CITY OF HOT SPRINGS

Utilities Department

780 Adams Street

Hot Springs, Arkansas 71901

August 3, 2023 **VIA Email**

Leslie Allen-Daniel
Enforcement Analyst – Water Division
Arkansas Energy & Environment – Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317

RE: **City of Hot Springs Utilities**
Permit No. AR0033880 / AFIN 26-00145 / CAO LIS 22-007
Manhole 1750, Gulpha Creek and Spencer Bay

Dear Ms. Allen-Daniel,

The following components are a brief synopsis of progress regarding the CAO with regards to SSOs at Manhole 1750 and affecting water quality in Gulpha Creek and Spencer Bay.

The RJN Group, Inc. has the contract for the Lower Gulpha Gravity Interceptor from Spring Street to the Gulpha Pump Station. The project is funded by the 2020 Wastewater Bond. We anticipate having the project ready for bid by the end of 2023. Below is their updated schedule.

Lower Gulpha Interceptor – RJN Group

Item No.	Begin	End	Description
1	03/22/22	09/16/22	Conceptual Design Report Submitted
2	03/22/22	09/16/22	30% Plan Submitted
3	03/22/22	01/20/23	Conceptual Design Report Final
4	03/22/22	01/20/23	60% Plan Submitted
5	01/21/23	10/16/23	90% Plan Submittal (pending easement acquisition)
Sub Consultants			
6	03/22/22	Ongoing	Crist Survey – Realignment easement updates in progress.
7	03/22/22	Complete	Ace Pipe Multi-Sensor Inspection - Completed field work and submitted summary documentation.
8	03/22/22	Ongoing	Eco Environmental - Completed USFWS IPAC and correspondence with USFWS Bat Biologist for tree cutting dates. Completed the request for comments letter to SHPO. Awaiting design progression.
9	04/29/22	Ongoing	Grubbs Geotechnical – RJN identified 11 phase 2 locations currently as contracted. Field work being scheduled
10	02/06/23	Complete	Subsurface Utility Engineering (SUE) – Badger Daylighting completed SUE of 7 locations.

Crist Engineers, Inc. has the contract for the Gulpha Pump Station Improvements. The project is funded by the 2020 Wastewater Bond. Plans are 100% complete and the Arkansas Department of Health has completed review and approval. The bids received in July were far higher than anticipated. We are negotiating with the low bidder, looking at alternatives to lower the total project cost. If we cannot come to terms, we may need to rebid the project. The 14 months of construction will be done in coordination with the Gulpha Force Main Project. No other changes from last month

Gulpha Pump Station Improvements – Crist Engineers

Item No.	Begin	End	Description
1	03/22/22	Ongoing	Engagement of professional services with Crist Engineers
		07/01/22	Conceptual Design Phase
		09/01/22	60% Design Phase
		01/01/23	90% Design Phase
		03/01/23	100% Design Phase
2	03/22/22	04/08/22	On site survey on the pump station site, planimetrics, surface features, and contour development
3	03/22/22	Ongoing	Commenced initial hydraulic evaluation of pump alternatives for pump station site. Acceptable pump manufacturers are Cornell, KSB and Flygt.
4	03/22/22	Ongoing	Design Phase Services
5	04/11/23	Ongoing	Gulpha Pump Station: ADH Approval received June 1, 2023
6	07/17/23	Ongoing	Open Bids
	08/31/23	Ongoing	Board Approval - Award Project
7	11/31/23		Notice to Proceed
8	07/23/23	03/31/24	Construction Phase Services
9		11/2024	Commission Project

It is to be noted that the success of any improvements in the Gulpha Basin, including pump station, gravity and force main infrastructure is directly dependent on the completion of improvements at the Davidson Drive Wastewater Treatment Plant. DEQ, along with EPA are still reviewing the construction permit for the treatment plant improvements as of today's date.

Hanson & McLaughlin, LLC is working on the Gulpha Force Main from the Gulpha Pump Station to the Davidson Drive Wastewater Treatment Plant. Plans are 100% complete, relative to easement acquisitions. We anticipate bidding the project around August 31, 2023. The project is funded by the 2020 Wastewater Bond. It has been determined that a 30" forcemain is large enough to carry wet weather flows. The existing 20" force main, intended to carry dry weather flow is failing much sooner than anticipated. CHS added a 24" replacement force main to the project for expedited construction. Plans have been completed, pending ADH approval.

Gulpha Force Main – Hanson Mclaughlin

Item No.	Begin	End	Description
1	03/15/22	03/31/24	Gulpha Force Main contract signed.
2	03/15/22	Complete	Surveying.
3	03/15/22	Ongoing	Geotechnical engineering.
4	04/08/22	Complete	Design Process.
5	04/08/22	Complete	Project Manual (specifications) preparation.
6	04/15/22	Complete	30% Plan Submittal.
7	06/01/22	Complete	60% Plan Submittal.
8	02/02/23	Complete	24-Inch Force Main Addition
9	10/01/22	Complete	100% Plan Submittal
10	09/31/23	10/31/23	Bid Phase/Procurement Services.
11	11/01/23	06/03/25	Construction Phase Services.

Hawkins-Weir Engineers, Inc. has the contract for the Spring Street Collection System Improvements project. This phase of the overall Gulpha Basin project will be funded with remaining 2020 Wastewater Bond funds combined with CIP funds. There is no change to their schedule.

Spring Street Collection System Improvements – Hawkins-Weir Engineers

Item No.	Begin	End	Description
1	03/22/22	Complete	Design Phase Services Complete 11/4/2022
2	03/30/22	Complete	Survey – Completed on October 28, 2022
3	TBD	TBD	Advertising / Bidding *Note: This project will be advertised and bid after the WW Treatment Plant, Gulpha Pump Station, Gulpha Force Main and Lower Gulpha Interceptor projects are bid. Depending on available remaining funds, the Spring Street project may be constructed in phases.*
4	09/08/22	Ongoing	Permitting • National Park Service approval received October 25, 2022. • ADH Approval received November 10, 2022 • ARDOT Approval received 3/22/2023
5	TBD	TBD	Construction Services

There were three SSOs reported in July for Manhole 1750 affecting the Gulpha Creek-Spencer Bay area (see data on attached pages). Starting in May and through September 30, the acceptable E.Coli cfu limits are <126 cfu.

The Gulpha Force Main is in a much worse state of deterioration than we understood at the outset of this project. In order to prevent more frequent force main failures we have reduced pump capacity at the Gulpha Pump Station to accommodate normal dry weather flows. Only one pump is currently operating. Almost any wet weather event will result in an SSO at the pump station.

Should you need further information, please contact me at (501)651-7730 or by email at mledbetter@cityhs.net.

Sincerely,

Monty Ledbetter
Utilities Director

Attachments: July Lab Results for MH 1750 SSO's
Summary of Wastewater Treatment and Collection System Improvement Projects

cc: **City of Hot Springs** - Bill Burrough, City Manager; Denny McPhate, Deputy City Manager; Harold Mauldin, Wastewater Facilities Operations Manager; Todd Piller, Capital Project Manager;
Consultants - Karl Hanson, Hanson McLaughlin; Chris Leathers, RJN Group; Craig Johnson, Crist Engineers; Elizabeth Heiles, Hawkins-Weir

Manhole 1750
Gulpha Sewer Basin

117 Catherine Heights Road
Hot Springs, Arkansas

- Affecting Gulpha Creek and Spencer Bay

On November 18, 2022 DEQ provided a response accepting Hot Springs Utilities Revised Bacteriological Sampling and Communications Plan for SSO's. The plan states that the Water Quality Assessment testing and Fecal Coliforms are no longer needed. The plan also aligns with the contact periods as depicted in Rule 2.507 for acceptable E.Coli numbers.

Acceptable E.Coli cfu limits: **October 1 through April 30 <630 cfu**
May 1 through September 30 <126 cfu

Manhole 1750 Sanitary Sewer Overflows for July 2023

Overflow Date: 07/06/2023
End Date: 07/08/2023
Cause: Rainfall, Equipment Failure
Discharge: Approximately 192,000 Gallons discharge to Gulpha Creek
Actions Taken: Environmental Cleanup, Hydro cleaned, Jet-Vac, Disinfected, Deodorized, Raked/picked up and Spread Lime

Lab Results

Sample Date:	07/07/2023
Site No.	E. coli (cfu)
1	648.8

Sample Date:	07/10/2023
Site No.	E. coli (cfu)
2	178.50
3	365.40
4	14.10
5	47.30

Sample Date:	07/12/2023
Site No.	E. coli (cfu)
2	101.40
3	980.40
4	8.50
5	10.90

Sample Date:	07/13/2023
Site No	E. coli (cfu)
2	34.10
3	227.90
4	6.30
5	78.00

Overflow Date: 07/08/2023
End Date: 07/12/2023
Cause: Rainfall, Equipment Failure
Discharge: Approximately 1,050,000 Gallons discharge to Gulpha Creek
Actions Taken: Environmental Cleanup, Hydro cleaned, Jet-Vac, Disinfected, Deodorized, Raked/picked up and Spread Lime

Lab Results

Sample Date:	***07/10/2023***
Site No.	E. coli (cfu)
1	172.30

Sample Date:	07/12/2023
Site No.	E. coli (cfu)
2	101.40
3	980.40
4	8.50
5	10.90

Sample Date:	07/13/2023
Site No.	E. coli (cfu)
2	34.10
3	227.90
4	6.30
5	78.00

Sample Date:	07/14/2023
Site No	E. coli (cfu)
2	52.80
3	365.40
4	10.00
5	19.00

Overflow Date:	07/13/2023
End Date:	07/18/2023
Cause:	Rainfall, Equipment Failure
Discharge:	Approximately 936,000 Gallons discharge to Gulpha Creek
Actions Taken:	Environmental Cleanup, Hydro cleaned, Jet-Vac, Disinfected, Deodorized, Raked/picked up and Spread Lime

Lab Results

Sample Date:	07/13/2023
Site No.	E. coli (cfu)
1	1986.30

Sample Date:	07/14/2023
Site No.	E. coli (cfu)
2	52.80
3	365.40
4	10.00
5	19.00

Sample Date:	07/16/2023
Site No.	E. coli (cfu)
2	123.40
3	>2419.60
4	172.50
5	88.80

Sample Date:	07/17/2023
Site No	E. coli (cfu)
2	Passed
3	>2419.60
4	16.00
5	18.10

Sample Date:	07/18/2023
Site No.	
2	Passed
3	456.90
4	4.10
5	25.40

Sample Date:	07/19/2023
Site No.	E. coli (cfu)
2	Passed
3	275.50
4	2.00
5	23.50

Sample Date:	07/20/2023
Site No.	E. coli (cfu)
2	Passed
3	120.10
4	18.70
5	21.30

Sample Date:	07/21/2023
Site No.	E. coli (cfu)
2	Passed
3	116.00
4	143.00
5	71.70

Sample Date:	07/24/2023
Site No.	
2	Passed
3	Passed
4	6.30
5	12.00

Sample Date:	07/25/2023
Site No	E. coli (cfu)
2	Passed
3	Passed
4	6.30
5	2.00