

North Little Rock Wastewater



2017 Annual Report

Consent Administrative Order LIS 10-218



PREFACE

On March 1, 2016, North Little Rock Wastewater (NLRW) acquired the wastewater collection and treatment systems previously owned by Maumelle Water Management. The Maumelle system includes approximately:

• Gravity collection system: +/- 120.4 miles ranging from 6" to 24"

• Force mains: +/- 8.3 miles ranging from 4" to 20"

Manholes: +/-3415Pump stations: 26

• Wastewater treatment plant: 3.5 mgd plug flow activated sludge

• Customers: +/-7300

In Maumelle during the ten month period, March thru December 2016, NLRW cleaned approximately 40.3 miles of the gravity collection system, rehabilitated 187 manholes and upgraded mechanical and electrical components of the pump stations and treatment plant as required.

The Maumelle wastewater treatment plant is currently being operated under NPDES No. AR0033626. The plan going forward is to upgrade the headworks and flow equalization basin of the Maumelle STP and to divert the flow to NLRW's White Oak Bayou STP. The Maumelle plant would then become a flow equalization basin and pump station with a force main extending to the White Oak Bayou interceptor near the intersection of the White Oak Bayou and Counts Massie Road. The remainder of the Maumelle facility could then be decommissioned. An extension of the 36" White Oak Interceptor to Counts Massie Road began in July 2016 and is scheduled to be complete early to midyear 2017.

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Attn: Alan Anderson, Enforcement Analyst Water Enforcement Division Arkansas Department of Environmental Quality

In accordance with the requirements of Consent Administrative Order LIS 10-218 (CAO), Order and Agreement, Paragraph 3, Reporting, the seventh Annual Report is due February 1, 2017.

1. Wastewater Master Plan

Date

A. Milestone Schedule

	Date	<u>winestone</u>
•	Feb. 1, 2011	First Annual Report due
•	Feb. 10, 2011	Effective date of Order
•	Mar 10, 2011	Cross Connection Certification due
•	Mar. 10, 2011	First Penalty Payment due (\$4,375.00)
•	Apr. 25, 2011 – Feb. 25, 2013	Monthly Penalty Payment due (\$4,375.00/Mo.)
•	Feb. 1, 2012 – Feb. 1, 2021 Or until closure of this CAO	Annual Report due

B. Capital Improvements Plan (CIP)

Following is a listing of projects scheduled or completed as part of the Capital Improvements Plan recommendations from the 2011 Master Plan indicating progress made to date.

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Milestone

i. Treatment Plant Projects

FACILITY	PROJECT NAME	\$	% COMPLETE	DATE
Faulkner Lake	Modifications to Influent Pump Station	\$2,106,883	100%	5/18/2014
Faulkner Lake	Phase III STP Modifications	\$3,554,543	100%	12/1/2015
Five-Mile Creek	Wastewater Treatment Plant Modifications 2013	\$5,343,313	100%	7/14/2014
Faulkner Lake	Maintenance and Emergency Equipment Storage Facilities	\$616,227	100%	9/12/2014

ii. Pipeline Rehabilitation Projects

PROJECT NAME	METHOD	LINEAL FT	\$	% COMPLETE	DATE
2012 Cured In Place (CIPP) Rehabilitation	CIPP		\$393,900	100%	08/31/12
2013 Cured In Place (CIPP) Rehabilitation	CIPP	34,808	\$1,614,620	100%	05/31/15
Lakewood Basin CIPP 2015 Rehabilitation	CIPP	29,502	\$1,327,905	100%	06/30/16
Lakewood Basin Pipe Bursting 2015 Rehabilitation	Pipe Bursting	24,634	\$1,849,561	100%	11/08/16
E. Levy Basin Pipe Bursting Rehabilitation 2016	Pipe Bursting	19,323	\$1,461,889	0%	02/01/17
Baring Cross Basin CIPP 2016 Rehabilitation	CIPP	23,973	\$1,262,910	0%	02/01/17
Baring Cross Basin Pipe Bursting 2016 Rehabilitation	Pipe Bursting	45,548	\$3,518,535	0%	02/01/17
W. Levy/212 Basin CIPP 2016 Rehabilitation	CIPP	27,916	\$1,695,000	0%	02/01/17
W. Levy/212 Basin Pipe Bursting 2016 Rehabilitation	Pipe Bursting	24,930	\$1,803,000	0%	02/01/17

iii. Pump Station Projects

PROJECT NAME	\$	% COMPLETE	DATE
Shillcutt Pump Station Modifications	\$5,166,843	100%	10/23/14
2013 Auxiliary Generators and Transfer Switches	\$392,922	100%	07/23/14
2014 Auxiliary Generators and Transfer Switches	\$191,995	100%	12/31/14
Oakbrook/Manor Drive Pump Station Upgrade	\$11,392	100%	08/01/16
3306 E. 10th Street Pump Station and Force Main	\$369,713	60%	02/01/17

iv. Miscellaneous Gravity Collection Improvements

The Capital Improvements Plan included a line item for miscellaneous gravity system improvements. These are projects identified during the flow monitoring and hydraulic modeling phases of the Masterplan. Staff identified the projects with the highest priority as follows.

PROJECT NAME	\$	% COMPLETE	DATE
Sediment Removal (FL-P1-SR)	\$290,000	0%	02/01/17
Cedar Street Sewer Improvements	\$220,000	*	02/01/17
Gravity Pipe Replacement (FL-GS02)	\$1,300,000	0%	02/01/17
Gravity Pipe Replacement (FL-GS03)	\$1,100,000	0%	02/01/17
White Oak Interceptor Phase II	\$4,796,835	64%	02/01/17
* Will be started following final stabi	lization of th	ne landslide h	others

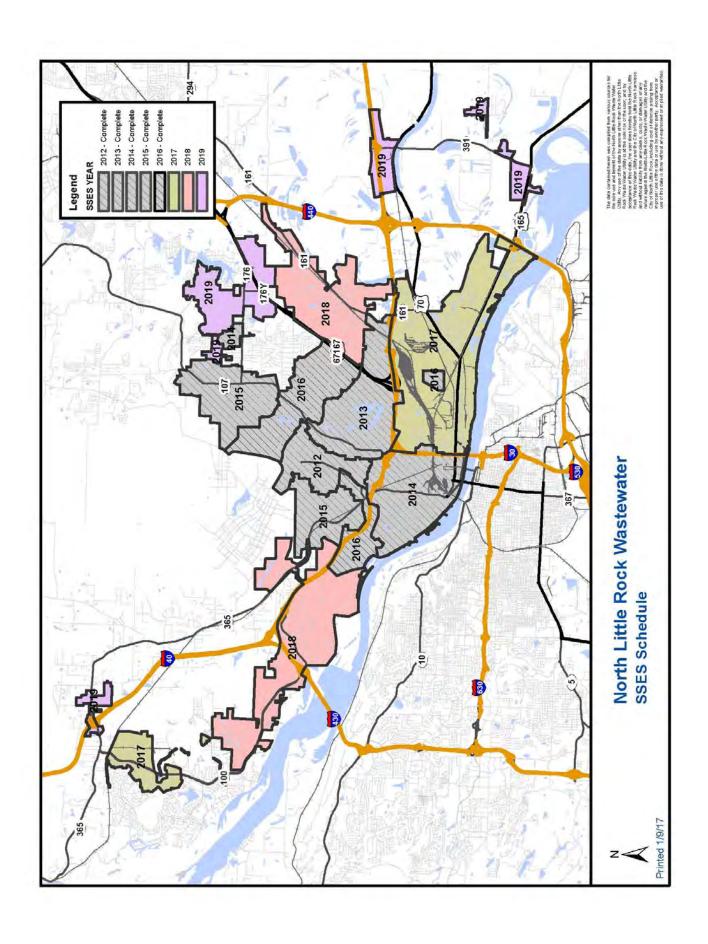
Will be started following final stabilization of the landslide by others.

C. Sewer System Evaluation Survey (SSES)

Following is a summary of SSES fieldwork completed to date.

SUMMARY OF SSES FIELDWORK													
	Smo	ke Testing		Man	hole Inspect	<u>ions</u>	<u>j</u>	CCTV					
Project Name	Quantity	Defects	I/I	Quantity	Defects	I/I	Quantity	Defects	1/1	Quantity			
	<u>(LF)</u>	<u>(EA)</u>	(mgd)	<u>(EA)</u>	<u>(EA)</u>	(mgd)	(EA)	<u>(EA)</u>	(mgd)	<u>(L/F)*</u>			
2012 SSES (Levy Area)	205,569	256	0.539	571	633	0.354	50	42	1.567	276,870			
2013 SSES (Lakewood Area)	308,152	945	0.625	641	566	0.351	64	49	0.843	229,503			
2014 SSES (Baring Cross and Oakbrook SID)	340,896	1,238	2.424	1,636	1,515	0.846	81	70	2.42	317,521			
2015 SSES (West Levy and District 212)	378,056	585	0.74	1,762	1,546	0.958	56	30	0.835	544,811			
2016 SSES (S Levy, Indian Hills and Dixie)	385,530	499	0.442	1,763	2,187	1.448	33	24	0.271	437,809			
TOTAL	1,618,203	3,523	4.77	6,373	6,447	3.957	284	215	5.936	1,806,514			
* System Wide													

Following is a map delineating the schedule of SSES fieldwork.



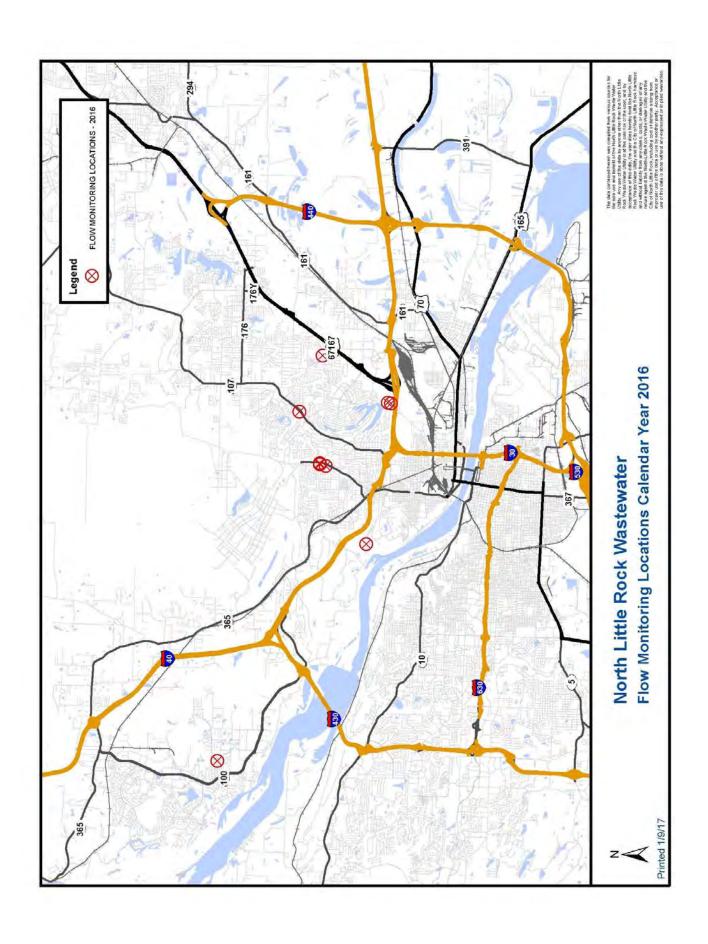
D. SSES, Pumping Station, Capacity Assessment, and Hydraulic Model Evaluation Report

The Masterplan 2011 included a "Capacity, Management, Operations, and Maintenance Self-Assessment Report", "Flow Monitoring ", and "Hydraulic Model" of the North Little Rock Wastewater Utility's facilities. This information, along with staff input, was used to develop the capital improvements plan.

NLRW's geographical information system has been utilized to subdivide the collection system into sub-basins or "sewersheds" of manageable size. SSO data for non-capacity related overflows is being used to focus the Utility's cleaning efforts to the sewersheds with the highest number of non-capacity related overflows.

The following map (Flow Monitoring Locations) documents the efforts to collect flow data prior to and after completion of rehabilitation projects during the calendar year.

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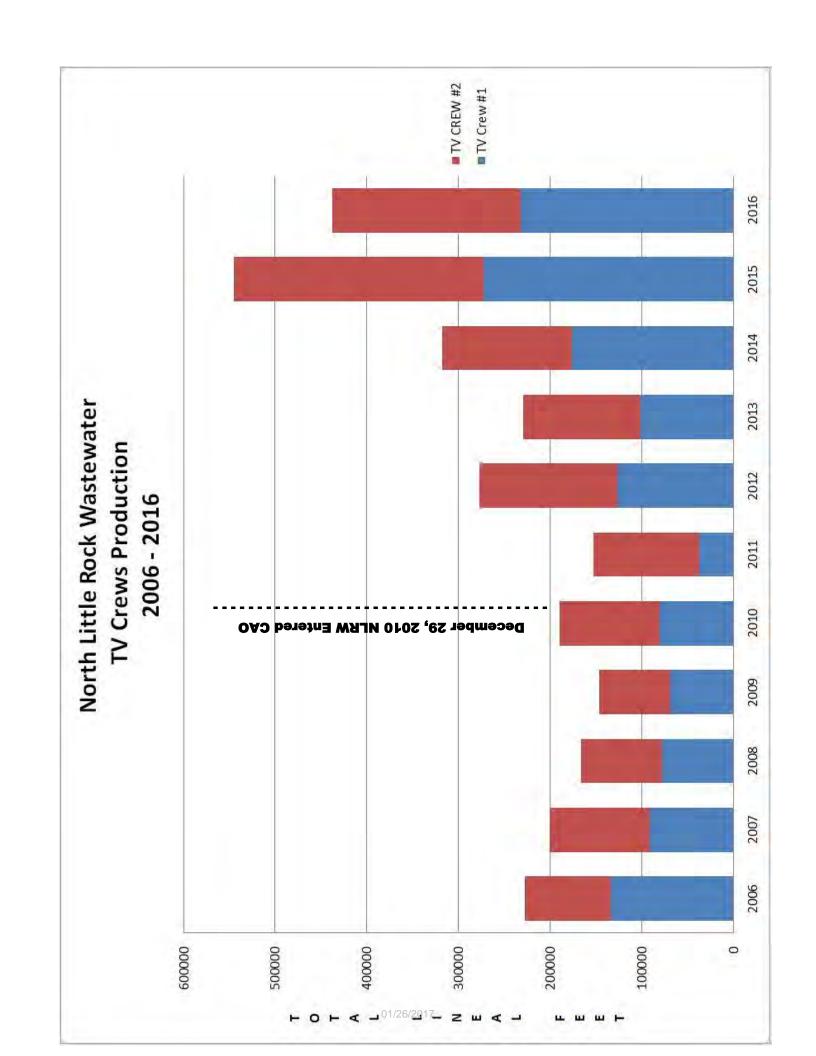
E. Collection System and Wastewater Treatment Plant Remedial Measures Plan

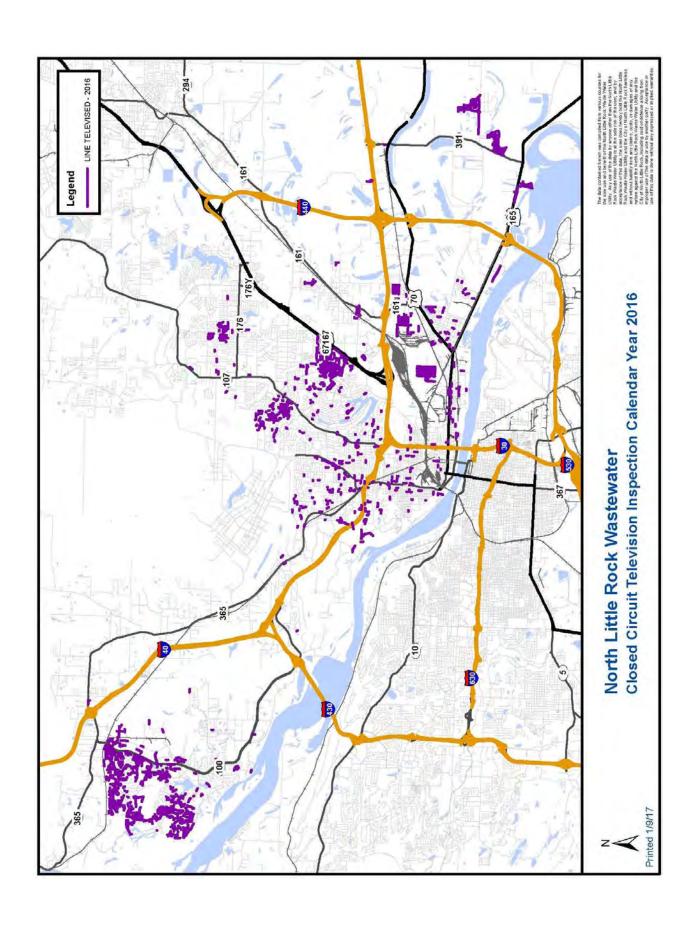
Following is an update of progress on specific collection system and WWTP Remedial Measures:

The remedial measures plan generally consists of measures involving existing equipment, personnel and practices which can be modified to reduce the occurrence of SSOs.

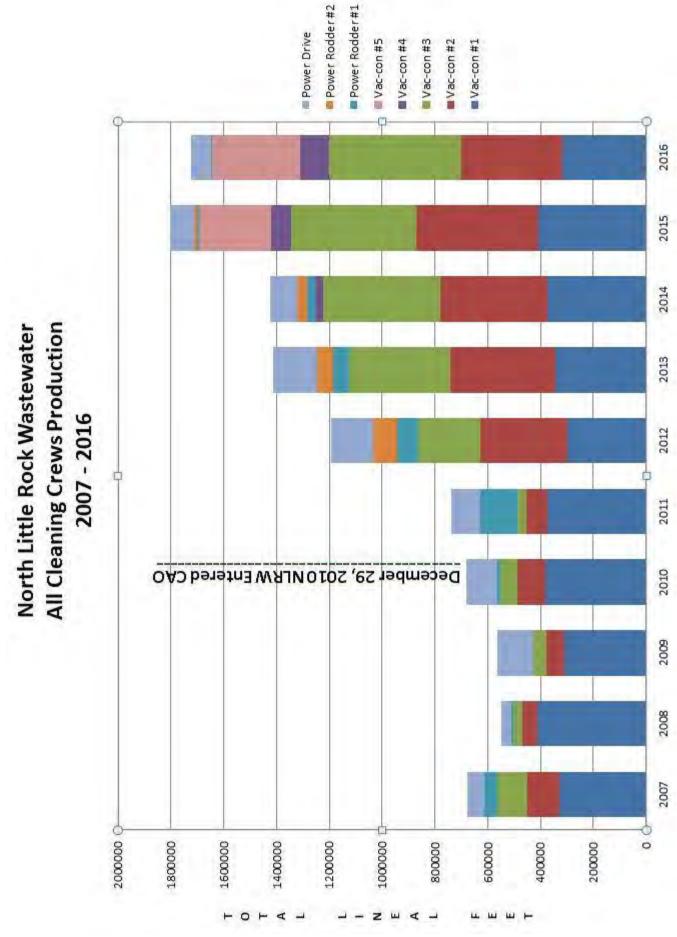
- i. Increase production of TV and cleaning crews
 - a. The following graph and map document the efforts to increase production of the TV crews in targeted areas.

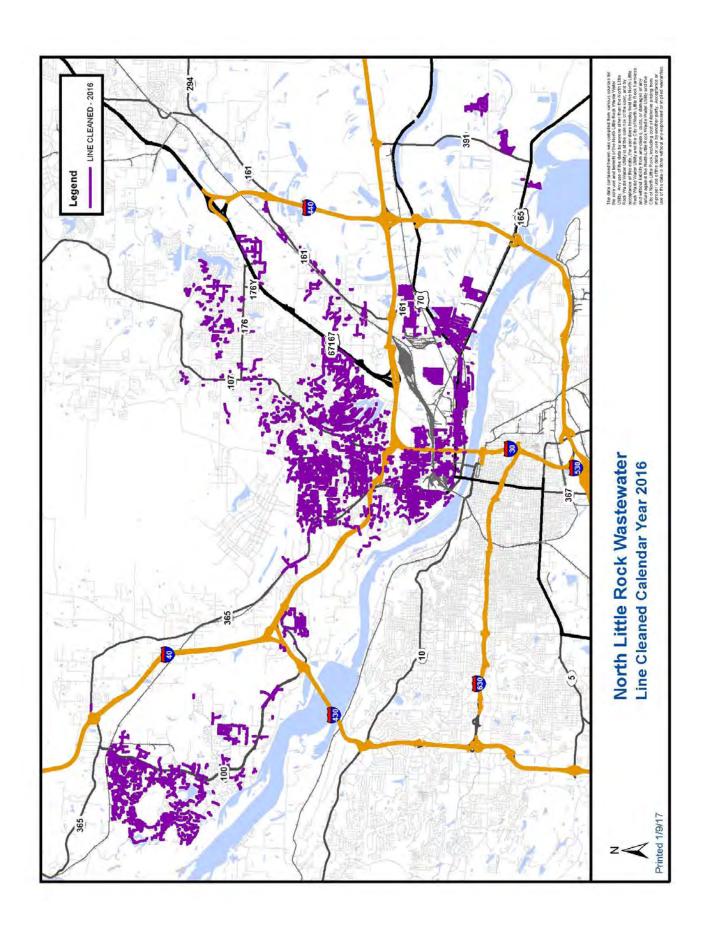
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b. The following graph and map document the efforts to increase production of the cleaning crews in targeted areas.





ii. Increase production by adding additional crews or personnel

A fifth Vac-con was purchased and one of the Power Rodder Crews was converted to a Vac-con Crew in June 2015. NLRW now operates the following cleaning crews:

- 4 Vac-con Crews
- 1 Power Rodder Crew
- 1 Power Drive Crew

Vac-con #4 is kept as a spare and is shared by all Vac-con Crews when their equipment is down for maintenance.

iii. Provide emergency response connections and Supervisory Control and Data Acquisition (SCADA) systems at pump stations and treatment plants.

Following the ice storms in December 2000, the Utility implemented a program to provide emergency pumping connections at all the pump stations. The connections allow a trailer mounted, suction lift pump to draw water from the wetwell and pump directly into the force main, thus by-passing the permanent pumping equipment during emergency situations such as power and equipment failures.

NLRW has two trailer mounted generators which can be stationed for temporary service at facilities with transfer switches.

Permanent mounted generators and automatic transfer switches are being incorporated in new facilities and in other select facilities to minimize potential SSOs related to power outages.

The following tables identify emergency response connections at pump stations and treatment plants.

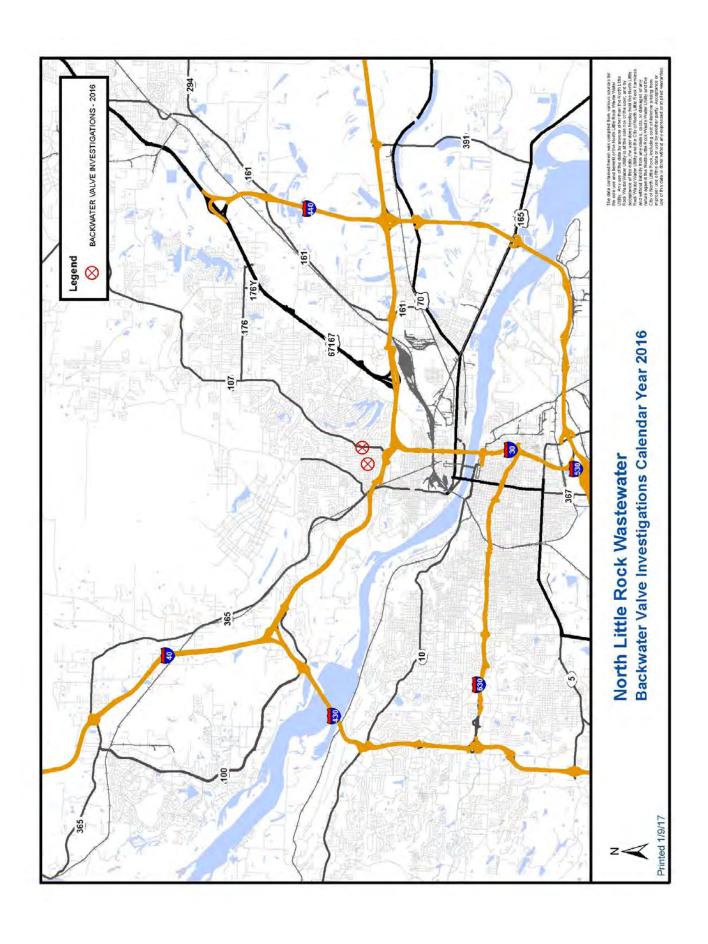
TREATMENT PLANT EMERGENCY RESPO	DISE CONNECT	IONS				
TREATMENT PLANT NAME	TRANSFER SWITCH	GENERATOR	vo	OLTS	EXISTING SCADA TYPE	PLANNED SCADA INSTALLATIONS
FAULKNER LAKE INFLUENT	AUTO	Y	480	3Ø	IGNITION	
FAULKNER LAKE BLOWER FACILITY	AUTO	Υ	480	3Ø	IGNITION	
FAULKNER LAKE ADMIN BLDG	AUTO	Y	208V	240V		
FAULKNER LAKE LAB BLDG	AUTO	Υ	240V	480V		
WHITE OAK INFLUENT	Υ		480	3Ø	IGNITION	EXPAND EXISTING
WHITE OAK TREATMENT PLANT			480	3Ø	IGNITION	
FIVE MILE INFLUENT	AUTO	Y	480	3Ø	HIGHTIDE	UPGRADE TO IGNITION
MAUMELLE TREATMENT PLANT	AUTO	Y	480	3Ø	WONDERWARE	

	TATION EMERCENOT REVI	ONSE CONNECT	IONS				EXISTING	PLANNED
PUMP STATION #	PUMP STATION NAME	PUMP CONNECTION	TRANSFER SWITCH	GENERATOR	vo	LTS	SCADA TYPE	SCADA INSTALLATION
402	BRIDGEWAY HOSPITAL #2	Υ			230	1Ø		OMNISITE
403	CLAYTON CHAPEL	Y			240	3Ø		OMNISITÉ
405	DELTA LAWN	Υ	AUTO	Y	240	3Ø		OMNISITE
406	3306 E. 101H PS & FM	Υ			240	3Ø		OMNISITE
407	HWY 107	Υ	AUTO	Y	240	3Ø	HIGHTIDE	OMNISITE
408	LANSBROOK	Υ	Maual		240	3Ø		OMNISITE
409	MARYLAND EAST	Υ	AUTO	Y	240	3Ø		OMNISITE
410	MARYLAND PLACE	Y			240	1Ø		OMNISITE
413	COCK-OF-THE-WALK (#2)	Y	AUTO		480	3Ø		OMNISITE
414 415	MAYBELLINE MCALMONT	Y	AUTO	Ť	480 240	3Ø		OMNISITE OMNISITE
416	MID-STATE	Y			240	3Ø		OMNISITE
417	OAKBROOK	Y			480	3Ø		OMNISITE
418	PINE TREE				240	1Ø		OMNISITE
419	SHILLCUT BAYOU		AUTO	Y	480	3Ø	IGNITION	
420	SHORTER COLLEGE	Υ			240	3Ø		OMNISITÉ
421	BURNS PARK EAST				240	3Ø	OMNISITE	
422	BURNS PARK WEST				240	1Ø	OMNISITE	
423	LAKEWOOD PLACE				230	1Ø		OMNISITE
424	I 440 INDUSTRIAL PARK	Υ			208	3Ø		OMNISITE
425	AUSTIN LAKE	Υ			480	3Ø		OMNISITE
426	FRONTIER DR MORGAN	Υ	AUTO	Y	480	3Ø		OMNISITE
427	MARCHE-MORGAN	Υ			480	3Ø		OMNISITE
429	BAUCUM INDUSTRIAL	Y			208	3Ø		OMNISITE
430	WILCOX	Y	AUTO	Y	480	3Ø		OMNISITE
431	QUAPAW	Y	AUTO	Y	240	3Ø		OMNISITE
432	HWY 365SHERMAN RD	Y	AUTO	Y	480	3Ø		OMNISITE
433 434	GAP CREEK HARRIS INDUSTRIAL PARK	Y			240 480	3Ø 3Ø		OMNISITE OMNISITE
435	BURNS PARK RV PARK	,			240	1Ø		OMINISTE
436	BURNS PARK LANDSCAPING				240	10		
437	BURNS PARK SOUTH				240	10		
438	HILL LAKE		AUTO	Y	480	3Ø		OMNISITE
439	BURNS PARK SOCCER FIELDS				230	1Ø		
440	COLLINS INDUSTRIAL PARK	Υ	AUTO	Y	480	3Ø		OMNISITE
441	COUNTS MASSIE	Υ	AUTO	Y	480	3Ø		OMNISITE
442	CHAPEL RIDGE	Υ			240	3Ø		OMNISITE
443	RIXIE PUMP -HWY 161	Υ	AUTO	Y	480	3Ø		OMNISITE
444	RIXIE PUMP-LUCKY DR.	Υ	AUTO	Y	480	3Ø		OMNISITE
445	RIXIE PUMP- TRAMMEL RD	Υ	AUTO	Y	480	3Ø		OMNISITE
446	RIXIE PUMP-RIXIE RD- RR TRACK	Υ			480	3Ø		OMNISITE
447	CYPRESS CROSSING	Υ	AUTO	Y	480	3Ø		OMNISITE
448	CRYSTAL BAY	Υ			480	3Ø		OMNISITE
449	TRAMMEL ESTATES	Υ			240	1Ø		OMNISITE
450	EUREKA GARDEN & 46TH	Υ	AUTO	Y	240	3Ø		OMNISITE
451	EUREKA GARDEN RD	Υ	Manual		240	3Ø		OMNISITE
452	EUREKA GARDEN & JUDY LANE	Υ	Manual		240	3Ø		OMNISITE
453	FAULKNER CROSSING 5	Υ	AUTO	Y	480	3Ø		OMNISITE
601	BOURIES				230	1Ø	OMNISITE	
602	C.C. BALLFIELDS	Υ			480	3Ø	OMNISITE	
603 604	COUNTS MASSIE #2 DIAMOND POINT				230 480	3Ø 3Ø	OMNISITE	
605	DURANGO				480 460	3Ø	OMNISITE	
606	HIGH SCHOOL				480	3Ø	OMNISITE	
607	LAWRENCE				230	10	OMNISITE	
608	MARANES				230	10	OMNISITE	
609	MASTERS PLACE				230	1Ø	OMNISITE	
610	MAUMELLE VALLEY	Υ	AUTO	Y	480	3Ø	OMNISITE	
611	MAUMELLE WOODS				480	3Ø	OMNISITE	
612	MIDDLE SCHOOL				480	3Ø	OMNISITE	
613	MURPHY DRIVE		AUTO	Y	460	3Ø	Wonderware	
614	NAYLOR				480	3Ø	OMNISITE	
615	NEW BEDFORD				480	3Ø	OMNISITE	
616	NORFOLK				230	1Ø	OMNISITE	
617	ODOM/BLUE MOUNTAIN				230	1Ø	OMNISITE	
618	OSAGE FALLS				230	3Ø	OMNISITE	
619	OSAGE HILLS		Manual		230	3Ø	OMNISITE	
620	PALISADES				480	3Ø	OMNISITE	
622	RIDGELAND				230	1Ø	OMNISITE	
623	RIDGELAND/ODOM				230	1Ø	OMNISITE	
624	RIVER RUN				230	3Ø	OMNISITE	
625	SEMINOLE EAST	Y			460	3Ø	OMNISITE	
626	SEMINOLE WEST	Υ			230	1Ø	OMNISITE	

iv. Identify areas subject to building/private property backups.

NLRW utilizes trouble calls to initiate an investigation to determine areas subject to building/private property backups. A trouble call attributed to "high water" and resulting in slow draining fixtures or backups in buildings or property initiates a work order to the Civil Engineer. The Civil Engineer conducts an investigation to determine the cause of the backup and documents the need for corrective action. The Civil Engineer documents the need for a backwater valve and sends a letter to the property owner. A copy of the letter is given to the GIS Administrator for entry into the GIS database.

Following is a map identifying the addresses investigated in the calendar year for the need for backwater valves.



v. Public education

In 2012, NLRW expanded its Grease Reduction Program to include additional items to 'not' put down the drain and has renamed the program "Maintain YOUR Drain." Expansion of the Grease Reduction Program was largely brought about by increased problems associated with so-called "flushable wipes."

A summary of the activities conducted by the "Maintain YOUR Drain" staff, during the calendar year is attached, as well as copies of the mailers.

Staff designed educational decals and had them installed on the Vac-cons and TV vans. The concept is to use the trucks as moving billboards and to put the message where the work is (e.g. A customer sees the Vac-con cleaning a sewer line and the sign on the side of the Vac-con says "Wipes clog pipes. Don't flush wipes!" or "Maintain YOUR Drain! Don't pour grease down the drain!")

North Little Rock Wastewater

Maintain YOUR Drain Program

(Educating the public on what "NOT" to put down the drain.)

			Approximate
Date	Group Name	Location	# of Attendees
04/20/16	Oak Grove Elementary	5703 Oak Grove Road, NLR	28
10/11/16	Maumelle Neighborhood Meeting	Millwood and Maumelle Blvd	40
10/19/16	Central Arkansas Christian	JFK BIVd., NLR	23
10/27/16	Crestwood	1901 Crestwood, NLR	81
11/17/16	Oak Grove Elementary	5703 Oak Grove Road, NLR	44
		Total Attendees	216

55,000 Mailers were sent out with information on how to dispose of grease properly. It also contained information on what to not put down the drain. Mar-16

55,000 Mailers were sent out with information on how to dispose of grease properly. It also contained information on what to not put down the drain. Jul-16

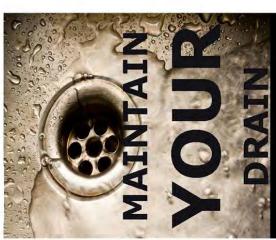
55,000 Mailers were sent out with information on how to dispose of grease properly. It also contained information on what to not put down the drain. Nov-16

8000 Mailers were sent out with information on how to dispose of grease properly. It also contained information on what to not put down the drain. Dec-16

In addition, children at the schools were given bracelets with the North Little Rock Wastewater logo and a message that reads "Protect Our Water" as a reminder of how the dangers of improper grease disposal can harm our environment. Informative brochures are handed out at all meetings with material on grease and pharmaceutical disposal.



501-945-7186



Grease

Never pour grease or cooking oil down sink drains or garbage disposals.

Place small amounts of grease and oil in the trash. Large containers of cooking oil can be recycled at

12th & Willow North Little Rock, AR 72114 (501) 371-8345

WWW.NLR.AR.GOV

WWW.NLR.AR.GOV



VIVIVIAIN



501-945-7186



Pharmaceuticals

Do Not Put Down the

Drain or Toilet

Do NOT flush them down the

Mix old pharmaceuticals with used coffee grounds or kitty litter.

Place them in a sealable container and throw them in the trash.

OR

Cosmetics/Fragrances

Pharmaceuticals

Automotive Oils

Clothing/Rags Paper Towels

Baby Wipes

Sunscreen Products

Chemicals

Contact local law enforcement for community take-back programs.

WWW.NLR.AR.GOV





vi. Treatment plant stormwater runoff protection

Part of NLRW's effort to comply with treatment plant stormwater runoff protection included the addition of "Maintenance and Emergency Equipment Storage Facilities." This project included the addition of metal buildings to house maintenance and emergency response equipment.

This project also included the addition of a vehicle wash station, site grading and drainage improvements.

Section B.i provides additional information regarding this project.

vii. Secure funding for Capital Improvement Projects

- a. On November 28, 2012, NLRW closed on a \$21,000,000 loan with the Arkansas Natural Resources Commission. As of January 20, 2017, these loan funds have been fully expended.
- b. On October 25, 2016, NLRW closed on a \$30,000,000 loan with the Arkansas Natural Resources Commission. Through February 1, 2017, North Little Rock Wastewater has spent \$142,589 of the \$30,000,000 loan.

viii. Point Repairs

NLRW added a fourth construction crew in 2016 to reduce response time for disconnects which were building up a backlog of work orders. This crew may also assist with point repairs and other excavation related repairs depending on the work load.

Outside services contractors may be used for certain repairs depending on work load, schedule and need for specialized services. Specialized services include repairs beneath the water table, deep excavations, repairs complicated by other structures, repairs involving large diameter pipelines, etc.

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Following is a summary of repairs completed in the collection system requiring excavation:

		New	New Line		Repairs by Outside	
Year	Point Repairs	Manholes	Segments	Disconnects	Services Contractors	TOTAL
2011	316	12	6	0	2	336
2012	337	22	6	1	1	367
2013	273	18	5	0	3	299
2014	332	11	10	0	0	353
2015	364	15	8	4	8	399
2016	381	26	7	66	6	486
						2,240

A summary of point repairs completed by the NLRW Collection Systems Department is included in Appendix C. *End of Year Work Recap Report*.

2. Civil Penalty Payment Summary

NLRW completed payment of a \$105,000 Civil Penalty on February 13, 2013.

3. Notifications of Deficiencies

CAO Notices of Deficiencies received from ADEQ: **None** (no. & date) NLRW response to Notice of Deficiencies: **N/A** (must be within 15 days)

Summary of NLRW actions to address deficiencies: N/A

4. Compliance Delays

Notifications of Compliance Delays submitted to ADEQ: **None** (no. & date) Length of Compliance Delay: **N/A**

Cause of Compliance Delay: N/A

Measures Taken to Minimize Delay: N/A

Timetable for Implementing Additional Measures: N/A

5. <u>Certification</u>

As required by the Order and Agreement, Paragraph 3, North Little Rock Wastewater certifies that we are complying with the ADEQ-approved Wastewater Master Plan.

Respectfully Submitted,

Marc E. Wilkins, PE

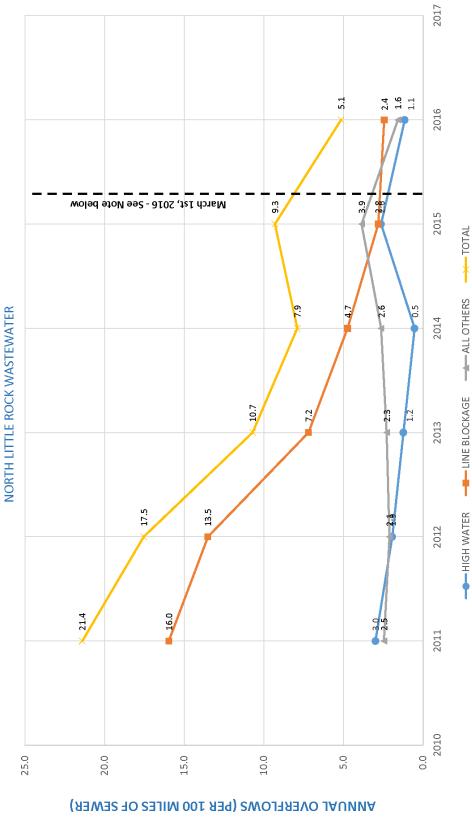
Director

North Little Rock Wastewater

APPENDIX

- **A.** Annual Overflows by Category
- **B. SSO Locations 2016**
- C. 2016 End-Of-Year Work Recap Report (Collection Systems Department)





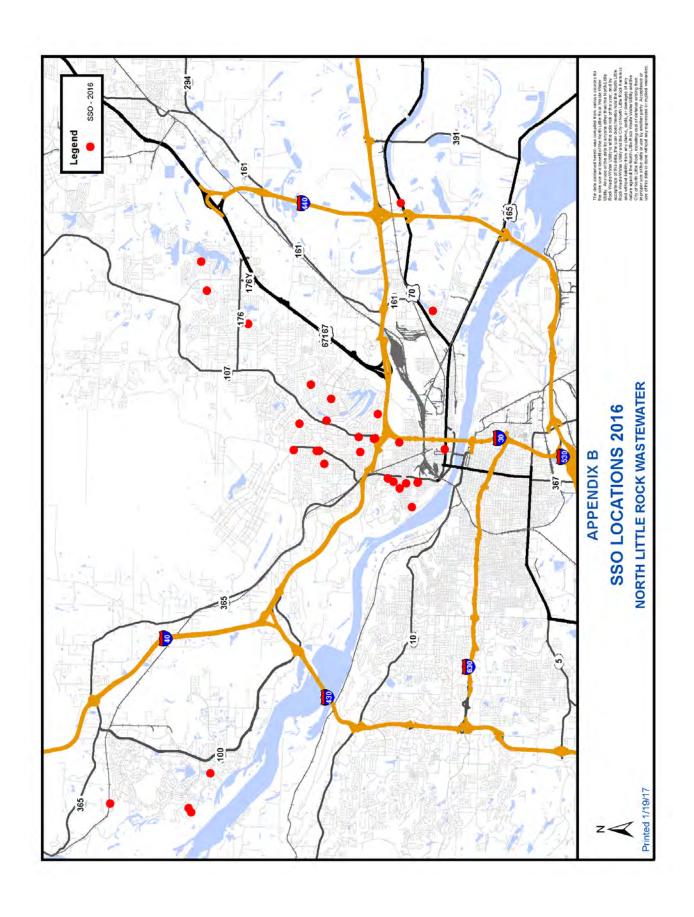
Note: On March 1st, 2016, the NLRW assumed O&M responsibilities of the Maumelle SID 500 of Pulaski County (d/b/a MWWI). The MWM collection system contained 131 miles of pipeline.

NLRW collection system prior to March 1st, 2016: 572 miles

NLRW collection system following March 1st, 2016: 703 miles

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Jim Milum Printed 1/20/17



APPENDIX C

2016 End of Year Work Recap Report

North Little Rock Wastewater

Crews:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
MANHOLE:													
Disconnects	0	0	0	0	0	0	0	0	0	0	3	0	3
Taps	1	0	0	0	0	0	1	1	0	1	0	0	4
Repairs	27	33	115	135	112	86	62	115	91	101	120	86	1,083
# of MH's Grouted	8	31	94	128	79	72	41	73	19	3	41	6	595
#of Coats	0	0	0	0	0	0	0	0	0	0	0	0	0
MH Depth (Ft/In)	2	58 23	21 9	0	0 15	0 10	25.5	130.5 33	35.0 51	31.0 20	0.0 15	0.0	301.0 190
# of Bags of Grout	Ž.	23	9	0	13	10	1	33	31	20	13	3	190
POWER DRIVE: # of Ft Cleaned	0	3,771	8,608	12,900	12,447	4,911	1,473	6,888	4,212	12,278	5,539	5,528	78,555
PWR RODDER #1:	0	5,771	0,000	12,500	12,447	4,911	1,475	0,000	4,212	12,270	5,559	3,020	7 0,555
# of Ft Cleaned	0	0	0	0	1,250	593	0	150	0	0	0	0	1,993
REPAIR #1:	, i		, i		1,200	232	, , , , , , , , , , , , , , , , , , ,	150	J	Ů	,		1,550
Repairs	9	11	9	9	10	9	3	5	11	5	6	7	94
New Manholes	0	1	0	1	0	0	1	1	0	0	1	1	6
New Lines	0	1	0	0	0	0	0	0	0	0	0	0	1
Disconnects	0	0	1	0	0	0	0	0	1	0	0	0	2
Taps	0	2	0	1	1	1	2	1	1	3	2	0	14
Miscellaneous	6	0	12	7	10	2	2	10	11	10	5	5	80
REPAIR #2: Repairs	7	10	12	9	13	13	7	9	10	9	6	7	112
New Manholes	4	1	1	3	0	0	0	0	0	0	0	0	9
New Lines	0	0	0	0	0	0	0	0	0	0	0	0	0
Disconnects	0	0	1	0	0	0	0	0	1	2	1	0	5
Тарѕ	1	1	1	0	2	0	0	0	0	0	0	0	5
Miscellaneous	8	5	8	8	4	10	4	6	7	2	2	1	65
REPAIR #3:													
Repairs	11	2	6	5	6	14	3	11	8	3	7	4	80
New Manholes New Lines	0	0	0	0	0	0	0	0	0	0	0	0	8
Disconnects	0	0	0	0	0	0	0	0	0	0	0	0	0
Taps	1	0	1	0	2	1	3	4	0	0	0	2	14
Miscellaneous	8	2	9	4	5	4	3	11	6	4	7	2	65
REPAIR #4:													
Repairs	0	0	4	6	11	8	11	17	10	5	7	16	95
New Manholes	0	0	0	0	0	0	1	0	0	0	0	2	3
New Lines	0	0	0	0	9	9	7	0	0	0	9	2	0
Disconnects Taps	0	0	0	0	1	0	2	4 1	9	8	1	0	59 5
Miscellaneous	0	0	6	5	4	4	14	9	2	7	1	7	59
TROUBLE:													
# of Ft Cleaned	685	433	719	850	390	655	537	330	1,081	50	496	359	6,585
Stop-Ups	46	42	54	32	29	39	24	36	25	33	36	46	442
Private Lines	34	29	36	19	24	26	17	29	16	29	25	32	316
Cave-Ins	9	6	12	13	15 0	11 0	5	9	4 0	4 0	3 0	3 0	94 5
Flooded Houses Miscellaneous	59	56	67	62	74	62	71	77	38	61	44	39	710
Total Calls	108	103	129	106	115	109	99	118	81	99	83	86	1,236
VACCON #1:													
# of Ft Cleaned	19,840	24,716	20,508	26,038	36,206	35,427	22,714	23,293	27,002	28,232	27,439	26,185	317,600
VACCON #2:													
# of Ft Cleaned	38,224	17,368	50,746	41,027	11,246	46,143	56,447	34,869	15,544	21,429	26,154	21,806	381,003
VACCON #3:													
# of Ft Cleaned	26,937	46,147	35,870	46,300	37,861	55,411	50,958	44,698	45,598	52,543	32,172	28,420	502,915
VACCON #4:													
# of Ft Cleaned	11,444	16,406	0	6,250	11,978	1,424	0	5,608	21,023	27,456	9,103	0	110,692
VACCON #5:													
# of Ft Cleaned	20,291	36,595	34,270	22,873	32,577	35,724	28,702	25,728	21,538	25,204	31,668	17,120	332,290
T V #1	15.005	17 107	12.011	20.222	15.051	22.505	22.522	10.640	21 122	10.011	21.152	21.000	221 505
# of Ft	15,295	17,407	12,811	20,282	17,971	23,705	22,522	18,649	21,103	19,811	21,152	21,089	231,797
T V #2	16 724	21.40.1	1 6 700	10 707	10.00=	10.070	25 100	24.0**	15.001	10.000	0.00	10.70.5	206.012
# of Ft	16,736	21,484	16,780	13,606	13,287	19,279	25,180	24,811	17,381	18,009	8,664	10,795	206,012