



BENTON UTILITIES

BENTON, ARKANSAS

January 22, 2024

Tiana Toups, Enforcement Analyst
Office of Water Quality / Enforcement Branch
Division of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118

RECEIVED

JAN 23 2024

S.T. 10:45am

RE: NPDES Permit No. AR0036498, AFIN 63-00063
CAO LIS 11-069 / SSES Review

Dear Ms. Toups,

This letter comprises the Benton Utilities Wastewater Conveyance system 2023 annual report and affirms our efforts to satisfy the demands of the Consent Administrative Order issued in 2011. 2023 again like 2022 has come with many challenges with the higher operational costs due to the lingering consequences of Covid-19 and its effects on our department, contractor pricing and materials. I am pleased to report that even with the difficulties we have had with staffing and increasing costs, we still had a beneficial year in our efforts to reduce sanitary sewer overflows (SSOs) as well as infiltration and inflow (I&I) issues.

Overall, we have had a productive year in a growing city with expanding infrastructure and capacity demands. With the help and backing from our General Manager, Mr. Todd Pedersen and the Benton Public Utility Commission we have been able to rehab and upgrade a few lift stations, replace pumps within our collection system and repair and stabilize collection lines. We have also addressed some of our problem areas with pipe bursting to reduce sewer stoppages and overflows. Numerous subdivisions, commercial buildings, retail complexes, and other significant developments also come online during 2023. Consequently, this growth has challenged our resources, but we have continued to address the requirements of the C.A.O.

The C.A.O issued in 2011 has an initial deadline of December 31, 2023. A two-year extension to the C.A.O has been requested from the Division of Environmental Quality, Office of Water Quality. Benton Utilities is continuing to address the conditions of the C.A.O while awaiting the final approval of the extension from the Division of Environmental Quality.

In keeping with the objectives outlined in the Sewer System Evaluation Study (SSES), we continue to place special emphasis on the reduction of sanitary sewer overflows as well as inflow and infiltration issues throughout the system. We have pursued these objectives by (1) gravity line repairs and replacement, (2) manhole rehabilitation and repairs, (3) upgrades and rehabilitation of lift stations, (4) addition of equipment (5) proactive and preventative maintenance, and (6) strategic planning for the future.

Some highlights of the year have been significant in helping grow and improve our sewer infrastructure while repairing problems that have caused overflows in our system. We have done a total rehab on 2 lift

stations this year and replaced over 19 lift stations pumps. The major lift station we have been able to upgrade was Caldwell, with the installation of 2 Flygt 3153 20-HP pumps and new control panel equipped with the Multi-Smart pump station manager (PSM). The Flygt Multi-Smart PSM allows us to control pump reversal remotely to remove blockages and monitor pump efficiency to ensure intelligent system management. With this addition, we currently have Multi-Smart units installed on 11 lift stations.

We are continuing to add High Tide notification systems to our smaller lift stations to better monitor the collection system. A total of 13 High Tide units were added in 2023. 46 lift stations are currently equipped with High-Tide units with additional units scheduled to be installed in 2024.

The following chart represents statistical data of the sewer system.

Benton Wastewater Conveyance Statistical Data 2023													
JOB DATA:	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL
Generators check	21	21	17	17	17	17	17	18	19	19	19	19	221
M.H-Lined/Patched/Repair/cleaned	9	7	6	3	4	9	6	12	3	26	7	2	94
NO. OF L/S FAILURE or work done	13	5	3	4	5	12	8	9	10	18	10	20	117
NO. OF LIFTSTATION OVERFLOWS	0	0	0	0	0	0	0	4	1	0	1	0	6
NO. LIFTSTATIONS CLEANED	29	25	16	23	14	12	6	8	10	14	15	0	172
Survey sewer mains/ manholes	36	51	16	5	21	10	11	23	24	130	26	16	369
No. Sewer Main overflow	0	0	0	0	0	0	0	0	0	1	0	0	1
NO. OF MANHOLES OVERFLOW	3	0	0	1	3	0	0	0	0	1	2	0	10
AIR RELIEF /Force main- Overflow	0	0	0	0	0	0	0	0	2	1	1	0	4
Call out not sewer-storm water issue	0	0	0	0	1	0	0	0	0	0	0	0	1
NO. Line blockage call (not ours)	3	0	3	0	5	3	1	5	4	1	6	7	38
NO. OF SEWER LINES BLOCKAGE	6	4	5	4	8	3	4	2	4	4	4	1	49
NO. OF FT OF SEWER LINE CLEANED	4,392'	1,890'	1,728'	8,790'	2,892'	5,055'	5,422'	7,325'	1,593'	5,932'	5,984'	5,676'	57,219'
NO. OF FT PIPE BURSTED	0	0	0	0	2,291'	1,529'	0	565'	0	0	1,244'	324'	5,953'
POINT REPAIR DUE TO BORING CO. or Contractor	2	6	11	5	5	3	2	7	5	1	8	12	67
SEWER POINT REPAIRS	1	2	0	2	3	2	5	2	2	3	1	1	24
Station/ Right of way/M.H-spray,cut	4	0	10	3	0	47	25	4	36	41	0	0	170
Right of Ways cleared cut	0	0	0	3	0	3	2	45	34	0	0	0	87
NO. Monthly Liftstations Inspected	418	418	418	418	418	418	418	328	318	326	326	257	4,481
NO. OF SEWER INSPECTIONS	51	29	76	41	28	35	28	42	18	41	22	46	457
NO. OF GREASE TRAPS INSPECTED	181	1	4	182	6	3	185	2	2	184	4	0	754
NO. OF FT OF SEWER LINE CAMERA	899'	4,018'	2,815'	535.5'	579'	629'	1141'	750'	234'	586'	6,409'	336'	18,931.50'
ASST. OTHER DEPT.	0	0	5	0	2	1	0	0	0	1	1	1	11
Total Smoke Testing Footage	0	0	0	0	0	0	10,700'	11,764'	24,587'	0	0	47,051'	47,051
Total Smoke Testing Repairs	0	0	0	0	0	0	0	20	20	0	0	0	40

The above spreadsheet documents problems within the system, but also significant efforts that were made in preventative and proactive maintenance to reduce these issues. We had 10 manhole sanitary sewer overflows (SSO's) recorded in 2023 up from 5 sanitary sewer overflows (SSO's) in 2022. At the same time, some 57,219 linear feet (10.8 miles) of sewer main was cleaned with our jet-vac. Pipe bursting (5,953 linear feet) completed in areas plagued with inflow and infiltration (I & I) problems, and 91 sewer point repairs. Moreover, there was 18,931.50 linear feet of sewer line video inspected to identify line deficiencies and issues. There was a total of 94 manholes in which repairs and rehabilitation work were performed. There were 6 lift stations that had SSO's in 2023 and 117 lift station failures, but there were also 172 lift station cleanings (jet-vac) done with a total of 4,481 lift station inspections. To keep oil and

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grease out of the collection system and from entering the treatment plant, 754 inspections were conducted on grease traps in 2023 up from 556 in 2022. We are working on implementing tougher guidelines and specifications for Mobile Food Trucks to reduce oil and grease issues.

A key element of line system improvement is pipe bursting. We completed 5,953 linear feet of pipe bursting in 2023. For example, it became necessary to pipe burst and up size our sewer main in the vicinity South of Kenwood St. and along English Oaks Dr. where the lines were offset, and I&I was rampant and causing overflows in heavy rain events. A total of 2,931 linear feet of 8" sewer main was upsized to 10" sewer main. In addition, in the vicinity of Shenandoah Rd. to I-30 we upsized 3,022 linear feet of 10" sewer main to 12" sewer main. Even though we have completed all the required pipe bursting stated in the C.A.O we have plans to continue to upsize, upgrade, and replace old sewer lines throughout our infrastructure.

During the pipe burst and repair projects, we found many sections of gravity sewer mains that have been taking in groundwater during heavy rain events and creating major infiltrations and inflows (I&I) into our collection system.

In 2023, 6 residential developments consisting of over 8,748 linear feet of new 8" sewer main, 1,235 linear feet of force main (1,150 linear feet of 4", 85 linear feet of 2") and 2 lift stations were added to the collection infrastructure.

Benton Utilities performed many point repairs this year that have been creating sewer stoppages and manhole overflows. Even though the number of overflows increased from the number of overflows in 2022, we are continuing to work diligently to reduce these numbers.

In conclusion, 2023 was a challenging year with trying to manage the aging sewer infrastructure as well as the staffing shortages and material cost. But I believe we still had a very productive year and continue to address the requirements of the Consent Administrative Order. The two-year extension will help ensure all the C.A.O requirements are meant. The integrity of the system infrastructure has been ensured and expanded. Inflow and infiltration have been reduced. We will continue to place emphasis again this year on the priority basins identified in the Sanitary Sewer Evaluation Study. It is both our goal and our duty to improve Benton's sanitary sewer collection system for public health, for diligent stewardship of the environment, and for the demands of the vibrant growth of this city.

Please feel free to contact me at 501-776-5982, or you may email me at gbecker@bentonutilities.com with any questions or comments you may have.

Sincerely,



Gregory Becker
Benton Utilities Wastewater Treatment Manager

Cc: Todd Pedersen, General Manager of Benton Utilities
Brad Johnston, Chairman of the Benton Utilities Public Utilities Commission.
Benton Utility Commission Members: Gary Ferrell, Jerry Ponder, Skylyr Stott, David McCollum
Byron Hicks, P.E. and C.E.O. of McClelland Consulting Engineers, Inc