping of sewer to other areas of the collection system or holding tanks until repairs can be made

    - Utilize equipment that can vacuum sewer to eliminate or contain overflow until repairs can be made

  Once corrective action has been taken to restore flow to the collection system, immediate measures will be taken to contain and remove contaminants from the waterway as feasible. The focus is to remove oxygen-depleting solids from water, returning it back into the collection system. Efforts can include the following:

    - Establishing strategic points of containment along the waterway and removing contaminants through pumping, vacuuming, sweeping, etc.

    - Applying disinfectants as feasible along edges of waterway to eliminate contamination

    - Utilize portable aerators as feasible along edges of waterway to maintain adequate oxygen levels in water to preserve aquatic life until proper removal of contaminants is achieved

3. **Additional Measures Under Potentially Prolonged Overflow Conditions**

In the event of a prolonged sewer line blockage or a sewer line collapse, a portable bypass pumping operation should be set up around the obstruction.

- Take appropriate measures to determine the proper size and number of pumps required to effectively handle the sewage flow.
- Implement continuous or periodic monitoring of the bypass pumping operation as required.
- Address regulatory agency issues in conjunction with emergency repairs.

4. **Cleanup**

SSO sites are to be thoroughly cleaned after an overflow. No readily identified residue (e.g., sewage solids, papers, rags, plastics, rubber products) is to remain.

- Where practical, thoroughly flush the area and clean of any sewage or wash-down water. Solids and debris are to be flushed, swept, raked, picked-up, and transported for proper disposal.
- Secure the overflow to prevent contact by members of the public until the site has been thoroughly cleaned. If posting is required, refer to Section IV.
- Where appropriate, disinfect and deodorize the overflow site.
- Where sewage has resulted in ponding, pump the pond dry and dispose of the residue in accordance with applicable regulations and policies.
- If a ponded area contains sewage which cannot be pumped dry, it may be treated with approved waterway application that is designed to kill bacteria. If sewage has discharged into a body of water that may contain fish or other aquatic life, do not use bleach or other appropriate disinfectant and contact the Arkansas Game & Fish Commission for specific instructions.
- Use of portable aerators may be required where complete recovery of sewage is not practical and where severe oxygen depletion in existing surface water is expected.
- Do not use enzymes in flowing creeks, streams, or waterways

D. Overflow Report

Response Crew completes an Overflow Report Form (See Figure III-1). Response Crew promptly notifies Director when the SSO is eliminated. Information regarding the SSO includes the following:

- Indication that the SSO reached surface waters, i.e., all SSOs where sewage was observed running to surface waters, or where there was obvious indication (e.g. sewage residue) that sewage flowed to surface waters.

- Indication that the SSO had not reached surface waters. Guidance in characterizing these overflows includes:

  a. SSO to covered storm drains (with no public access) where personnel verify, by inspection, that the entire volume is contained in a sump or impoundment and where complete clean up occurs leaving no residue.

  b. Preplanned or emergency maintenance jobs involving bypass pumping if access by the public to a bypass channel is restricted and subsequent complete clean up occurs leaving no residue. Any preplanned bypass under these circumstances will not be considered an overflow; and

  c. SSOs where observation or on-site evidence clearly indicates that all sewage was retained on land and did not reach surface water and where complete cleanup occurs leaving no residue.

- Determine the start time of the SSO by one of the following methods:

a. Date and time the information was received and/or reported to have begun and later substantiated by the Response Crew: See below for how the time of the SSO is determined:

- Capacity-Related Overflows:

1. An email is received by Collection System Maintenance from Engineering personnel, confirming that a category (A, B, C,) rain event has occurred and also stating at what time it became a category (A, B, C) rain event..

2. From this data, Director determines the TIME OF SSO by choosing a time that is approximately one (1) hour after the rain began to diminish, thus allowing the water to begin seeping into the ground and into the LRW Collection System.

4. The determined TIME OF SSO is sent to all Response Crew via email.

5. The determined TIME OF SSO is consistently used by all Response Crews on the Overflow Report Form in the *Date of SSO* and *Time of SSO* fields for each SSO found that is related to the corresponding rain event.

- Non-Capacity Related Overflows:

1. The TIME OF SSO is when the Response Crew arrives on site and confirms that the reported sewage spill is an actual overflow. Thus, the *Time of SSO* and the *Start Time* will be identical and will be recorded as such.

b. Visual observation; or

c. Pump station and lift station flow charts and other recorded data.

- Determine of the stop time of the SSO by one of the following methods:

a. When the blockage is cleared or flow is controlled or contained; or

b. The arrival time of the Response Crew, if the SSO stopped between the time it was reported and the time of arrival.

- Visual observations

  An estimation of the rate of SSO in gallons per minute (GPM) by one of the following criteria

  a. Direct observation of the overflow. See Appendix D for guidance on estimating sewer overflow rates.

  b. Measurement of actual overflow from the sewer main.

- Determination of the volume of the SSO:

  a. When the rate of the overflow is known, multiply the duration of the overflow by the overflow rate; or

  b. When the rate of the overflow is not known, investigate the surrounding area for evidence of ponding or other indications of overflow volume.

- Photographs of the event, before and after cleanup, when possible.

- Assessment of any damage to the exterior areas of public/private property: Personnel shall enter private property for purposes of estimating determining SSO volume.

E. Customer Satisfaction

- The Director/Mayor will then contact the reporting citizen and discuss the actions taken and the problem resolution. If the resident wants to make a claim for damages incurred, the Director informs the resident of the City of Marion's damage claim process. When a "non- fishkill" SSO occurs, the Director/Mayor is notified and, if necessary, takes any follow up action required (i.e. notify media or residents affected).

F. Responding to Overflow Locations Where a SSO has Reoccurred Prior to the Initial SSO being Completed

- When an SSO has been confirmed to have reoccurred prior to the initial SSO reported being closed, then the initial SSO reported will be closed with associated details.

- The reoccurring SSO that has been confirmed will be recorded as another SSO incident with associated details.

- In the event that manhole locations become inaccessible to utility crews, the crew will conduct site visits daily until the site becomes accessible; crews will use an emergency call work order activity to track the daily site visits/to document site conditions. If an SSO has in fact occurred once the manhole becomes accessible, the same service request will be associated to the emergency work orders AND to the SSO for tracking purposes. All associated work order numbers can be found associated to the same service request number.

IV. PUBLIC ADVISORY PROCEDURE

This section describes the actions City of Marion takes, in cooperation with ADEQ and the Arkansas Department of Health to limit public access to areas potentially impacted by unpermitted discharges of pollutants to surface water bodies from the wastewater collection system. Temporary and permanent public notices will be provided as indicated below. A sample of both notices is provided in Appendix E.

A. Temporary Public Notice for Polluted Surface Water Bodies or Ground Surfaces that Result from Uncontrolled Wastewater Discharges from LRW Facilities

The City of Marion has the primary responsibility for determining when to post notices of polluted surface water bodies or ground surfaces that result from uncontrolled wastewater discharges from its facilities. The postings do not necessarily prohibit use of recreational areas, unless posted otherwise, but provide a warning of potential public health risks due to sewage contamination.

Table IV-1 outlines the decision process to recommend to the Mayor and Water/Sewer Committee that posting of a confirmed SSO be undertaken or that there is reasonable potential for an SSO to occur, thus the need to post in advance. If posting is deemed necessary, ADEQ shall be notified.

B. Permanent Public Notice

Marion shall place a permanent notice at manholes located on City-owned property that may experience SSOs more than once in any twelve-month period.

Table IV-1

Decision Process to Post Temporary Signage for Polluted Surface Water Bodies or Ground Surfaces that Result from Uncontrolled Wastewater Discharges from Marion Facilities

Category	Step	Event
Reported Overflow	1	Response Crew confirms that the SSO that is not posted has resulted in ponded wastewater (ground surface or ditch ponding) or direct discharge to body-contact recreational waters between May 1st and September 30th.
	2	The Director provides relevant SSO information. a) SSO Location b) Remedial actions being taken
	3	The Director investigates remedial actions i n need and extent of posting
	4	The Director notifies Mayor of assessment and makes recommendation on posting
	5	The Director notifies the Mayor and City Council for final decision on posting
	6	If Mayor decides posting is required, the Director to post warning sign(s)
	7	Warning sign(s) is/are posted by Marion Utilities
Potential Overflow	1	Reasonable potential for SSO that will result in ponded wastewater (ground surface or ditch ponding) or direct discharge to body-contact recreational waters between May 1st and September 30th identified.
	2	Director identifying potential SSO consults with Mayor for final decision on posting
	3	If Director decides posting is required, Director directs Utility to post warning signs and notifies the Mayor of intent to post and location
	4	Warning sign(s) is/are posted by Marion Utilties

C. Other Public Notification

If the Director determines additional public notification is needed, the Mayor will make said notifications.

V. REGULATORY AGENCY NOTIFICATION PLAN

The Regulatory Agency Notification Plan establishes procedures that City of Marion follows to provide formal notice to ADEQ as necessary in the event of SSOs. The reporting criteria that are listed below explain to whom various forms of notification should be made and also provide those agencies/individuals to be contacted.

Agency notifications will be performed in parallel with other internal notifications. The procedures for providing notification to the media of an SSO are presented in Section VI - Media Notification Procedure. Internal notification and mobilization of personnel are detailed in Section III - Overflow Response Procedure.

A. Immediate Notification

Upon data entry of a SSO event, the director of utilities is notified. The Director then notifies and reports the SSO to ADEQ in compliance with The City of Marion NPDES Permit. For convenience, the applicable NPDES Permit reporting requirements are reprinted below.

> "The permittee shall report all overflows with the Discharge Monitoring Report (DMR) submittal. These reports shall be summarized and reported in tabular format. The summaries shall include: The date, time, duration, location, estimated volume, and cause of overflow; observed environmental impacts from the overflow; action taken to address the overflow; and ultimate discharge location if not contained (e.g. storm sewer system, ditch, tributary). Overflows, which endanger health or the environment, shall be orally reported to this department (Enforcement Section of Water Division) within 24 hours from the time the permittee becomes aware of the circumstance. A written report of overflows which endanger health or the environment shall be provided within 5 days of the time the permittee becomes aware of the circumstance."

The Operations Secretary is responsible for meeting the 24-hour oral, fax, or online notification requirement. The name, mailing address, e-mail address, and telephone number for LRW's primary ADEQ contact is provided below:

Leslie Allen-Daniel
ADEQ Enforcement Analyst
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72218
Telephone: 501.682.0630
Email: allen-daniel@adeq.state.ar.us

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B. Secondary Notifications

After those parties identified in *Section A. Immediate Notification* have been contacted, the Director will notify other federal, state, and local agencies, as well as other interested and possibly impacted parties as directed by the Mayor.

VI. MEDIA NOTIFICATION PROCEDURE

When an SSO has been confirmed and is a threat to public health, take the following actions, if necessary, to notify the media:

A. Response Crew verifies overflow and reports back to the Director.

B. The Director informs the Mayor. The primary contact should be the Mayor

C. After hours and weekend SSOs should also be reported to the Director.

D. All media requests received should be referred to the City Hall.

E. The following personnel are authorized to be interviewed by the media and are the designated spokespersons:

1. City of Marion Mayor

VII. DISTRIBUTION AND MAINTENANCE OF SSORP

Annual updates to the SSORP reflect all changes in policies and procedures as may be required to achieve its objectives.

A. Submittal and Availability of SSORP

Copies of the SSORP and any amendments are distributed to all personnel who may become incidentally involved in responding to overflows should also be familiarized with the SSORP.

B. Review and Update of SSORP

Review of the SSORP is conducted annually and amended as appropriate.

Marion should:

- Update the SSORP with the issuance of a revised or new NPDES permit or state waste discharge permit;
- Conduct annual training sessions with appropriate personnel; and
- Review and update, as needed, the various contact person lists included in the SSORP.
- Along with the submittal of the annual Consent Administrative Order Report, this SSORP document will be updated and submitted as part of the entire report.

C. Practical Resources

There will be laminated guides printed and furnished to all employees that are involved with the SSO Response Plan, which will provide an overview of the of procedures as well as essential phone numbers.

D. Training

The training should include any employee who is involved in or may possibly be involved in the SSO process. These persons are provided a copy of the SSO Response Plan and said plan will be reviewed in depth with them. This training should take place annually or when revisions occur so that all personnel are brought up to date of any changes that may occur. Each division should also review their response efforts at these annual training sessions and should take suggestions to revise procedures. These suggestions will then be submitted to all divisions for review to determine if the revisions are required.

APPENDIX A. Procedure to Track Sanitary Sewer Overflows

The procedure to track the frequency and location of SSOs will be as defined below:

A. All SSOs will have a work order prepared within our work order database.

B. SSOs will be defined as capacity: (**SOC** = Sewer Overflow Capacity) (**SOCP** = Sewer Overflow Capacity Private/capacity overflow occurring on privately-owned assets) or non-capacity: (**SONC** = Sewer Overflow Non-Capacity). The definition of a non-capacity will be one that overflows due to an obstruction in the main line, line failure, or equipment failures. The definition of a capacity related overflow is one that has insufficient carrying capacity to handle inflow and/ or infiltration during a storm event. Engineering shall maintain and update a list of capacity related SSOs. Several other codes have been defined as follows: (**SONCO**) Sewer Overflow Non-Capacity due to vandalism or contractor damage, (**SONCP**) = Sewer Overflow Non-Capacity Private / overflow occurring on a privately owned assets)

C. The work order will also include the asset number to identify the overflow locations, which will always be the upstream manhole number of the sewer main asset. A service number will also be assigned by Dispatch for tracking all associated activities.

D. Monthly reports will be prepared providing the number of capacity and non-capacity SSOs.

E. In addition to work order data, information on all reported SSOs will be maintained in an "event" database. The SSO event database (DMR) has been designed to contain all information required for regulatory reporting. Reports generated from the database will have the capability of pulling SSO locations based upon dates, assets and occurrences within a set time frame.

F. An initial list of reported capacity related SSOs has been developed for inclusion in the Permanent Signage phase of this SSORP. This list shall be maintained and annually updated as conditions and overflow mitigation efforts work to improve capacity related deficiencies in the collection system. The following list, Table A-1, contains those SSO sites that are to be equipped with permanent signage.

Table A-1

SSOs Eligible for Permanent Signage

None at this time.

H. An annual report will be prepared by the Director, which shall include a review of all capacity related overflows, as well as determine updates to the table above for permanent signage and potential capacity related SSO manholes. These updated capacity related SSO lists shall be included for amendment to this SSORP.

APPENDIX B. SSO Action Plan

Dispatching Crews

Staff receive notification of possible SSOs from two sources public and internal crews.

Notification during working hours

Staff receive notification of a possible SSO from the public at which time they collect all relevant information as outlined in Section III-A, which at this point they dispatch one of our area Response Crews to the site to verify if an SSO has occurred. The crew will report findings back to Director.

The Responding Crew determines if an SSO has occurred. The Responding Crew goes to site and takes photographs before clean-up is started and places warning signage at the site as well as at adjacent homes if required and available. The Director also verifies that the Responding Crew has filled out an Overflow Report Form and that the required information is on form.

Crews at this point start cleanup and sanitize the site. When complete, the crew is to verify that the cleanup is completed, take after photographs, and remove warning signs.

Notification after hours

The Response Crews receive notification of a possible SSO from the public at which time they collect all relevant information as outlined in Section III-A. and then proceed to the location. (On call staff manages emergency phone after hours.)

The Response Crew determines if an SSO has occurred, attempts to resolve the problem, takes photographs before cleanup and places warning signs at the site as well as at adjacent homes if required. The crew is to fill out an Overflow Report Form which is submitted with their paper work at the beginning of the next workday.

The Response Crew then starts clean-up and sanitizes the site, which, when completed, the crew is to take after photographs and remove warning signs.

If the SSO occurred within a structure the Director is to verify that cleanup has been completed and all policies were followed. A site visit is to be performed no later than the first

work day after the overflow occurrence. The Mayor will be informed as well to handle any damage claims.

Internal Notification

Personnel in the field who find an SSO are to contact the Director and provide the relevant information as outlined in Section III-A. The same procedure as shown for public notification under working hours will be used.

Rain events that are one-inch or greater will trigger our crews to investigate possible recurring SSO sites to verify if an overflow has occurred. These crews will be furnished with a list of possible SSO sites which has been determined as being locations that have the potential to overflow. The crew will follow the same procedure as outlined under public notification during working hours. When a crew has gone through their list and an SSO was found, they will return to the site to conduct proper cleanup.

Crews will walk lines and open manholes to check for any blockage or surcharged lines before an SSO exists. The crew will address all stoppages immediately to restore service and will fill out hand written work orders for additional follow-up investigation that will be turned in the following workday. A cleaning work order and a TV inspection are required on ALL main line sections where stoppages are found and where the work has not been performed during the initial investigation. If the crews find an SSO, they follow the same procedure as shown in the "public notification during working hours" section of this document.

Main line blockages will be cleaned within three (3) working days and a follow-up TV inspection is to be completed within an additional two (2) working days. After TV work has been completed, the Collection System Maintenance Supervisor will review the TV video to determine any subsequent appropriate action to prevent re-occurrence.

APPENDIX C. Detecting Potential Explosive or Toxic Conditions

Purpose

To ensure that all affected utility employees are notified of potential health or safety hazards in the sewer collection system

Procedure

The following procedures must be followed when detecting potential health or safety hazards in the sewer collection system:

Step 1

The utility employee(s) or crew discovering the potential health or safety hazard must notify Director to report the potential problem.

A. Information included in the report:

1. Name of the employee making the report
2. Street address or location of potential hazard
3. Manhole number (if known)
4. Brief description of findings

Step 2

The Director will then investigate the report.

Step 3

If the Director confirms the report, the Director will ALERT all affected field crews via cellphone that the reported area is "Off Limits" until further notified. The Director will notify ALL other affected department supervisors of the reported area.

Step 4

The director will notify the Mayor of the Potential Hazardous Area.

Step 5

If the investigation suspects a Natural Gas Leak, the Director will contact Summit to report the situation.

Step 6

The Director will keep ALL affected city departments informed of the situation and monitor their (Summit) findings.

Step 7

Once the health or safety hazard has been corrected, the Safety & Risk Department will perform a follow- up investigation and when NO HAZARDOUS conditions exist, the Director will remove the Safety ALERT and notify all affected departments.

Step 8

Industrial investigations resulting from explosive or toxic conditions will be performed by Director.

After Hours Reporting

If a hazardous atmosphere is detected after normal working hours, the employee must report the area the next working day prior to his/her normal working hours. After this report is made the process will begin with “Step 1”.

APPENDIX D. SSO Flow and Volume Determination

As indicated previously in this SSORP, each SSO that is actively discharging during the investigation phase of this response plan's tasks shall be evaluated for flow and ultimate total volume discharged, each of which is to be included as part of the reporting requirements. The Engineering Department has defined a three tiered flow estimating system that is derived from the reaction of the manhole lid in relation to the flow exiting the collection system. This system is easily field estimated without the need for measuring devices, which in most instances, would fail to achieve a proper signal due to the lack of sufficient depth of flow.

It has been determined that the majority of actively discharging SSOs reported by a response crew would be non-capacity related. Therefore criteria for determining flow should concentrate on these conditions for gravity sewer collection systems. The three-category rating system is outlined below:

- **0 – 10 gpm** (gallons per minute)

This rate covers the light discharge experienced in the upper reaches of the collection system, usually with a small number of residential connections. The visual indicator would be a light flow (about the rate of a standard faucet) from around the manhole lid with no visible release of debris or solids and no movement or lifting of the lid itself.

- **10 – 100 gpm**

This rate covers the moderate discharge experienced in the lower reaches of the collection system, usually along the larger collector or outfall type sewer mains (typically 10" and larger mains) and in some capacity related SSOs. The visual indicator would be a noticeable flow from around the manhole lid, slight debris or solids release, and a rocking or slight lifting of the manhole lid.

- **100 gpm** (greater than 100 gpm)

This rate covers the heavy discharge experienced along the major outfall sewers and larger capacity related SSOs. The visual indicator is the definite release of debris or solids, and the complete lifting or displacement of the manhole lid.

SSO volumes are derived from the above category multiplied by the duration of discharge. If the exact length of discharge is unknown, criteria for determining an estimated time have been established in the Section III-D, Overflow Report.

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APPENDIX E. Signage for Overflows

Temporary Signage

The following language shall be used on signs located on existing SSO sites during cleanup and on notices attached to homes adjacent to SSO sites:

NOTICE OF SANITARY SEWER

OVERFLOW

Please avoid contact with this

sanitary sewer facility due to

the possibility of adverse health effects until cleanup can be completed

For Additional Information
Contact 870-739-3073

Permanent Signage

The following language shall be used on signs located on potential SSO sites that occur more than once in a twelve-month period:

NOTICE OF
SANITARY SEWER OVERFLOWS
WHICH MAY OCCUR
AT THIS LOCATION

Please avoid contact with this

sanitary sewer facility during an

overflow condition due to the

possibility of adverse health effects

until cleanup can be completed

For Additional Information
Contact 870-739-3073