CMOM Annual Report 2023

Contents

Capacity, Management, Operations and Maintenance (CMOM) Plan Overview

In accordance with National Pollutant Discharge Elimination System (NPDES) Permit No. NM0022250 (Permit), the Albuquerque Bernalillo County Water Utility Authority (Water Authority) prepared this Capacity, Management, Operations and Maintenance (CMOM) Plan. The Permit was renewed in CY2019 with an effective date of December 1, 2019.

The CMOM Plan consists of the following documents:

1. FOG Policy
2. CMOM Annual Report
3. CMOM Program Self-Assessment

The CY2023 CMOM Annual Report follows previous FY2013-17 and CY2017-22 reports. The previous reports, as well as the most recent, can be accessed at https://www.abcwua.org/sewer-system-overview/.

Appendix 5 provides a summary of goals established in this CY2023 CMOM Report.

Report Purpose

As indicated by its name, the CMOM Annual Report will be reissued to describe CMOM activities in the previous calendar year (January 1 to December 31). The CMOM Annual Report provides summary descriptions of CMOM activities (past and planned) and is intended to be a communication tool. The report is intended for Water Authority staff, regulatory authorities, customers, and the general public.

Permit Requirements

The Water Authority discharges to the Rio Grande under authority of NPDES Permit No. NM0022250 (Permit). Under this Permit, the Water Authority operates the Southside Water Reclamation Plant (SWRP) and the Collection System.

The Permit was renewed effective December 1, 2019. The following are the Permit requirements that impact the collection system.

1. The Water Authority shall report all overflows with a (monthly) Discharge Monitoring Report (DMR). (Part I, Paragraph D).
2. Overflow reporting requirements were unchanged for EPA and NMED. (Part I, Paragraph D).
3. Overflow reporting requirements were modified for spills impacting the Pueblo of Isleta (POI) were modified in accordance with the "Pueblo of Isleta Reporting Requirement" which is a subsection of the renewed Permit. (Part I, Paragraph D and "Pueblo of Isleta Reporting Requirement".)
4. The Water Authority shall continue to implement and update (if necessary) the CMOM plan. (Part II, Paragraph E.)

The full permit is available at
https://cloud.env.nm.gov/water/pages/view.php?ref=6881&k=fd428af5b1

CMOM Program Self-Assessment

The United States Environmental Protection Agency (EPA) states (see https://mwrd.org/sites/default/files/documents/USEPA_3-cmomselfreview.pdf): "An important component of a successful CMOM program is to periodically collect information on current systems and activities and develop a "snapshot-in-time" analysis. From this analysis, the utility establishes its performance goals and plans its CMOM program activities." The Water Authority developed Self-Assessments as a part of and an appendix to the FY2013 and FY2014 reports. Because the data provided in the Self-Assessment does not significantly change year-to-year, the Water Authority has set a goal of updating the Self-Assessment every five years as a stand-alone document. This started with the CY2018 Self-Assessment and the CMOM Program Self-Assessment CY2023 has been prepared and posted to https://www.abcwua.org/sewer-system-overview/ along with the CMOM Reports.

The next update will coincide with the CY2028 CMOM Report.

FOG Policy

The Water Authority's FOG Policy is a separate document. The FOG Policy was developed as a requirement of the NPDES Permit effective on October 1, 2012. This original FOG Policy was submitted to the EPA on September 27, 2013, and updated in the Pretreatment Program modification documents sent to the EPA on June 2, 2014. No comments from EPA were received regarding either submission, thus indicating EPA approval. The Policy was developed to work in conjunction with the Water Authority Sewer Use and Wastewater Control Ordinance (SUO) and Enforcement Response Plan (ERP) to reduce the rate of SSOs in the collection system and decrease FOG loading at the SWRP. The Policy describes expectations for FOG dischargers such as Food Service Establishments (FSEs) and waste haulers, and the steps the Water Authority is taking to mitigate FOG.

The new NPDES Permit was effective December 01, 2019, allowing for an update to the Industrial Pretreatment Program which consists of the SUO, the FOG Policy, and the ERP. This update started with an amendment to the SUO, which the Water Authority Board approved on July 05, 2021. (The approved SUO is available at Sewer Use and Wastewater Control Ordinance.) The approved amendment addresses solids with the result that the FOG requirements now becomes Fats, Oils, Grease and Solids (FOGS). FOGS is the term used within the Water Authority SUO, FOGS Policy, and ERP. The approved amendment also served to standardize terminology to match plumbing code and industry standards and include Hydromechanical Grease Interceptor (HGI) exclusions to the 25% rule. Grease Removal Systems (GRS) are now referred to as Grease Interceptors (GI). HGIs being more efficient GIs are allowed to hold up to 50% grease and solids. The FOGS Policy and ERP were revised in 2023 to reflect SUO changes and bolster both documents.

The FOGS Policy sets a Water Authority goal of inspecting every FSE at least once every three years. Details of what is expected of the FSE in terms of Grease Interceptor (GI) functionality, pumping schedule, maintenance, and recordkeeping are identified. The FOGS policy explains the Water Authority use of the 25% solids and grease rule (25 Percent Rule) to determine if a GI is

filled to capacity. The policy also contains Best Management Practices (BMPs) such as scraping plates, using screens, and not using emulsifiers, etc.

Pumper requirements are also covered in the FOGS Policy. Full evacuation of a GI is required each time pumping occurs. The pumper must leave the FSE documentation in the form of manifests that contain pertinent information such as date, time, volume pumped, and the condition of the GI. The FOGS Policy lists the minimum service to be provided by the pumper.

Enforcement of FOGS violations and hauled wastewater violations is described in the FOGS Policy. The FOGS Policy works in conjunction with the ERP to set administrative assessments for violations.

The FOGS Policy also sets forth the process for identifying new sources of FOGS. The Water Authority Pretreatment Program will update the FOGS database on an annual basis. The FOGS Policy sets a goal that the Water Authority will meet with the City of Albuquerque, Bernalillo County, the Village of Los Ranchos, the Village of Corrales, plumbers, and the New Mexico Restaurant Association on a periodic basis to discuss FOGS issues.

The Pretreatment Program documents including the FOGS Policy and ERP have been revised to match the Ordinance updates and were submitted to EPA August 23rd, 2023.

FOGS Enforcement

In CY2023, the Water Authority Pretreatment Program had 1,893 compliant FSEs out of 2,238 FSE sites for a compliance rate of 85%. Seven hundred and sixty-one (761) FSE inspections were conducted with 468 passing, and 288 failing. Of the 288 failed inspections, 262 Notices of Violation were issued. Sixty-four (64) of the 262 violations were resolved, and the remainder are outstanding.

In response to SSOs, three (3) FSE inspections were conducted with two (2) passing and one (1) failing. Of the one (1) failed inspections, one (1) Notice of Violations was issued and the deficiencies were corrected.

In addition, Water Authority Pretreatment personnel distributed 1,148 FOGS brochures to FSEs at every inspection. Additionally, FOGS brochures were also hand delivered to single-family residences and apartment complexes upstream of a grease caused SSO.

See Table 5 for FOGS Enforcement & Policy Implementation – CY2023.

SSO Analyses

Permit Requirements

The Permit requires a CMOM Plan. The Plan goal is to reduce SSOs. The FOG Policy states that the Pretreatment Program will investigate all SSOs related to large amounts of grease. The policy is to take enforcement actions for violations of FOG requirements with priority on FSEs causing repeat SSOs.

SSO Study Team

To meet these requirements, the Water Authority created an SSO Study Team. The Team is comprised of:

1. Collection Section – Research Analyst (team lead), Gravity Superintendent, Assistant Superintendent and Closed Circuit Television (CCTV) Supervisor;
2. NPDES Pretreatment –Industrial Pretreatment Engineer and Pollution Prevention Specialist.

The Mission Statement for the Study Team is: *The SSO Study Team will work inter-divisionally to study, analyze and determine causes of previous SSOs to mitigate future SSOs in the Collection System.*

The Study Team procedure is:

1. Tabulate all 10-40s, 10-42s and 10-48s (see Table 1 for definitions).
2. Ensure all segments responsible for causing 10-42s and 10-48s are televised.
3. The Research Analyst will review and analyze all CCTV inspections to determine causes (if possible) and document findings.
4. To conduct meetings with the SSO Study Team to review and analyze CCTV that needs further investigation for resolution.
5. Recommend/implement and document mitigations (if possible) based on analysis.
6. Coordinate with NPDES Pretreatment concerning grease issues discovered during analysis.

Table 1 Sewer Trouble Definitions

Sewer Trouble Definitions		
10-40	Sewer Backup	A gravity line blockage that does not result in a spill, or in the vacuum system, a low vacuum (low vac) that causes a customer service disruption. Does not result in an SSO Reportable (10-42) or a Property Damage (10-48).
10-42	SSO Reportable	An overflow of sewage from the system that may impact surface waters. These are reported to the EPA and other locally impacted stakeholders.
10-48	Property Damage	An overflow of sewage from the system that results in damage to private property. These are not reportable under current definitions.

Appendix 1 identifies all 10-42s and 10-48s, and the overflows that resulted in both a 10-42 and a 10-48. When documenting the number of Sewer Troubles of different types, for example in Figure 1 and Figure 2, the 10-42 item includes all overflows that may impact surface waters, including those that also had property damage; the 10-48 item includes overflows that only resulted in property damage. This prevents double-counting the number of overflow occurrences.

All 10-40s, 42s and 48s were CCTV inspected, although only 10-42s are "reportable", i.e., required to be reported to the EPA, et al. All 10-42s and 48s were then examined by the Study Team and a Cause and Mitigation were determined.

Table 2 Types of Causes for SSOs

Cause(s) of SSO from DMR		**Causes determined from CCTV**
CO – Construction	**DB** – Debris	**SC** – Surcharged
CU-Cause Unknown	**RK**-Rocks	**SL –** Sag in Line
EQ – Equipment Failure	**GR** – Grease	**IT –** Intruding Tap
SGG-Sand, grit or gravel	**RT** – Roots	**MH –** Manhole
LF – Line Failure	**RN** – Rainfall	**OJ –** Offset Joint
V – Vandalism	**RGS**-Rags	
RGR – Roots / Grease		

Burps, abbreviated BP, occur during Vactor jetting when air is displaced and water is forced out of home fixture P-traps, e.g., toilets and sinks. These sometimes result in claims and are therefore included in the Property Damage totals for completeness and consistency. As indicated in Appendix 1, there were two burps during CY2023. Because burps are not an SSO, burps are not included in other tables or graphs.

Causes & Mitigations

The Cause(s) were selected from Table 2 that identifies SSO causes from the DMR and CCTV. The monthly SSO DMR has a specific list of Causes that are based on system observations made by an Operator or Supervisor at the site of an SSO. The CCTV data provided to the Study Team often results in a different, more refined Cause or Causes. Table 3 provides the causes determined by the Study team for CY2023. (Note: Percentages may not add up to 100%, as they are rounded to the nearest percent.)

Table 3 Summary of Causes from SSO Study

10-42,10-48 Causes	Total	% of Total
Cause Unknown	1	4%
Cause Unknown/Debris	0	0%
Construction	3	11%
Construction/Debris	0	0%
Construction/Line Failure	0	0%
Debris	5	19%
Debris/Grease	0	0%
Equipment Failure	1	4%
Grease	6	22%
Grease/Rags	2	7%
Grease/Sag in Line	0	0%
Line Failure	4	15%
Manhole	0	0%
Rags	3	11%
Roots/Grease/Rags	0	0%
Roots/Grease	2	7%
Roots/Debris	0	0%
Roots/Intruding Tap	0	0%
Roots/Line Failure	0	0%
Roots	0	0%
Sag in Line	0	0%
Vandalism	0	0%
Grand Total	**27**	**100%**

Mitigations are the steps that the Team identified to prevent a recurrence of an SSO, at least for the identified Cause. Specific Mitigations are very dependent on the conditions observed from the CCTV video and report. This indicates the condition of infrastructure where SSOs are occurring. Table 4 provides a summary of the various Mitigations. The Mitigations are tracked through completion or implementation. (Note: Percentages may not add up to 100%, as they are rounded to the nearest percent.)

Table 4 Summary Mitigations from SSO Study

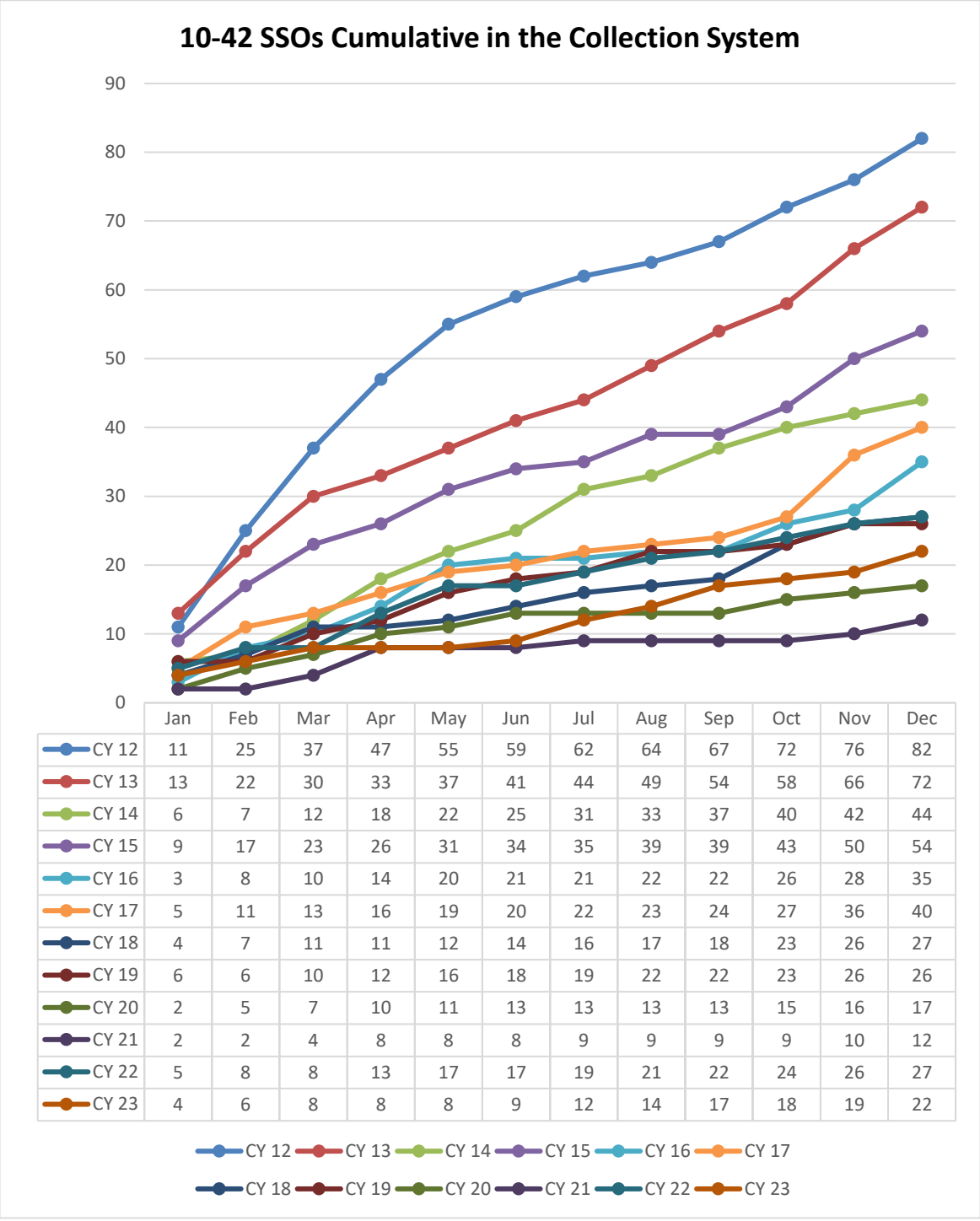
10-42, 10-48 Mitigations	Total	% of Total
Pretreatment Notified	0	0%
Pretreatment Notified/Short Interval	0	0%
Rehab/Replace	11	41%
Rehab/Replace/No Follow Up Needed	1	4%
Short Interval	8	30%
Short Interval/Rehab/Replace	0	0%
Short Interval/Special Instructions	4	15%
Short Interval/Special Instructions/Pretreatment Notified	0	0%
Special Instructions	3	11%
Grand Total	**27**	**100%**

Volume Spilled and Recovered

The Water Authority has implemented a policy of capturing spills and documenting actions. Appendix 1 provides the Ultimate Discharge Location for each reported SSO. Appendix 2 provides estimated spill volumes and volumes recovered for 22 reported SSOs for CY2023. Of the spill volume estimated not to be recovered, none were identified as directly reaching the Rio Grande. It was estimated that approximately 59% of the estimated spill volume was recovered in CY2023 as shown in Appendix 2.

SSO Tabulation & Analysis

Figure 1 shows the cumulative 10-42s by month for CY2012-23.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CY 12	11	25	37	47	55	59	62	64	67	72	76	82
CY 13	13	22	30	33	37	41	44	49	54	58	66	72
CY 14	6	7	12	18	22	25	31	33	37	40	42	44
CY 15	9	17	23	26	31	34	35	39	39	43	50	54
CY 16	3	8	10	14	20	21	21	22	22	26	28	35
CY 17	5	11	13	16	19	20	22	23	24	27	36	40
CY 18	4	7	11	11	12	14	16	17	18	23	26	27
CY 19	6	6	10	12	16	18	19	22	22	23	26	26
CY 20	2	5	7	10	11	13	13	13	13	15	16	17
CY 21	2	2	4	8	8	8	9	9	9	9	10	12
CY 22	5	8	8	13	17	17	19	21	22	24	26	27
CY 23	4	6	8	8	8	9	12	14	17	18	19	22

Figure 1 Reportable SSOs

Appendix 1 contains a list of every 10-42 and 10-48 event in CY2023. The table columns are grouped as follows:

1. The type, i.e., 10-42 or -48, is identified on the left. In one case a single event was both a 10-42 and a 10-48, as indicated.
2. Next to the right are the data included in the monthly SSO DMRs. It is noted that a "Reported Cause" is listed. This is typically based on the observations of the Operator that reported the SSO.
3. Next to the right is data determined by the Study Team:
    a. Cause
    b. Mitigation
    c. If Pretreatment follow-up is necessary
4. To the far right are follow-ups by NPDES Pretreatment
    a. FSEs visited
    b. Notice of Violation issued

The SSO Rate is defined as 100 times the number of SSOs in a year divided by the miles of sewer in the system. The Water Authority system has a total of approximately 2,596 miles of line (p. 8 of the Self-Assessment). The CY2023 SSO rate is therefore 22 SSOs / 25.96 = 0.85.

Figure 2 shows the total sewer troubles, i.e., 10-40s, -42s, and -48s by year for CY2012-23.

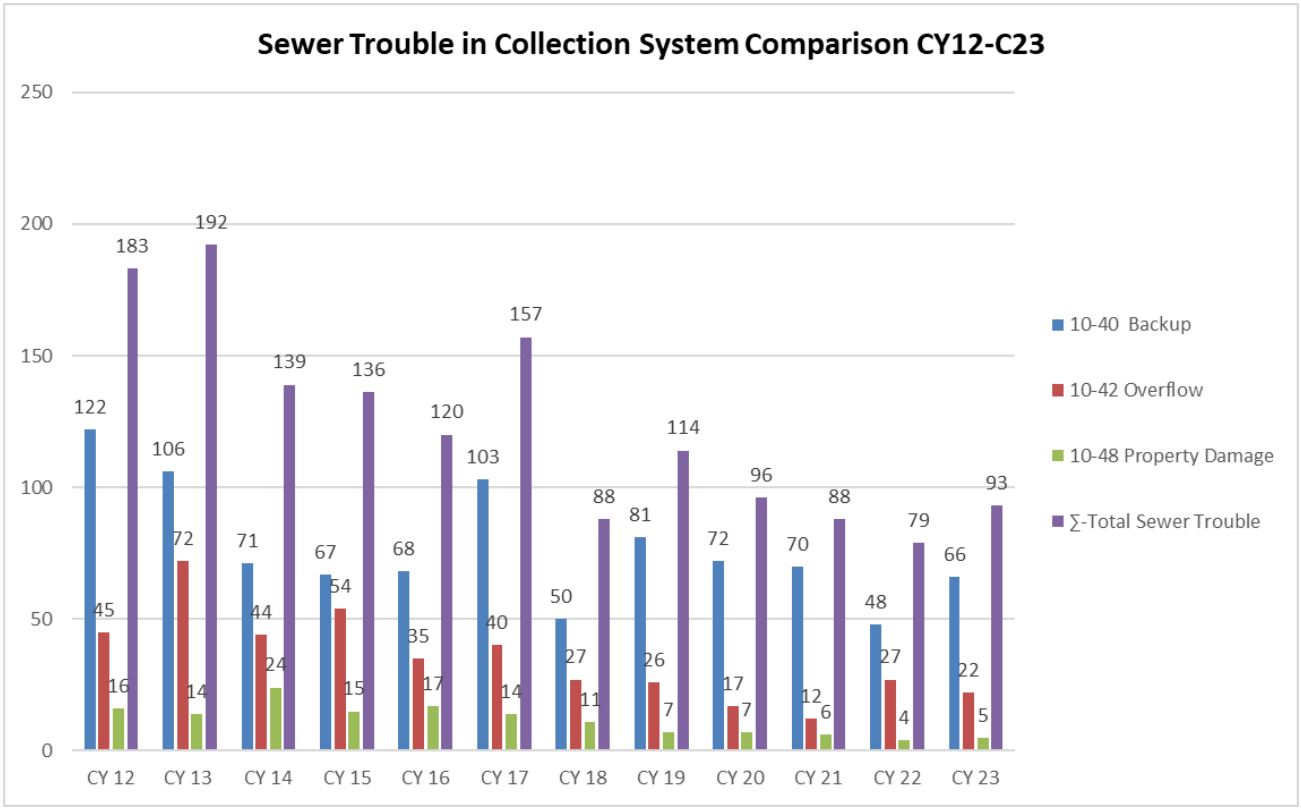


Figure 2 Sewer Trouble Comparison

Actions Implemented and On-Going Programs

General

Below are gaps that were identified in the CY2022 CMOM Report and were closed in CY2023, or are on-going programs, or both. In addition to the commitments made in the CMOM Report, in CY2023, the following additional actions were taken to expand the Water Authority's ability to operate and maintain the system.

The Water Authority's Public Affairs section continued to support SSO prevention efforts and the FOG Policy in CY2023. Appendix 3 identifies media specifics for water bill inserts, and social media public outreach efforts.

FOGS Policy Implementation

The FOGS Policy is an on-going program and FOGS Enforcement efforts are a part of this program. Both the FOGS Policy and the FOGS Enforcement efforts are described above. On-going efforts are described in the FOGS Enforcement section and not reiterated here.

The Water Authority has long had a FOGS flier for Food Service Establishment and residential homes in English. A FOGS flier in Spanish was developed and implemented in CY2019 and a FOGS flier in Vietnamese was developed and implemented in CY2020. The Water Authority continues to distribute these fliers to all FOGS Facilities and residential units during routine inspections and SSO investigations to continually improve education to the rate payers on the negative impacts of FOGS. In CY2022 Pretreatment improved FOGS inspections by using advanced inspection tools and will continue utilizing these tools into the future. The goal for CY2023 was to tabulate the number of fliers distributed during inspections as well as find community outreach opportunities for FOGS related education. The Water Authority implemented procedures to tabulate the distributed fliers for FOGS Establishment inspections and blanketing neighborhoods where residential FOGS caused SSOs. A total of 1,148 fliers were distributed in CY2023. In addition to the flier Goal, the Water Authority's other FOGS goal was to submit the updated Pretreatment Program to the EPA for review. The submittal was made August 2023. The Goal for CY2024 is to receive EPA approval of updates to the FOGS Policy and Enforcement procedures and then implement by means of new SOPs and enforcement templates.

Table 5 - FOGS Enforcement & Policy Implementation

FOGS Enforcement & Policy Implementation - CY2023		
FSEs	Total	2238
	Compliant	1893
	% Compliant	85%
FSE Inspections	Total	761
	Passed	468
	Failed	288
	NOVs Issued	262
	Resolved	64
	Outstanding	198
FSE Inspections - SSO Responses	Total	3
	Passed	2
	Failed	1
	NOVs Issued	1
Fliers Distributed	1148	

Pilot Manhole Monitoring Project

The Water Authority initiated in CY2022 a pilot study of manhole monitoring. The intent is to study flow monitoring and evaluate if this technology may be appropriate for use in the Water Authority's Collection System. This pilot project will help the Water Authority meet its CMOM Plan commitment to maintain a program to continuously improve in terms of SSO reduction. Ten monitors were obtained, and ten locations were selected for deployment. Through the pilot study to date, we have learned specifics of the vendor provided equipment and services, and gained insights into the requirements, staffing and otherwise, if the Water Authority were to scale this up and make it a permanent program. The pilot study has been extended to the end of FY2026.

Manhole monitoring can be used to prevent SSOs at known locations prone to blockages and for monitoring specific locations with other risk factors. SSO prevention at problem locations is the most common use and was the initial reason for the pilot. Given the Water Authority's low SSO rates and maximum cleaning frequency, it is unclear if this application is cost effective, particularly when development of a full program, including staff, is considered.

Odor Complaints

Odor complaints are tabulated and reported monthly. The Water Authority odor control program is described in the CMOM Self-Assessment Report in the Hydrogen Sulfide Monitoring and Control (HSMC) section in the current CMOM Program Self-Assessment.

Closed Circuit Television (CCTV)

This is an on-going program. The following recommendation is made in the FY2013 CMOM Report: "CCTV inspections of the collection system as follows: 1) Small diameter main lines less than 15": In four of five years, televise approximately 5% per year of the small diameter system. Televise high risk lines based on current Asset Management Plan and subsequent in-house analysis. 2) Large diameter lines 15" and larger: Every fifth year, televise as much as possible acknowledging access limitations of the unlined concrete lines 15" and larger. Anticipated schedule: 3) FY2014-17: 5% of the small diameter each year. 2) FY18: Large diameter unlined concrete pipe."

CMOM Report figures for cleaning and CCTV will continue showing fiscal year (FY) goals in accordance with funding and contracting cycles and actual metrics will reflect work through the end of the calendar year (CY). Figure 3 provides the CCTV goal for a ten-year basis and the actual CCTV inspection through CY2023. The CY2023 portion of this recommendation is complete. The CCTV program will continue. Anticipated schedule:

1. FY24: 5% of the small diameter.
2. FY25: 5% of the small diameter.
3. FY26: 5% of the small diameter.
4. FY27: 5% of the small diameter.
5. FY28: Large diameter unlined concrete pipe.

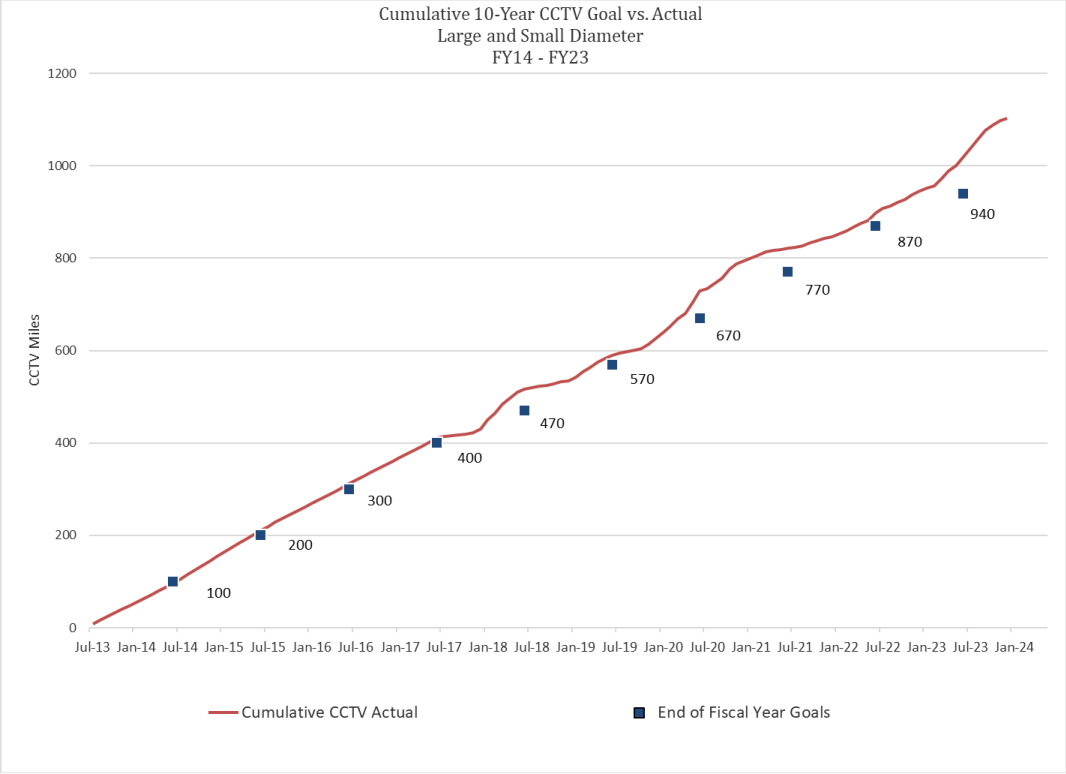


Figure 3 Small & Large Diameter Sewer CCTVed vs. Ten-Year Goal

Cleaning Program Goal

This is an on-going program.

The following recommendation is made in the FY2013 CMOM Report: "The Water Authority will establish and monitor a goal of cleaning all gravity small diameter lines every ten years. (This will be accomplished through the existing Sub-Basin program.) The Water Authority will continue the program of high-frequency maintenance of known problem locations within the system. (This will be accomplished through the existing Short Interval program.) The frequency of Short Interval cleaning will vary in accordance with system performance and risk factors, maintenance history, and the latest maintenance findings."

In the CY2021 CMOM Report, the Water Authority established a temporary goal of cleaning all small diameter lines, i.e., Sub-Basin program, every fifteen years, rather than the previously established ten-year goal. (This temporary goal was extended for CY2022-23.) Water Authority studies indicate that Short Interval lines consistently experience a higher SSO rate than the Sub-Basin lines. This indicates that even more cleaning of Short Interval lines, with a commensurate decrease in Sub-Basin cleaning, will result in a net reduction of total SSOs in the system. The Water Authority will monitor SSO rates and extend efforts to increase the effectiveness of the cleaning program. The 15-year temporary goal continues through CY2024.

The Water Authority is active and at the forefront of an effort to increase the effectiveness of O&M cleaning. In June, the Water Authority presented a well-received paper to the Collection Systems Conference 2023 describing improved O&M developed by the Water Authority and the need for the industry to develop more effective cleaning criteria. The Water Authority is active in the O&M Technical Project Group (TPG) of the Water Environment Federation (WEF) Collection Systems Community (CSC). The O&M TPG has undertaken the study of the effectiveness of current industry criteria for preventive cleaning, i.e., the area-wide and hot-spot cleaning programs, utilized by the Water Authority and other utilities. The O&M TPG sponsored a 90-minute technical session (An Interactive Utility Discussion on Collection System Cleaning Programs: Building Consensus on a New Paradigm) at WEFTEC. This technical session is the first step in the development of industry criteria that support effective and affordable collection system O&M. The TPG is now developing a questionnaire to distribute to interested utilities.

Figure 4 shows the actual cleaning performed by fiscal year. The modified Sub-Basin goals are shown starting with CY 2022.

Figure 4 Small Diameter Sewer Cleaned vs. Ten-Year Goal

Force Main Inspection Program

This is an on-going program. The alignment of force main is annually inspected from the surface. Valves found in field are compared to those in the GIS mapping and corrected as appropriate. Inspection information is stored in Maximo.

As described in the CY2022 CMOM Report, the Water Authority has been performing condition assessment investigations of the dual 30" force mains from Lift Station 20. The focus was on interior and exterior corrosion, the most likely cause of failure. As a result of these investigations, the Water Authority replaced the air release-relief valves on these force mains with upgraded valves.

On February 28, 2023, the north force main failed and an SSO occurred. (See Appendix 1 for more details.) The north force main was taken out of service and all flow routed through the south force main. The Water Authority utilized an on-call contractor to quickly respond and on June 12, 2023, a new force main, temporarily above grade, had been installed and was placed into operation. The design of replacement or rehabilitated, buried force mains is under design.

The failed north force main has not been removed in order to protect the south force main still in use. Partial CCTV investigations indicate a groove, apparently erosion caused, along the invert of portions of the failed force main.

Overflow Emergency Response Plan (OERP)

This is an on-going program to update the OERP as required. In CY2022, no modifications were made were made to the OERP.

The Collection Section is the "owner" of the OERP. The Collection Section creates the components of the OERP, routes for internal review (specifically including the Compliance Division), and the completed portions are approved for posting to SharePoint by the Collection Section Manager. Appendix 4 provides the OERP which was in effect at the end of CY2022. The most current version of the OERP is posted to http://www.abcwua.org/Sewer_System.aspx

When the February 28, 2023 SSO occurred due to the Lift Station 20 force main break, see above and Appendix 1, it was not immediately apparent if the flow would reach the Atrisco Riverside Drain, therefore calls were made to the Pueblo of Isleta and the Middle Rio Grande Conservancy District (MRGCD) in accordance with the OERP. It was later determined that the flow did not reach the drain or the Rio Grande.

GIS Gap

A major SSO occurred starting July 10, 2022. The SSO is described in the CY2022 CMOM Report (https://www.abcwua.org/wp-content/uploads/2023/10/CMOM_AnnualReport_CY2022_Final.pdf) on p. 16. The SSO was caused by the collapse of a concrete interceptor wrongly identified as rehabilitated in the Water Authority's geographic information system (GIS). The Water Authority queried GIS to identify 125 rehabilitated concrete interceptor segments for which adequate back up documentation, either CCTV or record drawings, was not available. These lines were all inspected using CCTV, with completion in January 2023. GIS has updated in accordance with CCTV inspections

This gap has been resolved and will be removed from future CMOM reports.

Identified Gaps in the Water Authority Processes with Recommendation to Close

In the process of continuous improvement, the Water Authority is committed to identifying and closing gaps. As discussed above, most of these recommendations are now considered On-Going programs.

Satellite System Contracts

Satellite communities operate collection systems that discharge wastewater to the Water Authority Collection System for conveyance to the SWRP and treatment. These satellite systems are not owned by the Water Authority and do not fall under the Water Authority's NPDES Permit. Satellite communities are addressed the Water Authority CY2023 CMOM Self-Assessment. See checklist items under Satellite Communities and Sewer Use Ordinance (SUO) on p. 12-13 (insert link – will need to post the Self-Assessment first).

In accordance with the Self-Assessment checklist, the EPA desires that a contract be established with each satellite system and the contract include various provisions such as inclusion of the requirements of the Sewer Use Ordinance (SUO). While the Water Authority will enforce the SUO, which applies to all customers, where necessary, the current contracts with satellite communities do not include all the provisions identified in the Self-Assessment form.

Recommendation: The Water Authority will review its agreements with satellite communities and determine necessary steps to effectively implement the suggestions in the Self-Assessment document.

Prohibited Discharges, i.e., SSOs

The Water Authority acknowledges that prohibited discharges have occurred and that all discharges from the sanitary sewer system are prohibited.

Recommendation: The Water Authority will annually examine sewer system performance, set specific steps for decreasing SSOs and mitigating their impacts, and has a program of continuous improvement.

Appendices

Appendix 1 Sanitary Sewer Overflow Analysis Table

Type			DMR														SSO Team Study		Enforcement		
10-42	10-48	10-42 &10-48	Maximo WO #	Diameter	Repeat	Repeat within 1 year	Date of SSO	Time of SSO	Duration (HH:MM)	Address	Estimated Volume (gallons)	Reported Cause of Overflow	Observed Environmental Impacts	Action Taken	Ultimate Discharge Location	Volume Recovered (gallons)	Cause	Mitigation	Pretreatment Follow Up Requested	FSEs Visited	Notice of Violation
X			2406340	8"	N	N	1/10/2023	5:50PM	0:05	GUADIANA Pl SW & DELGADO DR SW	50	DB	N/A	CCC/HTH/WD	AC	0	LF	RH			
X			2410687	8"	Y	N	1/12/2023	2:08PM	1:05	3310 INDIAN SCHOOL RD NE	10	GR	N/A	CC/WD	PST	0	GR	SP/SI			
X			2418775	8"	N	N	1/18/2023	10:10PM	1:50	4612 VALLEY GARDENS DR SW	50	GR	N/A	CC/HTH/CWW/RP/WD	PST	30	GR	SI			
	X		2420567	8"	Y	N	1/19/2023	1:59PM	0:46	1014 SAN LORENZO AVE NW	N/A	BP	N/A	IN	N/A	N/A	BP	SP			
	X		2440772	2 1/2"	N	N	1/31/2023	12:00PM	5:15	9709 CONEFLOWER DR NW	N/A	CO	N/A	IN/PO	N/A	N/A	EQ	RH			
X			2437607	8"	N	N	1/31/2023	3:12PM	0:42	4531 OSUNA RD NE	50	DB	N/A	CC/HTH/CWW/WD	PL	50	DB	SI			
X			2448932	8"	N	N	2/7/2023	2:22PM	0:30	900 UNIVERSITY BLVD SE	75	DB	N/A	CC/RP/WD	PL	50	LF	RH			
	X		2471564	8"	N	N	2/19/2023	10:46AM	0:30	121 GREEN VALLEY RD NW	N/A	CU	N/A	MC	N/A	N/A	MH	RH			
		X	28285	LS20	N	N	2/28/2023	11:00AM	11:30	3912 ISLETA BLVD SW	540,000	LF	N/A	PO/BR/RP/RS	O	320,000	LF	RH			
X			2516064	8"	Y	N	3/15/2023	8:52PM	2:02	903 NAKOMIS DR NE	50	RK	N/A	CC/HTH/CWW	PL	50	RT/SL	SP			
X			2530867	10"	N	N	3/21/2023	2:45PM	0:45	7005 COOORS BLVD SW	250	LF	N/A	HTH/WD	YD	0	LF	RH			
	X		2571350	8"	N	N	4/12/2023	11:59AM	0:15	1327 CABALLERO DR SE	N/A	GR/RGR	N/A	CC	N/A	N/A	RGS	SI			
X			2739391	PIT	N	N	6/21/2023	2:15PM	1:00	315 ALAMEDA BLVD NE	20	SUMP PUMP/ CONTROLLER	N/A	CHANGE CONTROLLER	O (DIRT SHOULDER)	0	EQ	RH			
X			2758649	10"	Y	N	7/1/2023	4:42PM	0:30	1923 BRYN MAWR DR NE	5,150	GR/RGS	N/A	CC/HTH	AD	0	GR	SP	X	2	1
X			2764183	8"	N	N	7/4/2023	4:46PM	0:55	9512 VILLA DEL REY ST NE	50	GR	N/A	CC/HTH/WD	PST	0	RT	SI			
X			2815795	NA	N	N	7/12/2023	3:00PM	1:30	823 15TH ST NW	600	CO	N/A	CC/HTH/CWW/WD	PST	300	CO	RH			
X			2875002	8"	Y	Y	8/9/2023	6:55 PM	0:05	7901 MARQUETTE AVE NE	25	GR	N/A	CC/HTH/PO/CWW/WD	PST	25	DB/GR	SI	X	0	0
X			2890571	8"	Y	N	8/18/2023	9:22AM	5:30	9801 MONTGOMERY BLVD NE	500	LF	NEAH	CC/HTH/PO/WD	PST	0	LF	NF/RH			
X			2924190	8"	N	N	9/1/2023	4:04PM	0:06	2815 EUCLID AVE NE	25	RGS	N/A	CC/HTH/CWW/WD	PST	25	GK/GR	SI/SC	X	1	0
X			2944618	12"	N	N	9/14/2023	3:16PM	0:03	3909 JUAN TABO BLVD NE	150	DB	N/A	CC/HTH/PO/CWW/RP/WD	AC	100	LF	SI	X	0	0
X			2974075	10"	N	N	9/26/2023	5:08PM	0:04	621 HEATHER LN SW	1,500	CO	NEAH	CC/HTH/PO/CWW/RP	O (DIRT DITCH NON-CONSERVANCY)	1,400	CO	RH			
	X		3009417	8"	N	N	10/27/2023	12:10PM	0:30	2846 MORNINGSIDE DR NE	N/A	BP	N/A	IN	N/A	N/A	BP	NF			
X			3017888	8"	Y	N	10/30/2023	3:32PM	0:20	2301 CENTRAL AVE NE	50	RGS	N/A	CC/HTH/PO/CWW/RP/WD	PST	50	RT	SI/SP			
X			3041367	8"	Y	N	11/16/2023	7:35PM	0:05	1057 RIGEL ST SW	10	GR	N/A	CC/HTH/PN/PO/CWW/WD	PST	10	LF/DB	RH			
	X		3070892	8"	N	N	12/5/2023	8:35AM	2:20	11704 CANDELARIA	N/A	DB	N/A	CC	N/A	N/A	GR/RT	SP/SI			
	X		3095570	18"	N	N	12/22/2023	2:30PM	1:45	711 HARDY AVE SW	N/A	LF	N/A	CC/IN/PO	N/A	N/A	LF	RH			
X			3079354	8"	N	N	12/12/2023	6:11PM	0:04	112 WELLESLEY DR NE	10	GR	NEAH	CC/HTH/PN/PO/CWW/WD	PST	10	DB	SI			
X			3095743	8"	Y	Y	12/27/2023	3:18PM	0:05	11429 NASSAU DR NE	10	RGR	NEAH	CC/HTH/CWW/WD	PST	10	RT	SI			
X			3098634	12"	Y	N	12/29/2023	3:30PM	0:23	3700 EUBANK BLVD NE	300	RGS	NEAH	CC/HTH/PO/CWW/RP/WD	SD	300	CU	NF			

Appendix 2 Sanitary Sewer Overflow Volume Captured Analysis Table

CY2023 10-42 SPILL VOLUME AND VOLUME RECOVERED						
Maximo WO #	**Date of SSO**	**Location**	**Estimated Volume (gallons)**	**Volume Recovered (gallons)**	**Volume Not Recovered**	**% Recovered**
2406340	1/10/2023	GUADIANA Pl SW & DELGADO DR. SW	50	0	50	0%
2410687	1/12/2023	3310 INDIAN SCHOOL RD NE	10	0	10	0%
2418775	1/18/2023	4612 VALLEY GARDENS DR SW	50	30	20	60%
2437607	1/31/2023	4531 OSUNA RD NE	50	50	0	100%
2448932	2/7/2023	900 UNIVERSITY BLVD SE	75	50	25	67%
28285	2/28/2023	3912 ISLETA BLVD SW	540,000	320,000	220,000	59%
2516064	3/15/2023	903 NAKOMIS DR NE	50	50	0	100%
2530867	3/21/2023	7005 COOORS BLVD SW	250	0	250	0%
2739391	6/21/2023	315 ALAMEDA BLVD NE	20	0	20	0%
2758649	7/1/2023	1923 BRYN MAWR DR NE	5,150	0	5,150	0%
2764183	7/4/2023	9512 VILLA DEL REY ST NE	50	0	50	0%
2815795	7/12/2023	823 15TH ST NW	600	300	300	50%
2875002	8/9/2023	7901 MARQUETTE AVE NE	25	25	0	100%
2890571	8/18/2023	9801 MONTGOMERY BLVD NE	500	0	500	0%
2924190	9/1/2023	2815 EUCLID AVE NE	25	25	0	100%
2944618	9/14/2023	3909 JUAN TABO BLVD NE	150	100	50	67%
2974075	9/26/2023	621 HEATHER LN SW	1,500	1,400	100	93%
3017888	10/30/2023	2301 CENTRAL AVE NE	50	50	0	100%
3041367	11/16/2023	1057 RIGEL ST SW	10	10	0	100%
3079354	12/12/2023	112 WELLESLEY DR NE	10	10	0	100%
3095743	12/27/2023	11429 NASSAU DR NE	10	10	0	100%
3098634	12/29/2023	3700 EUBANK BLVD NE	300	300	0	100%
Grand Total			**548,935**	**322,410**	**226,525**	**59%**

Appendix 3 FOG Advertising Campaign

SSO Prevention - Advertising Campaign for 2023

Print Advertising

We placed two banner ads in the *Albuquerque Journal* in the Food Section on Monday, Nov. 20 and Monday, Dec. 18 of the Albuquerque Journal, which has a daily circulation of 49,361 (total estimated impressions: 98,722 with duplication)

We place two quarter-page ads in *The Paper* on Wednesday, Nov. 15 and Wednesday, Dec. 20 (estimated digital and print circulation of 150,000 weekly so total estimated impressions of 300,000 with duplication).

Total Estimated Print Impressions: 398,722

Television Advertising

We placed a total of 2,436 television spots on KOB TV, KRQE TV, KOAT TV, and three local zones for Comcast Cable, generating an estimated 1,007,012 impressions (with duplication) among woman aged 25+.

Digital Television Advertising

We placed digital television advertising on top streaming services generating an estimated 52,632 impressions (with duplication).

Radio Advertising

We placed an estimate 840 radio spots on six local radio stations that rate highly with women 25+ and individuals 25+, generating an estimated 697,700 impressions (with duplication).

Digital Outdoor Advertising

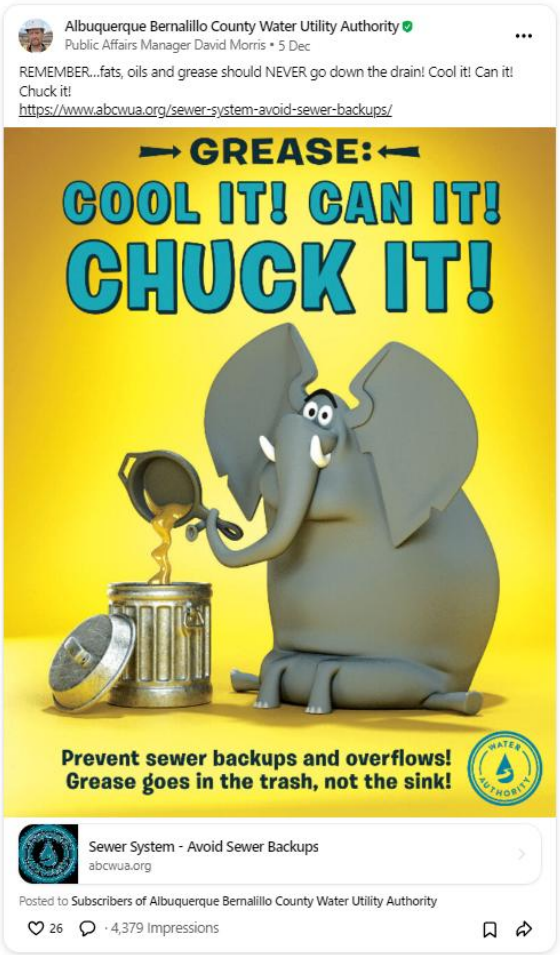
We placed a total of 12 digital outdoor boards in November and December, generating an estimated 2,816,646 plan market impressions (with duplication) among adults 25+.

Bill Inserts

We printed and distributed 210,000 bill inserts in Water Authority customer's bills in January 2023, November 2023 and December 2023. At 210,000 bill inserts per month, this activity generated an estimated 630,000 impressions.

Total estimated impressions for this campaign (with duplication): 5,602,712.

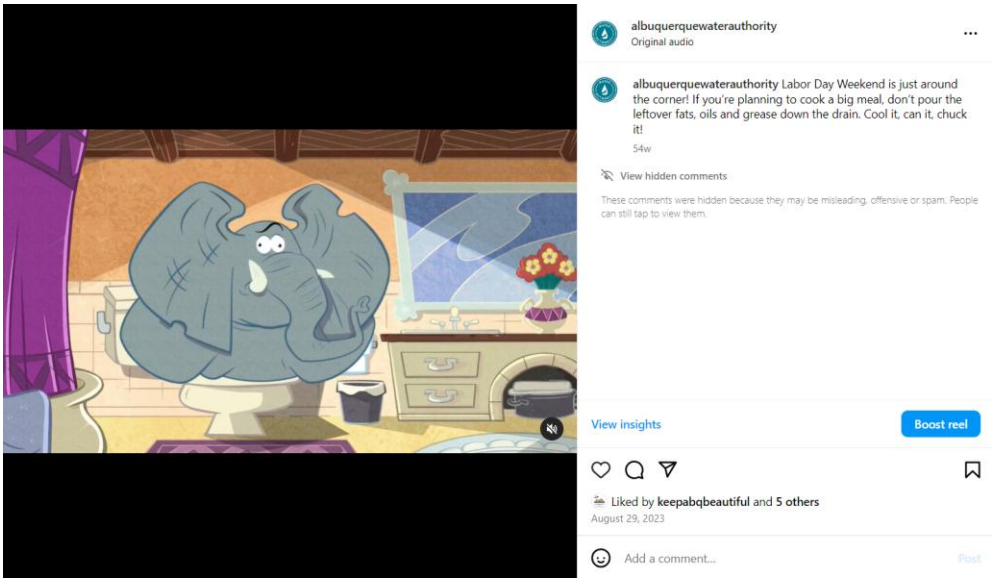
Nextdoor Posts for 2023:

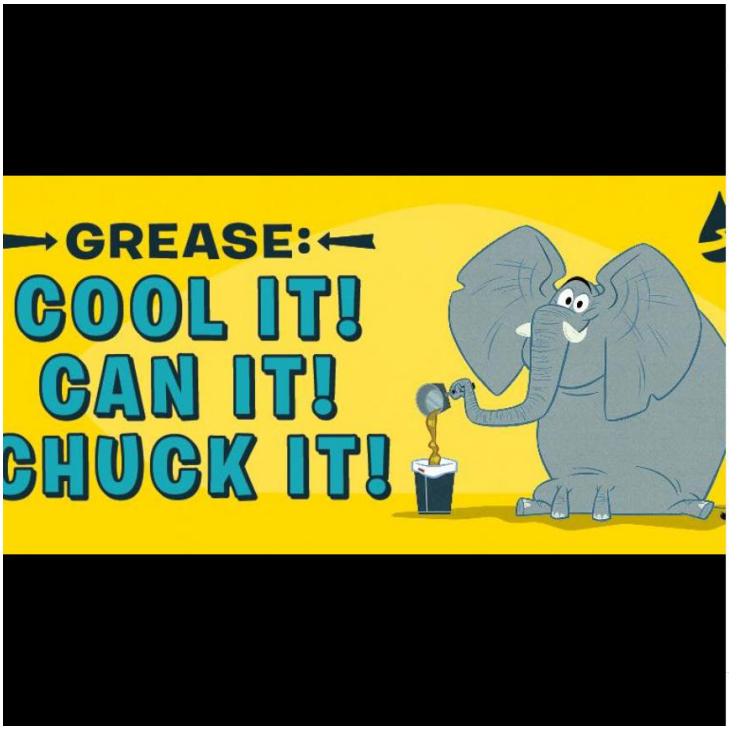


FOG video post

Instagram Posts:

FOG video post





albuquerquewaterauthority

albuquerquewaterauthority It's finally here—Thanksgiving week! If you're preparing a large meal, don't forget to properly dispose of fats, oils and grease. Cool it. Can it. Chuck it!

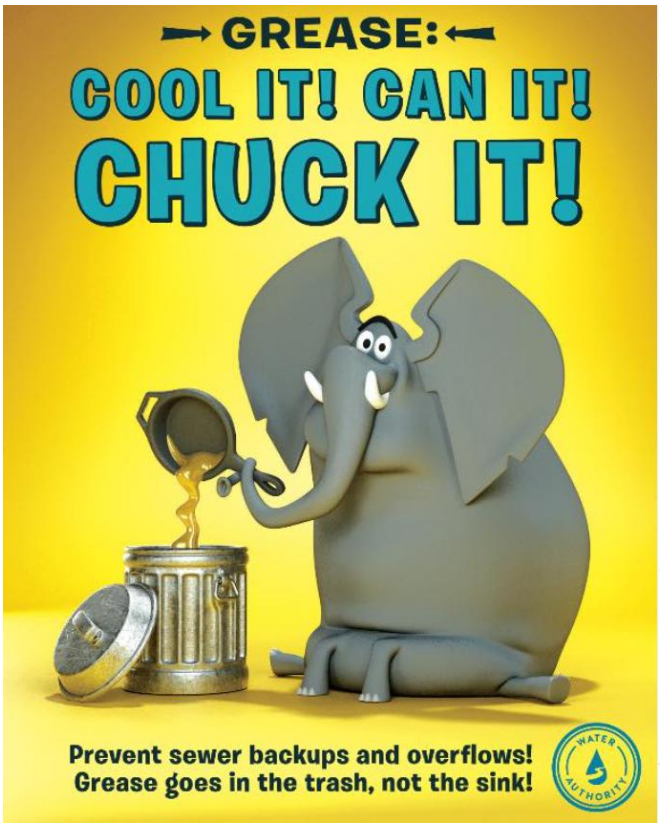
42w

View insights | Boost post

Be the first to **like this**

November 20, 2023

Add a comment... Post



albuquerquewaterauthority

albuquerquewaterauthority REMEMBER...fats, oils and grease should NEVER go down the drain! Cool it! Can it! Chuck it! https://www.abcwua.org/sewer-system-avoid-sewer-backups/

40w

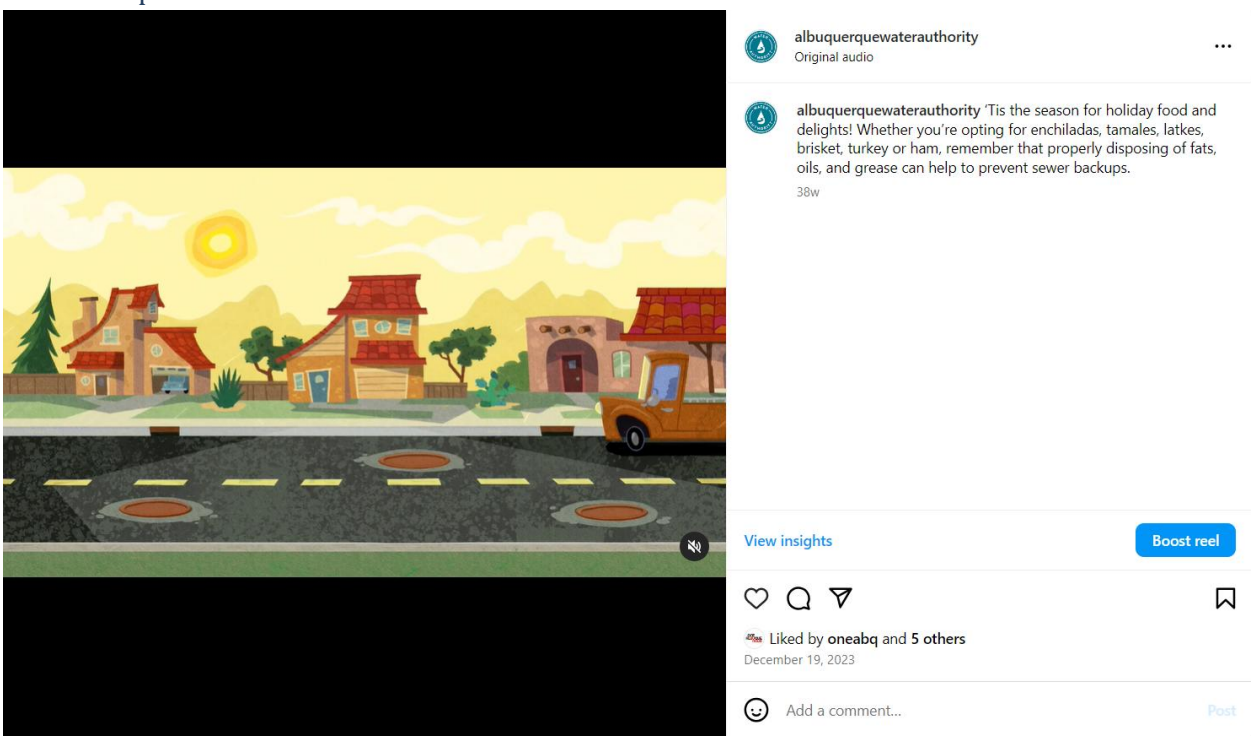
View insights | Boost post

Liked by **cabqparks_rec** and **4 others**

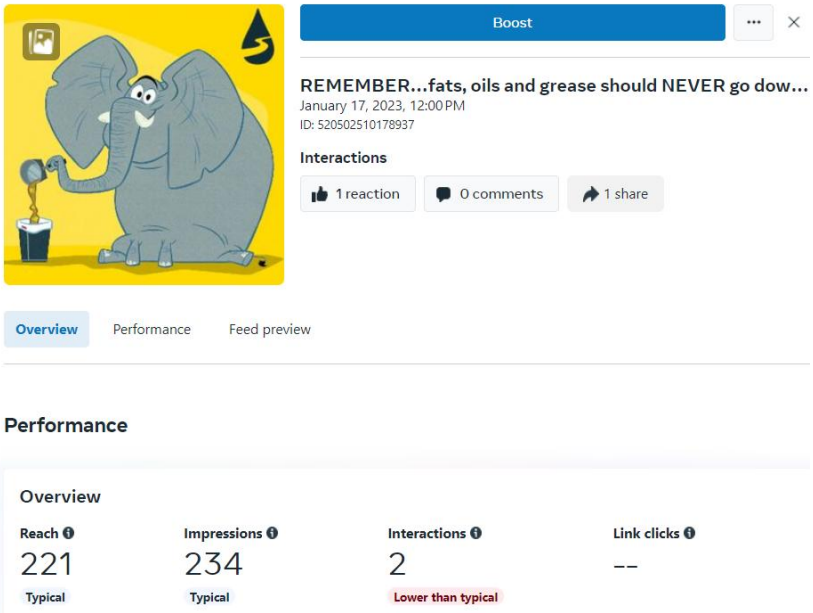
December 4, 2023

Add a comment... Post

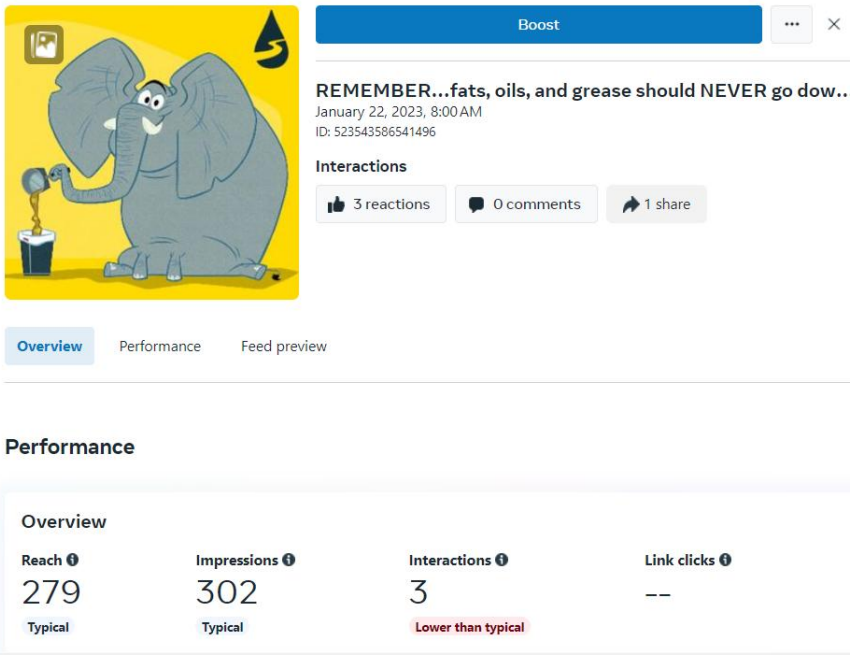
FOG video post

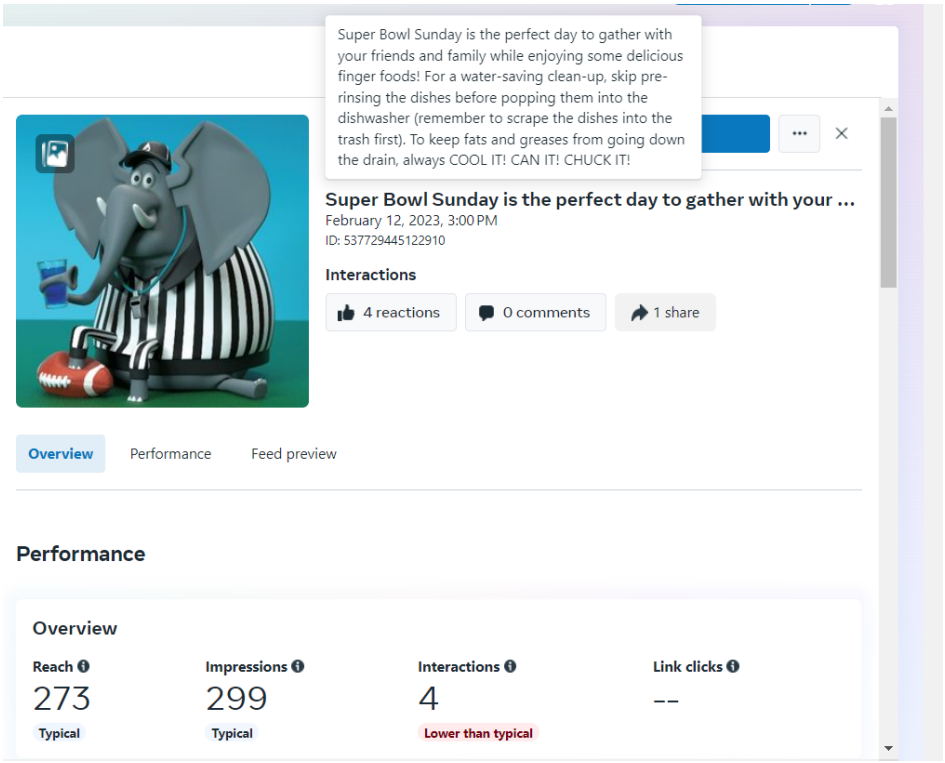


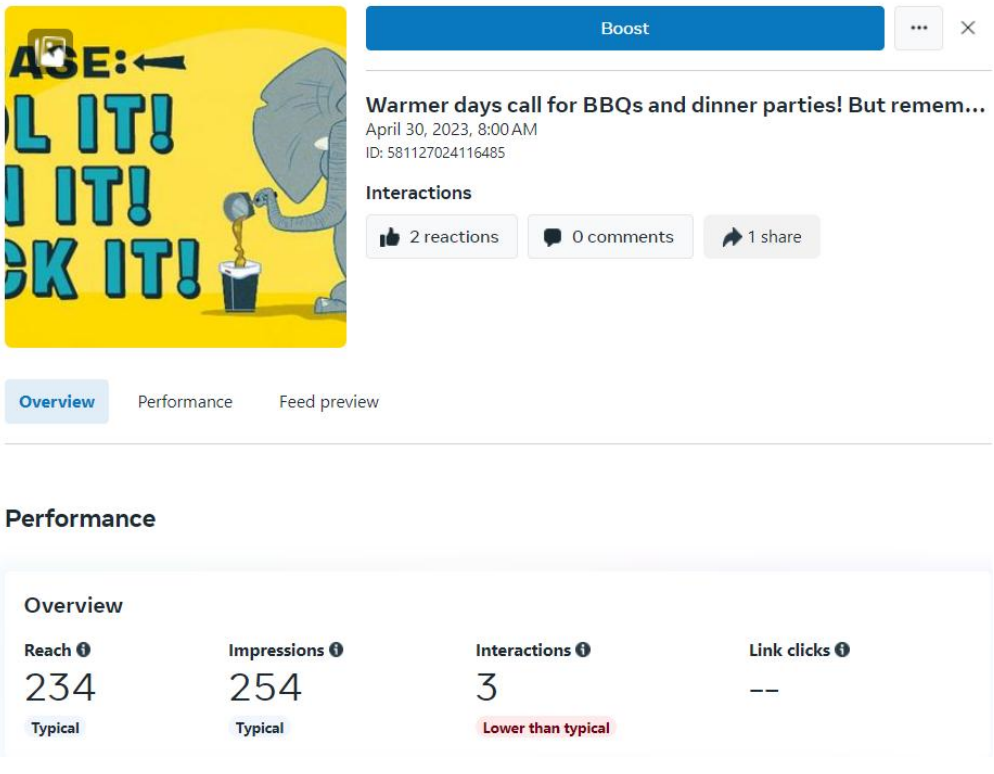
Facebook Posts:



FOG video post




Super Bowl Sunday is the perfect day to gather with your friends and family while enjoying some delicious finger foods! For a water-saving clean-up, skip pre-rinsing the dishes before popping them into the dishwasher (remember to scrape the dishes into the trash first). To keep fats and greases from going down the drain, always COOL IT! CAN IT! CHUCK IT!
Super Bowl Sunday is the perfect day to gather with your ...
February 12, 2023, 3:00 PM
ID: 537729445122910
Interactions
4 reactions
0 comments
1 share
Overview
Performance
Feed preview
Performance
Overview
Reach
273
Typical
Impressions
299
Typical
Interactions
4
Lower than typical
Link clicks
--


Boost
Warmer days call for BBQs and dinner parties! But remem...
April 30, 2023, 8:00 AM
ID: 581127024116485
Interactions
2 reactions
0 comments
1 share
Overview
Performance
Feed preview
Performance
Overview
Reach
234
Typical
Impressions
254
Typical
Interactions
3
Lower than typical
Link clicks
--

FOG video post

Boost

Labor Day Weekend is just around the corner! If you're pla...
August 29, 2023, 2:45 PM
ID: 646259127603274

Interactions

0 reactions | 0 comments | 0 shares

Overview | Performance | Feed preview

Performance

Overview

Reach	Impressions	Interactions	Link clicks
105	118	0	--
Lower than typical	Lower than typical	Lower than typical	

Boost

Fats, oils, and grease should never go down the drain. They...
September 8, 2023, 7:00 PM
ID: 651265593769294

Interactions

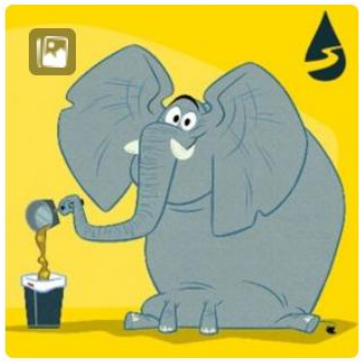
1 reaction | 0 comments | 1 share

Overview | Performance | Feed preview

Performance

Overview

Reach	Impressions	Interactions	Link clicks
310	336	1	--
Typical	Typical	Lower than typical	



Boost

REMEMBER...fats, oils and grease should NEVER go dow...
October 22, 2023, 7:00 PM
ID: 675018011394052

Interactions

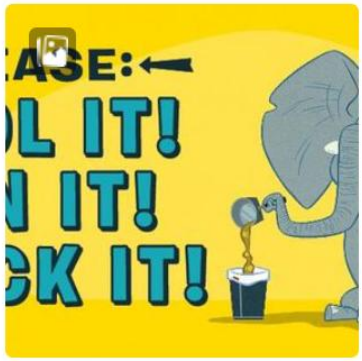
7 reactions | 1 comment | 2 shares

Overview | Performance | Feed preview

Performance

Overview

Reach	Impressions	Interactions	Link clicks
485	523	9	--
Higher than typical	Higher than typical	Typical	



Boost

It's finally here—Thanksgiving week! If you're preparing a l...
November 20, 2023, 12:00 PM
ID: 689738256588694

Interactions

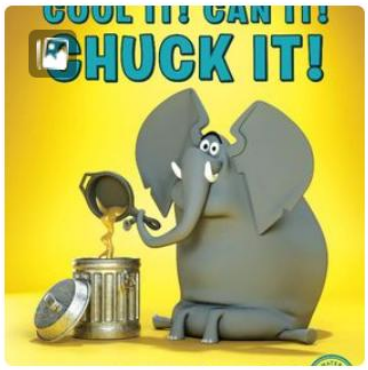
7 reactions | 1 comment | 1 share

Overview | Performance | Feed preview

Performance

Overview

Reach	Impressions	Interactions	Link clicks
276	290	7	--
Typical	Typical	Typical	



Boost

REMEMBER...fats, oils and grease should NEVER go dow...
December 4, 2023, 4:00 PM
ID: 696946295867890

Interactions

8 reactions | 1 comment | 2 shares

Overview | Performance | Feed preview

Performance

Overview

Reach	Impressions	Interactions	Link clicks
288	310	11	--
Typical	Typical	Typical	

FOG video post

Boost

'Tis the season for holiday food and delights! Whether you...
December 19, 2023, 7:56 AM
ID: 705019885060531

Interactions

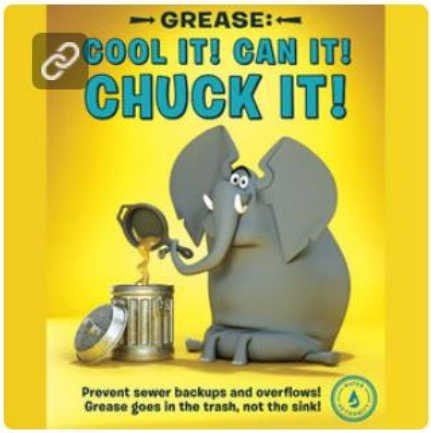
3 reactions | 0 comments | 1 share

Overview | Performance | Feed preview

Performance

Overview

Reach	Impressions	Interactions	Link clicks
120	137	3	--
Lower than typical	Lower than typical	Lower than typical	



Boost

REMEMBER...fats, oils and grease should NEVER go dow...

December 22, 2023, 8:00 AM

ID: 704522105110309

Interactions

190 reactions | 2 comments | 15 shares

Overview | Performance | Paid results | Feed preview

Performance

Overview

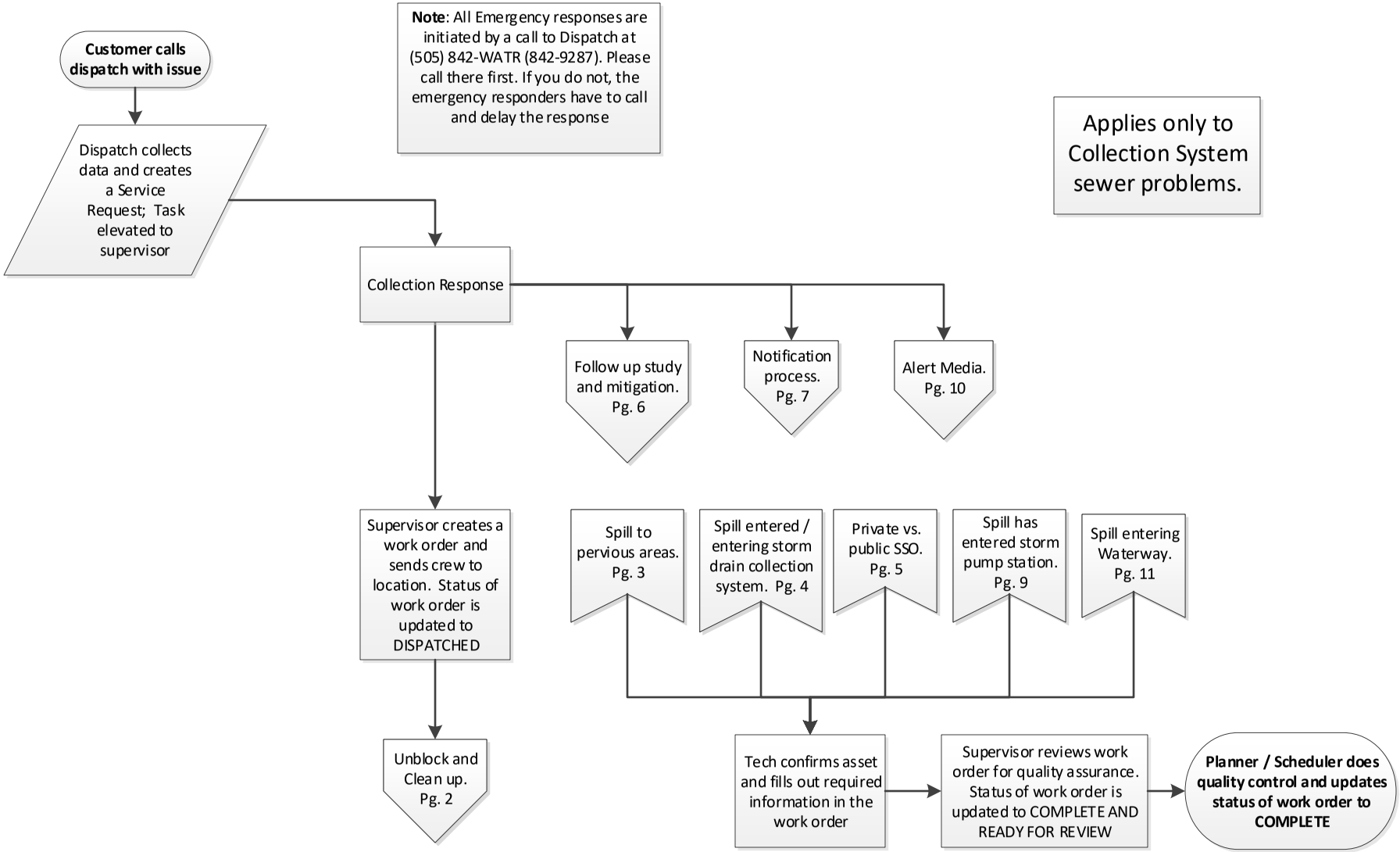
Reach	Impressions	Interactions	Link clicks
4,299	4,870	207	457
Higher than typical	Higher than typical	Higher than typical	Higher than typical

Appendix 4 Overflow Emergency Response Plan (OERP)

Overflow Emergency Response Plan

4-7-2023

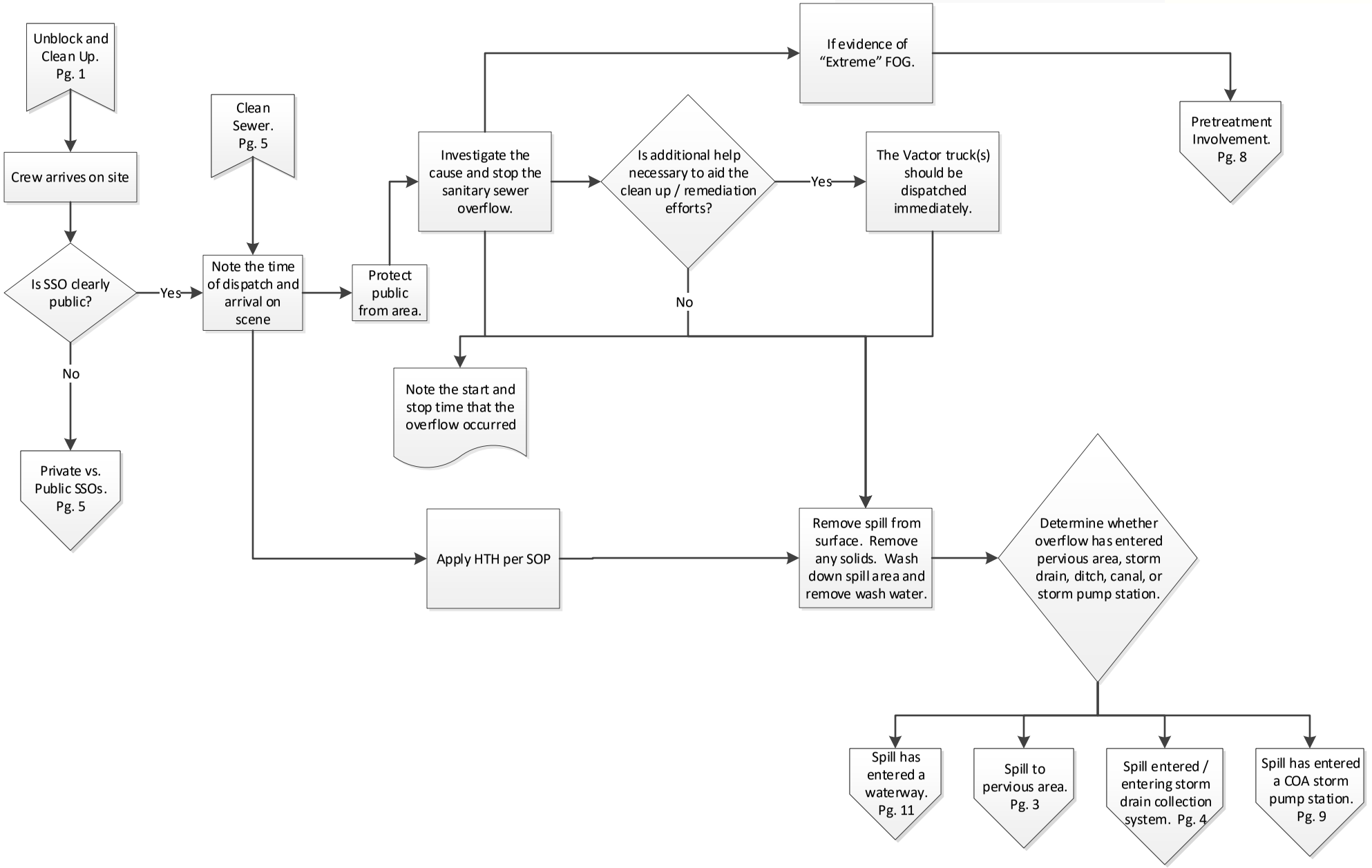
Albuquerque Bernalillo County Water Utility Authority



Overflow Emergency Response Plan

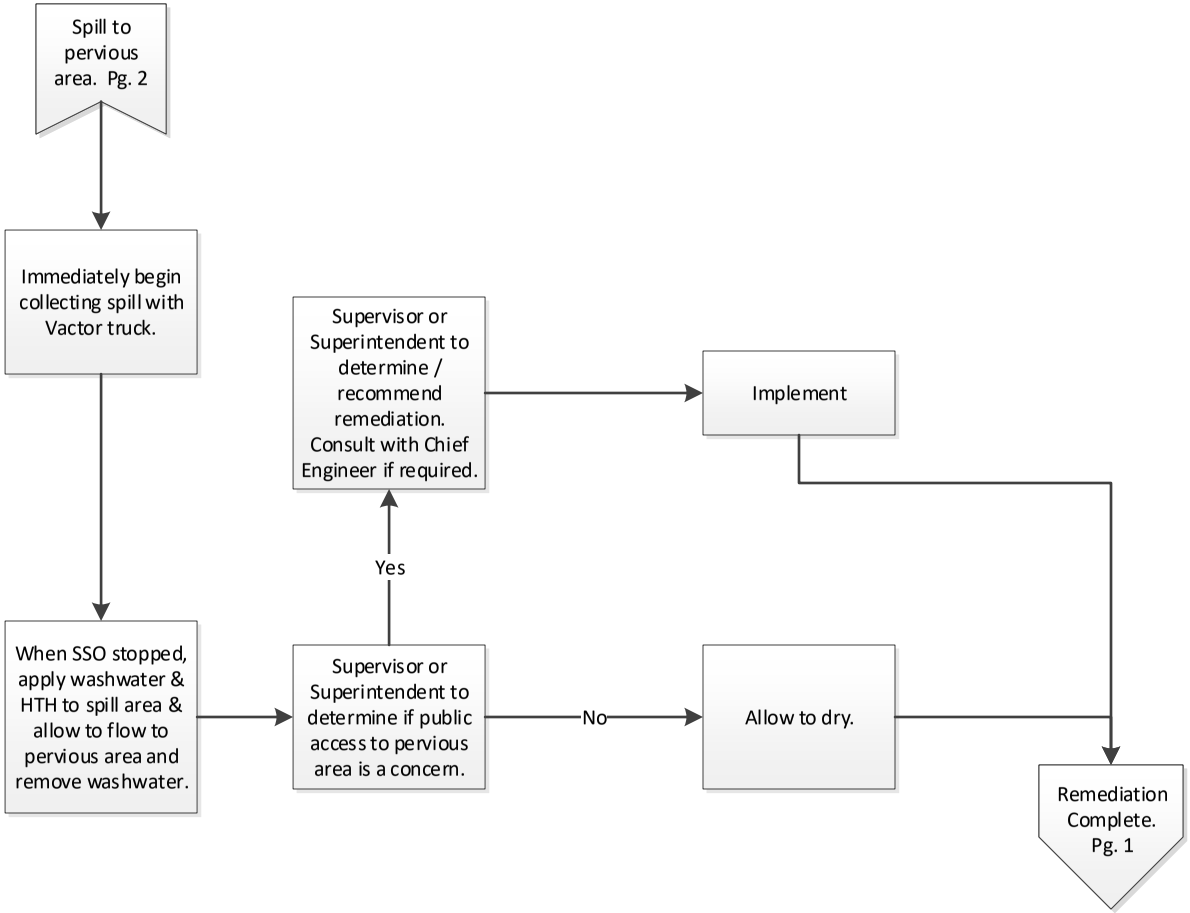
4-7-2023

Albuquerque Bernalillo County Water Utility Authority



Overflow Emergency Response Plan

Albuquerque Bernalillo County Water Utility Authority

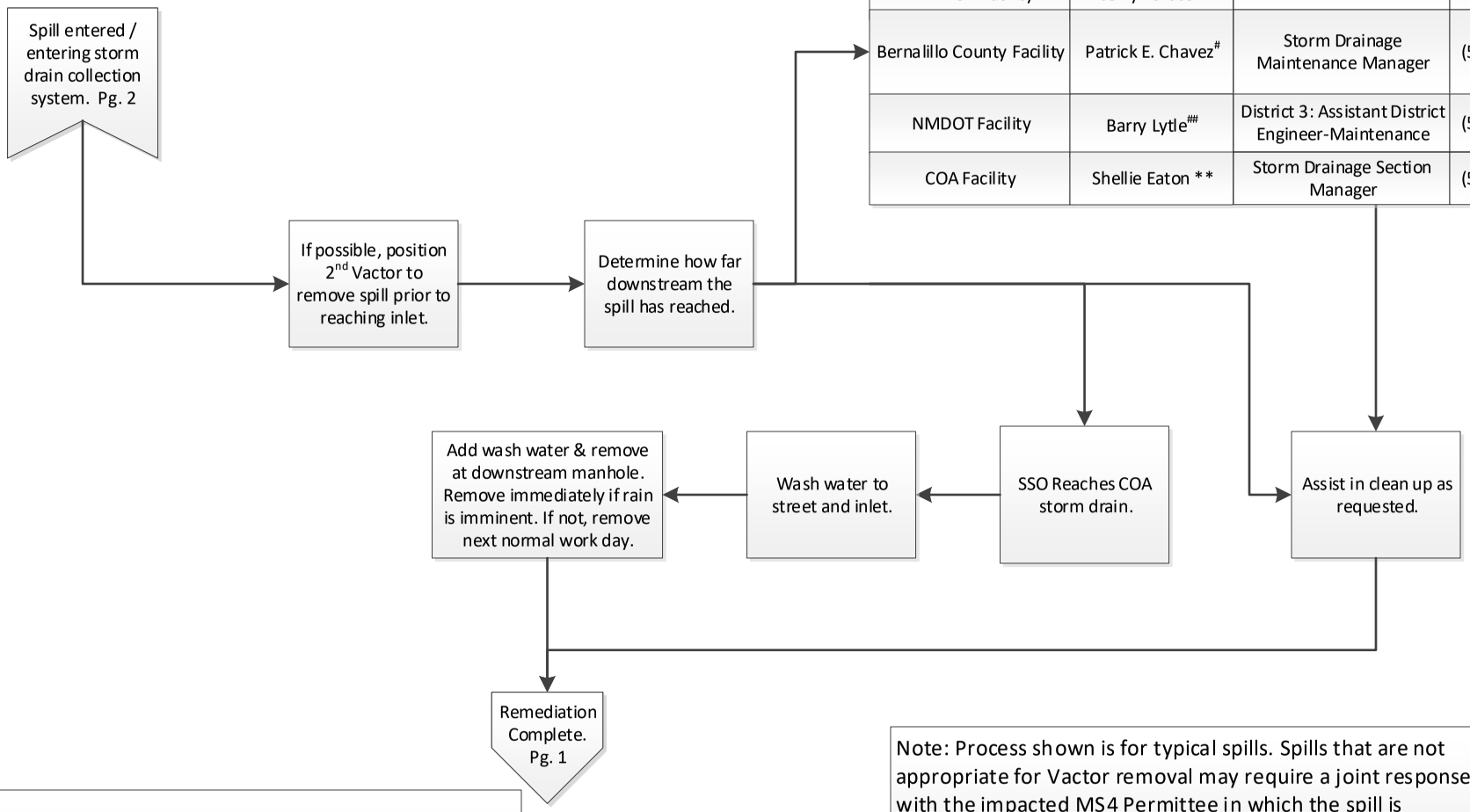


Overflow Emergency Response Plan

4-7-2023

Albuquerque Bernalillo County Water Utility Authority

SSO Reaches	Contact			
	Name	Position	Cell	Office
AMAFCA Facility	Jerry Lovato*	Executive Engineer	(505) 362-0020	(505) 884-2215
Bernalillo County Facility	Patrick E. Chavez#	Storm Drainage Maintenance Manager	(505) 934-2704	(505) 848-1505
NMDOT Facility	Barry Lytle##	District 3: Assistant District Engineer-Maintenance	(505) 659-9155	N/A
COA Facility	Shellie Eaton **	Storm Drainage Section Manager	(505) 238-5865	(505) 768-2774



Note: Process shown is for typical spills. Spills that are not appropriate for Vactor removal may require a joint response with the impacted MS4 Permittee in which the spill is captured, treated, and determined appropriate for release.

*If Jerry Lovato is not immediately available, call:

Nolan Bennett: Director of Operations (505) 301-6941
Sal Hernandez: Superintendent (505) 366-8209

#In addition to Patrick E. Chavez, call:

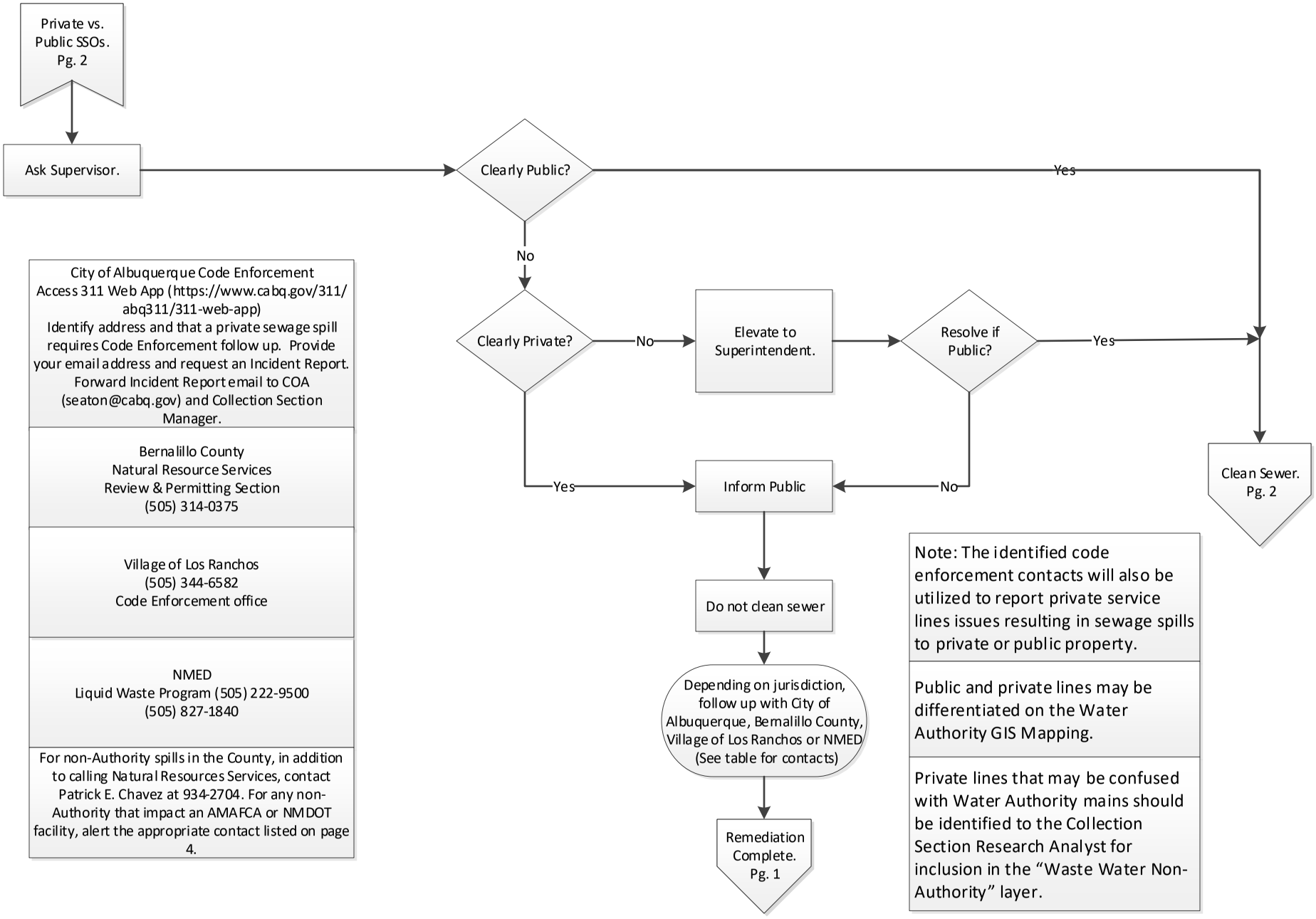
Kali Bronson: Stormwater Program Compliance Lead
(505) 537-3005

If Barry Lytle is not immediately available, call:

Todd Dunlap: D-3 Area Maintenance Supervisor
(505) 321-5842

**If Shellie Eaton is not immediately available, call:

David Harrison: Engr. Div. Manager (505) 238-4158
Daniel Tapia: O&M Manager (505) 228-6874
Fred Montoya: O&M Supt (505) 366-9118



City of Albuquerque Code Enforcement
Access 311 Web App (https://www.cabq.gov/311/abq311/311-web-app)
Identify address and that a private sewage spill requires Code Enforcement follow up. Provide your email address and request an Incident Report. Forward Incident Report email to COA (seaton@cabq.gov) and Collection Section Manager.

Bernalillo County
Natural Resource Services
Review & Permitting Section
(505) 314-0375

Village of Los Ranchos
(505) 344-6582
Code Enforcement office

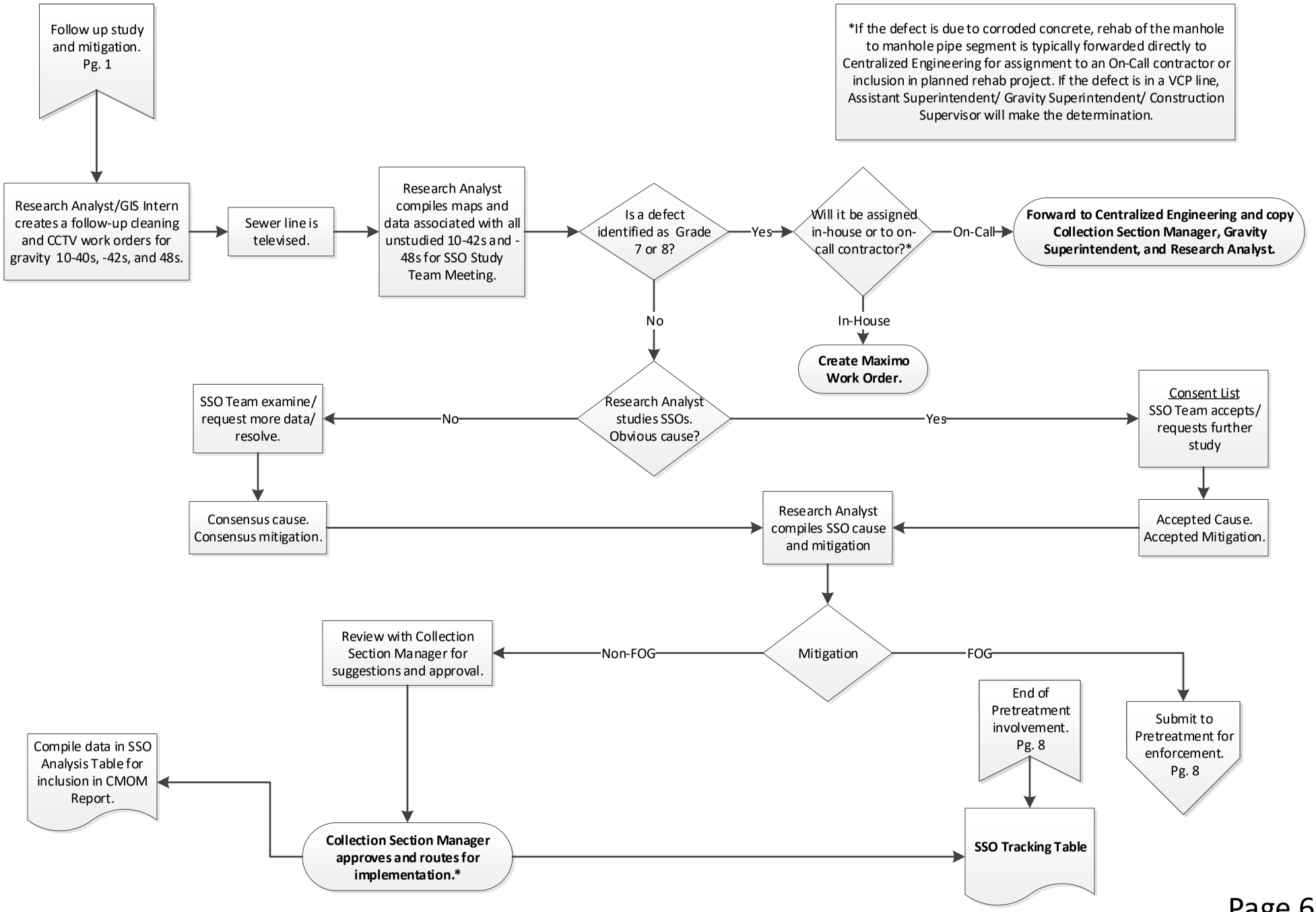
NMED
Liquid Waste Program (505) 222-9500
(505) 827-1840

For non-Authority spills in the County, in addition to calling Natural Resources Services, contact Patrick E. Chavez at 934-2704. For any non-Authority that impact an AMAFCA or NMDOT facility, alert the appropriate contact listed on page 4.

Note: The identified code enforcement contacts will also be utilized to report private service lines issues resulting in sewage spills to private or public property.

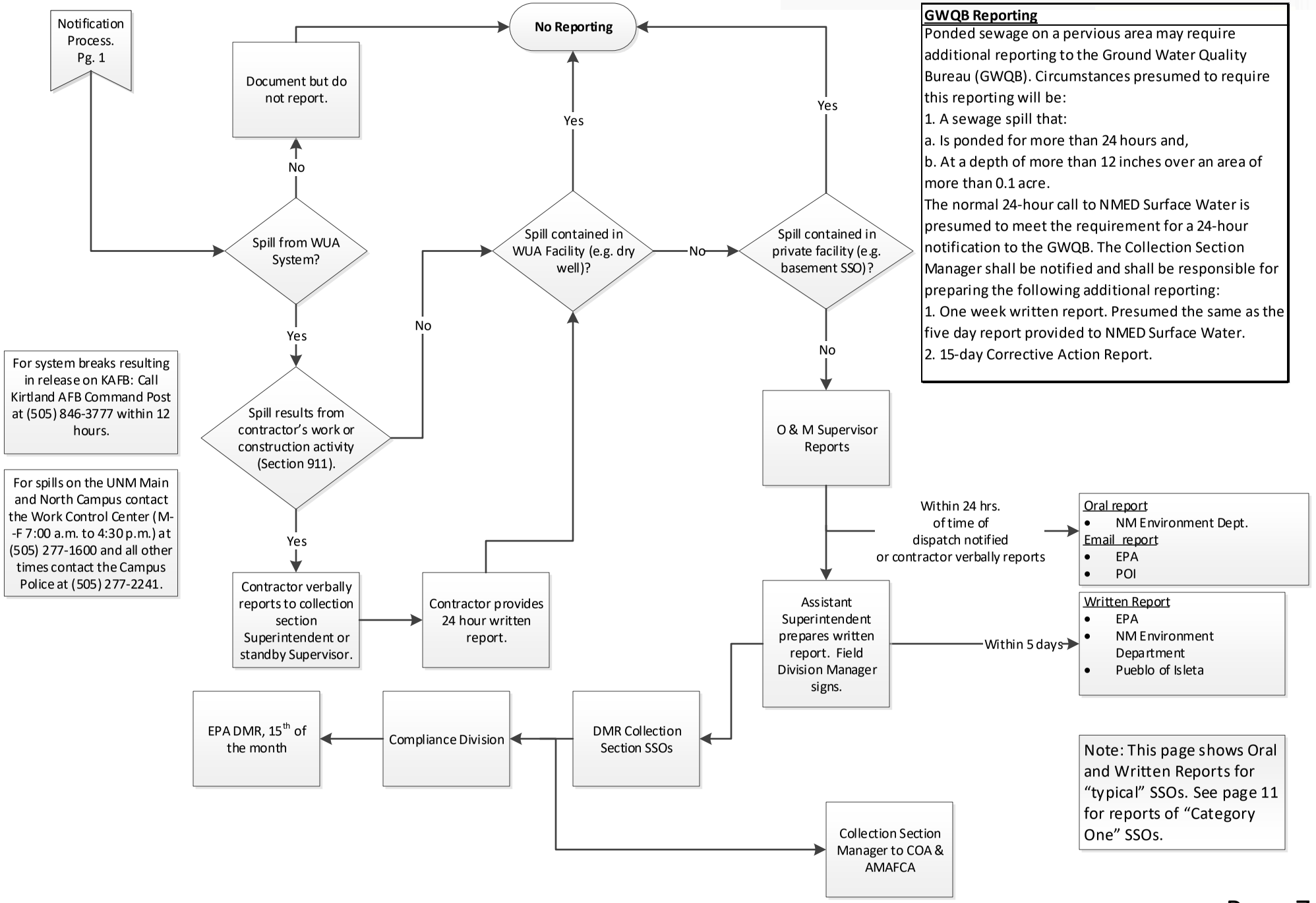
Public and private lines may be differentiated on the Water Authority GIS Mapping.

Private lines that may be confused with Water Authority mains should be identified to the Collection Section Research Analyst for inclusion in the "Waste Water Non-Authority" layer.


Follow up study and mitigation. Pg. 1
*If the defect is due to corroded concrete, rehab of the manhole to manhole pipe segment is typically forwarded directly to Centralized Engineering for assignment to an On-Call contractor or inclusion in planned rehab project. If the defect is in a VCP line, Assistant Superintendent/ Gravity Superintendent/ Construction Supervisor will make the determination.
Research Analyst/GIS Intern creates a follow-up cleaning and CCTV work orders for gravity 10-40s, -42s, and 48s.
Sewer line is televised.
Research Analyst compiles maps and data associated with all unstudied 10-42s and -48s for SSO Study Team Meeting.
Is a defect identified as Grade 7 or 8?
Yes
Will it be assigned in-house or to on-call contractor?*
On-Call
Forward to Centralized Engineering and copy Collection Section Manager, Gravity Superintendent, and Research Analyst.
No
In-House
Create Maximo Work Order.
SSO Team examine/ request more data/ resolve.
No
Research Analyst studies SSOs. Obvious cause?
Yes
Consent List
SSO Team accepts/ requests further study
Consensus cause. Consensus mitigation.
Research Analyst compiles SSO cause and mitigation
Accepted Cause. Accepted Mitigation.
Review with Collection Section Manager for suggestions and approval.
Non-FOG
Mitigation
FOG
End of Pretreatment involvement. Pg. 8
Submit to Pretreatment for enforcement. Pg. 8
Compile data in SSO Analysis Table for inclusion in CMOM Report.
Collection Section Manager approves and routes for implementation.*
SSO Tracking Table

Overflow Emergency Response Plan

Albuquerque Bernalillo County Water Utility Authority



GWQB Reporting

Ponded sewage on a pervious area may require additional reporting to the Ground Water Quality Bureau (GWQB). Circumstances presumed to require this reporting will be:

1. A sewage spill that:

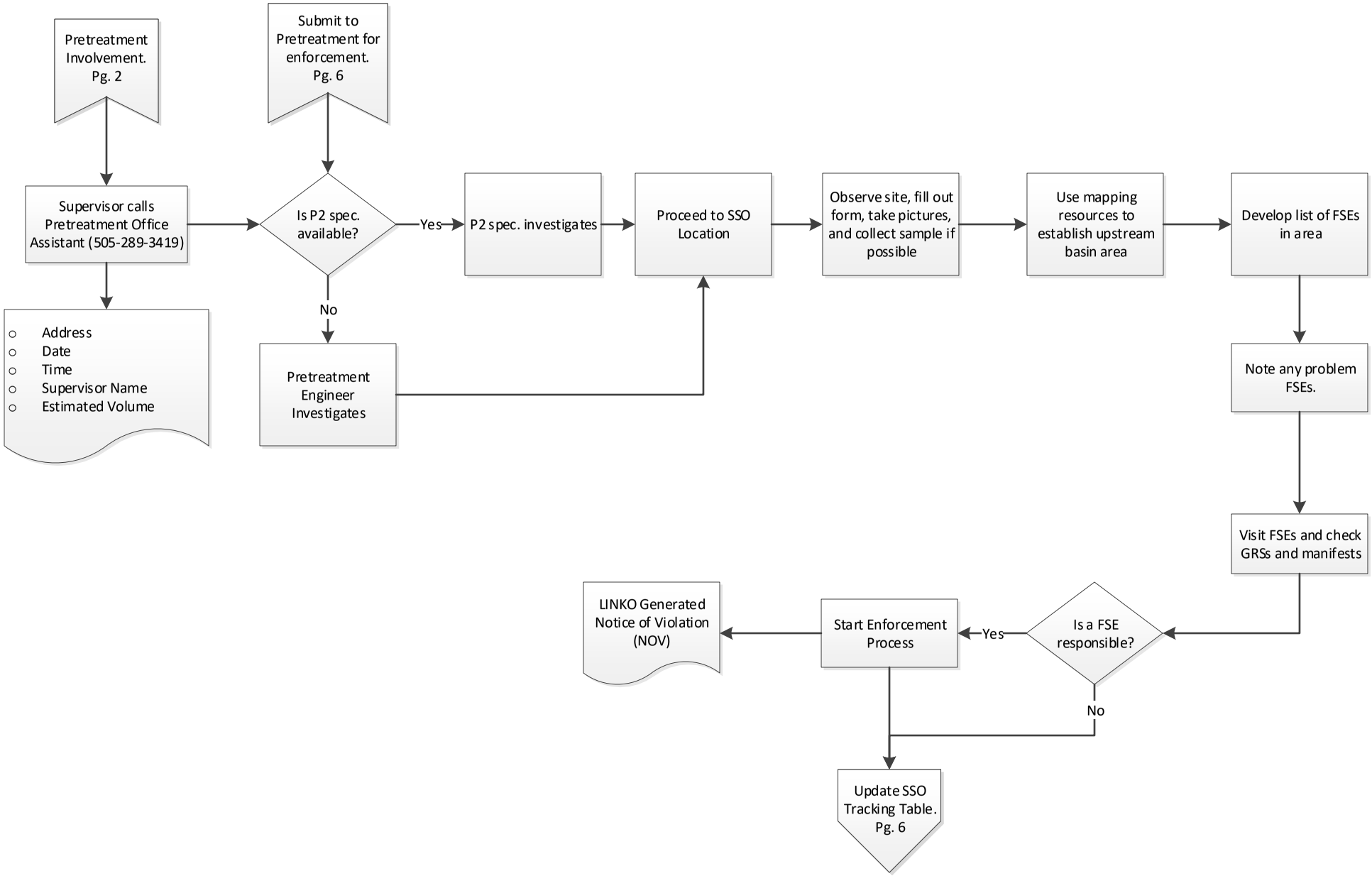
a. Is ponded for more than 24 hours and,

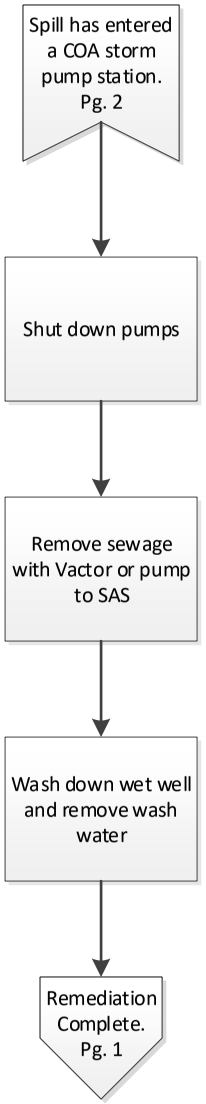
b. At a depth of more than 12 inches over an area of more than 0.1 acre.

The normal 24-hour call to NMED Surface Water is presumed to meet the requirement for a 24-hour notification to the GWQB. The Collection Section Manager shall be notified and shall be responsible for preparing the following additional reporting:

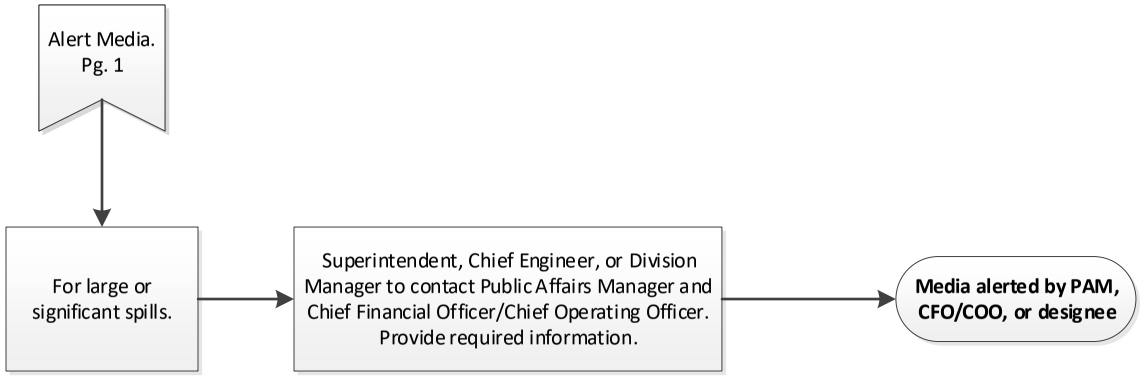
1. One week written report. Presumed the same as the five day report provided to NMED Surface Water.
2. 15-day Corrective Action Report.

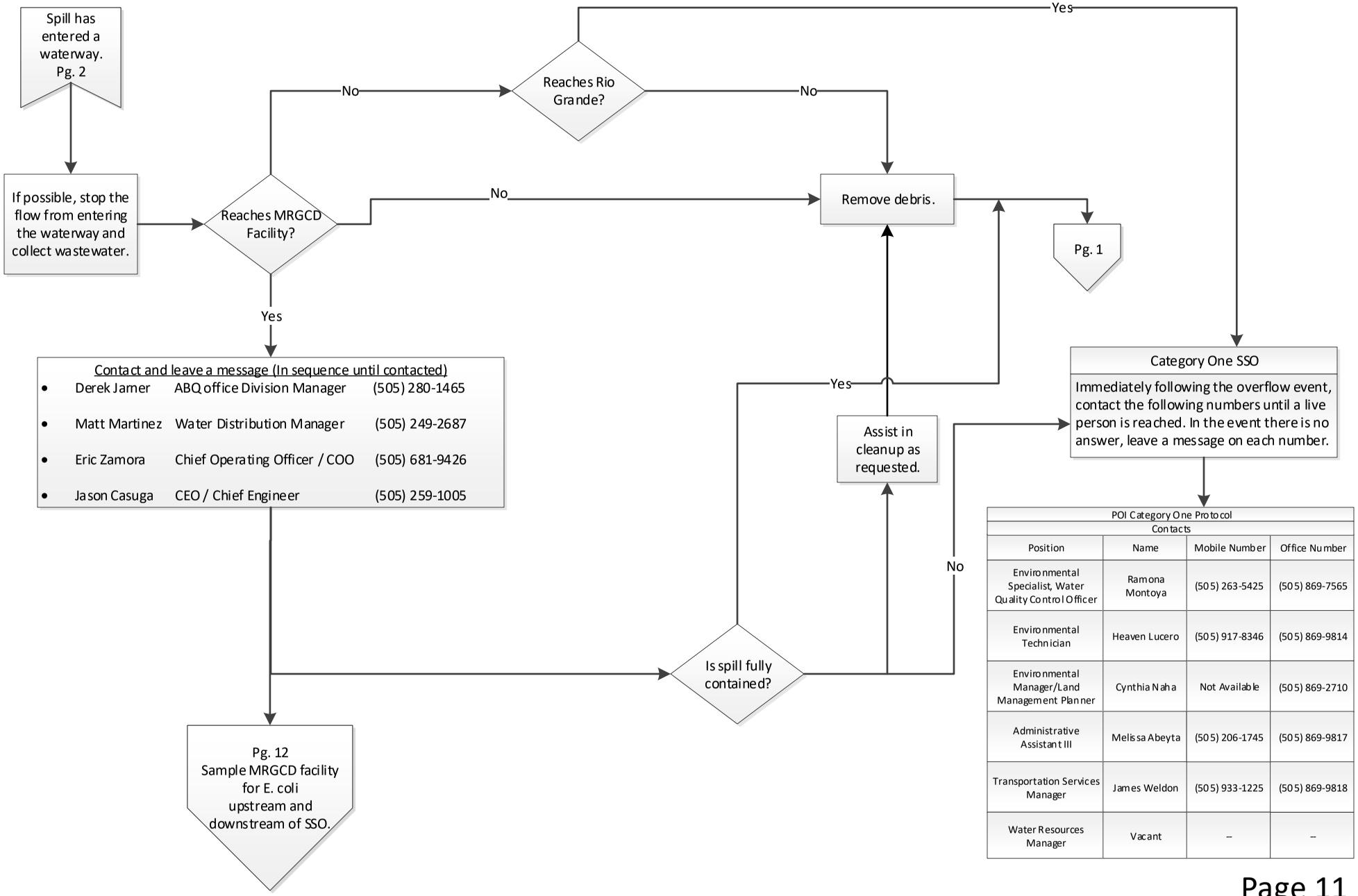
Note: This page shows Oral and Written Reports for "typical" SSOs. See page 11 for reports of "Category One" SSOs.


Pretreatment Involvement. Pg. 2
Submit to Pretreatment for enforcement. Pg. 6
Supervisor calls Pretreatment Office Assistant (505-289-3419)
Is P2 spec. available?
Yes
P2 spec. investigates
Proceed to SSO Location
Observe site, fill out form, take pictures, and collect sample if possible
Use mapping resources to establish upstream basin area
Develop list of FSEs in area
Address
Date
Time
Supervisor Name
Estimated Volume
No
Pretreatment Engineer Investigates
Note any problem FSEs.
Visit FSEs and check GRSs and manifests
LINKO Generated Notice of Violation (NOV)
Start Enforcement Process
Yes
Is a FSE responsible?
No
Update SSO Tracking Table. Pg. 6

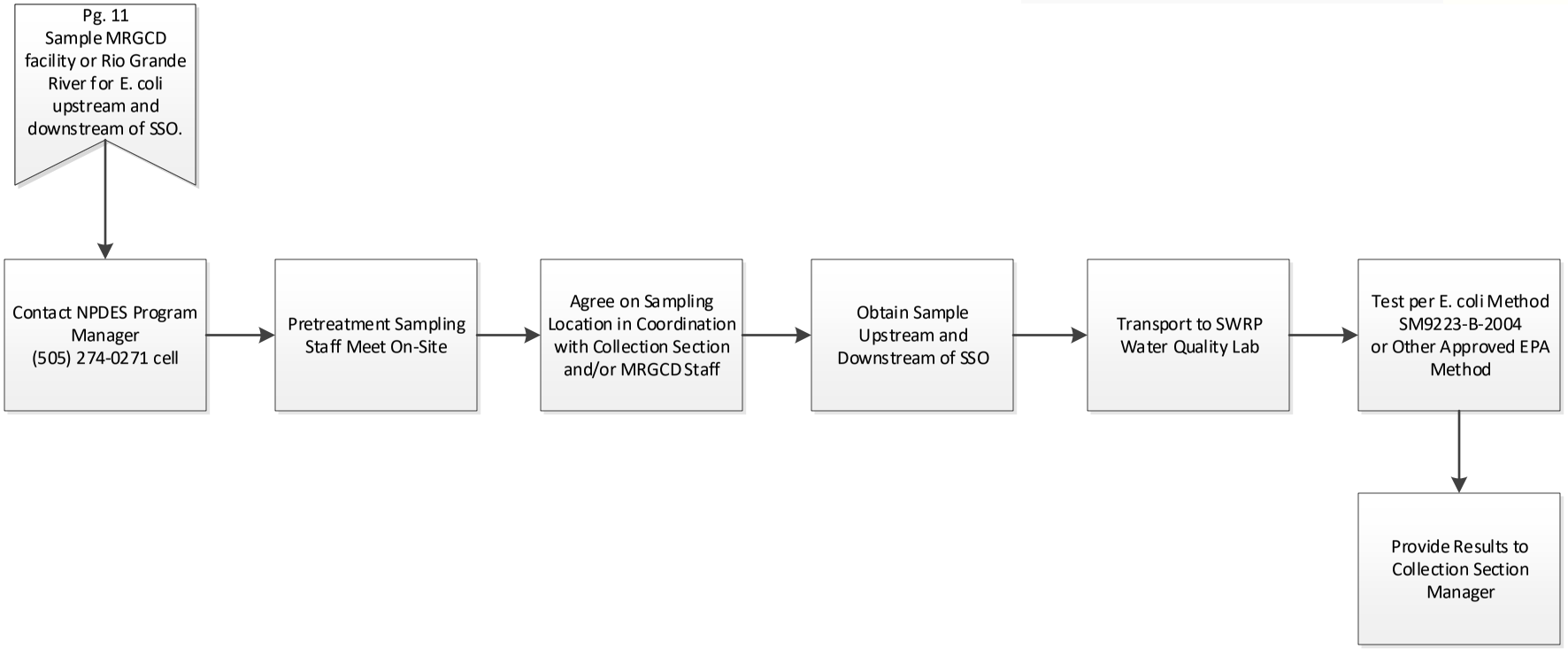


Note: Process shown is for typical spills. Some spills may require a joint response with the City of Albuquerque in which the spill is captured, treated, and determined appropriate for release.


Alert Media.
Pg. 1
For large or significant spills.
Superintendent, Chief Engineer, or Division Manager to contact Public Affairs Manager and Chief Financial Officer/Chief Operating Officer. Provide required information.
Media alerted by PAM, CFO/COO, or designee



POI Category One Protocol Contacts			
Position	Name	Mobile Number	Office Number
Environmental Specialist, Water Quality Control Officer	Ramona Montoya	(505) 263-5425	(505) 869-7565
Environmental Technician	Heaven Lucero	(505) 917-8346	(505) 869-9814
Environmental Manager/Land Management Planner	Cynthia Naha	Not Available	(505) 869-2710
Administrative Assistant III	Melissa Abeyta	(505) 206-1745	(505) 869-9817
Transportation Services Manager	James Weldon	(505) 933-1225	(505) 869-9818
Water Resources Manager	Vacant	–	–


Pg. 11
Sample MRGCD facility or Rio Grande River for E. coli upstream and downstream of SSO.
Contact NPDES Program Manager (505) 274-0271 cell
Pretreatment Sampling Staff Meet On-Site
Agree on Sampling Location in Coordination with Collection Section and/or MRGCD Staff
Obtain Sample Upstream and Downstream of SSO
Transport to SWRP Water Quality Lab
Test per E. coli Method SM9223-B-2004 or Other Approved EPA Method
Provide Results to Collection Section Manager

Appendix 5 Goal Summary - CY2023 Report

Goal Summary - CY2023 CMOM Report		
Goal	**Timing**	**Page # for Discussion**
CCTV all gravity pipes suffering a blockage. For all SSOs, determine a cause and mitigation and report in the next CMOM report.	Annually	5
FOGS and Enforcement Policies - receive EPA approval & implement	CY2024	11
Public advertising	On-Going	11
Distribute FSE fliers in English, Vietnamese and Spanish, and improve FOG inspections by using advance inspection tools.	On-Going	11
Implement the new FOGS and Enforcement Policies into new SOPS and Enforcement templates.	CY2024	11
Tabulate the number of fliers distributed during FOGS inspections and blanketing neighborhoods where residential FOGS caused SSO occur.	Annually	12
CCTV a portion of system	Ten Year goal. Report annually.	13
Clean a portion of the system	Ten Year goal. Report annually.	14
Monitor a temporary goal of cleaning all gravity small diameter lines every fifteen years.	CY2024	14
Update frequency of Short Interval cleaning in accordance with system performance and risk factors, maintenance history, and the latest maintenance findings.	On-Going	14
Force main inspection program	Annually	15
Update OERP	As required	16
SSOs: Take steps to decrease and mitigate	On-Going	17