



2015
Sierra Club
Compliance
Report

**Submitted to the Little Rock
Water Reclamation Commission
February 17, 2016**

SIERRA CLUB SETTLEMENT
ANNUAL REPORT
FOR 2015

TABLE OF CONTENTS

	<u>Page</u>
EXECUTIVE SUMMARY.....	1
I. INTRODUCTION.....	2
II. PROJECTS UPDATE.....	2
A. Little Maumelle Wastewater Treatment Facility	2
B. Peak Flow Attenuation Facilities.....	2
C. Scott Hamilton Drive Peak Flow (formerly Referred to as Mabelvale Pike Peak Flow Attenuation Facility).....	2
D. Peak Flow Pump Station – Additional Pump	2
E. Cantrell Road Pump Station and Force Main Upgrade	3
F. Cantrell Road Pump Station In-Line Storage.....	3
G. Fourche Creek Wastewater Treatment Facility Hydraulic Upgrade	3
H. Rock Creek Storage.....	4
I. Adams Field Storage Basin	4
J. Overflow Mitigation Projects	5
1. Overflow Mitigation Projects (OMPs) funded by RLF XI:	5
a. Allsopp North/Country Club Rehabilitation.....	5
b. Allsopp Park/Country Club Outfall.....	5
c. Leawood OMP	5
d. Lower Swaggerty OMP	6
e. Pleasant Valley OMP	6
f. Echo Valley OMP.....	6
g. OH-0G Relocation.....	6
h. 42" Force Main Inspection.....	6
i. Allsopp North/Country Club Manhole Rehab	6
j. Leawood Manhole Rehab	6
k. Echo Valley Manhole Rehab	7
l. Pleasant Valley Manhole Rehab	7
m. Springer Blvd – R1.....	7
n. West Markham Mainline – R6.....	7
o. Bishop Street Relay – R14.....	7
p. Grassy Flat Main – R27	7
q. Granite Mountain OMP – M20	7
r. Lower Swaggerty OMP Manhole Rehab	7
s. 17 th Street Pipeburst Upsize – R15.....	7
t. Fair Park Relay – R12	8
2. Overflow Mitigation Projects (OMPs) Planned for RLF XII.....	8
3. Overflow Mitigation Projects (OMPs) Planned for RLF XIII.....	8
4. Overflow Mitigation Projects (OMPs) Completed under RLF Xiv.....	9
5. Overflow Mitigation Projects (OMPs) Planned for RLF XV.....	9

6.	Future Overflow Mitigation Projects (OMPs)	9
7.	Overflow Mitigation Projects (OMPs) Completed under RLF VIII	9
	a. Jimmerson Creek (RLF VIII) -	9
	b. Jimmerson West Outfall (RLF VIII)	10
	c. Jimmerson East and Upper Hinson Manhole Rehab (RLF VIII).....	10
	d. Allsopp South (RLF VIII).....	10
	e. Barton (RLF VIII).....	10
	f. System Evaluation and Capacity Assurance Plan Update (RLF VIII)	10
III.	FINANCING SEWER IMPROVEMENTS.....	10
	A. Discussion	10
IV.	OTHER COMPLIANCE ACTIONS	11
	A. Signage/Public Notification/Public Information	11
	B. Public Education and Outreach Programs	11
	1. Public Relations.....	11
	2. Can the Grease©.....	11
	3. Captain Sewer©	12
	4. Stay Connected©.....	12
	5. Sewer Service Line Replacement Program.....	12
	6. Private Sewer Line Cleaning Permit.....	12
	7. Bill Inserts	12
	8. Awards.....	13
	(a) NACWA Peak Performance Award.....	13
	(b) Certificate of Achievement for Excellence In Financial Reporting.....	13
	(c) Distinguished Budget Presentation Award	14
	(d) Excellence in Achievement – Procurement.....	14
	9. Trade Associations, Exhibits, Fundraisers, and Community Service	15
	(a) Partners in Education.....	15
	(b) National Night Out.....	15
	(c) Spanish Speaking Customers.....	15
	(d) Arkansas Hospitality Association Trade Show.....	15
	(e) Community Involvement.....	16
	10. Media	16
	11. Publications.....	16
	12. Website.....	16
	13. Facility Tours.....	16
V.	SUPPLEMENTAL ENVIRONMENTAL PROJECTS AND ANY OTHER LRW ENVIRONMENTAL EFFORTS	17
	A. Fourche Creek Wastewater Treatment Facility Wetlands	17
	B. Bike Paths	17
VI.	2015 NON-CAPACITY RELATED SANITARY SEWER OVERFLOWS	17
	A. Compliance Standard	16

B.	Non-Capacity Related SSOs in 2015	18
C.	Compliance Assessment	18
D.	Additional Projects Not Covered By SECAP	17
VII.	2015 CAPACITY RELATED SANITARY SEWER OVERFLOWS	19
A.	Compliance Standard	19
B.	Capacity Related SSOs in 2015.....	19
VIII.	CONCLUSION.....	19

ATTACHMENTS
TABLE OF CONTENTS

A.	Sanitary Sewer Overflow Response Plan
B.	Notice of SSO
C.	Door Hanger Notice of SSO
D.	Notice of SSO Cleanup
E.	Can the Grease
F.	SSLRP Brochure
G.	Bill Inserts
H.	Excellence in Financial Reporting
I.	Distinguished Budget Award
J.	Excellence in Achievement – Procurement
K.	Trade Associations, Exhibits, Fundraisers, and Community Service
L.	Media
M.	Publications
N.	Website
O.	Non-Capacity Related Sanitary Sewer Overflows Summary Report
P.	Capacity Related Sanitary Sewer Overflows Summary Report



**SIERRA CLUB SETTLEMENT
COMPLIANCE REPORT
FOR 2015**

**EXECUTIVE SUMMARY
From Greg Ramon, C.E.O.**

It is my privilege to submit the attached annual report on the progress that Little Rock Wastewater (LRW) has made in mitigating sanitary sewer overflows (SSOs). On September 12, 2001, LRW signed the Sierra Club Settlement Agreement (Agreement) and has worked diligently to comply with the terms set forth. Since the start of the Agreement, LRW has spent \$329 million to meet the requirements. It is projected to cost an additional \$205 million to renew the aging collection system in order to reduce inflow and infiltration (I/I). Since the signed Agreement LRW has realized continued success in mitigating non-capacity related overflows throughout 2015. The established maintenance procedures and schedules continue to provide the desired results by minimizing mainline stoppages within the collection system. I am pleased to state that LRW was under the requirements for non-capacity overflows in the Agreement.

To address capacity related overflows, LRW procured a rate increase in 2015 to complete capital projects targeted on the wet weather performance of the sewer system. The rate adjustment of 4.75% annually for 2017 through 2021 will support revenue bonds and loans which will be used to fund improvements at the Fourche Creek Wastewater Treatment Facility, the Adams Field Wastewater Treatment Facility and collection system. A rate increase of 4.75% that was approved in 2012 went into effect on January 1, 2016. This rate increase will be used for repayment of a loan issued in 2013 for improvements to the collection system.

LRW continues to educate our rate payers and stakeholders on programs available to assist with maintaining a sound sewer system, preventing overflows, and construction projects that may affect their neighborhood or where they work. Many of these programs have received national recognition and continue to be a proven success. Since the development of these programs LRW has seen a noticeable drop in the frequency and severity of sanitary sewer overflows. As we continue to build upon our successes, we are working to develop new and improved programs as technology, regulations and wastewater collection and treatment change.

We have made it through a difficult transition period and refocused the organization's priorities and we are pleased with the progress that has been made to date. We have not achieved our goal; but, we are moving in the right direction. We are committed to meeting the Settlement Agreement requirements and protecting the environment. It is in our best interest to continue this path.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Greg Ramon", is written over a light blue horizontal line.

Greg Ramon, C.E.O.

I. INTRODUCTION

The following activities constituted LRW's major compliance efforts and they will be discussed with other activities in the order mentioned, consisting of (1) Project Updates; (2) Financing; (3) Other Compliance Actions; (4) Supplemental Environmental Projects; (5) 2015 Non-Capacity Related Sanitary Sewer Overflows; and, (6) 2015 Capacity Related Overflows.

II. PROJECTS UPDATE

The System Evaluation Capacity Assurance Plan (SECAP) Update is the capital improvement plan (CIP) to mitigate overflows for the designated design storm.

LRW has listed the (CIP) projects in the 2016 budget and scheduled the projects accordingly. The report lists storage facilities, operation adjustments, capacity improvements, and other pertinent items to mitigate overflows. There will be one storage site project, Scott Hamilton Drive Peak Flow Facility (formerly referred to as the Mabelvale Pike Peak Flow Attenuation Facility), adding 31 million gallons of storage capacity to the existing facility. On December 1, 2015, LRW was granted a discharge permit modification allowing parallel treatment to the existing biological train. The new plant configuration will allow for 94 million gallons per day of continuous treatment while meeting discharge permit parameters. The new approach will eliminate the need for additional storage at the Adams Field Wastewater Treatment Facility. There are multiple projects listed in the SECAP update to increase the capacity of existing gravity mains. A large diameter main (42" & 48") proposed from 36th street to Mabelvale Pike is the largest line project required. The Grassy Flat main is requiring a capacity increase from an 18 inch main to a 30 inch mainline. Multiple projects such as manhole adjustments and upsizing of mains is included in the report. The SECAP Update assumed all previous collection system projects would be completed. The following list is projects already completed or currently included in the 2016 budget.

A. Little Maumelle Wastewater Treatment Facility

Construction of the project was completed in March 2011 and the facility was placed in operation in July 2011.

B. Peak Flow Attenuation Facilities

Construction of the projects was completed in August 2011.

C. Cantrell Road Pump Station and Force Main Upgrade

Construction of the projects was completed in November 2015.

D. Scott Hamilton Drive Peak Flow Facility (formerly referred to as Mabelvale Pike Peak Flow Attenuation Facility)

The SECAP Update, dated November 2010, identified the need for additional storage to complement the existing storage facility at Scott Hamilton Road. The additional storage, along with a hydraulic upgrade at the Peak Flow Pump Station, will further reduce the surcharge of rainfall dependent inflow and infiltration within the North and South 60 Sewer Interceptors

thereby mitigating sanitary sewer overflows within the service area for the identified design storm. LRW progressed towards completion of the design phase efforts for this project. The preliminary engineering report identified the need for an additional 31 MG of storage. The Conditional Use Permit phase is completed. The project will be out for bid in mid-year 2016.

The five year forecast prepared in conjunction with the 2016 capital budget allocates project cost of \$9,242,659 in 2016, \$10,186,496 in 2017, and \$3,122,415 in 2018.

E. Peak Flow Pump Station – Additional Pump

The Peak Flow Pump Station was designed with a vacant pump position so the capacity of the station could be readily increased when storage becomes available. The increased capacity of the station will reduce the occurrence of sanitary sewer overflows for the design storm event with additional 31 MG storage at the Scott Hamilton Peak Flow Facility. The additional pump is scheduled to be installed in 2017 with a project cost of \$1,135,426.

F. Fourche Creek Wastewater Treatment Facility Hydraulic Upgrade

The hydraulic upgrade of the Arch Street Pump Station from 36 million gallons per day (MGD) to 45 MGD necessitated the hydraulic upgrade of the Fourche Creek Wastewater Treatment Facility to a minimum of 45 MGD. In 2008, LRW, with its consultant CDM, completed a 20-year capital improvement plan (CIP) to assess treatment processes, identify deficiencies, and plan for improvements to the plant to meet future hydraulic and process needs. The overall project was divided into four phases. Phase One was the addition of the new disinfection system, with a project cost of \$9,756,140.97. The disinfection project was completed January 2011. The second phase was the addition of a secondary clarifier, with a project cost of \$ 10,066,644.03, was completed October 2011. With the completion of the second phase, the treatment plant can hydraulically handle 45 MGD. The third phase will address headworks, and primary clarifier needs with a project cost estimate of \$4,884,000 to be completed in 2016, and \$4,988,820 in 2017. Phase Four of FCWTF does not include any improvements pertaining to the SFCAP Update. This project is scheduled to be completed in 2017.

G. Adams Field WWTF Nutrient Removal

In 2015, the Arkansas Department of Environmental Quality (ADEQ) determined that the oxygen demanding constituent of all municipal wastewater discharges, ammonia nitrogen (NH₃-N), has a significant effect on the predicted dissolved oxygen (DO) level in the Arkansas River. The ADEQ water quality model indicated that a NH₃-N permit limit of 7.0 mg/l for the Adams Field facility will be needed to meet the in-stream DO water quality standard of 5.0 mg/l.

In a letter dated May 21, 2015, ADEQ notified LRW that the next renewal permit will include new limits for NH₃-N and directed LRW to begin working toward compliance in the next permit. The letter went on to say that LRW's failure to meet future permit limits could result in a significant noncompliance issue the will make this issue more difficult and costly to remove.

In order to achieve compliance, ADEQ has directed LRW to submit two progress reports identifying steps taken toward evaluating and selecting operational changes and/or treatment options. By February 1, 2016, Progress Report no. 1 will indicate LRW ability to comply with future NH₃-N limits on a consistent basis with its current treatment system configuration. By February 1, 2017, Progress Report no. 2 shall evaluate changes in operational and/or treatment options. The forecast prepared within the 2016 capital budget allocates project cost of \$115,000 in 2016 and \$58,975,000 between 2017 and 2021 and \$7,240,000 between 2022 and 2025.

H. Adams Field Parallel Treatment--(previously Storage/Disinfection)

The SECAP Update, dated November 2010, identified the need for additional storage at the Adams Field Treatment Plant to complement existing and proposed storage facilities (Scott Hamilton Drive Peak Flow Facility). The additional storage will allow for extended hydraulic pass-through of rainfall dependent infiltration and inflow volume thereby mitigating sanitary sewer overflows within the service area for the identified design storm. However, the amount of storage prescribed in the SECAP Update limits the wet weather capacity of the plant to the duration of the design storm. Also, elevated flow rates through the biological portion of the plant hinders the ability of the plant to remove NH₃-N. Within the next permit cycle, ADEQ will require more stringent limits on the amount of NH₃-N within the effluent.

In 2014 LRW applied for and was granted in late 2015 a permit modification that will allow for parallel treatment of the biological system. A parallel treatment system used during wet weather events will take peak flows from the biological treatment train allowing it to run steady state and thereby remove NH₃-N to within permit limits. Also, parallel treatment will prove effective in adequately treating effluent to within permit limits during wet weather events. The advantage of a parallel treatment system over storage is that the plant can maintain its peak capacity for a much longer duration than the design storm thereby reducing the amount of spillage within the collection system. With this permit modification, LRW has abandoned the concept of additional storage at the plant and will proceed with parallel treatment in 2016. The forecast prepared within the 2016 capital budget allocates project cost of \$30,975,485 between 2016 and 2023.

I. Fourche Creek WWTF Nutrient Removal

Effective October 1, 2015, the Arkansas Department of Environmental Quality (ADEQ) issued a permit renewal for the facility. Within the permit, ADEQ directed LRW to comply with a schedule for ammonia based limits based on those issues outlined under the narrative for Adams Field Treatment Facility - Nutrient Removal. At 18-months after the effective date of the renewed permit, Report No. 1 will contain an evaluation of the ability of the current treatment system, as configured, to comply with the final ammonia nitrogen (NH₃-N) or Whole Effluent Toxicity (WET) limits on a consistent basis. If the evaluation proves limits can be achieved consistently, then one additional report (no. 3 due 34 months after the effective date) will be presented indicating a final NH₃-N limit or WET limit will be reported. Should Report No. 1 conclude that the final limits for NH₃-N or WET cannot be achieved on a consistent basis, then a report (no. 2 due 24 months after effective date) shall evaluate and select operational changes and/or other treatment configurations to achieve compliance. The final report (no. 4 due 36 months after effective date) shall certify that treatment system

operational changes, if any, were completed and are expected to comply with the final limits on a consistent basis. The forecast prepared within the 2016 capital budget allocates project cost of \$100,000 in 2016 and \$1,480,000 between 2017 and 2025.

J. Jamison Pump Station Upgrade

The Jamison Road Pump Station was constructed in 1993. The station consists of five submersible pumps which include two 25 HP and three 150 HP pumps. There are two grinders and screens – one on each of the inlet channels. Dry weather flow at the station is approximately 2 MGD. Peak pumping capacity is approximately 16 MGD. Overall the wet well, valve vault, and building structure are in good condition and the station is functioning as designed. No changes are immediately required, but the SECAP recommended installing back-up power, painting the ferrous surfaces at the station, and replacing the grinders with a mechanical bar screen when maintenance of the grinders becomes an issue. The forecast prepared within the 2016 capital budget allocates project cost of \$621,983 in 2017 and \$1,585,376 in 2018. The project is scheduled to start in 2017 and be completed in 2018.

K. Overflow Mitigation Projects

In the late 1980s, LRW was the first municipality in Arkansas to establish a program to address excessive infiltration and inflow (I/I) which leads to sanitary sewer overflows during or following wet weather events. During the 1990s, LRW shifted its focus not only to address excessive I/I within public mains, but to restore capacity to basin outfalls that were undersized for designated wet weather events and labeled this effort as the overflow mitigation program (OMP). The program has reduced the number of overflow points within the city as well as reduced the amount of extraneous rainwater that was treated. LRW will continue this program as evidenced by the following identified future projects and corresponding funding efforts:

1. Overflow Mitigation Projects (OMPs) funded by RLF XI:

- a. Allsopp North/Country Club Rehabilitation** **\$8,867,300**
The Allsopp North/Country Club mainline CIPP rehabilitation project was completed. The second phase of rehabilitation, Pipe Burst and Open Cut Construction, was completed in November 2015. The Allsopp North/Country Club project is the largest overflow mitigation project the utility has designed to date.
- b. Allsopp Park/Country Club Outfall** **\$4,869,945**
These two outfall projects traverse some rather difficult terrain within the city's riverfront region and required careful attention to their environmental surroundings. Both outfall replacement projects were designed by McClelland Consulting Engineers (MCE) and MCE performed construction administration. The construction efforts were completed in February 2015.
- c. Leawood OMP** **\$6,829,800**
The CIPP portion of this Overflow Mitigation Project has been completed. The second phase of rehabilitation, containing Pipe Burst and Open Cut Construction will begin in February 2016.

- d. Lower Swaggerty OMP** **\$6,075,900**
The CIPP portion of this Overflow Mitigation Project has been completed. The second phase of rehabilitation, containing Pipe Burst and Open Cut Construction has been awarded and construction is underway. The project is scheduled to be completed in October 2016.
- e. Pleasant Valley OMP** **\$2,723,073**
The CIPP portion of this Overflow Mitigation Project was combined with the rehabilitation, containing Pipe Burst and Open Cut Construction. This project was completed in October 2015.
- f. Echo Valley OMP** **\$3,501,354**
The CIPP portion of this Overflow Mitigation Project was combined with the rehabilitation, containing Pipe Burst and Open Cut Construction. This project was begun in September 2014. Construction has been completed with final close-out of the contract in February 2016. A section of the outfall was pulled from the original contract, due a major conflict with 48" waterline, redesigned and bid separately. This work has been bid and is anticipated to be completed by the summer of 2016.
- g. 0H – 0G Relocation** **\$580,800**
The 36" outfall serving the Baptist Hospital, the Natural Resources Complex, as well as West Financial District, was previously under design for relocation. The proposed relocation was disapproved by the Federal Highway Administration, due to being in essence a longitudinal utility installation inside the right-of-way of an Interstate Highway. Therefore, it was determined necessary to stabilize the existing 36" pipe in place as well as internally rehab the pipe, in order to help ensure the long-term integrity of this vital interceptor. The external stabilization phase was completed in November, 2014. Bids for the Internal Rehabilitation phase were opened on September 4, 2015. The work on the Internal Rehabilitation phase will be complete in February, 2016.
- h. 42" Force Main Inspection & Diversion Structure – R29** **\$2,942,318**
Since its installation in the early 1980's, the force main serving the Fourche Creek Facility has undergone five major repairs due to hydrogen-sulfide degradation. This investigation will afford an internal review and structural determination of the remaining pipe. The unique situation of investigating while surcharged with raw wastewater creates a challenge that until only recently has technology been available to "see" through this medium and evaluate the surrounding pipe material. A technology using the SmartBall was completed in the summer of 2014. No leaks were detected, but the ARVs on the force main will need to be upsized and access points will be installed at the locations. During the installation of the access points, further investigation will be performed internally on the force main. A diversion structure to allow flows to be transferred from the 30" Fourche Force Main to the Adams 60" during high flows is being installed near Springer Boulevard which will address the R29 project. The construction on this project began January 2016.

- i. **Allsopp North/Country Club Manhole Rehab** **\$431,900**
This manhole rehab project will help to address Infiltration and Inflow, as well as repair any structural deterioration within the Allsopp North/Country Club basins. Construction on this project will begin in 2016.
- j. **Leawood Manhole Rehab** **\$525,036**
This manhole rehab project will help to address Infiltration and Inflow, as well as repair any structural deterioration within the Leawood area. Construction on this project will begin in 2016.
- k. **Echo Valley Manhole Rehab** **\$283,446**
This manhole rehab project will help to address Infiltration and Inflow, as well as repair any structural deterioration within the Echo Valley area. Construction on this project will begin in 2016.
- l. **Pleasant Valley Manhole Rehab** **\$431,400**
This manhole rehab project will help to address Infiltration and Inflow, as well as repair any structural deterioration within the Pleasant Valley area. Construction on this project will begin in 2016.
- m. **Springer Blvd – R1** **\$1,159,089**
This project consists of the upsizing of the mainline and addresses any Infiltration and Inflow, as well as structural deterioration.
- n. **West Markham Mainline – R6** **\$1,523,519**
This project consists of the upsizing of the mainline and addresses any Infiltration and Inflow, as well as structural deterioration.
- o. **Bishop Street Upsize – R14** **\$287,964**
This project consists of the upsizing of the mainline and addresses any Infiltration and Inflow, as well as structural deterioration.
- p. **Grassy Flat Main – R27** **\$1,016,199**
This project consists of the upsizing of the mainline and addresses any Infiltration and Inflow, as well as structural deterioration.
- q. **Granite Mountain OMP – M20** **\$1,883,305**
This project consists of the upsizing of mainlines and addresses any Infiltration and Inflow, as well as structural deterioration.
- r. **Lower Swaggerty OMP Manhole Rehab** **\$544,000**
This manhole rehab project will help to address Infiltration and Inflow, as well as repair any structural deterioration within the Lower Swaggerty area. Construction on this project will begin in 2016.
- s. **17th Street Pipeburst Upsize – R15** **\$378,662**
This project consists of upsizing 3 sections of main line by re-laying and pipe bursting to provide adequate hydraulic capacity. Construction on this project will begin in 2016.

t. Fairpark Relay – R12

\$114,665

This project consists of upsizing 3 sections of main line to provide adequate hydraulic capacity. Construction on this project will begin in 2016.

2. Overflow Mitigation Projects (OMPs) Planned for RLF XII:

RLF XII Projects

Roselawn Cemetery Relay – R9	\$ 584,717
17 th Street Relay – R10	\$ 400,680
Victory Street Relay – R20	\$ 8,764
Rodney Parham Relay – R25	\$ 57,564
Markham to Rodney Parham Relay – R26	\$ 166,535
Upper Country Club Outfall – R19	\$ 452,300
Abigail Street Relay – R11	\$ 81,739
Cantrell Basin I/I Reduction SSIES	\$ 1,763,974
Mainline Improvements for Modeled Overflows	\$ 2,153,000
Middle Hinson	\$ 1,072,073
Longfellow Subbasin 11400	\$ 1,506,951
Rose Creek Central OMP	\$ 136,383
University Avenue Relay - SECAP - R7	\$ 583,800
Rose Creek East Relay - SECAP - R13	\$ 789,470
River Ridge - SB 11200 OMP	\$ 374,602
Sherrill Heights - SB 11000 OMP	\$ 282,105
36th Street to Mabelvale Pike Outfall	\$ 5,152,614
Overlook/Pinnacle Point OMP 10070	\$ 100,000
Jimmerson West OMP	\$ 2,577,465
	\$18,244,736

- Rates are in place to support completion of project. RLF application pending.

3. Overflow Mitigation Projects (OMPs) Planned for RLF XIII:

RLF XIII Projects

Rose Creek Central OMP	\$ 2,686,645
36th Street to Mabelvale Pike Outfall	\$ 8,470,005
31.078 to 31080 (42" to 60") R3	\$ 43,355
Overlook/Pinnacle Point OMP 10070	\$ 1,085,757
Mainline Improvements for Modeled Overflows	\$10,211,249
Middle Hinson	\$ 6,559,548
Subbasin 30100 OMP	\$ 1,660,085
Rose Creek East OMP – M32	\$ 2,339,411
Cantrell Basin I/I Reduction Construction	\$ 1,640,639
Rebsamen Sewer Basin I/I Reduction	\$ 7,825,398
Rock Creek Sewer Basin I/I Reduction	<u>\$ 7,825,398</u>
	\$50,347,490

- Rates are in place to support completion of project. RLF application pending.

4. **Overflow Mitigation Projects (OMPs) Planned for RLF XIV:**

RLF XIV Projects

Cantrell Basin I/I Reduction Construction	\$ 5,969,186
Rebsamen Sewer Basin I/I Reduction	\$12,076,516
Rock Creek Sewer Basin I/I Reduction	\$12,076,516
Rose Creek West OMP	\$ 4,218,037
Barrow OMP	\$ 6,073,995
Walton Heights Basin 11600 OMP	\$ 2,041,842
Rebsamen Collector/Murray Park 10090	\$ 437,341
Rebsamen Collector/Commercial 10500	<u>\$ 172,593</u>
	\$43,066,026

- **Future rate increase needed for project** - Yes to support design and construction of projects (2020 Rate Increase)
- **Project purpose:** SECAP/CAO/Sierra Club - Protect Health, Environment

5. **Overflow Mitigation Projects (OMPs) Planned for RLF XV:**

RLF XV Projects

Rebsamen Collector/Harbor 10060	\$ 602,346
Rebsamen Collector/Golf Course OMP 10080	\$ 257,376
Boyle Park Mainline - R24	\$ 729,570
Rebsamen Collector/Alltel 10400	\$ 646,694
Allsopp Park South Near CRPS – R16	<u>\$ 1,001,236</u>
	\$ 3,237,222

- **Future rate increase needed for project** - Yes to support design and construction of projects (2022 Rate Increase)
- **Project purpose:** SECAP/CAO/Sierra Club - Protect Health, Environment

6. **Future Overflow Mitigation Projects (OMPs):**

Future Projects

Walnut Valley OMP	\$ 2,791,600
Chicot Subbasin 40704	\$ 3,138,700
Cloverdale Subbasin 40703	\$ 4,771,400
Mabelvale Pike Subbasin 40701	\$ 2,955,800
Meadowcliff Subbasin 40701	\$ 4,864,200
Quapaw South SB 20401	\$ 2,017,800
District 84 OMP	\$ 3,066,000
Upper Coleman OMP	\$ 5,557,500
District 119 OMP	\$ 3,767,100
Mabelvale OMP	\$ 2,365,300
Quapaw North OMP	\$ 1,995,600
Foreman Lake OMP	\$ 1,252,100
Hall High South OMP	<u>\$ 3,987,400</u>
	\$42,530,500

7. **Overflow Mitigation Projects (OMPs) Completed under RLF VIII:**

- a. **Jimmerson Creek (RLF VIII) – Completed in 2010.**

- b. **Jimmerson West Outfall (RLF VIII)** – Completed in 2010.
- c. **Jimmerson East and Upper Hinson Manhole Rehab (RLF VIII)** – Completed in 2010.
- d. **Allsopp South (RLF VIII)** - Completed in 2011.
- e. **Barton (RLF VIII)** – Completed in 2011.
- f. **System Evaluation and Capacity Assurance Plan (SECAP) Update (RLF VIII)** – Completed in 2010.

III. FINANCING

A. Discussion:

Little Rock Wastewater did not issue any new revenue bond issues in 2015 but refunded six outstanding bond issues (1996, 2004A, 2004B, 2004C, 2007A and 2007C Series) for a gross savings of \$13,848,981. LRW focused on starting and completing certain compliance projects provided by the SECAP and SECAP Update with the goal of eliminating capacity related sanitary sewer overflows in the Little Rock Sanitary Collection and Treatment system.

Bond funded 2015 projects are listed below. The funding source of these projects comes from both the RLF 2013 and 2012 Revenue Bond proceeds.

RLF 2013 - PROJECTS 2015

PROJECT NO.	NAME
0003120400	OH - OG Relocation
0004060300	Allsopp North/Country Club Rehabilitation
0004070600	Leawood OMP
0004070700	Echo Valley OMP
0004070800	Pleasant Valley OMP
0004080100	Granite Mountain OMP
0004080200	Lower Swaggerty OMP
0004080300	Subbasin 30100 OMP
0004083100	Jimerson West OMP
0004131900	Country Club Outfall/Allsopp Park Construction

2012 BOND - PROJECTS 2015

PROJECT NO.	NAME
0004150100	Trenchless Sewerline Renewal Contracts
0006130100	Cantrell Rd PS and Force Main Upgrade

IV. OTHER COMPLIANCE ACTIONS

A. **Signage/Public Notification/Public Information:**

As required in the Settlement Agreement, LRW staff developed a Sanitary Sewer Overflow Response Plan (SSORP) which was authorized by the Little Rock Sanitary Sewer Committee, now the Little Rock Water Reclamation Commission (LRWRC), on September 18, 2002. The SSO Response Plan, as amended, is included in this document as Attachment A. The plan establishes a protocol for maintenance crews to follow when responding to an SSO event, and specifies internal and regulatory reporting procedures. The SSORP is reviewed and revised annually to ensure all policies, procedures and contacts are accurate. The response protocol includes provisions for temporary signage and posting notices at individual residences. Temporary signage currently used by LRW is shown in Attachment B. A copy of the “door hanger” LRW uses to post residences is provided in Attachment C.

Practically all of the SSO Notification Program requirements contained in the Settlement Agreement are addressed in the SSORP, including the provisions for permanent signage at recurring SSO locations on public property. Locations eligible for permanent signage are in Table A-1 of the SSORP.

An example of permanent signage placed at recurring SSO sites is shown in Attachment D.

B. **Public Education and Outreach Programs** - LRW is committed to public education and outreach and has developed several programs to reach our customers in an effort to minimize sanitary sewer overflows and to educate the public on what they should do to help us help them.

1. Public Relations – To provide Consultation Services, Market Research, Public Policy Development and other Related Services LRW has contracted with JPJ Consulting. JPJ Consulting has played a critical role in the organizing of public meetings, development of public policy, market strategies to promote educational programs, and working with the City Board and the LRWRC to maintain transparency.

2. Can the Grease® - The *Can the Grease* initiative kicked off in 2002 as a means of education, motivation, and promotion of the grease related problems in Little Rock’s sanitary sewer system. LRW’s residential customers can request a grease information “starter kit,” which includes a grease container, three (3) heat-resistant liners, two (2) information pamphlets, the LRW *Can the Grease* brochure and the WEF Fat Free Sewers brochure, and an information magnet. Starter kits are also distributed in larger quantities at community events and to apartment complexes. In 2015, **552** starter kits were delivered to residential customers, **1392** to apartment complexes and mobile home parks, **50** at various community events or tradeshow, **36** for grease related overflows, and **100** for the subsidy program. LRW distributed approximately **2130** *Can the Grease* starter kits for the entire year. (Attachment E)

The *Can the Grease* program was nationally recognized in 2008 with the *NACWA Public Information & Education Award*, and in 2009 with the *ADEQ Stewardship Award*.

3. **Captain Sewer**® - Back in action, Captain Sewer made four appearances at local elementary schools in 2015 providing educational presentations on water conservation and the importance of clean water, activity books and earth balls to schools and children.

4. **Stay Connected**® - LRW continues to promote our **Stay Connected** program which has made a huge leap towards a cleaner, environmentally affable future through public education. The message is one of awareness and preservation: know where your sewer service line is and have it checked for cracks, breaks and debris. With an involved advertising campaign and service line inspection plan, LRW has made significant steps in public awareness and education of sewer service line responsibility and maintenance. *Stay Connected* paved the way for the development of the Sewer Service Line Replacement Program. This year's message to residences was "Call Us First". Promoted in bill inserts and several advertisements in local print media, "Call Us First" spread the message to call LRW before calling a plumber to verify whether stoppages were on the sewer main or in the private service line.

The *Stay Connected* program was nationally recognized in 2010 with the *NACWA Public Information & Education Award*. (Attachment I)

5. **Sewer Service Line Replacement Program** – Passed as an ordinance in June 2012 and put into effect January 1, 2013 the Sewer Service Line Replacement Program was put into effect to control inflow and infiltration from a source that LRW had no control over in the pass. Studies determined that 40% of the excess water entering into the collection system was coming from the private sewer services of homes and that many of these home have had long standing sewer service line issues that were too costly to repair by the home owner alone. Since its implementation there have been **1450** applicants to the program with **998** complete replacements. The average cost of replacing a service line **\$3,287.00** to which LRW offers \$2,500.00 in assistance reimbursement. The funds that support the program are collected from a \$1.00 monthly charge to the domestic customer and are held in an independent account. All funds in the account go directly back to our customers. To date LRW has reimbursed **\$2,465,516.00** back to customers participating in the program. Before the implementation of this program LRW met with the Arkansas Plumbers' Association and hosted an educational meeting informing local plumbers on how the program works and how to process these requests with LRW.

6. **Private Sewer Line Cleaning Permit** – This program is aimed at apartment complexes to coordinate their private sewer line cleaning with LRW to prevent downstream stoppages due to flushing debris and F.O.G. into the public mains. The program requires that before cleaning their services, apartments contact LRW, obtain the free permit, use a debris catcher, and work with our crews to prevent overflows to residence downstream.

7. **Bill Inserts** - LRW created two (2) bill inserts that were distributed in the Utility bill in 2015. The "Where Your Money goes/Call Us First" insert was released in July. The November "Can The Grease/ Call Us First" encouraged customers to continue

utilizing the FREE Can The Grease kits provided by LRW and promoted the *Stay Connected® "Call Us First"* program to aid customers with resolving sewer line issues that do not warrant a plumber's call thus reducing the cost to the customer. (Attachment G)

8. **Awards** – LRW received several awards and recognition during 2015 for contributions to the environment, financial reporting. The awards LRW received are as follows:

(a) **NACWA Peak Performance Awards** – The National Association of Clean Water Agencies (NACWA) awards Peak Performance Awards.

Platinum Awards recognize 100% compliance with NPDES permits over a consecutive five (5) year period. If a member agency has received a Platinum Award, in the subsequent years, as long as 100% compliance is maintained, Platinum Award status can be continued. Should 100% compliance not be maintained, member agency facilities must receive four consecutive Gold Awards to again be eligible for another Platinum Award.

Gold Awards honor treatment works that have achieved 100 percent compliance with their NPDES permit for an entire calendar year.

Silver Awards recognize facilities that have received no more than five NPDES permit violations per calendar year.

All eligible member agency facilities must provide at least secondary treatment, or advanced primary treatment with a 301(h) waiver. Additionally, there are no facility capacity minimums for Peak Performance Award eligibility.

Fourche Creek Treatment Facility had one violation for the year of 2014 receiving a Silver award, Adams Field and Little Maumelle Treatment Facilities all received the Gold Peak Performance Awards with no violations for the year. There were no violations at any of the facilities for 2015 and the Gold Award for each has been applied for.

(b) **Certificate of Achievement for Excellence in Financial Reporting**

The GFOA is a nonprofit professional association that serves approximately 17,500 professionals in the governmental finance field. The Certificate of Achievement for Excellence in Financial Reporting is the "highest form of recognition in governmental accounting and financial reporting" by the GFOA and is considered to be a "significant accomplishment by a government and its management." LRW's CAFR was judged by an impartial panel that looked for high standards of the program such as "demonstrating a constructive 'spirit of full disclosure' to clearly communicate its financial story and motivate potential users and user groups to read the CAFR."

This is LRW's tenth consecutive year to accomplish this feat. (Attachment H)

- (c) **Distinguished Budget Presentation Award** - The Government Finance Officers Association (GFOA) of the United States and Canada awarded Little Rock Wastewater the GFOA'S Distinguished Budget Presentation Award for its budget for 2014. The award represents a significant achievement by the entity. It reflects the commitment of the governing body and staff to meeting the highest principles of governmental budgeting. In order to receive the budget award, the entity had to satisfy nationally recognized guidelines for effective budget presentation. These guidelines are designed to assess how well an entity's budget serves as:
- a policy document
 - a financial plan
 - an operations guide
 - a communications device

Budget documents must be rated "proficient" in all four categories, and the fourteen mandatory criteria within those categories to receive the award.

When a Distinguished Budget Presentation Award is granted to an entity, a Certificate of Recognition for Budget Presentation is also presented to the individual or department designated as being primarily responsible for its having achieved the award. This award was presented to Debbie Williams.

Award recipients have pioneered efforts to improve the quality of budgeting and provide an excellent example for other governments throughout North America. The Government Finance Officers Association is a nonprofit professional association serving over 17,600 government finance professionals throughout North America. The GFOA's Distinguished Budget Presentation Awards Program is the only national awards program in governmental budgeting. This is LRW's sixth consecutive year to accomplish this feat. (Attachment I)

- (d) **Excellence in Achievement - Procurement**. LRW was presented the Excellence of Achievement Award in 2015 by the Universal Public Purchasing Certification Council (UPPCC) for having a fully certified staff for eight (8) consecutive years.

This award was created to acknowledge an agency's commitment to the value of certification in the public sector. David R. Gugar, Chair of the UPPCC Governing Board states that "This accomplishment speaks volumes of [this] agency's commitment and dedication to the

profession and the skills and expertise that [LRW] bring to the public procurement industry.”
(Attachment J)

9. Trade Associations, Exhibits, Fundraisers, and Community Service – One of the major success elements of our public awareness program in 2015 was our participation in specific trade associations, environmental exhibits, and community events. Participation in selected trade associations has allowed LRW to promote and educate an extensive number of residents and business owners on the importance of reducing grease in the sanitary sewer system, updates on our major projects and water conservation. 2015 event/exhibit participation is as follows and shown on Attachment K.

(a) **Partners in Education**- LRW has teamed with local schools to provide assistance and materials when needed and to help promote our public education programs. Since 1995, LRW has sponsored the Little Rock Central High (LRCH) School Science Fair by providing materials for protection of the gymnasium floor, the incentive awards, and judges. Central High teachers, PTA, and administration have been most appreciative of LRW's efforts in supporting environmental education and LRW employees have been very responsive in volunteering. On February 6, 2015, the LRCH science fair was conducted and several LRW employees volunteered to judge. LRW also has partnered with eStem, Henderson Middle School, David O'Dodd and Booker T. Washington Elementary Schools providing appearances and guest speaking, educational activity books, bottled water, and *Can the Grease* kits at various school events.

(b) **National Night Out** – LRW participated in five National Night events in 2015, via the area's Neighborhood Resource Centers. On October 6, LRW employees participated in the events at several locations throughout the City, promoting our CTG and SSLRP programs.

(c) **Earth Day** – Hosted at the Clinton Library on April 18, 2015 LRW attended and passed out *Can the Grease* kits as well as SSLRP and other program information.

(d) **Spanish Speaking Customers** – To better reach our Spanish speaking customers, all customer handout materials have been translated and put together in packets for our personnel to give to the homeowner or resident when needed.

(e) **Arkansas Hospitality Association Trade Show** - LRW participated in the 2015 AHA Trade Show at the State House Convention Center to promote LRW outreach programs as well as using it as an outlet to introduce local service industries to our Environmental Assessment Division (EAD) whom oversee compliance of industries with ADEQ's pretreatment regulations.

(f) ***Community Involvement*** - Another way LRW promoted public awareness programs in 2015 was our participation in the United Way fundraiser campaign, Little Rock's Adopt-A-Street program where LRW adopted ¼ of a mile of road along Shackleford Road, the Channel 11 THV Summer Cereal Drive for the Arkansas Foodbank Network, VIP (Volunteers in Public Schools) book reading to elementary age students, and the Little Rock Walk for Community.

10. *Media* – It has been the intent of LRW to continue improved communication with all areas of the media during 2015. That goal was accomplished through regularly issued press releases highlighting special topics of interest. LRW worked with JPJ Consulting and ARCOMM Productions.

In 2015 LRW advertised in various local publications such as *Arkansas Times* and *Arkansas Business*, to promote programs and public education campaigns. (Attachment L)

11. *Publications* –We printed several informational brochures on a variety of topics from our *Can the Grease*, *The Sewer Service Line Replacement Program*, and *Work in Your Area Notices*. (Attachment M)

12. *Website* – LRW continually maintained the new website for www.lrwu.com with the latest news, updates, and information. The user-friendly site enables visitors to view a calendar listing all LRWRC meeting dates, approved minutes of the Commission, and biographies of each Commissioner. With several interactive displays, general wastewater information, ordinances, rate information, and much more, website traffic continues to grow. One of the most visited areas of the site is the customer information section, which enables visitors to select a topic or department, and then populate a field with a question or comment. They can also look at LRW's construction schedule to see dates and places of work to be performed.

13. *Facility Tours* – LRW conducted a total of 8 wastewater treatment facility tours at our Little Maumelle Treatment Facility, Adams Field treatment Facility, Fourche Creek Treatment Facility and the Scott Hamilton Equalization Basin. To further public education, brochures are distributed to each visitor detailing the facility during the tour(s). Some of those who toured the facility were: UALR, Central Arkansas Plumbers' Apprenticeship School, and the Arkansas Environmental Academy, Mayflower Middle School, Boy Scouts of America, Pulaski County Youth Services, Wakefield and Baseline Neighborhood Associations as well as Southwest United for Progress. (Attachment N)

V. SUPPLEMENTAL ENVIRONMENTAL PROJECTS AND ANY OTHER LRW ENVIRONMENTAL EFFORTS

The Settlement Agreement required the LRWRC to establish a Supplemental Environmental Project consisting of the Fourche Plant Wetlands, bike paths (set forth hereinafter in paragraphs A and B):

- A. **Fourche Creek Wastewater Treatment Facility Wetlands:** The 90 acres of wetlands next to the FCWTF have not been disturbed and are available to Little Rock Parks & Recreation Department if it wishes to develop hiking trails on the property. In 2010, the Audubon Society of Arkansas removed the invasive species, Alligator Weed, from this area by laying down tarps to “choke out” the weed. They followed up by replanting species of vegetation native to the area. The Audubon Society also introduced to the area an insect known for eating only the Alligator Weed. They obtained these insects from the Corps of Engineers out of Jacksonville, Florida. The replanting of the native vegetation has been successful but the Audubon Society is still verifying the success of the insects.

- B. **Bike Paths:** In 2012 LRW contractors completed a pipeline conveyance project in correlation with the LMWTF where it placed large diameter pipes underneath Pinnacle Valley Road (PVR) and County Farm Road (CFR). The completion of the project entailed a new, asphalt road for PVR and CFR with designated bike paths on both sides of the road. LRW also constructed a walking bridge on top of our conveyance pipe which crosses the Little Maumelle River. When LRW constructed the access road to the LMWTF, a nine-foot wide pedestrian way was constructed for future bike path endeavors along the road. LRW is continuing communication with Little Rock’s Parks and Recreation Department, the City of Little Rock, and Pulaski County officials for future possible bike paths. Mayor Mark Stodola invited LRW to be a part of a bike path task force, and it plans on actively participating in the future.

VI. 2013 NON-CAPACITY RELATED SANITARY SEWER OVERFLOWS

- A. **Compliance Standard:** The Settlement Agreement limits the number of non-capacity related SSOs per 100 miles of sanitary sewer operated and maintained by LRW in LRWRC’s collection and treatment system. The Settlement Agreement specifies the following “interim schedule” for non-capacity related SSOs:

Calendar Year	Number of Non-Capacity Related SSOs per 100 Miles of Sewer
2002	12
2003	11
2004	10
2005	9
2006	8
2007	7
2008	6

When LRWRC has reduced non-capacity related SSOs to 6 per 100 miles of sewer mains for two (2) consecutive calendar years, LRWRC shall be deemed to have complied with all provisions of this agreement related to non-capacity related SSOs.

B. Non-Capacity Related SSOs in 2015: There were 49 non-capacity related SSOs reported in 2015. Of the 49 total, thirteen (13) SSOs were related to construction and vandalism. The result was a total of 36 non-capacity related overflows attributed to the operation and maintenance of the LRW collection system. Of the 36 non-capacity related overflows, three (3) SSOs were attributed to debris; two (2) SSO were attributed to equipment failure; six (6) SSOs were attributed to grease; five (5) SSOs were attributed to line failures; twenty (20) SSOs were attributed to roots.* A complete listing of non-capacity related SSOs is provided under Attachment O.

C. Compliance Assessment: LRW has reduced the number of non-capacity related sanitary sewer overflows attributed to the operation and maintenance of the collection system owned by LRW to below 6 per 100 miles of sewer lines for twelve (12) consecutive calendar years, - 2004 with a total of 42, 2005 with a total of 53, 2006 with a total of 42, 2007 with a total of 46, 2008 with a total of 33, 2009 with a total of 38, 2010 with a total of 39, 2011 with a total of 45, 2012 with a total of 49, 2013 with a total of 46, 2014 with a total of 36, and 2015 with a total of 36. Therefore, under the Settlement terms in Paragraph No. 5, page 10, LRW is deemed to have complied with all provisions of this Settlement related to non-capacity related SSOs.

D. Additional Projects Not Covered By SECAP: In addition to the progress made on SECAP projects during 2015, LRW spent approximately \$3,676,250.00 renewing or replacing structurally deteriorated sewer mains. Old deteriorated sewers are sources of infiltration/inflow and are prone to blockage, contributing to both the number of capacity and non-capacity SSOs.

In a continued effort to maximize LRW's rehab dollars, LRW treated 66,713 feet of mainline in 2015 with a contracted chemical root removal company with a total cost of \$95,755.62. Root removal is an important component of LRW's Plan 66 that targets SSO reduction.

LRW personnel completed work on 278 line segments that were in need of point repairs as well as relocated or replaced 7,559 feet of sewer line.

14,272 feet of sewer line was rehabilitated under the 2015 maintenance contracts for pipe bursting and cured-in-place-pipe (CIPP), for a total cost of \$1,876,079.

In 2015, the Cleaning and Inspection Department Televised 576,092 feet, Hand Cleaned 590,880 feet, Hydro Cleaned 1,714,458 feet, and Line Walked 1,531,339 feet of sewer lines.

* In March 2007, LRW eliminated the combination of "Roots & Grease" as a code in reporting the cause of an overflow. LRW decided to use either "Roots" or "Grease" to improve reporting and tracking of SSOs.

VII. 2015 CAPACITY RELATED SANITARY SEWER OVERFLOWS

A. Compliance Standard: The Settlement Agreement requires that capacity related SSOs be mitigated, provided that SSOs may occur without a breach of the Settlement Agreement if rainfall amounts exceed a duration-quantity table that essentially defines a two-year storm event (“qualifying event”). A qualifying event shall occur if any of the twelve permanent rain gauges within the collection system record a two-year storm event. More specific, to that end, the agreement required completion of a study recommending and establishing a time line for specific actions to address capacity related SSOs. The study would serve as the foundation for a long-term compliance program.

B. Capacity Related SSOs in 2015: There were 309 capacity related SSOs reported in 2015 at 74 locations. There were four (4) rain events recorded in 2015 measuring above the Design Storm which resulted in one hundred fifty-nine (159) capacity related overflows. Two (2) of these storms happened within a 72 hour period. The remaining 150 capacity related overflows occurring in 2015, resulted from rain events measuring below the Design Storm threshold. A complete listing of capacity related SSOs is provided under Attachment P.

VIII. CONCLUSION

Since the execution of the Settlement Agreement in 2001, LRW has come a long way in mitigating SSOs. LRW plans on taking a holistic approach in improving the current system by rehabilitating and replacing existing infrastructure that contributes to SSOs. LRW is committed to protecting public health and being a good steward of the environment.