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LITTLE ROCK
Water
Reclamation
Authority

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SIERRA CLUB

Settlement Compliance Report

Submitted to the Little Rock
Water Reclamation Commission
February 20, 2019

SIERRA CLUB SETTLEMENT
ANNUAL REPORT
FOR 2018

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**SIERRA CLUB SETTLEMENT COMPLIANCE REPORT
FOR 2018
EXECUTIVE SUMMARY
From Greg Ramon, C.E.O.**

I am pleased to submit the attached Sierra Club Annual Report outlining the progress Little Rock Water Reclamation Authority (LRWRA) has made in mitigating sanitary sewer overflows during 2018. System improvements began on September 12, 2001, when LRWRA (formerly Little Rock Wastewater) and the Sierra Club signed the Settlement Agreement (Agreement). Since then, LRWRA has worked diligently to comply with the terms set forth. Since its inception, LRWRA has spent almost \$390 million to meet the requirements of the Agreement. It is projected to cost an additional \$160 million to renew the aging collection system and to reduce the occurrence of sanitary sewer overflows.

Since the signed Agreement, LRWRA has realized great success in mitigating non-capacity related overflows and continued to meet the Agreement throughout 2018. This is a result of the established maintenance procedures and schedules which continue to provide the desired results by minimizing mainline stoppages within the collection system. It is my privilege to say that LRWRA continues to meet the requirements for non-capacity overflows outlined in the Agreement.

As it relates to capacity related overflows, LRWRA continues to have success. We have secured the needed sewer rate increases and bond financing necessary to continue to make the improvements to the system. We have embarked on a rehabilitation and replacement program to improve the collection system. We recently increased capacity by 31 million gallons at the Scott Hamilton Peak Flow Attenuation Facility. The completion of this project increased our Peak Flow storage to 75 million gallons. Also, we are making improvements at the Fourche Creek Water Reclamation Facility as well as the Adams Field Water Reclamation Facility which will allow us to increase peak flow capacity from 122 million gallons to 156 million gallons.

Also, as part of our ongoing communication efforts, LRWRA continues to educate our customers on available programs to assist in preventing overflows, maintaining a reliable sewer system and pipeline construction projects around the city. Our commitment providing excellent service to the community is as strong as ever. We continue to promote our *Can the Grease* © program which provides residents the ability to dispose of grease safely by not pouring it into the sewer and the *Sewer Service Line Replacement Program* which provides financial assistance when residents replace their entire sewer service. This program helps decrease the frequency and magnitude of sanitary sewer overflows.

I am proud of the past success and look forward to future improvements which continue to move LRWRA in the right direction. We believe our efforts are in line with improving our community and the environment we all cherish.

Respectfully submitted,



Greg Ramon, CEO

I. INTRODUCTION

The following activities constituted LRWRA's major compliance efforts which are discussed with other activities in the order mentioned, consisting of (1) Project Updates, 2) Financing; (3) Other Compliance Actions; (4) Supplemental Environmental Projects; (5) 2018 Non-Capacity Related Sanitary Sewer Overflows; and, (6) 2018 Capacity Related Overflows.

II. PROJECTS UPDATE

The System Evaluation Capacity Assurance Plan (SECAP) update is the Capital Improvement Master Plan (CIP) to mitigate overflows for the designated design storm.

LRWRA listed the master plan projects in the 2018 budget and scheduled them accordingly. The report lists storage facilities, operation adjustments, capacity improvements, and other pertinent items to mitigate overflows. One such project, the Grassy Flat main was completed which required a capacity increase from an 18-inch main to a 30-inch mainline. The one storage site project is now in construction, Scott Hamilton Drive Peak Flow Facility (formerly referred to as the Mabelvale Pike Peak Flow Attenuation Facility), adding 31 million gallons (MG) of storage capacity to the existing facility. On December 1, 2015, LRWRA was granted a discharge permit modification allowing parallel treatment to the existing biological train. The new water reclamation facility configuration allows for 94 million gallons per day of continuous treatment while meeting discharge permit parameters. The new approach eliminates the need for additional storage at the Adams Field Water Reclamation Facility (AFWRF). There are multiple projects listed in the SECAP update to increase the capacity of existing gravity mains. A large diameter main (42-inch & 48-inch) proposed from 36th street to Mabelvale Pike is the largest line project required. Multiple projects such as manhole adjustments and upsizing of mains are included in the report. The following list is projects already completed or currently included in the 2018 budget.

A. Little Maumelle Water Reclamation 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 updated SECAP, dated November 2010, identified the need for additional storage to complement the existing storage facility on Scott Hamilton Drive. The additional storage, along with a hydraulic upgrade at the Peak Flow Pump Station, further reduces the surcharge of rainfall dependent inflow and infiltration within the North and South 60 Sewer Interceptors. This mitigates sanitary sewer overflows within the service area for the identified design storm. The preliminary engineering report identified the need for an additional 31 MG of storage. The Conditional Use Permit phase is completed. LRWRA progressed towards completion of the design phase efforts for this project in mid-2016. The project was bid and construction began in September 2016.

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 was installed in 2018 along with the additional storage basin.

The forecast prepared in conjunction with the 2019 capital budget allocates project cost of \$760,999 in 2019.

E. Fourche Creek Water Reclamation 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 Water Reclamation Facility (FCWRF) to a minimum of 45 MGD. In 2008, LRWRA, with its consultant, completed a 20-year CIP to assess treatment processes, identify deficiencies, and plan for improvements to the water reclamation facility 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. 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, was completed October 2011. With the completion of the second phase, the water reclamation facility can hydraulically handle 45 MGD. The third phase will address headworks and primary and secondary clarifier needs with a project cost estimate of \$5,410,238 in 2019, and \$4,284,000 in 2020. This project is scheduled to be completed in 2020.

F. Adams Field Parallel Treatment – (previously Storage/Disinfection)

The updated SECAP report was revised November 2010, identified the need for additional storage at the AFWRF to complement existing and proposed storage facilities (Scott Hamilton Drive Peak Flow Facility). The additional storage would allow for extended hydraulic pass-through of rainfall dependent I&I 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 water reclamation facility to the duration of the design storm. Also, elevated flow rates through the biological portion of the

water reclamation facility hinder the ability of the water reclamation facility to remove ammonia nitrogen (NH₃-N). Within the 2016-2017 permit cycle, Arkansas Department of Environmental Quality (ADEQ) requires more stringent limits on the amount of NH₃-N within the effluent.

In 2014, LRWRA applied for and was granted in late 2015 a permit modification enables parallel treatment of the biological system. A parallel treatment system used during wet weather events takes 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 proves effective in adequately treating effluent to within permit limits during wet weather events. The advantage of a parallel treatment system over storage is the water reclamation facility can maintain its peak capacity indefinitely, thereby reducing the hydraulic impact to the collection system during a rain event. With this permit modification, LRWRA no longer needed to add additional storage at the water reclamation facility and proceeded with parallel treatment design in 2017. As a part of this project, LRWRA plans to increase the peak flow treatment capacity to 94 MGD by installing media filtration to be operated in parallel with the existing activated sludge facilities. In 2015, before ADEQ determined the oxygen demanding constituent of all municipal wastewater discharges, NH₃-N, has a significant effect on the predicted dissolved oxygen (DO) level in the Arkansas River. The ADEQ water quality model indicated a NH₃-N permit limit of 7.0 mg/l for the AFWRF was needed to meet the in-stream DO water quality standard of 5.0 mg/l. This project is proposed to address capital improvements to the secondary clarification, aeration basins and equipment to comply with future permit limits for NH₃-N removal. The forecast prepared within the 2019 capital budget allocates project cost of \$21,873,605 between 2019 and 2020.

G. Fourche Creek Water Reclamation Facility Nutrient Removal

Effective October 1, 2014, ADEQ issued a permit renewal for the facility. Within the permit, ADEQ directed LRWRA to comply with a schedule for ammonia-based limits predicated upon general water quality standards for this segment of the Arkansas River. At 18-months after the effective date of the renewed permit, Report No. 1 was submitted which contained an evaluation of the current treatment system, as configured, and its inability to comply with the final ammonia nitrogen (NH₃-N) limits on a consistent basis. Prior to the 24-month after the effective date deadline for Report No. 2, a correspondence was received from ADEQ indicating their re-evaluation of the water quality model incorporating more accurate river widths, and site-specific instream values instead of ecoregion-based values. According to this letter, the re-evaluation of the modeling analysis and the ammonia toxicity calculations determined NH₃-N limits are not needed for this facility. Both the updated model and the updated ammonia toxicity calculations were technically reviewed and deemed technically acceptable by EPA. Therefore; ADEQ recommended that LRWRA file for an NPDES permit modification application as soon as possible to have the final CBOD₅ and NH₃-N limits and the remaining compliance schedule removed from the current permit. On October 13, 2016, LRWRA filed with ADEQ the FCWRF Permit Modification Application requesting these changes.

H. Adams Field Water Reclamation Facility Asset Renewal Phase 1

The AFWRF was placed into service as a primary water reclamation facility in 1961 with the addition of secondary treatment in 1972. AFWRF went through some modifications in the 1980s. In the mid-2000s, the facility was again modified to reduce odors, eliminate risks associated with chlorine gas storage, and accommodate flows up to 94 MGD through primary treatment for a period of hours. Through these modifications, some facility assets were renewed or replaced to accommodate the intent of the modifications. The goal is to have AFWRF further evaluated using a formal Asset Management Plan (AMP) to identify the lifespan and replacement timeframe for existing assets. While the AMP is being developed in another project, this project sets aside monies to allow for the systematic replacement of identified assets targeted for replacement or renewal at the facility. The forecast prepared within the 2018 capital budget allocates project cost of \$25,395,600 by 2023.

I. 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 2018 capital budget allocates project cost of \$621,983 in 2020 and \$1,585,376 in 2021. The project is scheduled to start in 2020 and be completed in 2021.

J. Overflow Mitigation Projects

In the late 1980s, LRWRA was the first municipality in Arkansas to establish a program to address excessive inflow and infiltration which leads to sanitary sewer overflows during or following wet weather events. During the 1990s, LRWRA 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 treated. LRWRA will continue this program as evidenced by the following identified future projects and corresponding funding efforts:

1. Overflow Mitigation Projects (OMPs) funded by RLF 2013:

- a. Allsopp North/Country Club Rehabilitation**
 - Construction completed December 2015.
- b. Allsopp Park/Country Club Outfall**
 - Construction completed February 2015.
- c. Leawood OMP**
 - Construction completed October 2017.

- d. **Lower Swaggerty OMP**
 - Construction completed August 2017.
- e. **Pleasant Valley OMP**
 - Construction completed October 2015.
- f. **Echo Valley OMP**
 - Construction completed April 2016.
- g. **0H – 0G Relocation**
 - Construction completed March 2016.
- h. **42” Force Main Inspection & Diversion Structure – R29**
 - Construction completed December 2016.
- i. **Allsopp North/Country Club Manhole Rehab**
 - Construction completed October 2017.
- j. **Leawood Manhole Rehab**
 - Construction completed October 2017.
- k. **Echo Valley Manhole Rehab**
 - Construction completed October 2017.
- l. **Pleasant Valley Manhole Rehab**
 - Construction completed October 2017.
- m. **Springer Blvd – R1**
 - Construction completed August 2017.
- n. **West Markham Mainline – R6**
 - Construction completed September 2017.
- o. **Bishop Street Upsize – R14**
 - Construction completed September 2016.
- p. **Grassy Flat Main – R27**
 - Construction completed December 2016.
- q. **Lower Swaggerty OMP Manhole Rehab**
 - Construction completed October 2017.
- r. **17th Street Pipeburst Upsize – R15**
 - Construction completed September 2016.
- s. **Fair Park Relay – R12**
 - Construction completed August 2016.

2. Overflow Mitigation Projects (OMPs) Funded for RLF 2016:

RLF 2016 Projects

36th Street to Mabelvale Pike Outfall	\$1,197,802
Granite Mountain OMP	\$347,819
Jimerson West OMP	\$249,594
Longfellow OMP	\$173,562
Mainline Improvements for Verified Overflows/Growth	\$41,642
Middle Hinson Drainage Area OMP	\$246,573
Overlook/Pinnacle Point OMP	\$1,822,725
River Ridge OMP	\$69,261
Rose Creek Central OMP	\$389,748

Sherrill Heights OMP	\$81,709
Upper County Club Outfall	\$125,501
Cantrell Basin Inflow and Infiltration Reduction Program	\$610,079
Total	\$5,356,015

3. Overflow Mitigation Projects (OMPs) Funded by RLF 2018:

RLF 2018 Projects

36th Street to Mabelvale Pike Outfall	\$12,923,730
Granite Mountain OMP	\$468,174
Jimerson West OMP	\$1,922,643
Longfellow OMP	\$3,144,562
Mainline Improvements for Verified Overflows/Growth	\$4,978,997
Middle Hinson Drainage Area OMP	\$10,751,609
Overlook/Pinnacle Point OMP	\$1,804,835
River Ridge OMP	\$184,645
Rose Creek Central OMP	\$3,014,098
Sherrill Heights OMP	\$652,082
Upper County Club Outfall	\$1,714,795
Cantrell Basin Inflow and Infiltration Reduction Program	\$530,000
Total	\$42,090,170

4. Overflow Mitigation Projects (OMPs) Planned for RLF 2019:

RLF 2019 Projects

Abigail Street Relay	\$5,194
Barrow OMP	\$344,291
Cantrell/Rebsamen/Rock Creek/Grassy Flat Basins Inflow and Infiltration Reduction Program	\$8,263,946
Rodney Parham Relay	\$3,731
Markham to Rodney Parham Relay	\$10,794
Roselawn Cemetery Relay	\$38,221
Subbasin 30100 OMP	\$259,472
University Ave Relay	\$47,391
Walton Height OMP	\$221,209
Middle Hinson Drainage Area OMP	\$2,753,322
Total	\$11,947,571

- **Project purpose:** SECAP/CAO/Sierra Club – Protect Health, Environment

5. Overflow Mitigation Projects (OMPs) Planned for RLF 2020:

RLF 2020 Projects

17th Street Relay	\$382,204
Barrow OMP SB 30700	\$2,728,441
Cantrell/Rebsamen/Rock Creek/Grassy Flat Basins Inflow and Infiltration Reduction Program	\$18,709,666
Markham to Rodney Parham Relay	\$155,741

Rodney Parham Relay	\$53,833
Abigail Street Relay	\$76,441
Roselawn Cemetery Relay	\$557,426
Subbasin 30100 OMP	\$1,443,596
University Ave Relay	\$681,875
Walton Heights - Basin 11600 OMP	\$1,628,746
Total	\$26,417,969

- **Project purpose:** SECAP/CAO/Sierra Club – Protect Health, Environment

6. 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

Discussion

A Revolving Loan in the amount of \$61,600,000 was approved by the City of Little Rock (CLR) Board of Directors in 2018. CLR Ordinance 21,553, for Water Reclamation System Revenue Bonds Series 2018, was adopted on February 20, 2018. This bond issue was necessary to fund the design and construction of collection system overflow mitigation projects provided in the SECAP and the SECAP Update. The goal of these projects is to mitigate capacity related SSOs in the LRWRA collection and treatment system.

Water Reclamation System Revenue Bonds Series 2016 (RLF 2016)

Proceeds from RLF 2016 totaling \$13,368,378 funded the costs associated with engineering services and construction of the following projects in 2018. The RLF 2016 balance remaining as of December 31, 2018 totals \$28,107,444 and is expected to complete in 2020.

Project Number	Project Description
4080100	Granite Mountain OMP
4084600	Longfellow Subbasin - 11400 OMP

4101800	Rose Creek Central OMP
4115000	River Ridge Subbasin 11200 OMP
4115100	Sherrill Heights Subbasin 11000 OMP
4120500	36th Street to Mabelvale Pike Outfall
4120800	Upper Country Club Outfall
4121400	Overlook/Pinnacle Point OMP
4121900	Mainline Improvements for Modeled Overflows/Growth
4160600	Middle Hinson
4170100	Trenchless Sewerline Renewal
4171700	Jimerson West OMP Phase 2
7130100	Scott Hamilton Peak Flow Storage Facility
7130300	Adams Field WRF Parallel Treatment & Disinfection Upgrade & Ammonia Removal
7160100	Fourche Creek Water Reclamation Facility Phase III Rehabilitation

Water Reclamation System Revenue Bonds Series 2017 (Series 2017 Bond)

Proceeds from Series 2017 Bond totaling \$1,130,654 funded costs associated with professional services for the Fourche Creek Water Reclamation Facility Phase III Rehabilitation project. The goal of this project is to increase the hydraulic capacity of the water reclamation facility from 36 MGD to 45 MGD. The Series 2017 Bond balance remaining as of December 31, 2018 totals \$9,704,346 and is expected to complete in 2020.

Water Reclamation System Revenue Bonds Series 2018 (RLF 2018)

Proceeds from RLF 2018 totaling \$7,555,441 funded the costs associated with engineering services and construction of the following projects in 2018. The RLF 2018 balance remaining as of December 31, 2018 totals \$54,044,559 and is expected to complete in 2021.

Project Number	Project Description
4080100	Granite Mountain OMP
4084600	Longfellow Subbasin 11400 OMP
4101800	Rose Creek Central OMP
4115000	River Ridge Subbasin 11200 OMP
4115100	Sherrill Heights Subbasin 1100 OMP
4120500	36th Street to Mabelvale Pike Outfall
4120800	Upper Country Club Outfall
4121400	Overlook/Pinnacle Point
4121900	Mainline Improvements for Modeled Overflows/Growth
4160300	Cantrell Sewer Basin I/I Reduction

4160600	Middle Hinson
4160800	Rock Creek Sewer Basin I/I Reduction
4170300	Sewer Assessment Lines > 18 Inches
4171700	Jimerson West OMP Phase 2
4180100	Trenchless Sewerline Renewal
4190200	Rebsamen Sewer Basin I/I Reduction

IV. OTHER COMPLIANCE ACTIONS

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

As required in the Agreement, LRWRA 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 SSORP, as amended, is included in this document (*see Attachment A*). The plan establishes a protocol for maintenance crews to follow when responding to a sanitary sewer overflow 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 (*see Attachment B*). A copy of the “door hanger” LRWRA uses to post residences is also provided (*see Attachment C*).

The sanitary sewer overflow notification program requirements contained in the Agreement are addressed in the SSORP, including the provisions for permanent signage at recurring sanitary sewer overflow locations on public property. Locations eligible for permanent signage are in *Table A-1* of the SSORP. Permanent signage is placed at recurring sanitary sewer overflow sites (*see Attachment D*).

B. **Public Education and Outreach Programs:**

LRWRA is committed to public education and outreach and has developed several programs to reach our customers to minimize Sanitary Sewer Overflows and to educate the public on what they should do to help protect the environment.

1. Public Relations

To provide consultation services, market research, and other related services LRWRA has continued contract services with a communications and marketing consultant company. This effort has been critical in outreach efforts around Project RENEW, updating the SSLRP information to make it customer friendly, the organizing of public meetings and market strategies to promote educational programs. Also in an effort to better communicate with our residents, a new public website that offers a more user-friendly experience and more educational information for ratepayers was launched in 2018.

2. Project RENEW

As part of LRWRA’s multi-year, capital improvement project to renew aging pipelines throughout the city, an outreach campaign continued in project areas. The outreach

included postcard mailers to the homes, community meetings, door hangers, targeted phone calls, one-on-one meetings, vehicle magnets for contractors and an interactive project map on the website, so residents can search to see if there are any current or planned projects in their neighborhood (*see Attachment E*).

3. 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. LRWRA's residential customers can request a grease information "starter kit," which includes a grease container, three (3) heat-resistant liners, the LRWRA *Can the Grease®* information card, and an information magnet. Starter kits are also distributed in larger quantities at community events and to apartment complexes. In 2018, **506** starter kits were delivered to residential customers, **1100** to apartment complexes and mobile home parks, **1,000** at various community events or tradeshow, **90** for grease related overflows, and **29** for the subsidy program. LRWRA distributed approximately **2,725** *The Can the Grease®* starter kits for the year (*see Attachment F*).

4. Cap the Cleanout

Cap the Cleanout is an initiative kicked off in 2017. While working in project areas evaluating and rehabilitating sewer lines, if a cleanout cap is found to be missing from the homeowner's sewer line they can receive a free cap, and have it replaced by LRWRA. In 2018, LRWRA installed **60** cleanout caps to individual residents. This is part of our continued efforts to help homeowners properly maintain their sewer service line while helping us seal the system. By replacing the cleanout cap it prevents rainwater from entering the sewer system causing water to unnecessarily be treated, keeps debris out of the service lines which can cause blockages and leads to backups in the home, prevents small animals and rodents from entering the sewer system and helps prolong the life of the sewer system. (*see Attachment Q*).

5. Sewer Service Line Replacement Program

An ordinance passed in June 2012 and put into effect January 1, 2013, the Sewer Service Line Replacement Program ("SSLRP") was put into effect to control inflow and infiltration from a source LRWRA had no control over in the past. Studies determined up to 40 percent of the excess water entering the collection system was coming from the private sewer services of homes and many of these homes have had long-standing sewer service line issues that were costly to repair by the home owner alone. Since its implementation, there have been **2,921** applicants to the program with **2,189** complete replacements. The average cost of replacing a service line is **\$3,463** to which LRWRA offers up to \$2,500 in assistance reimbursement. The funds supporting 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. An additional funding source was added in February 2016, allowing LRWRA to reimburse some homeowners (meeting more stringent guidelines) with money from the State of Arkansas RLF. To date, LRWRA has issued **\$1,148,048** in homeowner reimbursements using these State of Arkansas Revolving Loan Fund (RLF) monies. In total LRWRA has reimbursed **\$5,443,151** back to customers participating in the program since its inception. Before the implementation of this program, LRWRA 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 LRWRA (*see Attachment G*).

6. *Private Sewer Line Cleaning Permit*

This program is aimed at apartment complexes to coordinate their private sewer line cleaning with LRWRA to prevent downstream stoppages due to flushing debris and fats, oils, and grease (FOG) into the public mains. The program requires before cleaning their services, apartments contact LRWRA, obtain the free permit, use a debris catcher, and work with our crews to prevent overflows to residents downstream.

7. *Bill Inserts*

LRWRA created five (5) bill inserts distributed in 2018. The "Earth Day" insert was released in April and included details on LRWRA's three eco-friendly programs: *Can the Grease*®, *Cap the Cleanout*, and SSLRP. The "Imagine a Day Without Water" insert was released in September and gave customers some interesting facts on an average American's water usage and encouraged customers to become a part of the campaign to raise awareness about the preservation of water. The October billing contained an insert for the "Arkansas Drug Take Back Day" that informed customers where they could take their old prescriptions to be safely disposed of, instead of flushing them. The "*Can the Grease*®" bill insert was released in November and encouraged customers to continue utilizing the FREE *Can the Grease*® kits. The "How to Read Your Bill/Rate Adjustment" insert was released in December. (*see Attachment H*)

8. *Awards*

LRWRA received several awards and recognitions during 2018 for contributions to the environment, financial reporting, procurement, and innovation. The awards LRWRA received are as follows:

(a) Certificate of Achievement for Excellence in Financial Reporting

The Government Finance Officers Association (GFOA) is a nonprofit professional association that serves approximately 19,000 professionals in the governmental finance field. The Certificate of Achievement for Excellence in Financial Reporting (CAFR) is the "highest form of recognition in governmental accounting and financial reporting" by the GFOA and is a "significant accomplishment by a government and its management." LRWRA'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 LRWRA's thirteenth (13th) consecutive year to accomplish this feat. (*see Attachment I*)

(b) Distinguished Budget Presentation Award

The GFOA of the United States and Canada awarded LRWRA the GFOA'S Distinguished Budget Presentation Award for its budget for 2018. 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. 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 (4) categories, along with the 14 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, Chief Financial Officer.

Award recipients have pioneered efforts to improve the quality of budgeting and provide an excellent example for other governments throughout North America. The GFOA is a nonprofit professional association serving approximately 19,000 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 LRWRA's ninth (9th) consecutive year to accomplish this feat. (*see Attachment J*)

(c) Excellence in Achievement

The LRWRA Procurement Department was presented the Excellence of Achievement Award for 2018 by the Universal Public Purchasing Certification Council (UPPCC) for having a fully certified staff. This was the tenth (10th) consecutive year that LRWRA received this award. LRWRA has the only procurement department in the State of Arkansas to win this award.

This award was created to acknowledge an agency's commitment to the value of certification in the public sector. Kathleen Muretti, Chair of the UPPCC Board of Directors, states that "This accomplishment speaks volumes of [this] agency's commitment and dedication to the profession and the skills and expertise that [LRWRA] bring[s] to the public procurement industry." (*see Attachment K*)

(d) George W. Burke, Jr. Safety Award

LRWRA received the 2017 Water Environment Federation George W. Burke, Jr. Safety Award for its commitment to safety and training. Presented at the 2018 AWW&WEA Conference, this national award was established in 1982 in honour of George W. Burke, Jr., for his many years of service to both the water environment field and the Federation as staff manager of technical services. Mr. Burke was instrumental in developing the Federation's annual safety survey and assisting in the production of several safety training aids and promotional packets.

The purpose of this award is to encourage an active and effective safety program in municipal and industrial wastewater facilities. (*see Attachment L*)

(e) Safety Award and Safety Professional of the Year

LRWRA Safety and Risk Administrator, Michael Kline Jr. received this award from the Arkansas Water Environment Association (“AWEA”) in 2018 for efforts in 2017 at the Arkansas Annual Water Conference in the category of “Populations Over 20,000”. The AWEA Safety Professional of the Year Award is given to individuals who have shown dedication and outstanding achievement in promoting safety awareness. Since 1931, the common goal of the members of Arkansas Water Works (AWW) & AWEA has been to provide clean water. Arkansas’s water and wastewater industries have considered the AWW & AWEA Annual Conference, Short School and Expo the premier event for information management in the water and wastewater industries. With more than 2,500 members representing every aspect of the water and wastewater profession, the AWW & WEA is the largest association for water professionals in Arkansas. (*see Attachment M*)

(f) National Association of Clean Water Agencies (NACWA) Award

LRWRA received national recognition from NACWA, the nation’s leader in legislative, regulatory, and legal clean water advocacy. Fourche Creek and Adams Field Water Reclamation Facilities received the Peak Performance Gold Award and Little Maumelle Water Reclamation Facility received the Peak Performance Silver Award. LRWRA takes pride in meeting daily, weekly and monthly regulatory permit limits set by both federal and state agencies.

9. Trade Associations, Exhibits, Fundraisers, and Community Service

One of the major success elements of our public awareness program in 2018 was our participation in community events. Participation in community events has allowed LRWRA to educate an extensive number of residents and business owners on the importance of reducing grease in the sanitary sewer system, inform them of the programs we offer and provide updates on our major projects and water conservation.

(a) Partners in Education

LRWRA has teamed with local schools to aid and provide materials when needed and to help promote our public education programs. Since 1995, LRWRA has sponsored the Little Rock Central High (LRCH) School Science Fair by providing judges for the many categories, incentive awards, and other materials needed for event day logistics. LRCH teachers, PTA, and administration have been most appreciative of LRWRA’s efforts in supporting environmental education, and LRWRA employees have been very responsive in volunteering. On February 2, 2018, the LRCH science fair was conducted and several LRWRA employees volunteered to serve as judges on projects ranging from Chemistry and Physics to Music and Biology. LRWRA conducted a School Supplies Drive, as well as, partnered with Henderson Middle School, David O’Dodd Elementary School, and Booker T. Washington Elementary School providing appearances, educational activity books, and *Can the Grease*® kits at various school events.

(b) Community Meetings

LRWRA conducted Community Meetings focused on direct communication between the Utility and the residents in work areas. Meetings were held in such venues as St. John's Fitzgerald Hall prior to the Upper Country Club Project and the Mosaic Center prior to the 36th Street & Mabelvale Pike Outfall Project.

(c) Arkansas Drug Takeback

LRWRA participated in three (3) Arkansas Drug Takeback events in 2018. Employees staffed booths, worked on publicity, and coordinated many aspects of the program. The CEO also served as the Drug Take Back committee chairperson for the Rotary Club.

(d) Earth Day

LRWRA participated in an Earth Day event at UAMS in April 2018. Employee volunteers distributed 600 *Can the Grease*® kits and educated the public on best practices for disposal of Fats, Oils, and Grease and protecting the environment.

(e) eWaste Recycling at Verizon Arena

LRWRA participated in a technology recycling event at Verizon Arena in May 2018. Employees of LRWRA turned in old, unused technology to be disposed of properly.

(f) Bring Your Kid to Work Day

In June 2018, LRWRA hosted its first "Bring Your Kid to Work Day" event. Employees brought their children and grandchildren to the Utility for an educational, fun-filled day of learning all about water reclamation and water preservation.

(g) Arkansas Hospitality Association – Arkansas Superstars

LRWRA participated in the Arkansas Hospitality Associations yearly convention called "Arkansas Superstars" in September 2018. LRWRA was there to education hotels, restaurants, and others in the hospitality industry on proper disposal of fats, oils, and grease through the revamped FOG program.

(h) Arkansas State Fair – Friends of Fourche Creek Booth

LRWRA Communications staff volunteered at the Friends of Fourche Creek booth at the Arkansas State Fair in October 2018. Educational materials on the importance of keeping Arkansas waterways clean was provided to state fair goers. Communications staff also volunteered alongside the Arkansas State Police promoting the Arkansas Drug Takeback initiative.

(i) National Night Out

LRWRA participated in a National Night Out event, via the Neighborhood Resource Centers on October 2, 2018. LRWRA employees participated in events throughout the City of Little Rock, promoting the *Can the Grease*® program and the Sewer Service Line Replacement Program.

(j) Toy Drive for the Watershed

In December 2018 LRWRA employees donated toys for the Arkansas Watershed that were then given to needy children in Arkansas just in time for Christmas.

(k) Community Involvement

Another way LRWRA promoted public awareness programs in 2018 was our participation in three (3) Little Rock Adopt-A-Street Program events where LRWRA adopted ¼ of a mile of road along Shackelford Road and spent some time cleaning up litter from the sides of the road. LRWRA also participated in three (3) separate food drive events throughout the 2018, and in December 2018 the entire utility donated toys to the Arkansas Watershed, while several departments also adopted children through David O'Dodd Elementary School for Christmas gifts. LRWRA also participated with the American Red Cross to host a facility-wide blood drive.

10. Media

It has been the intent of LRWRA to continue improved communication with all areas of the media during 2018. This goal was accomplished through regularly issued press releases highlighting special topics of interest. LRWRA worked with The Design Group and ARCOMM Productions.

In 2018 LRWRA advertised in various local publications such as *Arkansas Times*, *El Latino* and *Arkansas Business*, to promote programs and public education campaigns (*see Attachment N*).

11. Publications

LRWRA printed several informational brochures on a variety of topics from our *Can the Grease*®, *The Sewer Service Line Replacement Program*, *Cap the Cleanout*, and *Work in Your Area Notices*.

12. Website

LRWRA introduced a new, innovative website for www.lrwra.com with the latest news, updates, and information. The website enables visitors to view a calendar listing all LRWRC meeting dates, approved minutes of the Commission, and biographies of each Commissioner and Senior Staff. With several interactive displays, general water reclamation facility 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 LRWRA's construction schedule to see dates and places of work to be performed.

13. Facility Tours

Throughout 2018 LRWRA hosted several reclamation facility tours to different schools including the Arkansas School for the Blind, University of Arkansas at Little Rock, and the Plumbers Apprenticeship School, among others. To further public education, brochures are distributed to each visitor detailing the facility during the tour(s).

V. SUPPLEMENTAL ENVIRONMENTAL PROJECTS AND ANY OTHER LRWRA ENVIRONMENTAL EFFORTS

Friends of Fourche Creek

LRWRA continued its partnership with Audubon Arkansas and the Friends of Fourche Creek. The partnership is designed to help conserve and restore the natural ecosystem of Fourche Creek. LRWRA participated in a cleanup day, distributed *Can the Grease*® kits at their events, worked joint community booths and served on the Drain Smart committee that oversees the campaign to bring awareness to litter which can eventually end up in Fourche Creek.

VI. 2018 NON-CAPACITY RELATED SANITARY SEWER OVERFLOWS

A. Compliance Standard

The Settlement Agreement limits the number of non-capacity related sanitary sewer overflows per 100 miles of sanitary sewer operated and maintained by LRWRA in LRWRA’s collection and treatment system. The Settlement Agreement specifies the following “interim schedule” for non-capacity related sanitary sewer overflows:

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

B. Non-Capacity Related Sanitary Sewer Overflows in 2018

There were 21 non-capacity related sanitary sewer overflows reported in 2018. Of the 21 total, four (4) sanitary sewer overflows were related to construction and vandalism. The result was a total of 17 non-capacity related overflows attributed to the operation and maintenance of the LRWRA collection system. Of the 17 non-capacity related overflows, three (3) sanitary sewer overflows were attributed to debris; three (3) sanitary sewer overflows were attributed to grease; five (5) sanitary sewer overflows were attributed to line failures; two (2) sanitary sewer overflows were attributed to roots; three (3) sanitary sewer overflows were attributed to equipment failure; one (1) sanitary sewer overflows were attributed to power failure. * (see Attachment O).

C. Compliance Assessment

LRWRA has reduced the number of non-capacity related sanitary sewer overflows attributed to the operation and maintenance of the collection system owned by LRWRA to below 6 per 100 miles of sewer lines for fifteen (15) 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, 2015 with a total of 36, 2016 with a total of 47, 2017 with a total of 33, and 2018 with a total of 17. Therefore, under the Settlement terms in Paragraph No. 5, page 10, LRWRA is deemed to have complied with all provisions of this settlement related to non-capacity related sanitary sewer overflows.

Calendar Year	Miles of Sewer	Number of Non-Capacity Related Sanitary Sewer Overflows Per Year	Maximum Allowable Non-Capacity Related Sanitary Sewer Overflows (Based on 6 per 100 miles)
2004	1210	42	73
2005	1217	53	73
2006	1270	42	76
2007	1291	46	77
2008	1311	33	79
2009	1312	38	79
2010	1321	39	79
2011	1346	45	81
2012	1353	49	81
2013	1358	46	81
2014	1366	36	82
2015	1374	36	82
2016	1383	47	83
2017	1396	33	83
2018	1395	17	83

D. Additional Projects Not Covered by SECAP

In addition to the progress made on SECAP projects during 2018, LRWRA spent approximately \$5,626,936.96 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 sanitary sewer overflows.

In a continued effort to maximize rehabilitation dollars, LRWRA treated 59,025 feet of mainline in 2018 with a contracted chemical root removal company with a total cost of \$89,439.13. Root removal is an important component of LRWRA’s Plan 66 that targets sanitary sewer overflow reduction.

LRWRA personnel completed work on 354 line segments that needed point repairs as well as relocated or replaced 10,276 feet of sewer line.

21,003 feet of sewer line was rehabilitated under the 2018 Trenchless Pipe Renewal contracts for pipe bursting and cured-in-place-pipe (CIPP), for a total cost of \$3,170,217.30.

In 2018, the Cleaning and Inspection Division televised 811,708 feet, hand rodded 200,391 feet, Hydro Cleaned 1,392,092 feet, and Acoustically Inspected 5,124,809 feet of sewer lines.

VII. 2018 CAPACITY RELATED SANITARY SEWER OVERFLOWS

A. Compliance Standard

The Settlement Agreement requires that capacity related sanitary sewer overflows be mitigated, provided that sanitary sewer overflows 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 sanitary sewer overflows. The study would serve as the foundation for a long-term compliance program.

B. Capacity Related Sanitary Sewer Overflows in 2018

There were 309 capacity related sanitary sewer overflows reported in 2018 at 93 locations. There were six (6) rain events recorded in 2018 measuring above the Design Storm which resulted in one hundred eighty-four (184) capacity related overflows. The remaining one hundred twenty-five (125) capacity related overflows occurring in 2018 resulted from forty-one (41) rain events measuring below the Design Storm threshold.

VIII. CONCLUSION

LRWRA has remained committed to educating our customers and the stakeholders of Little Rock with programs available to assist with maintaining a healthy sewer system, preventing overflows, and projects that may affect the area they live or work in. Many of these programs have received national recognition over the years and continue to be successful in their intent. LRWRA strives to improve upon these programs and to develop new programs as the world of water reclamation changes through new technologies, regulations, and industry knowledge. Since the development of these programs LRWRA has seen a noticeable drop in the frequency and severity of sanitary sewer overflows.

Since the execution of the Settlement Agreement in 2001, LRWRA has come a long way in mitigating sanitary sewer overflows. LRWRA is taking a holistic approach to improving the current aging collection system by rehabilitating and replacing existing infrastructure that contributes to sanitary sewer overflows. In 2018, LRWRA embarked on a large diameter assessment and rehabilitation program. This program will cover all 150 miles of mains that are 18 inches in diameter and larger. The established maintenance procedures and schedules continue to provide the desired results by minimizing mainline stoppages within the system through replacement of structural pipe failures. LRWRA is committed to protecting public health and being a good steward of the environment. The improvements LRWRA has completed or will complete will add years of life to the system. In other words, we are improving the system for future generations.

Sanitary Sewer Overflow Response Plan

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LRWRA: SANITARY SEWER OVERFLOW RESPONSE PLAN

The LRWRA Sanitary Sewer Overflow Response Plan (SSORP), or "Plan", became effective on **September 30, 2002**. This plan is designed to ensure that every report of a confirmed sanitary sewer overflow (SSO) - also referred to as "confirmed sewage spill", "sewer overflow", "overflow", or "SSO" - is immediately dispatched to the appropriate maintenance crew personnel so that the effects of the overflow can be minimized, with respect to the impacts on the environment, public health, integrity of the sewer collection system and treatment facilities, quality of surface waters, as well as customer service.

This plan further includes provisions to ensure safety, pursuant to the directions provided by the Arkansas Department of Environmental Quality (ADEQ), LRWRA's regulating agency/authority, and that proper notification and reporting is made to all appropriate levels of authority (local, state, and federal) in order to remain within compliance of all permit limits issued by ADEQ for the three (3) LRWRA Treatment Plants. For purposes of this SSORP document, "*confirmed sewage spill*" is also sometimes referred to as "*sewer overflow*", "*overflow*", or "*sanitary sewer overflow*" or "*SSO*".

AUTHORITY

The Arkansas Department of Environmental Quality is the regulatory agency/authority that issues, monitors, regulates, and outlines the conditions of the National Pollutant Discharge Elimination System (NPDES) Permits for each of the three (3) LRWRA Treatment Plant (LRWRTP) facilities. The NPDES/AFIN information for each LRWRTP is as follows:

	<i>NPDES PERMIT ID</i>	<i>AFIN</i>
<i>AFWRTP (ADAM'S FIELD)</i>	<i>AR0021806</i>	<i>60-00409</i>
<i>FCWRTP (FOURCHE CREEK)</i>	<i>AR0040177</i>	<i>60-01021</i>
<i>LMWRTP (LITTLE MAUMELLE)</i>	<i>AR0050849</i>	<i>60-04200</i>

PLAN OVERVIEW

SSORP Objectives

The primary objectives of the SSORP are to protect public health and the environment, as well as to satisfy regulatory agencies and waste discharge permit (NPDES) conditions which address procedures. Additional objectives of the Plan are to:

- Provide appropriate and best practices customer service
- Protect water reclamation treatment plant and collection system personnel;
- Protect the collection system, water reclamation treatment facilities, and all LRWRA assets
- Protect private property as well as public property expanding beyond the collection system and water reclamation treatment facilities

This Plan shall not supersede existing emergency plans nor Standard Operating Procedures (SOPs), unless directed by the LRWRA Chief Executive Officer (C.E.O.) for managing SSOs, and to minimize risk of enforcement actions against Little Rock Water Reclamation Authority ("LRWRA").

ORGANIZATION OF PLAN

The key elements of the LRWRA Sanitary Sewer Overflow Response Plan are addressed individually within the following section of this document:

- Section 1: Overflow Response Procedure
- Section 2: Public Advisory Procedure
- Section 3: Regulatory Agency Notification Plan
- Section 4: Media Notification Procedure
- Section 5: Distribution & Maintenance of SSORP

SANITARY SEWER OVERFLOW (SSO) RESPONSE TRACKING

A procedure to track the frequency, type, and location of SSOs has been prepared and can be found in Appendix A of this SSORP document, entitled "*Appendix A – Procedure to Track an SSO*".

Data on each SSO occurrence is maintained in a database that can be analyzed, based on any recorded SSO parameter(s). The database is maintained and backed up on a regular basis by the LRWRA Information Services Department.

Section 1: OVERFLOW RESPONSE PROCEDURE

The Sanitary Sewer Overflow Response Procedure (SSORP), or “Plan”, presents a strategy for LRWRA to mobilize labor, materials, tools, and equipment to correct or repair any condition which may cause or contribute to an unpermitted discharge. The Plan considers a wide range of potential system failures that could create an overflow to surface waters, land, or buildings.

Subsection 1.A. Responding to a Report of Possible Overflow

An SSO may be detected by LRWRA employees or by others, such as members of the public, including, but not limited to, the citizens of Little Rock, guests of Little Rock, and other Little Rock utility organizations. The Collection System Maintenance Dispatchers are primarily responsible for receiving phone calls from the public reporting possible SSO occurrences within the water reclamation collection system and are also responsible for forwarding Service Requests Numbers and details to the Responding Maintenance Crew personnel.

Generally, Dispatchers in the Collection System Maintenance Division receive telephone calls from the public reporting possible SSOs. The emergency phone line is staffed 24 hours per day, every day of the year, with Emergency On-Call Response Crews responding to calls received after normal business hours. The Communications Department has a program in place for educating the public to report SSOs that they observe by providing a contact phone number for reporting the occurrence.

Subsection 1.A (a). Possible SSO Reported by a Member of the Public

LRWRA Collection System Maintenance Dispatchers obtain all relevant information available regarding the possible overflow from the member of the public reporting the possible SSO, to include the following details, if possible:

- When?
 - Date/Time the call was received
 - Date/Time reported spill was discovered
- Where?
 - Nearest Address/Intersection to the location of the spill
 - Specifics of spill location (i.e. front vs rear of property, etc.)
 - Ground surface type for reported spill (street; yard, drainage ditch etc.)

- Manhole spill vs. spill between manholes
- What?
 - Description of reported spill, with documentation of all observations described
 - Confirmation & description of any present odor
 - Duration of reported spill (active spill vs inactive spill)
- Who?
 - Caller details to include name & telephone number at minimum
- Additional Details Reported
 - Documentation of any other relevant information that may enable the Responding Maintenance Crew(s) to quickly locate, assess, and determine if the spill is an SSO, and to take measures necessary to correct and contain a possible SSO

Subsection 1.A.(b). Possible or Confirmed SSO Reported by Treatment Plant

Pump station failures are monitored and received by Operators-on-Duty at the Adams Field, Fourche Creek, and Little Maumelle Water Reclamation Treatment Facilities. The Operator-On-Duty immediately conveys all information regarding alarms to the Superintendent of Facilities and Equipment to initiate the investigation. Treatment Plant Investigating Crew determines if the failure resulted in an overflow and then reports the findings to the Collection System Maintenance Dispatchers if an SSO has occurred. For proper documentation, a completed LRWRA Overflow Report Form shall be sent via e-mail to the "OVERFLOWS" email group at Overflows@lrwra.com email address and the Collection System Maintenance Administrator should be copied on all emails.

Subsection 1.A.(c). Possible or Confirmed SSO Reported by Other LRWRA Personnel

SSOs detected by any LRWRA personnel during their normal duties are reported immediately to the Collection System Maintenance Dispatchers who record all relevant SSO information and immediately dispatch the proper Maintenance Response Crew(s), as well as any additional Maintenance Crews as needed. The Response Crew may also contact additional maintenance crews identified to assist in the correction, containment, and/or cleanup of an SSO.

Subsection 1.B. Confirming a Reported Spill as an SSO

Collection System Maintenance Crews confirm reported spills to be SSOs. Until verified, the report of a possible spill is not referred to as a "sewer overflow", "overflow", nor "SSO". If an overflow has in fact occurred, the Maintenance Crew Leader is responsible for completing the proper LRWRA Overflow Report Form and for ensuring all maintenance personnel follow the guidelines outlined in the Plan. See *Figure 1.B.-1: "SSO Response Tracking Protocol"*.

If the reported spill is confirmed to be an SSO by the Responding Maintenance Crew(s), the SSO confirmation and all related details of the SSO are reported back to the Dispatchers who record and input the SSO information into the LRWRA Hansen database Service Request module. A Service Request number is created and communicated back to the Responding Crew(s) who will record the number on all SSO-related paperwork to track all response efforts and labor and to log all information relevant to the specific SSO occurrence.

The Dispatchers use various waterway-type layers within the GIS ArcMap program to identify bodies of water to determine if an impacted waterway is an unnamed drainage ditch or a named waterway, which is necessary for determining the proper LRWRA Overflow Report Form to be completed and if an email notification to ADEQ within 24 hours is required. Some Response Crews also now have access to electronic tablets and/or Smart Phone apps with mapping capabilities that can aid in making such determinations.

A **Red** Overflow Report Form is used when an impacted drainage area is determined to be a named waterway (creek/stream/river), indicating environmental impact (ADEQ Environmental Damage Code of "OEEI") or when the SSO involves observed or evidence of human contact (Environmental Damage Code of "OEHC".) A Black Overflow Report Form is used whenever there is NO evidence of environmental impact nor human contact evidenced or observed. See *Figures 1.A.-1: "LRWRA (Black) SSO Report Form (revised 2/2/2018)" & 1.A-2: "LRWRA (Red) SSO Report Form (revised 2/2/2018)"*.

**LITTLE ROCK WATER
RECLAMATION AUTHORITY
SANITARY SEWER OVERFLOW OR BYPASS REPORTING FORM**

SERVICE REQUEST NUMBER: _____
 REPORTED BY: _____ ADDRESS: _____
 CALL TIME: _____ **AM or PM** (circle one) CALL DATE: _____

RESPONSE DATA:

CREW LEADER: _____
 ARRIVAL TIME: _____ **AM or PM** DATE: _____
 COMPLETED TIME: _____ **AM or PM** DATE: _____

ACTION(S) TAKEN:

_____ **HC** = Hydro-cleaned/Jet-Vac. _____ **DD** = Disinfected & Deodorized/Environmental Cleanup
 _____ **HR** = Hand/Machine Rodded _____ **LIME** = Lime Applied to Affected Area/Environmental Cleanup
 _____ **PN** = Public Notification _____ **GPPE** = Generator Used to Power Pumps/Equipment
 _____ **WO** = Work Order _____ **EN** = Notify Engineering

SSO DATA:

DATE OF SSO: _____ TIME OF SSO: _____ **AM or PM**
 LOCATION: _____ ADDRESS: _____

CAUSE:

_____ **RO** = Root(s) _____ **D** = Debris _____ **EF** = Equipment Failure
 _____ **G** = Grease _____ **LF** = Line Failure/Break _____ **PF** = Power Failure
 _____ **R** = Rainfall/I&I _____ **HC** = Hydro Cleaning
 _____ **CO** = Construction _____ **VA** = Vandalism

IMPACT OF SSO INCIDENT:

_____ **GRPUB** = SSO Reached Public Land Only _____ **GRPVT** = SSO Reached Private Property
 _____ **TP** = SSO Occurred at Treatment Plant

ACTIVE DISCHARGE: _____ YES _____ NO (Evidence of Discharge)

OBSERVED FLOWRATE: _____ **GALLONS PER MINUTE** *NOTE: IF SSO is active when found, the actual volume may be greater than the known volume.*
 ESTIMATED DURATION: _____ **MINUTES**
 ESTIMATED VOLUME: _____ **GALLONS**

ENVIRONMENTAL DAMAGE: _____ **NEAH** = No Evidence of Adverse Health or Environmental Impacts

Figure 1.A.-2 LRWRA SSO Report Form (Red)_Revised 2/2/2018

Revision Date: February 2, 2018

**LITTLE ROCK WATER
RECLAMATION AUTHORITY
SANITARY SEWER OVERFLOW OR BYPASS REPORTING FORM**

**WHEN USING THIS FORM, SEND AN EMAIL WITH THE SSO DATE AND LOCATION TO
SSOADEQ@adeq.state.ar.us WITHIN 24 HOURS!**

SERVICE REQUEST NUMBER: _____

REPORTED BY: _____ ADDRESS: _____

CALL TIME: _____ **AM or PM** CALL DATE: _____
(circle one)

RESPONSE DATA:

CREW LEADER: _____

ARRIVAL TIME: _____ **AM or PM** DATE: _____

COMPLETED TIME: _____ **AM or PM** DATE: _____

ACTION(S) TAKEN:

_____ **HC** = Hydro-cleaned/Jet-Vac _____ **DD** = Disinfected & Deodorized/Environmental Cleanup
 _____ **HR** = Hand/Machine Rodded _____ **LIME** = Lime Applied to Affected Area/Environmental Cleanup
 _____ **PN** = Public Notification _____ **GPPE** = Generator Used to Power Pumps/Equipment
 _____ **WO** = Work Order _____ **EN** = Notify Engineering

SSO DATA:

DATE OF SSO: _____ TIME OF SSO: _____ **AM or PM**
(circle one)

LOCATION: _____ ADDRESS: _____

CAUSE: _____ **RO** = Root _____ **D** = Debris _____ **EF** = Equipment Failure
 _____ **G** = Grease _____ **LF** = Line Failure/Break _____ **PF** = Power Failure
 _____ **R** = Rainfall/I&I _____ **HC** = Hydrocleaning
 _____ **CO** = Construction _____ **VA** = Vandalism

IMPACT OF SSO INCIDENT:

_____ **CR** = SSO Reached Receiving Water (creek/stream/river) _____ **GRPUB** = SSO Reached Public Land Only
 _____ **CB** = SSO Contained in Building/Basement Backup _____ **GRPVT** = SSO Reached Private Property
 _____ **GRCB** = SSO Reach Ground Surface AND Building _____ **TP** = SSO Occurred at Treatment Plant

If **CR**, provide name of waterway: _____

ACTIVE DISCHARGE: _____ YES _____ NO (Evidence of Discharge)

OBSERVED FLOWRATE: _____ **GALLONS PER MINUTE**

ESTIMATED DURATION: _____ **MINUTES**

ESTIMATED VOLUME: _____ **GALLONS**

NOTE: IF SSO is active when found, the actual volume may be greater than the known volume.

IF "GRCB" IS CHECKED, ESTIMATE GALLONS WITHIN BUILDING: _____

ENVIRONMENTAL DAMAGE:

_____ **OEHC** = Observed or Evidence of Human Contact
 _____ **OOEI** = Observed or Evidence of Environmental Impact
 _____ **EFK** = Evidence of Fish Kill

Figure 1.B.-1. SSO Response Tracking Protocol (“Overflow Response Procedures”)

When Maintenance Response Crew Confirms an SSO:

(Response Crew for Non-Capacity SSO = any crew that has the capability to open main line stoppages & stop the SSO)

Step 1:
Maintenance Response Crew completes proper LRWRA Overflow (SSO) Report Form (red or black):

- a) **RED SSO REPORT FORMS** are used when there is evidence of human contact or environmental impact (OEHC/OEEI ADEQ Environmental Damage codes). When using this form, the CS Maintenance Department is required to send an email to SSOADEQ@adeq.state.ar.us within 24 hours, listing the following details of the SSO: Treatment Plant NPDES Permit Number/AFIN; location (address or MH ID); cause (if known); duration; total volume (gallons), and, if applicable, the name of the receiving water body (per AFW RTP NPDES Renewal-2017). Dispatchers & Maintenance Crews shall use the GIS Arc Map Program’s “identify” tool and the various “body of water” mapping layers to determine if any impacted drainage areas are named waterways (creek/stream/river). If a named waterway is impacted, the SSO should be reported on the **Red SSO Report Form**.
- b) **BLACK SSO REPORT FORMS** are used when the impact of the SSO reveals no evidence of environmental impact (no named waterway impacted) nor any evidence or observed human contact (“NEAH” ADEQ Environmental Damage code)

Step 2:
Maintenance Response Crew communicates SSO confirmation to Dispatcher who creates & assigns a Hansen Service Request number to be documented on all SSO-related paperwork to track each SSO occurrence & all response, correction, containment, and cleanup activities.

Step 3:
Maintenance Response Crew then installs temporary SSO warning signs at site of SSO and then takes photographs pre-cleanup, *before* SSO cleanup efforts begin [“Before” (“B”) Photos] & submits photos to Maintenance Administrator and, if emailing photos, also sends to Overflows@lrwra.com email address (group email members for CS Admin Staff).

Step 4:
Maintenance Crew & additional crews required, work to correct & contain non-capacity SSOs and open main line stoppages. Once line is open, if structural issues found crew initiates high-priority C&R repair work to complete needed repairs to stop the SSO.

Step 5:
Maintenance Crew(s) clean & sanitize the SSO area, communicating any needs for washdown, tractor, raking, etc.

Step 6:
Maintenance Response Crew verifies cleanup has been performed sufficiently/correctly. If flooded building, crew assures takes photos & area measurements of all affected areas & notes all flooring types, SSO volume is estimated & Customer Flood Report is completed. If damages, Maintenance Crew gives owner/occupant contact information for Safety & Risk Administrator. (C&I Supervisor contacted if Safety & Risk Administrator not available.)

Step 7:
Maintenance Response Crew removes temporary warning signs after SSO cleaning & sanitizing is complete.

Step 8:
Once signs are removed, post-cleanup *after* photos begin [“After” (“A”) Photos] taken & submitted to Maintenance Administrator, and, if emailing photos, also send to Overflows@lrwra.com email to CSM Admin staff. All photos are uploaded by CSM Admin Staff to secure database.

Step 9:
Maintenance Response Crew verifies proper LRWRA SSO Report Form turned in to Dispatchers (same day) who sorts/distributes all work. SSO Form goes to Maintenance Administrator, work orders to Supervisor(s), & TVI to Maintenance Planner. Dispatchers are secondary SSO Reporting for all SSO reporting requirements outlined in SSORP

Step 10:
Once SSO Work Order created, AFTP Secretary is notified via system automation & reports SSO to ADEQ (online form)

Subsection 1.C. Dispatching Maintenance Crews for SSO Response

Failure of any element within the water reclamation collection system that threatens to cause or causes an SSO triggers an immediate response to isolate and correct the problem. Maintenance Crews and equipment are available for response to any SSO location 24-hours/day, 7 days/week. Additional Maintenance Crews are designated "On Call" if additional support is needed. (See "Appendix B: SSO Action Plan".)

Subsection 1.D. Dispatching Crews

Dispatchers receive notification of possible SSOs (as outlined in *Section 1.A "Responding to a Report of a Possible SSO"*) and dispatch an Emergency Crew or the appropriate area Response Crew as required.

Dispatchers notify the appropriate Supervisor(s) by phone regarding SSO details and field crew locations.

Subsection 1.E. Crew Instructions and Work Orders

Responding Crews are dispatched by phone, and in some cases, the Service Request details are emailed to the Responding Maintenance Crew. The Dispatchers receive instructions from the Responding Crew(s) or their Supervisor(s) regarding the necessary additional crews/type of crews, and proper materials, supplies, & equipment needed to resolve the SSO and complete proper cleanup procedures

Dispatchers verify that the entire message has been received and acknowledged by the additional dispatched Maintenance Crews. All standard communication procedures are followed. All employees being dispatched to the site of an SSO proceed immediately to the site of the overflow. Any delays or conflicts in assignments are reported immediately to the Supervisor for resolution.

In all cases, Response Crews report their findings to the available Supervisor immediately upon concluding their investigation findings. Information should include any and all possible damage to private and public property. If the Supervisor has not received findings from the Response Crew within one (1) hour, the Supervisor contacts the Response Crew to determine the status of the investigation.

Subsection 1.F. Additional Resources

The Supervisor receives requests for additional personnel, material, supplies, and equipment from crews working at the site of an SSO and conveys the requests to the appropriate parties.

Subsection 1.G. Preliminary Assessment of Damage to Private and Public Property

The focus is to resolve the problem. The Response Crews use discretion in assisting the property owner/occupant as reasonably as they can. Be aware that LRWRA could face increased liability for any further damages inflicted to private property during such assistance. In the event the SSO occurs inside a structure, the Safety & Risk Administrator shall be notified and shall personally assess and document all damages as well as notify the Supervisor of the event. The Response Crew shall enter private property for purposes of overflow reporting.

NOTE: A Collections System Maintenance Supervisor can take the place of the Safety & Risk Administrator in damage assessment activities relating to the time-sensitive information in the case that the Safety & Risk Administrator is unable to be on site at that time. In this case, the Collection S System Maintenance Supervisor will provide the customer with the Safety & Risk Administrator's business card. All communication regarding damage claims will take place between the property owner and the Safety & Risk Administrator. The crew shall take appropriate still photographs, if possible, of the area of the SSO and the impacted area to thoroughly document the nature and extent of impact.

Subsection 1.H. Field Supervision and Inspection

The Responding Crew (or whomever confirmed the SSO), visits the site of the SSO, if possible, and takes photos before cleanup begins and installs temporary LRWRA warning signage to ensure that provisions of this LRWRA Overflow Response Plan and other directives are met.

Subsection 1.I. Coordination with Hazardous Material Response

Upon arrival at the scene of an SSO, should a suspicious substance (e.g., oil sheen, foamy residue) be found on the ground surface, or should a suspicious odor (e.g., gasoline) that is uncommon to the sewer system be detected. The Responding Crew should secure the immediate area and should contact the Dispatcher or Safety & Risk Department (*See Appendix D: "Collection System Spill Contacts"*)



!! REMEMBER !! Keep a safe distance and observe caution until assistance arrives: Any vehicle engine, portable pump, and/or open flame (e.g., cigarette lighter) can provide ignition for an explosion or fire, should flammable fluids/vapors be present.

Subsequent response actions should follow existing LRWRA procedures for **“DETECTING HAZARDOUS ATMOSPHERES”**. These procedures are outlined within the LRWRA Safety Manual & are also attached to this LRWRA SSORP (*Appendix C: “Detecting Hazardous Atmospheres”*). Only when the Safety & Risk Department deems it safe for personnel to resume activities can they proceed with SSO containment, clean-up, and correction activities.

Subsection 1.J. SSO Correction, Containment, and Clean-Up

This section describes specific actions to be performed by Maintenance Crews during a confirmed SSO occurrence.

SSOs of various volumes occur from time to time despite concerted prevention efforts. Spills may result from blocked sewer lines, pipe failures, or mechanical malfunctions among other natural or manmade causes. LRWRA is constantly on alert and ready to respond upon notification and confirmation of an overflow.

Overflow Response Objectives:

- Protect public health, the environment, and property from sewage overflows and to restore the surrounding area back to normal as soon as possible;
- Promptly notify the regulatory agency of preliminary overflow information and potential impacts (within 24-hours if human contact or environmental impact apply);
- Contain the SSO to the maximum extent possible, including preventing the discharge of sewage into surface waters as possible; and
- Minimize LRWRA’s exposure to any regulatory agency penalties and fines

Under most circumstances, LRWRA handles all response actions with its own Maintenance Department forces. Maintenance personnel are equipped with the skills and experience to respond rapidly and in the most appropriate and efficient manner. An important issue with respect to emergency response is to ensure that the temporary actions necessary to divert flows and repair the problem are methodical and do not produce a problem elsewhere in the system. (For example, repair of a force main could require the temporary shutdown of the pump station and

diversion of the flow at an upstream location. If the closure is not handled properly, sewage system backups may create other overflows.)

Circumstances may arise when LRWRA could benefit from the support of private-sector construction assistance. This may be true in the case of large diameter pipes (e.g. $\geq 18''$) buried to depths requiring sheet piling and dewatering should excavation be required. LRWRA may also choose to use private-sector contractors to complete open excavation operations that might exceed one (1) day to complete.

Subsection 1.K. Maintenance Crew Responsibilities Upon Arrival

It is the responsibility of the initial Responding Crew (or Locating Crew that finds and confirms the SSO) that first arrives at the site of an SSO to protect the health and safety of the public by mitigating the impact of the SSO to the extent possible. Should the SSO not be the responsibility of LRWRA, LRWRA shall notify Little Rock Code Enforcement of the incident.

Upon Arrival at an SSO, the Initial Response Crew:

- Determines the cause of the overflow (e.g. sewer line blockage, pump station mechanical or electrical failure, sewer line break, etc.), if possible
- Identifies and requests, if necessary, required assistance or additional resources to correct the overflow or to assist in the determination of its cause;
- Takes immediate steps to stop the overflow (e.g. relieves pipeline blockage, manually operates pump station controls, repairs pipe, etc.) Extraordinary steps may be considered where overflows from private property threaten public health and safety (e.g., an overflow running off private property into the public right-of-way); and

Note: *If Initial Response Crew confirms the SSO (i.e. Inspection Crew), it is their duty to contact the appropriate Response Crew (i.e. area Hand Rod Crew; area Hydro Clean Crew; Hydro Clean Rover Crew; Daytime Emergency Crew) for immediate arrival onsite so steps can be taken to stop the overflow, relieve pipeline blockage, etc.*

- Requests additional personnel, materials, supplies, and/or equipment to best expedite minimizing the impact of the SSO.

Subsection 1.K.(a) Containing the SSO

The following measures serve to contain and/or recover the overflowing sewage, and are initiated to minimize the impact to public health or the environment:

- Determine the immediate destination of the SSO. Dispatchers can use the GIS Arc Map program to assist in determining if the impact of the SSO is a named waterway (creek/stream/river).

- Identify and request the necessary materials and equipment to contain or isolate the overflow (if not readily available); and
- Take immediate steps to contain the overflow (e.g., block or bag storm drains, recover through vacuum truck, divert SSO into downstream manhole, etc.) if conditions allow, as determined by the LRWRA Maintenance Department.
- In the event an SSO has discharged into a creek, stream, or river, the following immediate measures to eliminate and contain the discharge and eliminate the chances as best possible from the SSO discharging into a creek/stream/river will be taken, which include:
 - Establishing bypass pumping of sewer to other areas of the collection system; or
 - Implement holding tanks until repairs can be made

Be sure to utilize equipment that can vacuum sewer to eliminate or contain overflow until repairs can be made!

Once corrective action has been taken to restore flow to the collection system, immediate measures will be taken to contain and remove contaminants from the waterway as feasible. The focus is to remove oxygen-depleting solids from water, returning it back into the collection system. Efforts can include the following:

- Establishing strategic points of containment along the waterway and removing contaminants through pumping, vacuuming, sweeping, etc.
- Applying disinfectants as feasible along edges of waterway to eliminate contamination
- Utilize portable aerators (as feasible) along edges of waterways to maintain adequate oxygen levels to preserve aquatic life until proper removal of contaminants is achieved

Subsection 1.K.(b) Additional Measures for Prolonged Overflow Conditions

In the event of a prolonged sewer line blockage or a sewer line collapse, a portable bypass pumping operation should be set up around the obstruction.

- Take appropriate measures to determine the proper size and number of pumps required to effectively handle sewage flow.
- Implement continuous or periodic monitoring of the bypass pumping operation as required
- Address regulatory agency-related issues in conjunction with making any emergency repairs

Subsection 1.K.(c) Cleanup

SSO sites are to be thoroughly cleaned after an overflow. No readily identified residue (e.g., sewage solids, papers, rags, plastics, rubber products) is to remain.

- Where practical, thoroughly flush the area and clean of any sewage or wash-down water. Solids and debris are to be flushed, swept, raked, picked-up, and transported for proper disposal.
- Secure the overflow to prevent contact by members of the public until the site has been thoroughly cleaned. If posting is required, see *Appendix E: SSO Permanent & Temporary Signage – Verbiage* for examples of postings.
- Where appropriate, disinfect and deodorize the overflow site.
- Where sewage has resulted in ponding, pump the pond dry and dispose of the residue in accordance with applicable regulations and policies.

If a ponded area contains sewage which cannot be pumped dry, it may be treated with approved waterway application that is designed to kill bacteria. If sewage has discharged into a body of water that may contain fish or other aquatic life, do not use bleach or other disinfectants and contact the Arkansas Game & Fish Commission.

Use of portable aerators may be required where complete recovery of sewage is not practical and where severe oxygen depletion in existing surface water is expected.



Do **not** use enzymes in flowing creeks, streams, or waterways

Subsection 1.L. Overflow Report Form

Emergency Crew, Locating Crew, or Response Crew completes a LRWRA Sanitary Sewer Overflow or Bypass Report Form (See *Figure 1.A.-1 and Figure 1.A.-2*). The Crew promptly notifies Dispatcher when the SSO is eliminated.

There are two (2) types of LRWRA internal Overflow Report Forms: a **RED** Sanitary Sewer Overflow or Bypass Report Form & a **BLACK** Sanitary Sewer Overflow or Bypass Report Form (commonly referred to "Overflow Report Forms"). The "impact" of the SSO and/or the proper ADEQ environmental damage code that best describes the SSO at hand are used to determine the proper Overflow Report Form when reporting each SSO. ADEQ environmental damage codes and associated proper LRWRA internal Overflow Report Form are listed next for reference.

Subsection 1.M. Completing the SSO Report Form

Subsection 1.M.(a) Environmental Damage / Impact of SSO:

RED LRWRA Overflow Report Forms are used to report SSOs involving the following impacts:

Observation or Evidence of Environmental Impact (ADEQ Environmental Damage Code OEEI): for example, an overflow that has reached / impacted a named waterway such as a named creek, stream, pond, or river. This includes all SSOs where there is indication that the SSO reached surface waters. For SSOs where sewage was observed running to surface waters, Emergency Crew / Response Crew / Locating Crew should complete a **RED** SSO Report Form (indicating ADEQ code "OEEI" – observed or evidence of environmental impact); this indicates all SSOs where sewage was observed running to surface waters, or where there was obvious indication (e.g. sewage residue) that sewage had flowed to surface waters.

If the overflow was contained in a named creek/stream/river/pond, the name of the waterway must be supplied. Dispatchers can utilize the Arc Map database to help in determining if the SSO reached a named waterway (creek/stream/river). There is a blank on the **RED** Overflow Report Form where the name of the waterway should be entered; this information is required for SSO entry in the Hansen database when the fate of named waterway ("CR") is selected.

Observation or Evidence of Human Contact (ADEQ Environmental Damage Code OEHC): for example, a building backup where sewer has reached / impacted the inside of a residence of business; or an overflow where person/persons were observed to have come in contact/ been impacted with the overflow

Evidence of Fishkill (ADEQ Environmental Damage Code EFK): for example, an SSO that reached /impacted a waterway where it is observed that there was Fishkill as a result (aquatic life was impacted as a result)

BLACK LRWRA Overflow Report Forms are used to report SSO impacts involving:

NO Evidence of Human Contact of Environment Impact (ADEQ Environmental Damage Code NEAH): for example, an SSO that did not reach a named waterway nor had any evidence of or observations of human contact involved such as most ground surface areas or drainage areas that are not named waterways.

This includes:

- SSOs where there is indication that the SSO had **not** reached surface waters. These include SSO occurrences such as the following, indicating ADEQ code NEAH – evidence of environmental impact or human contact & thus can be used a guide to characterize such occurrences:
- SSO that runs to covered storm drains (with no public access) where personnel verify, by inspection, that the entire volume is contained in a sump or impoundment and where complete clean up occurs leaving no residue.

- SSOs where observation or on-site evidence clearly indicates that all sewage was retained on land and did not reach surface water and where complete cleanup occurs leaving no residue.

NOTE: *The Below Scenario is NOT an SSO:*

Preplanned or emergency maintenance jobs involving bypass pumping (if access by the public to a bypass channel is restricted) and subsequent complete cleanup occurs leaving no residue.

Any preplanned bypass under these circumstances will not be considered an overflow.

The below summary table for SSO Impact Quick Reference Guide can be used to help in determining when to use a **RED** LRWRA Overflow Report Form vs. a **BLACK** LRWRA Overflow Report Form.

ADEQ Environmental Damage Code:	ADEQ Environmental Code Definition & SSO Description(s):	Type of LRWRA SSO FORM
OEEI	<p>Observation or Evidence of Environmental Impact</p> <p><i>* Description of SSO:</i></p> <p>An overflow where the sewer spill has reached a named waterway (pond/ creek / stream / river, etc.)</p>	<p>RED</p> <p>Overflow Report Form</p>
OEHC	<p>Observation or Evidence of Human Contact</p> <p><i>*Description of SSO:</i></p> <p>an overflow where the sewer spill has reached the inside of a building structure such as a residence or a business or where it was observed that there were people walking / riding bicycles through the overflow area</p>	<p>RED</p> <p>Overflow Report Form</p>
EFK	<p>Evidence of Fishkill</p> <p><i>*Description of SSO:</i></p> <p>an overflow where the sewer spill has reached a waterway and aquatic life was impacted as a result / there was Fishkill present</p>	<p>RED</p> <p>Overflow Report Form</p>
NEAH	<p>NO Evidence of Environmental Impact or Human Contact</p> <p><i>*Description of SSO:</i></p> <p>an overflow where the sewer spill did not reach a named waterway nor had any evidence of human contact such as most ground surface areas or drainage areas that are not named waterways</p>	<p>BLACK</p> <p>Overflow Report Form</p>

Subsection 1.M.(b) "TIME" of SSO

The "TIME of SSO" field is a reporting requirement for all SSOs. It is a required field for completion on both types of internal Overflow Report Forms (Red and Black), as well as within the Hansen database. There are differing ways to determine the *TIME of SSO*, and it is dependent upon if the SSO is capacity-related (wet weather; due to rainfall; main line is at capacity) or non-capacity related (dry weather; due to blockage or structural issue; main line is not at capacity and is surcharging for some other reason).

Thus, the *TIME of SSO* is determined one (1) of the following methods, depending on whether the SSO is capacity-related or non-capacity related:

Capacity-Related Overflows:

An email is received by Collection System Maintenance from Engineering personnel, confirming that a category level (A / B/ C) rain event has occurred and stating at what time it became a category level (A/B/C) rain event. Collection System Maintenance personnel review LRWRA Operations rainfall data, based upon minute-by- minute data from Little Rock rain gauge locations, to determine the time that the rain began to diminish.

From this data, Collection System Maintenance personnel determine the *TIME of SSO* by choosing a time that is approximately one (1) hour after the rain began to diminish, thus allowing the water to begin seeping into the ground and into the LRWRA Collection System. The determined *TIME of SSO* is sent via email to Collection System Maintenance Response Crews who begin checking manhole locations identified by Engineering personnel and are listed in "Appendix A: SSO Response Tracking Protocol Table A-2" of the SSORP. The *Time of SSO* is also communicated to Dispatchers and Maintenance Supervisors, Cleaning and Inspection Divisions.

The determined *TIME OF SSO* is consistently used by Response Crews on the LRWRA Overflow Report Form in the *DATE of SSO* and *TIME of SSO* fields for each SSO found that is related to the corresponding rain event.

Non-Capacity-Related Overflows:

The *TIME OF SSO* is when the Response Crew arrives on site and confirms that the reported sewage spill is an actual overflow. Thus, the *TIME of SSO* and the *ARRIVAL TIME* fields will be identical and will be recorded as such on the Overflow Report Forms as well as in the Hansen database.

Subsection 1.M.(c). "COMPLETED DATE" & "COMPLETETD TIME" of SSO

The date and time at which the SSO cleanup efforts have been completed and the "after cleanup" photo has been taken is the date and time information that should be entered in the *COMPLETED TIME* and *DATE* fields in the Hansen database (and on the Overflow Report Form (if available and not yet submitted to the Maintenance Administrator, meaning the cleanup was completed the same day the SSO was reported.)

Subsection 1.M.(d) "ESTIMATED VOLUME" of SSO

The *VOLUME of SSO* is figured by multiplying the *FLOWRATE of SSO (GPM – gallons per minute)* with the *ESTIMATED DURATION OF SSO (MINUTES)*.

To establish the *FLOWRATE OF SSO*, one (1) of the flowing methods should be applied:

- Direct observation of the overflow: See *Appendix F: "SSO Flow & Volume Determination"* for guidance on estimating sewer overflow rates using visual indicators of the asset and SSO area.
- Measurement of actual overflow from the sewer main.
- Visual Observations.
- Pump Station and Lift Station flow charts and other recorded data that is available.

When the rate of the overflow is known, multiply the duration of the overflow by the overflow rate. When the rate of the overflow *not known*, investigate the surrounding area for evidence of ponding or other indications of overflow volume to obtain an *ESTIMATED FLOWRATE of SSO* and, thus, an *ESTIMATE VOLUME of SSO*.

Subsection 1.N. PHOTOGRAPHS of SSO

Maintenance Response Crew takes photographs of the SSO area before cleanup AND after cleanup, when possible. These are submitted to the Maintenance Administrator and are uploaded into the LRWRA and Hansen databases.

Subsection 1.O. ASSESSMENT of ANY DAMAGE

Assessment of any damage to exterior/interior of public/private property: Personnel shall enter private property for purposes of estimating or determining SSO volume. If permission to enter property, Maintenance Response Crew, as well as, other Collection System Maintenance field personnel, Collection System Maintenance Supervisors, Safety & Risk Administrator and/or Communications Coordinator should attempt to obtain photographs of the SSO and affected

areas both before & after cleanup, as well as any affected area room measurements and flooring types A Customer Flood Report Form should be completed if possible, and the *VOLUME of SSO* should be noted in all areas possibly affected by the SSO.

Subsection 1.P. Customer Satisfaction

When an SSO involving either observation or evidence of human contact (OEHC), observation or evidence of environmental impact (OEEI), or evidence of fishkill (EFK) is reported, the Hansen database automatically notifies the Communications Department when all SSO information is entered into the database. The Communications Department will then contact the reporting citizen(s) and discuss the actions taken and the problem resolution. Upon notification of these SSO occurrences, the Communications Department, if necessary, takes any follow up action required (i.e. notify media or residents affected – see *Section 2: Public Advisory Procedures and Section 4: Media Notification Procedure.*)

If the resident wants to make a claim for damages incurred, they are directed to the Safety & Risk Administrator. For all SSOs where damages may possibly be incurred, Collection System Maintenance crews provide the citizen(s) with the Safety & Risk Administrator's business card with listed contact information. The crew also complete a Customer Flood Report Form which is submitted to the Maintenance Administrator. The Maintenance Administrator logs the Customer Flood Report information into the Hansen database on the Service Request *Log* tab and also notifies the Safety & Risk Administrator of the occurrence. The Safety & Risk Administrator informs the resident of LRWRA's damage claim process and current Damage Claim Policy and handles all damage claims in entirety.

Subsection 1.Q. Responding to Overflow Locations Where an SSO has Reoccurred Prior to the Initial SSO Being Completed

When an SSO has been confirmed to have reoccurred prior to the initial SSO reported being closed, then the initial SSO reported will be closed with associated details. (*This may happen when there are back-to-back category level rainfall events and MH location checks are still in progress for the first rain event at the time the second category level rain event takes place and causes a MH asset to overflow again before cleanup has been completed from the first overflow following the first rain event.*) The reoccurring SSO that has been confirmed will be recorded as another SSO incident with associated details.

If manhole locations listed in "*Appendix A: Procedure to Track SSOs, Table A-2*" of this document become inaccessible to LRWRA crews, the crew will conduct site visits daily until the site becomes accessible; crews will use an emergency call work order activity (CIEMER) to track the daily site visits/to document site conditions. If an SSO has in fact occurred once the manhole becomes

accessible, the same Service Request will be associated to the Emergency Work Order(s) (CIEMER) and to the SSO Work Order for tracking purposes. All associated work order numbers can be found associated to the same service request number.

Section 2: PUBLIC ADVISORY PROCEDURE

This section describes the actions LRWRA takes, in cooperation with the Arkansas Department of Environmental Quality (ADEQ) and the Arkansas Department of Health (ADH) to limit public access to areas potentially impacted by unpermitted discharges of pollutants to surface water bodies from the water reclamation collection system. Temporary and permanent public notices will be provided as indicated below. See *"Appendix F: Signage SSO Permanent & Temporary Signage – Verbiage"* for verbiage on both permanent & temporary public notices.

Subsection 2.A. Temporary public notice for polluted surface water bodies or ground surfaces that result from uncontrolled discharges from LRWRA facilities

LRWRA has the primary responsibility for determining when to post notices of polluted surface water bodies or ground surfaces that result from uncontrolled water reclamation discharges from its facilities. The postings do not necessarily prohibit use of recreational areas, unless posted otherwise, but provide a warning of potential public health risks due to sewage contamination.

Figure 2.A.-1 (below) outlines the decision process to recommend to the Chief Operating Officer (C.O.O.) that posting of a confirmed SSO be undertaken of that there is reasonable potential for an SSO to occur, thus the need to post in advance. If posting is deemed necessary, ADEQ shall be notified.

Figure 2.A-1. Decision Process to Post Temporary Signage for Polluted Surface Water Bodies or Ground Surfaces that Result from Uncontrolled Discharges from LRWRA Facilities

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Reported Overflow

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Step Event

- 1 Collection System Maintenance Division Supervisor or Response Crew confirms that the SSO that is not posted has resulted in ponded wastewater (ground surface or ditch ponding) or direct discharge to body-contact recreational waters between May 1st and September 30th.
- 2 Collection System Maintenance Supervisor dispatches *Investigator* to consult with CS Maintenance Division on remedial action & need/extent of posting
- 3 If Chief Operating Officer decides posting is required, Chief Operating Officer directs Collection System Maintenance Division to post warning signs & notifies the Communications Department of location & intent to post
- 4 Dispatched *Investigator* notifies Collection System Maintenance Division of assessment and makes recommendation on posting
- 5 Collection System Maintenance Supervisor consults Chief Operating Officer (C.O.O.) for final decision on posting
- 6 If Chief Operating Officer (C.O.O.) decides posting is required, Chief Operating Officer (C.O.O.) directs Collection System Maintenance Division to post warning signs(s) & notifies the Communications Coordinator of intent to post and at which locations
- 7 Warning signs are installed by Collection System Maintenance personnel

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Potential Overflow

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Step Event

- 1 Reasonable potential for SSO that will result in ponded wastewater (ground surface or ponding) or direct discharge to body-contact recreational waters between May 1 and September 30th, identified
- 2 Collection System Maintenance Superiors identifying potential SSO consults Chief Operating Officer (C.O.O.) for final decision on posting.
- 3 If Chief Operating Officer decides posting is required, Chief Operating Officer directs Collection System Maintenance Division to post warning signs & notifies the Communications Department of location & intent to post
- 4 Warning signs are installed by Collection System Maintenance personnel

Subsection 2.B. Permanent Public Notice

LRWRA shall place a permanent notice at manholes located on City-owned property that may experience SSOs more than once in any twelve-month period. A list of applicable manholes has been provided in *“Appendix A: “Procedure to Track SSOs Table-2”*

Subsection 2.C. Other Public Notification

If the Chief Operating Officer (C.O.O.) determines additional public notification is needed, the Communications Department will make said notifications under the C.O.O.’s direction.

Section 3: REGULATORY AGENCY NOTIFICATION PLAN

The SSORP's "Regulatory Agency Notification Plan" establishes procedures that LRWRA follows to provide formal notice to ADEQ as necessary in the event of SSOs. The reporting criteria that are listed below explain to whom (agencies and individuals) various forms of notification should be made and also provide those agencies/individuals to be contacted.

Agency notifications will be performed in parallel with other internal notifications. The procedures for providing notification to the media of an SSO are presented in "Section 4: "SSORP Media Notification Procedure". Internal notification and mobilization of personnel are detailed within the Overflow Response Procedure portion of the SSORP. (See "Section 1: Overflow Response Procedure")

Subsection 3.A. Immediate Notification

Upon data entry of a SSO event, an automated electronic event notification is sent to the Adams Fields Plant Operations Superintendent. The Adams Field Facility Superintendent then notifies and reports the SSO to ADEQ in compliance with LRWRA's NPDES Permits. For convenience, the AFWRTP NPDES Permit reporting requirements are reprinted below.

*"Overflows that endanger health or the environment shall be orally reported to the Enforcement Branch of the Office of Water Quality by telephone **(501-682-0638)** or by email, ssoadeq@adeq.state.ar.us within 24 hours from the time the permittee becomes aware of the circumstance. At a minimum, the following information shall be reported:*

1. *Permit number and AFIN*
2. *Location of overflow (address or MH ID)*
3. *Duration of overflow (minutes)*
3. *Estimated Volume of Overflow (gallons)*
4. *Receiving Water (if applicable)*
5. *Cause of Overflow (if known)*

A web written report of overflows shall be provided to ADEQ within 5 days of the 24 hours oral report. A 5-day follow-up written report can be filled-in and submitted on the ADEQ Office of Water Quality/Enforcement Branch Web page at:

<https://www.adeq.state.ar.us/water/enforcement/sso/submit.aspx?type=s>

Collection System Maintenance Staff are responsible for meeting the 24-hour (oral or) online notification requirement. Per LRWRTP NPDES Permit conditions, this 24-hour immediate notification to ADEQ is met for all overflows with environmental impact, which are those SSOs for which the ADEQ Environmental Damage codes "OEEI" (environmental impact/named waterway impacted) and "OEHC" (human contact) are applied. In other words, for LRWRA internal reporting purposes, the 24-hour immediate notification to ADEQ is required for all SSOs that are reported properly on the LRWRA **Red** SSO Report Forms.

ADEQ CONTACT(S):

The ADEQ Enforcement Analyst assigned to LRWRA is listed below, along with all contact details I am name, mailing address, e-mail address, and telephone number for LRWRA's primary ADEQ contact is provided below: (No changes for 2019 SSORP Annual Review).

Arkansas Department of Environmental Quality (ADEQ) Enforcement Analyst assigned to LRWRA (2019) Contact Details:

Leslie Allen-Daniels	5301 Northshore Drive	Telephone:
<i>ADEQ Enforcement Analyst</i>	North Little Rock, Arkansas 72218	501.682.0630

Subsection 3.B. Secondary Notification

After those parties identified as requiring *Immediate Notification* have been contacted, the Chief Operating Officer (C.O.O.) will notify other federal, state, and local agencies, as well as other interested and possibly impacted parties (as directed by the C.O.O.)

Section 4: MEDIA NOTIFICATION PROCEDURE

When an SSO has been confirmed and is a threat to public health, the following actions are taken, if necessary, to notify the media:

- Maintenance Response Crew verifies overflow & reports findings back to Dispatcher
- Dispatcher informs Communications Department, with primary contact being the Communications Coordinator (*see Table 4.A.-1. for contact information*)
- After-hours and weekend SSOs that are a threat to public health are also reported to the Communications Department at the contact numbers listed in *Table 4.A.*

All media requests, if a request is in fact received, should be referred to the Communications Department.

Table 4.A-1. Little Rock Water Reclamation Media Contacts

Contact	Contact Name	Office	Mobile
Primary	Greg Ramon, Chief Executive Officer	501.688-1404	501.529.6340
Backup	Kenetta Ridgell, Communications Coordinator	501.688.1470	870.818.7993

LRWRA Media Spokespersons

The following LRWRA personnel are authorized to be interviewed by the media and are the designated spokespersons for LRWRA:

Chief Executive Officer (C.E.O.)
Communications Coordinator
Chief Operations Officer (C.O.O.)
Chief Legal Officer (C.L.O.)

Section 5: DISTRIBUTION AND MAINTENANCE OF SSORP

Annual updates to the SSORP reflect all changes in policies and procedures as may be required to achieve its objectives.

Subsection 5.A. Submittal and Availability of SSORP

Copies of the SSORP and any amendments are distributed to the following departments and functional positions as part of the annual SCAR (Attachment A of the SCAR):

<u>DEPARTMENT</u>	<u>FUNCTIONAL POSITIONS</u>
LEGAL SERVICES	CHIEF EXECUTIVE OFFICER, CHIEF LEGAL OFFICER
ENGINEERING	DIRECTOR, ENGINEERING
MAINTENANCE	DIRECTOR, CHIEF OPERATING OFFICER (C.O.O.)
OPERATIONS	DIRECTOR, SUPERINTENDENTS
EAD	DIRECTOR

All other personnel who may become incidentally involved in responding to overflows should also be familiarized with the SSORP.

Subsection 5.B. Review and Update of SSORP

Review of the SSORP is conducted annually and amended/**updated** as appropriate.

LRWRA should:

- Update the SSORP with issuance of a revised or new NPDES permit or state waste discharge permit (NPDES Permit renewals are reviewed at least annually)
- Conduct annual SSORP Training sessions with appropriate personnel, to include at minimum all Maintenance Staff involved in SSO reporting procedures and SSO response
- Review and update, as needed, the various contact persons and associated contact details listed throughout the SSORP (reviewed at least annually)

Along with the submittal of the annual Consent Administrative Order Report (Sierra Club Annual Report or "SCAR"), this SSORP document will be updated and submitted as "Attachment A" of the entire report.

Subsection 5.C. Practical Resources

There will be laminated guides printed and furnished to all employees that are involved with the SSO Response Plan, which will provide an overview of the procedures, as well as, essential phone numbers. There will also be a quick reference for estimating sewer overflow volumes.

Subsection 5.D. Training

Each division will be responsible for training their own personnel. The training should include any employee who is involved in or may possibly be involved in the SSO process. These persons are provided a copy of the SSO Response Plan and said plan will be reviewed in depth with them. This training should take place annually or when revisions occur so that all personnel are brought up to date on any changes that may occur. Each division should also review their response efforts at these annual training sessions and should take suggestions to revise procedures. These suggestions will then be submitted to all divisions for review to determine if the revisions will be implemented in the next annual SSORP review.

Appendix List

Appendix A: SSO Tracking Procedure

Appendix B: SSO Response Action Plan

Appendix C: Collection System Spill Contacts

Appendix D: Detecting Hazardous Atmospheres

Appendix E: SSO Signage

Appendix F: SSO Flowrate & Volume Determination

Appendix G: Flowchart Process for SSO Reporting (External Source)

Appendix H: Flowchart Process for SSO Reporting (Internal Source)

Appendix A: Sanitary Sewer Overflow (SSOs) Tracking Procedure

SANITARY SEWER OVERFLOWS (SSOs) Tracking Procedure

The procedure to track the frequency & location of SSOs as follows:

Step 1:

All SSOs have a Hansen-generated Work Order prepared within the database

Step 2:

SSOs will be defined as of the following:

CAPACITY SSOs:

Asset has insufficient carrying capacity to handle inflow and/or infiltration during a storm event; Engineering shall maintain & update a list of capacity-related SSOs.

<i>Activity Code in Hansen Database</i>	<i>Activity Code - Defined</i>
SOC	= Sewer Overflow – Capacity
SOCP	= Sewer Overflow – Capacity – Private (<i>overflow at a Privately-owned asset</i>)

NON-CAPACITY SSOs:

Overflow due to an obstruction in the main line, line failure, or equipment failures. Non-Capacity overflows also encompass private overflows at private assets and/or inside buildings, as well as ones outside of LRWRA control (due to vandalism or construction/BPU).

Activity Code

Activity Code – Defined

in Hansen Database

SONC	= Sewer Overflow – Capacity
SONCO	= Sewer Overflow – Capacity – Private <i>(SSO at a privately-owned asset or inside building)</i>
SONCP	= Sewer Overflow – Non-Capacity – Other <i>(due to vandalism or contractor damage)</i>

Step 3:

The Work order will also include the asset number to identify the overflow locations, which will always be the upstream manhole number of the sewer main asset. A Service Request number will also be assigned by Dispatch for tracking all associated activities.

Step 4:

A Monthly Report will be prepared, providing the number of capacity & non-capacity SSOs.

Step 5:

In addition to Work Order data, information on all reported SSOs is maintained in an “event” database, called the Discharge Monitoring Report (DMR). It contains all information required for regulatory reporting and more. (total number of SSOs and total volume – gallons – per month). Reports generated from the database have the capability of pulling SSO locations based upon dates, assets, and occurrences within a time frame.

Step 6:

The updated annual capacity-related SSO manhole list has been developed for inclusion in the Permanent Signage phase of this SSORP. This list is maintained and annually updated as conditions and overflow mitigation efforts work to improve capacity-related deficiencies in the collection system. The following list, **Table A-1**, contains those SSO sites that are to be equipped with permanent signage.

Collection System Maintenance personnel are responsible for removing/installing any signage necessary to reflect any updates made to Table A-1 each year.

** The 2019 Table A-1 has a total of 47 MHs requiring permanent SSO signage. Compared to the prior year table (2018), no signage needs to be removed and 13 additional MHs require permanent SSO Signage.

Table A-1: SSOs Eligible for Permanent Signage (2019)

SSO Manhole Number	Subbasin Number
-10-B008	60301
14G025	10010
2H001	30030
2H004	30030
2H017	30040
2H018	30040
2H019	30040
2H064	30030
2H074	30030
2K167	30700
2O002	30501
2O019	40702
2O025	30501
2O026	30501
2P013	40702
2P015	40702
2R026	40703
3D108	11501
3I036	30700
3K058	30700
3K061	30700
3M002	30400
3N004	30501
3N005	30501

SSO Manhole Number	Subbasin Number
3N006	30501
3N007	30501
3N055	30400
3O128	40702
4B001	10090
4B003	10090
4B005	10090
4L017	20030
4L076	20030
4N013	40030
4N014	40030
4N016	30400
4N019	40702
4N030	40702
4N089	30501
5C003	10090
5C007	10070
5L030	20030
6C006	10080
6C047	11400
7C006	10080
8D033	11000
8D034	11000

---- END ----

Step 7:

A second list has been developed, and shall be maintained, by Engineering that defines each potential capacity related SSO manhole by its respective Storm Level. **Three (3) such Storm Levels** have been defined for simplicity in tracking the collection system's response to varying rainfall intensities.

Storm Level A indicates an event that exceeds one (1) inch ($\geq 1.00'' - \leq 3.49''$) of rainfall in a 24- hour period. These SSO manholes are early indicators of the collection system's response to wet-weather conditions.

The next tier, **Storm Level B**, consists of SSO manholes that have the propensity to trigger when rainfall amounts exceed the one (1) year or greater frequency (i.e. 3.5 inches over a 24- hour period), or ($\geq 3.50'' - \leq 4.09''$).

The last tier, **Storm Level "C"**, are SSO manholes that only trigger in excess of a 2 (two)-year frequency storm event, (i.e. 4.10" inches over a 24- hour period), or ($\geq 4.10''$).

Rainfall amounts, recorded by the SCADA network at various stations throughout the collection system, are continuously reported to SCADA monitoring stations and to individual computers supported by SCADA-viewing software. Engineering shall be responsible for monitoring existing rainfall conditions and notifying Maintenance when Levels A, B and C have been reached.

The following list, **Table A-2**, provides the known, or suspected, SSO manholes that have the potential to discharge during wet weather events.

Collection system maintenance Crews proactively check all MH locations listed within Table A-2 upon receipt of notification from Engineering when a storm-level event has been reached.

*** The 2019 Table A-2 list has a total of 126 MH locations listed:

Table A-2. Capacity Related SSOs by Storm Level (cont.)

Storm Level	Status	Manholes	Area
A	Pending	0G015	31300
A	Pending	0G019	31300
A	Pending	0G025	31300
A	Investigate	0G087	31300
A	Active	-10-B008	60301
A	Active	10G191	10902
A	Pending	10I112	10901
A	Active	10J009	20700
A	Active	10L013	20800
A	Investigate	11K107	20700
A	Investigate	-1A048	11600
A	Active	1B012	11502
A	Active	1B018	11502
A	Active	1G087	30060
A	Active	2B068	11502
A	Pending	2E080	31100
A	Active	2H019	30040
A	Active	2H074	30030
A	Active	2K142	30700
A	Active	2K143	30700
A	Active	2K167	30700
A	Active	2O025	30501
A	Pending	2O026	30501
A	Active	2P013	40702
A	Active	2P015	40702
A	Active	2Q020	40703
A	Active	2Q021	40703
A	Active	2R026	40703
A	Investigate	3D065	11501
A	Active	3D108	11501
A	Active	3I036	30700
A	Active	3K058	30700
A	Active	3K061	30700
A	Active	3N004	30501
A	Active	3N005	30501
A	Active	3N007	30501
A	Active	3N055	30400
A	Investigate	3O128	40702
A	Active	4B003	10090
A	Active	4B005	10090
A	Active	4L013	30300
A	Active	4L017	20030
A	Active	4L076	20030
A	Active	4N013	40030
A	Active	4N014	40030
A	Active	4N016	30400
A	Active	4N030	40702
A	Investigate	4N080	40702
A	Active	4N089	30501
A	Active	5C007	10070

Table A-2. Capacity Related SSOs by Storm Level (cont.)

Storm Level	Status	Manholes	Area
A	Active	5L030	20030
A	Active	5L051	20030
A	Active	5L052	20030
A	Active	5L067	20030
A	Active	5L068	20030
A	Active	6C036	11400
A	Active	6C047	11400
A	Pending	6G012	21303
A	Active	6L011	20030
A	Active	6N008	40701
A	Active	6N009	40701
A	Active	6N016	40701
A	Active	6N077	40701
A	Active	-7A065	60200
A	Investigate	7J065	21100
A	Investigate	-7K001	30502
A	Active	7K113	21200
A	Active	-8-A012	60200
A	Investigate	-8-A015	60200
A	Active	-8D006	31202
A	Active	8E049	11101
A	Active	8E061	11101
A	Active	8E114	11101
A	Active	8I006	20902
A	Active	9I070	20902
B	Active	14G025	10010
B	Active	2O019	40702
B	Active	2P025	40702
B	Active	5C003	10090
B	Investigate	6C006	10080
B	Active	6N015	40701
B	Active	9O001	40501
C	Investigate	0D113	31700
C	Pending	0F146	31700
C	Pending	11J053	20402
C	Active	14L038	30200
C	Active	1G008	30050
C	Active	1G010	30040
C	Active	1G090	30060
C	Active	1G091	30060
C	Pending	2E066	31100
C	Active	2H001	30030
C	Active	2H004	30030
C	Active	2H017	30040
C	Active	2H018	30040
C	Active	2H064	30030
C	Active	2M028	30400
C	Investigate	2M034	30400
C	Investigate	2M060	30400
C	Active	2M085	30400

A-2. Capacity Related SSOs by Storm Level (cont.)

Storm Level	Status	Manholes	Area
C	Active	2O002	30501
C	Pending	3K059	30700
C	Investigate	3K099	30700
C	Active	3M002	30400
C	Active	3N006	30501
C	Active	-4A028	60200
C	Active	4B001	10090
C	Investigate	4C090	11501
C	Active	4L015	30300
C	Active	4N019	40702
C	Active	4N031	40702
C	Investigate	6C002	10090
C	Investigate	6C004	10080
C	Pending	6D050	11102
C	Investigate	6G061	21303
C	Investigate	6H049	21200
C	Investigate	-6K011	30502
C	Active	-7A053	60200
C	Active	7C006	10080
C	Active	7K012	20020
C	Active	7K087	20020
C	Active	7K112	21100
C	Active	-8-A006	60200
C	Active	8D033	11000
C	Active	8D034	11000
C	Active	8D088	11000

----- END -----

The "status" category provides an indication of the confidence level in the potential for this manhole to experience an SSO.

"Active" means a confirmed SSO was experienced

"Investigate" means non-verified information has led to the inclusion on this listing and shall require field confirmation

"Pending" indicates a rehabilitation effort has been conducted with field confirmation to follow to conclude positive mitigation.

"Subbasin" and "Maintenance Crew Work Area (Maintenance. Area)" categories are for internal Engineering and Maintenance Department tracking and work area assignment.

Step 8:

An annual report will be prepared by Engineering, which shall include a review of all capacity related overflows, as well as determine updates to the two (2) tables above for permanent signage and potential capacity related SSO manholes. These updated capacity-related SSO lists shall be included for amendment to this SSORP.

Appendix B: SSO Action Plan

SSO ACTION PLAN

Dispatching Crews

Dispatchers receive notification of possible SSOs from two sources:

- public (i.e. customers; guests of LR; other utility companies)
- internal crews (i.e. Maintenance Crews; Treatment Plant personnel)

Notification of Possible SSO During Working Hours

Dispatchers receive notification of a possible SSO from the public at which time they collect all relevant information as outlined in *Subsection 1.A.(a): Possible SSO by a Member of the Public*, which at this point they dispatch one of our area Maintenance Response Crew to the site to verify if an SSO has occurred.

The Responding Maintenance Crew will report findings back to Dispatcher, who assigns a Service Request number for tracking and is used by all involved Maintenance Crews by documenting this number on all SSO-related paperwork and initiated work orders/inspections.

The Maintenance Response Crew determines if an SSO has occurred, and, if so, places warning signage at the site of the SSO (as well as at adjacent homes if required and available). The Dispatcher or Supervisor also verifies that the Responding Maintenance Crew has filled out a LRWRA Overflow Report Form and that all required information is on form. The Dispatcher can assist in determining if a **RED** or **BLACK** Overflow Report Form is the proper form to use when the by using GIS Arc Map mapping layers to determine if a drainage area is a named waterway; if a named waterway is impacted a **RED** form should be completed, indicating environmental impact. If the SSO occurs within a structure, a **RED** form should also be completed, indicating human contact – evidenced or observed.

Maintenance Crews at this point start cleanup and sanitize the site. When complete, the Maintenance Response Crew is to verify that the cleanup is completed, take after-cleanup photographs, and remove warning signs.

Maintenance Crews submit all SSO paperwork and any initiated Work Orders/Inspection to Maintenance Dispatchers (same day), who, at the start of the next business day, sort all SSO paperwork and work orders/inspections, ensure the SSO Report Form is completed correctly, and check to make sure the Service Request number is documented on all SSO paperwork and initiated Work Orders/Inspection, if any. Dispatchers are responsible for distributing the SSO Report Form to the Maintenance Administrator this day. All Work Orders will be submitted to Maintenance Supervisors, and all Inspections are provided to the Maintenance Planner.

Maintenance Crews submit all before-cleanup and after-cleanup photos to the overflows email group at Overflows@lrwa.com (if using a Smart Phone) as well as to the Collection System Maintenance Administrator. If using a handheld camera, all photos are saved onto an SD Card and the card is provided to Collection System Maintenance Staff (*See Figure 1.B.-1: "SSO Tracking Protocol"*).

For all SSOs reported on RED Overflow Report Forms, Collection System Maintenance Staff is responsible for submitting the required 24-hour email notification to ADEQ, with all required information regarding the details of the SSO occurrence. (*See "Subsection 3: Regulatory Agency Notification"*.)

Notification of Possible SSO After Hours

The After-Hours Emergency On-Call Crews (who manage all incoming phone calls after normal business hours via the On-Call cell phone, to which all incoming calls to the main LRWRA Dispatcher Office phone number are forwarded) receive notification of a possible SSO from the public at which time they collect all relevant information as outlined in *Subsection 1.A(a): Possible SSO Reported by a Member of the Public*, and then proceed to the location.

The Emergency On-Call Crew determines if an SSO has occurred, attempts to correct the problem and contain the SSO, places warning signs at the site as well as at adjacent homes if required, and takes before-cleanup photographs. The crew is to fill out a LRWRA Overflow Report Form which is submitted with their paper work at the beginning of the next workday. All photos are submitted to the overflows email group at overflows@lrwa.com as well as to the Collection System Maintenance Administrator.

The Emergency On-Call Crew then starts cleanup and sanitizes the site (if possible). When cleanup is completed, the crew is to take after photographs and then remove warning signs.

If the SSO occurred within a structure, the Maintenance Supervisor is to verify that cleanup has been completed and all policies were followed. A site visit is to be performed no later than the first work day after the overflow occurrence. The Safety & Risk Administrator will be informed as well to handle any damage claims.

Internal Notification:

Personnel in the field who find an SSO are to contact the Dispatcher and provide the relevant information as outlined in *Subsection 1.A(a): Possible SSO Reported by a Member of the Public*. The same procedure as shown for public notification under working hours will be used – *See first part of this document, Appendix B: "SSO Action Plan"*.

Rain events that are one (1)-inch or greater will trigger our crews to investigate possible recurring SSO sites to verify if an overflow has occurred. These crews will be furnished with a list of possible SSO sites (*See Appendix A: SSO Tracking Protocol, Table A-2*) which has been determined as being locations that have the potential to overflow. The Maintenance Responding will follow the same

procedure as outlined under public notification during working hours. When a crew has gone through their list and an SSO was found, they will return to the site to conduct proper cleanup.

Chapter 16

Collection System Spill Contacts

IN THE EVENT OF A KNOWN SPILL OR DISCHARGE OF HAZARDOUS MATERIAL INTO THE LITTLE ROCK SANITARY SEWER COLLECTION SYSTEM, **IMMEDIATE** CONTACT SHOULD BE MADE TO OUR 24-HOUR EMERGENCY CREW AT 223-1509

IN THE EVENT THAT A FLAMMABLE OR OTHER EXTREMELY HAZARD SUBSTANCE IS RELEASED INTO THE SANITARY SEWER SYSTEM PLEASE CALL THE **LITTLE ROCK FIRE DEPARTMENT (911)**

IN ADDITION, PLEASE CONTACT (ASAP) ONE THE STAFF MEMBERS LISTED BELOW SO A FOLLOWUP INVESTIGATION CAN BE CONDUCTED.

Megan Jones, Pretreatment Administrator

Work: 501-688-1495

Mobile: 479-216-0961

Jamie Ewing, Director of Environmental Assessment

Work: 501-688-1486

Mobile: 870-917-7463

Michael Kline, Safety & Risk Administrator

Work: 501-688-1468

Mobile: 501-352-0513

Adams Field Treatment Plant (**24 hour**)

1001 Temple Street

Operations: 501-688-1533

Mobile: 501-413-7381

Fourche Creek Treatment Plant (**24 hour**)

9500 Birdwood

Operations: 501-490-5405

Mobile: 501-541-3559

(Revised 2018)

Appendix D: Detecting Hazardous Atmospheres

DETECTING HAZARDOUS ATMOSPHERES

(Chapter 9 of the LRWRA Safety Manual pg. 65)

Purpose

To ensure that all affected LRWRA employees are notified of potential health or safety hazards in the LRWRA collection system.

Procedures

The following procedures must be followed when detecting potential health or safety hazards in the LRWRA collection system:

Step 1

The LRWRA employee(s) or crew discovering the potential health or safety hazard must notify dispatch (223-1509) or the Environmental Health & Safety [Safety & Risk] Department (688-1468 or 688-1466) to report the potential problem.

Information included in the report:

- Name of the employee making the report
- Street address or location or potential hazard
- Manhole number (if known)
- Brief description of findings (submit verbally or via e-mail)

If the health or safety hazard was reported to dispatch: dispatch should contact the Environmental Health & Safety [Safety & Risk] Department and report the above information.

Step 2:

The Environmental Health & Safety [Safety & Risk] Department will then investigate the report.

Step 3:

If Environmental Health & Safety [Safety & Risk] Department confirms the report, the Environmental Health & Safety [Safety & Risk] Department will notify Dispatch to ALERT all affected field crews that the reported area is "Off Limits" until further notified. The Environmental Health & Safety [Safety & Risk] Department will notify ALL other affected LRWRA & CAW department supervisors of the reported area.

Step 4:

Dispatch will draft a notice with the location of the ALERTED areas and place a copy on all Safety News Bulletin Boards and Backdoors at the Clearwater Complex. Dispatch will also forward a copy

of the notice to the Environmental Health & Safety [Safety & Risk] Department for placement on the other Safety News Bulletin Boards throughout LRWRA.

Step 5:

The Environmental Health & Safety [Safety & Risk] Department will notify Central Arkansas Water dispatch of the Potential Hazardous Area.

Step 6:

If the investigation suspects a Natural Gas Leak, the SAFETY [Safety & Risk] Department will contact CenterPoint/Reliant Energy to report the situation.

Step 7:

The Environmental Health & Safety [Safety & Risk] Department will keep ALL effected LRWRA & CAW departments informed of the situation and monitor their (CenterPoint/Reliant Energy) findings.

Step 8:

Once the health or safety hazard has been corrected, the Environmental Health & Safety [Safety & Risk] Department will perform a follow-up investigation and when NO HAZARDOUS conditions exist, the SAFETY [Safety & Risk] Department will remove the Safety ALERT and notify all affected departments.

Step 9:

If gasoline, solvents, paint, or other foreign material is suspected and the hazardous area is located in an Industrial/Commercial Area, the Environmental Health & Safety [Safety & Risk] Department will contact the Environmental Assessment Department (EAD) and transfer the report for further action.

Step 10:

Industrial investigations resulting from explosive or toxic conditions will be performed by EAD pretreatment staff members using procedures from the pretreatment procedures manual. Findings will be provided to the Environmental Health & Safety [Safety & Risk] Department upon completion of the investigation.

After Hours Reporting

If a hazardous atmosphere is detected after normal working hours, the employee must report the area the next working day prior to his/her normal working hours. After this report is made, the process will begin with step one.

If a hazardous atmosphere is detected after normal working hours, that is suspected to contain gasoline, solvents, paint, or other foreign material and the hazardous area is located in an

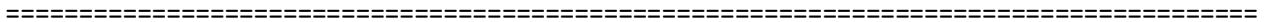
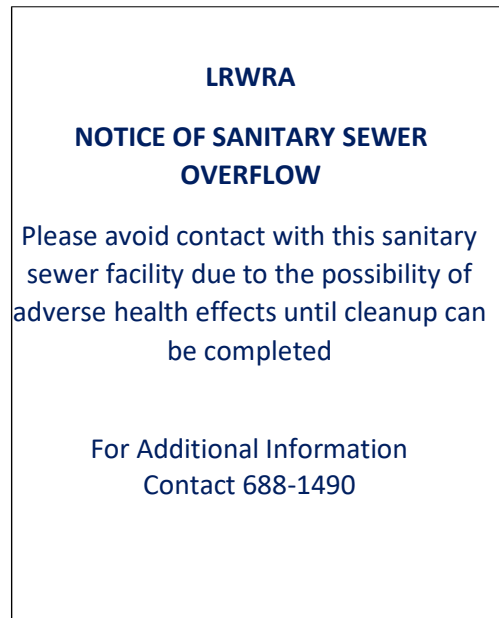
Industrial/Commercial Area, follow the procedures [found in Chapters 9 & 16 of the LRWRA Safety Manual "Collection System Spill Contacts" {revised 2018} & "Detecting Hazardous Atmospheres".]

Appendix E. SSO Permanent & Temporary Signage - Verbiage

TEMPORARY SSO SIGNAGE

The following language shall be used on signs located on existing SSO sites during cleanup and on notices attached to homes adjacent to SSO sites:

See "SSORP Table A-2" for a list of manhole locations that Maintenance Crews will check following Category- level storm event notifications receive from the Engineering Department

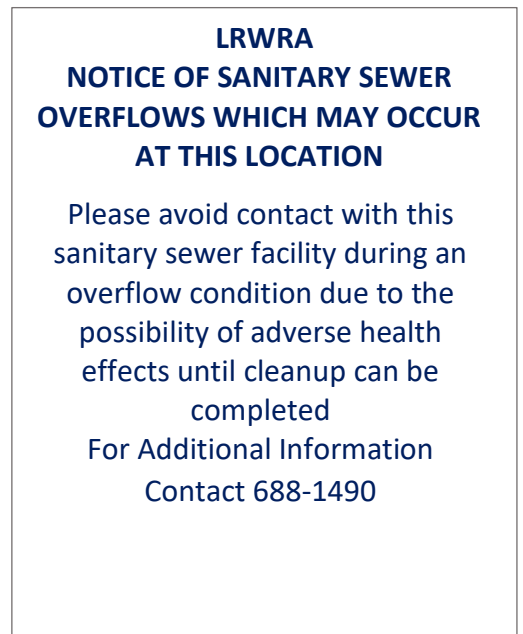


LRWRA Overflow Signage Verbiage

PERMANENT SSO Signage

The below language shall be used on signs located on potential SSO sites that occur more than once in a twelve (12)-month period.

See SSORP Table A-1 for a list of manholes requiring permanent SSO signage throughout 2019 that was provided by the Engineering Department



Appendix F: SSO Flow & Volume Determination

SSO FLOW & VOLUME DETERMINATION

As indicated previously in this SSORP, each SSO that is actively discharging during the investigation phase of this response plan's tasks shall be evaluated for flow and ultimate total volume discharged, each of which is to be included as part of the reporting requirements. The Engineering Department has defined a three-tiered flow estimating system that is derived from the reaction of the manhole lid in relation to the flow exiting the collection system. This system is easily field estimated without the need for measuring devices, which in most instances, would fail to achieve a proper signal due to the lack of sufficient depth of flow.

It has been determined that the majority of actively discharging SSOs reported by a Response Crew would be non-capacity related. Therefore, criteria for determining flow should concentrate on these conditions for gravity sewer collection systems. **The three (3)-category rating system is outlined below:**

**** GPM = Gallons Per Minute**

1 – 10 GPM

This rate covers the light discharge experienced in the upper reaches of the collection system, usually with a small number of residential connections. The **visual indicator** would be a light flow (about the rate of a standard faucet) from around the manhole lid with no visible release of debris or solids and no movement or lifting of the lid itself.

11 – 100 GPM

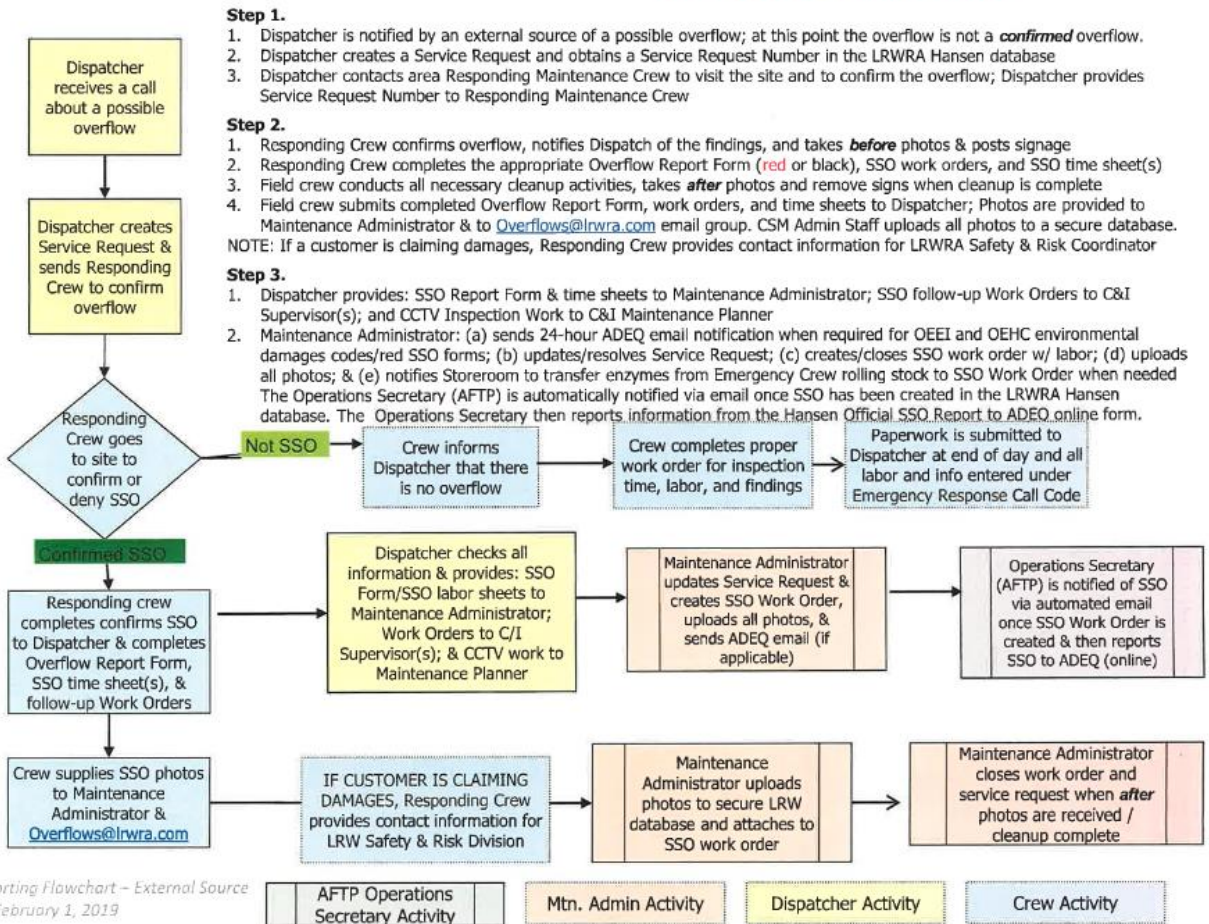
This rate covers the moderate discharge experience in the lower reaches of the collection system, usually along the larger collector or outfall type sewer mains (typically 10" and larger mains) and in some capacity related SSOs. The **visual indicator** would be a noticeable flow from around the manhole lid, slight debris or solids release, and a rocking or slight lifting of the manhole lid.

> 100 GPM

This rate covers the heavy discharge experienced along the major outfall sewers and larger capacity related SSOs. The **visual indicator** is the definite release of debris or solids, and the complete lifting or displacement of the manhole lid.

SSO volumes are derived from the above category multiplied by the duration of discharge. If the exact length of discharge is unknown, criteria for determining an estimated time have been established in the *Section 1.M(d): "Completing the SSO Report Form"*.

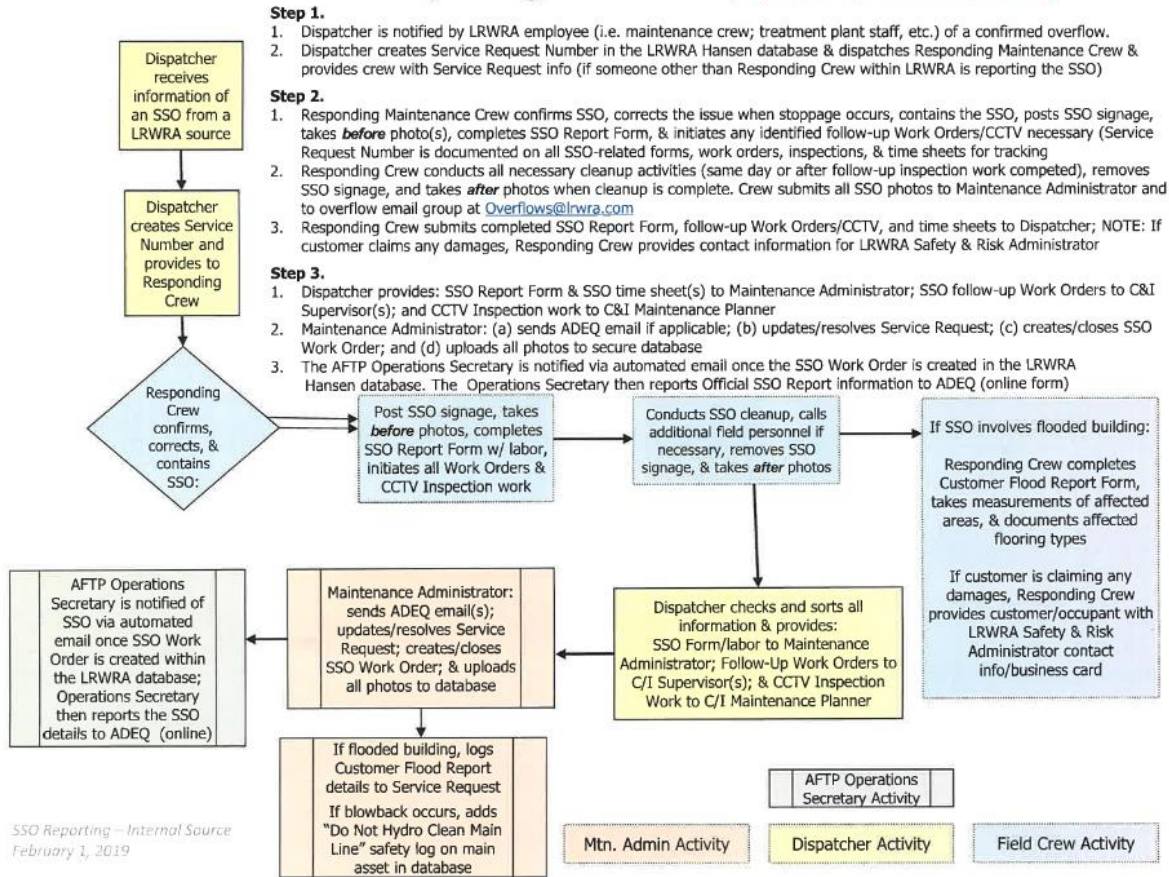
SSO Reporting Flow Chart (Reported by EXTERNAL Source)



Reporting Flowchart – External Source
February 1, 2019

Appendix H: Flowchart Process for SSO Reporting (Internal Source)

SSO Reporting Flow Chart (Reported by INTERNAL Source)



SSO Reporting – Internal Source
February 1, 2019

--- End of LRWRA SSORP ---

Revised February 1, 2019

ATTACHMENT B. Notice of Sanitary Sewer Overflow – Temporary Sign



ATTACHMENT C. Door Hanger

YOU CAN ALSO HELP

CAN THE GREASE
PROTECTING YOUR ENVIRONMENT AND YOUR WATER
For More Information, Please Call
LITTLE ROCK WATER RECLAMATION AUTHORITY
501-688-1490

Mitigate sanitary sewer overflows by enrolling in Little Rock Water Reclamation Authority's Can the Grease® program. This program allows you to receive one grease can and lid, heat-resistant liners, and lots of information. **ALL AT NO CHARGE.** Upon receiving the grease packet, all you have to do is:

1. Place the heat-resistant liner in the grease can.
2. Pour your leftover cooking grease into the bag and put the lid back on the can.
3. Once the bag is full, take it out and toss it in the trash. Place another liner in the can.

Signing up is easy, too. You can request a FREE Can the Grease® Kit by calling 501.688.1490 or visit us online at lrwu.com/ctg.

NOTICE

Dear Customer:

In an increasing effort to provide our customers with exceptional service, protect public health and the environment and continue our preventive maintenance program, our crews are working in your area. **PLEASE CONTACT US.** We need to discuss the following with you:

- Check an existing manhole
- Perform routine inspection/maintenance on an existing line or manhole
- Grease-related stoppage
- Sewer Service Line Replacement Program – up to \$2,500 reimbursement
- Other _____

For more information contact
Customer Assistance
501.688.1490

Work Order # _____ Today's Date: _____
or
Line Segment _____

Little Rock Water Reclamation Authority
11 Clearwater Drive
Little Rock, AR 72204
501.688.1490
lrwu.com

Project RENEW
Quality Water. Quality Pipes. Quality Life.

LITTLE ROCK Water Reclamation Authority
ONE WATER. ONE FUTURE.

Can the Grease® Enrollment

Name _____

Address _____

Telephone number _____

Please return card to:
Little Rock Water Reclamation Authority
11 Clearwater Drive • Little Rock, AR 72204



ATTACHMENT D. Notice of Sanitary Sewer Overflow – Permanent Signage



About Acoustic Inspection (AI)

WHO:

Little Rock Water Reclamation Authority (LRWRA) is responsible for inspecting and maintaining 1,400 miles of sewer system, 32,000 manholes and serves a population of approximately 200,000.



WHAT to Expect:

LRWRA employees are conducting Acoustic Inspections (AI) on the sewer collection system in your neighborhood. The inspections take approximately 3-5 minutes. Employees will need access to manholes and are prepared to work with customers as needed. Workers will not need access into your home to complete the inspection. During the inspection, sound waves are sent from the transmitting device to the receiving device. The sound waves detect obstructions within the sewer collection system. The sound waves can be heard but are not typically loud or disruptive. Employees will also be in uniform and company marked vehicles for ease of recognition.



WHY?

To efficiently maintain the 1400 miles of sewer collection system, LRWRA utilizes the AI activity as part of its annual preventive maintenance program. The AI activity identifies system deficiencies related to broken pipe, blockages due to roots, grease, and/or general debris collected in the pipe. The results of the inspection determine the priority of corrective action necessary to ensure continued reliable service for LRWRA customers.



ACOUSTIC TRANSMITTER

ACOUSTIC RECEIVER



SL-RAT
Sewer Line Rapid Assessment Tool

If you have any questions please give us a call at: (501) 688-1470.

Little Rock Water Reclamation Authority
11 Clearwater Drive
Little Rock, AR 72204
501.688.1490
lrwra.com



Acerca de la inspección acústica (AI)

QUIÉN:

Little Rock Water Reclamation Authority (LRWRA) es responsable de inspeccionar y mantener aproximadamente 1,400 millas del sistema de alcantarillado y 32,000 pozos de visitas, y presta sus servicios a una población de aproximadamente 200,000 personas.



QUÉ esperar:

Los empleados de LRWRA están realizando inspecciones acústicas (Acoustic Inspections, AI) en el sistema colector de alcantarillado en su vecindario. Las inspecciones toman aproximadamente de 3 a 5 minutos. Los empleados necesitarán tener acceso a los pozos de visita y están preparados para trabajar con los clientes cuando sea necesario. Los trabajadores no necesitarán tener acceso a sus hogares para completar la inspección. Durante la inspección, las ondas acústicas se envían desde el dispositivo transmisor hasta el dispositivo receptor. Las ondas acústicas detectan las obstrucciones dentro del sistema colector de alcantarillado. Las ondas acústicas pueden escucharse pero normalmente no ocasionan un ruido fuerte ni perturbador. Los empleados también estarán uniformados y en vehículos identificados con la marca de la compañía para reconocerlos fácilmente.



¿POR QUÉ?

Para mantener las 1,400 millas del sistema colector de alcantarillado de manera eficiente, LRWRA utiliza el proceso de AI como parte de su programa de mantenimiento preventivo anual. El proceso de AI identifica las deficiencias del sistema relacionadas con tuberías rotas, obstrucciones causadas por raíces, grasa o desechos en general que se acumulan en la tubería. Los resultados de la inspección determinan la prioridad de las medidas correctivas necesarias para asegurar un servicio continuo y fiable para los clientes de LRWRA.



TRANSMISOR ACÚSTICO

RECEPTOR ACÚSTICO

SL-RAT

Herramienta de evaluación rápida de la línea de alcantarillado
(Sewer Line Rapid Assessment Tool)



Si tiene alguna pregunta, por favor llámenos al:
(501) 688-1470.

Little Rock Water
Reclamation Authority
11 Clearwater Drive
Little Rock, AR 72204
501.688.1490
lrwra.com



ATTACHMENT F. *Can the Grease*®



It's easy. It's free.

CAN THE GREASE™

WHY?

Anything that goes down the drain comes to LRWRA's water reclamation facilities through shared pipelines all throughout the city. Grease and fats, especially from cooking, clog pipes. This doesn't just impact pipes maintained by LRWRA—this could clog pipes on your property that you are responsible for.



LITTLE ROCK
**Water Reclamation
Authority** ONE WATER.
ONE FUTURE.

It's as easy as 1-2-3



WHAT CAN YOU DO?

LRWRA doesn't want ratepayers to bear the financial burden of clogged pipes. That's why we supply our Can the Grease™ starter kit free of charge. It comes with an aluminum can, heat-resistant liners, and an informational packet to help you keep your pipes clog free.

ANYTHING ELSE?

Keep in mind that some foods produce grease naturally when you cook them. Make sure to can those greases and fats as well. You should also avoid flushing the following items down your drain. They can damage the pipes or the water supply we all share.

- Medication (pills, creams, etc.)
- Automotive fluids
- Car wax
- Paint, glue, and thinner
- Poison and/or insecticides
- Kerosene and/or lighter fluid
- Moth balls
- Oven, floor, or furniture cleaners
- Primer
- Fertilizer
- Nail, shoe, and/or metal polish
- Battery acid
- Fiberglass epoxy
- Photographic chemicals
- All wipes

**CALL 501.688.1490 TODAY
FOR YOUR FREE STARTER KIT.**

ATTACHMENT G. SSLRP Brochure



How Does it Work?

Once a determination has been made that a total service line replacement is necessary, the residential customer may then request a **Sewer Service Line Replacement Program** application from LRWRA.

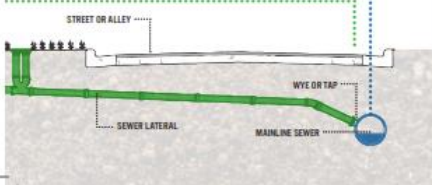
When LRWRA receives the application, a site visit will be made to determine if the residential customer's service line qualifies for this program. **If the site qualifies, customers will be advised at this time.**

The next step will be to **obtain a permit prior to the onset of work**, which will be obtained by a master plumber or the residential customer.

Upon completion, LRWRA will then make a final inspection. If the work is satisfactory, **the customer will then submit all invoices, including plumber's invoice and LRWRA permit fees, if applicable.**

Finally, a reimbursement check, up to \$2,500, will be issued to the customer by LRWRA.

LRWRA's Responsibility



DO YOUR PART.

Protect your lines. Get your **FREE** starter kit today!

Call **501.688.1490** or visit **lrwra.com/ctg**.

For additional information about SSLRP procedures, visit our website at **lrwra.com/SSLRP** or call **501.688.1426**.



11 CLEARWATER DR. LITTLE ROCK, AR 72204
LRWRA.COM | 501.376.2903



LRWRA's Sewer Service Line Replacement Program received the PISCES Award for Exceptional Projects from the Environmental Protection Agency for its innovative approach to improving water quality and public health.



SSLRP

Sewer Service Line Replacement Program



LITTLE ROCK
Water Reclamation
Authority
ONE WATER.
ONE FUTURE.



Your path through the process:

FROM NOTIFICATION TO REIMBURSEMENT



What is SSLRP?

This award-winning program went into effect January 2, 2013, and was created to assist Little Rock Water Reclamation Authority (LRWRA) residential customers with the cost of total replacement of their sewer lines by reimbursing up to a maximum of \$2,500. This program is an ongoing effort to reduce inflow and infiltration and provide reliable service to the residents of Little Rock.

Who's Responsible?

Homeowner's Responsibility



For more information, call 501.688.1426 or visit lrwa.com/SSLRP.

ATTACHMENT H. Bill Inserts



EARTH DAY IS APRIL 22
See reverse side for our eco-friendly programs.

FOR US, EVERY DAY IS EARTH DAY

We work 24/7 to reclaim Little Rock's used water, and we return it to the environment cleaner than what occurs naturally. Through the maintenance and renewal of the aging sewer lines, we are working to protect our environment for future generations. You can take simple steps to join us in this effort. [Learn more at lrwa.com](http://lrwa.com).




11 CLEARWATER DR. LITTLE ROCK, AR 72204 | LRWA.COM | 501.376.2903



A **FREE** grease can and heat-resistant liners makes proper disposal of cooking fats and oils easy so they won't clog your pipes.

Call **501.688.1490** or visit lrwa.com/ctg.



A **FREE** cleanout* cap keeps debris out of service lines—reducing backups into homes.

Call **501.688.1470** or visit lrwa.com/capthecleanout.

Sewer Service Line Replacement Program SSLRP

A **reimbursement up to \$2,500** to residential homeowners for replacing private sewer service lines. This improves sewer reliability and adds value to your home.

Call **501.688.1426** or visit lrwa.com/sslrp.



* A cleanout is a vertical pipe connected to the underground sewer line that allows access to the sewer system. It's located near the home or close to the property line.




11 CLEARWATER DR. LITTLE ROCK, AR 72204 | LRWA.COM | 501.376.2903




Imagine a Day Without Water

October 10, 2018



11 CLEARWATER DR. LITTLE ROCK, AR 72204 | LRWRA.COM | 501. 376. 2903

Water is essential to how we live our everyday life. The average American uses **176 gallons of water a day** or **64,240 gallons of water a year!** Drinking, showering, flushing, living — all not possible without water.



176 gallons of water per day
 = 100 gallons (blue jug icon) = 10,000 gallons (green jug icon)

64,240 gallons of water per year

Can you imagine a day without it!

Join LRWRA as we recognize the immeasurable impact that water has on everyday life through the Imagine a Day Without Water Campaign.

Find out how you can be a part of the campaign to raise awareness about the preservation of our most precious resource at thevalueofwater.org.

Learn more about LRWRA's commitment to protecting the future of our shared water at lrwra.com.





11 CLEARWATER DR. LITTLE ROCK, AR 72204 | LRWRA.COM | 501. 376. 2903



Join LRWRA and its partners for the BIENNIAL ARKANSAS DRUG TAKE BACK DAY.

OCT. 27
10 A.M. – 2 P.M.

FOR PARTICIPATING
LOCATIONS NEAR YOU,
VISIT ARTAKEBACK.ORG



Do your part to Take Back Our Health,
Our Environment and Our Communities!
Dispose of prescription and
non-prescription drugs safely.



11 CLEARWATER DR. LITTLE ROCK, AR 72204 | LRWRA.COM | 501.376.2903

Remember, flushing or pouring medicine down the drain negatively affects the environment and aquatic life.

In addition to the Oct. 27 take back event, there are more than 200 permanent, medical drop-box locations throughout the state where you can safely dispose of prescription and non-prescription drugs. Visit artakeback.org/take-back/about-take-back/ to find a location near you.

Visit lrwra.com to learn more about items you should never flush, rinse, or wash down the drain.



these items:

- X Medication (pills, creams, etc.)
- X Automotive fluids
- X Paint, glue, and thinner
- X Poison and/or insecticide
- X Battery acid
- X Fiberglass Epoxy
- X Hair
- X Feminine hygiene products
- X Diapers
- X Paper Towels
- X Chemicals
- X Wipes (even those that say flushable)
- X Moth balls
- X Floss
- X Syringes



11 CLEARWATER DR. LITTLE ROCK, AR 72204 | LRWRA.COM | 501.376.2903



LITTLE ROCK WATER
RECLAMATION AUTHORITY

WISHES YOU HAPPY HOLIDAYS!

COOK IT.
CAN IT.
TRASH IT.

DO YOUR PART

To help protect our health, our environment and your sewer lines! Dispose of fats, oils and grease properly this holiday season.



11 CLEARWATER DR. LITTLE ROCK, AR 72204 | LRWA.COM | 501.376.2903

It's as easy as 1-2-3

1 Cook it. 

2 Can it. 

3 Trash it. 

Fats, oils and grease, especially from cooking, can clog pipes – including pipes that are your responsibility as a homeowner. Little Rock Water Reclamation Authority has a safe, simple and FREE solution for disposing of grease this holiday season. Our Can the Grease® kit includes an aluminum can, heat-resistant liners and an informational packet to help keep your pipes clog free so you can focus on what matters most this season.

Request a FREE
CAN THE GREASE® Kit!

Call 501.688.1490 or
visit lrwa.com/ctg



11 CLEARWATER DR. LITTLE ROCK, AR 72204 | LRWA.COM | 501.376.2903

2019 SEWER RATES:^{*}

DOMESTIC CUSTOMER

Service Availability Fee

METER SIZE	INSIDE CITY	OUTSIDE CITY
5/8"	\$11.81	\$17.75
3/4"	\$15.23	\$22.85
1"	\$23.03	\$34.55
V.C. [†]	\$4.37	\$6.56

NON-DOMESTIC CUSTOMER

Service Availability Fee

METER SIZE	INSIDE CITY	OUTSIDE CITY
5/8"	\$11.83	\$17.75
3/4"	\$15.23	\$22.85
1"	\$23.03	\$34.55
1.5"	\$40.66	\$61.00
2"	\$63.10	\$94.65
3"	\$115.33	\$172.99
4"	\$190.15	\$285.23
6" or above	\$377.13	\$565.70
V.C. [†]	\$5.92	\$8.90

* LR Sewer Rate Ordinance #21,080 established a 4.75% rate increase effective January 1.

† Volumetric Charge per 100 Cubic Feet, i.e. your household usage.



LITTLE ROCK
**Water Reclamation
Authority** ONE WATER.
ONE FUTURE.

LRWRA.COM | 501.376.2903

Previous Bill

Current Charges:	
Central Arkansas Water Use Charges	10.15
Water Charge	0.45
Watershed Protection Fee	1.06
Franchise Fee	1.05
Sales Tax	0.30
Fed. Safe Drinking Water Act	\$13.81
Total Use Charges:	
Little Rock Water Reclamation Authority Use Charges	
4. Monthly Charges (4 = Average Winter Consumption)	1.00
2. Service Line Replacement Fee	2.93
3. Franchise Fee	\$33.22
Total Use Charges:	
Little Rock Sewer Waste Charges	
Monthly Charges	22.02
Sales Tax	1.98

SEE SURVEY #
The Water Reclamation Authority is required to take the Census of all property owners in the City of Little Rock for billing purposes.

HOW TO READ YOUR BILL:

1. Monthly Charges include your Household Usage (shown as your V.C. x a number) and the flat, monthly Service Availability Fee, which is based on the size of your meter.

$$\begin{aligned} \text{V.C.} \times 4 &= \$17.48 \\ \text{Service Availability Fee} &= \$11.81^+ \end{aligned}$$

$$\text{Monthly Charges} = \$29.29$$

2. A \$1 program fee is charged for the Sewer Service Line Replacement Program, which allows residents to apply for a reimbursement of up to \$2,500 for replacing substandard sewer service lines on their property.

3. The Franchise Fee, equaling 10% of your monthly bill, is collected on behalf of the City of Little Rock.

$$\begin{aligned} \text{Monthly Charges} &= \$29.29 \\ \text{Service Line Replacement Fee} &= \$1.00 + \\ \text{Franchise Fee (10\%} \times \$29.29) &= \$2.93 \\ \text{Total Use Charges} &= \$33.22 \end{aligned}$$





Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

**Little Rock Wastewater
Arkansas**

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

December 31, 2017

Christopher P. Morill

Executive Director/CEO

ATTACHMENT J. Distinguished Budget Presentation Award



GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished
Budget Presentation
Award*

PRESENTED TO

**Little Rock Water Reclamation Authority
Arkansas**

For the Fiscal Year Beginning

January 1, 2018

Christopher P. Morill

Executive Director

ATTACHMENT K. UPPCC Agency Certification Award Letter



October 15, 2018

Mrs. Amber Yates, CPPB
Procurement Administrator
Little Rock Wastewater
11 Clearwater Drive
Little Rock, AR 72204

Dear Mrs. Amber Yates, CPPB:

On behalf of the Universal Public Procurement Certification Council (UPPCC), it is my privilege and honor to publicly name Little Rock Wastewater, Arkansas as a 2018 recipient of the UPPCC Agency Certification Award in the small agency category. Congratulations!

As you may know, this award was created to formally recognize an agency's commitment to the value of certification in the public sector. Your organization is a fine example of what is becoming a strong indicator of success within state and local governments. This accomplishment speaks volumes of your agency's commitment and dedication to the profession and the skills and expertise that you bring to the public procurement industry.

The enclosed framed certificate should be displayed with pride as such an achievement brings increased credibility and recognition to your entity – an accomplishment that should be highly regarded by your elected officials and the citizenry that you serve.

I hope that your agency will continue its commitment to professionalism in public procurement and strive for even greater recognition as a UPPCC Sterling Agency. The "Sterling Agency" award program recognizes agencies that not only achieve the UPPCC Agency Certification Award but maintain it for three consecutive years. The UPPCC Sterling Agency Award is automatically issued to an agency upon achievement of the UPPCC Agency Certification Award for the third consecutive year. Don't forget that the UPPCC Agency Certification Award is an annual award that you must apply for each year. For more information, please visit our website at www.uppcc.org.

Again, my sincere congratulations to Little Rock Wastewater, Arkansas and the entire procurement team for a job well done.

Sincerely,



Kathleen Muretti, CPPO, CPPB
Chair, UPPCC Board of Directors

ATTACHMENT L. George W. Burke, Jr. Safety Award



ATTACHMENT M. AWEA Safety Award and Safety Professional of the Year





TRICK OR GREASE



JOIN THE TEAM

**Little Rock residents:
Request a FREE Can
the Grease starter kit
or additional liners!**

CALL: 501-688-1490 **GO ONLINE: lrwra.com/ctg**



ACEPTANDO EL FUTURO DE LA VIDA URBANA.

Ahora más que nunca, las infraestructuras que apoyan la vida en la ciudad son parte vital de la planeación del futuro. El trabajo que hace LRWRA, a través del continuo mantenimiento preventivo y actualizando las alcantarillas de la ciudad, apoya la creación y la restauración de las comunidades diversas, preparándoles para un intercambio y acojo sostenibilidad.

Para más información sobre los proyectos del LRWRA, visite: www.lrwra.com.



LRWRA.COM | 501. 376. 2903

ARKANSAS FLAVOR | 47

LITTLE ROCK WATER
RECLAMATION AUTHORITY

WISHES YOU HAPPY HOLIDAYS!

**DO YOUR PART TO HELP
PROTECT OUR HEALTH,
OUR ENVIRONMENT
AND YOUR SEWER LINES!**

Dispose of fats, oils and grease properly this holiday season. Fats, oils and grease, especially from cooking, can clog pipes – including pipes that are your responsibility as a homeowner.

Little Rock Water Reclamation Authority has a safe, simple and **FREE solution for disposing of grease this holiday season**. Our Can the Grease[®] kit includes an aluminum can, heat-resistant liners and an informational packet to help keep your pipes clog free so you can focus on what matters most this season.



Request
your **FREE**
kit today!
Call 501.688.1490 or
visit lrwra.com/ctg

- 1  Cook it.
- 2  Can it.
- 3  Trash it.

LITTLE ROCK WATER RECLAMATION AUTHORITY OFFERS A RANGE OF FULFILLING CAREERS.

At **Little Rock Water Reclamation Authority**, our diverse employee base is our greatest asset. From plumbers to welders to computer programmers, **we're proud to fuel our city's economy** with more than 100 different job classifications and lasting career opportunities.

To learn more about technical careers with Little Rock Water Reclamation Authority, visit us at lrwra.com/employment.



LITTLE ROCK
**Water Reclamation
Authority**
ONE WATER.
ONE FUTURE.



IT'S EASY. IT'S FREE.

CAN THE GREASE®



WHY?
 Anything that goes down the drain comes to LRWRA's water reclamation facilities through shared pipelines all throughout the city. Grease and fats, especially from cooking, clog pipes. This doesn't just impact pipes maintained by LRWRA—this could clog pipes on your property that you are responsible for.

Request a **FREE CAN THE GREASE® Kit!**
 Call **501.688.1490** or visit lrwra.com/ctg.

LITTLE ROCK Water Reclamation Authority
 ONE WATER. ONE FUTURE.

It's as easy as 1-2-3

- 1** Cook it. 
- 2** Can it. 
- 3** Trash it. 

11 CLEARWATER DR. LITTLE ROCK, AR 72204 | LRWRA.COM | 501.376.2903



WE ARE THE LITTLE ROCK WATER RECLAMATION AUTHORITY

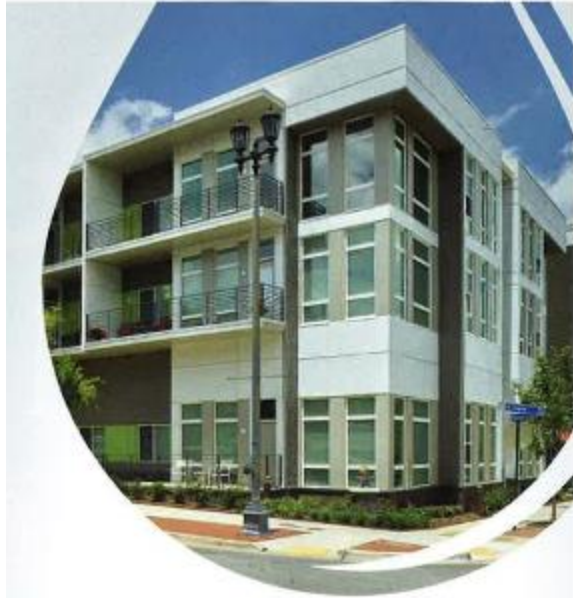
At LRWRA, we protect our public health and environment while reclaiming our most precious natural resource – water. The work we do through continued preventive maintenance and upgrades to the city's sewer lines ensures that our city remains vibrant for years to come.

If you experience a sewer related emergency **CALL US FIRST 501.223.1509** – 24 hours a day, 7 days a week.

Learn more about who we are at lrwra.com.

LITTLE ROCK Water Reclamation Authority
 ONE WATER. ONE FUTURE.

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WE EMBRACE THE FUTURE OF URBAN LIVING

Now more than ever, infrastructure that supports city living is a vital part of planning for our future. At LRWRA, the work we do through continued preventive maintenance and upgrades to the city's sewer lines supports the creation and restoration of communities that are diverse, prepared for mix-use and foster sustainability.

For more information on LRWRA and its projects, visit lrwra.com.



LRWRA.COM | 501. 376. 2903



LRWRA IS PROUD TO BE PART OF A GROWING DOWNTOWN

Our projects protect the businesses, urban lifestyle, and outdoor spaces that make downtown a great place to work, play, and call home. Through the maintenance and renewal of our sewer lines, Little Rock Water Reclamation Authority ensures that the heart of our city remains vibrant for years to come. Visit lrwra.com to learn more about our commitment to Little Rock's economy and infrastructure.



LRWRA.COM | 501. 376. 2903



HELPING LITTLE ROCK REMAIN A GREAT PLACE TO DO BUSINESS

At Little Rock Water Reclamation Authority, we recognize that location, location, location can have a huge impact on the success of your business. And while you're investing in products and people, we're investing in the renewal of the city's sewer lines. Through continued preventive maintenance and upgrades, we ensure that when you decide to hang a shingle, our city's infrastructure will be ready to support your efforts.

Visit lrwra.com to learn more about our commitment to Little Rock's economy and infrastructure.



1 CLEARWATER DR. LITTLE ROCK, AR 72204 | LRWRA.COM | 501.376.2903

LITTLE ROCK WATER
RECLAMATION AUTHORITY

OUR NEW WEBSITE WORKS BETTER FOR YOU.

year ago, we reintroduced ourselves as
ttle Rock Water Reclamation Authority -
ow we're introducing our new website.
ur new website makes it easier to request
ustomer service, explore our helpful
ograms and learn how we continue
protect our One Water, One Future.
e for yourself by visiting lrwra.com today.



LITTLE ROCK
**Water Reclamation
Authority** ONE WATER.
ONE FUTURE.



Follow us on social media to keep up with
our latest reminders, tips and events.

f Little Rock Water Reclamation Authority

t @LRWRA

@l.r.w.r.a

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EL HOGAR ESTÁ DONDE ESTÁ EL CORAZÓN



Y para el Little Rock Water Reclamation Authority, su hogar está en el corazón del esfuerzo diario. Desde el mantenimiento preventivo hasta las mejoras de las líneas de alcantarillado de Little Rock, o en la inversión en programas que protege y fortalece el sistema de los hogares, nuestra prioridad es hacer Little Rock, especialmente su casa, un mejor lugar para llamar hogar.

Trabajamos las 24 horas del día 7 días a la semana y podemos ayudarlos a utilizar estos tres programas:



Una lata para las grasas GRATIS con bolsa resistente a las temperaturas para eliminar esa grasa y aceites al cocinar para que no bloqueen las cañerías. Para más información llame al: 501.688.1490 O visite: lrwa.com/ctg.



¿Una tapadera perdida o en mal estado? Llámenos para obtener una tapadera gratis para mantener los desperdicios afuera de las líneas de alcantarillado. Llame al 501.688.1470 O visite: lrwa.com/capthecleanout.

Sewer Service Line Replacement Program

SSLRP

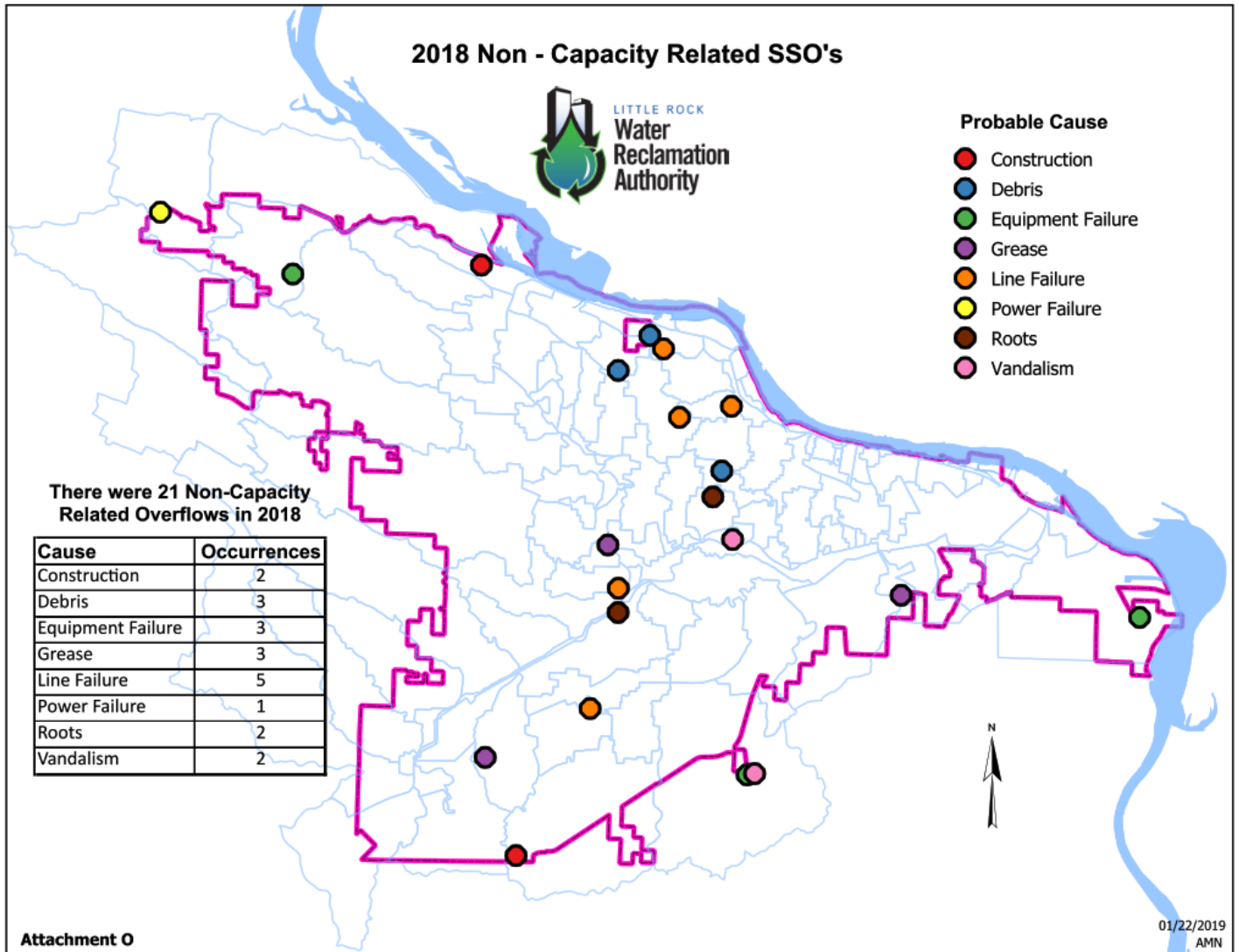
Un reembolso de hasta \$2,500 para sustituir las líneas de alcantarillado privado. Esto aumenta la seguridad y el valor de las casas. Llame al 501.688.1426 O visite: lrwa.com/sslrp.



LITTLE ROCK
Water Reclamation Authority
ONE WATER. ONE FUTURE.



ATTACHMENT O. Non-Capacity Related Sanitary Overflows Summary Report and Map



Attachment O

**LITTLE ROCK WASTEWATER UTILITY
NON-CAPACITY SANITARY SEWER OVERFLOW REPORT
1/1/2018 - 12/31/2018**

CODE DESCRIPTIONS

NPDES PERMIT

FC - Fourche Creek Treatment Plant
NPDES Permit No. AR0040177

AF - Adams Field Treatment Plant
NPDES Permit No. AR0021806

LM - Little Maumelle Treatment Plant
NPDES Permit No. AR0050849

CAUSE(S) OF SSO

CO - Construction
D - Debris
E - Equipment Failure
G - Grease
HC - Hydro-Clean
LF - Lime Failure
PF - Power Failure
RO - Roots
VA - Vandalism
EFK - Evidence of Fish Kill
NEAH - No Evidence of Adverse Health or Environmental Impacts
OEHC - Observed or Evidence of Human Contact
OEEI - Observed or Evidence of Environmental Impact

ACTION(S) TAKEN

DD - Disinfected & Deodorize
EN - Reporting to Engineering
HC - Hydro Cleaned
HR - Hand Rodded
LIME - Lime Applied
PN - Public Notification
WO - Work Order

ULTIMATE DISCHARGE LOC.

CB - Contained in Building
CR - Creek/Stream/River
GRCB - Both Ground/ In Building
GRPUB - Reached Public Property
GRPVT - Reached Private Property
TP - Occurred at Treatment Plant

NPDES PERMIT	LOCATION	MANHOLE NO.	DATE OF SSO	TIME OF SSO	ESTIMATED DURATION, MIN	ESTIMATED VOLUME, GAL	CAUSE OF SSO	OBSERVED ENVIRON. IMPACT	ACTION(S) TAKEN TO ADDRESS SSO	ULTIMATE DISCHARGE LOCATION
FC	Ironton Rd. cut off m/h 9u015-9u014 land	9U015	01/25/2018	11:25 am	60	3,000	VA	NEAH	PN, WO	GRPVT
AF	11460 RIVERCREST DR	-2A002	03/05/2018	11:00 am	30	150	CO	NEAH	PN, WO	GRPVT
AF	33RD ST. & BROWN ST.	8K016	09/01/2018	1:20 pm	40	400	VA	NEAH	PN, WO	GRPUB
FC	3 CLAY CT	0X049	12/18/2018	12:15 pm	30	30	CO	NEAH	PN, WO	GRPUB

COUNT of OTHER OVERFLOWS: 4

AF	3 SAINT JOHN CT	5D019	02/23/2018	12:00 pm	30	150	LF	NEAH	EN, PN, WO	GRPVT
FC	8624 CHICOT RD	3R051	02/23/2018	2:35 pm	10	10	LF	NEAH	EC, EN, PN, WO	GRPUB
AF	6900 CANTRELL RD	3E025	03/02/2018	12:15 pm	30	300	D	NEAH	EC, EN, PN, WO	GRPVT
AF	WESTERN HILLS COUNTRY CLUB	3M001	03/02/2018	2:25 pm	120	6,000	LF	OEEI	EN, PN, WO	CR
AF	6804 W 36TH ST	3L064	03/14/2018	2:00 pm	30	30	G	NEAH	EC, EN, WO	GRPVT
AF	1924 S PINE ST	7I123	04/10/2018	4:00 pm	60	60	RO	NEAH	EC, PN, WO	GRPUB
FC	58 N MEADOWCLIFF DR	4N067	04/11/2018	4:00 pm	30	30	RO	NEAH	EC, PN, WO	GRPVT
AF	5001 WOODLAWN DR	6F169	05/29/2018	5:30 pm	60	120	LF	NEAH	EN, PN, WO	GRPVT
AF	25 OAKWOOD RD	8F036	06/13/2018	12:15 pm	30	600	LF	NEAH	EN, PN, WO	GRPVT
FC	FINAL CLARIFIER #4 (ASSET ID IS	FOURCHE	07/12/2018	8:00 am	180	1,440	E	NEAH	EC, PN, WO	TP
AF	LAT 34-48-59.70076, LON	-15-B033	07/22/2018	1:00 pm	15	300	PF	NEAH	EC, PN	GRPVT
FC	DOWNSTREAM MANHOLE NOT	-2T007	07/30/2018	2:48 pm	10	20	G	NEAH	PN, WO	GRPVT
FC	10901 ARCH ST	9U005	08/06/2018	10:30 am	60	120	E	NEAH	PN, WO	GRPVT
AF	4100 EDGE ST. LITTLE ROCK, AR	15M053	08/29/2018	7:30 pm	150	450	G	NEAH	EC, PN, WO	GRPUB
AF	1 W PALISADES DR	4C117	11/11/2018	7:00 pm	90	450	D	NEAH	EC, PN, WO	GRPUB
AF	3701 W 11TH ST	8H197	11/18/2018	8:06 am	100	1,000	D	NEAH	EC, PN, WO	GRPVT
AF	46 LAVAL CIR	-10A069	12/06/2018	9:00 pm	10	100	E	NEAH	EN, PN	GRPVT

**LITTLE ROCK WASTEWATER UTILITY
NON-CAPACITY SANITARY SEWER OVERFLOW REPORT
1/1/2018 - 12/31/2018**

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NPDES Permit No. AR0040177

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CAUSE(S) OF SSO

CO - Construction
D - Debris
E - Equipment Failure
G - Grease
HC - Hydro-Clean
LF - Line Failure
PF - Power Failure
RO - Roots
VA - Vandalism

OBSERVED ENVIRONMENTAL IMPACT

EFK - Evidence of Fish Kill
NEAH - No Evidence of Adverse Health or Environmental Impacts
OEHC - Observed or Evidence of Human Contact
OEEI - Observed or Evidence of Environmental Impact

ACTION(S) TAKEN

DD - Disinfected & Deodorize
EN - Reporting to Engineering
HC - Hydro Cleaned
HR - Hand Rodded
LIME - Lime Applied
PN - Public Notification
WO - Work Order

ULTIMATE DISCHARGE LOC.

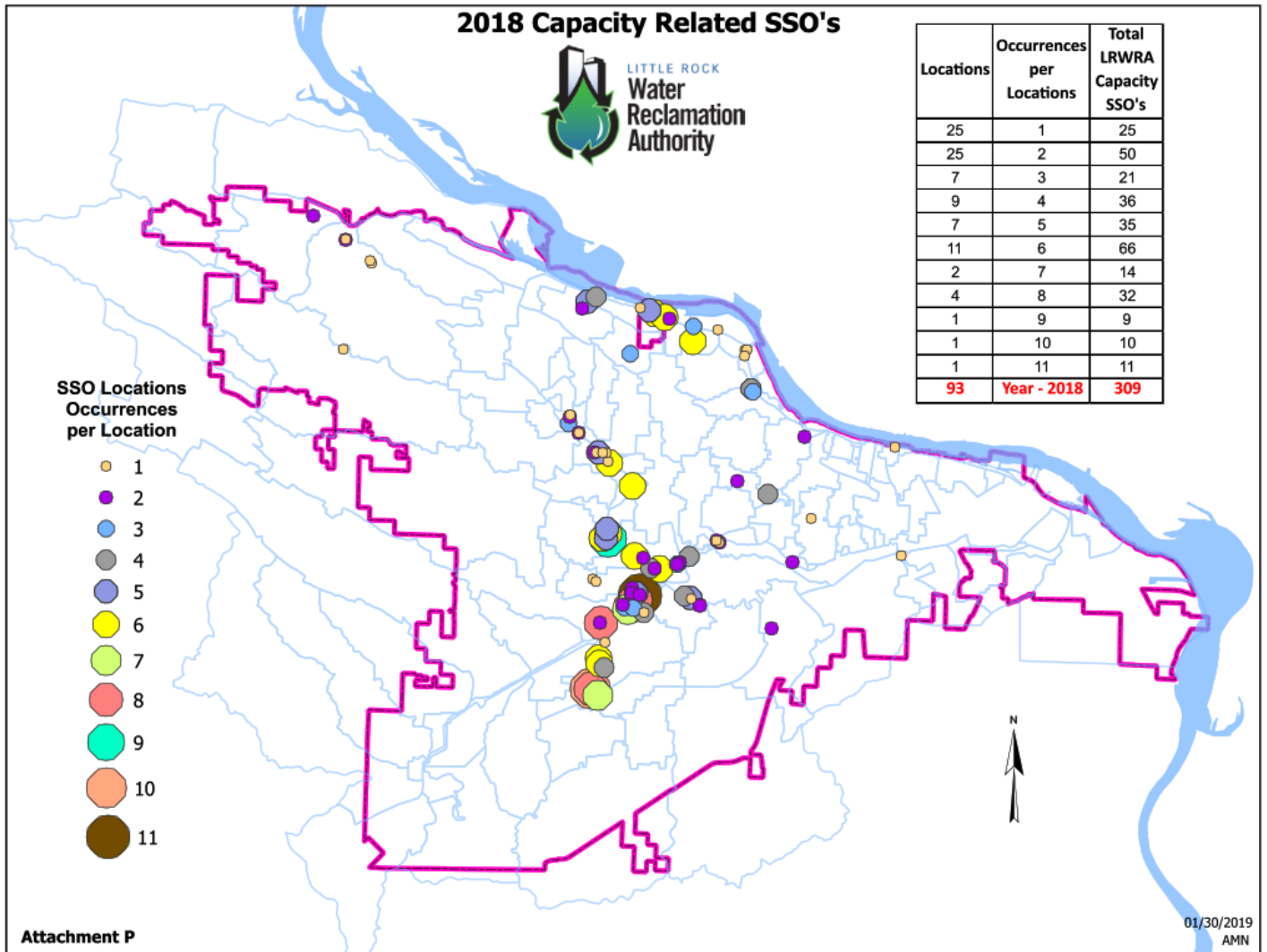
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GRCB - Both Ground/ In Building
GRPUB - Reached Public Property
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TP - Occurred at Treatment Plant

NPDES PERMIT	LOCATION	MANHOLE NO.	DATE OF SSO	TIME OF SSO	ESTIMATED DURATION, MIN	ESTIMATED VOLUME, GAL	CAUSE OF SSO	OBSERVED ENVIRON. IMPACT	ACTION(S) TAKEN TO ADDRESS SSO	ULTIMATE DISCHARGE LOCATION
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COUNT of MANHOLE OVERFLOWS: 17

COUNT of NON-CAPACITY OVERFLOWS : 21

ATTACHMENT P. Capacity Related Sanitary Sewer Overflows Summary Report and Map



**LITTLE ROCK WASTEWATER UTILITY
CAPACITY SANITARY SEWER OVERFLOW REPORT
1/1/2018 - 12/31/2018**

CODE DESCRIPTIONS

NPDES PERMIT

FC - Fourche Creek Treatment Plant
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CAUSE(S) OF SSO

R - Rainfall

OBSERVED ENVIRONMENTAL IMPACT

EFK - Evidence of Fish Kill
NEAH - No Evidence of Adverse Health or Environmental Impacts
OEHC - Observed or Evidence of Human Contact
OEEI - Observed or Evidence of Environmental Impact

ACTION(S) TAKEN

DD - Disinfected & Deodorize
EN - Reporting to Engineering
HC - Hydro Cleaned
HR - Hand Rodded
LIME - Lime Applied
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ULTIMATE DISCHARGE LOC.

CB - Contained in Building
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TP - Occurred at Treatment Plant

NPDES PERMIT	LOCATION	MANHOLE NO.	DATE OF SSO	TIME OF SSO	ESTIMATED DURATION, MIN	ESTIMATED VOLUME, GAL	CAUSE OF SSO	OBSERVED ENVIRON. IMPACT	ACTION(S) TAKEN TO ADDRESS SSO	ULTIMATE DISCHARGE LOCATION
FC	THIS LINE TIES INTO A 24" MAIN	2R026	01/22/2018	3:00 am	10	100	R	NEAH	EN, PN	GRPUB
AF	1317 W 23RD ST	10J009	02/21/2018	8:30 am	10	500	R	NEAH	EN, PN	GRPUB
AF	14 BLUE RIDGE CIR	6C036	02/21/2018	8:30 am	20	200	R	NEAH	EN, PN, WO	GRPUB
AF	1403 REBSAMEN PARK RD	8E061	02/21/2018	8:30 am	50	3,000	R	NEAH	EN, PN	GRPUB
FC	16 ROSEMOOR CT	6N009	02/21/2018	8:30 am	60	300	R	NEAH	EN, PN	GRPVT
FC	19 N MEADOWCLIFF DR	4N030	02/21/2018	8:30 am	30	300	R	NEAH	EN, PN	GRPVT
AF	201 GILL ST	10G191	02/21/2018	8:30 am	10	1,000	R	OEEI	EN, PN	CR
FC	28 DELLWOOD DR	6N077	02/21/2018	8:30 am	30	150	R	NEAH	EN, PN	CR
AF	3 BUCKLAND RD	-10-B008	02/21/2018	8:30 am	60	1,200	R	NEAH	EN, PN, WO	GRPUB
AF	3409 S BATTERY ST	10L013	02/21/2018	8:30 am	30	1,500	R	OEEI	PN	CR
AF	38 WESTCHESTER CT	-7A053	02/21/2018	8:30 am	30	600	R	NEAH	EN, PN	GRPVT
AF	3807 FOXCROFT RD	1B012	02/21/2018	8:30 am	60	1,200	R	OEEI	EN, PN	CR
AF	3807 FOXCROFT RD	2B068	02/21/2018	8:30 am	60	2,400	R	NEAH	EN, PN	GRPUB
AF	40 WESTCHESTER CT	-7A065	02/21/2018	8:30 am	30	600	R	NEAH	EN, PN	GRPVT
AF	415 BROOKSIDE DR	1G091	02/21/2018	8:30 am	30	300	R	NEAH	EN, PN	GRPVT
AF	4400 UNIVERSITY AVE	4L013	02/21/2018	8:30 am	120	7,200	R	OEEI	EN, PN	CR
AF	5512 TULLEY CV	-8-A012	02/21/2018	8:30 am	60	600	R	NEAH	EN, PN	GRPUB
FC	7 N MEADOWCLIFF DR	4N019	02/21/2018	8:30 am	10	100	R	NEAH	EN, PN	GRPUB
FC	7909 MCDANIEL DR	2Q020	02/21/2018	8:30 am	20	200	R	NEAH	EN, PN	GRPUB
FC	7909 MCDANIEL DR	2Q021	02/21/2018	8:30 am	20	200	R	NEAH	EN, PN	GRPVT
AF	8600 CUNNINGHAM LAKE RD	1G008	02/21/2018	8:30 am	15	750	R	OEEI	EN, PN	CR
AF	8600 CUNNINGHAM LAKE RD	1G010	02/21/2018	8:30 am	30	750	R	OEEI	EN, PN	CR
FC	BACKWATER FLOW VALVE	6N016	02/21/2018	8:30 am	30	150	R	NEAH	EN, PN	GRPUB
FC	CHICOT RD. & MABELVALE PIKE	2P025	02/21/2018	8:30 am	30	600	R	NEAH	EN, PN	GRPUB

**LITTLE ROCK WASTEWATER UTILITY
CAPACITY SANITARY SEWER OVERFLOW REPORT
1/1/2018 - 12/31/2018**

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NPDES Permit No. AR0050849

CAUSE(S) OF SSO

R - Rainfall

OBSERVED ENVIRONMENTAL IMPACT

EFK - Evidence of Fish Kill
NEAH - No Evidence of Adverse Health or Environmental Impacts
OEHC - Observed or Evidence of Human Contact
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ACTION(S) TAKEN

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EN - Reporting to Engineering
HC - Hydro Cleaned
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LIME - Lime Applied
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ULTIMATE DISCHARGE LOC.

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AF	REBSAMEN PARK	4B003	02/21/2018	8:30 am	60	2,400	R	NEAH	EN, PN	GRPUB
AF	REBSAMEN PARK	4B005	02/21/2018	8:30 am	60	1,200	R	NEAH	EN, PN	GRPUB
AF	REBSAMEN PARK	5C003	02/21/2018	8:30 am	60	1,800	R	NEAH	EN, PN	GRPUB
AF	REBSAMEN PARK	5C007	02/21/2018	8:30 am	120	2,400	R	NEAH	EN, PN	GRPUB
AF	REBSAMEN PARK RD	6C047	02/21/2018	8:30 am	10	100	R	NEAH	EN	GRPUB
AF	REBSAMEN PARK RD.	8E049	02/21/2018	8:30 am	50	3,000	R	NEAH	EN, PN	GRPUB
AF	REBSAMEN PARK RD.	8E114	02/21/2018	8:30 am	50	3,000	R	NEAH	EN, PN	GRPUB
FC	THIS LINE TIES INTO A 24" MAIN	2R026	02/21/2018	8:30 am	20	200	R	NEAH	EN, PN	GRPVT
AF	123 BROOKSIDE DR	1G087	02/23/2018	8:00 am	60	600	R	NEAH	EN, PN	GRPVT
AF	14 BLUE RIDGE CIR	6C036	02/23/2018	8:00 am	10	100	R	NEAH	EN, PN	GRPUB
AF	1500 REBSAMEN PARK RD	8E049	02/23/2018	8:00 am	30	150	R	NEAH	EN, PN	GRPUB
AF	1500 REBSAMEN PARK RD	8E114	02/23/2018	8:00 am	30	600	R	NEAH	EN, PN	GRPUB
FC	16 ROSEMOOR CT	6N008	02/23/2018	8:00 am	30	1,500	R	NEAH	EN, PN	GRPVT
AF	1601 WESTPARK DR	3I036	02/23/2018	8:00 am	120	4,800	R	OEEI	EN, PN	CR
FC	19 N MEADOWCLIFF DR	4N030	02/23/2018	8:00 am	50	500	R	NEAH	EN, PN	GRPUB
AF	201 GILL ST	10G191	02/23/2018	8:00 am	20	2,000	R	OEEI	EN, PN	CR
FC	28 DELLWOOD DR	6N077	02/23/2018	8:00 am	20	1,000	R	OEEI	EN, PN	CR
AF	3201 WHITFIELD ST	2K167	02/23/2018	8:00 am	120	3,600	R	OEEI	EN, PN	CR
AF	3317 WHITFIELD ST	3K061	02/23/2018	8:00 am	120	4,800	R	OEEI	EN, PN	CR
AF	3417 WYNNE DR	2K143	02/23/2018	8:00 am	60	300	R	NEAH	EN, PN	GRPUB
AF	3423 WHITFIELD ST	2K142	02/23/2018	8:00 am	60	600	R	OEEI	EN, PN	CR
AF	3501 WHITFIELD ST	3K058	02/23/2018	8:00 am	360	18,000	R	OEEI	EN, PN	CR
AF	3611 MABELVALE PIKE	6L011	02/23/2018	8:00 am	300	18,000	R	OEEI	EN, PN	CR
AF	403 BROOKSIDE DR	1G090	02/23/2018	8:00 am	30	450	R	NEAH	EN, PN	GRPVT

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AF	4400 UNIVERSITY AVE	4L013	02/23/2018	8:00 am	300	1,500	R	OEEI	EN	CR
AF	4400 UNIVERSITY AVE	4L015	02/23/2018	8:00 am	300	18,000	R	OEEI	EN, PN	CR
AF	4701 ASHER AVE	7K012	02/23/2018	8:00 am	20	2,000	R	OEEI	EN, PN	CR
AF	4701 ASHER AVE	7K087	02/23/2018	8:00 am	20	400	R	OEEI	PN	CR
AF	4701 ASHER AVE	7K112	02/23/2018	8:00 am	120	2,800	R	NEAH	EN, PN	GRPUB
AF	4701 ASHER AVE	7K113	02/23/2018	8:00 am	120	2,800	R	NEAH	EN	GRPUB
AF	5207 WESTERN HILLS AVE	3M002	02/23/2018	8:00 am	240	4,800	R	NEAH	EN, PN	GRPUB
AF	5207 WESTERN HILLS AVE	3N004	02/23/2018	8:00 am	30	600	R	OEEI	EN, PN	CR
AF	5207 WESTERN HILLS AVE	3N005	02/23/2018	8:00 am	30	3,000	R	OEEI	EN, PN	CR
AF	5207 WESTERN HILLS AVE	3N006	02/23/2018	8:00 am	10	100	R	NEAH	EN, PN	GRPUB
AF	5207 WESTERN HILLS AVE	3N007	02/23/2018	8:00 am	10	100	R	NEAH	EN, PN	GRPUB
AF	5207 WESTERN HILLS AVE	3N055	02/23/2018	8:00 am	50	5,000	R	OEEI	PN	CR
FC	5207 WESTERN HILLS AVE	4N013	02/23/2018	8:00 am	30	3,000	R	OEEI	EN, PN	CR
FC	5207 WESTERN HILLS AVE	4N014	02/23/2018	8:00 am	30	1,500	R	OEEI	PN	CR
AF	5207 WESTERN HILLS AVE	4N016	02/23/2018	8:00 am	30	3,000	R	OEEI	PN	CR
AF	5207 WESTERN HILLS AVE	4N089	02/23/2018	8:00 am	50	5,000	R	OEEI	PN	CR
FC	53 ROSEMOOR DR	6N015	02/23/2018	8:00 am	30	300	R	NEAH	EN, PN	GRPVT
AF	5423 W 35TH ST	5L030	02/23/2018	8:00 am	120	12,000	R	NEAH	EN, PN	GRPUB
AF	5423 W 35TH ST	5L051	02/23/2018	8:00 am	120	7,200	R	NEAH	EN, PN	GRPVT
AF	5423 W 35TH ST	5L052	02/23/2018	8:00 am	120	12,000	R	NEAH	EN, PN	GRPUB
AF	5423 W 35TH ST	5L067	02/23/2018	8:00 am	60	3,600	R	NEAH	EN, PN	GRPUB
AF	5423 W 35TH ST	5L068	02/23/2018	8:00 am	60	1,200	R	NEAH	EN, PN	GRPUB
AF	6401 COLONEL GLENN RD	4L017	02/23/2018	8:00 am	30	18,000	R	NEAH	PN	GRPUB
AF	6801 COLONEL GLENN RD	4L076	02/23/2018	8:00 am	40	4,800	R	OEEI	EN, PN	CR

**LITTLE ROCK WASTEWATER UTILITY
CAPACITY SANITARY SEWER OVERFLOW REPORT
1/1/2018 - 12/31/2018**

CODE DESCRIPTIONS

NPDES PERMIT

FC - Fourche Creek Treatment Plant
NPDES Permit No. AR0040177

AF - Adams Field Treatment Plant
NPDES Permit No. AR0021806

LM - Little Maumelle Treatment Plant
NPDES Permit No. AR0050849

CAUSE(S) OF SSO

R - Rainfall

OBSERVED ENVIRONMENTAL IMPACT

EFK - Evidence of Fish Kill
NEAH - No Evidence of Adverse Health or Environmental Impacts
OEHC - Observed or Evidence of Human Contact
OEEI - Observed or Evidence of Environmental Impact

ACTION(S) TAKEN

DD - Disinfected & Deodorize
EN - Reporting to Engineering
HC - Hydro Cleaned
HR - Hand Rodded
LIME - Lime Applied
PN - Public Notification
WO - Work Order

ULTIMATE DISCHARGE LOC.

CB - Contained in Building
CR - Creek/Stream/River
GRCB - Both Ground/ In Building
GRPUB - Reached Public Property
GRPVT - Reached Private Property
TP - Occurred at Treatment Plant

NPDES PERMIT	LOCATION	MANHOLE NO.	DATE OF SSO	TIME OF SSO	ESTIMATED DURATION, MIN	ESTIMATED VOLUME, GAL	CAUSE OF SSO	OBSERVED ENVIRON. IMPACT	ACTION(S) TAKEN TO ADDRESS SSO	ULTIMATE DISCHARGE LOCATION
FC	7 N MEADOWCLIFF CIR	4N019	02/23/2018	8:00 am	20	400	R	NEAH	EN, PN	GRPUB
FC	7438 N CHICOT RD	2P025	02/23/2018	8:00 am	20	200	R	NEAH	EN, PN	GRPUB
AF	7500 W 65TH ST	2O002	02/23/2018	8:00 am	10	1,000	R	OEEI	EN, PN	CR
AF	7500 W 65TH ST	2O025	02/23/2018	8:00 am	20	2,000	R	OEEI	EN, PN	CR
FC	7909 MCDANIEL DR	2Q020	02/23/2018	8:00 am	10	100	R	NEAH	EN, PN	GRPUB
FC	7909 MCDANIEL DR	2Q021	02/23/2018	8:00 am	20	400	R	NEAH	EN, PN	GRPUB
AF	810 PINE VALLEY RD	3D108	02/23/2018	8:00 am	60	1,800	R	NEAH	EN, PN	GRPUB
AF	KANIS PARK	2H017	02/23/2018	8:00 am	60	600	R	NEAH	EN, PN	GRPUB
AF	KANIS PARK	2H018	02/23/2018	8:00 am	60	600	R	NEAH	EN, PN	GRPUB
AF	KANIS PARK	2H019	02/23/2018	8:00 am	120	6,000	R	NEAH	EN, PN	GRPUB
AF	KANIS PARK	2H064	02/23/2018	8:00 am	60	1,200	R	NEAH	EN, PN	GRPUB
AF	KANIS PARK	2H074	02/23/2018	8:00 am	120	7,200	R	NEAH	EN, PN	GRPUB
AF	SPRINGER BLVD.	14L038	02/23/2018	8:00 am	30	600	R	NEAH	EN, PN	GRPUB
FC	THIS LINE TIES INTO A 24 " MAIN	2R026	02/23/2018	8:00 am	20	400	R	NEAH	EN, PN	GRPUB
AF	1403 REBSAMEN PARK RD	8E061	03/01/2018	8:00 am	10	100	R	NEAH	EN, PN	GRPVT
FC	16 ROSEMOOR CT	6N008	03/01/2018	8:00 am	30	750	R	NEAH	EN, PN	GRPVT
AF	1808 S WOODROW ST	9I070	03/01/2018	8:00 am	60	600	R	NEAH	EN, PN	GRPUB
FC	2300 W 60TH ST	9O001	03/01/2018	8:00 am	30	600	R	NEAH	EN, PN, WO	GRPUB
AF	3317 WHITFIELD ST	3K061	03/01/2018	8:00 am	120	1,200	R	OEEI	EN, PN	CR
AF	3501 WHITFIELD ST	3K058	03/01/2018	8:00 am	300	15,000	R	OEEI	EN, PN	CR
AF	3611 MABELVALE PIKE	6L011	03/01/2018	8:00 am	300	6,000	R	OEEI	PN	CR
AF	4400 S UNIVERSITY AVE	4L013	03/01/2018	8:00 am	120	18,000	R	OEEI	EN, PN	CR
FC	53 ROSEMOOR DR	6N015	03/01/2018	8:00 am	30	1,500	R	NEAH	EN, PN	GRPVT
FC	7438 N CHICOT RD	2P025	03/01/2018	8:00 am	30	600	R	NEAH	EN, PN	GRPUB

**LITTLE ROCK WASTEWATER UTILITY
CAPACITY SANITARY SEWER OVERFLOW REPORT
1/1/2018 - 12/31/2018**

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NPDES Permit No. AR0050849

CAUSE(S) OF SSO

R - Rainfall

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EFK - Evidence of Fish Kill
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HC - Hydro Cleaned
HR - Hand Rodded
LIME - Lime Applied
PN - Public Notification
WO - Work Order

ULTIMATE DISCHARGE LOC.

CB - Contained in Building
CR - Creek/Stream/River
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NPDES PERMIT	LOCATION	MANHOLE NO.	DATE OF SSO	TIME OF SSO	ESTIMATED DURATION, MIN	ESTIMATED VOLUME, GAL	CAUSE OF SSO	OBSERVED ENVIRON. IMPACT	ACTION(S) TAKEN TO ADDRESS SSO	ULTIMATE DISCHARGE LOCATION
FC	7909 MCDANIEL DR	2Q020	03/01/2018	8:00 am	30	300	R	NEAH	PN	GRPVT
FC	7909 MCDANIEL DR	2Q021	03/01/2018	8:00 am	30	600	R	NEAH	EN, PN	GRPUB
AF	BYRD ST. & E. MARKHAM ST.	14G025	03/01/2018	8:00 am	30	150	R	OEEI	EN, PN	CR
FC	HINDMAN PARK	20019	03/01/2018	8:00 am	30	600	R	OEEI	EN	CR
AF	HINDMAN PARK GOLF COURSE	20025	03/01/2018	8:00 am	1,620	16,200	R	OEEI	EN, PN	CR
AF	REBSAMEN PARK	4B003	03/01/2018	8:00 am	300	12,000	R	NEAH	EN, PN	GRPUB
AF	REBSAMEN PARK	4B005	03/01/2018	8:00 am	300	9,000	R	NEAH	EN, PN	GRPUB
AF	REBSAMEN PARK	5C003	03/01/2018	8:00 am	300	9,000	R	NEAH	EN, PN	GRPUB
AF	REBSAMEN PARK	5C007	03/01/2018	8:00 am	120	3,600	R	NEAH	EN, PN	GRPUB
FC	SOUTH HINDMAN PARK	2P013	03/01/2018	8:00 am	30	600	R	OEEI	EN, PN	CR
FC	SOUTH HINDMAN PARK	2P015	03/01/2018	8:00 am	30	600	R	OEEI	EN, PN	CR
FC	WESTERN HILLS COUNTRY CLUB	4N013	03/01/2018	8:00 am	1,920	3,840	R	OEEI	EN, PN	CR
FC	16 ROSEMOOR CT	6N008	03/12/2018	4:00 am	10	100	R	NEAH	EN, PN	GRPVT
AF	3409 S BATTERY ST	10L013	03/28/2018	3:30 am	10	100	R	OEEI	EN, PN	CR
FC	5207 WESTERN HILLS AVE	4N013	03/28/2018	3:30 am	10	100	R	OEEI	EN, PN	CR
AF	4111 S UNIVERSITY AVE	5L030	04/06/2018	4:30 pm	120	2,400	R	NEAH	PN	GRPVT
AF	5207 WESTERN HILLS AVE	3N004	04/06/2018	4:30 pm	10	100	R	OEEI	EN, PN	CR
AF	5207 WESTERN HILLS AVE	3N005	04/06/2018	4:30 pm	30	300	R	OEEI	EN, PN	CR
FC	5207 WESTERN HILLS AVE	4N013	04/06/2018	4:30 pm	30	300	R	OEEI	EN, PN	CR
AF	5207 WESTERN HILLS AVE	4N089	04/06/2018	4:30 pm	30	300	R	OEEI	EN, PN	CR
AF	5423 W 35TH ST	5L052	04/06/2018	4:30 pm	120	2,400	R	NEAH	PN	GRPVT
AF	7500 W 65TH ST	20025	04/06/2018	4:30 pm	30	300	R	OEEI	EN, PN	CR
FC	7909 MCDANIEL DR	2Q020	04/06/2018	4:30 pm	10	50	R	NEAH	PN	GRPVT
FC	7909 MCDANIEL DR	2Q021	04/06/2018	4:30 pm	10	100	R	NEAH	PN	GRPVT

**LITTLE ROCK WASTEWATER UTILITY
CAPACITY SANITARY SEWER OVERFLOW REPORT
1/1/2018 - 12/31/2018**

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AF - Adams Field Treatment Plant
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NPDES Permit No. AR0050849

CAUSE(S) OF SSO

R - Rainfall

OBSERVED ENVIRONMENTAL IMPACT

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ACTION(S) TAKEN

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HC - Hydro Cleaned
HR - Hand Rodded
LIME - Lime Applied
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FC	Hindman	2P015	04/06/2018	4:30 pm	20	200	R	NEAH	PN	GRPUB
FC	south Hindman Park	2P013	04/06/2018	4:30 pm	10	100	R	NEAH	PN	GRPUB
AF	123 BROOKSIDE DR	1G087	04/13/2018	11:40 am	30	150	R	NEAH	EN, PN	GRPUB
AF	14 BLUE RIDGE CIR	6C036	04/13/2018	11:40 am	10	100	R	NEAH	EN, PN	GRPUB
FC	28 DELLWOOD DR	6N077	04/13/2018	11:40 am	10	100	R	NEAH	EN, PN	GRPUB
AF	311 SHADY LN	4L076	04/13/2018	11:40 am	60	1,800	R	OEEI	EN, PN	CR
AF	3201 WHITFIELD ST	2K167	04/13/2018	11:40 am	60	3,600	R	OEEI	EN, PN	CR
AF	3317 WHITFIELD ST	3K061	04/13/2018	11:40 am	60	1,200	R	OEEI	EN, PN	CR
AF	3417 WYNNE ST	2K143	04/13/2018	11:40 am	60	3,600	R	NEAH	EN, PN	GRPUB
AF	3423 WHITFIELD ST	2K142	04/13/2018	11:40 am	60	600	R	NEAH	EN, PN	GRPUB
AF	3501 WHITFIELD ST	3K058	04/13/2018	11:40 am	120	2,400	R	OEEI	EN, PN	CR
AF	3807 FOXCROFT RD	1B012	04/13/2018	11:40 am	60	600	R	OEEI	EN, PN	CR
AF	5207 WESTERN HILLS AVE	3N005	04/13/2018	11:40 am	20	1,000	R	OEEI	EN, PN	CR
FC	5207 WESTERN HILLS AVE	4N013	04/13/2018	11:40 am	20	1,000	R	OEEI	EN, PN	CR
AF	5207 WESTERN HILLS AVE	4N089	04/13/2018	11:40 am	20	1,000	R	OEEI	EN, PN	CR
FC	7909 MCDANIEL DR	2Q020	04/13/2018	11:40 am	10	100	R	NEAH	EN, PN	GRPVT
FC	7909 MCDANIEL DR	2Q021	04/13/2018	11:40 am	10	100	R	NEAH	EN, PN	GRPVT
AF	HINDMAN PARK	2O025	04/13/2018	11:40 am	30	300	R	OEEI	EN, PN	CR
FC	HINDMAN PARK	2P015	04/13/2018	11:40 am	10	100	R	NEAH	EN, PN	GRPUB
AF	KANIS PARK	2H019	04/13/2018	11:40 am	120	3,600	R	NEAH	EN, PN	GRPUB
AF	KANIS PARK	2H074	04/13/2018	11:40 am	60	2,400	R	NEAH	EN, PN	GRPUB
AF	REBSAMEN PARK	4B005	04/13/2018	11:40 am	60	600	R	NEAH	EN, PN	GRPUB
AF	REBSAMEN PARK	5C007	04/13/2018	11:40 am	120	3,600	R	NEAH	EN, PN	GRPUB
FC	south HINDMAN PARK	2P013	04/13/2018	11:40 am	10	100	R	NEAH	EN, PN	GRPUB

**LITTLE ROCK WASTEWATER UTILITY
CAPACITY SANITARY SEWER OVERFLOW REPORT
1/1/2018 - 12/31/2018**

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CAUSE(S) OF SSO

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FC	THIS LINE TIES INTO A 24" MAIN	2R026	04/13/2018	11:40 am	10	100	R	NEAH	EN, PN	GRPUB
AF	WESTERN HILLS	4N016	04/13/2018	11:40 am	60	600	R	NEAH	EN, PN	GRPUB
AF	WESTPARK	3I036	04/13/2018	11:40 am	30	900	R	OEEI	EN, PN	CR
AF	1 CHENAL HEIGHTS DR	-8D006	07/21/2018	9:00 am	60	180	R	NEAH	EN, PN, WO	GRPVT
AF		2H019	10/15/2018	9:15 am	10	250	R	NEAH	EN, PN	GRPUB
AF	14 BLUE RIDGE CIR	6C036	10/15/2018	9:15 am	60	300	R	NEAH	EN, PN	GRPUB
AF	1403 REBSAMEN PARK RD	8E061	10/15/2018	9:15 am	60	120	R	NEAH	EN, PN	GRPVT
AF	1420 REBSAMEN PARK RD	8E049	10/15/2018	9:15 am	60	1,200	R	NEAH	EN, PN	GRPUB
AF	1420 REBSAMEN PARK RD	8E114	10/15/2018	9:15 am	60	120	R	NEAH	EN, PN	GRPUB
AF	1601 WESTPARK DR	3I036	10/15/2018	9:15 am	60	1,200	R	OEEI	EN, PN	CR
AF	3201 WHITFIELD ST	2K167	10/15/2018	9:15 am	60	600	R	NEAH	EN, PN	GRPUB
AF	3417 WYNNE ST	2K143	10/15/2018	9:15 am	60	300	R	NEAH	EN, PN	GRPVT
AF	3423 WHITFIELD ST	2K142	10/15/2018	9:15 am	60	300	R	NEAH	EN, PN	GRPVT
AF	3501 WHITFIELD ST	3K058	10/15/2018	9:15 am	60	600	R	NEAH	EN, PN	GRPUB
AF	3807 FOXCROFT RD	1B012	10/15/2018	9:15 am	10	200	R	OEEI	EN, PN	CR
AF	3807 FOXCROFT RD	2B068	10/15/2018	9:15 am	10	100	R	NEAH	EN, PN	GRPVT
AF	4111 S UNIVERSITY AVE	5L030	10/15/2018	9:15 am	60	300	R	NEAH	EN, PN	GRPUB
AF	5207 WESTERN HILLS AVE	3N004	10/15/2018	9:15 am	10	100	R	OEEI	EN, PN	CR
AF	5207 WESTERN HILLS AVE	3N005	10/15/2018	9:15 am	30	300	R	OEEI	PN	CR
FC	5207 WESTERN HILLS AVE	4N013	10/15/2018	9:15 am	10	100	R	OEEI	PN	CR
AF	5207 WESTERN HILLS AVE	4N089	10/15/2018	9:15 am	30	300	R	OEEI	EN, PN	CR
AF	6823 COLONEL GLENN RD	4L076	10/15/2018	9:15 am	60	300	R	OEEI	EN, PN	CR
AF	7500 W 65TH ST	2O025	10/15/2018	9:15 am	20	200	R	OEEI	EN, PN	CR
FC	7909 MCDANIEL DR	2Q021	10/15/2018	9:15 am	30	600	R	NEAH	EN, PN	GRPVT

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CAUSE(S) OF SSO

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AF	KANIS PARK	2H074	10/15/2018	9:15 am	60	600	R	NEAH	EN, PN	GRPUB
AF	KANIS PARK	9I070	10/15/2018	9:15 am	60	60	R	NEAH	EN, PN	GRPUB
AF	REBSAMEN PARK	5C007	10/15/2018	9:15 am	10	200	R	NEAH	EN, PN	GRPUB
AF	REBSAMEN PARK RD	6C047	10/15/2018	9:15 am	60	300	R	NEAH	EN, PN	GRPUB
AF	Rebsmen Park	4B005	10/15/2018	9:15 am	10	200	R	NEAH	EN, PN	GRPUB
FC	SOUTH HINDMAN PARK	2P013	10/15/2018	9:15 am	10	100	R	OEEI	EN, PN	CR
FC	SOUTH HINDMAN PARK	2P015	10/15/2018	9:15 am	20	200	R	OEEI	EN, PN	CR
AF	3501 WHITFIELD ST	3K058	10/20/2018	6:00 am	60	350	R	OEEI	EN, PN	CR
AF	3501 WHITFIELD ST	3K061	10/20/2018	6:00 am	60	350	R	OEEI	EN, PN	CR
AF	5207 WESTERN HILLS AVE	3N004	10/20/2018	6:00 am	60	3,000	R	OEEI	EN, PN	CR
AF	5207 WESTERN HILLS AVE	3N005	10/20/2018	6:00 am	60	3,000	R	OEEI	EN, PN	CR
FC	5207 WESTERN HILLS AVE	4N013	10/20/2018	6:00 am	60	3,000	R	OEEI	EN, PN	CR
AF	5207 WESTERN HILLS AVE	4N089	10/20/2018	6:00 am	60	3,000	R	OEEI	EN, PN	CR
AF	REBSAMEN PARK RD.	4B003	10/20/2018	6:00 am	60	300	R	NEAH	EN, PN	GRPUB
AF		2H074	11/01/2018	7:00 am	60	120	R	NEAH	EN, PN	GRPUB
AF		3N006	11/01/2018	7:00 am	10	100	R	NEAH	EN, PN	GRPUB
AF	14 BLUE RIDGE CIR	6C036	11/01/2018	7:00 am	30	300	R	NEAH	EN, PN	GRPVT
FC	16 ROSEMOOR CT	6N008	11/01/2018	7:00 am	30	1,500	R	NEAH	PN	GRPVT
AF	1601 WESTPARK DR	3I036	11/01/2018	7:00 am	60	300	R	NEAH	EN, PN	GRPUB
AF	1907 APPIANWAY ST	9I070	11/01/2018	7:00 am	60	60	R	NEAH	EN, PN	GRPUB
AF	3201 WHITFIELD ST	2K167	11/01/2018	7:00 am	60	300	R	NEAH	EN, PN	GRPUB
AF	3317 WHITFIELD ST	3K061	11/01/2018	7:00 am	60	600	R	NEAH	EN, PN	GRPUB
AF	3417 WYNNE ST	2K143	11/01/2018	7:00 am	60	120	R	NEAH	EN, PN	GRPUB
AF	3423 WHITFIELD ST	2K142	11/01/2018	7:00 am	60	120	R	NEAH	EN, PN	GRPUB

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AF	3501 WHITFIELD ST	3K058	11/01/2018	7:00 am	60	300	R	NEAH	EN, PN	GRPUB
AF	3611 MABELVALE PIKE	6L011	11/01/2018	7:00 am	60	3,000	R	NEAH	EN, PN	GRPUB
AF	3807 FOXCROFT RD	1B012	11/01/2018	7:00 am	10	250	R	OEEI	EN, PN	CR
AF	3807 FOXCROFT RD	2B068	11/01/2018	7:00 am	10	200	R	NEAH	EN, PN	GRPVT
AF	4111 S UNIVERSITY AVE	5L030	11/01/2018	7:00 am	60	600	R	NEAH	EN, PN	GRPUB
AF	4600 S UNIVERSITY AVE	4N016	11/01/2018	7:00 am	60	300	R	NEAH	EN, PN	GRPUB
AF	6823 COLONEL GLENN RD	4L076	11/01/2018	7:00 am	60	300	R	OEEI	PN	CR
FC	7909 MCDANIEL DR	2Q020	11/01/2018	7:00 am	20	200	R	NEAH	EN, PN	GRPUB
FC	7909 MCDANIEL DR	2Q021	11/01/2018	7:00 am	20	400	R	NEAH	EN, PN	GRPUB
AF	810 PINE VALLEY RD	3D108	11/01/2018	7:00 am	10	100	R	NEAH	EN, PN	GRPUB
AF	KANIS PARK	2H019	11/01/2018	7:00 am	10	500	R	NEAH	EN, PN	GRPUB
AF	REBSAMEN PARK	4B001	11/01/2018	7:00 am	10	250	R	NEAH	EN, PN	GRPUB
AF	REBSAMEN PARK	4B003	11/01/2018	7:00 am	10	200	R	NEAH	EN, PN	GRPUB
AF	REBSAMEN PARK	4B005	11/01/2018	7:00 am	10	250	R	NEAH	EN, PN	GRPUB
AF	REBSAMEN PARK	5C007	11/01/2018	7:00 am	10	250	R	NEAH	EN, PN	GRPUB
FC	THIS LINE TIES INTO A 24" MAIN	2R026	11/01/2018	7:00 am	20	200	R	NEAH	EN	GRPUB
AF	02/21/03 UNABLE TO OPEN LID ON	1B018	11/05/2018	11:30 pm	10	100	R	OEEI	EN, PN	CR
AF	1421 MAPLE ST	8I006	11/05/2018	11:30 pm	60	120	R	NEAH	EN, PN	GRPUB
AF	5207 WESTERN HILLS AVE	3N004	11/05/2018	11:30 pm	60	180	R	OEEI	EN, PN	CR
AF	5207 WESTERN HILLS AVE	3N005	11/05/2018	11:30 pm	60	1,800	R	OEEI	EN, PN	CR
FC	5207 WESTERN HILLS AVE	4N013	11/05/2018	11:30 pm	60	900	R	OEEI	EN, PN	CR
AF	5207 WESTERN HILLS AVE	4N089	11/05/2018	11:30 pm	60	180	R	OEEI	EN, PN	CR
AF	KANIS PARK	2H074	11/12/2018	2:45 pm	60	60	R	NEAH	EN, PN	GRPUB
AF	3417 WYNNE ST	2K143	11/12/2018	11:30 pm	60	60	R	NEAH	EN, PN	GRPUB

**LITTLE ROCK WASTEWATER UTILITY
CAPACITY SANITARY SEWER OVERFLOW REPORT
1/1/2018 - 12/31/2018**

CODE DESCRIPTIONS

NPDES PERMIT

FC - Fourche Creek Treatment Plant
NPDES Permit No. AR0040177

AF - Adams Field Treatment Plant
NPDES Permit No. AR0021806

LM - Little Maumelle Treatment Plant
NPDES Permit No. AR0050849

CAUSE(S) OF SSO

R - Rainfall

OBSERVED ENVIRONMENTAL IMPACT

EFK - Evidence of Fish Kill
NEAH - No Evidence of Adverse Health or Environmental Impacts
OEHC - Observed or Evidence of Human Contact
OEEI - Observed or Evidence of Environmental Impact

ACTION(S) TAKEN

DD - Disinfected & Deodorize
EN - Reporting to Engineering
HC - Hydro Cleaned
HR - Hand Rodded
LIME - Lime Applied
PN - Public Notification
WO - Work Order

ULTIMATE DISCHARGE LOC.

CB - Contained in Building
CR - Creek/Stream/River
GRCB - Both Ground/ In Building
GRPUB - Reached Public Property
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TP - Occurred at Treatment Plant

NPDES PERMIT	LOCATION	MANHOLE NO.	DATE OF SSO	TIME OF SSO	ESTIMATED DURATION, MIN	ESTIMATED VOLUME, GAL	CAUSE OF SSO	OBSERVED ENVIRON. IMPACT	ACTION(S) TAKEN TO ADDRESS SSO	ULTIMATE DISCHARGE LOCATION
AF	4111 S UNIVERSITY AVE	5L030	11/12/2018	11:30 pm	60	60	R	NEAH	EN	GRPUB
FC	9401 FRONTAGE RD	2R026	12/01/2018	4:00 pm	10	100	R	NEAH	EN, PN	GRPUB
FC	19 N MEADOWCLIFF DR	4N030	12/09/2018	4:00 am	30	150	R	NEAH	EN, PN	GRPUB
AF	5207 WESTERN HILLS AVE	3N004	12/09/2018	4:00 am	60	600	R	OEEI	EN, PN	CR
AF	5207 WESTERN HILLS AVE	3N005	12/09/2018	4:00 am	60	600	R	OEEI	EN, PN	CR
FC	5207 WESTERN HILLS AVE	4N013	12/09/2018	4:00 am	30	300	R	OEEI	EN, PN	CR
AF	5207 WESTERN HILLS AVE	4N016	12/09/2018	4:00 am	30	300	R	OEEI	EN, PN	CR
AF	5207 WESTERN HILLS AVE	4N089	12/09/2018	4:00 am	30	300	R	OEEI	EN, PN	CR
AF	7500 HINDMAN PARK WAY	2O025	12/09/2018	4:00 am	60	600	R	OEEI	EN	CR
FC	7909 MCDANIEL DR	2Q021	12/09/2018	4:00 am	10	10	R	NEAH	EN, PN	GRPVT
AF	BOYLE PARK	3I036	12/09/2018	4:00 am	60	120	R	OEEI	EN, PN	CR
AF	BOYLE PARK	3K058	12/09/2018	4:00 am	60	60	R	NEAH	EN, PN	GRPUB
FC	SOUTH HINDMAN PARK	2P013	12/09/2018	4:00 am	30	150	R	NEAH	PN	GRPUB
FC	SOUTH HINDMAN PARK	2P015	12/09/2018	4:00 am	30	150	R	NEAH	EN, PN	GRPUB
AF	14 BLUE RIDGE CIR	6C036	12/13/2018	12:00 am	60	300	R	NEAH	EN, PN	GRPUB
AF	02/21/03 UNABLE TO OPEN LID ON	1B018	12/13/2018	1:00 pm	60	600	R	OEEI	EN, PN	CR
AF	123 BROOKSIDE DR	1G087	12/13/2018	1:00 pm	60	300	R	NEAH	EN, PN	GRPUB
AF	1421 MAPLE ST	8I006	12/13/2018	1:00 pm	60	300	R	NEAH	EN, PN, WO	GRPUB
AF	1500 REBSAMEN PARK RD	8E049	12/13/2018	1:00 pm	60	300	R	NEAH	EN, PN	GRPUB
AF	1500 REBSAMEN PARK RD	8E114	12/13/2018	1:00 pm	60	300	R	NEAH	EN, PN	GRPUB
FC	16 ROSEMOOR CT	6N008	12/13/2018	1:00 pm	60	600	R	NEAH	EN, PN, WO	GRPVT
AF	1601 WESTPARK DR	3I036	12/13/2018	1:00 pm	60	600	R	OEEI	EN, PN	CR
AF	1809 S WOODROW ST	9I070	12/13/2018	1:00 pm	60	300	R	NEAH	EN, PN, WO	GRPUB
FC	19 N MEADOWCLIFF DR	4N030	12/13/2018	1:00 pm	60	600	R	NEAH	EN, PN, WO	GRPUB

**LITTLE ROCK WASTEWATER UTILITY
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1/1/2018 - 12/31/2018**

CODE DESCRIPTIONS

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NPDES Permit No. AR0040177

AF - Adams Field Treatment Plant
NPDES Permit No. AR0021806

LM - Little Maumelle Treatment Plant
NPDES Permit No. AR0050849

CAUSE(S) OF SSO

R - Rainfall

OBSERVED ENVIRONMENTAL IMPACT

EFK - Evidence of Fish Kill
NEAH - No Evidence of Adverse Health or Environmental Impacts
OEHC - Observed or Evidence of Human Contact
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EN - Reporting to Engineering
HC - Hydro Cleaned
HR - Hand Rodded
LIME - Lime Applied
PN - Public Notification
WO - Work Order

ULTIMATE DISCHARGE LOC.

CB - Contained in Building
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FC	19 N MEADOWCLIFF DR	4N031	12/13/2018	1:00 pm	60	600	R	NEAH	EN, PN, WO	GRPUB
AF	2300 REBSAMEN PARK RD	8D088	12/13/2018	1:00 pm	60	60	R	NEAH	EN, PN	GRPUB
FC	2300 W 60TH ST	9O001	12/13/2018	1:00 pm	60	600	R	NEAH	EN, PN	GRPUB
FC	28 DELLWOOD DR	6N077	12/13/2018	1:00 pm	60	600	R	NEAH	EN, PN, WO	GRPUB
AF	2801 REBSAMEN PARK RD	8D033	12/13/2018	1:00 pm	60	60	R	NEAH	EN, PN	GRPUB
AF	2801 REBSAMEN PARK RD	8D034	12/13/2018	1:00 pm	60	300	R	NEAH	EN, PN	GRPUB
AF	3 BUCKLAND RD	-10-B008	12/13/2018	1:00 pm	60	300	R	NEAH	EN, PN	GRPVT
AF	308 SHADY LN	4L076	12/13/2018	1:00 pm	60	600	R	OEEI	EN, PN, WO	CR
AF	3201 WHITFIELD ST	2K167	12/13/2018	1:00 pm	60	300	R	NEAH	EN, PN	GRPUB
AF	3400 REBSAMEN PARK RD	7C006	12/13/2018	1:00 pm	20	200	R	NEAH	EN, PN	GRPUB
AF	3417 WYNNE DR	2K143	12/13/2018	1:00 pm	60	300	R	NEAH	EN, PN	GRPUB
AF	3423 WHITFIELD ST	2K142	12/13/2018	1:00 pm	60	60	R	NEAH	EN, PN	GRPUB
AF	3501 MABELVALE PIKE	6L011	12/13/2018	1:00 pm	60	1,800	R	NEAH	EN, PN, WO	GRPUB
AF	3807 FOXCROFT RD	1B012	12/13/2018	1:00 pm	60	600	R	OEEI	EN, PN	CR
AF	3807 FOXCROFT RD	2B068	12/13/2018	1:00 pm	60	300	R	NEAH	EN, PN	GRPUB
AF	403 BROOKSIDE DR	1G090	12/13/2018	1:00 pm	60	300	R	NEAH	EN, PN	GRPUB
AF	4111 S UNIVERSITY AVE	5L030	12/13/2018	1:00 pm	60	1,800	R	NEAH	EN, PN, WO	GRPUB
AF	4111 S UNIVERSITY AVE	5L052	12/13/2018	1:00 pm	60	6,000	R	NEAH	EN, PN, WO	GRPUB
AF	4111 S UNIVERSITY AVE	5L068	12/13/2018	1:00 pm	60	6,000	R	NEAH	EN, PN, WO	GRPUB
AF	4400 KRAMER ST	4L015	12/13/2018	1:00 pm	60	1,200	R	OEEI	EN, PN, WO	CR
AF	4400 S UNIVERSITY AVE	4L013	12/13/2018	1:00 pm	60	1,200	R	NEAH	EN, PN, WO	GRPUB
AF	4600 S UNIVERSITY AVE	4N014	12/13/2018	1:00 pm	60	1,200	R	NEAH	EN, PN, WO	GRPUB
AF	4701 ASHER AVE	7K012	12/13/2018	1:00 pm	60	600	R	NEAH	EN, PN	GRPUB
AF	4701 ASHER AVE	7K112	12/13/2018	1:00 pm	60	1,200	R	OEEI	EN, PN, WO	CR

**LITTLE ROCK WASTEWATER UTILITY
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CAUSE(S) OF SSO

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AF	4716 EASTWOOD ST	2M028	12/13/2018	1:00 pm	60	300	R	NEAH	EN, PN, WO	GRPUB
AF	5200 WESTERN HILLS AVE	3M002	12/13/2018	1:00 pm	60	3,000	R	NEAH	EN, PN, WO	GRPUB
AF	5200 WESTERN HILLS AVE	3N055	12/13/2018	1:00 pm	60	3,000	R	NEAH	EN, PN, WO	GRPUB
AF	5200 WESTERN HILLS AVE	4N016	12/13/2018	1:00 pm	60	3,000	R	NEAH	EN, PN, WO	GRPUB
AF	5207 WESTERN HILLS AVE	3N004	12/13/2018	1:00 pm	60	600	R	OEEI	EN, PN, WO	CR
AF	5207 WESTERN HILLS AVE	3N005	12/13/2018	1:00 pm	60	600	R	OEEI	EN, PN, WO	CR
AF	5207 WESTERN HILLS AVE	3N006	12/13/2018	1:00 pm	30	150	R	NEAH	EN, PN, WO	GRPUB
AF	5207 WESTERN HILLS AVE	3N007	12/13/2018	1:00 pm	30	150	R	NEAH	EN, PN, WO	GRPUB
FC	5207 WESTERN HILLS AVE	4N013	12/13/2018	1:00 pm	60	600	R	OEEI	EN, PN, WO	CR
AF	5207 WESTERN HILLS AVE	4N089	12/13/2018	1:00 pm	60	600	R	OEEI	EN, PN, WO	CR
AF	5423 W 35TH ST	5L051	12/13/2018	1:00 pm	60	1,800	R	NEAH	EN, PN, WO	GRPUB
AF	5423 W 35TH ST	5L067	12/13/2018	1:00 pm	60	1,800	R	NEAH	EN, PN, WO	GRPUB
AF	5512 TULLEY CV	-8-A006	12/13/2018	1:00 pm	60	600	R	NEAH	EN, PN	GRPUB
AF	5512 TULLEY CV	-8-A012	12/13/2018	1:00 pm	60	600	R	NEAH	EN, PN	GRPUB
AF	6325 COLONEL GLENN RD	4L017	12/13/2018	1:00 pm	60	600	R	NEAH	EN, PN, WO	GRPUB
FC	7320 CHICOT RD	2P025	12/13/2018	1:00 pm	30	450	R	NEAH	EN, PN	GRPUB
AF	7500 HINDMAN PARK WAY	2O002	12/13/2018	1:00 pm	60	600	R	OEEI	EN, PN, WO	CR
AF	7500 HINDMAN PARK WAY	2O025	12/13/2018	1:00 pm	60	600	R	OEEI	EN, PN, WO	CR
FC	7909 MCDANIEL DR	2Q020	12/13/2018	1:00 pm	60	600	R	NEAH	EN, PN, WO	GRPVT
FC	7909 MCDANIEL DR	2Q021	12/13/2018	1:00 pm	60	600	R	NEAH	EN, PN, WO	GRPVT
FC	8 N MEADOWCLIFF DR	4N019	12/13/2018	1:00 pm	60	600	R	NEAH	EN, PN, WO	GRPUB
AF	8001 ASCENSION RD	2M085	12/13/2018	1:00 pm	60	300	R	NEAH	EN, PN, WO	GRPUB
AF	810 PINE VALLEY RD	3D108	12/13/2018	1:00 pm	60	300	R	NEAH	EN, PN	GRPUB
AF	8600 CUNNINGHAM LAKE RD	1G008	12/13/2018	1:00 pm	60	300	R	NEAH	EN, PN	GRPUB

**LITTLE ROCK WASTEWATER UTILITY
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FC	BACKWATER FLOW VALVE	6N016	12/13/2018	1:00 pm	30	300	R	NEAH	EN, PN, WO	GRPVT
AF	BOYLE PARK	3K058	12/13/2018	1:00 pm	60	600	R	NEAH	EN, PN	GRPUB
AF	BOYLE PARK	3K061	12/13/2018	1:00 pm	60	600	R	NEAH	EN, PN	GRPUB
AF	KANIS PARK	2H001	12/13/2018	1:00 pm	60	1,800	R	NEAH	EN, PN	GRPUB
AF	KANIS PARK	2H004	12/13/2018	1:00 pm	60	1,200	R	OEEI	EN, PN	CR
AF	KANIS PARK	2H019	12/13/2018	1:00 pm	60	600	R	NEAH	EN, PN	GRPUB
AF	KANIS PARK	2H064	12/13/2018	1:00 pm	60	60	R	NEAH	EN, PN	GRPUB
AF	KANIS PARK	2H074	12/13/2018	1:00 pm	60	300	R	NEAH	EN, PN	GRPUB
AF	REBSAMEN PARK	6C047	12/13/2018	1:00 pm	60	300	R	NEAH	EN, PN	GRPUB
AF	REBSAMEN PARK RD.	4B003	12/13/2018	1:00 pm	60	600	R	NEAH	EN, PN	GRPUB
AF	REBSAMEN PARK RD.	4B005	12/13/2018	1:00 pm	60	600	R	NEAH	EN, PN	GRPUB
AF	REBSAMEN PARK RD.	5C007	12/13/2018	1:00 pm	60	600	R	NEAH	EN, PN	GRPUB
FC	SOUTH HINDMAN PARK	2P013	12/13/2018	1:00 pm	60	600	R	NEAH	EN, PN, WO	GRPUB
FC	SOUTH HINDMAN PARK	2P015	12/13/2018	1:00 pm	60	600	R	NEAH	EN, PN, WO	GRPUB
FC	THIS LINE TIES INTO A 24" MAIN	2R026	12/13/2018	1:00 pm	60	600	R	NEAH	EN, PN, WO	GRPUB
FC	5207 WESTERN HILLS AVE	4N013	12/31/2018	2:00 pm	30	150	R	OEEI	EN, PN	CR
AF	6823 COLONEL GLENN RD	4L076	12/31/2018	2:00 pm	60	600	R	OEEI	EN, PN	CR
AF	7500 HINDMAN PARK WAY	20025	12/31/2018	2:00 pm	60	600	R	OEEI	EN, PN	CR
FC	7909 MCDANIEL DR	2Q020	12/31/2018	2:00 pm	60	300	R	NEAH	EN, PN	GRPVT
FC	7909 MCDANIEL DR	2Q021	12/31/2018	2:00 pm	60	300	R	NEAH	EN, PN	GRPUB
AF	BOYLE PARK	3K058	12/31/2018	2:00 pm	60	600	R	NEAH	EN, PN	GRPUB

COUNT of CAPACITY OVERFLOWS : 309

ATTACHMENT Q. Cap the Cleanout



cap the cleanout

LITTLE ROCK WATER RECLAMATION AUTHORITY

WHAT IS A CLEANOUT?

A cleanout is a vertical pipe connected to the underground sewer line. They are typically located near the home and close to the property line. It has a removable cap for ease of maintenance access. It's important to know the location of your cleanout in case you or your plumber need quick access to the sewer system.

BENEFITS of REPLACING THE CLEANOUT CAP:

-  Prevent rainwater from entering the sewer system and causing water to unnecessarily be treated which could lead to increased customer cost.
-  Keep debris out of the service lines which can cause blockages and lead to backups in the home.
-  Help prolong the life of the sewer system which can mitigate costly repairs.
-  Prevents small animals and rodents from entering the sewer system.

HOW TO REPLACE A CLEANOUT CAP

LRWRA will install a cap for you at no cost or if you choose to replace the cap yourself, LRWRA will provide you with a free cap. Below is a do it yourself guide to replacing a cleanout cap.

1. Determine the type of cap needed, PVC or Brass.
2. Remove damaged cap.
3. Screw cap on clockwise then tighten using pliers, pipe wrench, or channel locks.



PLIERS



PIPE WRENCH



CHANNEL LOCKS

YOU MAY ALSO VIEW A VIDEO TUTORIAL OF THE CHANGE AT WWW.LRWRA.COM/CAPTHERCLEANOUT.



To request a free replacement cap or to request LRWRA maintenance staff install the cap at no charge, fill out the form at www.lrwra.com/capthecleanout. If you have additional questions, call 501-688-1470.



