

Richard Healey (adpce.ad)

From: Zane Lewis <zlewis@mce.us.com>
Sent: Friday, October 20, 2023 4:58 PM
To: Richard Healey (adpce.ad)
Cc: Simon Wiley (swiley@eurekaspringsar.gov); Nick Batker; Spencer Briggs
Subject: 23-2159 Eureka Springs WWTF NPDES Permit AR0021865, AFIN: 08-00036 - Response to Letter
Attachments: 23-2159 Eureka Springs WWTF Response Letter to DEQ Comments.pdf; ADEQ SOP Response Letter 101323.pdf

Richard,

Good evening. MCE is pleased to provide you with the attached response letter to DEQ comments regarding the above referenced facility and permit. Also attached for reference is the newly enacted City of Eureka Springs Standard Operating Procedure for reporting of Sanitary Sewer Overflows. We look forward to hearing back from you. Thank you.

Zane Lewis, P.E., LEED AP BD+C
Project Manager/Engineer



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479.443.2377 office x7027 | 479.443.9241 fax
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October 20, 2023

Mr. Richard C. Healey, Enforcement Branch Manager
Division of Environmental Quality, Office of Water Quality
5301 Northshore Drive
North Little Rock, AR 72118

RE: NPDES Permit AR0021865; AFIN 08-00036

Mr. Healey,

McClelland Consulting Engineers has been retained by the City of Eureka Springs to assist in the response to your letter dated October 11, 2023, Request for Interim Measures, Bacteria Sampling, Communications Plan and Corrective Actions Plan, concerning the potential of unauthorized discharge of untreated wastewaters into their adjacent receiving stream, Leatherwood Creek, a tributary of the White River above Table Rock Lake.

According to complaints noted by DEQ and SSO reporting from the city there were multiple days where untreated waste may have entered the stream. MCE and the city offer the following responses to your letter;

1. Continue all actions to stop the unpermitted discharge from the wastewater treatment plan. Continue to timely report the SSO's and unpermitted discharges.

MCE visited the Eureka Springs WWTF on Wednesday, October 11, 2023 and observed that the facility appeared to be operating as intended with no discharges of untreated or partially treated wastewater. It is our understanding that the city and staff were able to make the appropriate emergency temporary fixes to keep treatment operating, but ongoing additional repairs, equipment replacement and monitoring will be required soon. The staff appear to be following up with all reporting and process controls.

2. Submit emails twice a week to provide updates to SSOADEQ@adeq.state.ar.us on the City's progress towards stopping the unpermitted discharges and impacts to the water quality in Leatherwood Creek in Eureka Springs. Once the unpermitted discharge has ceased, provide an email notification to SSOADEQ@adeq.state.ar.us with photographs confirming the unpermitted discharge has stopped.

We believe that the unpermitted discharges have been eliminated at this time. The last occurrence of an unpermitted discharge was September 20, 2023. We believe the unpermitted discharges were caused by multiple reasons. The previous high MLSS concentration may have contributed to elevated sludge blanket levels. The

MLSS has been reduced through increased sludge wasting. Additionally, the SBR level control sensors were found to be faulting at the pressure transducer and the wiring connecting to the PLC, which controls the operation of influent and effluent valves, the blowers, and pumps. These faults have been fixed but further maintenance is required to bring the facility back into reliable automatic operation. Plant staff have indicated that they will be providing the requested photos of the corrected actions and clear effluent discharge.

3. Immediately sample Leatherwood Creek at the locations listed below, with additional sampling following each SSO or unpermitted discharge from the WWT with subsequent samples collected every three (3) calendar day, at minimum, for E. coli. Copies of the analytical results and chain-of-custody forms shall be emailed to the DEQ Office of Water Quality, Enforcement Branch within two (2) calendar days of sample collection;
 - a. The confluence from the WWTP outfall into Leatherwood Creek;
 - b. Leatherwood Creek at the crossing near 835 Highway 23 North;
 - c. Leatherwood Creek at the powerline crossing approximately ½ mile from the WWTP;
 - d. Leatherwood Creek at the crossing of Highway 23 North;
 - e. Leatherwood Creek upstream from the WWTP.

The bacteria sampling requested in action #3 was initiated on Friday, October 13, 2023. Coordination with the contract lab has allowed them to change the work schedule of employees and they can now accommodate receiving samples and performing testing services on the weekend. Staffing schedules at the WWTF have also been adjusted to allow for the required sampling schedules to be maintained. Sampling results will be provided in a timely manner as noted.

4. Continue to monitor and sample every three (3) calendar days until there are two (2) consecutive samples that are below the water quality criteria for E. coli of 126 cfu/100mL. Copies of the analytical results and chain-of-custody forms shall be emailed to DEQ Office of Water Quality, Enforcement Branch within two (2) calendar days of sample collection. The City of Eureka Springs shall also notate the coordinates of the sample locations on the chain-of-custody forms.

Sampling shall be performed at the above noted schedule until such time as the results for two consecutive tests that meet the sample result criteria of less than 126 colonies per 100-ml. Results will be provided in the specified timeline and shall be coded to include the respective location coordinates for identification.

5. The City of Eureka Springs shall, by close of business on Friday, October 13, 2023, submit a Communication Plan to:
 - a. Notify the public immediately of the water quality issues in Leatherwood Creek. Specifically, the notification shall be communicated to residents in the areas

adjacent to Leatherwood Creek downstream of the WWTP. The City of Eureka Springs shall develop a notification system and post signage to the impacted areas. As needed, the City of Eureka Springs may engage with the Arkansas Department of Health to obtain guidance regarding the information to include on signage to address public health concerns.

City staff worked directly with DEQ to develop a new Sanitary Sewer Overflow policies and procedures, attached to this letter, including public notification that has been implemented by the city.

- b. Provide regularly scheduled updates regarding improvements or decreases in water quality in Leatherwood Creek to the public.

The new SSO reporting procedure includes public notification via social media and posting on the city website.

6. By close of business on Friday, October 20r 2023, submit an Interim Measures Plan, certified by a Professional Engineer licensed in the state of Arkansas that evaluates the City of Eureka Springs' current operations to determine the cause of the recurring SSOs/unpermitted discharges and make necessary operational changes to prevent further SSOs/unpermitted discharges within the WWTP or provide a Corrective Action Plan (CAP) and milestone schedule for any measures that exceed operational changes including, but not limited to, treatment plant modification or increase in plant treatment capacity, necessary to address and prevent the SSOs/unpermitted discharges.

MCE is currently coordinating with city staff to determine the full scope of needs so that a contract for engineering services may be established. Based on the site visit there is a long list of potential items that may need to be addressed, with the relative severity and impacts to the treatment process unable to be determined without further time, data, and evaluation.

MCE and the City of Eureka Springs respectfully request additional time to perform the necessary evaluation to fully respond to this item. We believe that approximately 8 weeks will be required for MCE to perform an evaluation of the following items and provide a more detailed and accurate report on the facility's overall needs. Work may begin as soon as MCE is authorized by execution of our services contract by the City. Specific items that will be addressed include;

- *Review the previously completed Comprehensive Collection System Evaluation, USI Engineering, to determine if recommendations were completed. Review the previously completed Lakeside Headworks Screen Installation Inspection Report – February, 2016, to determine if recommendations were completed.*
- *Confirm plant water pressure is adequate for equipment needs.*

RE: 23-2159 Eureka Springs WWTF Emergency Response
Richard Healey, DEQ Enforcement Branch Manager

- *Confirm/coordinate for creation of Routine Maintenance Plans for all major items of equipment including pumps, motors, and gears boxes.*
- *Is a rock screen needed ahead of fine screen so that damage does not occur with each flushing event?*
- *Review USI letter, report of work in 2011 and 2012 proposed work plan to determine if recommendations were completed.*
- *Find old report/evaluate existing effluent phosphorus filter pilot equipment to determine possible performance and costs for reactivation.*
- *Review Circuit Rider Assistance Program Report recommendations, Areas of concern, and recommended improvement actions to determine if these were implemented.*
- *Perform preliminary identification of major sources of Infiltration and Inflow, determine if a collection system master plan update or flow monitoring are recommended.*
- *Review existing Standard Operating Procedures and evaluate if updates are recommended.*
- *Evaluate existing structures for possible use for wet weather operations.*

We look forward to working with you on this project. Please don't hesitate to contact us if you have any questions or comments.

Sincerely,



Zane Lewis, P.E., LEED AP BD+C

Project Manager/Engineer

1580 East Stearns Street | Fayetteville, AR 72703

479.443.2377 office x7027 | 479.443.9241 fax

mce.us.com



Public Works
3174 East Van Buren
Eureka Springs, Arkansas 72632

Simon Wiley - Director
Phone: (479) 253-9600
Email: swiley@eurekaspringsar.gov

October 13, 2023

Stacie Wassell, Associate Director, OWQ, DEQ
5301 Northshore Drive
North Little Rock, AR 72118

**RE: NPDES Permit Number: AR0021865, AFIN: 08-00036
Request for Interim Measures, Bacteria Sampling, Communication Plan and
Corrective Action Plan**

Dear Stacie Wassell,

In response to your letter requesting interim measures, bacteria sampling, communication plan, and corrective action dated October 11, 2023, the City of Eureka Springs Public Works Department has developed a Standard Operating Procedure (SOP) that provides instructions to the Wastewater Treatment Plant (WWTP) personnel for responding to Sanitary Sewer Overflows (SSOs). The SOP also includes procedures to notify residents who live downstream of the WWTP and adjacent to the Leatherwood Creek of the potential water quality issues.

Regularly scheduled updates regarding the water quality of Leatherwood Creek will be made available to the public in accordance with the procedures outlined in Exhibit A.

If you have any further questions or concerns, please do not hesitate to contact me at my office.

Sincerely,

Simon Wiley

Cc: Honorable Robert "Butch" Berry – Mayor, City of Eureka Springs
Terry Long – WWTP Manager, City of Eureka Springs
Zane Lewis, P.E. – Project Manager/Engineer, MCE
Terry Paul – Environmental Health Branch Chief, ADH
Lance Jones, P.E. – Director, Engineering Section, ADH
Craig Corder, P.E. – Chief Engineer, Engineering Section, ADH
Bryan Leamons, P.E. – Senior Manager, Permits Branch, Office of Water Quality, DEQ
Jason Bolenbaugh – Compliance Branch Manager, Office of Water Quality, DEQ
Richard Healey – Enforcement Branch Manager, Office of Water Quality, DEQ

EXHIBIT A

| STANDARD OPERATING PROCEDURE | |
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| SOP Title: | Standard Operating Procedures for Sanitary Sewer Overflows at the Wastewater Treatment Facility |
| OBJECTIVE | To provide clear and complete instructions for responding to sanitary sewer overflows (SSOs) at the Wastewater Treatment Plant (WWTP). |
| BACKGROUND | Between September 12, 2023 and September 20, 2023, the WWTP suffered a variety of issues that resulted in eight (8) SSOs resulting in untreated sanitary sewage to enter Leatherwood Creek. |
| 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 | The City of Eureka Springs WWTP is located at 100 Highway 23 North, Eureka Springs, AR 72632. The effluent leaves the plant directly to Leatherwood Creek which borders the east side of the WWTP. SSO contamination impacts the water quality of an area used for recreational activities. |
| RESPONSE | <p>Upon notification from remote sensing equipment, notification by 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 the WWTP crew. 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 Leatherwood Creek 2. Notify the testing laboratory to acquire testing samples should the spill reach Leatherwood Creek* 3. Post ADH signs at the locations shown in Exhibit A for Sample Sites 2, 3, and 4, should the spill reach Leatherwood Creek 4. Provide a Health Advisory in accordance with Public Notification requirement in this SOP 5. Determine the cause of the problem (blockage, equipment failure, wet weather I&I, etc.) 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 the Office of Water Quality, DEQ reporting requirements. <p>*Should testing agency not be available for immediate sampling, The City of Eureka Springs WWTP personnel will acquire the required samples and hold them in accordance with testing protocol and provide a chain of custody to the testing laboratory for further handling.</p> |

EXHIBIT A

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| CONTAINMENT | <p>Containment of an overflow is the responder's first priority. The methods used will vary on a case-by-case basis. The WWTP Manager and maintenance responders will:</p> <ul style="list-style-type: none"> •Identify and obtain the necessary equipment and materials needed to contain the overflow. •Take immediate steps to contain the overflow (block path toward receiving water, recover with physical or mechanical means). •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 the WWTP, the most frequent cause is either a mechanical or electrical failure, or wet weather initiated I&I and the current hydraulic load limitations of the WWTP.</p> <p>Responding crews must begin investigating the WWTP for mechanical or electrical failures. 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 Leatherwood Creek, the following sampling and testing will be initiated for <i>E. Coli</i>.</p> <ol style="list-style-type: none"> 1.ADH signs shall be posted, and sampling shall occur at the locations shown on Exhibit A immediately following each SSO. The City of Eureka Springs shall also notate the coordinates of the sample locations on the chain-of-custody forms. 2.Subsequent samples shall be collected every three (3) days at a minimum, for <i>E. Coli</i>. The City of Eureka Springs shall also notate the coordinates of the sample locations on the chain-of-custody forms. 3.Copies of the analytical results and the chain-of-custody forms shall be emailed to the DEQ Office of Water Quality, within two (2) calendar days of sample collection. 4.Continue to monitor and sample every three (3) days until there are two (2) consecutive samples that are below the water quality criteria for <i>E. Coli</i> of 126 cfu/100mL. 5.ADH signs shall be removed upon demonstration of safe bacteriological testing. 6.The City of Eureka Springs shall email all test results to DEQ's Office of Water Quality, Enforcement Branch and water-enforcement-report@adeq.state.ar.us upon receipt from the testing laboratory. 7.Submit emails twice a week to provide updates to SSOADEQ@adeq.state.ar.us on the City's progress towards stopping the unpermitted discharges and impacts to the water quality in Leatherwood Creek in Eureka Springs. Once the unpermitted discharge has ceased, provide an email notification to SSOADEQ@adeq.state.ar.us with photographs confirming the unpermitted discharge has stopped. <p>Testing shall be conducted at an approved Department of Environmental Quality laboratory.</p> |

EXHIBIT A

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| <p>RECOVERY/CLEAN UP</p> | <p>Upon response to the spill and vandalism that the spill is entering Leatherwood Creek, the following sampling and testing will be initiated for <i>E. Coli</i>.</p> <ol style="list-style-type: none"> 1. ADH signs shall be posted, and sampling shall occur at the locations shown on Exhibit A immediately following each SSO. The City of Eureka Springs shall also notate the coordinates of the sample locations on the chain-of-custody forms. 2. Subsequent samples shall be collected every Monday and Thursday at a minimum, for <i>E. Coli</i>. The City of Eureka Springs shall also notate the coordinates of the sample locations on the chain-of-custody forms. 3. Copies of the analytical results and the chain-of-custody forms shall be emailed to the DEQ Office of Water Quality, within two (2) calendar days of sample collection. 4. Continue to monitor and sample every Monday and Thursday until there are two (2) consecutive samples that are below the water quality criteria for <i>E. Coli</i> of 126 cfu/100mL. 5. ADH signs shall be removed upon demonstration of safe bacteriological testing. 6. The City of Eureka Springs shall email all test results to DEQ's Office of Water Quality, Enforcement Branch and water-enforcement-report@adeq.state.ar.us upon receipt from the testing laboratory. 7. Submit emails twice a week to provide updates to SSOADEQ@adeq.state.ar.us on the City's progress towards stopping the unpermitted discharges and impacts to the water quality in Leatherwood Creek in Eureka Springs. Once the unpermitted discharge has ceased, provide an email notification to SSOADEQ@adeq.state.ar.us with photographs confirming the unpermitted discharge has stopped. |
| <p>ADDITIONAL RESOURCES</p> | <p>If the WWTP crew is unable to contain and clean up the affected area with typical maintenance equipment, then the next step will be to bring in a Contractor or other construction support. The following steps will be taken by WWTP Management:</p> <ul style="list-style-type: none"> • 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). • Call (811) CALL BEFORE YOU DIG. • Determine the additional resources and type of construction crew required to perform the task(s). • Call for additional resources using existing approved contact lists as deemed necessary. • Enlist appropriate contract services. • Manage actions taken by the additional construction crew to clean up the affected area. • Ensure actions are documented following the SSO reporting procedure. |

EXHIBIT A

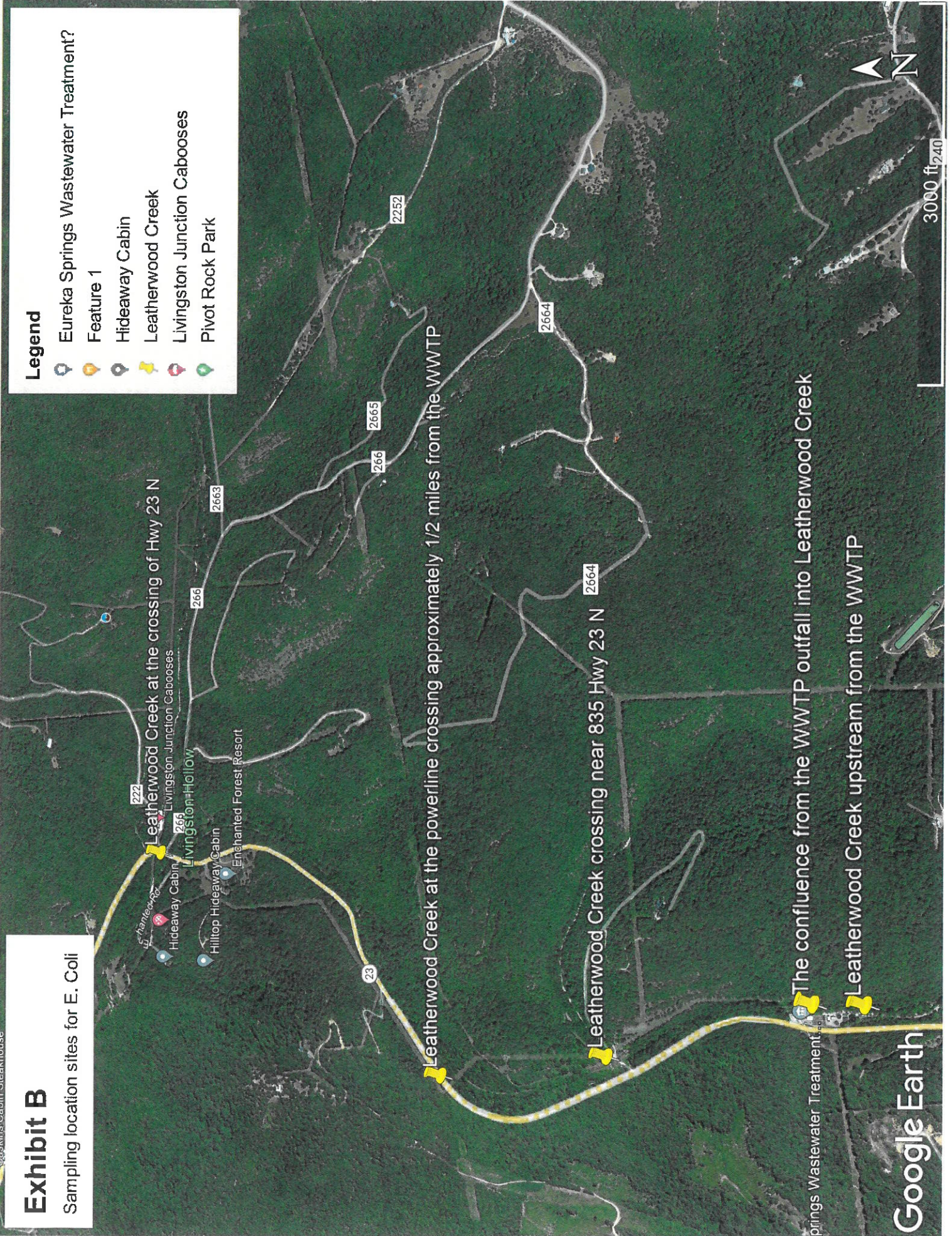
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| <p>FIELD REPORTING</p> | <p>Responding personnel will collect accurate and complete field data required to be submitted to DEQ. The following information shall be documented:</p> <ul style="list-style-type: none"> •Date and time of notification (SCADA, Public Notification, Staff Report) •Date and time of dispatch •Date and time of arrival •Date and time of departure •Date and time of release ended (estimated as close as possible) •Location •Probable cause •Estimated release •Visual impact observed •Actions to repair/mitigate |
| <p>REGULATORY REPORTING</p> | <p>The WWTP Manager or designee will report the SSO to the Arkansas Energy and Environment Department, Office of Water Quality within 24 hours. This Online Sanitary Sewer Overflow (SSO) Reporting Form can be found at: https://www.adeg.state.ar.us/water/enforcement/sso/submit.aspx</p> <p>This initial 24-hour report shall include the following information:</p> <ul style="list-style-type: none"> •Permit Number •Location of the overflow •The receiving water •Cause of the overflow •Estimated volume of overflow •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 continue all operations to stop the unpermitted discharge from the wastewater treatment plant. Continue to timely report the SSOs and unpermitted discharges.</p> <p>Submit emails twice a week to provide updates to SSOADEQ@adeq.state.ar.us on the City’s progress towards stopping the unpermitted discharges and impacts to the water quality in Leatherwood Creek. Once the unpermitted discharge has ceased, provide an email notification to SSOADEQ@adeq.state.ar.us with photographs confirming the unpermitted discharge has stopped.</p> <p>Sample locations are shown in Exhibit B.</p> |
| <p>PUBLIC NOTIFICATION</p> | <p>When SSO reaches Leatherwood Creek, the City of Eureka Springs will take measures to inform those affected by the possible impact on water quality. The methods of public notification include:</p> <p>1. Signs will be posted at locations as shown in Exhibit B upon first response to the SSO 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 with the sampling and testing section in this SOP.</p> <p>Sign content shall be as follows:</p> <p>HEALTH ADVISORY WATER QUALITY IN THIS AREA MAY BE UNSAFE SWIM AT YOUR OWN RISK</p> |

EXHIBIT A

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| | <p>Arkansas Department of Health</p> <p>4815 West Markham Street • Little Rock, Arkansas 72205-3867 Environmental Health (501) 661-2171 Epidemiology (501) 661-2893</p> <p>A picture of the sign to be used is attached to this as Exhibit C.</p> <p>2.A Health Advisory will be posted to the City of Eureka Springs Public Works page on Facebook. Regularly scheduled updates will also be posted through this Facebook page.</p> <p><u>ADVISORY</u> <i>As of [date and time] a NO SWIMMING Advisory has been issued for the Leatherwood Creek area north of Eureka Springs along Highway 23 North due to a wastewater overflow. The City of Eureka Springs will monitor the water quality in the area until it is safe for human contact. If you have any questions, you may contact the City of Eureka Springs Public Works Department at (479) 253-9600.</i></p> <p>3.Upon satisfaction of E. Coli testing as outlined in Sampling and Testing section of this SOP, the Recission of Advisory shall be provided.</p> <p><u>RECISSION OF ADVISORY</u> <i>The NO SWIMMING Advisory issued on [date and time] for the Leatherwood Creek area north of Eureka Springs along Highway 23 North has been cancelled. The Bacteriological survey indicates the water is safe for recreational activities. If you have any questions, you may contact the City of Eureka Springs Public Works Department at (479) 253-9600.</i></p> | | | | | | | | | | |
| <p>ASSOCIATED EQUIPMENT</p> | <p>The following equipment may be deployed for responding to any SSO:</p> <table border="0"> <tr> <td>1.Flusher</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 | 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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| 2.Backhoe | 7.Rakes | | | | | | | | | | |
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| 4.Crew Trucks | 9.Trash Bags | | | | | | | | | | |
| 5.Confined Space Entry Equipment | | | | | | | | | | | |
| <p>PPE</p> | <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. Rakes</td> </tr> <tr> <td>3. Face Shield</td> <td>7. Trash Pickers/Grabbers</td> </tr> <tr> <td>4. Ear/Noise Protection</td> <td>8. Trash Bags</td> </tr> </table> | 1. Hard Hats | 5. Rubber Gloves | 2. Safety Glasses/Goggles | 6. Rakes | 3. Face Shield | 7. Trash Pickers/Grabbers | 4. Ear/Noise Protection | 8. Trash Bags | | |
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| 4. Ear/Noise Protection | 8. Trash Bags | | | | | | | | | | |

Exhibit B

Sampling location sites for E. Coli



Legend

- Eureka Springs Wastewater Treatment?
- Feature 1
- Hideaway Cabin
- Leatherwood Creek
- Livingston Junction Caboose
- Pivot Rock Park

Leatherwood Creek at the powerline crossing approximately 1/2 miles from the WWTP

Leatherwood Creek crossing near 835 Hwy 23 N

The confluence from the WWTP outfall into Leatherwood Creek

Leatherwood Creek upstream from the WWTP

EXHIBIT B

