

Allen-Daniel, Leslie

From: Monty Ledbetter <MLedbetter@cityhs.net>
Sent: Monday, December 20, 2021 4:07 PM
To: 'ellen carpenter'; Allen-Daniel, Leslie; Healey, Richard; Harry Elliott
Cc: WW Lab; Harold Mauldin; Bobby Harris
Subject: Fw: CHS - Manhole 1750 overflow
Attachments: SpencerBay_Addresses_Exhibit B (1).PDF; STANDARD OPERATING PROCEDURE_Manhole 1750_8.16.2021_CAJ.docx

Leslie, just letting you know we have had an SSO at MH 1750 and have received the E. Coli test from the first round of testing (see below email from the Lab). We are sending out a code red today and have resampled sites 1-5. Signs have been posted at the locations shown in Exhibit B. I will let you know when we get the all clear form the lab. If you have any questions please call me at 501-651-7730.

Hello. We have analyzed the samples from the manhole 1750 overflow that occurred on December 19, 2021. The results for E. Coli for all three testing sites exceed the 126cfu/100 mls allowed by DEQ. As a result, more testing must be done and signs must be posted.

Amanda Cates
Laboratory Supervisor
501-262-1125
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From: WW Lab <WWLab@cityhs.net>

Sent: Monday, December 20, 2021 1:14 PM

To: Monty Ledbetter <MLedbetter@cityhs.net>; Bobby Harris <BHarris@cityhs.net>; Danny Burton <DRBurton@cityhs.net>; Harold Mauldin <HMauldin@cityhs.net>

Subject: CHS - Manhole 1750 overflow

Hello. We have analyzed the samples from the manhole 1750 overflow that occurred on December 19, 2021. The results for E. Coli for all three testing sites exceed the 126cfu/100 mls allowed by DEQ. As a result, more testing must be done and signs must be posted.

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STANDARD OPERATING PROCEDURE

SOP Title:	Manhole 1750 Sanitary Sewer Overflow		
SOP CODE:	6459.662.61-2021.07	CATEGORY:	SSO RESPONSE

OBJECTIVE	To provide clear and complete instructions for responding to sanitary sewer overflows at Manhole 1750 in particular.
BACKGROUND	Manhole 1750 has a history of overflows during periods of wet weather due to the hydraulic design combined with unidentified I&I in the Gulpha Sewer Basin. Any SSO during dry weather would likely be due to a blockage or equipment failure at the Gulpha Lift Station.
SAFETY PROCEDURES	Personnel responding to any SSO must wear appropriate personal protective equipment (PPE) to prevent contact with raw sewage. PPE may include: rubber gloves, rubber boots, impermeable coveralls and protective headwear with splash shield.
POTENTIAL HAZARDS	Manhole 1750 is located (117 Catherine Heights Rd.) near Gulpha Creek, which flows into Spencer Bay and on to Lake Catherine. SSO contamination impacts the water quality of an area used for recreational activities.
RESPONSE	<p>Upon notification from remote sensing equipment, notification by the remote float auto-dialer, SCADA, other staff, or public notification, personnel responding to an SSO may encounter an emergency situation that requires immediate action. The first responders to the site during normal business hours will be Wastewater Collection crews. After hours, On-Call personnel will respond and call for back up personnel as needed.</p> <p>Responding personnel will:</p> <ol style="list-style-type: none"> 1. Determine whether the spill has reached Gulpha Creek 2. Notify testing laboratory to acquire testing samples should the spill reach Gulpha Creek* 3. Post ADH signs at locations shown in Exhibit A for Sample Site 1, should the spill reach Gulpha Creek 4. Provide a CodeRED in accordance with Public Notification requirement in this SOP for effected area as outlined in the notification boundary shown in Exhibit A. 5. Determine the cause of the problem (blockage, equipment failure at Gulpha Lift Station, wet weather I&I) 6. Determine what additional resources may be needed (equipment and materials). 7. Document any necessary information needed for reporting requirements. 8. Take photos of the impacted area. 9. Estimate the release volume based on size of the sewer, weather conditions and the extent of the release. 10. Report spill in accordance with Office of Water Quality, DEQ reporting requirements. <p>*Should testing agency not be available for immediate sampling, City of Hot Springs laboratory personnel will acquire a sample and hold in accordance with testing protocol and provide a chain of custody to the testing laboratory for further handling.</p>
CONTAINMENT	<p>Containment of an overflow is the responder's first priority. The methods used will vary on a case by case basis. The Manager, Crew Leader and maintenance responders will:</p> <ol style="list-style-type: none"> 1. Identify and obtain the necessary equipment and materials needed to contain the overflow. 2. Take immediate steps to contain the overflow (block path toward receiving water, recover with vacuum truck). 3. Determine whether additional containment measures are needed.

CORRECTION OF OVERFLOW	<p>The time required to correct the cause of the overflow depends on the determined cause. In the case of Manhole 1750, the most frequent cause is wet weather initiated I&I and the current hydraulic limitations of the collection and pumping system.</p> <p>Responding crews must begin by investigating upstream manholes and the downstream lift station for evidence of blockage or equipment failure. When necessary, contractor services may be requested as an additional resource to abate the overflow.</p>
SAMPLING AND TESTING	<p>Upon response to the spill and validation that the spill is entering Gulpha Creek, the following sampling and testing will be initiated for Fecal Coliform Bacteria and <i>E. Coli</i>.</p> <ol style="list-style-type: none"> 1. Sampling shall occur at the locations shown on Exhibit A. 2. First series of test shall be for Sample Site 1. 3. Results shall be made available to the City of Hot Springs within three (3) calendar days of the event from the testing laboratory. 4. Should the <i>E. Coli</i> test result exceed 126 cfu/100ml at Sample Site 1 as shown on Exhibit A, ADH signs will be posted for Sample Site 3, Sample Site 4, and Sample Site 5. 5. A second series of tests will be scheduled and conducted for Sample Site 2, Sample Site 3, Sample Site 4, and Sample Site 5 until two consecutive results for <i>E. Coli</i> are equal to or less than 126 cfu/100ml are achieved, at which time the testing will cease, concluding safe bacteriological standards recommended by EPA. 6. ADH Signs shall be removed upon demonstration of safe bacteriological testing. 7. City of Hot Springs shall email all test results to DEQ's Office of Water Quality, Enforcement Branch at water-enforcement-report@adeq.state.ar.us upon receipt from the testing laboratory. <p>Testing shall be conducted at approved Department of Environmental Quality laboratory.</p>
RECOVERY/CLEANUP	<p>Cleanup will be completed for all SSOs following containment and correction of the overflow. The recovery efforts will be directed at returning the affected to a pre-release condition as quickly and efficiently as possible. Cleanup activities will vary depending on the situation. Actions selected will be performed thoroughly. The general process is as follows:</p> <ol style="list-style-type: none"> 1. Response crew will use appropriate PPE during cleanup and recovery 2. Affected area will be cleaned as much as possible using rakes, shovels, hand picker tools and vacuum equipment. 3. Affected overflow area will be evaluated for appropriate disinfection. This may include applying lime to absorb liquid and raise the pH to reduce pathogens, applying a non-hazardous bio-enzymatic bacteria consuming product to reduce impact of pathogens on receiving waters. 4. Maintain, as far as possible, an appropriate buffer zone between limited areas and the waters of the state and the United States. 5. The immediate area around the overflow site will be inspected to ensure that no visual residue remains, including solids, papers, and rags, etc. 6. If flushing is warranted and ultimately performed, then all solids and debris must be collected and disposed of properly. 7. All wash-down water must be returned to the sewer system.
ADDITIONAL RESOURCES	<p>If the maintenance crew is unable to contain and clean up the affected area with typical maintenance equipment, then the next step will be to bring in contractor or other construction support. The following steps will be taken by on-call management:</p> <ol style="list-style-type: none"> 1. Assess and mark the boundaries of the suspected area for all utility service locations (marking materials such as white paint will be used to mark the boundaries, and "Locate" will be written to indicate the area). 2. Call (811) CALL BEFORE YOU DIG. 3. Determine the additional resources and type of construction crew required to perform the task(s).

	<ol style="list-style-type: none"> 4. Call for the additional resources using existing approved contact lists as deemed necessary. 5. Enlist appropriate contract services. 6. Manage actions taken by the additional construction crew to clean up the affected area. 7. Ensure actions are documented following the SSO reporting procedures.
FIELD REPORTING	<p>Responding personnel will collect accurate and complete field data required to be submitted to DEQ. The following information will be documented:</p> <ol style="list-style-type: none"> 1. Date and time of notification (SCADA, Public Notification, Staff Report) 2. Date and time of dispatch 3. Date and time of arrival 4. Date and time of departure 5. Date and time of release ended (estimated as close as possible) 6. Location 7. Downstream Gulpha Pump Station status 8. Probable Cause 9. Estimated release 10. Visual impact observed 11. Actions to repair/mitigate
REGULATORY REPORTING	<p>Shawn Davis, Wastewater Collection Manager or his designate will report the SSO to the Arkansas Energy and Environment Department, Office of Water Quality within 24 hours. The Online Sanitary Sewer Overflow (SSO) Reporting Form can be found at</p> <p style="text-align: center;">https://www.adeg.state.ar.us/water/enforcement/sso/submit.aspx</p> <p>This initial 24-hour report should include the following information:</p> <ol style="list-style-type: none"> 1. Permit Number 2. Location of overflow (manhole number or street address) 3. The receiving water (if applicable) 4. Cause of overflow (if known) 5. Estimated volume of overflow 6. Total duration of the overflow <p>If the “total duration of the overflow” is not known when the 24-hour SSO online report is submitted, then a follow-up report (5-day report) giving a detailed account of the overflow and the steps taken to resolve it must be submitted within 5 days of the overflow’s discovery. This report can be submitted by email at ssoadeg@adeg.state.ar.us or by mail (include Attn: Water Quality Enforcement).</p> <p>A sample of the spill shall be taken prior to confluence of the receiving stream for Fecal Coliform Bacteria and <i>E.coli</i>. Results of the testing shall be reported to the DEQ’s Office of Water Quality, Enforcement Branch within three calendar days of the event sampled. Test results will be emailed to water-enforcement-report@adeg.state.ar.us</p> <p>Sample locations are shown in Exhibit A.</p>
PUBLIC NOTIFICATION	<p>When SSO spill reaches Gulpha Creek, City of Hot Springs Utilities will take measures inform those affected by the possible impact on water quality. The methods of public notification include:</p> <ol style="list-style-type: none"> 1. Signs will be posted at locations as shown in Exhibit A upon first response to the spill advising against human contact with the affected water in accordance with this SOP. Signs will be removed when testing concludes bacteriological standards are achieved in accordance the sampling and testing section in this SOP.

Sign content shall be as follows:

HEALTH ADVISORY
WATER QUALITY IN THIS AREA
MAY BE UNSAFE

SWIM AT YOUR OWN RISK

Arkansas Department of Health



4815 West Markham Street • Little Rock Arkansas 72205-3867
Environmental Health (501)661-2171
Epidemiology (501)661-2893

2. A **CodeRED** alert will be sent to the population living in close proximity to the water bodies in accordance with boundary shown on Exhibit A.

ADVISORY

As of [date and time] a **NO SWIMMING** Advisory has been issued for the Gulpha Creek/Spencer Bay area due to a wastewater overflow. Hot Springs Utilities will monitor the water quality in the area until it is safe for human contact. **If you have any questions, you may contact Hot Springs Utilities at (501) 321-6200**

3. Upon satisfaction of *E.Coli* testing as outlined in Sampling and Testing section of the SOP the Recission of Advisory shall be provided.

RECISSION OF ADVISORY

The **NO SWIMMING** Advisory issued on [date and time] for the Gulpha Creek/Spencer Bay area has been canceled. The Bacteriological survey indicates that the water is safe for recreational activities. **If you have any questions you may contact Hot Springs Utilities at (501) 321-6200**

ASSOCIATED EQUIPMENT

The following equipment may be deployed for responding to any SSO:

1. Flusher/Vac Truck
2. Backhoe
3. Dump Truck
4. Crew Trucks
5. Confined Space Entry Equipment
6. Shovels
7. Rakes
8. Trash Pickers/Grabbers
9. Trash Bags

PPE

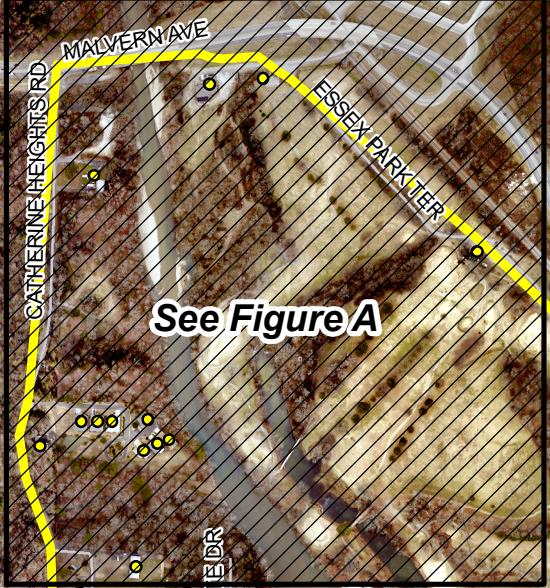
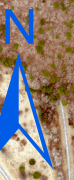
The following personal protective equipment may be required when responding to any SSO:

1. Hard Hats
2. Safety Glasses/Goggles
3. Face Shield
4. Ear/Noise Protection
5. Rubber gloves
6. Rubber Boots
7. Protective Body Suit
8. Respirators

Exhibit B

Legend

- Identified Residences
- Area for Code Red Alerts



Residential Areas Around Gulpha Creek and Spencer Bay

THE DATA CONTAINED HEREIN WAS COMPILED FROM VARIOUS SOURCES FOR THE SOLE USE AND BENEFIT OF THE CITY OF HOT SPRINGS GIS AND THE PUBLIC AGENCIES IT SERVES. ANY USE OF THE DATA BY ANYONE OTHER THAN THE CITY OF HOT SPRINGS IS AT THE SOLE RISK OF THE USER AND WITH ACCEPTANCE OF THIS DATA, THE USER DOES HEREBY HOLD THE CITY OF HOT SPRINGS HARMLESS AND WITHOUT LIABILITY FROM ANY CLAIMS, COSTS OR DAMAGES OF ANY NATURE AGAINST THE CITY OF HOT SPRINGS, INCLUDING COSTS OF DEFENSE ARISING FROM IMPROPER USE OF THE DATA, OR USE BY ANOTHER PARTY. ACCEPTANCE OR USE OF THIS DATA IS DONE WITHOUT ANY EXPRESSED OR IMPLIED WARRANTIES.