

CMOM ANNUAL REPORT CY2017



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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 a Capacity, Management, Operations and Maintenance (CMOM) Plan with Emphasis on the Fats, Oils and Grease (FOG) Policy. The effective date of the Water Authority's permit is October 1, 2012.

Only the first, FY2013 Report was required by the Permit. All subsequent reports have been voluntary.

The CMOM Plan consists of the following documents:

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

The CY2017 CMOM Annual Report follows previous FY2013-17 reports. The five previous reports, as well as the most recent, can be accessed at http://www.abcwua.org/Sewer_System.aspx.

In the FY2017 CMOM Report, it was noted that in order to match calendar year reporting typically utilized in communications with the US EPA, the Water Authority will provide subsequent reports for the January 1 through December 31 timeframe. This CY2017 Report is the first such report on a calendar year basis.

Appendix 4 provides a summary of goals established in this CY2017 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). Since the FY2017 CMOM Report covered the January 1 through June 30 timeframe, this CMOM Annual Report only addresses the July 1, 2017 to December 31, 2017 timeframe. 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 following are the Permit requirements that impact the collection system.

1. The Water Authority must submit a (monthly) Discharge Monitoring Report (DMR) in tabular form for all overflows. (Part I, Paragraph C.6).
2. The Water Authority must develop a Capacity, Management, Operation and Maintenance (CMOM) Plan with emphasis on the Fats, Oils and Grease (FOG) Policy. The FOG Policy will be a re-evaluation of the existing Sewer Use and Wastewater Control (SCO) Ordinance. The goal of the FOG Policy will be to reduce Sanitary Sewer Overflows (SSOs). The FOG Policy may address such items as an inventory of repeat Food Service Establishments (FSE) that cause SSOs and routine grease trap inspection programs at FSE with increased frequencies for repeat FOG SSO FSEs. Additional elements of the FOG Policy may be sewer line inspections, such as video recording and required sewer line cleaning activities if warranted at repeat sites.

CMOM Program Self-Assessment

EPA states (see <http://www.epa.gov/npdes/pubs/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 the FY2013 and FY2014 reports. Because the data provided in the Self-Assessment does not significantly change year-to-year, the next update will coincide with the CY2018 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 and subsequently approved by the United States Environmental Protection Agency (EPA). 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 FOG 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 Removal System (GRS) functionality, pumping schedule, maintenance, and recordkeeping are identified. The FOG policy explains the Water Authority use of the 25% solids and grease rule (25 Percent Rule) to determine if a GRS 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 FOG Policy. Full evacuation of a GRS 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 GRS. The FOG Policy lists the minimum service to be provided by the pumper.

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

The FOG Policy also sets forth the process for identifying new sources of FOG. The Water Authority Pretreatment Program will update the FOG database on an annual basis. The FOG 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 FOG issues.

In developing the FOG Policy, the Water Authority held a meeting with the hauled wastewater permit holders on July 22, 2013 and a public meeting on July 25, 2013 to discuss the proposed Policy. The final FOG Policy was submitted to the EPA on September 27, 2013 and updated in the Pretreatment Program modification documents sent to EPA on June 2, 2014. No comments from EPA were received regarding either submission, thus indicating approval.

FOG Enforcement

In 2nd half of FY2017, the Water Authority Pretreatment Program had 1834 compliant FSEs out of 2,108 FSE sites for a compliance rate of 87%. 337 FSE inspections were conducted with 218 passing and 119 failing. Of the 119 failed inspections, 73 FSEs corrected the deficiencies and called for a re-inspection within seven (7) days. The remaining 46 FSEs did not take corrective action and thus were issued Notices of Violation (NOVs) of which 3 was for no GRS 7 were for non-functioning GRS, 36 were for GRS needs pumping, or missing manifests.

In response to SSOs, 8 FSE inspections were conducted with 1 failing. Within the seven day grace period, 1 FSE corrected the deficiency. After the seven day grace period, 1 NOV was issued. In addition, Water Authority Pretreatment personnel distributed FOG brochures to FSEs, single-family residences and apartment complexes upstream of the SSOs.

Additionally, the Water Authority's Public Information Office advanced radio, print and television public outreach for the purpose of improving the Water Authority's FOG Policy.

SSO Analyses

Permit Requirements

The Permit requires a CMOM Plan with an emphasis on FOG Policy. The Plan goal is to reduce impacts on the sewer system caused by FOG and the Policy 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	BP -Burped	

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 FY2017. (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
Burp	2	8%
Construction	6	25%
Construction/Debris	1	4%
Construction/Equipment	1	4%
Cause Unknown	3	13%
Debris	1	4%
Grease	1	4%
Line Failure	2	8%
Roots	4	17%
Surcharged	1	4%
Sag in Line	1	4%
Sag in Line/Grease	1	4%
Grand Total	24	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. 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
No Follow Up Needed	4	17%
Pretreatment Notified	9	38%
Rehab/Replace	3	13%
Short Interval	1	4%
Short Interval/Special Instructions	4	17%
Special Instructions	3	13%
Grand Total	24	100%

SSO Tabulation & Analysis

Figure 1 shows the cumulative 10-42s by month for CY2012-17.

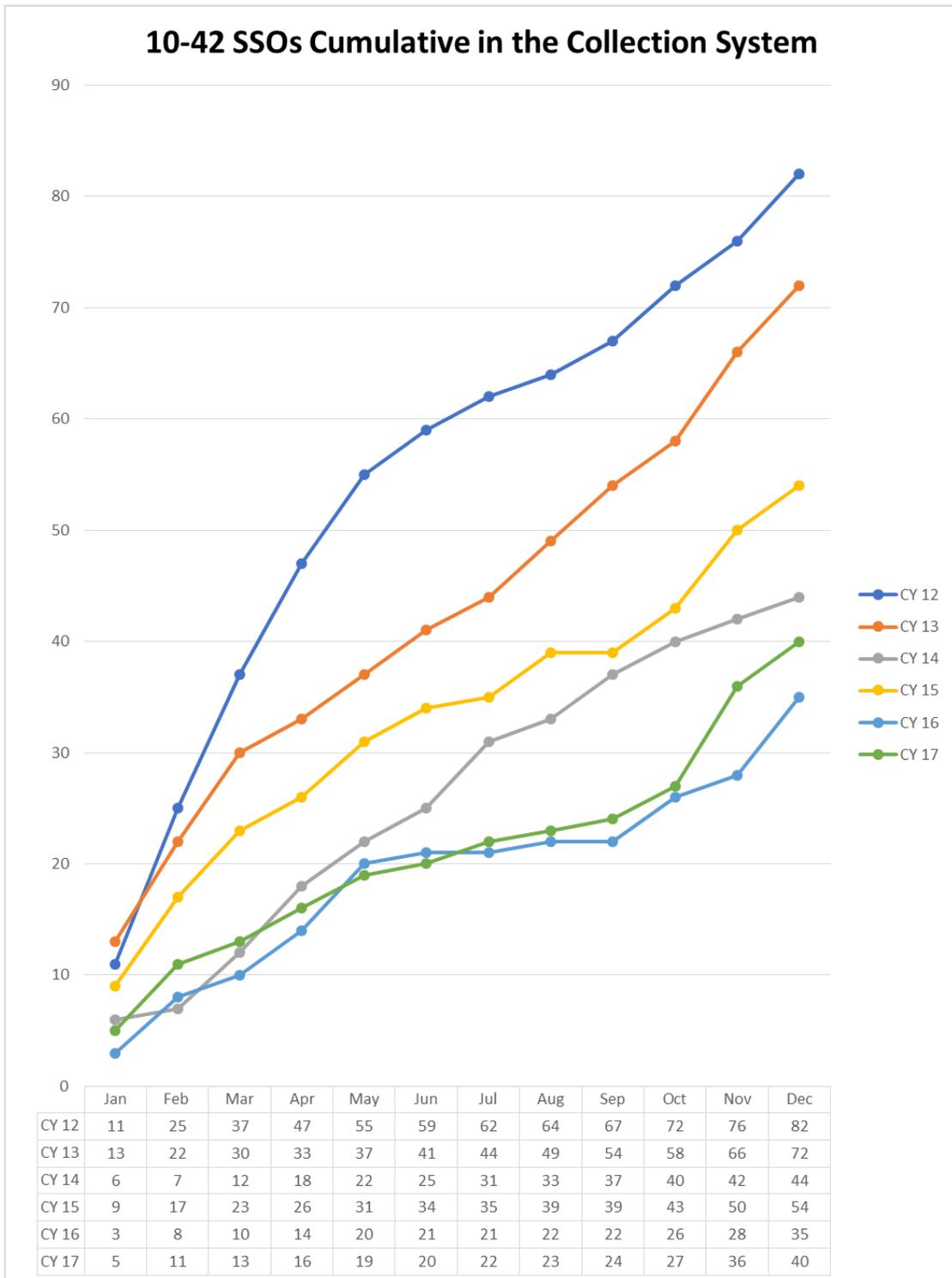


Figure 1 Reportable SSOs

Appendix 1 contains a list of every 10-42 and 10-48 event in FY2017. The table columns are grouped as follows:

1. The type, i.e., 10-42 or -48, is identified on the left. In two cases 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 2,414 miles of line (p. 8 of the Self-Assessment). The SSO rate is therefore 3.4, 3.0, 1.8, 2.2, 1.4, and 1.7 for CY2012-17 respectively.

Figure 2 shows the total sewer troubles, i.e. 10-40s, -42s, and -48s by year for CY2012-17. This graph does not include 10-48s due to “burps” which are not due to a blockage or other failure resulting in the overflow of sewage. Instead, air displaced during the Vactor jetting cleaning can under certain circumstances force out the water in the 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. There were two burps during the July 1, 2017 through December 31, 2017 timeframe. These burps are identified in Appendix 1.

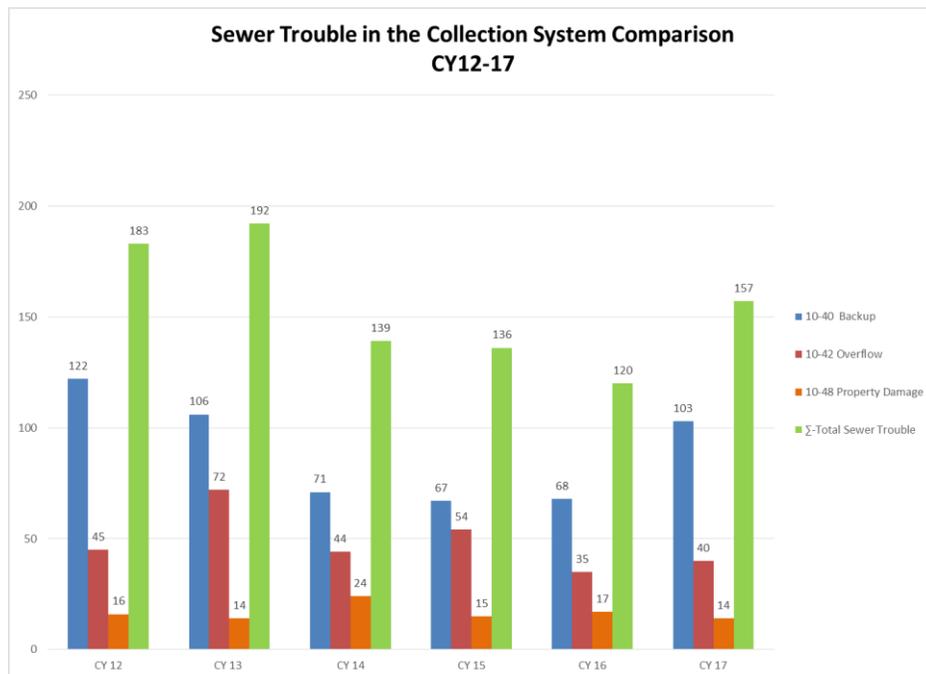


Figure 2 Sewer Trouble Comparison

Volume Spilled and Recovered

Via the OERP, the Water Authority has implemented a policy of capturing spills and documenting actions. Appendix 2 provides estimated spill volumes and volumes recovered for the 20 reported SSOs for the second half of CY2017. Of the spill volume estimated not to be recovered, none was identified as directly reaching the Rio Grande. No spills reached a facility operated by the MRGCD.

Actions Implemented and On-Going Programs

General

Below are gaps that were identified in the FY2017 CMOM Report and were closed in CY2017, or are on-going programs, or both. In addition to the commitments made in the FY2017 CMOM Report, during the second half of CY2017, i.e. 7/1-12/31/2017, the following additional actions were taken to expand the Water Authority's ability to operate and maintain the system.

1. Purchase orders were issued for two new Vectors to be obtained and put into service in FY2018.
2. Public Affairs involvement in SSO prevention took the form of an ongoing advertising/PR campaign. In 2017 this consisted of TV and radio spots that aired mainly in the fall and winter. We also posted reminders on our website and via social media (Facebook) and distributed informational flyers as bill inserts. Messaging in 2017 focused on not using the toilet as a trashcan—even for so-called “flushable wipes.” In previous years the emphasis had been on FOG. Figure 3 is a billing insert and Appendix 5 is a News Release. These efforts will continue.



Figure 3 Bill Insert

FOG Policy Implementation:

FOG Policy is an on-going program. Long-term recommendations were made in the FY2014 CMOM Report. The following are on-going efforts to meet the long-term FY2014 recommendations:

1. Develop a link between the Linko FOG database utilized by NPDES Pretreatment and the Maximo work order system used by the Collection Section.
2. Continue working on creating a FSE flier in Spanish. The Pretreatment Section, in conjunction with the Public Information Office, will continue to develop FSE fliers in languages other than English.
3. Satellite Community agreements require that FSE connections be coordinated with the Water Authority. This task has been completed and will be removed in the next report.
4. The Pretreatment Program continued issuing NOV's for not complying with the record keeping requirements of the SUO and FOG policy.
5. The Pretreatment Program continued issuing NOV's for not complying with the direct access provisions of the SUO and FOG policy.
6. The pretreatment Program continued issuing NOV's for non-functioning Grease Removal Systems.
7. The pretreatment Program continued issuing NOV's for failure to maintain proper maintenance frequency.
8. The pretreatment Program has been inspecting FSEs at a higher frequency than required by Fog Policy.

Overflow Emergency Response Plan (OERP)

This is an on-going program to update the OERP as required. In CY2017, no modifications 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 3 provides the OERP which was in effect at the end of CY2017. The most current version of the OERP is posted to http://www.abcwua.org/Sewer_System.aspx

In accordance with the OERP, the Water Authority coordinated with AMAFCA on a spill (2429 Quincy NE) that occurred December 12, 2017. A line failure occurred in a sanitary sewer crossing through a storm drain manhole. The Water Authority was able to set up Vactors in the storm drain and immediately pump much of the spill back into the sanitary sewer system. However, an estimated 15,000 gallons flowed downstream to the concrete lined Embudo Arroyo which is operated by AMAFCA. Per the OERP, AMAFCA was immediately notified and mobilized, installing two earthen berms. The first was placed in the Embudo Arroyo just upstream of the Morningside ramp on the Embudo. Nearly all the spill, an estimated 14,500 gallons, was captured at this berm and removed by Water Authority Vactors. The second berm was placed in the NDC just downstream of Comanche. It is believed this berm captured all the estimated 500 gallon portion of the spill that was not captured by the first berm. Vactor removal was determined impractical and the water contained was treated with HTH before the berm was eventually washed by nuisance flows. Per the OERP, HTH was also applied during the spill.

Force Main Inspection Program

This is an on-going program in which the alignment is annually inspected for all force mains and valves found in field are compared to those in the GIS mapping and this information is stored in Maximo.

In CY2017, the Water Authority developed new marker decals, see below, to place on marker posts. These posts will be placed during the next round of force main inspections. Call before you dig decals obtained from NM811 are also to be placed on the posts.

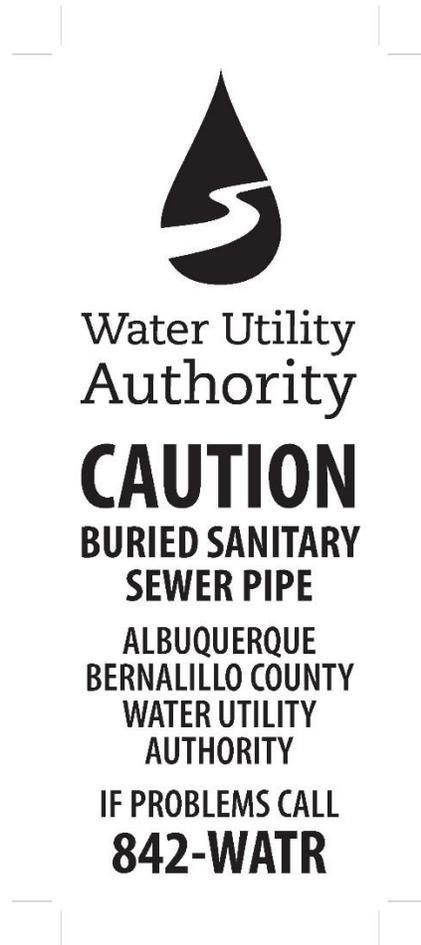


Figure 4 New Decals for Marker Posts

In FY2018, it is recommended to test the parallel 18” and 24” force mains serving LS24 to determine how much flow each force main can handle if half of the 18” or half the 24” force main is shut down. In previous tests, it has been determined that valving and a cross-over exist that allow half of each force main to remain in service for all but a break at the cross over.

It is noted that the VS63 force main was realigned and replaced in CY2017. The old force main had suffered multiple failures and is no longer in service.

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 5 provides the CCTV goal for a ten-year basis and the actual CCTV inspection for the first four years. The FY2017 portion of this recommendation is complete.

The CCTV program will continue. Anticipated schedule:

1. FY18: Large diameter unlined concrete pipe.
2. FY19: 5% of the small diameter.
3. FY20: 5% of the small diameter.
4. FY21: 5% of the small diameter.
5. FY22: 5% of the small diameter.
6. FY23: Large diameter unlined concrete pipe.

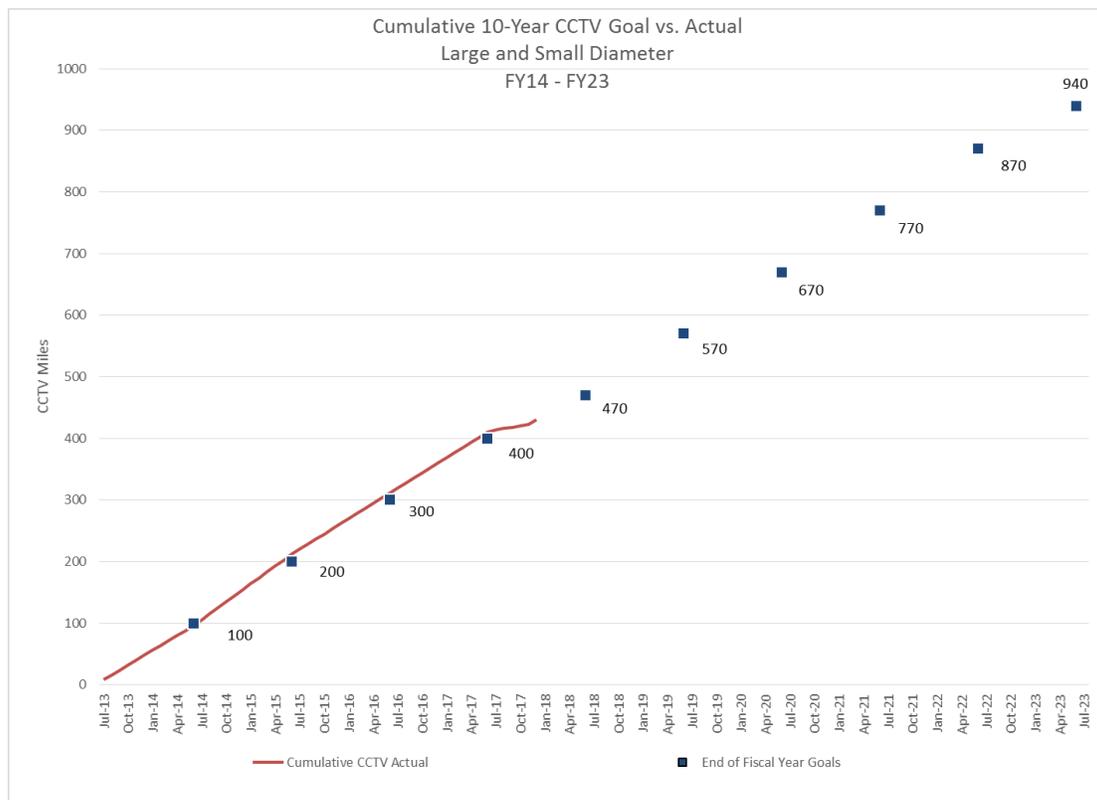


Figure 5 Small Diameter Sewer CCTVed vs. Ten-Year Goal

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.”

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). As shown Figure 6, the Water Authority is ahead of its goal to clean then entire system once in ten years through the Sub-Basin program.

As discussed in the FY2017 Report, an in-house study identified that lines previously impacted by a 10-40, 10-42, or 10-48 are much more likely to experience a future 10-42 or 10-48 than the system as a whole. Accordingly, in CY2017, Collection Section staff completed inputting approximately 770 additional line segments in the Short Interval program, based on sewer trouble history on these links.

The Sub-Basin program and associated ten-year cleaning goal remain in place. While meeting this CMOM commitment for Sub-Basin cleaning, the Collection Section has increased Short Interval cleaning.

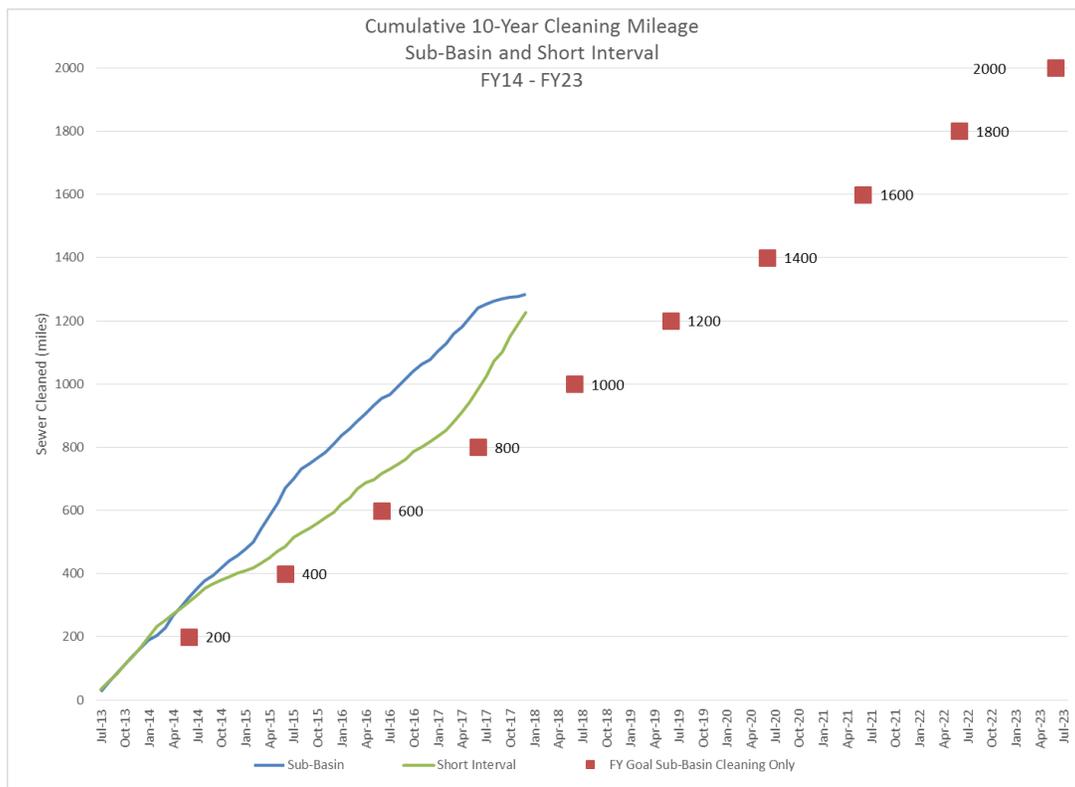


Figure 6 Small Diameter Sewer Cleaned vs. Ten-Year Goal

Root Foaming

The following recommendation is made in the FY2013 CMOM Report: “Starting in FY15, implement a 3-year pilot program. Root foam selected lines that meet the root infested and / or inaccessibility criteria. Compare effectiveness to mechanical cleaning currently practiced and provide recommendation.”

The Root Foaming Pilot Project is a three-year treatment program with follow-up study. The FY15 and FY16 groups were foamed in June 2015 and March 2016 respectively. Per vendor recommendations, the FY15 group was retreated in June 2017. This completed the foaming application portion of the Pilot Project. An interim inspection of the FY15 treated and control group was performed in FY2016 and was inconclusive. During FY2017, the FY15 and FY16 lines, both treated and control, were scheduled for CCTV inspection. During CY2018, this CCTV data will be examined to compare treated and control pipes.

Generator Plan

The following recommendation is made in the FY2016 CMOM Report: “In FY2017, it is recommended to run a test at two vacuum stations in which power is actually cut and the portable generators are hooked up.” This recommendation follows the development of an SOP for portable generators (recommended in the FY2014 CMOM and reported in the FY2015 CMOM) and a simulation of the simultaneous failure of power at Vacuum Stations 67 and 69 (FY2016 CMOM).

The FY2017 Report stated: “On 4/12/2017, the power was shut down at Vacuum Stations 57 and 68 and portable generators were utilized simultaneously run both stations. In FY2018, it is recommended that a simultaneous power failure be tested at three vacuum stations. Again, power will be shut down and portable generators will be hooked up and attempt to run the three stations simultaneously.”

In CY2018, the recommended testing will be completed.

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.

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.

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.

Formalize SSO Follow-Up Involving Administrative Assessments or Equivalent

In the FY2017 Report, the following recommendation was made: “In FY2018, it is recommended that the Compliance Division develop a Sewer Trouble Invoice Statement to be utilized, where appropriate, to assess costs for sewer blockages, including those for which an SSO did not occur.”

As stated in the FY2017 Report, the purpose of this Sewer Trouble Invoice Statement is to address SSOs directly caused by construction contractors or commercial/industrial users. In many such cases, the Water Authority has taken steps to hold the offending party responsible and required financial compensation. Cost assessments have been based on direct costs of a particular blockage, both to immediately respond and for follow-up cleaning and inspection. Costs have been developed by the Collection Section, or in the case of contractor repairs, by Centralized Engineering. Dependent of the particulars of the blockage and the offending party, costs may be assessed and collected by different groups, e.g. Compliance Division or Risk Management.

During CY2017, the Sewer Trouble Invoice Statement was discussed conceptually with the intent to complete development and have it available when needed.

It is recommended that, in CY2018, the Sewer Trouble Invoice be developed and be available for use. It is recommended that it be considered for SSOs subsequently and directly caused by construction contractors or commercial/industrial users.

E. coli Testing Processes

Page 11 of the OERP requires “Sample MRGCD facility for E-coli upstream and downstream of SSO.”

In CY2018, it is recommended that the OERP be updated to clarify the processes. It is recommended that a draft version of the updated OERP be tested along with the MRGCD, the POI, and AMAFCA.

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)	Location	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			12368610	8	N	N	7/15/2017	1:12 PM	2:03	10820 BARBARA ELLEN AVE NE	615	GR	NEAH	CC/CWW/WD/RP/RS/HTH	PST	615	CU	NF			
X			12379586	8	N	N	7/31/2017	8:56 PM	:34	Glendale Ave. NE & Wyoming Blvd NE	220	GR	NEAH	CC/WD/RP/RS/HTH	DST	200	SL/GR	SI/SP			
X			12393058	8	N	N	8/18/2017	9:21 AM	2:19	11004 ELVIN AVE NE	100	GR/RGS	NEAH	CC/RS/HTH/WD	PST	50	RT	SI/SP			
	X		12397201	8	Y	N	8/25/2017	8:00 PM	NA	4523 11TH ST NW	NA	BP	NA	NA	PP	NA	BP	SP			
X			12412756	8	Y	N	9/4/2017	12:00 PM	1:25	4600 PONDEROSA AVE NE	425	LF	NEAH	CC/WD/RP/RS/HTH	PST	400	LF	RH			
X			28866	8	N	N	10/4/2017	9:10 AM	1:50	5600 CENTRAL AVE SE	1,650	CO	NEAH	CC/CWW/WD/RS/HTH	SD	1,500	CO	PT			
X			29042	8	N	N	10/4/2017	6:05 PM	:17	9350 EAGLE RANCH RD NW	85	RT	NEAH	CC/WD/RP/RS/HTH	PST	75	CU	CU			
X			44852	8	Y	N	10/30/2017	8:31 AM	NA	106th ST. & Eucariz Ave . SW	1,350	CO	NEAH	CC/CWW/RP	PST	1,000	SC	PT	Y		1
X			51128	8	N	N	11/8/2017	8:10 AM	:40	Copper Ave. & Jefferson St. NE	1,000	RK	NEAH	CC/CWW/RP/HTH	PST	800	DB	NF			
X			51587	8	Y	N	11/9/2017	3:50 PM	:55	5740 PIEDRA RD NW	275	RGS	NEAH	CC/WD/RP/RS/HTH	PST	250	RT	SP			
X			52441	8	Y	N	11/11/2017	1:00 PM	2:15	3624 CENTRAL AVE SE	2,025	CO/RK	NEAH	CWW/CC/WD/RP/RS	PST	1,750	CO/DB	PT			
X			53760	12	N	N	11/13/2017	10:30 AM	:05	7421 MENAUL BLVD NE	350	CO	NEAH	CWW/WD/RP/HTH/ENC	PST	200	CO	PT			
X			53910	12	N	N	11/8/2017	2:30 PM	:01	2608 Tennessee NE	30	CO	NEAH	BR/CWW/WD/RP/HTH	PST	30	CO	PT			
X			54086	12	N	N	11/14/2017	12:25 PM	:05	2613 SAN PABLO ST NE	20	CO	NEAH	CWW/BR/RP/HTH	PST	10	CO/EQ	PT			
X			61025	12	N	N	11/26/2017	11:58 AM	1:52	200 EUBANK BLVD SE	1,120	DB/GR/RGS	NEAH	CC/CWW/RP/WD/HTH	PST	300	CU	NF			
X			61035	8	N	N	11/26/2017	10:30 AM	2:30	12030 MENAUL BLVD NE	250	RGR	NEAH	CC/CWW/BR/WD/HTH	DST	10	RT	SI/SP			
	X		61817	8	N	N	11/27/2017	11:00 AM	NA	11913 MENAUL BLVD NE	NA	RGR/RGS	NA	CC	PP	NA	RT	SI/SP			
	X		64642	10	N	N	11/28/2017	8:00 PM	NA	1801 LAS LOMAS AVE NE	NA	GR/DB	NA	CC	PP	NA	CO	RH			
X			64914	8	N	N	11/29/2017	10:45 AM	:50	629 MONROE ST SE	250	GR/RGS	NEAH	CC/CWW/RP/WD/HTH	PST	200	SL	SI			
X			70453	12	Y	N	12/5/2017	7:40 AM	:35	2612 DALLAS ST NE	1,800	CO	NEAH	BR/RP/WD/ENC/HTH	PST	-	CO	PT			
X			75263	8	N	N	12/12/2017	12:52 AM	2:03	4720 SAN MATEO BLVD NE	615	GR/RGS	NEAH	CC/BR/RP/WD/HTH	PST	615	GR	PT	Y	3	1
	X		75336	8	Y	Y	12/8/2017	10:00 AM	NA	4523 11TH ST NW	NA	BP	NA	NA	PP	NA	BP	SP			
X			75381	15	N	N	12/2/2017	11:02 AM	5:43	2429 QUINCY ST NE	15,000	LF	NEAH	CWW/BR/RP/HTH	AC	14,500	LF	RH			
X			79633	15	N	N	12/20/2017	1:35 PM	:01	2429 QUINCY ST NE	50	CO	NEAH	CWW/BR/RP/WD/ENC/HTH	PST	45	CO	PT			

Appendix 2 Sanitary Sewer Overflow Volume Captured Analysis Table

2ND HALF OF CY2017 10-42 SPILL VOLUME AND VOLUME RECOVERED

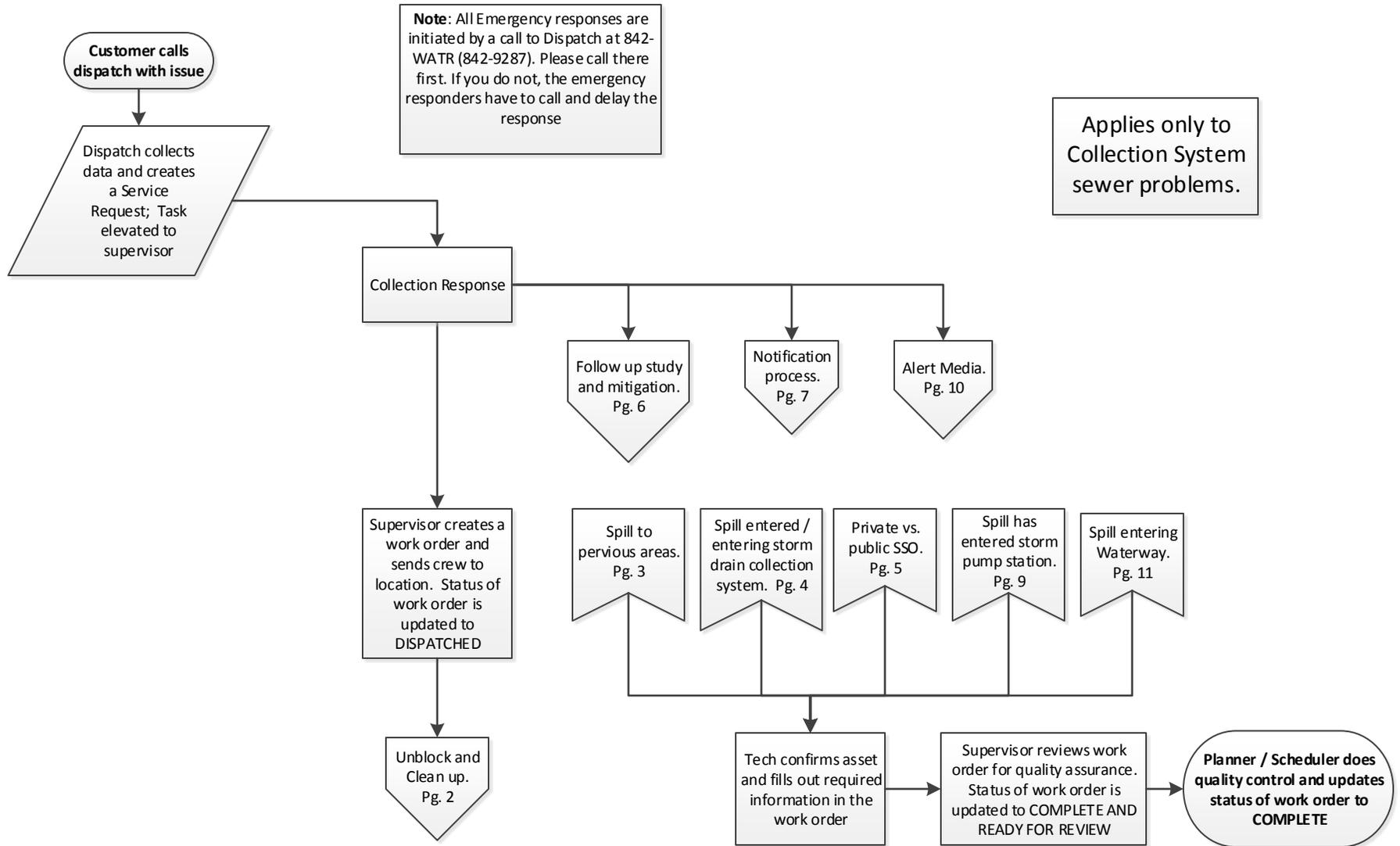
Maximo WO #	Date of SSO	Location	Estimated Volume (gallons)	Volume Recovered (gallons)	Volume Not Recovered	% Recovered
12368610	7/15/2017	10820 BARBARA ELLEN AVE NE	615	615	0	100%
12379586	7/31/2017	Glendale Ave. NE & Wyoming Blvd NE	220	200	20	91%
12393058	8/18/2017	11004 ELVIN AVE NE	100	50	50	50%
12412756	9/4/2017	4600 PONDEROSA AVE NE	425	400	25	94%
28866	10/4/2017	5600 CENTRAL AVE SE	1,650	1,500	150	91%
29042	10/4/2017	9350 EAGLE RANCH RD NW	85	75	10	88%
44852	10/30/2017	106th ST. & Eucariz Ave . SW	1,350	1,000	350	74%
51128	11/8/2017	Copper Ave. & Jefferson St. NE	1,000	800	200	80%
51587	11/9/2017	5740 PIEDRA RD NW	275	250	25	91%
52441	11/11/2017	3624 CENTRAL AVE SE	2,025	1,750	275	86%
53760	11/13/2017	7421 MENAUL BLVD NE	350	200	150	57%
53910	11/8/2017	2608 Tennessee NE	30	30	0	100%
54086	11/14/2017	2613 SAN PABLO ST NE	20	10	10	50%
61025	11/26/2017	200 EUBANK BLVD SE	1,120	300	820	27%
61035	11/26/2017	12030 MENAUL BLVD NE	250	10	240	4%
64914	11/29/2017	629 MONROE ST SE	250	200	50	80%
70453	12/5/2017	2612 DALLAS ST NE	1,800	-	1,800	0%
75263	12/12/2017	4720 SAN MATEO BLVD NE	615	615	0	100%
75381	12/2/2017	2429 QUINCY ST NE	15,000	14,500	500	97%
79633	12/20/2017	2429 QUINCY ST NE	50	45	5	90%
Grand Total			27,230	22,550	4,680	83%

Appendix 3 Overflow Emergency Response Plan (OERP)

Overflow Emergency Response Plan

4-14-17

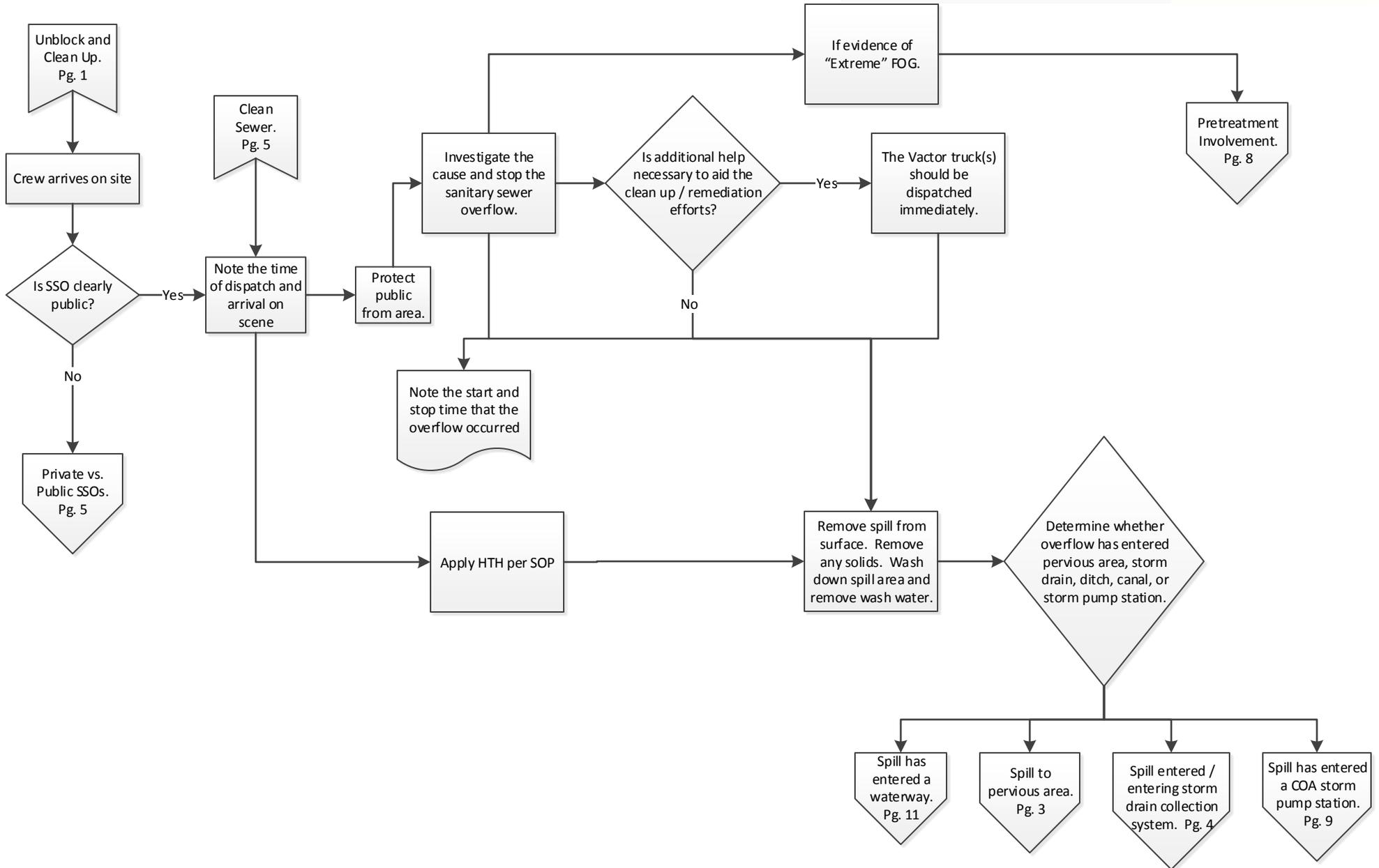
Albuquerque Bernalillo County Water Utility Authority

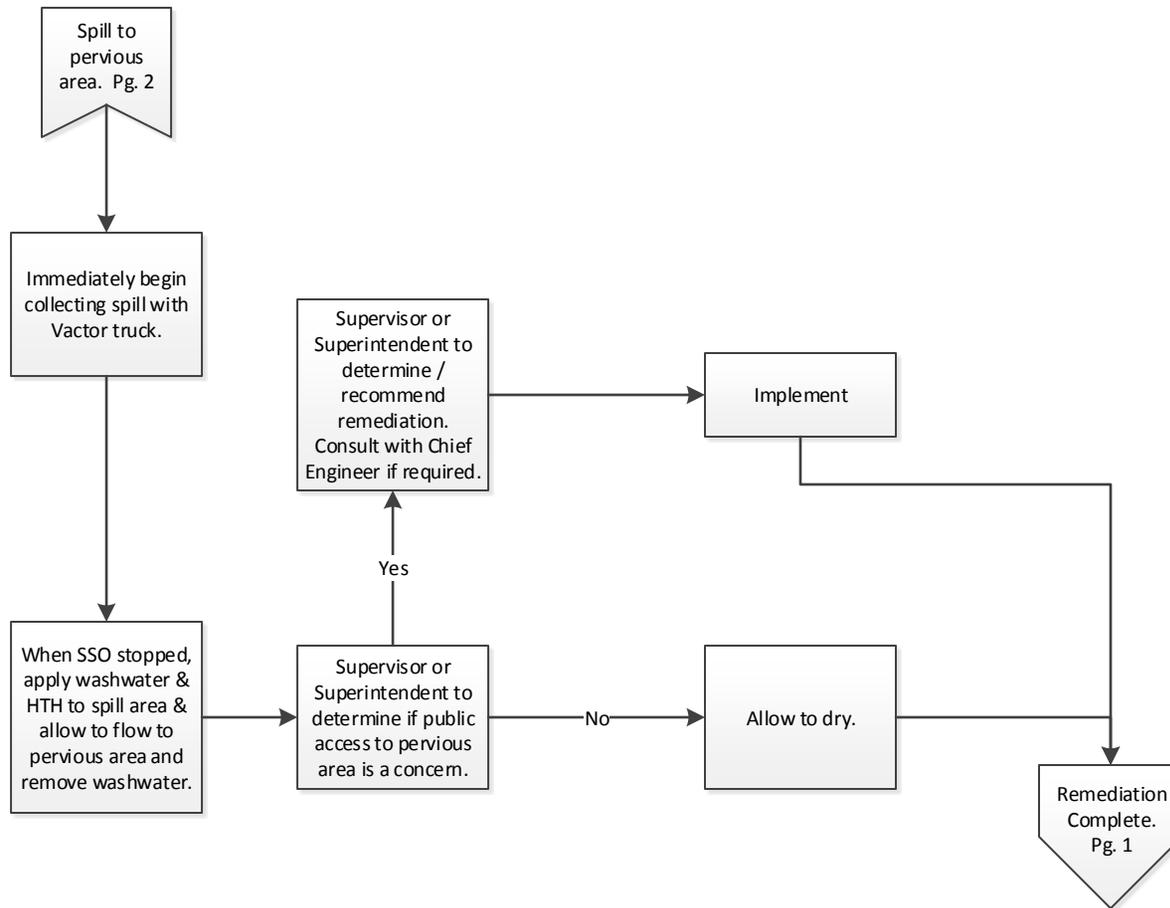


Overflow Emergency Response Plan

4-14-17

Albuquerque Bernalillo County Water Utility Authority

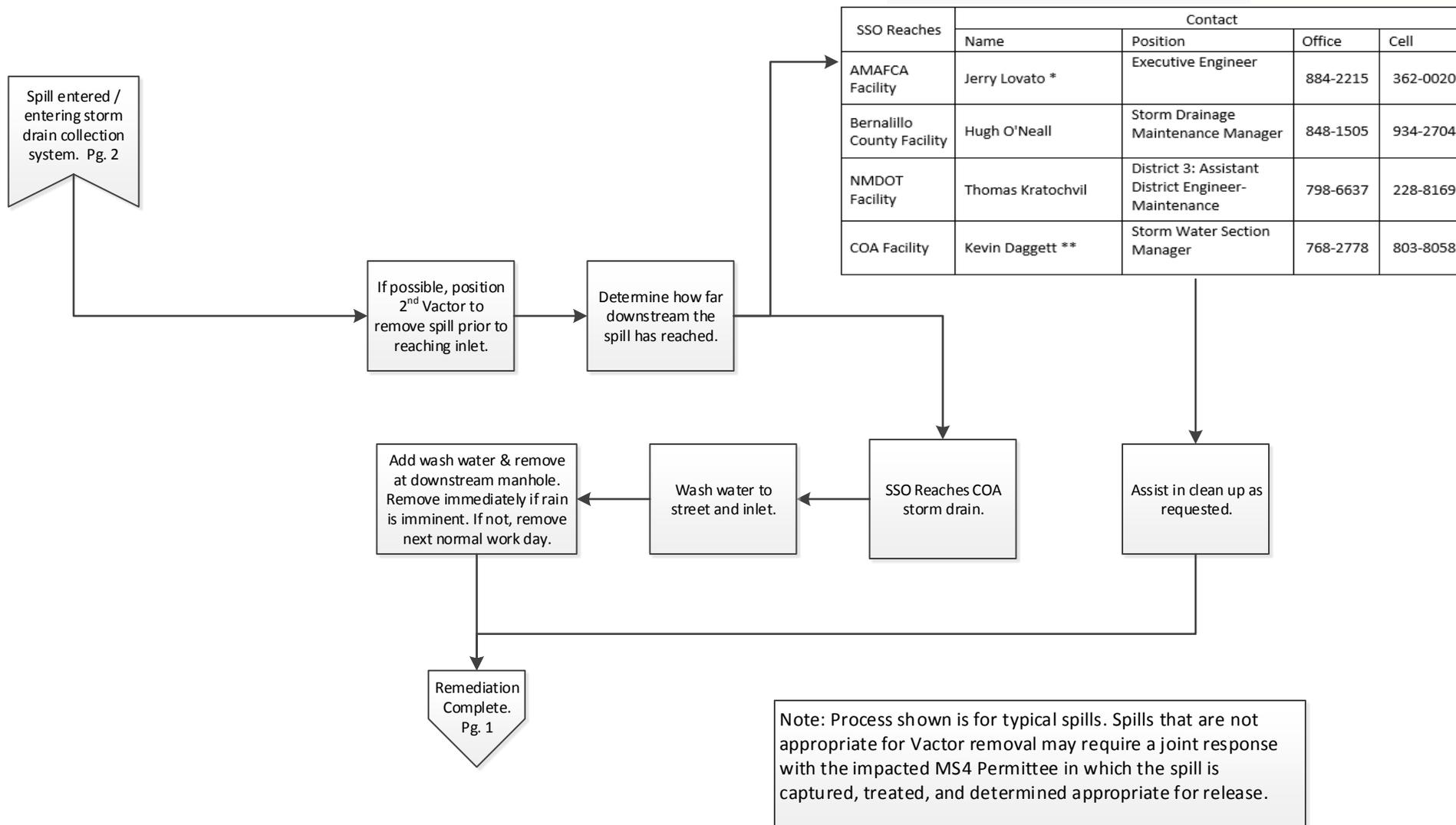




Overflow Emergency Response Plan

4-14-17

Albuquerque Bernalillo County Water Utility Authority



*If Jerry Lovato is not immediately available, call:

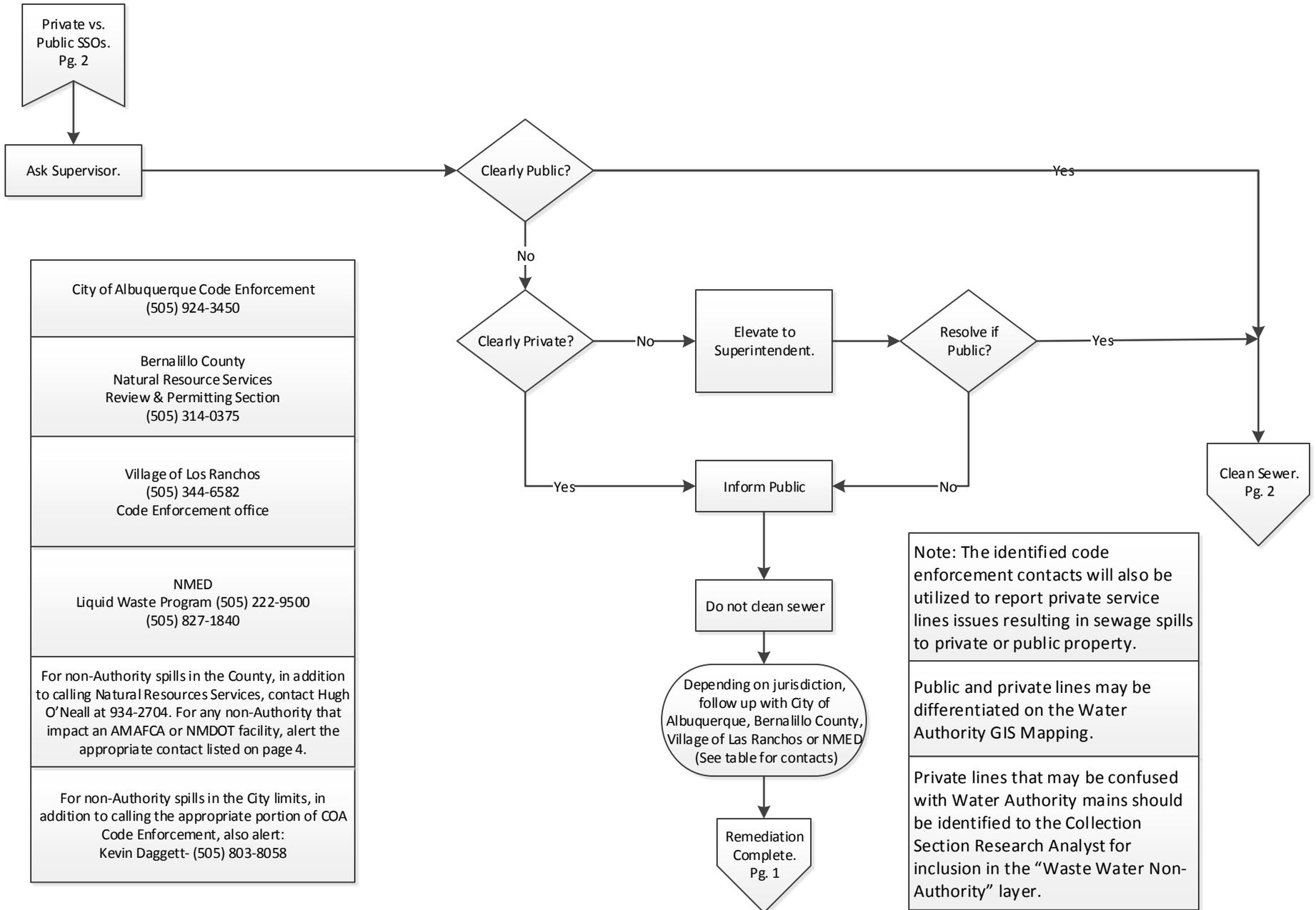
Nolan Bennett: Field Engineer (505) 301-6941
Herman Gabaldon: Superintendent (505) 366-8209

**If Kevin Daggett is not immediately available, call:

Bryan Wolfe: Engr. Div. Manager (505) 250-7364
Carl Rinckenberger: O&M Manager (505) 250-4334
Daniel Tapia: O&M Supt (505) 228-6874

Overflow Emergency Response Plan

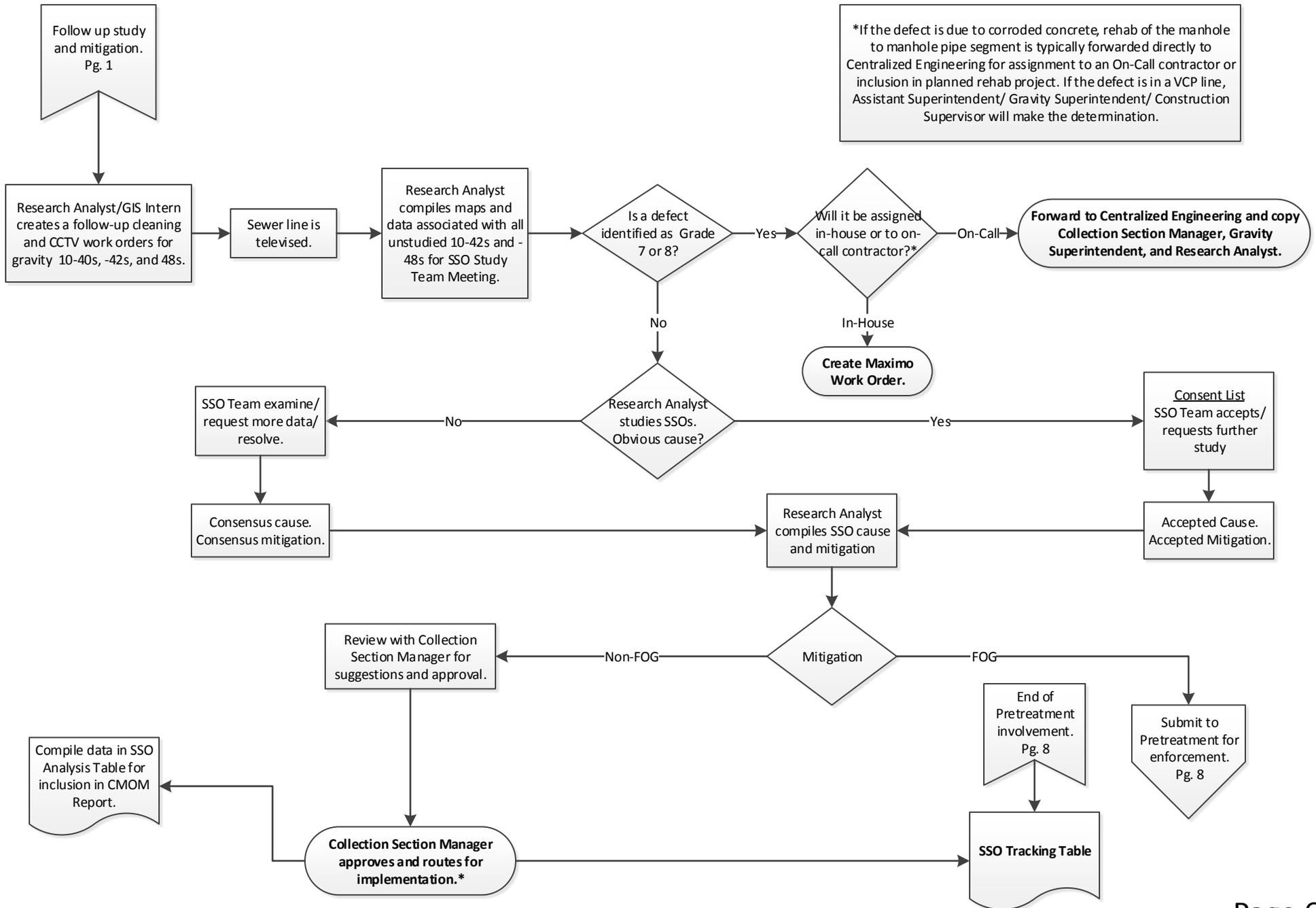
Albuquerque Bernalillo County Water Utility Authority



Overflow Emergency Response Plan

4-14-17

Albuquerque Bernalillo County Water Utility Authority

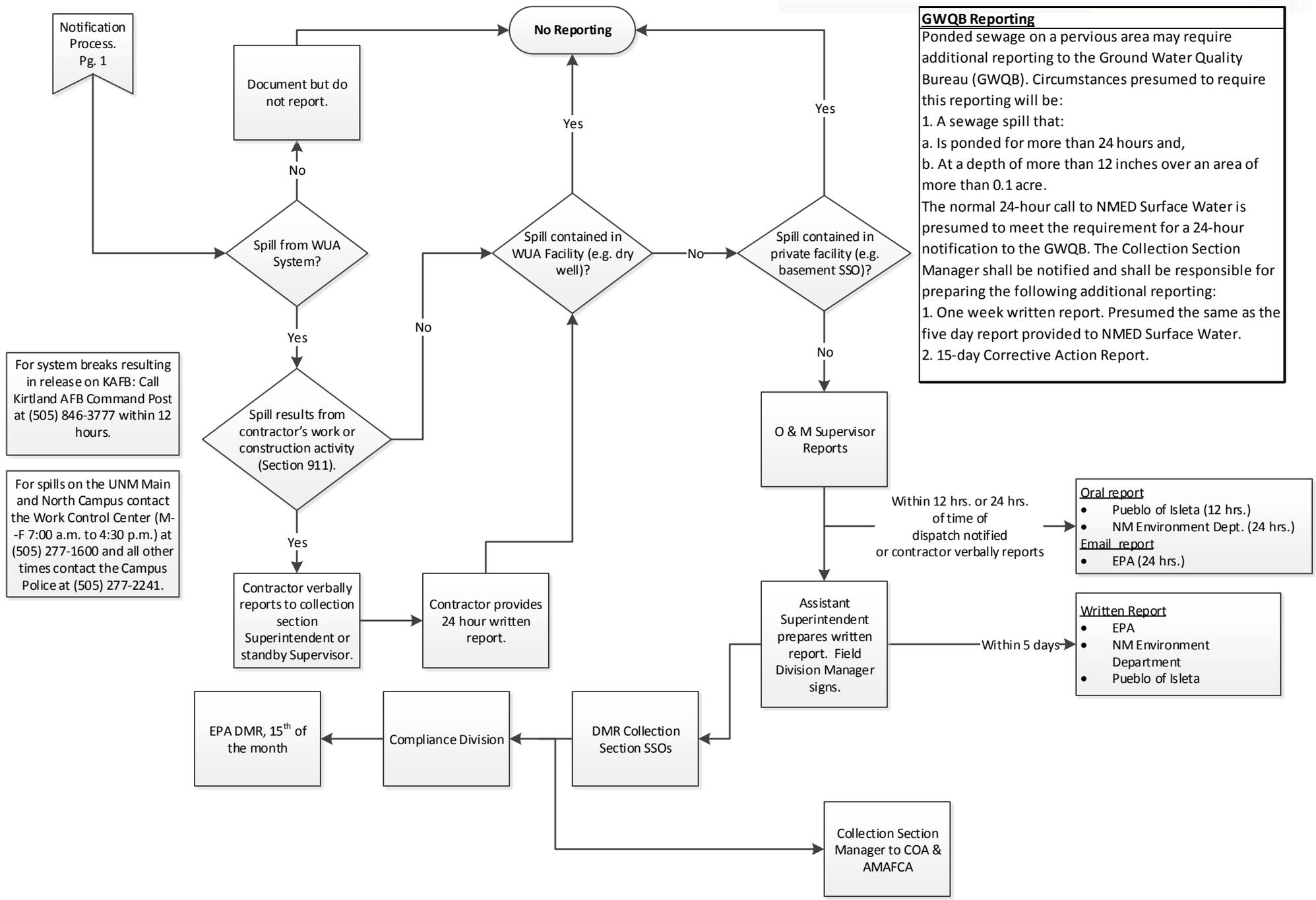


Overflow Emergency Response Plan

4-14-17

Albuquerque Bernalillo County Water Utility Authority

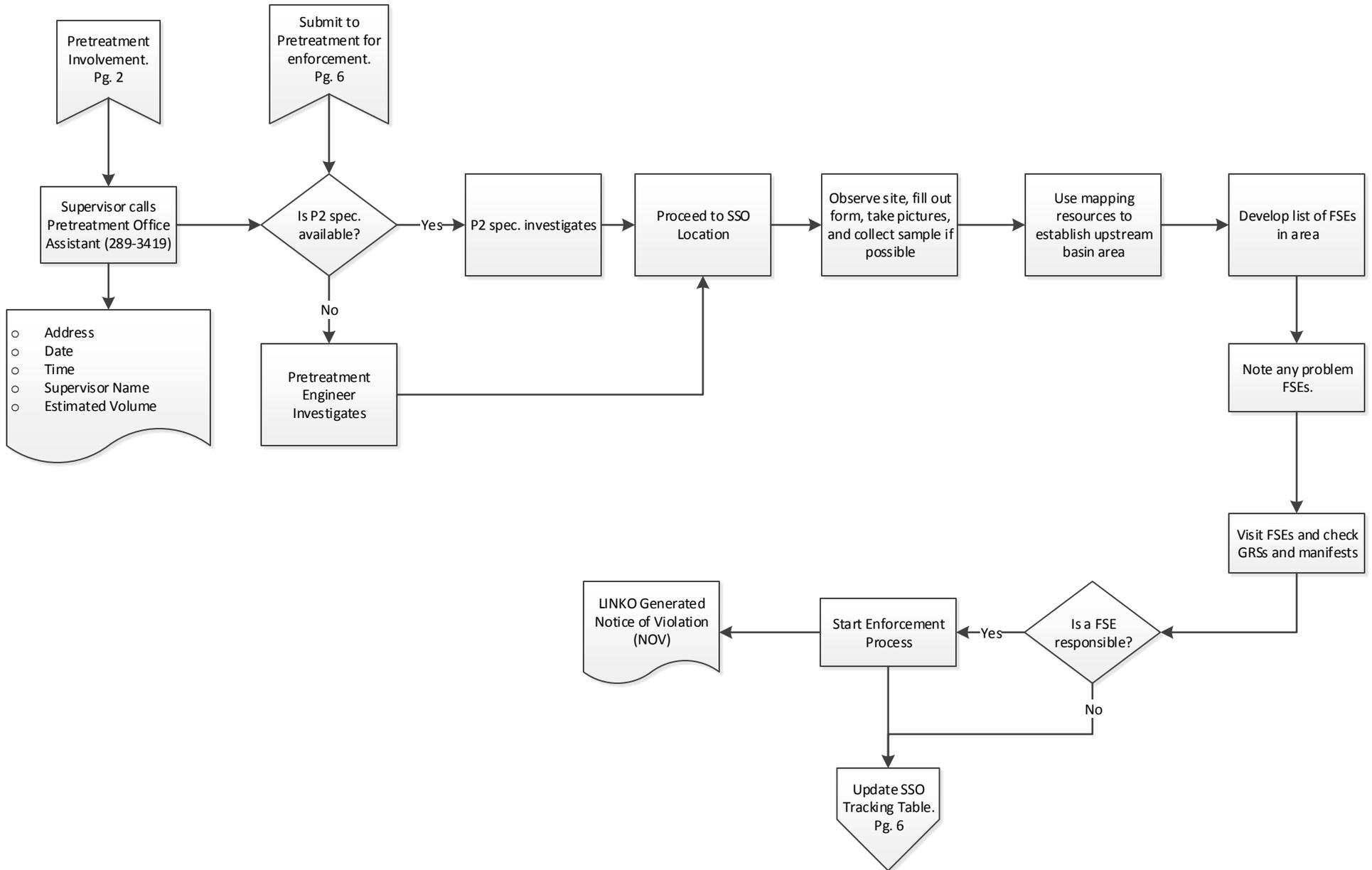
GWQB Reporting
 Pondered sewage on a pervious area may require additional reporting to the Ground Water Quality Bureau (GWQB). Circumstances presumed to require this reporting will be:
 1. A sewage spill that:
 a. Is ponded for more than 24 hours and,
 b. At a depth of more than 12 inches over an area 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.

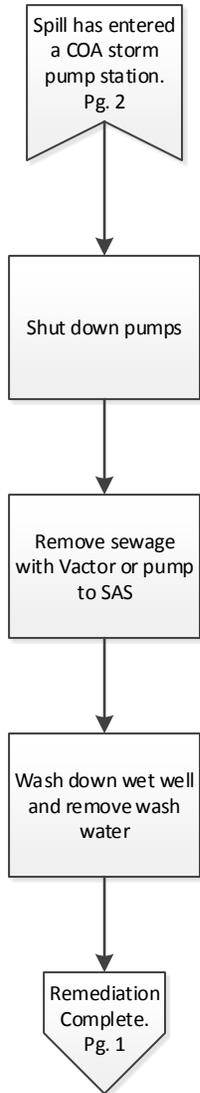


Overflow Emergency Response Plan

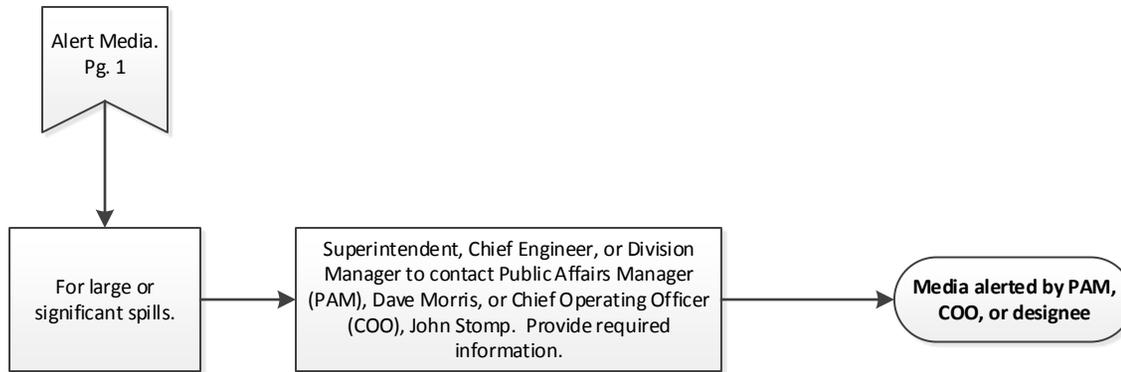
4-14-17

Albuquerque Bernalillo County Water Utility Authority





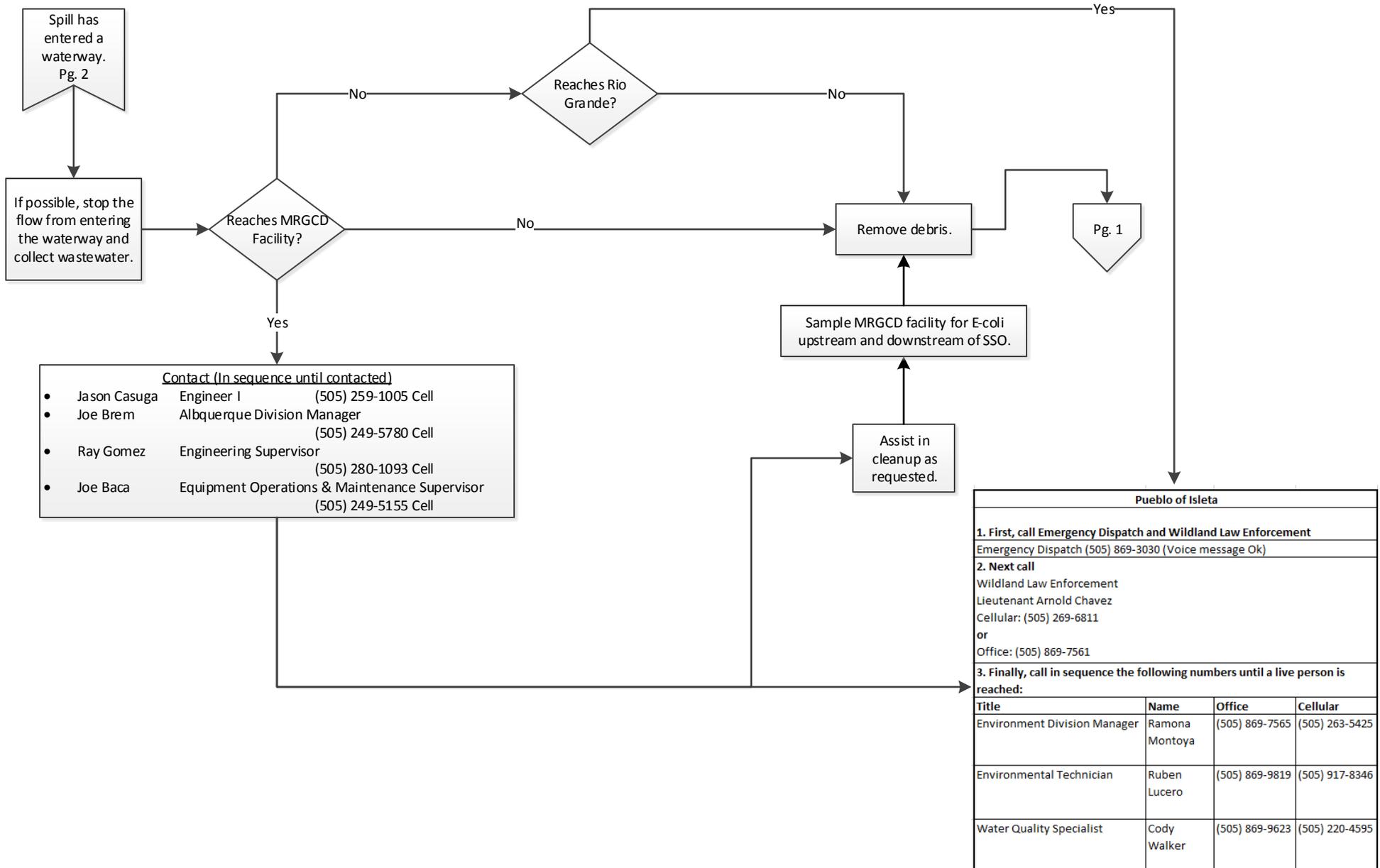
Note: Process shown is for typical spills. Some spills may require a joint response with the City of Albuquerque in which the spill is captured, treated, and determined appropriate for release.



Overflow Emergency Response Plan

4-14-17

Albuquerque Bernalillo County Water Utility Authority



Appendix 4 CY2017 Goal Summary Table

Goal Summary - CY2017 CMOM Report		
Goal	Timing	Page # for Discussion
Initiate Self-Audit and complete in FY2019.	FY2019	3
CCTV all gravity pipes suffering a blockage. For all SSOs, determine a cause and mitigation and report in the next CMOM report	Annually	5 & 7
Public advertising	On-Going	10
Develop Linko and Maximo	TBD	11
FSE flier in Spanish	TBD	11
Satellite Community agreements requirements	As agreements entered	11
Issue NOVs for various non-compliance	On-Going	11
Update OERP	As required	11
Force main inspection program	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
Compare root foaming effectiveness versus mechanical cleaning	CY2018	15
Test simultaneous power failure at three vacuum stations.	CY2018	15
SSOs: Decrease number and mitigate impact.	On-Going	16
Develop Sewer Trouble Invoice Statement to be utilized to assess costs for sewer blockages.	CY2018	16
Update OERP to identify E. coli sampling processes.	CY2018	16

Appendix 5 Public Affairs News Release



Albuquerque Bernalillo County Water Utility Authority

NEWS RELEASE

New Ads from Water Authority Remind Albuquerque That Toilets are NOT Trash Cans



The Water Authority has launched a new ad campaign reminding the community that toilets should **not** be used to dispose of household waste – not even so-called “flushable” wipes.



The campaign features the utility’s spokes-elephant, Chuckie, in TV and radio spots and outdoor billboards. Chuckie in recent years has also instructed residents on the finer points of grease disposal and water conservation. (See the new TV ad: <https://youtu.be/mm6u3R663tl>)

“Putting wipes and rags into the sewer can lead to catastrophic overflows, and disposing of pharmaceutical and personal care products in the sewer can damage the environment,” said Water Authority Board Chairperson Klarissa Peña. “As our new ad says, only sewage belongs in the sewer system – not elephants, not grease, and not trash.”

According to the National Association of Clean Water Agencies (NACWA):

Products such as wipes, paper towels and feminine hygiene products should NOT be flushed, but often are, causing problems for utilities that amount to billions of dollars in maintenance and repair costs—costs which ultimately pass on to the consumer. Other consumer products contain ingredients, such as plastic microbeads and triclosan, which may harm water quality and the environment. Fats, oils and greases (FOG) in particular, as well as unused pharmaceuticals, should also be kept out of the sewer system.

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