



**DIVISION OF  
ENVIRONMENTAL  
QUALITY**

Sarah Huckabee Sanders  
GOVERNOR

Shane E. Khoury  
SECRETARY

December 7, 2023

Honorable Butch Berry, Mayor  
City of Eureka Springs  
3174 East Van Buren  
Eureka Springs, AR 72632  
Email Address: [mayor@eurekaspringsar.gov](mailto:mayor@eurekaspringsar.gov)

RE: City of Eureka Springs Inspection – PDS# 128366 (Carroll Co.)  
AFIN: 08-00036 Permit No.: AR0021865

Dear Honorable Mayor Berry:

On November 9, 2023, I performed a Compliance Evaluation Inspection of the above referenced facility in accordance with the provisions of the Federal Clean Water Act, the Arkansas Water and Air Pollution Control Act, and the regulations promulgated thereunder. A copy of the inspection report is enclosed for your records.

**Please refer to the “Summary of Findings” section of the inspection report and provide a written response for each item that was noted.** This response should be mailed to the attention of the Office of Water Quality Compliance Branch at the address below my signature or emailed to [Water-Inspection-Report@adeq.state.ar.us](mailto:Water-Inspection-Report@adeq.state.ar.us). This response should contain documentation describing the course of action taken to correct each item noted. The corrective action(s) should be completed as soon as possible and the written response with all necessary documentation (i.e. photos) is due by **December 22, 2023**.


If I can be of any assistance, please contact me at [William.Cody@adeq.state.ar.us](mailto:William.Cody@adeq.state.ar.us) or (501) 944-2569.

Sincerely,

A handwritten signature in blue ink that reads "Will Cody".

William Cody  
Inspector, Office of Water Quality

Cc: [eswwtp@yahoo.com](mailto:eswwtp@yahoo.com)

 <b>ENVIRONMENTAL QUALITY</b>	<b>OFFICE OF WATER QUALITY INSPECTION REPORT</b>				
	AFIN: 08-00036 PERMIT #: AR0021865		DATE: 11/9/2023		
	COUNTY: 08 Carroll	PDS #: 128366	MEDIA: WN		
	GPS LAT: 36.420920 LONG: -93.735082 LOCATION: Entrance				
<b>FACILITY INFORMATION</b>		<b>INSPECTION INFORMATION</b>			
NAME: <b>City of Eureka Springs</b> LOCATION: <b>100 AR-23</b> CITY: <b>Holiday Island</b>		FACILITY TYPE: <b>1 - Municipal</b> INSPECTOR ID#: <b>142257 S - State</b> FACILITY EVALUATION RATING: <b>***</b> INSPECTION TYPE: <b>Compliance Evaluation</b> DATE(S): <b>11/9/2023</b> ENTRY TIME: <b>09:20</b> EXIT TIME: <b>10:45</b> PERMIT EFFECTIVE DATE: <b>2/25/2019</b> PERMIT EXPIRATION DATE: <b>1/31/2024</b>			
<b>RESPONSIBLE OFFICIAL</b>		<b>FAYETTEVILLE SHALE RELATED: N</b>			
NAME / TITLE: <b>Honorable Butch Berry / Mayor</b> COMPANY: <b>City of Eureka Springs</b> MAILING ADDRESS: <b>3174 East Van Buren</b> CITY, STATE, ZIP: <b>Eureka Springs AR 72632</b> PHONE & EXT: / FAX: <b>479-253-6974 /</b> EMAIL: <b>mayor@eurekaspringsar.gov</b> CONTACTED DURING INSPECTION: <b>No</b>		<b>FAYETTEVILLE SHALE VIOLATIONS: N</b>			
		<b>INSPECTION PARTICIPANTS</b>			
		NAME/TITLE/PHONE/FAX/EMAIL/ETC.: <b>Terry Long, Plant Manager, Class IV, (479) 738-7035, eswwtp@yahoo.com</b> <b>William Cody, Area 1 Inspector, (501) 944-2569, william.cody@adeq.state.ar.us</b> <b>Austin Hawes, Area 1 Inspector, (501) 837-6910, austin.hawes@adeq.state.ar.us</b>			
<b>AREA EVALUATIONS</b> (S=Satisfactory, M=Marginal, U=Unsatisfactory, N=Not Applicable/Evaluated)					
<b>S</b>	PERMIT	<b>U</b>	FLOW MEASUREMENT	<b>N</b>	STORMWATER
<b>M</b>	RECORDS/REPORTS	<b>M</b>	LABORATORY	<b>S</b>	FACILITY SITE REVIEW
<b>M</b>	OPERATION & MAINTENANCE	<b>M</b>	EFFLUENT/RECEIVING WATER	<b>N</b>	SELF-MONITORING PROGRAM
<b>S</b>	SAMPLING	<b>U</b>	SLUDGE HANDLING/DISPOSAL	<b>N</b>	PRETREATMENT
<b>**</b>	OTHER:				

**SUMMARY OF FINDINGS**

The following items were noted during the inspection and require a response:

1. It is requested that the facility identify all possible areas of concern that have contributed to or have potential to contribute to the presence of sludge in Leatherwood Creek downstream of Outfall 001 in accordance with Part III, B.5 of the permit. A SSO report dated September 12, 2023, by Mr. Terry Long indicates pump failure has caused a recent undesired discharge.
2. There is evidence of exposed solids on the concrete slab adjacent to the influent bar screen. Furthermore, the collection container (55-gallon barrel) does not have additional measures to prevent a discharge in the event of a spill. The solids accumulation next to the bar screen is in violation of Part III, B.6.A of the permit.
3. A cinder block is currently used for manual flow measurements, which is not consistent with accepted scientific practices and does not ensure reliable data. It is required that a staff gauge and/or ruler of adequate length be implemented for manual flow measurements at the Parshall flume before Outfall 001. This is in violation of Part III, C.2 of the permit.
4. It is required that pH and Dissolved Oxygen calibration records and results be documented and retained in accordance with Part III, C.7 of the permit.

**GENERAL COMMENTS**

On November 9, 2023, Inspector Austin Hawes and I conducted a Compliance Evaluation Inspection at the above-referenced facility. The inspection consisted of a site assessment; records were reviewed at a later date. Mr. Terry Long, Plant Manager, accompanied us during the inspection.

**Site Assessment:**

Influent is received from the City of Eureka Springs and proceeds through a bar screen at the headworks. The bar screen appears primarily submerged. Solids build-up in the form of rags and other untreatable materials are caught on the bar screen and manually raked off from the top of the bar screen, across the headworks concrete slab, and down a chute where a 55-gallon barrel receives the solids. This process leaves an accumulation of raw influent solids on the concrete slab, which is directly exposed to precipitation. Furthermore, there is no secondary containment around the receiving barrel, which would help prohibit an unpermitted discharge in the event of a spill. Mr. Long informed me that this barrel is emptied either 1-4 times per week depending on the season.



The wastewater proceeds through grit chambers to a lift station, where four pumps pull the influent from wet wells to proceed back to the influent piping. The influent then goes through a second bar screen, which was not viewed during the inspection. Water removed from the sludge belt press is routed to the influent piping before secondary treatment.

The facility operates a sequence batch reactor (SBR) for secondary treatment. During the inspection, only one side of the SBR was in operation, as the second side is currently undergoing maintenance to fix the influent pipe that discharges the wastewater into the SBR. The SBR process wastewater through anoxic fill, where only flow is going into the SBR. After approximately 10 minutes, a blower activates and mixes mix liquor and aerobic conditions, followed by a decant process. These processes allow sludge to fall to the bottom of the SBR.

A post-aeration basin is utilized after the SBR and decant process, which then proceeds to UV disinfection. The UV disinfection bulbs are cleaned manually once per month, as the self-cleaning process of the bulbs is not always satisfactory. The treated wastewater then proceeds through a Parshall flume to Outfall 001. The facility discharges intermittently, and a discharge was not occurring during this point of the inspection. After the inspection, Mr. Long provided details that the most recent discharge between 09:09 and 09:40 on this day resulted in the 3724 sq. ft. basin to drop from a level of 16.88 ft. to 15.00 ft.

A Hach Sigma 980 flow meter is utilized as the secondary flow measurement device and has an adequate calibration date. No flow readings were available during this point of the inspection. At the effluent Parshall flume, a cinder block is utilized to take manual flow measurements. Please see Item 3 for additional comments.

For solids handling, a sludge belt press is utilized and appears to be adequately functioning. Maintenance appeared to be in effect at a wet well/lift station directly outside of the solids handling building. During the inspection, I did not identify a source of the reoccurring issue of sludge deposits downstream of Outfall 001. Mr. Long did inform me that the treatment plant has issues with Infiltration and Inflow (I&I) in several areas, but does not believe to have any issues in the solids handling area.

INSPECTOR'S SIGNATURE:  William Cody	DATE: 11/30/2023
SUPERVISOR'S SIGNATURE:  Jason Bolenbaugh	DATE: 12/4/2023

<b>SECTION A: PERMIT VERIFICATION</b>	
PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
DETAILS:	
1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES:	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE
3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
4. ALL DISCHARGES ARE PERMITTED:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
<u>Discharges associated to sludge presence downstream of Outfall 001 are not permitted.</u>	
<b>SECTION B: RECORDKEEPING AND REPORTING EVALUATION</b>	
RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT	<input type="checkbox"/> S <input checked="" type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
DETAILS:	
1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRS:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE:	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
a. DATES AND TIME(S) OF SAMPLING:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
b. EXACT LOCATION(S) OF SAMPLING:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
c. NAME OF INDIVIDUAL PERFORMING SAMPLING:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
d. ANALYTICAL METHODS AND TECHNIQUES:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
e. RESULTS OF CALIBRATIONS:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
f. RESULTS OF ANALYSES:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
g. DATES AND TIMES OF ANALYSES:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
h. NAME OF PERSON(S) PERFORMING ANALYSES:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE:	<input type="checkbox"/> S <input type="checkbox"/> M <input checked="" type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR:	<input type="checkbox"/> S <input type="checkbox"/> M <input checked="" type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
<b>SECTION C: OPERATIONS AND MAINTENANCE</b>	
TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED	<input type="checkbox"/> S <input checked="" type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
DETAILS:	
1. TREATMENT UNITS PROPERLY OPERATED:	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
2. TREATMENT UNITS PROPERLY MAINTAINED:	<input type="checkbox"/> S <input checked="" type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED:	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE:	<input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE
5. ALL NEEDED TREATMENT UNITS IN SERVICE:	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED:	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED:	<input type="checkbox"/> S <input type="checkbox"/> M <input checked="" type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
8. OPERATION AND MAINTENANCE MANUAL AVAILABLE:	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE
9. STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
10. PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
11. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR:	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE
12. IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED:	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE
13. HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS:	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE
14. HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT:	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE
15. IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT:	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE

<b>SECTION D: SAMPLING</b>	
PERMITTEE SAMPLING MEETS PERMIT REQUIREMENTS	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
DETAILS:	
1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT:	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE
4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
6. SAMPLE COLLECTION PROCEDURES ADEQUATE:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
a. SAMPLES REFRIGERATED DURING COMPOSITING:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
b. PROPER PRESERVATION TECHNIQUES USED:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
c. CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
7. IF MONITORING IS PERFORMED MORE OFTEN THAN REQUIRED ARE RESULTS REPORTED ON THE DMR:	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE
<b>SECTION E: FLOW MEASUREMENT</b>	
PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS	<input type="checkbox"/> S <input checked="" type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
DETAILS:	
1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED: <u>9"</u> TYPE OF DEVICE: <u>Parshall flume</u>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED: <u>Cinder block used for flow measurement, which is inadequate.</u>	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
4. CALIBRATION FREQUENCY ADEQUATE:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
5. RECORDS MAINTAINED OF CALIBRATION PROCEDURES:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
6. CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
7. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
8. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES:	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE
9. HEAD MEASURED AT PROPER LOCATION:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
<b>SECTION F: LABORATORY</b>	
PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS	<input type="checkbox"/> S <input checked="" type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
DETAILS:	
1. EPA APPROVED ANALYTICAL PROCEDURES USED (40 CFR 136.3 FOR LIQUIDS, 503.8(B) FOR SLUDGES) :	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED:	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE
3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT:	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
4. QUALITY CONTROL PROCEDURES ADEQUATE:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
5. DUPLICATE SAMPLES ARE ANALYZED $\geq 10\%$ OF THE TIME:	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE
6. SPIKED SAMPLES ARE ANALYZED $\geq 10\%$ OF THE TIME:	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE
7. COMMERCIAL LABORATORY USED:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
a. LAB NAME: <u>Environmental Services Company, Inc.</u>	
b. LAB ADDRESS: <u>1107 Century Avenue, Springdale, AR 72762</u>	
c. PARAMETERS PERFORMED: <u>Ammonia-Nitrogen; TP; TSS; CBOD; Nitrate + Nitrite-Nitrogen</u>	
8. BIOMONITORING PROCEDURES ADEQUATE:	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE
a. PROPER ORGANISMS USED:	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE
b. PROPER DILUTION SERIES FOLLOWED:	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE
c. PROPER TEST METHODS AND DURATION:	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE
d. RETESTS AND/OR TRE PERFORMED AS REQUIRED:	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE



## DMR Calculation Check

Reporting Period:	From	<u>2023</u>	<u>02</u>	<u>01</u>	To	<u>2023</u>	<u>02</u>	<u>28</u>
		Year	Month	Day		Year	Month	Day

Parameter Checked: NH3-N

<b>Loading</b> <b>Mass</b> <b>Mo. Avg. - lbs/day</b>	<b>Concentration</b> <b>Monthly</b> <b>Mo. Avg. - mg/l</b>	<b>7-day Avg. - mg/l</b>
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Reported Value:	<u>4.2</u>	<u>0.84</u>	<u>1.98</u>
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<b>Calculated Value:</b>	<b>4.2</b>	<b>0.84</b>	<b>1.98</b>
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Permit Value:	37.6	5.0	7.5
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**If calculated value does not equal reported value, explain:**

## DMR Calculation Check


Reporting Period:	From	<u>2022</u>	<u>11</u>	<u>01</u>	To	<u>2022</u>	<u>11</u>	<u>30</u>
		Year	Month	Day		Year	Month	Day

Parameter Checked: NO<sub>3</sub> + NO<sub>2</sub>-N

	Loading Mass Mo. Avg. - lbs/day	Concentration Monthly Mo. Avg. - mg/l	7-day Avg. - mg/l
Reported Value:	6.1	2.2	4.8
Calculated Value:	6.1	2.2	4.8
Permit Value:	75.1	10	15



**If calculated value does not equal reported value, explain:**





Office of Water Quality Photographic Evidence Sheet			
Location:	<b>City of Eureka Springs</b>		
Photographer:	<b>William Cody</b>	Date:	<b>11/09/2023</b>
Witness:	<b>Terry Long, Austin Hawes</b>	Time:	<b>09:37</b>
		Photo #:	<b>1</b>
Description:	<b>Solids accumulation on concrete between chute and bar screen.</b>		
 <p>A photograph showing a concrete walkway at a wastewater treatment facility. On the left, a metal chute is visible, and a large pile of organic solids (leaves, twigs) has accumulated on the concrete surface between the chute and a metal bar screen. A metal railing runs along the edge of the walkway. The background shows trees with some autumn foliage. A timestamp '11/09/2023 09:37' is visible in the bottom right corner of the photo.</p>			



Photographer:	<b>William Cody</b>	Date:	<b>11/09/2023</b>	Time:	<b>09:38</b>
Witness:	<b>Terry Long, Austin Hawes</b>			Photo #:	<b>2</b>
Description:	<b>Grit removal.</b>				
 <p>A photograph of industrial equipment used for grit removal at a wastewater treatment plant. Two large, white, cylindrical rotating drums are mounted on a metal frame. The drums are positioned over a collection area. In the background, there are trees and a building with a brown roof. A timestamp '11/09/2023 09:38' is visible in the bottom right corner of the photo.</p>					





Office of Water Quality Photographic Evidence Sheet					
Location:	<b>City of Eureka Springs</b>				
Photographer:	<b>William Cody</b>	Date:	<b>11/09/2023</b>	Time:	<b>09:41</b>
Witness:	<b>Terry Long, Austin Hawes</b>			Photo #:	<b>3</b>
Description:	<b>Influent pipe after grit chamber and wet wells.</b>				
 <p>11/09/2023 09:41</p>					
Photographer:	<b>William Cody</b>	Date:	<b>11/09/2023</b>	Time:	<b>09:47</b>
Witness:	<b>Terry Long, Austin Hawes</b>			Photo #:	<b>4</b>
Description:	<b>Location where water from the sludge belt press is introduced to the influent flow.</b>				
 <p>11/09/2023 09:47</p>					



Office of Water Quality Photographic Evidence Sheet					
Location:	<b>City of Eureka Springs</b>				
Photographer:	<b>William Cody</b>	Date:	<b>11/09/2023</b>	Time:	<b>09:50</b>
Witness:	<b>Terry Long, Austin Hawes</b>			Photo #:	<b>5</b>
Description:	<b>Right-side SBR currently out of service for maintenance.</b>				
					
Photographer:	<b>William Cody</b>	Date:	<b>11/09/2023</b>	Time:	<b>09:52</b>
Witness:	<b>Terry Long, Austin Hawes</b>			Photo #:	<b>6</b>
Description:	<b>Influent pipe discharges wastewater into left-side SBR.</b>				
					


Office of Water Quality Photographic Evidence Sheet					
Location:	<b>City of Eureka Springs</b>				
Photographer:	<b>William Cody</b>	Date:	<b>11/09/2023</b>	Time:	<b>09:51</b>
Witness:	<b>Terry Long, Austin Hawes</b>			Photo #:	<b>7</b>
Description:	<b>Left-side SBR condition.</b>				
					
Photographer:	<b>William Cody</b>	Date:	<b>11/09/2023</b>	Time:	<b>09:58</b>
Witness:	<b>Terry Long, Austin Hawes</b>			Photo #:	<b>8</b>
Description:	<b>Post-aeration basin.</b>				
					



Office of Water Quality Photographic Evidence Sheet					
Location:	<b>City of Eureka Springs</b>				
Photographer:	<b>William Cody</b>	Date:	<b>11/09/2023</b>	Time:	<b>10:00</b>
Witness:	<b>Terry Long, Austin Hawes</b>			Photo #:	<b>9</b>
Description:	<b>UV disinfection location.</b>				
					
Photographer:	<b>William Cody</b>	Date:	<b>11/09/2023</b>	Time:	<b>10:04</b>
Witness:	<b>Terry Long, Austin Hawes</b>			Photo #:	<b>10</b>
Description:	<b>Effluent Parshall flume. Note cinder block and rope.</b>				
					

Office of Water Quality Photographic Evidence Sheet					
Location:	<b>City of Eureka Springs</b>				
Photographer:	<b>William Cody</b>	Date:	<b>11/09/2023</b>	Time:	<b>10:01</b>
Witness:	<b>Terry Long, Austin Hawes</b>			Photo #:	<b>11</b>
Description:	<b>Flow meter indicates 0.00 MGD flow and 0.687 inches for level.</b>				
					
Photographer:	<b>William Cody</b>	Date:	<b>11/09/2023</b>	Time:	<b>10:05</b>
Witness:	<b>Terry Long, Austin Hawes</b>			Photo #:	<b>12</b>
Description:	<b>Outfall 001 with no discharge during the inspection.</b>				
					



Office of Water Quality Photographic Evidence Sheet					
Location:	<b>City of Eureka Springs</b>				
Photographer:	<b>William Cody</b>	Date:	<b>11/09/2023</b>	Time:	<b>10:05</b>
Witness:	<b>Terry Long, Austin Hawes</b>			Photo #:	<b>13</b>
Description:	<b>Leatherwood Creek immediately downstream of Outfall 001.</b>				
					
Photographer:	<b>William Cody</b>	Date:	<b>11/09/2023</b>	Time:	<b>10:07</b>
Witness:	<b>Terry Long, Austin Hawes</b>			Photo #:	<b>14</b>
Description:	<b>Sludge belt press room with a dump truck currently being loaded.</b>				
					

**Office of Water Quality Photographic Evidence Sheet**

Location:	<b>City of Eureka Springs</b>		
Photographer:	<b>William Cody</b>	Date:	<b>11/09/2023</b>
Witness:	<b>Terry Long, Austin Hawes</b>	Time:	<b>10:09</b>
		Photo #:	<b>15</b>
Description:	<b>Maintenance at a lift station/wet well outside of the sludge belt press building.</b>		







## Jason Bolenbaugh (adpce.ad)

---

**From:** Zane Lewis <zlewis@mce.us.com>  
**Sent:** Friday, December 22, 2023 1:02 PM  
**To:** Water-Inspection-Report  
**Cc:** Richard Healey (adpce.ad); William Cody (adpce.ad); Simon Wiley (swiley@eurekaspringsar.gov); Terry Long (eswwtp@yahoo.com); Spencer Briggs; Nick Batker; Butch Berry  
**Subject:** 23-2159 Eureka Springs WWTP - Response to DEQ Inspection Report - PDS# 128366(Carroll Co.), AFIN:08-0036, Permit#AR0021865  
**Attachments:** Attachments A B C.pdf; 23-2159 Eureka Springs WWTF Response Letter to DEQ Comments 12 22 2023\_reduced size.pdf  
**Follow Up Flag:** Follow up  
**Flag Status:** Completed

To Whom it May Concern,

Please see attached response letter to comments from the Inspection Report Letter dated November 9, 2023, and associated response Attachments. Please let us know if you have any questions. Thank you.

**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](http://mce.us.com)

December 22, 2023

Mr. William Cody, Inspector  
Arkansas Department of Energy and Environment, Office of Water Quality  
5301 Northshore Drive  
North Little Rock, AR 72118

**RE: NPDES Permit AR0021865; AFIN 08-00036**

Mr. Cody,

Greetings. As you may know, McClelland Consulting Engineers has been retained by the City of Eureka Springs to assist in evaluation of the existing wastewater treatment plant and response to inquiries from your agency. In addition to the previous responses to comments, MCE is working on an overall WWTP assessment and recommendations for expansion/renovation. The proposed improvements have been previously provided. An exhibit with markups and callouts of the proposed improvements is included with this letter as Attachment A.

On November 9, 2023, a Compliance Evaluation Inspection was performed for the Eureka Springs, Arkansas wastewater treatment facility. MCE and the city offer the following responses to the four (4) items outlined in the "Summary of Findings" contained in the inspection report:

1. It is requested that the facility identify all possible areas of concern that have contributed to or have potential to contribute to the presence of sludge in Leatherwood Creek downstream of Outfall 001 in accordance with Part III, B.5 of the permit. A SSO report dated September 12, 2023, by Mr. Terry Long indicates pump failure has caused a recent undesired discharge.

*With the assistance of city staff, several potential areas of concern have been identified that under certain undesirable circumstances could contribute to the presence of sludge in Leatherwood Creek.*

*Firstly, it has been reiterated multiple times by plant staff that preventing discharge of sludge into the adjacent Leatherwood Creek is their number one concern along with maintaining full compliance with all permit requirements. See Figure 1 for a picture of the area of unintentional discharge on November 9, 2023. This area has been cleaned and no further discharges have occurred.*

*The potential areas of concern for sludge discharge from the Eureka Springs wastewater treatment facility are consistent with the types of risks associated with many wastewater treatment plants and can be influenced by daily operations,*

*including staff scheduling, by equipment age, equipment redundancy, automated notification systems and available funding for long-term repairs and equipment replacement.*

*Specific areas of concern at the Eureka Springs WWTF may include the following:*

- *Failure of the effluent discharge valves located at the south end of the SBR reactor basins to close which could result in MLSS discharging through the decanter. This risk varies based on the sludge blanket depth. Under normal operating conditions the sludge blanket is maintained at a basin level that is below the normal operating range of the discharge decanter.*
- *Failure of the pressure transducer sensor or other component of the SBR basin liquid depth monitoring system that would allow for uncontrolled liquid depth in the reactor basins. If the controls are not accurately reading the level of water in the SBR basin liquid and sludge blanket depths will not be maintained at design conditions, which could allow the water level to drop low enough for solids to be pulled out of the basin.*
- *Failure of the software that controls the automatic operation of pumps and valves could result in an erroneous operational control sequence which may allow a motive pump to turn on and begin mixing the contents of the SBR basin during a decant cycle.*
- *Failure of the software that controls the automatic operation of the pumps and valves could result in an erroneous operational control sequence which may result in an effluent discharge valve opening during the mixing or aeration stage of the batch treatment process.*
- *Failure to maintain the design mixed liquor suspended solids concentration with seasonally variable waste loading could result in an MLSS increase to the point that the sludge blanket is above the effluent decant valve discharge elevation.*
- *Failure to maintain design MLSS settleability with seasonally variable waste loading could allow for MLSS to be discharged with treated effluent.*
- *Failure to waste necessary sludge volumes could allow the MLSS concentration to become too large to settle out sufficiently prior to the decant cycle.*
- *Toxic shock of the treatment system due to unlawful discharge of pollutants into the collection system that could upset or 'kill' the wastewater plant biology.*
- *Failure of the MLSS to settle due to toxic pollutant introduced to the waste collection and treatment system.*
- *Unintentional discharge of partially treated sludge as a part of the sludge dewatering and ultimate disposal operations.*
- *Unintentional discharge of partially treated wastewater due to seeps/leaks at equipment including lower bearings, discharge valves, isolation gates, elevated manholes, and elevated pipes.*
- *Sabotage of the system controls due to vandalism or cyber security breach.*





*Figure 1: West side of SBR system where initial overflow occurred indicating there have been no recent overflows*

2. There is evidence of exposed solids on the concrete slab adjacent to the influent bar screen. Furthermore, the collection container (55-gallon barrel) does not have additional measures to prevent a discharge in the event of a spill. The solids accumulation next to the bar screen is in violation of Part III, B.6.A of the permit.

*At the influent manual bar screen the spilled waste solids referenced above have been removed from the concrete slab, see Figure 2. Following the solids removal, the area has been washed down with a garden hose and bleach. The disinfectant was allowed to sit for approximately five (5) minutes and then washed into the influent flow channel with site NPW.*

*New standard operating procedure moving forward shall be that the operators will not ever leave any solids on the concrete during, or after, cleaning the manual influent bar screen. If solids do fall off the shovel during cleaning they will be immediately picked up and placed in the waste barrel for disposal and the concrete area flushed with water directed back to the influent channel and the entire area cleaned with bleach as need.*

*The area adjacent to the manual bar screenings collection 55-gallon barrel drum will be paved with a concrete pad with a perimeter containment curb/lip like the new slab adjacent to the mechanical screen and grit removal unit. The existing 55-gallon barrel with drain to this secondary containment area in case of a spill, see Figure 3 and Figure 4 for pictures of the new containment slab at the mechanical equipment area.*

*If it is determined that full repair/replacement of these mechanical pieces of equipment will occur at this same location, a shed roof will be constructed to cover the secondary containment areas. If new equipment is constructed at an alternate location this area will be abandoned and fully remediated after the new facilities are put into service.*



*Figure 2: Concrete slab adjacent to slab after cleaning*





*Figure 3: East side of newly constructed concrete slab adjacent to screening and grit removal equipment.*



*Figure 4: West side of newly constructed concrete slab adjacent to screening and grit removal equipment.*

3. A cinder block is currently used for manual flow measurements, which is not consistent with accepted scientific practices and does not ensure reliable data. It is required that a staff gauge and/or ruler of adequate length be implemented for manual flow measurements at the Parshall flume before Outfall 001. This is in violation of Part III, C.2 of the permit.

*Effluent flow measurement from the wastewater treatment system is performed at the existing Parshall flume. A concrete cinder block has been used as a temporary offset for manual flow depth measurements. This temporary item has been removed from the area of the Parshall flume. A stainless-steel measurement ruler has been ordered to be used for the periodic verification of effluent flow measurement for calibration/verification of the automatic flow meter.*

*The existing Parshall flume measurement gauge affixed to the wall of the flume is also used for flow measurement/verification. The existing automatic effluent flow meter is calibrated annually, as required by the permit, by a third party. See Figure 5 for a view of the top of the Parshall flume box, covered in protective grating.*



Figure 5: Photo indicating that the cinder block and attached rope have been removed from the Parshall flume



4. It is required that pH and Dissolved Oxygen calibration records and results be documented and retained in accordance with Part III, C.7 of the permit.

*Documentation of treated effluent dissolved oxygen and pH measurements shall be maintained. New data collection Form sheets have been created to record the pertinent information (date, time, results) concerning the calibration of the pH meter and the Dissolved Oxygen meter. These new forms have been incorporated into new SOP's effective immediately. Copies of the blank calibration and test result sheets are included with this letter as Attachment B. Completed data log sheets will be retained in a 3-ring binder at the plant.*

Additional items that have been identified recently needing maintenance and repair include:

- Motive Pump for SBR#1
- Influent Valve for SBR#1
- UV Disinfection System
- Site Security Cameras
- Bulk Chemical Storage

Motive pump for SBR#1 failed due to a bent drive shaft. The enclosed drive shaft coupling/bearing housing has been replaced and the pump has been rebuilt and placed back into service.

Additionally, a spare enclosed drive shaft coupling/bearing assembly has been purchased to have on hand as an immediate repair if this issue occurs again. See Figure 6 for photos of the repaired pump system and spare parts.



*Figure 6: Rebuilt motive pump for SBR#1 in service (left); new backup pump (right)*

Influent valve for SBR#1 failed due to a broken actuator. The broken actuator was replaced, and reverse internal acme threads were added to the brass drive nut to provide more reliable service. See Figure 7 for pictures of the replaced valve actuator.



*Figure 7: Influent valve for SBR#1 in operation*

The exiting UV Disinfection unit failed due to multiple components reaching the end of their useful life. The system has been repaired with new quartz sleeves, new UV bulbs, a new DCA assembly, and new liquid tight strain relief fittings.

Currently both UV treatment modules are operational. However, the system is still experiencing communications/controls issues between the UV system control panel and UV modules.

Plant staff continues to coordinate with a manufacturer's field service technician to resolve these issues. See Figure 8 for pictures of the rebuilt UV system.



Figure 8: Ongoing issue with communication (left); both UV modules in operation (right)



Plant site security has been an ongoing issue. The plant has experienced multiple occurrences of members of the public entering the plant while staff is away. Previously no remote monitoring was possible at the plant. Recently, new wireless security cameras have been installed and are operational. To fully activate this new security/monitoring system a new wifi signal booster will be installed at the plant to provide the required service at remote corners. See Figure 9 for pictures of the new security cameras.



*Figure 9: Camera used to monitor SBR basins (left); camera to monitor fence gap and sludge storage (right)*

Onsite bulk chemical storage has been expanded with new construction at the existing belt filter press building. A new chemical storage bay has been added to the south side of the existing building. See Figure 10 for pictures of the new storage area. The new storage areas will provide a temperature-controlled environment for the chemicals.



*Figure 10: Building add on for temperature controlled chemical storage*

Preliminary planning and design are ongoing for the full set of proposed improvements to be considered by the City of Eureka Springs. Currently, anticipated work is projected to cost as much as \$5.2M. See Attachment C, Engineer's Estimate of Probable Construction Costs for this project. It is unclear if adequate funding is currently available for the anticipated total project budget for the recommended repairs and improvements.

MCE continues to work with Eureka Springs Public Works to initiate a detailed cost-of-service utility rate study that will develop recommended rate adjustments to finance the proposed/required improvements at the WWTF. Do not hesitate to contact us if you have any questions or comments concerning these matters. Thank you.

*Sincerely,*



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

Project Manager

1580 East Stearns Street

Fayetteville, AR 72703

479.443.2377 office

479.443.9241 fax

[mce.us.com](http://mce.us.com)

Encl: Attachments A, B, C

CC: Mr. Richard Healey, DEQ Enforcement Branch Manager

Mr. Simon Wiley, Eureka Springs Public Works Director

Mr. Robert 'Butch' Berry, Eureka Springs Mayor

Attachment A

Eureka Springs Wastewater Treatment Facility  
DO Meter Calibration Sheet

MONTH: \_\_\_\_\_

DATE	TIME	INIT	CAL. VALUE	MEMBRANE	INIT
1					
2					
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31					



Attachment A

Eureka Springs Wastewater Treatment Facility  
pH Meter Calibration Sheet

MONTH: \_\_\_\_\_

DATE	INIT	TIME	TEMP	CALIBRATION READINGS			BUFFERS CHANGED
				4.0 BUFFER	7.0 BUFFER	10.0 BUFFER	
1							
2							
3							
4							
5							
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7							
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Attachment A

Eureka Springs Wastewater Treatment Facility  
Effluent Dissolved Oxygen pH Records

MONTH : \_\_\_\_\_

EFFLUENT							
DISSOLVED OYGEN				pH			
DATE	TIME	VALUE	TEMP	DATE	TIME	VALUE	TEMP
1				1			
2				2			
3				3			
4				4			
5				5			
6				6			
7				7			
8				8			
9				9			
10				10			
11				11			
12				12			
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30				30			
31				31			



# 23-2159 EUREKA SPRINGS WWTP EMERGENCY RESPONSE

## EXHIBIT 1 - PERMIT COMPLIANCE PLAN - PROPOSED WORK

### ADDITIONAL WORK:

- GRIND/LEVEL EXISTING EQUIPMENT BUILDING FLOOR @SBR
- PROVIDE ONE (1) COMPLETE SET OF SPARE PARTS FOR ALL EQUIPMENT
- CLEAN AND DISPOSE OF TRASH, DEBRIS, OLD EQUIPMENT, PARTS, ETC TO PROVIDE A CLEAN OPEN WORK AREA IN ALL BUILDINGS AND ON SITE
- CLEAR AND GRUB ALL AREAS WITHIN THE SITE FENCE, INCLUDING UNDER THE OVERHEAD POWER LINES. KILL TREE STUMPS.
- CONSTRUCT EROSION CONTROL FABRIC, ROLANKA HEAVY DUTY, FIBER MATTING, WITH WATTLES FOR EROSION CONTROL.
- SEE CLEARED HILLSIDE WITH NATIVE WILDFLOWER MIX, HOLLAND WILDFLOWER FARM, ELKINS, AR, OR EQUAL.

### Notes

1. See Sheet 612D for sludge waste line connection details.
2. See Sheet 612D for sludge waste line connection details.
3. See Sheet 612D for sludge waste line connection details.
4. At this location, the Contractor shall connect the new 2" PVC non-potable water line to the existing non-potable water line.
5. The Contractor shall install the new 6" force main from the existing Recycle Pump Station No. 1 to the existing flume as shown. The new force main shall be connected to the existing lift station by uncovering and connecting to the existing 6" discharge. The area where the force main is to be laid shall be excavated prior to construction to determine where existing pipe is located.
6. The new 2" force main shall be installed buried from the lift station to the SBR basin at which point the line shall be installed up the basin wall and shall be connected to the influent pipe at the location shown with a 2" tapping saddle and 2" gate valve. The saddle shall be rotated so that the tap is at the top of the influent pipe. The 2" force main shall be secured to the basin wall with a minimum of three 2" steel pipe straps. Insulate 2" pipe that is above ground to 3 feet below ground.
7. New potable water service RPZ to be located inside janitor's closet in office building.
8. Remove existing yard hydrant and install a new hydrant and connect non-potable waterline to 2" existing waterline from Belt Press Building.
9. All buried ductile iron pipe shall be mechanical or push on joint.
10. All exposed ductile iron pipe shall be flanged.
11. Finished grade spot elevations are provided around new structures. The Contractor shall finish grade the site to these elevations and grade the site to drain away from all structures.
12. THE CONTRACTOR SHALL CONSTRUCT A 6-INCH THICK COMPACTED A.B.C. CLASS 7 SURFACE AROUND ALL NEW STRUCTURES A MINIMUM WIDTH OF 20 FEET.
13. All site preparing, excavation, and backfilling shall be done in accordance with the applicable sections of the Technical Specifications.
14. New potable water service RPZ to be located near south property line and a "hot box" enclosure is to be installed around new RPZ.

## Attachment B

BASIS OF BEARINGS:  
MSI: GPS OBSERVATIONS, AR STATE PLANE, NAD83, ZONE AR NORTH,  
REFERENCES:  
AHTD: GPS CONTROL IN CARROLL COUNTY  
DMS: CITY OF EUREKA SPRINGS, 5/9/2004

### LEGEND:

EXISTING IRON PIN	FIRE HYDRANT	(RECORD MEASUREMENT)
EXISTING STONE	WATER METER	TELE. STUB-UP
SET 3/8" IRON PIN	WELL	TELE. ENTRANCE
COMPUTED CORNER	WATER VALVE	FIBER OPTIC CABLE
SET 2" ALUM. CAP	WATER HYDRENT	U.S.T.V. CABLE BOX
BENCH MARKER	MANHOLE	TV CABLE ENTRANCE
POWER POLE	SEWER CLEAN OUT	SATELLITE DISH
VERTICAL PIPE	U.G. ELEC. TRANS.	HARDWOOD TREE OR SHRUB
CONCRETE PEER	ELEC. ENTRANCE	PINE OR CEDAR TREE
CONCRETE PEDISTAL	GAS ENTRANCE	
FENCE	GAS METER	

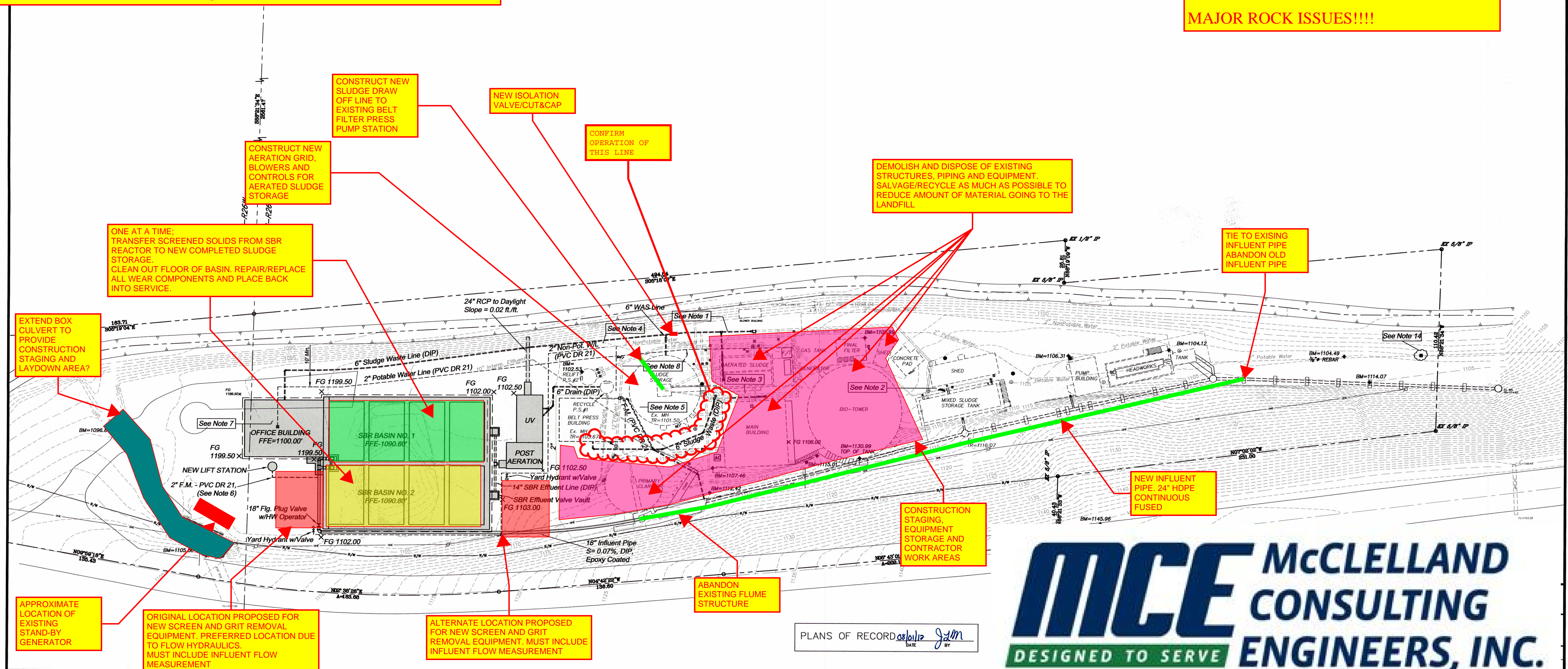
### ADDITIONAL PLANT DESIGN CRITERIA:

Q:AVERAGE=0.50MGD

Q:DESIGN/PERMIT=0.9MGD

Q:PEAK=3.0MGD

MAJOR ROCK ISSUES!!!!





# Attachment C

## City of Eureka Springs WWTP Emergency Response

Estimate of Probable Construction Costs - DEQ Response to Comments

Prepared by McClelland Consulting Engineers, Inc.

MCE JOB # 23-2159

12/22/2023



Item No.	Description	Unit	Estimated Quantity	Estimated Unit Costs	Estimated Cost
1	Mobilization	LS	1	\$126,000	\$126,000
2	Bonds and Insurance	LS	1	\$126,000	\$126,000
3	Act 291, 1993 Trench and Excavation Safety System	LS	1	\$10,000	\$10,000
4	Environmental Compliance and Erosion Control	LS	1	\$15,000	\$15,000
5	Pre Construction Video	LS	1	\$2,500	\$2,500
6	5' Diameter Epoxy Lined Manhole	EA	3	\$12,000	\$36,000
7	Site Security Fence	LF	100	\$100	\$10,000
8	Rock Excavation	CY	1000	\$250	\$250,000
9	Flowable Fill, as directed by Engineer	CY	100	\$150	\$15,000
10	Full Depth Class 7 Backfill	LF	100	\$60	\$6,000
11	New Structural Pipe Supports	EA	10	\$5,000	\$50,000
12	Post Construction CCTV Inspection of Sewer Main	LS	1	\$1,500	\$1,500
13	Remove & Dispose of Existing Manhole	EA	4	\$3,500	\$14,000
14	Remove & Dispose of Existing Abandoned Process Piping	LF	1000	\$50	\$50,000
15	1/4" Mechanical Automatic Bar Screen + Compactor Washer	EA	2	\$460,000	\$920,000
16	Advanced Grit Removal Equipment	EA	1	\$656,000	\$656,000
17	Prefabricated Stainless Steel Screen Channel	EA	1	\$500,000	\$500,000
18	Screen and Grit Equipment Concrete Slab on Grade	LS	1	\$25,000	\$25,000
19	Existing SBR Pump room floor trench drains	LS	1	\$50,000	\$50,000
20	Demolition & Disposal of Existing Structures	LS	1	\$150,000	\$150,000
21	Demolition & Disposal of Existing Clarifier Equipment	LS	1	\$50,000	\$50,000
22	New Sludge Storage - Aeration equipment	LS	1	\$150,000	\$150,000
23	New Sludge Storage - Equipment and Piping Modifications	LS	1	\$100,000	\$100,000
24	Cleanout rocks and debris from SBR reactors	LS	1	\$50,000	\$50,000
25	Repair/replacement of SBR equipment	LS	1	\$150,000	\$150,000
26	Foundation repairs to SBR basin exterior	LS	1	\$20,000	\$20,000
27	Extended Plant entrance storm drain box culvert	LS	1	\$250,000	\$250,000
28	WWTF Spare Parts Inventory	LS	1	\$100,000	\$100,000
29	Construction Bypass pumping	LS	1	\$150,000	\$150,000
30	Project Closeout, As-Builts, Record Drawings, Warranty Bond, etc.	LS	1	\$126,000	\$126,000

**Subtotal Estimate of Probable Construction Costs \$4,159,000**

**25% Construction Contingency \$1,039,750**

**Total Estimate of Probable Construction Costs \$5,198,750**



**DIVISION OF  
ENVIRONMENTAL QUALITY**

Sarah Huckabee Sanders  
GOVERNOR

Shane E. Khoury  
SECRETARY

January 4, 2024

Honorable Butch Berry, Mayor  
City of Eureka Springs  
3174 East Van Buren  
Eureka Springs, AR 72632  
Email Address: [mayor@eurekaspringsar.gov](mailto:mayor@eurekaspringsar.gov)

RE: Adequate Response to Inspection – City of Eureka Springs - PDS 128366 (Carrol Co.)  
AFIN: 08-00036 Permit No.: AR0021865

Dear Honorable Mayor Berry:

I have reviewed the response pertaining to my inspection of the City of Eureka Springs WWTP. The information provided sufficiently addresses the items referenced in my inspection report. At this time, the Division has no further comment concerning this inspection. Acceptance of this response by the Division does not preclude any future enforcement action deemed necessary at this site or any other site.

If I require further information concerning this matter, I will contact you. Thank you for your attention to this matter. Should you have any questions please contact me at (501) 944-2569 or you may email me at [William.Cody@adeq.state.ar.us](mailto:William.Cody@adeq.state.ar.us).

Sincerely,

A handwritten signature in blue ink that reads "Will Cody".

William Cody  
Inspector, Office of Water Quality

Cc: [zlewis@mce.us.com](mailto:zlewis@mce.us.com)