



CITY OF HOT SPRINGS

Utilities Department

780 Adams Street

Hot Springs, Arkansas 71901

July 23, 2021

Mr. Alan J. York
Associate Director, Office of Water Quality, DEQ
Arkansas Energy & Environment
5301 Northshore Drive
North Little Rock, Arkansas 72118

**RE: Permit No. AR0033880, AFIN 26-00145
Request for Bacteria Sampling and a Communications Plan - Response**

Dear Mr. York

I am in receipt of your letter dated July 20, 2021, regarding the request for bacteria sampling and communication plan development specific to manhole (MH) 1750 located near the Gulpha Creek Pump Station. The sanitary sewer overflow (SSO) occurring from Saturday, July 17, 2021 and ending on Monday, July 19, 2021, was a result of a mechanical failure of a check valve at the Gulpha Pump Station. Repair has been completed, and the Gulpha Pump Station has been returned to standard service. The SSO was documented per Office of Water Quality, DEQ requirements, per discharge permit AR0033880.

The Gulpha Pump Station and Gulpha Creek drainage basin wastewater collection system has been identified for inflow and infiltration abatement and is part of the SECAP improvements administered through CAO LIS 08-099.

Outlined below is our response to your bullet inquiries as presented in your letter.

Bullet Item No. 01:

The City of Hot Springs shall incorporate DEQ requests as shown. The requirements are outlined in the attached Standard Operating Procedure (SOP) for Manhole 1750 attached hereto.

Bullet Item No. 02:

The City of Hot Springs coordinated this item with Mr. J. Terry Paul, Environmental Health Branch Chief with the Arkansas Department of Health.

The City of Hot Springs has outlined the Communication Plan as outlined in the attached SOP where the City of Hot Springs will use their CodeRED notification system. CodeRED is a service that allows emergency officials to notify residents and businesses by telephone, cell phone, text message and e-mail

regarding time-sensitive general and emergency notifications. The CodeRED emergency notification to the affected area is shown in Exhibit A.

Signs provided by the Arkansas Department of Health will be posted at the locations shown in Exhibit A at the times indicated in the SOP attached.

Bullet Item No. 03:

A specific SOP has been developed for MH 1750 and is attached as Exhibit A.

The City of Hot Springs will construct a containment area as shown on Exhibit B. In addition, the City of Hot Springs will install a float system for MH 1750 that will be connected to an auto-dial system for first-notification of a sanitary sewer overflow at MH 1750. The following individuals are listed for response in order of notification.

Shawn Davis; if no answer then
Bobby Harris, if no answer then
Monty Ledbetter, Public Works Director.

The SOP will be employed immediately. The containment area and emergency float communication system will be complete on or before July 30, 2021.

We are hopeful this plan outlined your concern in your letter and we look forward to your comment and response. Should you have any questions, please don't hesitate to call me 501.651.7730 or via email at MLedbetter@cityhs.net

Sincerely,



Monty Ledbetter
Utility Director

Cc: Stacie Wassell, Deputy Associate Director, DEQ, Wassell@adeq.state.ar.us
Richard Healey, OWO Enforcement Branch Manager, healeyr@adeq.state.ar.us
Terry Paul, Environmental Health Chief, ADH, terry.paul@arkansas.gov
Bill Burrough, City Manager, City of Hot Springs, AR, bburrough@cityhs.net
Todd Piller, Capital Projects Manager, City of Hot Springs, AR tpiller@cityhs.net
Gary Carnahan, City Engineer, City of Hot Springs, AR, gcarnahan@cityhs.net
Harold Mauldin, Wastewater Facilities Operations Manager, City of Hot Springs, AR, hmauldin@cityhs.net
Craig Johnson, P.E., Crist Engineers, cjohnson@cristenengineers.com


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 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. Results shall be made available to the City of Hot Springs within three (3) calendar days of the event from the testing laboratory. 3. Should the <i>E. Coli</i> test result exceed 126 cfu/100ml at Sample Site 3 as shown on Exhibit A, subsequent tests will be scheduled and conducted 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. 4. 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). 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.

	<p>7. Ensure actions are documented following the SSO reporting procedures.</p>
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. Signs will be removed when testing concludes bacteriological standards are achieved in accordance the sampling and testing section in this SOP. <p>Sign content shall be as follows:</p>

	<p style="text-align: center;">HEALTH ADVISORY WATER QUALITY IN THIS AREA MAY BE UNSAFE SWIM AT YOUR OWN RISK</p> <p style="text-align: center;">Arkansas Department of Health  4815 West Markham Street • Little Rock Arkansas 72205-3867 Environmental Health (501)661-2171 Epidemiology (501)661-2893</p> <p>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.</p> <p><i>ADVISORY</i> 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</p> <p>3. Upon satisfaction of <i>E.Coli</i> testing as outlined in Sampling and Testing section of the SOP the Recission of Advisory shall be provided.</p> <p><i>RECISSION OF ADVISORY</i> 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</p>										
ASSOCIATED EQUIPMENT	<p>The following equipment may be deployed for responding to any SSO:</p> <table border="0"> <tr> <td>1. Flusher/Vac Truck</td> <td>6. Shovels</td> </tr> <tr> <td>2. Backhoe</td> <td>7. Rakes</td> </tr> <tr> <td>3. Dump Truck</td> <td>8. Trash Pickers/Grabbers</td> </tr> <tr> <td>4. Crew Trucks</td> <td>9. Trash Bags</td> </tr> <tr> <td>5. Confined Space Entry Equipment</td> <td></td> </tr> </table>	1. Flusher/Vac Truck	6. Shovels	2. Backhoe	7. Rakes	3. Dump Truck	8. Trash Pickers/Grabbers	4. Crew Trucks	9. Trash Bags	5. Confined Space Entry Equipment	
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PPE	<p>The following personal protective equipment may be required when responding to any SSO:</p> <table border="0"> <tr> <td>1. Hard Hats</td> <td>5. Rubber gloves</td> </tr> <tr> <td>2. Safety Glasses/Goggles</td> <td>6. Rubber Boots</td> </tr> <tr> <td>3. Face Shield</td> <td>7. Protective Body Suit</td> </tr> <tr> <td>4. Ear/Noise Protection</td> <td>8. Respirators</td> </tr> </table>	1. Hard Hats	5. Rubber gloves	2. Safety Glasses/Goggles	6. Rubber Boots	3. Face Shield	7. Protective Body Suit	4. Ear/Noise Protection	8. Respirators		
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Legend

- Identified Residences
- Area for Code Red Alerts



Sample Site 1
-92.986343, 34.47537

Sample Site 3
-92.986489, 34.47090

Signs

Manhole 1750

Gulpha Pump Station

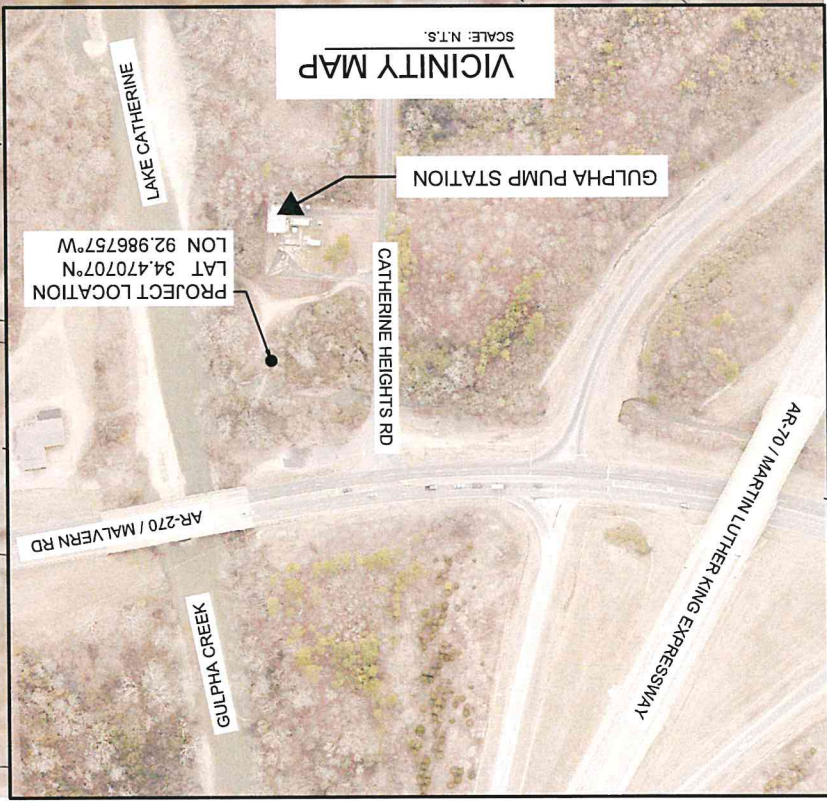
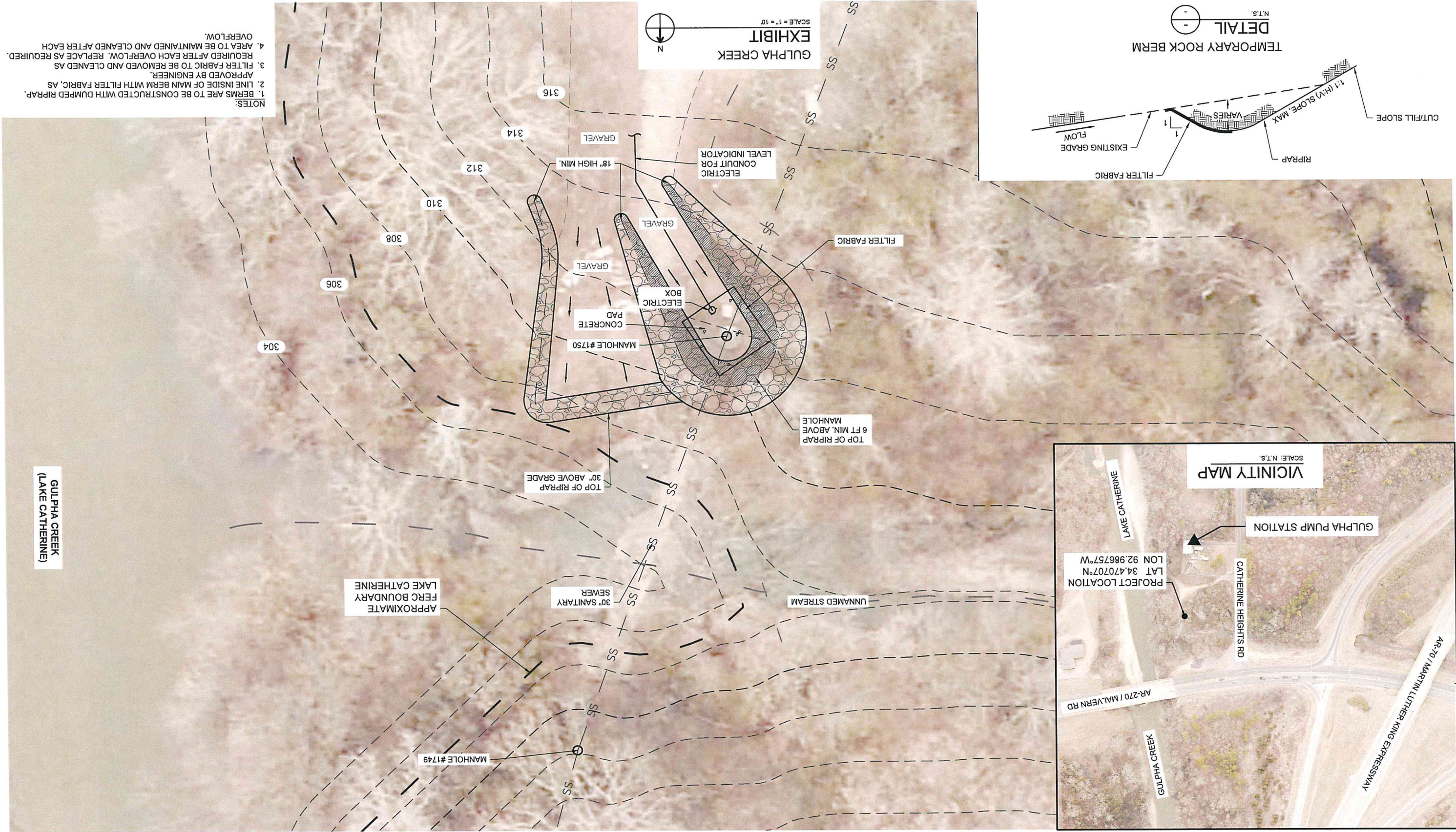
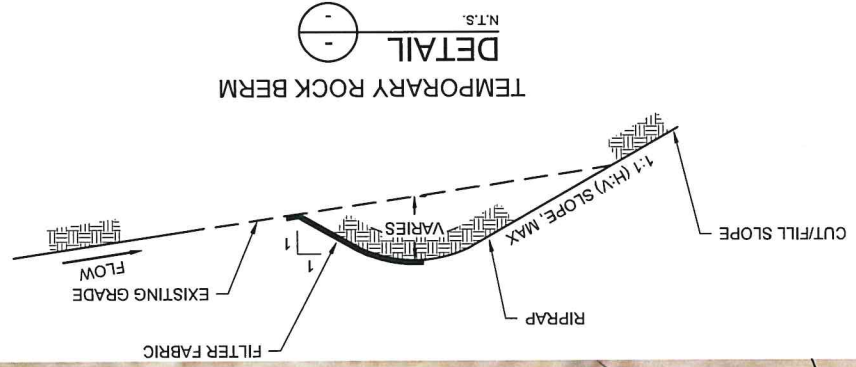
Sample Site 2
-92.985549, 34.468338

See Figure A

**Residential Areas
Around Gulpha Creek
and Spencer Bay**

EXHIBIT A

THE DATA CONTAINED HEREIN WAS COMPILED FROM VARIOUS SOURCES FOR THE SOLE USE AND BENEFIT OF THE CITY OF HOT SPRINGS AND OTHER AGENCIES IT SERVES. ANY USE OF THE DATA BY ANYONE OTHER THAN THE CITY OF HOT SPRINGS AT ANY TIME IS AT THE USER'S RISK. THE CITY OF HOT SPRINGS MAKES NO WARRANTY, REPRESENTATION OR GUARANTEE AS TO THE ACCURACY, COMPLETENESS, TIMELINESS, OR RELIABILITY OF THE DATA. THE USER AGREES TO 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 REASONABLE ATTORNEY'S FEES, ARISING FROM OR RESULTING FROM THE USER'S USE OF THE DATA. ACCEPTANCE OR USE OF THIS DATA IS DONE WITHOUT ANY EXPRESSED OR IMPLIED WARRANTIES.



- NOTES:
1. BERMS ARE TO BE CONSTRUCTED WITH DUMPED RIPRAP.
 2. LINE INSIDE OF MAIN BERM WITH FILTER FABRIC, AS APPROVED BY ENGINEER.
 3. FILTER FABRIC TO BE REMOVED AND CLEANED AS REQUIRED AFTER EACH OVERFLOW.
 4. AREA TO BE MAINTAINED AND CLEANED AFTER EACH OVERFLOW.