SANITARY SEWER OVERFLOW
EMERGENCY RESPONSE
PROCEDURES MANUAL
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Sanitary Sewer Overflow Emergency Response Procedures Manual

Revision Effective 1/31/2019

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<td>Approving Authority (name/position):</td>
<td>Prabhakar Somavarapu, District Engineer</td>
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1.1 Policy Document

**Background/Purpose**

The purpose of this document is to set procedures for the Sacramento Area Sewer District (SASD) staff responding to emergency situations to accurately and consistently identify, investigate, and report sanitary sewer overflows (SSOs) in compliance with the Statewide General Waste Discharge Requirements (WDR) for Wastewater Collection Agencies. This procedures manual complies with the Overflow Emergency Response Plan requirements of the WDR.

This procedures manual is not intended to be used in the event of a major emergency or disaster affecting the community that SASD serves. In these types of events, the Continuity of Operations Plan governs.

**Updates**

SASD’s Operations Support Manager oversees the document’s update process. Key stakeholders meet monthly as needed, discuss proposed changes, make and approve revisions. The SSO Emergency Response Plan SharePoint site is used to collaborate on the document.

**Training**

Each business unit identified above as a stakeholder, and each business unit identified below as having a role or responsibility for carrying out this procedure, is responsible for training its staff as needed to successfully implement the processes and procedures outlined in this document.

**Roles & Responsibilities**

General Roles & Responsibilities are listed in Tab 1, Section 1.1: Policy Document of this manual. See flowcharts and written procedure for units identified as having a more specific responsibility in the procedure.

**Process & Procedure**

See manual for written procedures and detailed process flowcharts for each unit’s role and the steps required for responding to emergencies.
1.2 Purpose, Goals, and Objectives

1.2.1 Purpose

The purpose of this document is to set procedures for the Sacramento Area Sewer District (SASD) staff responding to emergency situations and to accurately and consistently identify, investigate, and report sanitary sewer overflows (SSOs) in compliance with the Statewide General Waste Discharge Requirements (WDR) for Wastewater Collection Agencies. This procedures manual complies with the Overflow Emergency Response Plan requirements of the WDR.

This procedures manual is not intended to be used in the event of a major emergency or disaster affecting the community that SASD serves. In these types of events, the Continuity of Operations Plan governs.

This is a living document and will be updated by SASD with revisions as necessary to ensure compliance with all current and future regulatory requirements.

SASD staff are required to know and follow these procedures.

1.2.2 Goals

- Protect public health and safety
- Prevent adverse impacts to the environment, waterways of the state, and their beneficial uses
- Achieve timely and expeditious response to reports of all potential SSOs
- Ensure all reasonable steps are taken to contain and prevent sewage from entering waters of the United States and to minimize or correct any adverse impact of overflows in case they occur

1.2.3 Objectives

- Provide timely and proper notifications of responders, regulatory agencies, and other potentially affected entities
- Minimize adverse impacts of SSOs
- Ensure corrective action is taken in a timely manner
- Ensure compliance with current regulatory requirements
- Ensure accurate and consistent identification, investigation, and reporting of emergency response situations
- Ensure appropriate staff are aware of and follow the emergency response plan, and address emergency operations and other necessary response activities.
1.3 Acronyms, Initialisms, and Definitions

1.3.1 Acronyms and Initialisms

BIS: Backup into Structure
CARV: Combination Air Relief Valve
CCTV: Closed Circuit Television
CIWQS: California Integrated Water Quality System
CMMS: Computerized Maintenance Management System (referred to as “Maximo”)
CSDFW: California State Department of Fish and Wildlife
CUBS: Consolidated Utility Billing Service
DWR: Department of Water Resources
EMD: Environmental Management Department
        (County of Sacramento Health Department)
FOG: Fats, Oils, and Grease
I/I: Inflow and/or Infiltration
LRO: Legally Responsible Official
M&O: Maintenance and Operations
MS4: Municipal Separate Storm Sewer System
NPDES: National Pollutants Discharge Elimination System
OES: Governor’s Office of Emergency Services
PAO: Public Affairs Office
PLSD: Private Lateral Sewage Discharge
PUE: Public Utility Easement
Regional San: Sacramento Regional County Sanitation District
ROW: Right-of-Way
RWQCB: Regional Water Quality Control Board
SASD: Sacramento Area Sewer District
SPLM: Sierra Pacific Loss Management
SR: Service Request
SSMP: Sewer System Management Plan
SSO: Sanitary Sewer Overflow
USGS: United States Geological Survey
WO: Work Order
WQCMMS: Water Quality Computerized Maintenance Management System (Legacy System)
WSCS: Wastewater Source Control Section

1.3.2 Definitions

BIS - A BIS is when sewage backs up into a structure or a fixture caused by a stoppage or other failure to collect and convey sewage in the sanitary sewer system (upper or lower lateral, main line, man hole, pump station, or force main). A stoppage in the building plumbing (drainage piping in the building to the upper lateral connection) or building fixtures is neither an SSO nor a BIS.

Building Cleanout - Pipe installed in the ground near a building’s foundation, designed to provide property owners access to the upper lateral.

Building Plumbing - The drain piping from the outlet of the fixture to the building cleanout or if no building cleanout exists, then 3 feet outside the perimeter of the building.

Category 1 SSO – Discharges of untreated or partially treated wastewater of any volume resulting from an enrollee’s sanitary sewer system failure or flow condition that:

- Reach surface water and/or reach a drainage channel tributary to a surface water; or
- Reach a Municipal Separate Storm Sewer System (MS4) and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or groundwater infiltration basin (e.g., infiltration pit, percolation pond).

Category 2 SSO - Discharges of untreated or partially treated wastewater of 1,000 gallons or greater resulting from an enrollee’s sanitary sewer system failure or flow condition that do not reach surface water, a drainage channel, or a MS4 unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.

Category 3 SSO – All other discharges of untreated or partially treated wastewater resulting from an enrollee’s sanitary sewer system failure or flow condition
Collector Sewer - Sanitary sewer designed to carry less than 1 million gallons per day peak wet weather flow and receiving wastewater directly from other such collector sewers or laterals or any sanitary sewer that serves only one user.

County Central – County of Sacramento, County Central Dispatch

Drainage Channel – Any channel designed or used to convey storm water runoff that is not a part of the MS4 or a surface water, as defined in this manual.

Easement – An easement is a right given to SASD to use such land in the manner specified in the legal document. The easement is, itself, a real property interest, but legal title to the underlying land is retained by the land owner for all purposes other than those specified. The land owner who grants the easement cannot build structures within the easement area or use fencing that would hinder access.

Enrollee - A public entity that owns or operates a sanitary sewer system and has submitted a complete and approved application for coverage under Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WQO No. 2006-0003-DWQ).

Homeowner - Customer who owns property or home that is located within SASD’s service area.

Infiltration- Water entering a sewer system and service connections from the ground, through means including, but not limited to, defective pipes, pipe joints, connections, or manhole walls.

Inflow - Water (mainly runoff) discharged to a sewer system, including service connections, from sources including but not limited to the following: roof leaders, cellars, yards and area drains, crushed laterals, foundation drains, cooling water discharge, drains from springs and swampy areas, manhole covers, summit maintenance hole plugs, cross connections from storm and combined sewers, tide gate leakage, catch basin laterals, storm water, surface runoff, street wash water, or drainage.

Lower Lateral - Portion of the sewer lateral from the main line to the SASD sewer cleanout or, in the absence of a cleanout, to the limits of the public right-of-way, SASD or other public sewer easement where SASD maintains the sewer facilities, or public utility easement.

Main line - Either a collector sized sewer pipeline or trunk sized sewer pipeline.
MS4 – A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that meet the following criteria:

   i) Owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created to, or pursuant to, state law) including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribal organization, or a designated and approved management agency under section 208 of the Clean Water Act that discharges into waters of the United States.

   ii) Designed or used for collecting or conveying storm water

   iii) Which is not combined sewer

   iv) Which is not part of a Publicly Owned Treatment Works as defined at 40 CFR 122.2

Definition is from Code of Federal Regulations. (40 CFR 122.26(b)(8))

**Private Lateral Sewage Discharge (PLSD)** – Discharges of untreated or partially treated wastewater resulting from a blockage or other problems within a privately owned sewer lateral connected to the enrollee’s sanitary sewer system or from other private sewer assets.

**Private Lateral** - Privately owned lateral, which also includes privately owned collection systems.

**Public Utility Easement (PUE)** – An easement dedicated to any utility that provides services to the general public, including electric, gas, telephone, sewer, water and television cable system. PUEs are generally strips of land that are created at the time a plat for a new development is designed. PUEs almost always exist along streets and rear lot lines. Sometimes they exist between two lots.

**Resident** - Customer who resides in a home that is located within SASD’s service area. This may or may not be the homeowner/property owner.

**Right-of-Way (ROW)** – Type of easement that permits the public to travel over a parcel of land. Typically, ROW is granted on a subdivision or parcel map and is dedicated to the jurisdiction for operation and maintenance of a travel way.

**SASD Business Hours** – SASD’s dispatch business hours are from 7:00 a.m. to 3:30 p.m., Monday through Friday, except County holidays. After hour calls roll over to County Central to account for a 24/7 operation.

**SASD Sewer Cleanout** – Pipe installed in the ground near the sewer easement or ROW designed to provide SASD access to the lower lateral.

**Service Emergency** – Calls reporting SSO, BIS, or evidence that may indicate an SSO/BIS is occurring or impending – such as slow drainage, odor reports, wet areas, or dried paper around cleanouts or manholes – or any unusual conditions at a pump station that would indicate an impending overflow (e.g., odor complaints, noises, or lack thereof).
Sewer Lateral - Pipe that collects sewage from an individual structure (typically residential or commercial) and transports it to the nearest SASD pipe or manhole (typically a collector), comprised of the upper and lower lateral.

Sanitary Sewer Overflow (SSO) - Any overflow, spill, release, discharge, or diversion of untreated or partially treated wastewater from a sanitary sewer system.

SSOs include:

- Overflows or releases of untreated or partially treated wastewater that reach waters of the United States
- Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States
- Wastewater backups into buildings and on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.

SSOs do not include:

- Sewage discharges into temporary storage and conveyance facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are not considered SSOs.
- Sewage that has flowed out of a pipe through a crack, break, or other pipeline defect and is confined to the pipe bedding and/or backfill is not considered an SSO, as long as sewage has not migrated to native soil outside of the original construction trench.

SSO Database - Online reporting system developed, hosted, and maintained by the State Water Resources Control Board for compliance with the Monitoring and Reporting Program contained in Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WQO No. 2006-0003-DWQ). Also referred to as the “CIWQS database.”

Stoppage - Any obstruction in the sewer that impacts the flow of wastewater. Also referred to as blockage.

Surface Water – Any waterway or body of water that is shown or depicted on the latest version of the USGS US Topo maps.

Trunk Sewer - Sanitary sewer (including pumping facilities) designed to carry at least 1 million gallons per day, and less than 10 million gallons per day peak wet weather flow, and receiving wastewater from two or more different users.

Upper Lateral - Portion of the sewer lateral from the upper end of the lower lateral to the limits of the building plumbing.
1.4 Roles and Responsibilities

1.4.1 SASD Staff

1.4.1.1 Administrative
Responsible for processing forms and providing reports to management as required per procedure.

1.4.1.2 Operations Support
Responsible for this manual and ensuring it satisfies requirements of the WDR. Also responsible for providing an SSO Responder when a Category 1 or 2 SSO is identified, and for flow monitoring services and backwater valve surveys.

1.4.1.3 Business Planning - Hydraulic Modeling
Responsible for analyzing flow information and hydraulic modeling of the sewer system.

1.4.1.4 PAO
Responsible for interface between SASD and the public, the media, and the Board of Directors.

1.4.1.5 Customer Service Liaison
Responsible for interface between SASD and the customer, as necessary.

1.4.1.6 Dispatch
Responsible for utilizing call-handling procedures to determine callers’ reported problems. Relay all call information to Prechecker in a timely manner.

1.4.1.7 Design
Responsible for designing and contracting certain repair and rehabilitation projects to support SASD Operations.

1.4.1.8 LRO
SASD staff who have been designated as LROs per the WDR shall be responsible for certifying final SSO reports based on the information collected through the procedures described in this document. They are also responsible for confirming that the data reported is true, accurate, and complete, and for confirming that data was received from adequately trained personnel.

1.4.1.9 M&O
Responsible for site investigation, containment, recovery, service restoration, cleanup, data collection, reporting, and following customer contact procedures detailed in this manual.
1.4.1.10 SASD

Any SASD staff who witness an SSO will notify dispatch or county central staff in a timely manner. At any given time during an emergency event, any SASD staff can be assigned to various tasks or perform any given function relating or pertaining to event-driven requirements.

1.4.1.11 SSO Responder

SASD Engineering and Regulatory Compliance staff responsible for responding to Category 1 and 2 SSOs.

1.5 Other Agencies, Jurisdictions, and Departments

1.5.1 Code Enforcement

County or City Departments are responsible for management of situations where PLSDs are considered to present risk to public health.

1.5.2 County Central

Utilize Call Handling Procedures to determine callers’ reported problem. Relay all call information to Prechecker in a timely manner. Services to be provided during non-business hours as defined in agreements.

1.5.3 EMD

County’s Environmental Management Department (EMD) responsible for management of situations where PLSDs are considered to present risk to public health.

1.5.4 SPLM

Sierra Pacific Loss Management (SPLM) is SASD’s third-party administrator for BIS claims.

1.5.5 Regional San

Any Regional San staff who witnesses an SSO will notify the appropriate staff in a timely manner. At any given time during an emergency event, any Regional San staff can be assigned to various tasks or perform any given function relating or pertaining to event driven requirements. Regional San staff will provide laboratory services as required per this manual.
1.6 Sewer System

1.6.1 Backwater Valve

In cases when there is a required backwater valve that was either not installed, or not maintained by the homeowner, SASD may have limited liability or no liability in the case of a BIS.

1.6.2 Damages Due to Stoppages

If SASD has responsibility for the cause of the stoppage, then SASD has responsibility to address damages arising from the stoppage. This includes when a backwater valve is closed due to an SASD stoppage, and the damage is solely from resident’s use of water.

If SASD does not have responsibility for the cause of a stoppage, then SASD does not have responsibility to address damages arising from the stoppage.

1.6.3 Upper and Lower Lateral Responsibilities

The property owner has the sole responsibility for clearing stoppages, inspecting, maintaining, and repairing the upper lateral, including backwater valves, so as to maintain the upper lateral in a condition that avoids negative impacts to the operation and maintenance of SASD’s system. Typically, the responsibility delineation between the upper and lower lateral is at the SASD cleanout. In the absence of a SASD cleanout, the responsibility delineation is at the limit of the SASD or other public sewer easement where SASD maintains the sewer facilities. In the absence of a SASD cleanout and SASD or other public sewer easement where SASD maintains the sewer facilities, the responsibility delineation is at the limit of the public right-of-way or public utility easement (PUE), whichever is the shortest distance as measured from the connecting SASD main line or manhole.

If SASD owns the main line, SASD is responsible for clearing stoppages and for inspecting, maintaining, and repairing the lower lateral, SASD cleanouts, manholes, and main line. If SASD does not own the main line or manhole, SASD has no responsibility for clearing stoppages or for inspecting, maintaining, or repairing the main line, cleanouts, or lower laterals.
2. EVENT INITIATION

2.1 Receive Call
2.2 Maximo
2.3 Notify Prechecker or Mechanical Maintenance Supervisor
2.4 Respond to Event
2.1  Receive Call

SASD Dispatch or County Central receives a phone call from a customer. This is considered the start of the event.

2.1.1  Type of Call Identified

The phone call is identified as a service-emergency, a Priority 1 call per the Customer Call Handling and Service Request Creation Policy available on the SASD intranet website.

2.2  Maximo

Proceed with creating an SR in Maximo per the Customer Call Handling and Service Request Creation Policy and Dispatch Guidelines for BIS and Overflow phone calls.

2.2.1  BIS Phone Calls

Determine if the call involves a BIS:

Ask, “Has there been any backup of sewage into your home or fixtures with this event?”

No:

- Document the answer to this question in the SR Details field.

  Example: “No sewage in home @ time of call

Yes:

- Inform the caller that we will be sending an SASD representative out to investigate the situation. Let the customer know that you have a few more questions that need to be answered first.

Ask and document the answers to the following questions:

  o  “Is sewage still overflowing into your home?”
  o  “Where is the sewage coming from?”
  o  “Has sewage overflowed on to floors?”

Yes:

  o  Ask “Which floors?”

No:

  o  Ask “Has sewage backed up into the sink, tub, and/or shower?”

Yes:

  o  Ask “Did this happen while using the sink/tub/shower, or did sewage come up on its own?”
If the response was the sink/tub/shower was in use—and the water did not drain—then this would not be a BIS, but would be classified as a slow drain (SLOWDRN).

Document the answers to these questions in the SR Details field.

Example: “Toilet overflowed onto the tile bathroom floor and soaked into the hall carpet, sewage backed up into tub @ time of call.”

Inform the caller to discontinue the use of any and all facilities (i.e. do not run water or pour any liquids down any drains; do not flush the toilets; do not run the washing machine or dishwasher; do not use the shower or tub) until the SASD representative arrives to investigate the situation.

Inform the caller that the SASD representative will need to view the damages from the BIS. Inform them that we will need someone to be home, and request a good contact phone number. If the person who will be there is someone other than the caller, get their name.

Ask the caller if the person is over the age of 18 and is authorized to make decisions. Ask if they can let our representative in the house to investigate the damages from the BIS when they arrive.

Yes:

• Document the answer to this question in the SR Details field.

  Example: “Caller will be home when you arrive,” or “Caller’s brother (Bob) will be at the home when you arrive.”

No:

• Explain to the caller that if SASD’s representative determines that the cause of the BIS is the SASD’s responsibility, then the SASD representative will need to view the damages to determine what type of cleaning and/or restoration will be needed. If SASD’s representative determines that the cause is a private problem, then the property owner will be responsible for any and all cleaning and/or restoration needs.

  • Document the answer to this question in the SR Details field.

Examples: “Caller will not be home when you arrive but will return @ 16:00 pm to allow access into home”. Or “Caller states that they will assume all responsibility for damages and the cleanup of the home.”
2.2.2 SSO Phone Calls

Determine if the call involves an SSO:

Ask, “Is the spill coming from a manhole or cleanout?”

Manhole:

- Continue to ask if the manhole is located in the street or yard. Document the answer to this question in the SR Details field.

Cleanout:

- Continue to ask if the cleanout is located in the front or backyard. Document the answer to this question in the SR Details field.

ALL SSOs:

- Ask “Does it appear that the overflow has reached a storm drain, waterway or drainage channel?”
  - Document the YES/NO/UNKNOWN answer in the SR field.

2.3 Notify Prechecker or Mechanical Maintenance Supervisor

2.3.1 Preparation

To prepare for emergency response, the Responsible M&O Managers will provide dispatch a priority list of responsible Precheckers via email to “SASD Radio Room Dispatch.”

*Table 2-1: Example of Prechecker Priority List*

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<tr>
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<td></td>
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<tr>
<td>Julin, D</td>
<td></td>
</tr>
<tr>
<td>Vargas, R</td>
<td></td>
</tr>
<tr>
<td>Smiley, S</td>
<td></td>
</tr>
</tbody>
</table>

- Managers are to notify the SASD Dispatch operator when their staff will be in a meeting or training.
- Managers will make sure that the supervisors are aware of their daily responsibilities.
- It is the responsibility of the manager to let dispatch know if any changes arise during the day, other than a Prechecker working on a current SR, after the initial email notification has been sent to SASD Dispatch.
2.3.2 Dispatch Responsibility

If the phone call received is regarding a potential pipeline issue, utilize the list provided by the M&O managers to notify the Prechecker of the emergency service call and reference the Weekly Standby/On-call list if after hours. The following guidelines will apply for notification on the responsible Prechecker.

2.3.2.1 Pipeline

- When receiving a call, the dispatcher will make an attempt to notify the primary Prechecker for the responsible area first by cell phone, unless they have prior knowledge of that person working on a current service request.
- If the dispatcher does not receive a response from the Prechecker by phone, they will leave a message stating the date, time, the Prechecker has a call, and explaining that they are moving on to the next person.
- The dispatcher will continue down the list leaving messages as necessary until they talk to a person directly.
- The dispatcher will not wait to give the person receiving the message time to call back.
- If the dispatcher does receive a call back, they can change the Prechecker responsibility in the service request and then notify the backup Prechecker that the original Prechecker is taking the call.
- The call should be dispatched as soon as it is taken. The dispatcher will not take another call until the current call has been dispatched. If another call is coming in, the dispatcher will let it go to the queue until the current call has been assigned properly.

2.3.2.2 Pump Station and Force Main

If the phone call is regarding a potential pump station or force main issue, notify the Mechanical Maintenance Supervisor or Mechanical Staff depending on the time of day of the event.

2.3.2.3 SCADA

SASD monitors its pump stations through a supervisory control and data acquisition (SCADA) system. The SCADA system monitors the pump stations 24 hours a day, 7 days a week. The SCADA system is programmed to send an alarm to notify SASD when the station is not operating as intended. For example, if a pump does not start then an alarm is sent out to notify SASD. These alarms allow SASD to respond to pump station component failures before they cause an SSO.

2.4 Respond to Event

Prechecker, Mechanical Maintenance Supervisor, or Mechanical staff receive information from SASD Dispatch or County Central and respond to the call and begins to assess available information. SASD Dispatch will provide contact support to the Prechecker or the Mechanical Maintenance Supervisor, as necessary (i.e. phone contact of individuals etc.). If the information provided by the caller states that the SSO reached a storm drain and or waterway, then these calls take on a higher priority.
3. ASSESS

3.1 Call Parameters
3.2 Problem Codes
3.3 Priority
3.4 Asset Data Information
3.5 Locating SASD Assets
3.6 Backwater Valve
3.1 Call Parameters

SASD Dispatch or County Central receives a phone call from a customer. This is considered the start of the event. The call may be from a customer who witnessed a manhole or cleanout overflowing or who has a potential BIS event. The Prechecker must evaluate the information received from SASD Dispatch or County Central to assess what assets may be involved in the event and to determine whether to contact the customer who made the call first or to investigate prior to contacting the customer.

The following factors can affect decisions that the Prechecker makes:

- The time of day
- The day of the week the call is received
- Location of event
- Location of assets (easement v. ROW)
- Number of previous calls to the event location
- Number of calls in the queue
- Previous maintenance work near or at the event location
- Risk factors such as economic, public interface, health, and safety

3.2 Problem Codes

Problem codes are set up for use in Maximo to capture what the call was initially reported to be, the actual problem found, the cause of the event, and any future work to be done relating to the event. These codes can be used in the service requests (SR) and the work orders to capture the characteristics of the event.
3.2.1 Initial Reported Problem Codes

Initial reported problem codes are set up for use in Maximo and entered on the SR by SASD Dispatch or County Central staff. These are determined by the answers the caller gives and may not be the actual problem found.

*Table 3-1: Initial Reported Problem Codes*

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJUST</td>
<td>Asset Too High/Low</td>
</tr>
<tr>
<td>APPEAR</td>
<td>Appearance</td>
</tr>
<tr>
<td>BIS</td>
<td>Backup Into Structure</td>
</tr>
<tr>
<td>CFC</td>
<td>Cover/Frame/Casting</td>
</tr>
<tr>
<td>DAMAGE</td>
<td>Damaged by Others (NOT SASD)</td>
</tr>
<tr>
<td>INSECT</td>
<td>Insects</td>
</tr>
<tr>
<td>NOISE</td>
<td>Noise Problem</td>
</tr>
<tr>
<td>ODOR</td>
<td>Odor</td>
</tr>
<tr>
<td>OTHER</td>
<td>Other</td>
</tr>
<tr>
<td>OVRFLW</td>
<td>Overflow</td>
</tr>
<tr>
<td>PERSON</td>
<td>Person</td>
</tr>
<tr>
<td>PLUMBER</td>
<td>Plumber Referral to SASD</td>
</tr>
<tr>
<td>RESTORE</td>
<td>Site Restoration Needed</td>
</tr>
<tr>
<td>SAFETY</td>
<td>Asset Safety Issue (Trip Hazard)</td>
</tr>
<tr>
<td>SLOWDRN</td>
<td>Slow Drainage</td>
</tr>
<tr>
<td>SUNKEN</td>
<td>Sunken Area</td>
</tr>
<tr>
<td>SURCHRG</td>
<td>Surcharge</td>
</tr>
<tr>
<td>WET</td>
<td>Wet Area</td>
</tr>
</tbody>
</table>
3.2.2 SR Classification Codes

SR Classification codes are set up for use in Maximo and entered on the SR by the Prechecker. SR classifications are divided into two categories: complaints and requests. The below table shows a subset that are commonly used. These are determined by the site investigation and qualify the event.

Table 3-2: SR Classification Complaint Subset Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJUST</td>
<td>Asset Too High/Low</td>
</tr>
<tr>
<td>APPEAR</td>
<td>Appearance</td>
</tr>
<tr>
<td>BIS</td>
<td>Backup Into Structure</td>
</tr>
<tr>
<td>BPI</td>
<td>Building Plumbing Issue</td>
</tr>
<tr>
<td>CFC</td>
<td>Cover/Frame/Casting</td>
</tr>
<tr>
<td>DAMAGE</td>
<td>Damaged by Others (NOT SASD)</td>
</tr>
<tr>
<td>INSECT</td>
<td>Insects</td>
</tr>
<tr>
<td>MULTICAL</td>
<td>Multiple Call</td>
</tr>
<tr>
<td>NOISE</td>
<td>Noise Problem</td>
</tr>
<tr>
<td>ODOR</td>
<td>Odor</td>
</tr>
<tr>
<td>OTHER</td>
<td>Other</td>
</tr>
<tr>
<td>OVRFLW</td>
<td>Overflow</td>
</tr>
<tr>
<td>PERSON</td>
<td>Personnel Complaint</td>
</tr>
<tr>
<td>PLUMBER</td>
<td>Plumber Referral to SASD</td>
</tr>
<tr>
<td>RESTORE</td>
<td>Site Restoration Needed</td>
</tr>
<tr>
<td>SAFETY</td>
<td>Asset Safety Issue (Trip Hazard)</td>
</tr>
<tr>
<td>SLOWDRN</td>
<td>Slow Drain</td>
</tr>
<tr>
<td>SUNKEN</td>
<td>Sunken Area</td>
</tr>
<tr>
<td>SURCHRG</td>
<td>Surcharge</td>
</tr>
<tr>
<td>WET</td>
<td>Wet Area</td>
</tr>
</tbody>
</table>
3.2.3 SR Overflow Tab Cause of Spill

The SR Overflow tab cause descriptors are located in Maximo and entered on the SR Overflow tab by the Prechecker. The causes are determined by the site investigation and qualify the event. The following identifies possible causes:

- Air Relief Valve (ARV)/Blow-Off Valve (BOV) Failure
- Construction Diversion Failure
- CS Maintenance Caused Spill/Damage
- Damage by Others Not Related to CS Construction/Maintenance (Specify Below)
- Debris from Construction
- Debris from Lateral
- Debris-General
- Debris-Rags
- Flow Exceeded Capacity (Separate CS Only)
- Grease Deposition (FOG)
- Inappropriate Discharge to CS
- Natural Disaster
- Operator Error
- Other (specify below)
- Pipe Structural Problem/Failure
- Pipe Structural Problem/Failure – Installation
- Pump Station Failure-Controls
- Pump Station Failure-Mechanical
- Pump Station Failure-Power
- Rainfall Exceeded Design, I&I (Separate CS Only)
- Root Intrusion
- Siphon Failure
- Surcharged Pipe (Combined CS Only)
- Vandalism
3.2.4 Spill Response Activity

Spill response activity information in Maximo is entered on the SR Overflow tab by the SSO Responder for Category 1 or 2 SSOs. The choices used are pre-determined, and multiple choices can be made.

- Cleaned-up
- Mitigated effects of spill
- Contained all or portion of spill
- Other (specify below)
- Restored flow
- Returned all spill to sanitary sewer system
- Returned portion of spill to sanitary sewer system
- Property Owner Notified
- Other Enforcement Agency Notified

3.3 Priority

The Prechecker must assess the priority of the calls they receive. They may have other calls in the queue that need responding. The following should be taken into account when prioritizing a call:

- Risk to public health, safety, and the environment
- Number of people impacted

Information from dispatch can help determine this priority.

3.4 Asset Data Information

There are several information systems available to the Prechecker to assess the event and determine what assets are in the area, where they are located, and which ones SASD has responsibility for maintaining and operating.

3.4.1 Maximo

Maximo is the CMMS used by SASD to track service call and work activities on all assets. It also includes asset and location information for use by staff during emergency response activities. Maximo is available to staff with licenses at http://sasdpmxapp2/Maximo.

3.4.2 WQCMMS – Historical Reference Only

The Water Quality CMMS (WQCMMS) is a legacy enterprise software tracking system used to record inspections, repairs, and rehabilitation of SASD sewer assets, as well as information regarding tools, equipment, and staff, prior to September 2009. Access to the system is available to all SASD staff at http://sasdcmmssewer/portal.asp.
3.4.3 **SASD Sewer Viewer and SASD ArcPad**

SASD Sewer Viewer is a Geographical Information System (GIS) web application published by the Sacramento County Department of Technology, with support from SASD staff. SASD ArcPad is a “dock and go” system that provides mapping information primarily to field staff and is maintained by SASD staff. Both the Sewer Viewer and ArcPad are used to obtain information about County parcels, SASD collection system, Regional San’s interceptor system, and the Department of Water Resources (DWR) drainage system, among other types of information. The Sewer Viewer consists of an electronic map and links to various database resources, where ArcPad does not provide information related to other county database resources.

### 3.4.3.1 Basemap

The basemap dataset contains background layers that are available in both map viewers: parcels, roadway alignment, and other information, such as map notes and city boundaries. Each parcel has links to multiple databases for specific information (i.e. owner, land use, deeds, permits, etc.), and the user needs to select a parcel in order to view this data in Parcel Details. The information provides the Prechecker with the property owner’s information to confirm who has legal authority to authorize aspects of SASD work.

Listed below is the information available in the Parcel Details when using SASD Sewer Viewer. The fields also available from ArcPad are marked with an asterisk.

- Property Information*
- SASD General Information
  - Subdivision name
  - Parcel lot number*
- SASD Lower Laterals*
- SASD Trunk Reimbursement Areas
- SASD Reimbursement Areas
  - No-fee areas
- SASD Sewer Study Areas
- Parcel Addresses*
- Owner Information*
- Owner History
- Zoning
- Planning
Fee Districts
  o Drainage
  o Fire
  o SASD*
  o Supervisor
  o Water Supply

Subdivision
Assessor Information
Assessor’s Roll Values
Property Building Information
Parcel History
Landmarks
Political Districts
Service Districts
  o Other Districts
  o Regional San*
  o SASD*

Permits
Tags
Business Licenses
Trash Pickup
Animal Care
CUBS
  o If the site is in billing for sewer
  o How many units/buildings they are billed for
  o How many Equivalent Single-Family Dwellings (ESDs) the site is permitted to discharge

CUBS Billing Addresses
SCWA Water Meters
SHRA
  o Sacramento Housing and Redevelopment Agency

Parcel Notes
  o Agreement related notes

Easements*
FEMA Flood Zone
Map Book Pages*
3.4.3.2 **SASD Assets**

SASD dataset contains SASD owned/maintained sewer assets (i.e., manholes, main lines, pump/lift stations, lower laterals, etc.). Selecting an asset, such as a manhole or main line, will provide specific information (i.e., manhole depth, pipe size, pipe length, etc.). There is also a link to the Sewer Plans that will open the associated improvement plan in the Records Center of the selected asset.

To obtain easement information in the viewer, the layer must be activated. The Easement layer presents a diagram of the easements that SASD owns or has rights to use. If an easement is selected, the system will forward over to the County’s Real Estate FileNET system (Red Star) to find the associated easement document.

3.4.3.3 **Regional San Facilities**

The Regional San dataset contains Regional San owned/maintained sewer assets (i.e., manholes, main lines, pump/lift stations, lower laterals, etc.). Selecting an asset, such as a manhole or main line, will link to their specific information (i.e., manhole depth, pipe size, pipe length, etc.). There is also a link to the Sewer Plans that will open the associated improvement plan in Regional San’s FileNET system of the selected asset.

To obtain easement information in the viewer, the layer must be activated. The Easement layer presents a diagram of the easements that Regional San owns or has rights to use. If an easement is selected, the system will forward over to Red Star to find the associated easement document.

3.4.3.4 **DWR**

The DWR dataset contains owned/maintained drainage facilities (i.e., manholes, drop inlets, drainage pipes, etc.). Drainage Facility assets have links to a maintenance management system for specific information (i.e., pipe length, utility district, shed, etc.).

3.4.4 **Electronic Document Management System – SharePoint Records Center**

The Electronic Document Management System used by SASD is known as the SharePoint Records Center. The Records Center is the final records repository for the Goethe and NACY locations. The Records Center electronically stores all documents, maintains version control, and controls retention of these documents. The Records Center User Guide is located at http://intranet.sda.saccounty.net/sasd/rinfo/rmtmsite/Records%20Center/SharePoint_Records_Center_User_Guide.pdf.

3.4.5 **SASD Plans Database**

SASD Plans database is used to track three specific phases (design, construction, and acceptance) of a project. A new asset is created and assigned a status corresponding to the current phase of the project. Plans processed by SASD Engineering Development Services are sent to Information Management for scanning into the Records Center.
3.4.6 SASD Website

SASD public website has a wealth of knowledge for not only customers, but also for SASD staff. SASD staff utilize the website and also direct customers there for specific documents or information. The website contains essential documents, such as SASD standards and specifications, SASD requirements, contact information, policies and ordinances, current projects, educational programs, frequently asked questions, and customer service information. The address for the website is [www.sacsewer.com](http://www.sacsewer.com).

3.5 Locating SASD Assets

Access for construction and maintenance of sewer lines is imperative. Therefore, many development projects processed by SASD are required to grant or dedicate portions of their property to SASD for that purpose. Specifically dedicated land is required when the sewer line or land that will be needed for the construction of a sewer line lies outside of the public right of way. The dedication may be temporary or permanent.

The sewer easement layer in SASD Sewer Viewer and ArcPad, record maps, and plans are the primary source used to locate a ROW or easement line. When maps or plans are used in conjunction with existing onsite structures, such as a curb, sidewalk, center line monument, or utility boxes, the ROW or easement line can be readily located.

3.5.1 Main Line

SASD main line assets can be located in the ROW, sewer easement, or PUE. To determine the most successful method of locating the asset involved with the emergency event, utilize Maximo and Sewer Viewer together. The systems will provide nearest street location, parcel address, and approximate location of asset.

3.5.2 Manhole

SASD manhole assets can be located in the ROW, sewer easement, or PUE. To determine the most successful method of locating the asset involved with the emergency event, utilize Maximo and Sewer Viewer together. The systems will provide nearest street location, parcel address, and approximate location of asset.

3.5.3 Cleanout

Existing cleanouts can be located according to old ordinances, policies, and standards. Newer cleanouts will be located within the PUE or sewer easement and may be within the ROW according to the standards and specifications. Some cleanout locations may be described in the asset description and specification fields in Maximo or Sewer Viewer showing the distance and direction of the cleanout.

If there is no PUE, as is sometimes the case in older areas in SASD service area, the cleanout may be located within the ROW along with the other utility lines and/or sidewalks.
3.6 Backwater Valve

The Maximo or Sewer Viewer lower lateral asset description may include information regarding whether or not the parcel has a backwater valve required and/or installed.

If it was determined during the improvement plan review process or during a field survey that a backwater valve is required on the parcel due to elevation issues, the asset description will have a note that says “BVR: Yes.”

If SASD has records that a backwater valve was installed, the asset description will have a comment that says “BVI: Yes.”

Depending on if a backwater valve is required and/or installed, SASD may have limited liability for any BISs. The Prechecker will need to locate the backwater valve and document it during the site investigation. This process is discussed in Tab 4, Section 4.1: Site Investigation.

More detailed records regarding backwater valves are available in SASD Plans Database, as discussed in Tab 3, Section 3.4.5: SASD Plans Database.
4. Site Investigation & Categorization

4.1 Site Investigation
4.2 Determine Responsibility
4.3 SSO Categorization
4.4 BIS
4.5 Determine Cause of SSO
4.1 Site Investigation

Evaluate need for Public Interface at all times, See Tab 13: Public Interface.

The Prechecker will respond to the location, and time stamp the SR. Document all actions with a timeline. The Prechecker investigates, evaluates, confirms sewage spill, and takes pictures.

If the spill event is located at a school, or affects Regional San assets, the Prechecker is responsible for Special Notifications. See Tab 10, Section 10.1: SSO Special Notification.

If the spill event is located in an area of high media interest, see Tab 13: Public Interface. The Prechecker will contact the “Responsible Manager”, who will notify PAO.

If the spill event is located at a developed park, the Prechecker may need to notify EMD depending on the extent of the spill, location of the spill, etc. See Tab 13: Public Interface and Tab 5: Notification for EMD contact information.

Note:

- In areas with flat terrain, the cause of the overflow may be located a considerable distance downstream of the actual overflow.
- During large storms where the collection system has reached capacity due to the amount of I/I, it may not be possible to stop the overflow until the flows recede.

Rainfall Determination

For each SASD-responsible SSO, it will be determined whether it is raining at the time of response, and whether rain occurred during the SSO event.

At the time of response, the following procedure will be used to determine if it is raining:

- Stand outside of your vehicle
- Make sure there isn’t anything over your head to block the rain
- Hold out in front of you, an 8 ½” x 11” piece of paper (make sure it is held flat)
- Perform a 5/1000 count
- If there are 2 or more rain drops on the paper, then it is raining
To determine whether rain occurred during the SSO event, the prechecker shall collect specific information from the SSO service request including:

- spill start date/time
- spill end date/time
- spill location

Utilizing this data, the prechecker shall access the website [https://www.wunderground.com/](https://www.wunderground.com/) to obtain data from the weather station closest to the spill location and review precipitation levels between the spill start date/time and the spill end date/time. If the precipitation rate in this time frame is greater than 0.00 inches, then rain occurred during the SSO event.

In the “Overflow” tab of the SSO service request, locate and select “yes” or “no” from each drop-down list titled “Was it raining at the time of arrival” and “Did it rain during the overflow event.”

At all times during an event, evaluate whether it is a Category 1 or 2 SSO.

The following circumstances result in a Category 1 SSO:

1. The spill discharged to a drainage channel or surface water;
2. The spill reached a MS4 and all of the wastewater was not fully returned to the sanitary sewer system.

The following circumstances result in a Category 2 SSO:

1. The estimated spill volume was equal to or greater than 1,000 gallons, and the spill did not discharge into a drainage channel, surface water, or the MS4 unless the entire SSO volume discharged to the storm drain system is fully recovered and returned to the sanitary sewer system.
   a. Use **Tab 7: Volume Estimation** to assist in this determination.

If an event is determined to be a Category 1 or 2 SSO, escalate it to the SSO Responder. Contact the SSO Responder by using the weekly standby list to determine the appropriate person. Document the name of the responder notified as well as the time of notification. Continue with site investigation. Additionally, Category 1 and 2 SSOs as noted above are sensitive to a 2-hour call notification, see **Tab 10: Escalation & Authority**.
4.1.1 Manhole

The Prechecker will locate the manhole upstream of the customer reporting service problems or the manhole where the problem was reported.

A blockage may be located between manholes, where one manhole has sluggish flow or surcharging and the next manhole downstream has very little flow or is dry.

During large storms, overflows may occur because of I/I of storm water into the sewer system. I/I can greatly increase the flow in the collection system and cause overflows from pipes that are only partially blocked by roots, grease, or debris. However, during very large storms, I/I can cause the flow in the collection system to exceed the hydraulic capacity of the pipes or pump stations.

The Prechecker will check atmospheric condition in the manhole utilizing the provided gas protection device. Remove the manhole cover and determine if the system is functioning as intended.

Is the main line flowing freely?

No:

- Continue to Tab 4, Section 4.1.3: Backwater Valve to evaluate the Backwater Valve Requirement and continue to Tab 4, Section 4.2.4: SASD Responsible.

Yes:

- If the call was regarding a customer service problem, continue to Tab 4, Section 4.1.2: SASD Cleanout.
- If the call was regarding a manhole/main line, contact the caller for additional information.

4.1.2 SASD Cleanout

The Prechecker will attempt to locate an SASD cleanout.

Location techniques:

- Check curb and gutter area for an ‘S’ stamp imprint indicating the approximate location of the upper lateral connection to SASD’s lower lateral at the ROW or easement line.
- Look for signs of trench compaction subsidence or cracks in the street pavement indicating the possible location of the lower lateral and its connection to SASD’s main line.
- From the ground elevation, visually note the location of the restroom’s location within the building, and check for the building sewer vent. Visually look for building sewer and upper lateral trench subsidence.
- Attempt to locate an SASD cleanout by using the metal locating device in, and adjacent to, the area you determined the most probable location of the upper lateral connection to SASD’s lower lateral.
Is there an SASD Cleanout?

No:
- Continue to *Tab 4, Section 4.1.6: Building Cleanout*.

Yes:
- Continue to Water in SASD Cleanout Riser.

Water in SASD Cleanout Riser?
- The Prechecker will visually check if water is standing in SASD’s cleanout riser.

Is SASD’s Cleanout Wet or Dry?

Wet:
- Continue to *Tab 4, Section 4.1.3: Backwater Valve* to evaluate the Backwater Valve Requirement and continue to *Tab 4, Section 4.2.4: SASD Responsible*.

Dry:
- Continue to Is the Lower Lateral Functioning Properly.

Is the Lower Lateral Functioning Properly?
- The Prechecker will use the portable CCTV camera to confirm if the lower lateral is functioning properly.

Does the Lower Lateral Function Properly?

No:
- Continue to *Tab 4, Section 4.1.3: Backwater Valve* to evaluate the Backwater Valve Requirement and continue to *Tab 4, Section 4.2.4: SASD Responsible*.

Yes:
- SASD is not responsible. Continue to *Tab 4, Section 4.1.6: Building Cleanout* if call reported was a BIS, otherwise continue to *Tab 4, Section 4.2.1: SASD Not Responsible*. 
4.1.3 Backwater Valve

For lower lateral assets, the asset long description may indicate that there is a backwater valve required and/or installed. If the description states that a backwater valve is installed, the Prechecker will document findings on the SR.

4.1.4 Request for Inspection

If the asset long description does not indicate there is a backwater valve required, and if during the site investigation the Prechecker assesses that the parcel may require one, the Prechecker will notify the Development Services Collector Design Verification Unit as part of their reporting process. See the Backwater Valve section in Tab 11: CMMS Data Collection & Reporting. The Development Services Collector Design Verification Unit will continue with the Backwater Valve section in Tab 10: Escalation & Authority. The Prechecker continues with site investigation.

4.1.5 Located in Field, no Record

If the SR does not indicate there is a backwater valve installed, and the Prechecker determines that the parcel has one installed, the Prechecker will notify the Development Services Collector Design Verification Unit as part of their reporting process. See the Backwater Valve section in Tab 11: CMMS Data Collection & Reporting.
4.1.6 Building Cleanout

The Prechecker will attempt to locate the building sewer cleanout.

**Location Techniques:**

From the ground elevation, visually note the location of the restroom, where it’s situated in the building, and visually check for the building sewer vent. Visually look for building sewer and upper lateral trench subsidence.

Is there a building sewer cleanout?

No:

- Continue to *Tab 4, Section 4.1.7: All Building Plumbing Affected*.

Yes:

- Continue to Water in Building Cleanout.

Water in Building Cleanout?

- The Prechecker will visually check if water is standing in the building cleanout.

Is the building sewer cleanout wet or dry?

Wet:

- Did you locate an SASD cleanout in *Tab 4, Section 4.1.2: SASD Cleanout*?

  Yes:

  - Continue to *Tab 4, Section 4.2.1: SASD Not Responsible*.

  No:

  - Continue to *Tab 4, Section 4.1.8: No SASD Cleanout Located*.

Dry:

- Did you locate an SASD cleanout in *Tab 4, Section 4.1.2: SASD Cleanout*?

  Yes:

  - Continue to *Tab 4, Section 4.2.1: SASD Not Responsible*.

  No:

  - Continue to *Tab 4, Section 4.1.8: No SASD Cleanout Located*.
4.1.7 All Building Plumbing Affected

It may be hard to tell whether the stoppage is in the building plumbing or in the upper lateral. If some drains in the home seem to be working correctly, then assume the stoppage is in the fixtures or in the building plumbing. If a building cleanout exists near the house and it is clear, assume the stoppage is in the building plumbing.

The Prechecker may need to ask investigative questions to determine if one or more fixtures are affected.

Is all building plumbing affected?

No:

- SASD is not responsible. Isolated to the local building plumbing. These are building plumbing issues and not BISs or SSOs. The drain water never made it from the building plumbing to the sewer system, so it is not a “back-up” of the sewer system components (upper or lower laterals, main line, manhole, or pump station).

- Mark the SR Classification as Building Plumbing Issue (BPI).

- The “Site” field in the SR should be indicated as private sewage discharge. Do not create an SSO Report.

Yes:

- Did you locate an SASD cleanout in Tab 4, Section 4.1.2: SASD Cleanout?

  Yes:

  o SASD not responsible. Assume upper lateral stoppage and continue to Tab 4, Section 4.2.1: SASD Not Responsible.

  No:

  o Continue to Tab 4, Section 4.1.8: No SASD Cleanout Located.
4.1.8 **No SASD Cleanout Located**

Locate the connection point of the upper lateral to the lower lateral at the ROW or easement line.

Elements listed below are to be considered for a quick initial determination when choosing a method to locate the connection point of the upper and lower lateral. The table indicates when a Dig Up or CCTV Lateral Launch method may generally be more successful.

*Table 4-1: Considerations for Dig Up or CCTV Lateral Launch*

<table>
<thead>
<tr>
<th>Considerations</th>
<th>Dig Up</th>
<th>Lateral Launch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tree</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Retaining Wall</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Elevated Terrain</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Patterned, or stamped concrete</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Time of Day (Late night)</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Channeling of starting manhole</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>6” main line</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Tap location distance from starting manhole</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Availability of trained CCTV/Lateral Launch crew</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Depth (shallow, less than 4.5 feet)</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Depth (deeper, greater than 4.5 feet)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Proceed with any of the following methods listed below as expediently and cost-effectively as appropriate.

4.1.8.1 **Ferret**

If there is a building cleanout, SASD may use a ferret to assist in identifying the lower lateral location. The Prechecker will request permission to enter by having the customer sign “Right of Entry” form and explain ferret location process to customer. If customer does not sign Right of Entry form, use of ferret from building cleanout is not allowed. Indicate location of lower lateral (paint, shovel divot, stake, etc.) and go to *Tab 4, Section 4.1.8.2: Dig Up*.

If a blockage is encountered in the upper lateral prior to reaching the connection to the lower lateral, you must continue investigating as responsibility has not yet been confirmed.
4.1.8.2  Dig Up

Prechecker requests M&O crew deploy to event location to dig up and expose the lower lateral connection to the upper lateral to determine responsibility.

When M&O crew arrives, if another event requires the Prechecker to respond, prior to departing the Prechecker introduces the Crew Lead to the customer. The Crew Lead will become responsible for customer communication and keeping the Prechecker informed about the lower lateral excavation.

The crew will establish a work zone to excavate and expose the lower lateral. When the lower lateral is exposed, the Crew Lead will determine the best method of breaking into the pipe according to the pipe type. Once the pipe has been opened, if water fills the excavated hole or if the pipe appears dry, continue to investigate and CCTV from the pipe entry to the main line.

If the crew is unable to CCTV from the pipe entry to the main line immediately, then they must notify the Prechecker to return with the portable CCTV camera to determine if the line is really clear.

If the crew has reason to believe that the exposed lower lateral has a double-wye upstream in the upper lateral, the crew should attempt to get a signed Right of Entry form and televise up the lateral to determine the location of the wye before installing the cleanout. Note the location of the double-wye in the work order.

To determine Responsibility, Continue to Tab 4, Section 4.1.8.6: Location of Blockage.

4.1.8.3  CCTV Lower Lateral Launch from Main line

CCTV the lower lateral from the main line to the edge of the easement or ROW.

- Prechecker requests M&O crew deploy to try to locate lower lateral connection to main line.
- CCTV crew arrives, set up on manhole, and prepare to deploy the lateral launch camera.
- Perform lateral launch and inspection.
- Conduct an inspection of the lower lateral and record all findings w/audio and video.
  - Document the footage from the main line to the easement or ROW to ensure that it is clear and that the inspection was performed on the entire lower lateral.

- Contact Prechecker and inform them of findings.

Can crew lateral launch lower lateral and determine responsibility?

No:

- Crew excavate lower lateral from CCTV tap location marking, go to Tab 4, Section 4.1.8.2: Dig Up.

Yes:

- Continue to Tab 4, Section 4.1.8.6: Location of Blockage.
4.1.8.4  **CCTVI Lower Lateral (manhole tap) Launch from Manhole**

CCTV or rod the lower lateral to the edge of the easement or ROW when there is a manhole tap.

- If the crew rods the lower lateral to the easement line and does not encounter the stoppage, then the stoppage is in the private portion of the lateral and is not the SASD’s responsibility.
  - Document the footage from the manhole to the easement ROW and the amount of rods that were used (in footage) to ensure that it is clear and that the entire lower lateral was cleaned.
- Continue to **Tab 4, Section 4.1.8.6: Location of Blockage**.
  - If the location of the blockage cannot be determined, or if the crew cannot rod to the easement line, then the lower lateral needs a CCTV inspection. The CCTV can be performed from the manhole tap, if it can be done more quickly and cost effectively than a dig up.
    - Document the footage from the manhole to the easement or ROW to ensure that it is clear that the inspection was performed on the entire lower lateral.
- Call the Prechecker and inform them of findings.

Can crew CCTV or rod the lower lateral and determine responsibility?

No:

- Crew excavate lower lateral, go to **Tab 4, Section 4.1.8.2: Dig Up**.

Yes:

- Continue to **Tab 4, Section 4.1.8.6: Location of Blockage**.

4.1.8.5  **Use of a Contractor to Rod from Private Cleanout**

In some cases, the use of a Contractor may be employed to rod from the building cleanout to the SASD easement. The use of this method will strictly be limited and is not intended to be used in place of previously stated location techniques in **Tab 4, Sections 4.1.8.1 through 4.1.8.4**.

Examples of scenarios that may be determined as possible candidates for use of a contractor are:

- Safety
- Late night noise/customer disturbance, such as jack hammer use
- Removal of obstructions where dig up would occur, such as a very large tree

Permission for use of a contractor will be given to the Prechecker by the Responsible Manager.
The Prechecker will:

1. Provide a detailed description of the situation to the Responsible Manager. Include whether or not a Backwater Valve exists on the upper lateral.
2. Prepare detailed log entries on the SR documenting the following:
   a. Constraints that created the situation necessitating the call to the Responsible Manager
   b. Name of the Responsible Manager who approved the use
   c. Date and time Responsible Manager approval was given
3. Collect signed Right of Entry form from resident.
4. Contact Contractor.
5. Create all necessary work orders.
6. Remain on site to perform the following:
   - Document the time of the contractor’s arrival.
   - Monitor the contractor’s work, and document actions taken by the contractor, including any damage to private property or SASD assets caused by the contractor.
   - Determine and document responsibility for the overflow by:
     - Measure distance from cleanout used to rod (include riser height) to the SASD easement and record this in the Log of the SR as “SASD easement is “X” distance from Private Cleanout.
     - Measure distance rodded to the stoppage and record this in the Log of the SR as “Stoppage is “Y” distance from Private Cleanout.”
   - Depending upon the results of the measurements collected, clearly identify the responsibility for the overflow in the SR Log Summary field as either:
     - “SASD responsible for SSO”
       - If stoppage is in the SASD portion, document the problem, time stoppage is broken, and complete the cause and remedy portions of failure reporting.
       - Continue to Tab 4, Section 4.2.4: SASD Responsible.
     - “Stoppage in private portion caused overflow”
       - “Cleaned while determining responsibility Private Stoppage,” do not complete failure reporting, nor enter any stoppage breaking times.
       - Continue to Tab 4, Section 4.2.1: SASD Not Responsible.
   - Document time contractor leaves site.
7. Complete all other SR and work order documentation.

The Responsible Manager will:

1. Document their decision and justification on the SR. Note date and time permission was given or denied.
4.1.8.6  **Location of Blockage**

According to SASD’s Sewer Ordinance, the homeowner is responsible for the upper lateral, and SASD is responsible for the lower lateral.

There may be a wye portion of a cleanout that was not raised to the surface; this may be visible from CCTV launch. If there is not an SASD cleanout, the easement or ROW line will need to be located to make this determination.

The Prechecker or Crew Lead will determine if the Blockage is between the Main Line Sewer and the edge of the Easement or ROW:

No:

- Continue to *Tab 4, Section 4.2.1: SASD Not Responsible*.

Yes:

- If the Prechecker has left the site, the Crew Lead will contact the Prechecker and notify them that SASD is responsible. If the event was a BIS, the Prechecker must return to the event site. If the event was not a BIS, the Prechecker may elect not to return to the site and may delegate some duties to the Crew Lead. The Prechecker will continue to *Tab 4, Section 4.1.3: Backwater Valve* to evaluate the Backwater Valve Requirement and continue to *Tab 4, Section 4.2.4: SASD Responsible*.

4.1.8.7  **Pump Station**

There are many different factors and reasons why a pump station may need an emergency response. Listed below are some of the more common causes and their associated basic solutions.

- Power outage external or internal without permanent generators
  - Solutions: Set up portable generators, portable pumps, or Vactor truck
- Pump failures
  - Solutions: Set up spare pumps, portable pumps, or a Vactor truck
- Bubbler or transducer failures
  - Solutions: Set up float level control system, portable pumps, or Vactor truck
- Communication failures
  - Solutions: Mechanical crew or Control System crew response and monitors
- Force main and Combination Air Relief valves failures
  - Solutions: Set up portable pumps or Vactor truck
During normal business hours, the Pump Station Facility staff will monitor the SCADA alarm system for any indications of problems. The individual assigned to monitor SCADA will notify the Mechanical Maintenance Supervisor of the alarm and station for dispatching of the needed crews. The main monitoring and dispatch site for SCADA is the South Area Corporation Yard at 10060 Goethe Road. Crews in the field can operate and monitor SCADA on their laptop computer via air-card. Available craft crews are mechanical, electrical, control system, stationary engineer, and equipment mechanics.

On evenings and weekends, the Weekly Standby/On-call list should be referenced for proper personnel notifications. Mechanical Standby crews will be notified by phone from SCADA (WIN 911). They will be told the station location and alarm name. Mechanical crew leads will determine the course of action depending on the station priority, particulars of the station involved, and alarm type.

At each station and on the laptop computers there is an operation manual that has specific information for that station. The below listed information is available for the operator's assistance:

- Map of upstream service area
- Location of low manhole in service area
- Station Downtime at Peak hours
- Station and force main asset information
4.2 Determine Responsibility

4.2.1 SASD Not Responsible

If the problem is located within the building plumbing or upper lateral, SASD is not responsible and the event is considered to be a PLSD or a private BIS if there is a spill into the structure. This includes the private collection system, which may include multiple private main line pipes. This event could be a single overflow event (spill only at private cleanout or in structure) or a multi-overflow event (spill at private cleanout and in structure).

The Prechecker or Crew Leader will notify the homeowner that SASD’s collection system is functioning properly and inform them that they will need to have the sewage blockage in the upper lateral or building sewer or private collection system cleared.

The findings do not preclude the homeowner from filing a claim if they so desire. The Prechecker will provide the homeowner the website address to obtain claim documentation upon request (http://www.sacsewer.com/sites/main/files/file-attachments/form-claims_0.pdf). The Prechecker can also provide a hard copy of the claim form if the homeowner prefers.

If there is not an SASD cleanout, inform the homeowner that if they or their private contractor exposes the lower lateral connection at the easement, SASD will install a cleanout per SASD standards and specifications at no cost to the owner.

If an SASD cleanout to grade was not installed as part of the construction of the lower lateral and the repair necessitates the replacement of greater than 10 feet of the upper lateral, an SASD cleanout to grade will be installed per SASD’s Standards and Specifications. This happens by the owner’s contractor, at the owner’s expense, as required in the SASD Sewer Ordinance, Section 7.

Although this is a private event, and SASD is not liable, SASD does have a responsibility for the health and welfare of the public. To evaluate whether or not the event may present a risk to the public, the following questions should be addressed.

Is sewage running into a public area or public structure?

Yes:

- Contact County Central (See Tab 5, Section 5.6: All Other PLSDs), proceed as requested by EMD or Code Enforcement and continue to the next question.

No:

- Continue to next question.

Has sewage contacted a waterway?

Yes:
• Contact the SSO Responder if the overflow volume has or will likely exceed 1,000 gallons. Contact County Central (See Tab 5, Section 5.6: All Other PLSDs), proceed as requested by EMD or Code Enforcement and continue to the next question.

No:

• Continue to next question.

And/or was there a sewer overflow in the structure?

Yes:

• Does Volume/Location of Sewage On/In Private Property Present a Public Risk?

   Yes:

      o Contact County Central, proceed as requested by EMD or Code Enforcement and continue to Tab 11, Section 11.3: SASD Not Responsible – Private Event. Take photos of damages if possible.

      No:

      o Inform the homeowner to call a plumber if they have not already been informed and continue to Tab 11, Section 11.3: SASD Not Responsible – Private Event.

No:

• Inform the homeowner to call a plumber and provide a copy of the When You Have A Sewer Problem handout. Continue to Tab 11: Reporting.

NOTE: EMD or Code Enforcement cannot request/authorize the cleanup of an SSO that has left the property and entered the storm drain system. The appropriate storm water district will need to be notified (see Tab 5, Section 5.6: All Other PLSDs).

4.2.1.1 Follow-Up CCTV

Refer to the current Televised Inspection policy to determine if and when the line should be televised.

4.2.2 Provide Educational Information to Customer on Sewer Problems & Responsibility

This is the handout that is to be distributed to the customer/property owner when responding to an SSO/BIS caused by a problem in any part of the lateral line (upper or lower lateral).
# When You Have A Sewer Problem

**SASD Service**

As your local sewage collection utility, the Sacramento Area Sewer District (SASD) is committed to providing you with outstanding customer service.

When you contact us about a problem with your sewer service, our goal is to respond within two hours to determine if there is a problem in our portion of the sewer system servicing your property. SASD is responsible for the lower lateral and main sewer lines (see diagram).

**If a problem is found in SASD’s system**

When SASD finds that there is a problem in its system, immediate action will be taken to correct the problem and restore your sewer service.

Once SASD’s portion of the system has been cleared, it is still possible that a problem may exist in the private portion of the system. It is recommended that you also contact a plumbing contractor to assess for problems in the private portion of the line.

*Example:* If tree roots are found in SASD’s lower lateral line, it is possible that the upper lateral may be similarly impacted.

**When you need to contact a plumbing contractor**

After assessing the condition of our portion of the system, we may recommend that you contact a plumbing contractor to ensure that the private portion of the system (the building plumbing and the upper lateral) is functioning properly. This recommendation may occur in the following scenario:

- No problem can be identified in SASD’s portion of the system.
- There is reason to believe that the private portion of the system may have a problem in addition to any problem found in SASD’s system.

**Property owner responsibility**

The property owner is responsible for ensuring that the private portion of the system is in good condition and functioning properly. Failure to do so may result in a sewage back-up into the property structure.

*Remember:* Even if we verify a problem in SASD’s portion of the system, it’s possible that the private portion of the system may also require assessment and corrective action.

**When sewage backs up into structures: our good faith promise**

SASD is committed to providing outstanding customer service. As an act of good faith to our customers, if a sewage back-up occurs in a structure and a problem is simultaneously verified in SASD’s system, SASD will assume the responsibility for cleaning up the structure and repairing any resulting damage.

However, it is very important that our customers understand the following:

- There may still be a problem in the private portion of the system that could create a future sewage back-up.
- It is the property owner’s responsibility to ensure that the private portion of the system is in good condition and functioning properly.
- If a future back-up occurs and SASD determines there is no problem in its portion of the system, SASD will bear no responsibility for clean-up or repair.

*Updated: January 2017*
When You Have A Sewer Problem (continued)

SASD cannot service private sewer lines

SASD can maintain and service its own sewer system, but it is not authorized to perform work on the private portion of any sewer system.

SASD cannot provide contractor referrals

SASD is a public utility and we prohibit our employees from providing anyone with any type of referral or recommendation for the use of any particular plumbing contractor.

However, we have provided you with the following tips to assist you in identifying and selecting a reputable plumbing contractor.

<table>
<thead>
<tr>
<th>Step</th>
<th>What to Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Review your local Yellow Pages or search online for “Plumbing Contractors,” “Plumbing Drain &amp; Sewer Cleaning Services” or “Sewer Contractors.”</td>
</tr>
</tbody>
</table>
| 2.   | Ask if the company has a state issued contractor's license.  
  - Why is this important?  
    The state of California licenses and regulates contractors, including plumbing contractors. State law requires that most contracting work be performed by state licensed contractors. Licensed contractors have met experience requirements, passed an examination, and posted Surety Bonds with the state of California. They also carry workers compensation insurance.  
    For more information about contractor selection, contact the Contractor State Licensing Board at 800-321-CSLB or www.cslb.ca.gov  
| 3.   | Ask for an estimate of how long it will be before the company responds.  
  - Why is this important?  
    You will want to be certain that the response time meets your needs. |
| 4.   | Ask if the company will record the inspection of your sewer line. If so, determine if you will be able to get a copy of the recording on CD, DVD or videotape and make sure that the recording includes date and time stamps and footage measurements.  
  - Why is this important?  
    Occasionally, your plumber will conclude that the stoppage is within SASD’s portion of the sewer system (known as the lower lateral). A video inspection can be used as confirmation and you are welcome to submit the video to SASD for evaluation. If we agree that the stoppage was in the lower lateral, we will take the appropriate steps to correct the problem. |

Please remember that this is a general guidance. As each situation is different, the nature of questions asked should be varied to accommodate your individual circumstances.

Updated: January 2017
TYPICAL FRONT YARD SEWER CONFIGURATION

TYPICAL BACKYARD SEWER CONFIGURATION

This graphical depiction is representational and does not constitute a design standard.
4.2.3 If the Caller is Not Home When You Arrive

If the BIS is SASD’s responsibility, make sure we return to the site to assess damages, offer cleaning, and/or get the cleaning waiver signed.

4.2.4 SASD Responsible

If the problem is located in the main line, manhole, or in the lower lateral, SASD is responsible. The Prechecker will continue to Tab 6: Containment, Recovery, and Cleanup with Tab 4, Section 4.3: SSO Categorization.

The Prechecker will notify the resident that SASD’s collection system is not functioning properly and provide the homeowner an approximate time expected to fix the problem.

4.3 SSO Categorization

The following information is necessary to accurately categorize the SSO event.

Categories for SASD-responsible SSOs are the following:

- Category 1 without BIS
- Category 1 with BIS
- Category 2 without BIS
- Category 2 with BIS
- Category 3 without BIS
- Category 3 with BIS

The next step is to determine if there was a BIS.
4.4 BIS

Determine if it is a BIS. The following circumstances result in a BIS:

- The spill came up into a fixture (i.e., tub, shower, sink)
- Overflowed a fixture;
- If there is evidence of a spill and/or cleaning has occurred prior to SASD’s response.

Was there a BIS?

Yes:

- Consult with the resident, and provide sewer facts literature.
- If possible, take photos of the damage.
  - If the resident refuses to allow photos, document time request denied on the service request

Does Customer want cleaning or need Claims Management?

Yes:

  - The Prechecker will notify SPLM (See Tab 5, Section 5.5: BIS) – wait onsite until SPLM arrives to take over customer interface. The Prechecker will create a claims WO and assign it to SPLM (Powerj) as the Supervisor. They will also start the BIS tab on the SSO report. SPLM will continue with Tab 9: Claims and Litigation. If it was determined that a backwater valve was required and/or installed in Tab 4, Section 4.1.3: Backwater Valve, then Tab 10, Section 10.5: Backwater Valve also applies and should be evaluated and applied during the claims process.

No:

  - Have customer sign “Cleaning Waiver Form” release form. See Tab 4, Section 4.4.1: Waive Cleaning Services Form for a sample form. If the resident refuses to sign the waiver, document time request denied on the service request and notify SPLM.

No:

- Not a BIS. No BIS documentation is necessary.
4.4.1 Waive Cleaning Services Form

On __________________________ (Date), a back-up into structure incident occurred at __________________________ (Address).

Resident Name: __________________________ □ Property Owner □ Tenant □ Other: __________________________

Due to the back-up into structure incident, sewage needs to be cleaned up at the above-listed property. It is recommended by the District that an approved cleaning contractor perform the required clean up, and the District has offered to immediately provide the recommended cleaning services at no cost.

District provide the below information to the resident:

☐ Sewer Fact Sheet
☐ Flooding and Sewage Spills Personal Protection and Cleanup Health Risk and Personal Protection Information Sheet

☐ Per signature below, Resident(s) elected not to utilize the District-approved cleaning contractor.

Property Owner/Tenant Release of Liability & Assumption of Risk

I have decided that I do not want to have the District provide cleaning services for the address listed above and will perform the clean-up on my own. I have received all the materials listed above from the District. I understand that there are inherent risks with exposure to sewage and the associated clean-up due to the potential for coming into contact with sewage through breathing, swallowing, or cuts and abrasions in the skin that may contain pathogens. Risks may range from (1) minor temporary discomfort and illness, (2) more serious illness that may require medical treatment, (3) very serious illness that could result in life-threatening conditions, including death. I know, understand, and appreciate these and other risks inherent in being exposed to sewage. I knowingly assume all such risks, which may result from my own actions, inactions, or negligence of others, and the condition of the structure during the clean-up process.

I, for myself, my heirs, personal representatives or assignees hereby release, discharge, and hold harmless the District and the County of Sacramento, its respective Boards, officers, employees, agents, and contractors from any and all claims, actions, causes of action, demands, rights, damages, costs, loss of service, expenses, legal expenses, including subrogation, liens, or damage caused by or related to my decision to clean up the sewage on my own.

______________________________________________________________________________________________

(Property Owner/Tenant Signature) (Date)

District Witness: _____________________________________________________________

Comments: __________________________________________________________________________

[Signature]

10060 Goethe Road
Sacramento, CA 95827-3553
Tel 916.876.6000
Fax 916.876.6160
www.sacsewer.com

Revised: 11/2014
Distribution: Original, District, Copy, Property-Owner/Tenant
4.5 Determine Cause of SSO

4.5.1 Stoppages

Stoppages may be caused by debris; fats, oils, and grease (FOG); pipe structural problem/failure; or roots. If a stoppage is determined to be the cause of the SSO, continue to Tab 8: Restoration of Service.

4.5.2 Under Capacity SSOs

An under capacity SSO occurs when the flow entering a pipeline is more than the pipe can carry or a station can pump. Prior to an SSO, the manhole will surcharge, which forces more water through the pipe, or a backup at the station. Surcharging may be caused by the flow exceeding capacity of the sewer system, or the rainfall exceeding design of the sewer system.

If the rainfall exceeds the performance storm, the sewer system may not function properly as it was not designed for this higher flow. If the rainfall is less than that anticipated by the performance storm, it may trigger a capital improvement project.

Continued investigation is necessary to collect more information for further analysis, such as researching manholes both upstream and downstream of the SSO to find normal flows. The Prechecker has to trace the system downstream until a station, interceptor, or end of the surcharge is reached. The Prechecker will estimate the depth from the manhole rim to the water surface at each manhole opened. If additional staff is necessary, the Prechecker should contact the Responsible Manager.

If the Prechecker determines that the main line pipes are full, but the flow appears to be moving and “empty” main line pipes are not encountered, assume that the SSO is due to a capacity issue.

**Continue to Tab 10, Section 10.4.1 Capacity and escalate to the SSO Responder for investigation.

4.5.3 Operator Error

If it is determined that the SSO was caused due to Operator Error, the Prechecker will note the cause.

**Continue to Tab 10, Section 10.4.2: Operator Error.

4.5.4 Pipe Structural Problem or Failure

If it is determined that the SSO was caused due to pipe structural problems or pipe failure, then indicate the cause on the service request and restore service or escalate to Design, depending on the parameters of the work.

**Continue to Tab 8, Section 8-4: Pipe Broken.
4.5.5 Pump Station Failure

This failure requires escalation to the Mechanical Maintenance Group. If a pump failure is determined to be the cause of the SSO, and it occurs during business hours, contact the Mechanical Maintenance Supervisor. For pump failure caused SSOs after business hours, refer to the Weekly Standby/On-Call list.

**Continue to Tab 10, Section 10.4.3: Pump Station Assets and inform Responsible Manager.**

4.5.6 Vandalism

It may be necessary to research the surrounding sewer system to ensure no vandalism is occurring, such as illegal discharge. If illegal discharge (not FOG) is determined to be the cause of the SSO, notify WSCS, See Tab 5, Section 5.7: Discharges). Notify law enforcement if cause is due to vandalism. Notification information is in Tab 5, Section 5.2: Public Health and Life Safety
5. Notification

5.1 Legally Responsible Official
5.2 Public Health and Life Safety
5.3 Category 1, Category 2, or PLSD to Surface Water ≥ 1,000 Gallons
5.4 Media Interface
5.5 BIS
5.6 All Other PLSDs (No Surface Water or Surface Water < 1,000 Gallons)
5.7 Discharges
5.8 Regional San
5.9 Schools
5.10 Containment
## 5.1 Legally Responsible Official

<table>
<thead>
<tr>
<th>Escalation Factors</th>
<th>Responsible Party</th>
<th>Notification Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certification of final SSO reports</td>
<td>M&amp;O Superintendent</td>
<td>Contact Information</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Redacted for Privacy</td>
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</tbody>
</table>

## 5.2 Public Health and Life Safety

<table>
<thead>
<tr>
<th>Escalation Factors</th>
<th>Responsible Party</th>
<th>Notification Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety/Rescue</td>
<td>Fire Department (County &amp; City)</td>
<td></td>
</tr>
<tr>
<td>Traffic/crowd control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evacuations</td>
<td>Law Enforcement (Police or Sheriff)</td>
<td></td>
</tr>
<tr>
<td>Crime investigations &amp; arrests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media notification</td>
<td>Public Affairs Office (PAO)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contact Information</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Redacted for Privacy</td>
</tr>
<tr>
<td>Phone contacts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dispatch crews during normal work hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitor telemetry alarms</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>During regular work hours</td>
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<td></td>
<td></td>
<td>Control 5 Dispatch (SCADA/Mechanical)</td>
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<tr>
<td>Monitor telemetry alarms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dispatch mechanical standby crews</td>
<td></td>
<td>After-hours, weekends, &amp; holidays</td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
5.3 **Category 1, Category 2, or PLSD to Surface Water $\geq 1,000$ Gallons**

When an SSO event has been identified as a Category 1 or 2, or is a PLSD that has or will likely reach surface water and is greater than or equal to 1,000 gallons, the Prechecker shall contact the designated SSO Responder per the Weekly Standby/On Call List. The SSO Responder is responsible for notifying the following people.

<table>
<thead>
<tr>
<th>Escalation Factors</th>
<th>Notification</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Category 1 or 2</strong></td>
<td>SSO Responder Manager</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M&amp;O Superintendent</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Responsible Manager</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prechecker Manager (Email by next business day)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Engineering - Operations Support</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Environmental Management District (EMD)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Escalation Factors</th>
<th>Notification</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Category 1 or 2 Based on Jurisdiction of Spill</strong></td>
<td>Sacramento County Water Resources - Drainage O&amp;M</td>
<td></td>
</tr>
<tr>
<td></td>
<td>City of Citrus Heights</td>
<td></td>
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<tr>
<td></td>
<td>City of Elk Grove</td>
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<tr>
<td></td>
<td>City of Rancho Cordova</td>
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<tr>
<td></td>
<td>City of Folsom</td>
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<tr>
<td></td>
<td>City of Sacramento</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Escalation Factors</th>
<th>Notification</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Category 1 $\geq 1,000$ gallons or PLSDs to surface water $\geq 1,000$ gallons</strong></td>
<td>Cal-OES (See Tab 10, Section 10.3.3 for additional information and reporting requirements.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EMD</td>
<td></td>
</tr>
</tbody>
</table>

Contact Information Redacted for Privacy
<table>
<thead>
<tr>
<th>Escalation Factors</th>
<th>Notification</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1 ≥ 1,000 gallons</td>
<td>Director of SASD Operations</td>
<td></td>
</tr>
<tr>
<td>Category 1 or 2 ≥ 25,000 gallons</td>
<td>Regional Water Quality Control Board (See Tab 10, Section 10.3 for additional information and reporting requirements.)</td>
<td></td>
</tr>
<tr>
<td>Entered or has the potential to enter the American River ≥ 1,000 gallons</td>
<td>Golden State Water Co. (Arden Cordova Service Area)</td>
<td></td>
</tr>
<tr>
<td>Entered or has the potential to enter the Folsom South Canal ≥ 1,000 gallons</td>
<td>City of Sacramento (Fairbairn Water Treatment Plant)</td>
<td>Regional Water Quality Control Board Contact Information Redacted for Privacy</td>
</tr>
<tr>
<td>Suspected of being capacity constrained</td>
<td>Engineering – Business Planning</td>
<td></td>
</tr>
<tr>
<td>Water Quality Testing of Samples</td>
<td>Regional San Lab</td>
<td></td>
</tr>
</tbody>
</table>
5.4 Media Interface

<table>
<thead>
<tr>
<th>Escalation Factors</th>
<th>Notification</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Posting of warning signs</td>
<td>Public Affairs Office (PAO)</td>
<td></td>
</tr>
<tr>
<td>• Lane closures or detours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Media onsite</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• May create public concern or media interest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(See Tabs 10 and 13 for additional escalation factors)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.5 BIS

<table>
<thead>
<tr>
<th>Escalation Factors</th>
<th>Notification</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requires clean up</td>
<td>SPLM</td>
<td>Contact Information</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Redacted for Privacy</td>
</tr>
</tbody>
</table>

5.6 All Other PLSDs (No Surface Water or Surface Water < 1,000 Gallons)

Prechecker to make the following notifications:

<table>
<thead>
<tr>
<th>Escalation Factors</th>
<th>Notification</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Hazmat identification</td>
<td>EMD or Code Enforcement</td>
<td>Contact Information</td>
</tr>
<tr>
<td>• Public health issues</td>
<td></td>
<td>Redacted for Privacy</td>
</tr>
</tbody>
</table>

5.7 Discharges

<table>
<thead>
<tr>
<th>Escalation Factors</th>
<th>Notification</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Investigative authority; public or private properties (potential illegal discharges)</td>
<td>WSCS</td>
<td></td>
</tr>
<tr>
<td>• Evaluate industrial discharges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Ordinance Violation Enforcement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(See Tabs 10 and 13 for additional escalation factors)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 5.8 Regional San

<table>
<thead>
<tr>
<th>Escalation Factors</th>
<th>Notification</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewage entered or initiated from Regional San asset</td>
<td>Regional San</td>
<td>Contact Information</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Redacted for Privacy</td>
</tr>
</tbody>
</table>

### 5.9 Schools

<table>
<thead>
<tr>
<th>Escalation Factors</th>
<th>Responsible Party</th>
<th>Notification Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occurs on school grounds or affects school</td>
<td>Center Unified</td>
<td>Contact Information</td>
</tr>
<tr>
<td></td>
<td>Elk Grove Unified</td>
<td>Redacted for Privacy</td>
</tr>
<tr>
<td></td>
<td>Folsom Cordova Unified</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sacramento City Unified</td>
<td></td>
</tr>
<tr>
<td></td>
<td>San Juan Unified</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Twin Rivers Unified</td>
<td></td>
</tr>
</tbody>
</table>

### 5.10 Containment

<table>
<thead>
<tr>
<th>Escalation Factors</th>
<th>Responsible Party</th>
<th>Notification Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical resource</td>
<td>SSO Responder</td>
<td>Contact Information</td>
</tr>
<tr>
<td>Calculate flows</td>
<td></td>
<td>Redacted for Privacy</td>
</tr>
<tr>
<td>As-built drawings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Survey work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field/emergency design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Containment (County drainage)</td>
<td>County/City</td>
<td></td>
</tr>
<tr>
<td>Containment (private property)</td>
<td>Fire Department</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(County/City)</td>
<td></td>
</tr>
</tbody>
</table>
6. Containment, Recovery, & Cleanup

6.1 Containment
6.2 Recovery and Cleanup
6.3 SSO Water Quality Monitoring Program
6.1 Containment

The overflow must be contained. Containment becomes more difficult if the overflow reaches the storm drain system or drainage way since the overflow can contaminate receiving waters such as creeks, streams, rivers, and other water bodies.

During dry weather, the storm drain system can be used to store the overflow if it can be plugged downstream of the overflow or if the downstream storm drain pump station can be deactivated. Determine the scenario, then select one or more containment methods, appropriate to the scenario favoring speed and likelihood of success. If staff is unable to fully recover overflow from the storm drain system, this SSO becomes a Category 1 and notification to the designated SSO Responder is required. The SSO Responder will continue with Tab 10: Escalation & Authority.

Trace the overflow volume until the extent of the overflow can be determined. If the overflow has reached a storm drain, trace the storm drain system until there is a dry manhole, if possible. Coordinate with the SSO Responder if water testing is needed to determine the extent of the overflow in the storm drain system or waterway.

Sandbags (or other devices) used for containment dams shall be placed in double rows. A backup containment dam should always be constructed unless extenuating circumstances prohibit it. The backup dam should be constructed near the primary containment dam. Dams should be placed past the farthest point downstream that the event has reached, taking into consideration ease of placement, efficiency of recovery, ease of removal of dams and effective containment.

Sandbags are located at the North and South Corporation yards. SASD’s supply of sandbags should be utilized first. If additional sandbags are needed, during or after the event, the Prechecker shall notify the Responsible Manager. The Responsible Manager will contact additional jurisdictions for supplies as necessary.

If overflow spills into waterways, wetlands or rivers, notify the designated SSO Responder. The SSO Responder will continue with Tab 10: Escalation & Authority. Standard containment efforts are to be initiated in these cases, and the SSO Responder will advise/coordinate on additional containment measures.
**Table 6-1: SSO Containment Options**

<table>
<thead>
<tr>
<th>Containment Scenario</th>
<th>Containment Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curb &amp; Gutter</td>
<td>• Create a dam with sand or sandbags, dirt, or other means available.</td>
</tr>
<tr>
<td>Storm Drain System (No Rain)</td>
<td>• Plug all affected storm system outlets to contain spill without flooding&lt;br&gt;• Request downstream storm water pump station to be turned off, if applicable, containment escalation factors can be found in tab 5, Section 5.11.&lt;br&gt;• Bypass Pump/Vacuum (See bypass pumping chart below in 6.1.1)</td>
</tr>
<tr>
<td>Storm Drain System (Raining)</td>
<td>• Plug all affected storm system outlets to contain spill without flooding streets&lt;br&gt;• Bypass Pump/Vacuum (See bypass pumping chart Tab 6, Section 6.1.1)</td>
</tr>
<tr>
<td>Over Land</td>
<td>• Create a dam with sand or sandbags&lt;br&gt;• Dig a trench for containment&lt;br&gt;• If self-contained, ensure overflow remains contained&lt;br&gt;• Rubber mats at catch basin or inlet</td>
</tr>
<tr>
<td>Waterways</td>
<td>• Create a dam with sand or sandbags&lt;br&gt;• If additional sandbags are needed, see contact information below</td>
</tr>
<tr>
<td>Wetlands</td>
<td>• Minimize flow into wetlands</td>
</tr>
<tr>
<td>River</td>
<td>• Minimize flow into river</td>
</tr>
<tr>
<td>Building</td>
<td>• Evacuate affected people as necessary&lt;br&gt;• Sandbag&lt;br&gt;• Plastic sheeting&lt;br&gt;• Avoid electrical shock; have power turned off if potential shock hazard</td>
</tr>
<tr>
<td>Pump Station</td>
<td>• Emergency generator bypass pump. (See bypass pumping chart, Tab 6, Section 6.1.1)</td>
</tr>
</tbody>
</table>
After containment is achieved, observe the contained overflow for the duration of the event. Determine whether the established containment will hold the overflow. If containment is foreseen to fail or is failing, attempt additional containment measures for the applicable scenario. If the nature of the overflow scenario changes, use applicable containment methods for the new scenario (example: an SSO that was contained on land is now spilling into a creek).

If an SSO reaches a waterway, sampling may be required. Escalate to the SSO Responder. See flowchart and sampling procedure in *Tab 6, Section 6.3: SSO Water Quality Monitoring Program*.

**Table 6-2: Jurisdictional Availability of Additional Sandbags/Supplies:**

<table>
<thead>
<tr>
<th>Jurisdictions</th>
<th>Additional Sandbags/Supplies</th>
</tr>
</thead>
<tbody>
<tr>
<td>County of Sacramento</td>
<td>Department of Water Resources: (916) 875-7246</td>
</tr>
<tr>
<td>City of Citrus Heights</td>
<td>Public Works: (916) 727-4770</td>
</tr>
<tr>
<td>City of Elk Grove</td>
<td>Elk Grove CSD: (916) 687-3005</td>
</tr>
<tr>
<td>City of Sacramento</td>
<td>Street Services: (916) 808-1888</td>
</tr>
<tr>
<td>City of Galt</td>
<td>Public Works: (209) 366-7260</td>
</tr>
</tbody>
</table>
### Assumptions

1. All losses are ignored except for frictional losses.
2. Velocity heads are zero because of low speeds.
   - a. 3" pump DV-80 @ 2800 rpm
   - b. 4" pump DV-100 @ 2200 rpm
   - c. 6" pump DV-150 @ 2200 rpm
   - d. 8" pump DV-200c @ 1900 rpm
4. Hose diameter is same as pump size.
5. Fire hose roughness coefficient C=120
6. Inlet and outlet pressures are at atmospheric pressure.
7. Average flowrates for pipe diameters are calculated using average slopes.

<table>
<thead>
<tr>
<th>Pipe Size (in)</th>
<th>Avg Flowrate (gpm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>270</td>
</tr>
<tr>
<td>6</td>
<td>314</td>
</tr>
<tr>
<td>8</td>
<td>486</td>
</tr>
<tr>
<td>10</td>
<td>764</td>
</tr>
<tr>
<td>12</td>
<td>1667</td>
</tr>
<tr>
<td>15</td>
<td>2153</td>
</tr>
<tr>
<td>18</td>
<td>4444</td>
</tr>
</tbody>
</table>
6.1.2 Bypass Pumping Chart (25 to 50 feet lift)

Assumptions
1. All losses are ignored except for frictional losses.
2. Velocity heads are zero because of low speeds.
3. Pump curves are from www.rainmarket.com
   a. 3" pump DV-80 @ 2800 rpm
   b. 4" pump DV-100 @ 2200 rpm
   c. 6" pump DV-150 @ 2200 rpm
   d. 8" pump DV-200c @ 1900 rpm
4. Hose diameter is same as pump size.
5. Fire hose roughness coefficient C=120
6. Inlet and outlet pressures are at atmospheric pressure.
7. Average flowrates for pipe diameters are calculated using average slopes.
8. Maximum 50 feet suction lift.
6.2 Recovery and Cleanup

Recovery and cleanup is necessary for all SASD SSOs. When recovering spills, all solids and materials should be recovered and removed from the site, and every effort should be made to recover as much of the SSO as possible.

Document how SSO overflow volumes are estimated, and include calculation estimates for overflow volume recovered. Various estimation methods are provided in Tab 7, Section 7.1: Volume Estimation.

If an SSO is contained within the storm drain system, SASD would like to recover and cleanup this spill utilizing our own staff. However, if the jurisdictional agency states that they want to clean their own facilities, SASD will allow that; however, communication and coordination with the jurisdiction is necessary to ensure that all the SSO is recovered and SASD received the necessary information to complete all necessary documents. This includes, time when the SSO is recovered and cleaning is finished, along with the contact information of who at the jurisdiction is overseeing the recovery and cleanup process.

Disinfection of contaminated soil or drainage ways is only performed when directed by the designated SSO Responder or by one of the following agencies:

- EMD
- CSDFW

Once the service has been restored and the SSO has been recovered, the sandbags and materials used for recovery shall be properly disposed or disinfected.

6.2.1 Street/Curb/Gutter/Overland

- Remove debris
- Wash pavement/area and contain wash water
- Remove wastewater

6.2.2 Backup into Structure

If Recovering or Restoration is required, contact SPLM for claims management. See weekly standby notice.

6.2.3 Storm Drain

- Pump out wastewater into sewer system.
- Remove debris.
- Rinse storm drain system, and return waste water into the sewer system.
- After the overflow cause has been mitigated and cleaned, remove all plugs/dams used to contain overflow.
6.2.4 River/Wetland/Waterway

Coordinate with the SSO Responder for cleanup procedures.
Note* CSDFW may dictate recovery and cleanup operations.

6.3 SSO Water Quality Monitoring Program

Water quality samples are to be collected for all Category 1 SSOs greater than or equal to 25,000 gallons, if possible. The SSO Responder will collect, transport, and submit water quality samples to Regional San’s Treatment Plant laboratory for testing. At a minimum, samples are to be taken at or near the SSO entry point to the waterway, and downstream and upstream of the entry point. Each sample is to be collected as soon as possible and within 48 hours of SASD’s overflow notification.

Sometimes water samples are not obtainable due to access restrictions, safety, or other issues. If this is the case, clearly detail the situation and why collection of water samples was not possible. Provide any recommendations if monitoring can be completed by another method.

6.3.1 SSO Sampling Flow Chart

6.3.2 Spill Travel Distance

The SSO Responder should account for spill velocity and duration to determine spill distance when collecting water samples, especially for overflow events occurring over multiple days. Consideration should also be given to whether the overflow was continuous or intermittent.

Determine the spill velocity by dropping a floatable object, such as a float or leaf, into the receiving water. Time how long it takes the float or leaf to travel over a measured distance. Pick a distance that would be representative of the various flows in the waterway. Include sections in the waterway where there are bends, bottlenecks, or other characteristics that may slow down the flow. A good rule of thumb is to use a measured length of at least 100 feet. Perform this time measurement three to five times, and use the average travel time. The velocity in the creek can be calculated taking the measured distance and dividing it by the average time.
6.3.3 **Sampling Procedures**

1. Use protective gloves before handling any samples or chemicals to protect your health as well as the integrity of the sample.

2. Collect the sample in the 1.5 L container. Minimize scooping any sediment or debris. If possible, collect samples from the entry point, upstream, and downstream. Label samples accordingly.

3. Pour the sample water from the 1.5 L container into the 100 ml container; filling it to the marked line. Snap the lid shut and use the plastic locking strap to secure the container.

4. Use safety glasses and protective gloves when handling sulfuric acid.

5. Pour the sample water from the 1.5 L container into the 250 ml container. Fill the 250 ml container to the neck.

6. Carefully unscrew lid of sulfuric acid vial and slowly pour its contents into the 250 ml container. Secure lids to the sulfuric acid vial and the 250 ml container.

7. Label the samples prior to placing them into the ice chest. Note: **DO NOT** enter the time yet on the sample container. Only enter location, sample number, and date.

8. Rinse the ammonia cuvette and lid with distilled water a minimum of three times before using.

9. Use a disposable pipette to transfer sample water from the 1.5 L bottle to the ammonia cuvette. Ensure water level is at the marked line.

10. Screw the lid on the cuvette and place it in the ammonia tester. Ensure the cuvette is completely in the hole by aligning the arrows. Then press ZERO.

11. After the ammonia tester zeros, add 4 drops of reagent A, screw on the lid, then swirl the contents of the cuvette. Add 4 drops of reagent B to the cuvette, screw on the lid, swirl the contents of the cuvette, and put it back into the tester aligning the arrows. Press and hold READ TIMER until the ammonia tester starts counting down from 3 min 30 seconds.

12. Record the ammonia reading in your field notes.

13. Between samples, rinse the ammonia vial and lid with distilled water a minimum of three times.

14. Attach the YSI probe to the YSI meter and then turn it on. Rinse the probe a minimum of three times prior to placing the probe into the 1.5 L container. Stir the probe occasionally until the DO (dissolved oxygen) numbers slow down (sensor is slowly using the oxygen in the sample). When the numbers change at rate of 0.1 units per second, select the “Log One Sample”, then press ENTER (this process usually takes one minute or less).

15. Enter the name of the sample in the YSI meter. Use the first letter of the overflow location street name followed by **US** (upstream), **DS** (downstream), or **EP** (entry point). After entering the name, press the Enter button. Then use the right arrow to reach the OK button, and press Enter.
16. The sample is now complete. Samples must be stored in a cool environment. Store all sample containers in an ice chest with ice packs.

17. Remove and dispose of gloves and clean hands with hand sanitizer.

18. Fill out the Chain of Custody form (see Tab 6, Section 6.3.5: Chain of Custody) and sample containers labels. Then, take the form and the samples to the laboratory, located at the Sacramento Regional Wastewater Treatment Plant.

19. Deliver the samples to the laboratory within six hours of sampling.

### 6.3.4 Labeling

#### 6.3.4.1 100 ml Container

![Sample Label Image]

- **Sample Date**: 11/04/18
- **Sample Time**: 10:55 (based on YSI reading)
- **Address of Overflow**: 5958 Brooktree Dr.
- **First letter of overflow street name, followed by US (upstream), DS (downstream), or EP (entry point)**: BEP
6.3.4.2  250 ml and 1.5 L Containers

First letter of overflow street name, followed by US (upstream), DS (downstream), or EP (entry point).

SSO Responder’s Name

Address of Overflow

250 ml container – Ammonia

1.5 L - BOD

Leave blank.
6.3.5 Chain of Custody Form

1. Enter the address of the overflow in the “SSO Location” field.

2. Enter your name for the “Sampled By” field.

3. Enter the date.

4. Enter the time from the YSI meter.

5. Check the “Grab” box.

6. Fill in the “Sample Location” field. Use the first letter of overflow location street name, followed by US (upstream), DS, (downstream), or EP (entry point). If there are more than one upstream or downstream points, then make sure to label them FUP1 (follow-up 1) or FUP2 (follow-up 2).”

7. Make sure the BOD, ammonia, total coliform, and fecal coliform fields are checked under the Analyses Requested section.

8. Do not sign and date the Chain of Custody record until requested by the laboratory staff. If laboratory staff is not available, leave the samples in the refrigerator located in the after-hours room. Timestamp the back of Chain of Custody, then sign and date it.
6.3.6 Instrument Maintenance and Calibration

All ammonia colorimeter and YSI 556 MPS hand-held instruments used to test field water samples are to be maintained and calibrated every 12 months per the manufacturer’s recommendation. Invoices for the services will be used to document the calibration and maintenance.
7. Volume Estimation

7.1 Volume Estimation
7.2 Record Keeping
7.1 Volume Estimation

7.1.1 General

SASD uses various methods to estimate SSO volumes as accurately as possible. The best method to use is based on the information available and conditions of the overflow event. Precheckers must take photographs of all SASD SSOs to assist in validating the overflow volume. Photographs are to be attached to the SR. A summary of volume estimating methods and uses is included in Table 7-1.

Table 7-1: SSO Volume Estimation Method Summary

<table>
<thead>
<tr>
<th>Volume Estimation Method</th>
<th>Flow/Volume Type</th>
<th>Estimation Method Best Use</th>
<th>Relating Section</th>
</tr>
</thead>
</table>
| A - Contained Volume    | Contained        | • Storm drain and manhole sumps  
|                         |                  | • Dammed or stagnant uniform channels and roadside ditches  
|                         |                  | • Standing water on flat surfaces  | 7.1.2 Pages 2 to 5 |
| B - Roadway Gutter     | Contained        | • Dammed or stagnant roadway gutters  | 7.1.3 Pages 5 to 7 |
| C - Flowrate & Duration| Uncontained      | • Situations with known or estimated flowrates  | 7.1.4 Page 7 |
| D - Covered Manhole    | Uncontained      | • Active flow at covered manholes  | 7.1.5 Page 8 |
| E - Open Channels      | Uncontained      | • Uniform channels, roadside ditches, and roadway gutters.  | 7.1.6 Page 9 |
| F - Pump Stations      | Uncontained      | • Force main breaks or discharges  
|                         |                  | • Overflows occurring at the pump station  | 7.1.7 Page 9 |
| G - Partially Filled Pipe | Contained      | • Dammed pipes  
|                         |                  | • Pipes with standing water  | 7.1.8 Pages 9 to 10 |
| H - Manhole Pick Hole  | Uncontained      | • Active flow at manhole pick hole  | 7.1.9 Pages 11 to 12 |
| I - Flow Meter Data    | Uncontained      | • Surcharged systems with flow meters nearby  | 7.1.10 Page 12 |
| J - Vactor/Vacuum Truck Storage | Contained & Uncontained | • Active flows without rinse water  | 7.1.11 Page 13 |
| K - Visual Inspection  | Uncontained      | • Active flow at cleanouts  
|                         |                  | • Flows seeped into ground  
|                         |                  | • Flows on flat surfaces and along gutters  | 7.1.12 Pages 14 to 15 |
| L - Water Usage based on Resident Interviews | Uncontained | • Situations with insufficient information available to use other estimating methods  | 7.1.13 Page 16 |
| M - Typical Daily Residential Sewage Discharge | Uncontained | • Situations with insufficient information available to use other estimating methods  | 7.1.14 Page 17 |
7.1.2 Contained Volume (Method A)

The volume of some small overflows can be estimated if the overflow is contained in one area. The shape, dimension, and depth of the overflow is used to calculate the volume of the overflow. This method is useful for estimating the volume in storm drain pipes, drainage inlet sumps, or other areas with contained irregular-shaped spills.

Follow the steps below to estimate a contained volume:

1. **Sketch the Spill Area** – Sketch the shape of the contained sewage spill.

2. **Determine the Dimensions of the Spill Area** -
   a. Measure or pace off the dimensions of the spill area.
   b. Measure the depth of the spill. For spills of non-uniform depth, measure the depth at several locations distributed throughout the area. Calculate an average depth for the entire area by adding all measured depths together and dividing by the number of measurements taken.
3. **Convert Measurement Units** - Convert each dimension (including depth) into feet.

*Table 7-2: Inches to Feet Conversion Table*

<table>
<thead>
<tr>
<th>Inches</th>
<th>Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/64</td>
<td>0.0013</td>
</tr>
<tr>
<td>1/32</td>
<td>0.0026</td>
</tr>
<tr>
<td>1/8</td>
<td>0.010</td>
</tr>
<tr>
<td>1/4</td>
<td>0.021</td>
</tr>
<tr>
<td>3/8</td>
<td>0.031</td>
</tr>
<tr>
<td>1/2</td>
<td>0.042</td>
</tr>
<tr>
<td>5/8</td>
<td>0.052</td>
</tr>
<tr>
<td>3/4</td>
<td>0.063</td>
</tr>
<tr>
<td>7/8</td>
<td>0.073</td>
</tr>
<tr>
<td>1</td>
<td>0.083</td>
</tr>
<tr>
<td>2</td>
<td>0.17</td>
</tr>
<tr>
<td>3</td>
<td>0.25</td>
</tr>
<tr>
<td>4</td>
<td>0.33</td>
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<td>11</td>
<td>0.92</td>
</tr>
<tr>
<td>12</td>
<td>1.00</td>
</tr>
</tbody>
</table>

1 Use 1/64” for depth of wet areas on concrete, if unable to measure.
2 Use 1/32” for depth of wet areas on asphalt, if unable to measure.
4. **Calculate the Volume** – Use the following formulas and drawings to calculate the spill volume in gallons.

*For Traditional Shapes:*

*Table 7-3: Traditional Shapes - Volume Equations*

<table>
<thead>
<tr>
<th>Shape</th>
<th>Dimensions</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rectangle</td>
<td>( \text{Length (ft)} \times \text{Width (ft)} \times \text{Depth (ft)} \times 7.48 )</td>
<td>Volume (gal) = length (ft) x width (ft) x depth (ft) x 7.48</td>
</tr>
<tr>
<td>Circle</td>
<td>( \text{Diameter (ft)} \times \text{Depth (ft)} \times 5.87 )</td>
<td>Volume (gal) = diameter (ft) x diameter (ft) x depth (ft) x 5.87</td>
</tr>
<tr>
<td>Triangle</td>
<td>( \text{Base (ft)} \times \text{Height (ft)} \times 3.74 )</td>
<td>Volume (gal) = base (ft) x height (ft) x depth (ft) x 3.74</td>
</tr>
</tbody>
</table>
For Irregular Shapes:

1. **Divide the Sketch** – Divide the sketch into multiple shapes.

![Original Sketch](image1)

![Sketch Divided into multiple Shapes](image2)

- **Shape 1**
- **Shape 2**
- **Shape 3**
- **Shape 4**

2. **Determine the Dimensions** – Measure the dimensions, including depth, of each of the shapes.

3. **Convert Measurement Units** – Convert measurement units to feet.

4. **Calculate Volume of Each Shape** – Use the volume formulas for traditional shapes to calculate the volume for each divided shape.

5. **Determine the Total Volume of the Spill** – Add the volumes of each shape to determine the total volume of the spill.

\[
\text{Total Volume (gal)} = \text{Volume Shape 1} + \text{Volume Shape 2} + \text{Volume Shape 3} + \text{Volume Shape 4} + \text{etc.}
\]

7.1.3 **Roadway Gutter (Method B)**

The volume of an overflow contained in a roadway gutter can be estimated by following these steps:

1. **Determine the Dimension of the Spill** -
   
a. Measure the length of gutter containing the overflow.
b. Measure the depth and width of the overflow in the gutter. Refer to the drawing on the next page.

![Curb](image3)

- **Sewage**
- **Gutter**

![Depth and Width](image4)
2. **Convert Measurement Units** - Convert all measurements to feet.

*Table 7-4: Inches to Feet Conversion Table*

<table>
<thead>
<tr>
<th>Inches</th>
<th>Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/64</td>
<td>0.0013</td>
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<tr>
<td>1/32</td>
<td>0.0026</td>
</tr>
<tr>
<td>1/8</td>
<td>0.010</td>
</tr>
<tr>
<td>1/4</td>
<td>0.021</td>
</tr>
<tr>
<td>3/8</td>
<td>0.031</td>
</tr>
<tr>
<td>1/2</td>
<td>0.042</td>
</tr>
<tr>
<td>5/8</td>
<td>0.052</td>
</tr>
<tr>
<td>3/4</td>
<td>0.063</td>
</tr>
<tr>
<td>7/8</td>
<td>0.073</td>
</tr>
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<td>1</td>
<td>0.083</td>
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<tr>
<td>2</td>
<td>0.17</td>
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<td>3</td>
<td>0.25</td>
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<tr>
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<td>0.33</td>
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<td>0.58</td>
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<td>8</td>
<td>0.67</td>
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<td>9</td>
<td>0.75</td>
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<td>10</td>
<td>0.83</td>
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<tr>
<td>11</td>
<td>0.92</td>
</tr>
<tr>
<td>12</td>
<td>1.00</td>
</tr>
</tbody>
</table>

1 Use 1/64” for depth of wet areas on concrete, if unable to measure.
2 Use 1/32” for depth of wet areas on asphalt, if unable to measure.

3. **Calculate the Overflow Volume** -

\[
\text{Volume Road Side Gutter (gal)} = \text{length of gutter (ft)} \times \text{width (ft)} \times \text{depth (ft)} \times 3.74
\]
7.1.4 Flow Rate and Duration (Method C)

To estimate the volume for overflows that are not contained, the duration and flow rates can be used. Separate estimates are made for the overflow duration and flow rate.

The overflow volume can be estimated with the following equation:

\[
\text{Volume (gal)} = \text{Flow Rate (gpm)} \times \text{Duration (min)}
\]

7.1.4.1 Duration

The start and end times of the SSO can be estimated by SASD staff or anyone who saw the SSO begin and/or end. Flow meters and SCADA information can be useful in estimating SSO duration. While on site, ask any and all witnesses when they first noticed the SSO. If the time covers more than one day, or doesn’t support the amount of visible sewer, ask the witness more questions (has the flow been continuous, have the residents been gone, etc.).
7.1.5 Covered Manhole (Method D)

**SSO Flow Estimation Pictures**: Pictures presented below show varying flow rates of sewage overflowing from a manhole. Estimate the overflow rate by comparing the current manhole overflow with the pictures shown below.

![Estimated Sewer Flow Rates from Overflowing Sewer Manholes](image)

- 5 gpm
- 25 gpm
- 50 gpm
- 100 gpm
- 150 gpm
- 200 gpm
- 225 gpm
- 250 gpm
- 275 gpm

1 Sourced from City of San Diego Metropolitan Wastewater Department “Reference Sheet for Estimating Sewer Spills from Overflowing Sewer Manholes” (April 1999).
7.1.6 Open Channels (Method E)
SSOs often run into nearby ditches, channels, gutters, etc. Flow can be quantified by measuring the cross-sectional area and velocity of the SSO. First, measure the depth of flow and the dimensions of the channel. Then measure the velocity by dropping a floating object into the flow and measuring the time it takes to travel a set distance. The resulting velocity should be in the units of feet per second. Several measurements should be taken and the average flow rate should be used in volume estimates. Calculate the flow in the channel using the following formula:

\[
\text{Flow Open Channels (gpm) = Velocity (ft/sec) \times Cross-Sectional Area (ft}^2\text{) \times 449}
\]

7.1.7 Pump Station Discharge: (Method F)
SASD’s pump stations often have flow or pump run time data available through the SCADA system. Pump curves may need to be obtained to determine pump discharge rates. Contact Operations Support staff for assistance with this method.

7.1.8 Partially Filled Pipe (Method G)
For spill volume contained in a partially full pipe:

1. **Determine the Dimensions** – Measure the dimensions of the pipe and spill volume as shown in the figure below:
2. Calculate Spill Volume using Cross-Sectional Area Table and Pipe Length

**Table 7-5: Cross-Sectional Area Table for Determining Spill Volumes in Pipes**

<table>
<thead>
<tr>
<th>Water Depth (in)</th>
<th>6</th>
<th>8</th>
<th>10</th>
<th>12</th>
<th>15</th>
<th>18</th>
<th>21</th>
<th>24</th>
<th>30</th>
<th>36</th>
<th>48</th>
<th>60</th>
<th>72</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4 (.25)</td>
<td>0.021</td>
<td>0.024</td>
<td>0.027</td>
<td>0.030</td>
<td>0.033</td>
<td>0.037</td>
<td>0.040</td>
<td>0.042</td>
<td>0.047</td>
<td>0.052</td>
<td>0.060</td>
<td>0.067</td>
<td>0.073</td>
</tr>
<tr>
<td>1/2 (.5)</td>
<td>0.058</td>
<td>0.068</td>
<td>0.076</td>
<td>0.084</td>
<td>0.094</td>
<td>0.10</td>
<td>0.11</td>
<td>0.11</td>
<td>0.12</td>
<td>0.13</td>
<td>0.15</td>
<td>0.17</td>
<td>0.19</td>
</tr>
<tr>
<td>3/4 (.75)</td>
<td>0.11</td>
<td>0.12</td>
<td>0.14</td>
<td>0.15</td>
<td>0.17</td>
<td>0.19</td>
<td>0.20</td>
<td>0.22</td>
<td>0.24</td>
<td>0.27</td>
<td>0.31</td>
<td>0.35</td>
<td>0.38</td>
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<td>1</td>
<td>0.16</td>
<td>0.19</td>
<td>0.21</td>
<td>0.23</td>
<td>0.26</td>
<td>0.29</td>
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<td>0.41</td>
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<td>0.59</td>
</tr>
<tr>
<td>1 1/4 (1.25)</td>
<td>0.22</td>
<td>0.26</td>
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<td>0.44</td>
<td>0.47</td>
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<td>0.57</td>
<td>0.67</td>
<td>0.75</td>
<td>0.82</td>
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<tr>
<td>1 1/2 (1.5)</td>
<td>0.29</td>
<td>0.34</td>
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<td>0.42</td>
<td>0.48</td>
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<td>0.36</td>
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<td>1.34</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Contact SSO Responder for assistance in calculating pipe sizes and depths not shown in the table above.

Spill Volume in Pipe (gal) = Spill Volume Cross-Sectional Area (gal/ft) x Length (ft)
7.1.9 Manhole Pick Hole: (Method H)

For overflows exiting a manhole cover pick hole:

1. **Determine the Overflow Spill Height** – Measure the dimensions of the height of the spout above the manhole frame as shown in the figure below:
2. Calculate Spill Volume Using Flow Rate Table and the Overflow Duration

Table 7-6: Estimated SSO Flow Rate Exiting Manhole Pick Hole

<table>
<thead>
<tr>
<th>Height of Spout Above Manhole Frame, H (inches)</th>
<th>SSO Flow Rate, Q (gpm)</th>
<th>Height of Spout Above Manhole Frame, H (inches)</th>
<th>SSO Flow Rate, Q (gpm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8</td>
<td>1.0</td>
<td>5 1/8</td>
<td>6.2</td>
</tr>
<tr>
<td>1/4</td>
<td>1.4</td>
<td>5 1/4</td>
<td>6.3</td>
</tr>
<tr>
<td>3/8</td>
<td>1.7</td>
<td>5 3/8</td>
<td>6.3</td>
</tr>
<tr>
<td>1/2</td>
<td>1.9</td>
<td>5 1/2</td>
<td>6.4</td>
</tr>
<tr>
<td>5/8</td>
<td>2.2</td>
<td>5 5/8</td>
<td>6.5</td>
</tr>
<tr>
<td>3/4</td>
<td>2.4</td>
<td>5 3/4</td>
<td>6.6</td>
</tr>
<tr>
<td>7/8</td>
<td>2.6</td>
<td>5 7/8</td>
<td>6.6</td>
</tr>
<tr>
<td>1</td>
<td>2.7</td>
<td>6</td>
<td>6.7</td>
</tr>
<tr>
<td>1 1/8</td>
<td>2.9</td>
<td>6 1/8</td>
<td>6.8</td>
</tr>
<tr>
<td>1 1/4</td>
<td>3.1</td>
<td>6 1/4</td>
<td>6.8</td>
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<td>1 3/8</td>
<td>3.2</td>
<td>6 3/8</td>
<td>6.9</td>
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<td>1 1/2</td>
<td>3.4</td>
<td>6 1/2</td>
<td>7.0</td>
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<tr>
<td>1 5/8</td>
<td>3.5</td>
<td>6 5/8</td>
<td>7.0</td>
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<tr>
<td>1 3/4</td>
<td>3.6</td>
<td>6 3/4</td>
<td>7.1</td>
</tr>
<tr>
<td>1 7/8</td>
<td>3.7</td>
<td>6 7/8</td>
<td>7.2</td>
</tr>
<tr>
<td>2</td>
<td>3.9</td>
<td>7</td>
<td>7.2</td>
</tr>
<tr>
<td>2 1/8</td>
<td>4.0</td>
<td>7 1/8</td>
<td>7.3</td>
</tr>
<tr>
<td>2 1/4</td>
<td>4.1</td>
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<td>2 3/8</td>
<td>4.2</td>
<td>7 3/8</td>
<td>7.4</td>
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<tr>
<td>2 1/2</td>
<td>4.3</td>
<td>7 1/2</td>
<td>7.5</td>
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<td>2 5/8</td>
<td>4.4</td>
<td>7 5/8</td>
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<td>4.7</td>
<td>8</td>
<td>7.7</td>
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<td>4.8</td>
<td>8 1/8</td>
<td>7.8</td>
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<td>3 1/4</td>
<td>4.9</td>
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<td>5.0</td>
<td>8 3/8</td>
<td>7.9</td>
</tr>
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<td>5.1</td>
<td>8 1/2</td>
<td>8.0</td>
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<tr>
<td>3 5/8</td>
<td>5.2</td>
<td>8 5/8</td>
<td>8.0</td>
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<tr>
<td>3 3/4</td>
<td>5.3</td>
<td>8 3/4</td>
<td>8.1</td>
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<tr>
<td>3 7/8</td>
<td>5.4</td>
<td>8 7/8</td>
<td>8.1</td>
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<tr>
<td>4</td>
<td>5.5</td>
<td>9</td>
<td>8.2</td>
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<td>4 1/8</td>
<td>5.6</td>
<td>9 1/8</td>
<td>8.3</td>
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<tr>
<td>4 1/4</td>
<td>5.6</td>
<td>9 1/4</td>
<td>8.3</td>
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<tr>
<td>4 3/8</td>
<td>5.7</td>
<td>9 3/8</td>
<td>8.4</td>
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<tr>
<td>4 1/2</td>
<td>5.8</td>
<td>9 1/2</td>
<td>8.4</td>
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<tr>
<td>4 5/8</td>
<td>5.9</td>
<td>9 5/8</td>
<td>8.5</td>
</tr>
<tr>
<td>4 3/4</td>
<td>6.0</td>
<td>9 3/4</td>
<td>8.5</td>
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<tr>
<td>4 7/8</td>
<td>6.0</td>
<td>9 7/8</td>
<td>8.6</td>
</tr>
<tr>
<td>5</td>
<td>6.1</td>
<td>10</td>
<td>8.7</td>
</tr>
</tbody>
</table>

Note: This chart is based on a 7/8” diameter pick hole. \( Q = \frac{449 C_c V A}{V} \) \( V = \sqrt{2Gh} \)
Where, \( Q \) = Flow Rate in gpm, \( C_c \) = Coefficient of Contraction = 0.63, \( V \) = Velocity of the Overflow, ft/s
\( A \) = Area of the Pick Hole, ft², \( h \) = Height of the Overflow, ft, \( G \) = Acceleration due to Gravity = 32.2 ft/s²

Spill Volume \( mh \text{ pick hole (gal)} = \text{ Flow Rate } mh \text{ pick hole (gpm)} \times \text{ Overflow Duration (min)} \)
7.1.10 Flow Meter Data (Method I)

Flow meter data, if available, can be used to estimate flow rates. Contact Operations Support for assistance with this method.

7.1.11 Vactor/Vacuum Truck Storage Tank (Method J)

Vactor/vacuum trucks have defined storage tank capacities that can be used to determine the volume of spills. Estimate the spill volume by visually estimating the amount of water discharged when emptying the vactor/vacuum truck tanks.

Table 7-7: Vactor/Vacuum Truck Storage Tank Capacity

<table>
<thead>
<tr>
<th>Vactor/Vacuum Truck</th>
<th>Storage Tank Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minuteman Truck</td>
<td>100 Gallon Capacity</td>
</tr>
<tr>
<td>5 Yard Combo Truck</td>
<td>1,000 Gallon Capacity</td>
</tr>
<tr>
<td>11 Yard Combo Truck</td>
<td>2,200 Gallon Capacity</td>
</tr>
</tbody>
</table>

Volume Truck Type (gal) = Quantity Truck Type x Capacity Truck Type (gal)

Total Volume Recovered (gal) = Sum of Volumes for each Truck Type
7.1.12 Visual Inspection (Method K)

If the previous methods are not applicable to the situation, then the visual inspection method can be used. Estimate the overflow rate coming out of a cleanout by estimating the amount of time needed to fill up a known-volume container, such as a five-gallon bucket. The visual inspection method can also be used to estimate small-volume overflows into a lawn or driveway.

**Photo 1:** 1 Gallon Spill on Sloped Surface (54 feet in length)  
**Photo 2:** 2 Gallon Spill on Sloped Surface (74 feet in length)  
**Photo 3:** 5 Gallon Spill on Sloped Surface (114 feet in length)
Photo 4: 1 Gallon Spill along a Curb (96 feet in length)

Photo 5: 2 Gallon Spill along a Curb (137 feet in length)
7.1.13 Water Usage Based on Resident Interviews (Method L)

This method can be used for overflows from a single-family or multi-family residential property (or properties) when insufficient information is available to use other methods. Interview residents responsible for the water usage contributing to the SSO volume to document the water fixture use during the duration of the SSO. Refer to Table 7-8 for the average volume of water used by typical residential fixtures/uses to calculate the SSO volume.

### Table 7-8: Average Residential Water Usage Volumes

<table>
<thead>
<tr>
<th>Water Usage Type</th>
<th>Average Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bath</td>
<td>36 gallons</td>
</tr>
<tr>
<td>Shower</td>
<td>30 gallons²</td>
</tr>
<tr>
<td>Teeth Brushing</td>
<td>1.5 gallons</td>
</tr>
<tr>
<td>Hands/Face Washing or Shaving</td>
<td>1 gallon</td>
</tr>
<tr>
<td>Dishwasher</td>
<td>10 gallons</td>
</tr>
<tr>
<td>Dish Washing by Hand</td>
<td>12 gallons</td>
</tr>
<tr>
<td>Clothes Washer</td>
<td>30 gallons</td>
</tr>
<tr>
<td>Toilet Flush</td>
<td>3 gallons</td>
</tr>
</tbody>
</table>

¹ Sourced from U.S. Geological Survey (modified 12/02/16): [https://water.usgs.gov/edu/qa-home-percapita.html](https://water.usgs.gov/edu/qa-home-percapita.html)

² Based on USGS average water usage rate of 3 gallons per minute for shower and typical shower time of 10 minutes.

\[
\text{Volume Usage Type (gal)} = \text{Quantity Usage Type} \times \text{Average Volume Usage Type (gal)}
\]

\[
\text{Total SSO Volume (gal)} = \text{Sum of Volumes for each Usage Type (gal)}
\]
7.1.14 Typical Daily Residential Sewage Discharge (Method M)

This method can be used for overflows from a single-family or multi-family residential property (or properties) when insufficient information is available to use other methods (including Method L). Identify the number and type (single-family and multi-family) of upstream residential units that contributed to the SSO volume. Contact SSO Responder for appropriate flow rates to determine the total spill volume.

7.2 Record Keeping

Electronic records (from SCADA, flow meters, etc.) used to determine SSO volumes will be maintained for a minimum of five years. Records should be stored electronically with the SSO SR in Maximo, or according to SASD’s Records Management Policy.
8. RESTORATION OF SERVICE

8.1 Stoppages
8.2 Follow-Up CCTV
8.3 Pump Station
8.4 Pipe Broken
8.5 Force Main Damaged
8.6 CARV
8.1 Stoppages

The restoration of service depends on where the stoppage was determined to be located.

8.1.1 Main Line

- An M&O crew or contractor is dispatched by the Prechecker to clear a main line stoppage.
- Depending on the size, location, and severity of the main line stoppage, the M&O crew may encounter areas that require interface with the public. See Tab 13, Public Interface, as necessary.
- The M&O crew clears the stoppage from the main line. Clear line from dry manhole, if possible, with high pressure cleaning or power rodding equipment
  - If the blockage cannot be cleared, notify the Prechecker to discuss alternative procedures or actions, such as the following:
    - Increase containment or initiate bypass pumping
    - Perform CCTV inspection to determine problem
    - Repair broken sewer line or dig up blockage
- The M&O crew will determine and document the cause of blockage, if possible.
- The M&O crew may perform main line follow-up activities. If time and equipment allows. If not, notify the Prechecker to create a main line follow-up work order.
- After the main line stoppage has been cleared, the M&O crew must return to the address of the complaining party and verify that all sewer issues have been resolved.
8.1.2 Lower Lateral

- An M&O crew or contractor is dispatched by the Prechecker to eliminate a stoppage from SASD’s cleanout.
- Attempt to clean the lower lateral. The M&O crew will attempt to clean with a full-size cutter. If a full-sized cutter will not pass, the crew will attempt to clean with a cutter one size smaller than full size. Crews may also use a high-pressure nozzle to clean the lower lateral. After the cleaning, perform CCTV and document findings.
- Notification of Prechecker for direction - Once the cleaning and inspection are successful, the SASD maintenance crew will contact the Prechecker for direction.
  - If the blockage cannot be cleared, notify the Prechecker to discuss alternative procedures or actions, such as the following:
    - Dig up the lower lateral at the location of the defect. If unable to clear the stoppage, the M&O crew will dig up the lower lateral at the location (footage) of the stoppage.
    - Replace or repair the lower lateral, as needed. After exposing the lower lateral, the M&O crew will repair the defective area to restore service.
    - Perform CCTV of the entire lower lateral after completing the repair. The M&O crew will attempt to televise the entire lower lateral.
    - Document the condition of the lower lateral.
    - The M&O crew will create work orders for the work performed. The Crew Leader will create and complete the required work orders for all activities performed.

8.2 Follow-Up CCTV

Refer to the current Televised Inspection Policy located in the SSMP to determine if and when the line should be televised.
8.3 Pump Station

SASD will respond to overflows due to an equipment failure at the pump station by determining if the station can be shut down while the failed equipment is being repaired. SASD staff will determine the number of hour’s sewage can be stored before overflowing the low manhole upstream of the station from the allowable downtime database. If sufficient storage is available, the station will remain down until the equipment is repaired. If there is insufficient time, then SASD will bypass the station by either pumping the sewage from the station to a bypass port on the force main or into temporary storage tanks until the failed equipment is repaired. SASD maintains portable pumps in their corporation yards for emergency response. SASD also has established contracts with local rental companies, if additional pumps are needed.

The pump station can be operated in manual mode if necessary. Bypass pumping can be performed until the station is operational again. If the pumps are in an alarm state, the following should be considered to restore operation:

- Pumps plugged
  Pull pumps from wet well and clear blockage

- Failure of level control system
  - Replace or repair components as needed to correct
  - Notify Control Systems, if needed, for assistance with Programmable Logic Control

- Electrical failure of pump service equipment
  - Notify SASD Electrical staff for emergency repair

- Utility power available, but pumps not operating to control station level. (voltage low, Phase reversal, phase unbalance)
  - Notify SASD Electrical staff to determine problem, and call power company for assistance
  - Determine if there is a need to bypass pump station or provide emergency power source (generator)
  - Contact Electrical Department and equipment mechanics as needed for assistance

8.4 Pipe Broken

If the M&O Responsible Manager determines that the construction necessary to restore service will require more time and/or crews than available, they will escalate this to Engineering Design for contractor assistance.
8.5 Force Main Damaged

SASD will respond to SSOs due to a force main failure by shutting down the pump station immediately. SASD staff determines the number of hour’s sewage can be stored before overflowing the low manhole upstream of the station from the allowable downtime database. If sufficient storage is available, the pump station will remain down until the force main is repaired. If there is insufficient time, SASD will switch the flows over to a redundant force main, where available, to restore flow. Otherwise, SASD will bypass the station by either pumping the sewage from the station to a downstream system or into temporary storage tanks until the force main is repaired.

Station downtime information is available in the corresponding pump station M&O manual in the Facility Report section and in Maximo. If there is not enough time to actually do the repair while the pump station is shut down, this will at least provide some time to evaluate the situation and develop a strategy. When the pump station is turned off, the low point in the upstream system should be monitored. If the force main cannot be repaired in the downtime allotted by the pump station, mobilization of tanks or some other method of containment or bypass will be necessary.

8.6 CARV

If a CARV fails, the pump station should be shut down to facilitate the repair. If the CARV is equipped with a valve, the valve should be shut off and the CARV replaced.
9. Claims & Litigation

9.1 Claims Management
9.1 Claims Management

9.1.1 Sierra Pacific Loss Management (SPLM)

The primary function of SPLM is to be the first point of contact for SASD staff when SASD is determined to be responsible for the BIS and cleaning is requested or damages are incurred. Once the customer requests cleaning, SPLM will be called to respond in the manner outlined below.

If issue is not connected to a BIS, refer to other applicable policies.

9.1.1.1 Responsibilities

SPLM will perform the following:

- Call emergency service contractor (ES) to perform initial clean-up.
- Visit site at time of initial ES contractor visit.
- Confirm liability.
- Determine if relocation is necessary. If so, carry out relocation.
- Notify PAO and Customer Service Liaison of relocation within eight business hours after the relocation decision has been made.
- Determine scope of repairs with restoration/rebuild company.
- Enter claim accounting information in the Maximo claim work order and setup file. The claim work order should be assigned to the Service Group “ADMIN” and the Service “CLAIMS.” The work order should be classified as “REQUEST/CLAIMS” and should be written with Jim Power (POWERJ) as the supervisor.
- Obtain inventory of non-salvageable content items and determine their actual cash value.
- Take photos and diagram loss.
- Enter ES company name and cost information into the Maximo claim work order. Enter the company name in the “Cleaning Contractor Name” field in Overflow > BIS tab in the SR.
- Track ES company to ensure that remediation is completed on time.
- Call hygienist at conclusion of work for post remediation sampling.
- Meet with customer and restoration/rebuild contractor within 24 hours of clearance.
- Request invoices/reports from ES and hygienist.
• Prepare the following within 48 hours of determining the full cost of repairs: Claims summary sheet; ES invoice; hygienist’s invoice and report; restoration/rebuild contractor’s estimate; diagram, photographs, and any other costs associated with claim. Enter/update all contactor and cost information into the Maximo claim work order.

• Complete review and gain authorization as necessary within 48 hours of preparing above package.

• Forward request for payment to Accounts Payable.

• Input claims data into the claim work order.

• Track restoration/rebuild contractor to ensure that work is completed on schedule; complete formal follow-up contact with customer, and obtain executed release.

• Collect authorization and process payments within 10 days of completing restoration/rebuild work.
9.1.2 Sewage Fact Sheet

SEWAGE FACT SHEET

Frequently Asked Questions Regarding Contact with Sewage

Q: What is sewage?
A: Sewage is thewater carried out of your home or business through your washing machine, toilet, or drains in your sinks, bath tubs, and showers.

Q: Where does the sewage go after it leaves my home?
A: Sewage is carried through a complex network of buried pipelines and pump stations to the Sacramento Regional Wastewater Treatment Plant near Elk Grove. There, it is cleaned before being discharged to the Sacramento River.

Q: How does sewage get out of the pipes?
A: Sewage can get out of the pipelines in a number of ways. The most common way is a blockage in a small pipeline due to grease or tree roots. Most often it appears around the edge of sewer manhole covers or comes out of a sewer cleanout in front of, or behind, a building.

Q: What should I do if I spot sewage on the ground?
A: First, you should avoid contact with the sewage. It may contain contaminants that are harmful to your health. Please keep children and pets away from it as well. To report sewage coming out of sewer manholes and/or pipes, call the Sacramento Area Sewer District (SASD) at (916) 875-6730. We will check to see if the problem is being caused by our system or by the property owner’s system. If the problem is caused by our system, we will correct it and clean up the sewage overflow.

Q: What if I have come into contact with sewage?
A: Sewage can carry disease-causing bacteria and germs; therefore, after coming in contact with sewage, you should thoroughly wash all potentially exposed areas with warm water. Clothing that has come in contact with sewage can be washed in the washing machine with normal laundry detergent, and footwear can be washed with warm water and soap.

According to the Sacramento County Health Officer, most of these micro-organisms will die within 24 hours of exposure to air. Exposure to sunlight will also kill them very quickly. Any fruit or vegetables that have come into contact with sewage should not be eaten and should be disposed of in the garbage.

Q: How do I clean up sewage in my home?
A: As stated before, sewage can carry disease-causing bacteria and you should avoid contact. If sewage entered your home, report the problem as described above by calling SASD at (916) 875-6730. We can determine whether the sewage in your house originated within the portion of the system that is part of your home or whether it originated within SASD’s system. If it originated within our system, we will clean it. If you wish to proceed with cleanup, Sacramento County Environmental Management Department has information on how best to cleanup. For more information, please visit their website: http://www.emd.saccounty.net

Q: Who can I call for additional information?
A: If you have further questions regarding the health effects of exposure to sewage, please consult your doctor.

Sewer Problems?
Call the Sacramento Area Sewer District first at (916) 875-6730!
Visit our website at sacsewer.com to learn more.
9.1.3 Sewage Spills, Personal Protection and Cleanup Information Sheet (Example)

SEWAGE SPIILS
PERSONAL PROTECTION AND CLEANUP
HEALTH RISK AND PERSONAL PROTECTION

Wastewater associated with human habituation (sewage), has the ability to harbor harmful organisms and contaminants such as Hepatitis A, E.coli, and pharmaceuticals that can spread disease, cause infections, or degrade our environment if not properly treated and disposed of. Possible pathways of disease transmission from exposure with untreated or inadequately treated sewage are: swallowing, breathing, or absorption through cuts and abrasions on the skin.

Because of the potential threat to public health, prompt and thorough cleanup along with personal protection are paramount when addressing sewage issues inside or outside the home. The best method for personal protection is to avoid the situation and contact a licensed plumber to resolve the issue. If contact is required, the following guidelines have been established to minimize potential threats.

CLEANUP

INSIDE THE HOME

- Keep children and pets out of the affected area until cleanup has been completed.
- Wear rubber boots, rubber gloves, and goggles during cleanup of affected area.
- Remove and discard items that cannot be washed and disinfected (such as mattresses, carpeting, carpet padding, rugs, upholstered furniture, cosmetics, stuffed animals, baby toys, pillows, foam-rubber items, books, wall coverings, and most paper products).
- Remove and discard drywall and insulation that has been contaminated with sewage or flood waters.
- Thoroughly clean all hard surfaces (such as flooring, concrete, molding, wood and metal furniture, countertops, appliances, sinks, and other plumbing fixtures) with hot water and laundry or dish detergent.
- Help the drying process by using fans, air conditioning units, and dehumidifiers.
- After completing the cleanup, wash your hands with soap and water. Use water that has been boiled for one minute (allow the water to cool before washing your hands).
Or you may use water that has been disinfected for personal hygiene. Use a solution of 1/8 teaspoon of household bleach per one gallon of water. Let it stand for 30 minutes. If the water is cloudy, use a solution of ¼ teaspoon of household bleach per one gallon of water.

- Wash all clothes worn during the cleanup in hot water and detergent. These clothes should be washed separately from uncontaminated clothes and linens.
- Wash clothes contaminated with flood or sewage water in hot water and detergent. It is recommended that a laundromat be used for washing large quantities of clothes and linens until your onsite wastewater system has been professionally inspected and serviced.
- Seek immediate medical attention if you become injured or ill.

OUTSIDE THE HOME

- Keep children and pets out of the affected area until cleanup has been completed.
- Wear rubber boots, rubber gloves, and goggles during cleanup of affected area.
- Clean up sewage solids (fecal material) and place in properly functioning toilet or double bag and place in garbage container.
- On hard surface areas such as asphalt or concrete, it is safe to use a 2% bleach solution or ½ cup of bleach to five gallons of water.
- Have your onsite wastewater system professionally inspected and serviced if you suspect damage.
- If you have a water supply well that was covered by flood water, it should be disinfected and purged.
- Wash all clothes worn during the cleanup in hot water and detergent. These clothes should be washed separately from uncontaminated clothes and linens.
- After completing the cleanup, wash your hands with soap and water. Use water that has been boiled for one minute (allow the water to cool before washing your hands).
  - Or you may use water that has been disinfected for personal hygiene. Use a solution of 1/8 teaspoon of household bleach per one gallon of water. Let it stand for 30 minutes. If the water is cloudy, use a solution of ¼ teaspoon of household bleach per one gallon of water.
- Seek immediate medical attention if you become injured or ill.

OUTSIDE PUBLIC AREAS

Avoid contact with sewage if possible. If the area is a high public use area, such as a park or school, it should be posted with “Keep Out Sewage Contamination” signs until cleaned up. Once the floodwaters recede and the area dries out, the health risks are significantly lowered, as sunlight and drying eliminate most of the possible infectious germs contained in sewage. Grass and soft surfaces that have been flooded with sewage are safe to use once they have dried out and visible garbage has been picked up.

- If signs are posted relating to sewage spills, keep out of the posted area until signs are removed.
- For additional information, call the Sacramento County Environmental Compliance Division at (916) 875-8400.
10. Escalation & Authority

10.1 SSO Special Notification
10.2 Media Interface
10.3 Category 1 or 2 SSO
10.4 Causes of SSOs
10.5 Backwater Valve
10.1 SSO Special Notification

10.1.1 General Services

SASD no longer provides support service to Sacramento County General Services. The only exception is the Rio Cosumnes Correctional Center.

If General Services requests SASD support, contact the M&O Responsible Manager.

10.1.2 Event at School

When an SSO event is on or affecting a school, the Prechecker will notify the appropriate School District contact and the M&O Responsible Manager. The M&O Responsible Manager will contact PAO. See Tab 5: Notification.

10.1.3 Event Involving Regional San Assets

In the event that Regional San assets are involved in an SSO, the Prechecker will notify the Regional San contact listed in Tab 5: Notification.

10.2 Media Interface

If the Prechecker at any time evaluates there to be a need for Media Interface (See Tab 13: Public Interface), they will contact the M&O Responsible Manager. The M&O Responsible Manager is responsible for contacting PAO. See Tab 5: Notification.
10.3 Category 1 or 2 SSO

In the case of a Category 1 or 2 SSO, the event is escalated to the SSO Responder.

The SSO Responder will proceed with the following:

- Obtain all pertinent documentation (such as SR Number, location of the event, and photos) from the Prechecker.

- Ask the Prechecker the volume of the spill and if the spill reached a waterway. If the spill has reached a waterway, or is over 1,000 gallons, all the necessary notifications need to be made within two hours of the when SASD received knowledge of the SSO, notification is possible, and notification can be provided without substantially impeding cleanup or other emergency measures. See Section 5.3 for contact information.

- Respond to the event site within one hour of being notified by the Prechecker.

- Determine if impacted waterways are classified as a drainage channel or a surface water, using the definitions in this manual.

- Obtain all information from the event site needed for notifying the required parties (see below for required information to be obtained) as outlined in Tab 5: Notification for Category 1 and 2 SSO. Record actions taken, a chronology of events, pictures, investigation results, and any other pertinent information of the overflow. Sample as necessary per Tab 6, Section 6.3: SSO Water Quality Monitoring Program.

All Category 1 and 2 – SSO reporting shall be completed by the SSO Responder and sent to the SSO Responder Manager for review prior to submitting it to the appropriate agencies.

The SSO Responder is responsible for completing the regulatory requirements and forwarding them to the SSO Responder Manager for review. The SSO Responder Manager will review the information provided for quality control and submit it to the required parties. See Tab 12: CIWQS/RWQCB Reporting for reporting information.

In addition to the phone notification required in Tab 5: Notification, the SSO Responder will send an email notification to the RWQCB informing them of the Category 1 or 2 SSO if volume is greater than or equal to 25,000 gallons. The email will be addressed to Ayda Soltani Ayda.Soltani@Waterboards.ca.gov, shall be sent within 24 hours of SASD being notified of the SSO, and will include the following information:

- Address of the spill
- Estimated Spill Volume
- Time SASD was notified
- The Cal-OES control number
- Whether or not the SSO was recovered, or was expected to be recovered, if it contacted a waterway.
10.3.1 PLSDs Reaching Waterways

The SSO Responder will respond when contacted by the Prechecker. If a PLSD has reached a waterway (or will likely reach a waterway) and is greater than or equal to 1,000 gallons, the SSO Responder will do the following:

- Perform water sampling to determine if PLSD reached waterway. These water samples are not submitted to the Regional San laboratory for testing.
- Discuss the results of water samples with the County incident manager (EMD or Code Enforcement), as identified in the “Service Level Agreement between the County of Sacramento and the Sacramento Area Sewer District for Private Sewer Spill Incident Response and Management Services.”
- Provide the County incident manager, if requested, an overview of the cleanup activities that would be performed by SASD, if the SSO were SASD’s responsibility.
- Make any required notifications, as outlined in Tab 5: Notification.

If requested by the County Incident Manager, SASD will provide cleanup, assuming it does not interfere with SASD’s ability to provide adequate services to its customers, per the Service Level Agreement.

10.3.2 Required Reporting Information – Internal, RWQCB, CIWQS

This information is required for the completion of all reporting forms.

- Where did the overflow occur? Include the street address, nearest major intersection, and name of the city or community.
- What is the volume of the overflow? If the volume is unknown, that should be stated.
- What was the cause of the overflow? If unknown, declare.
- Who is the responsible agency?
- When did the overflow begin?
- Has the overflow stopped?
  - If yes, how was the stoppage cleared?
  - If no, what actions are being taken, and how long until the stoppage can be broken?
- When was SASD notified, and by whom (i.e. resident, law enforcement, etc.)?
- Did the overflow reach a waterway?

If yes, were water sample results used to determine a containment location?

- Is the overflow contained?
  - If yes, describe how it is contained (sandbags, contained on land, etc.).
  - If no, describe containment plan and reasoning if any sewage was lost.
- What is the estimated time to contain (or clean up) the overflow? If unknown, declare.
• Are there contamination warning signs being posted? If so, describe how many and the general areas.
• Are there obvious immediate environmental impacts (i.e. dead fish or wildlife)?
• Will traffic be impacted? If so, explain what roads or lanes will be closed, approximately how long they will be closed, and reasoning for the closure.
• Are there any additional impacts or precautions for the public?

10.3.3 Required Reporting Information – California Office of Emergency Services (Cal-OES)

This information is necessary to report to Cal-OES for Category 1 SSOs greater than or equal to 1,000 gallons, or PLSDs greater than or equal to 1,000 gallons that have reached surface water. When notifying Cal-OES, you must obtain the Control Number from Cal-OES for reference on all documents.

1. Name and phone number (cell phone) of person notifying OES
2. Who is the agency responsible for the overflow? (SASD, Regional San, Private)
3. The substance released was sewage.
4. What is the volume of the overflow? If the volume is unknown, that should be stated.
5. If ongoing, the estimated discharge rate.
6. SSO Incident Description:
   o Brief narrative
   o On-scene point of contact for additional information
   o Date and time SASD was notified of the SSO
   o Cause of the overflow

   • Was the overflow contained?
   • Did the overflow reach any waterways?
   • Name of impacted surface waters, if known.
   • Was drinking water impacted?
   • Any other known SSO impacts
   • Where did the overflow occur? (Include the street address, city, county, and zip code)
   • Was anyone else notified of the overflow (i.e. public agencies, police, fire department, etc.)?

10.4 Causes of SSOs

10.4.1 Capacity

If flow conditions indicate that the overflow may be caused by a capacity constraint in the SASD system, the Prechecker will notify the SSO Responder. The Prechecker will continue investigating the downstream system until a drop in flow is encountered or the Regional San interceptor system is reached. The Prechecker will document surcharge levels and time of observation and provide the information to the SSO Responder. The SSO Responder will notify Business Planning – Hydraulic Modeling group and request any downstream CCTVs that are required to confirm cause. Hydraulic Modeling will review the storm event in comparison to the Design Storm and Performance Storm to determine if the event was caused by a capacity issue.
If the rainfall is found to exceed the Performance Storm, the sewer system was not designed for this amount of flow. If the rainfall is found to be less than anticipated by the Performance Storm, additional actions may be triggered through the Under Capacity Failure Mode Strategy. Flow monitoring data above and below the event location will be evaluated in determining which scenario is applicable, if either. This evaluation may also result in a conclusion that there was a blockage or partial blockage in the pipe that caused the event and it was not capacity related. A report of this information needs to be submitted to the SSO Responder Manager no later than 10 calendar days from the request for further review.

10.4.2 Operator Error

When the cause of a SSO is determined to be from an operator error, the Prechecker will check Maximo to confirm that SASD or its contractor was doing work in the area. The Prechecker will determine what type of work was being performed, when the work was performed, which crew was doing the work, and which asset is the issue. The Prechecker will relate the work order for the work being performed to the SR. The Prechecker will evaluate the situation to see if additional work by SASD can prevent this from happening again (i.e., install a cleanout) and create the needed work orders. The M&O Responsible Manager may need to request special instructions be inserted into CMMS. The SSO report and Op Error WO associated with the event need to be attached to the asset that was having the maintenance activity done to it.

10.4.3 Pump Station Assets

During business hours, if it is determined that the event was caused by a pump station failure, the Prechecker will contact the Mechanical Maintenance Supervisor to aid in resolving the event. The Mechanical Maintenance Supervisor will create a BCE WO requesting the Engineering Operations Support group conduct a failure analysis to determine if the cause was a one-time event or more severe in nature.

10.5 Backwater Valve

If the Prechecker believes that a parcel may need a backwater valve, notification will be made to the Engineering Operations Support group as outlined in Tab 11, Section 11.4: Backwater Valve. Engineering Operations Support group is responsible for the following:

- Checking to make sure that the parcel is not already listed as having been surveyed;
- Conducting a field survey of the property to determine if a backwater valve is required due to the elevation of the nearest upstream manhole and the finished floor of the structure;
- Updating the SASD Plans database with the survey results;
- Properly notifying the property owner of any backwater valve installation requirement.
11. CMMS Data Collection & Reporting

11.1 Maximo Reporting
11.2 SASD Responsible
11.3 SASD Not Responsible—Private Event
11.4 Backwater Valve
11.5 Documents
11.6 SR Overflow Tab
11.7 SR Overflow>BIS Tab
11.8 SSO Data Quality Control Procedures
11.9 Time Keeping
11.1 Maximo Reporting

11.1.1 SASD Responsible

All events must be tracked in Maximo regardless of volume, Category 1, 2, or 3. Additionally, the Overflow Report with a log note explaining the details of the investigation and findings must be created prior to the Prechecker leaving the job site if no dig up is required to determine responsibility and will include entering the classification. The Prechecker will ask and document on the SSO report when the SSO was first noticed. If the caller isn’t available to ask when the SSO was first noticed, then the Prechecker must do the following before reverting back to the time the call initially came in.

- Attempt to make contact by phone.
- If no one answers the phone, leave a message and add a log note with the date and time the message was left.
- The Prechecker must make up to three attempts within the five days they have to move the SSO report forward to “Ready to QC.”

The Prechecker will document on the SSO report whether it is raining or not at the time of the event, or has rained during the event. The Prechecker will also document if the spill is not ongoing when they arrive and use their arrival time as the spill end time on the SSO report. Responsibility for the event must be defined prior to the end of the Prechecker’s shift. If the responsibility cannot be defined prior to that time, then the Prechecker will notify the Responsible Manager of the status and need for further investigation.

11.1.2 Private Responsible

All PLSDs must be tracked in Maximo regardless of volume. PLSDs will require data to be entered as a log note with no Overflow Report being created. PLSDs will require the submittal of cost documents as discussed in Tab 11, Section 11.3: SASD Not Responsible – Private Event, if EMD requests SASD assistance. Additionally, a log note explaining the details of the investigation and findings must be created prior to the Prechecker leaving the job site if no dig up is required to determine responsibility and will include entering the classification.

Responsibility for the event must be defined prior to the end of the Prechecker’s shift. If the responsibility cannot be defined prior to that time, then the Prechecker will notify the M&O Responsible Manager of the status and need for further investigation.
11.2 SASD Responsible

If the SSO was determined to be the responsibility of SASD, the event needs to be documented and all pertinent information captured.

If the SSO was categorized as a Category 3, **Tab 6, Section 11.6: SR Overflow Tab** needs to be completed by the Prechecker. If the SSO was categorized as a Category 1 or 2 SSO, **Tab 6, Section 11.6: SR Overflow Tab** will also need to be completed by the SSO Responder. If the SSO was categorized as having a BIS, **Tab 6, Section 11.7: SR Overflow>BIS Tab** also needs to be completed by the Prechecker.

11.2.1 Problem in Lower Lateral

Lower lateral problems are considered to be an SSO and a BIS if there is a spill into a structure. This could be a single overflow event (spill only at private cleanout, SASD cleanout, or in structure) or a multi-overflow (spill at private cleanout and/or an SASD cleanout and in structure) event.

Single Overflow Event: Sewage spills in only one location.

- **Spill in Structure**
  - Mark SR Classification field as BIS (CMPLNT\BIS).
  - Ask and document when the caller first noticed the overflow. If the time covers more than one day or doesn’t support the amount of visible sewer, ask the caller more questions (has the flow been continuous, has the flow been on and off, etc.).
  - Create Overflow record in SR and complete BIS tab. Include the volume of the overflow in the SR investigation log note. Indicate if Category 1, 2, or 3. If Spill is a Category 3 the Prechecker will complete the Overflow tab, if it is a Category 1 or 2 spill, the SSO Responder and the Prechecker will complete the Overflow tab. See **Tab 6, Section 11.6: SR Overflow Tab**.

- **Spill at SASD Cleanout or Private Cleanout**
  - Mark SR Classification field as Overflow (CMPLNT\OVRFLW).
  - Ask and document when the caller first noticed the overflow. If the time covers more than one day or doesn’t support the amount of visible sewer, ask the caller more questions (has the flow been continuous, has the flow been on and off, etc.).
  - Complete SR Overflow tab, include the volume and location (lawn, gutter, etc.) of the overflow in the SR investigation log note. Indicate if Category 1, 2, or 3. If Spill is a Category 3, the Prechecker will complete the Overflow tab, if it is a Category 1 or 2 spill, the SSO Responder and the Prechecker will complete the Overflow tab. See **Tab 6, Section 11.6: SR Overflow Tab**.
Multi-Overflow Event: Sewage spills in more than one location.

Spill is at SASD and/or Private Cleanout and in the Structure

- Mark SR Classification field as BIS (CMPLNT\BIS).
- Ask and document when the caller first noticed the overflow. If the time covers more than one day or doesn’t support the amount of visible sewer ask the caller more questions (has the flow been continuous, has the flow been on and off, etc.).
- Create a SR log entry stating that a cleanout overflow was also found, and clearly note whether only at Private Cleanout, only at SASD Cleanout, or at both private and SASD Cleanouts. Clearly note that spill occurred in multiple locations. Include the volume and location (lawn, gutter, etc.) of the overflow from each location as well as identifying the volume cleaned up from each location in the SR log note.
- Complete the SR Overflow tab with the number of spill appearance points identified in the log and note the locations in Spill Appearance Point field in the Overflow>Category 3 tab. Indicate if Category 1, 2, or 3. If Spill is a Category 3, the Prechecker will complete the Overflow tab, if it is a Category 1 or 2, spill the SSO Responder and the Prechecker will complete the Overflow tab. See Tab 6, Section 11.6: SR Overflow Tab.

Spill is at SASD and Private Cleanout

- Mark SR Classification field as Overflow (CMPLNT\OVRFLW). Clearly note in the log that spill occurred in multiple locations. Include the volume and location (lawn, gutter, etc.) of the overflow from each location, as well as identifying the volume cleaned up from each location in the SR log note.
- Ask and document when the caller first noticed the overflow. If the time covers more than one day or doesn’t support the amount of visible sewer, ask the caller more questions (has the flow been continuous, has the flow been on and off, etc.).
- Complete the SR Overflow tab with the number of spill appearance points identified in the log and note the locations in the Spill Appearance Point field in the Overflow>Category 3 tab. Indicate if Category 1, 2, or 3. If Spill is a Category 3, the Prechecker will complete the Overflow tab. If it is a Category 1 or 2, spill the SSO Responder and the Prechecker will complete the Overflow tab. See Tab 6, Section 11.6: SR Overflow Tab.

Complete the SSO report for any spill, with spill volume estimates.
11.2.2 Problem in Main Line

Main line problems are considered to be an SSO and a BIS if there is a spill into a structure. This could be a single overflow event (spill only at private cleanout, SASD cleanout, in structure, or manhole) or a multi-overflow (spill at private cleanout, SASD cleanout, in structure, or manhole) event.

Single Overflow Event: Sewage spills in only one location.

Spill in Structure

- Mark SR Classification field as BIS (CMPLNT\BIS).

- Ask and document when the caller first noticed the overflow. If the time covers more than one day or doesn’t support the amount of visible sewer ask the caller more questions (has the flow been continuous, has the flow been on and off, etc.).

- Complete SR Overflow tab and Overflow>BIS tab. Include the volume and location (lawn, gutter, etc.) of the overflow in the SR investigation log note. Indicate if Category 1, 2, or 3. If Spill is a Category 3, the Prechecker will complete the Overflow tab. If it is a Category 1 or 2 spill, the SSO Responder and the Prechecker will complete the Overflow tab. See Tab 6, Section 11.6: SR Overflow Tab.

Spill at SASD Cleanout or Private Cleanout

- Mark SR Classification field as Overflow (CMPLNT\OVRFLW)

- Ask and document when the caller first noticed the overflow. If the time covers more than one day or doesn’t support the amount of visible sewer ask the caller more questions (has the flow been continuous, has the flow been on and off, etc.).

- Complete SR Overflow tab. Include the volume and location (lawn, gutter, etc.) of the overflow in the SR investigation log note. Indicate if Category 1, 2, or 3. If Spill is a Category 3, the Prechecker will complete the Overflow tab, if it is a Category 1 or 2 spill the SSO Responder and the Prechecker will complete the Overflow tab. See Tab 6, Section 11.6: SR Overflow Tab.

Spill at SASD Manhole

- Mark SR Classification field as Overflow (CMPLNT\OVRFLW).

- Ask and document when the caller first noticed the overflow. If the time covers more than one day or doesn’t support the amount of visible sewer, ask the caller more questions (has the flow been continuous, has the flow been on and off, etc.).

- Complete SR Overflow tab, include the volume and location (lawn, gutter, etc.) of the overflow in the SR investigation log note. Indicate if Category 1, 2, or 3. If Spill is a Category 3, the Prechecker will complete the Overflow tab. If it is a Category 1 or 2, spill the SSO Responder and the Prechecker will complete the Overflow tab. See Tab 6, Section 11.6: SR Overflow Tab.
Multi-Overflow Event: Sewage spills in more than one location.

Spill is at Manhole, SASD or Private Cleanout, and/or in the Structure

- Mark SR Classification field as BIS (CMPLNT\BIS) if a structure was involved. Create an SR log entry stating that a cleanout overflow or manhole overflow was also found, and clearly note whether only at Private Cleanout, only at SASD Cleanout, only at MH or at both private and SASD Cleanouts, structure and/or MH. Clearly note in the log that spill occurred in multiple locations. Include the volume and location (lawn, gutter, etc.) of the overflow from each location as well as identifying the volume cleaned up from each location in the SR log note.

- Ask and document when the caller first noticed the overflow. If the time covers more than one day or doesn’t support the amount of visible sewer ask the caller more questions (has the flow been continuous, has the flow been on and off, etc.).

- If a structure was not involved, mark SR Classification as Overflow (CMPLNT\OVRFLW). Create an SR log entry stating that a cleanout overflow or manhole overflow was also found, and clearly note whether only at Private Cleanout, only at SASD cleanout, only at manhole, or at both private and SASD cleanouts, and/or manhole. Clearly note in the log that spill occurred in multiple locations. Include the volume and location (lawn, gutter, etc.) of the overflow from each location as well as identifying the volume cleaned up from each location in the SR log note. Complete the SR Overflow tab with multiple spill locations as identified, and note in the Spill Appearance Point comment section. Indicate if Category 1, 2, or 3. If Spill is a Category 3, the Prechecker will complete the Overflow tab. If it is a Category 1 or 2, the SSO Responder and the Prechecker will complete the Overflow tab. See Tab 6, Section 11.6: SR Overflow Tab.

If no pipe defect is found in the lower lateral portion, state this in the SR log. Complete the SSO report for any spill, with spill volume estimates.
11.3 SASD Not Responsible—Private Event

If requested by EMD or Code Enforcement to perform clean-up, collect costs and provide documentation to the Prechecker’s manager for review. Documentation must include the requestor’s full name, phone number, job title and department. The only individuals with EMD or Code Enforcement that have the authority to request assistance is a supervisor or the Division Chief. The Prechecker’s manager will provide the documentation to the SDA Fiscal Administrative Section for processing on all PLSDs.

Complete all WOs, SRs, reports, and respond to requests for information.

Create a WO to CCTV the lower lateral for condition assessment if the result of the investigation was a PLSD or a private spill in the structure.

11.4 Backwater Valve

If during the site investigation the Prechecker locates a backwater valve that is not indicated on the lower lateral asset description, or if site conditions are such that a backwater valve may be needed, the Prechecker will create a SR for the Engineering Operations Support group. The SR needs to be created in accordance with the “Non-Emergency Service Request Training” templates.

11.5 Documents

All forms will be scanned to a PDF file by the Prechecker and sent to the SASD SR Documentation inbox in Outlook. This scanning will be done as soon as possible, but no later than the end of the work shift on the day following the SR. The button on the scanners at either the North or South office will read “SR Documentation,” when scanned with this destination the document will be routed to the “SASD SR Documentation” Outlook Inbox.
11.5.1 Waiver of Cleaning

Administrative Clerical Staff then perform the following:

- Ensure the SR Number is annotated on all waiver forms, along with a corresponding indication of the number of forms involved (i.e.: 1 of 2, 2 of 2)
- Check to see if waiver is properly filled out and signed. If not, return to M&O Assistant Superintendent for emergency response and support.
- Save file in the BIS Waiver sub-folder in the path S:\ISD\Administration\Admin_Supp\SR Documentation\BIS Waivers.
- Save in the naming convention using the Service Request number (#####), a C for Cleaning and an underscore and an alpha character to indicate the number of particular waivers for the incident, A for one person, B for a second, etc. For example, the incident involves two people in an apartment unit; each has signed a waiver of cleaning. The file name format would be as follows:
  - For Sally - ######C (for cleaning) (underscore) A – This is the cleaning waiver and the A represents the first person’s waiver.
  - For Mary - ######C (for cleaning) (underscore) B – The B indicates the second person’s waiver.
- Attach the above created electronic files to the appropriate SR in Maximo.
- Retain original for three years from the date of incident and then destroy, unless involved in ongoing litigation.

11.5.2 Right-of-Entry Forms

All Right-of-Entry (ROE) forms will be attached to their associated Service Request (SR) number. As with all other forms, they will be scanned by the Prechecker.

Administrative Clerical Staff performs the following:

- Ensure the form contains the associated SR#.
- Save file in the ROE sub-folder in the path S:\ISD\Administration\Admin_Supp\SR Documentation\Right of Entry.
- Save in the naming convention SR#, Underscore, ROE, Underscore, Date of Incident in a six-digit format (i.e.: 95826_ROE_122508
- Attach the above created electronic files to the appropriate Service Request in Maximo.
- Original waiver/right of entry forms will be kept for five years from the Date of Incident and then destroyed, unless involved in ongoing litigation.
11.5.3 Photographs

Photographs will be taken of all BIS and OVRFLW calls, both private and SASD responsible.

Photographs are to be downloaded from the camera in .jpg format or scanned to .pdf and saved in the following naming convention:

SR Number, Underscore, BIS, Underscore and the date of incident in six-digit format (MMDDYY), Underscore, and Photo# (ie:97815_BIS_080908_Photo1).

Email the saved file to the Outlook special email box “SASD SR Documentation.”

Each working day, the Administrative Clerical Staff accesses the SASD SR Documentation Mailbox and attaches any photographs to the appropriate SR in Maximo.

11.6 SR Overflow Tab

The Prechecker will complete the necessary fields in the Maximo SR for all SASD Category 3 SSOs and will start entering information for all SASD Category 1 and 2 SSOs. The SSO Responder will complete entries for the Category 1 and 2 details and review the remaining information on the Overflow tab prior to the end of their response shift. The SSO Responder Manager will review the information on the Overflow tab within three business days following the overflow incident. The LRO will review and certify the report within 15 calendar days following the overflow incident for Category 1 and 2 SSOs.

11.7 SR Overflow>BIS Tab

The Prechecker will not record Building Plumbing problems as BIS nor will they complete the Overflow/BIS tab for those backups determined to be private. The Prechecker will complete the SR for any BIS with spill volume estimate—including volumes in tubs, sinks and showers. Prechecker will document the BIS as follows:

- Complete any appropriate releases and have resident sign if they waive cleaning. Note the auto generated SR number in the upper right of the original release form. If more than one party at the residence completes a release, note 1 of 2, 2 of 2, etc. for each form. When access to the upper lateral is required, the Prechecker must obtain a signed ROE form. Completed forms are to be scanned to a PDF file and sent to the SASD SR Documentation inbox in Outlook. Note in the SR log field if cleaning is waived but the waiver is unsigned. The unsigned waiver will not be attached to the SR in Maximo and not scanned.
  - If the resident refuses to sign the cleaning waiver, notify SPLM.
• Incident photographs are to be processed as discussed in Tab11, Section 11.5: Documents.
• Return to Primary Precheck Duties.
• Complete the SR, Overflow tab, and Overflow>BIS tab, and transmit to the area manager after the required data entry list is complete.

Signed Release forms (if applicable) should be scanned to a PDF file and sent to the SASD SR Documentation inbox in Outlook. Complete all WO, SR, reports, and respond to requests for information.

11.8 SSO Data Quality Control Procedures

11.8.1 State of California Requirement

The State of California requires SSO data be collected, verified, and submitted in accordance with this statement:

I certify under penalty of law that all data submitted, including attachments, were prepared under my direction in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine or imprisonment, for knowing violations. Entry of my name and title below indicate my certification of this report and my understanding of the above conditions.

All personnel involved in the SSO and BIS data collection, data entry, and data review are responsible for providing the details of the spill that meet the conditions specified above. This section will provide methods and checks to ensure the data submitted meets the requirements of the state.
### 11.8.2 Data Collection, Documentation and QC Responsibilities

#### 11.8.2.1 Prechecker

The first Prechecker to the event is responsible for the collection and review of data documenting the event. Resolve inconsistencies in the data populated on the SSO SR and associated WOs. Verify proper investigation and mitigation methodologies were used and documented on the SSO SR and associated WOs for the emergency call. The following applies to Category 1, 2, and 3 SSOs. Category 1 and 2 reviews must be completed within 24-hours of the event and in coordination with the SSO Responder. Category 3 data will be reviewed within five business days.

**Table 11-1: Prechecker Quality Control Process**

<table>
<thead>
<tr>
<th>Tab</th>
<th>Quality Control</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service Request</strong></td>
<td>Ensure Classification is populated: CMPLNT/BIS or CMPLNT/OVRFLW</td>
</tr>
<tr>
<td>• Service Request</td>
<td>o Create Overflow only when applicable to field findings. (The Maximo program then completes the “Has Overflow” check box, and sets the Overflow Status to NEW)</td>
</tr>
<tr>
<td>• Details</td>
<td>o All date and time entries are correct</td>
</tr>
<tr>
<td>• Dates</td>
<td></td>
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<tr>
<td><strong>Log</strong></td>
<td>o Written entries clearly convey what investigation techniques were used</td>
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<tr>
<td></td>
<td>o Reported Problem codes of BIS and Overflow are fully addressed when the findings indicate there was no overflow or BIS.</td>
</tr>
<tr>
<td><strong>Overflow</strong></td>
<td>o Overflow Type is populated and matches investigation information</td>
</tr>
<tr>
<td></td>
<td>o Details are consistent with investigation information</td>
</tr>
<tr>
<td></td>
<td>▪ Estimated spill volume that reached a separate storm drain that flows to a surface water body</td>
</tr>
<tr>
<td></td>
<td>▪ Estimated spill volume recovered from the separate storm drain that flows to a surface water body</td>
</tr>
<tr>
<td></td>
<td>▪ Estimated spill volume that reached a drainage channel that flows to a surface water body</td>
</tr>
<tr>
<td></td>
<td>▪ Estimated spill volume that was recovered from the drainage channel</td>
</tr>
<tr>
<td></td>
<td>▪ Estimated spill volume discharged directly to a surface water body</td>
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<tr>
<td></td>
<td>▪ Estimated spill volume recovered from the surface water</td>
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<td></td>
<td>▪ Estimated spill volume discharged to land</td>
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<td></td>
<td>▪ Estimated spill volume recovered from the discharge to land</td>
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<td></td>
<td>▪ Private/SASD</td>
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<td></td>
<td>▪ Is it raining</td>
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<td></td>
<td>▪ Was the spill associated with a storm event</td>
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<td></td>
<td>▪ Date &amp; time SSO was first noticed</td>
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<tr>
<td></td>
<td>▪ If spill involved drainage channel or surface water</td>
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<tr>
<td></td>
<td>▪ If spill reached storm drainpipe.</td>
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<tr>
<td></td>
<td>▪ If spill reached storm drain, was waste water fully captured and returned to sewer system</td>
</tr>
<tr>
<td>• Category 3 Tab</td>
<td>o Spill location</td>
</tr>
<tr>
<td></td>
<td>▪ Closest address located to spill</td>
</tr>
<tr>
<td></td>
<td>▪ Cross Street – not mandatory</td>
</tr>
<tr>
<td></td>
<td>▪ Lat/Long – Obtained from GIS (Use GPS coordinates for the appearance point closest to the failure point)</td>
</tr>
<tr>
<td></td>
<td>o Spill Dates</td>
</tr>
<tr>
<td>Tab</td>
<td>Quality Control</td>
</tr>
<tr>
<td>-----</td>
<td>----------------</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ Completed using 24-hour time</td>
</tr>
<tr>
<td></td>
<td>▪ When was the spill first noticed</td>
</tr>
<tr>
<td></td>
<td>▪ When did the spill end</td>
</tr>
<tr>
<td></td>
<td>o Name and Title (Contact person who can answer specific questions about this SSO)</td>
</tr>
<tr>
<td></td>
<td>o Contact Person (Phone Number)</td>
</tr>
<tr>
<td></td>
<td>o Number of Spill Appearance Points</td>
</tr>
<tr>
<td></td>
<td>o Spill Appearance Point</td>
</tr>
<tr>
<td></td>
<td>▪ Pull down – explanation required if “Other”</td>
</tr>
<tr>
<td></td>
<td>o Spill Cause</td>
</tr>
<tr>
<td></td>
<td>▪ Explanation required if “Other” is selected</td>
</tr>
<tr>
<td></td>
<td>o Where did Failure Occur</td>
</tr>
<tr>
<td></td>
<td>o Final Spill Destination</td>
</tr>
<tr>
<td></td>
<td>▪ Explanation required if “Other” is selected</td>
</tr>
<tr>
<td></td>
<td>• Category 1 &amp; 2 Tab</td>
</tr>
<tr>
<td></td>
<td>o See SSO Responder Section</td>
</tr>
<tr>
<td></td>
<td>• BIS</td>
</tr>
<tr>
<td></td>
<td>o BIS Assessment Detail</td>
</tr>
<tr>
<td></td>
<td>▪ Incidental, Major or Minor</td>
</tr>
<tr>
<td></td>
<td>▪ Special Circumstances if any</td>
</tr>
<tr>
<td></td>
<td>o Insurance Adjustor (Complete if adjustor was called)</td>
</tr>
<tr>
<td></td>
<td>o Consultations (Regarding Cleaning):</td>
</tr>
<tr>
<td></td>
<td>1. Was Cleaning Offered?</td>
</tr>
<tr>
<td></td>
<td>2. Cleaning Accepted?</td>
</tr>
<tr>
<td></td>
<td>3. Waiver Signed?</td>
</tr>
<tr>
<td></td>
<td>o Relocation (SPLM completes)</td>
</tr>
<tr>
<td></td>
<td>o Cleaning Contractor (SPLM completes)</td>
</tr>
<tr>
<td></td>
<td>• Status/State Cert</td>
</tr>
<tr>
<td></td>
<td>Once all work orders associated with the SR have been reviewed by the Prechecker, the Prechecker adds a row and documents the overflow is “READY for QC”</td>
</tr>
<tr>
<td>Work Order Review</td>
<td>All data fields must be checked for consistency accuracy and completeness</td>
</tr>
<tr>
<td>• WO Details</td>
<td>o Ensure Parent WO # has been properly entered</td>
</tr>
<tr>
<td></td>
<td>o Ensure Asset # has been properly entered</td>
</tr>
<tr>
<td></td>
<td>o Review Date and Time entries to ensure they are consistent with the investigation and mitigation</td>
</tr>
<tr>
<td></td>
<td>o Review the failure report to ensure it is consistent with the problem cause identified on the SSO report</td>
</tr>
<tr>
<td></td>
<td>o Written log entries clearly convey what mitigation techniques/methodologies were used</td>
</tr>
</tbody>
</table>
11.8.2.2 SSO Responder – Category 1 and 2 SSO’s

The SSO Responder has the responsibility to complete the Category 1 and 2 Tab and to review and confirm that the Category 3 Tab and the written report details are consistent, and meet the “true, accurate and complete” criteria. The Submit Draft must be entered into CIWQS no later than three business days after SASD is made aware of the event. The SSO Responder will send email notification at time of the event to the Prechecker’s manager to review all data by the next business day.

Table 11-2: SSO Responder Quality Control Process

<table>
<thead>
<tr>
<th>Tab</th>
<th>Quality Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1 &amp; 2</td>
<td>o SSO Volume</td>
</tr>
<tr>
<td></td>
<td>▪ Volume that reached a drainage channel</td>
</tr>
<tr>
<td></td>
<td>▪ Volume that reached surface water</td>
</tr>
<tr>
<td></td>
<td>o Spill Response Activities</td>
</tr>
<tr>
<td></td>
<td>▪ Check all that apply</td>
</tr>
<tr>
<td></td>
<td>▪ Explanation required if “Other” is selected</td>
</tr>
<tr>
<td></td>
<td>o Response and Sampling</td>
</tr>
<tr>
<td></td>
<td>▪ Verify information meets investigation specifics</td>
</tr>
<tr>
<td></td>
<td>▪ Time OES was called</td>
</tr>
<tr>
<td></td>
<td>▪ OES Control Number</td>
</tr>
<tr>
<td></td>
<td>o Water Quality Samples Analyzed</td>
</tr>
<tr>
<td></td>
<td>▪ Select all that apply</td>
</tr>
<tr>
<td></td>
<td>▪ Explanation required if “Chemical, Biological or Other” is selected</td>
</tr>
<tr>
<td></td>
<td>o Water Quality Results Reported to</td>
</tr>
<tr>
<td></td>
<td>▪ Check all that apply</td>
</tr>
<tr>
<td></td>
<td>▪ Explanation required if “Other” is selected</td>
</tr>
<tr>
<td></td>
<td>o Explanation of volume estimation methods used</td>
</tr>
<tr>
<td></td>
<td>o Spill Corrective Action taken</td>
</tr>
<tr>
<td></td>
<td>▪ Check all that apply</td>
</tr>
<tr>
<td></td>
<td>▪ Explanation required if “Other” is selected</td>
</tr>
</tbody>
</table>
11.8.2.3 Manager QC Process

The manager in charge of evaluating the completeness of the SR will compare data fields on all applicable tabs of the SR and associated WOs to ensure data entries properly support the investigation. Applies to Category 1, 2, and 3 SSOs. Category 1 and 2 reviews must be completed within 24-hours of the event and in coordination with the SSO Responder. Category 3 data review will be completed within 10 business days from event start.

Table 11-3: Manager Review Quality Control Process

<table>
<thead>
<tr>
<th>Tab</th>
<th>Quality Control</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service Request</strong></td>
<td>o Completed by Dispatch/County Central</td>
</tr>
<tr>
<td>• User Information</td>
<td>o Ensure Classification is populated: CMPLNT/BIS or CMPLNT/OVRFLW</td>
</tr>
<tr>
<td>• Service Request</td>
<td>o Check box “Has Overflow?” if valid</td>
</tr>
<tr>
<td>Details</td>
<td>o All date and time entries are correct</td>
</tr>
<tr>
<td>• Dates</td>
<td>o Overflow Type is populated and matches investigation information</td>
</tr>
<tr>
<td></td>
<td>o Details are consistent with investigation information</td>
</tr>
<tr>
<td></td>
<td>▪ Estimated spill volume that reached a separate storm drain that flows to a</td>
</tr>
<tr>
<td></td>
<td>surface water body</td>
</tr>
<tr>
<td></td>
<td>▪ Estimated spill volume recovered from the separate storm drain that flows</td>
</tr>
<tr>
<td></td>
<td>to a surface water body</td>
</tr>
<tr>
<td></td>
<td>▪ Estimated spill volume that reached a drainage channel that flows to a</td>
</tr>
<tr>
<td></td>
<td>surface water body</td>
</tr>
<tr>
<td></td>
<td>▪ Estimated spill volume that was recovered from the drainage channel</td>
</tr>
<tr>
<td></td>
<td>▪ Estimated spill volume discharged directly to a surface water body</td>
</tr>
<tr>
<td></td>
<td>▪ Estimated spill volume recovered from the surface water</td>
</tr>
<tr>
<td></td>
<td>▪ Estimated spill volume discharged to land</td>
</tr>
<tr>
<td></td>
<td>▪ Estimated spill volume recovered from the discharge to land</td>
</tr>
<tr>
<td></td>
<td>▪ Private/SASD</td>
</tr>
<tr>
<td></td>
<td>▪ Is it raining</td>
</tr>
<tr>
<td></td>
<td>▪ Was the spill associated with a storm event</td>
</tr>
<tr>
<td></td>
<td>▪ Date &amp; time SSO was first noticed</td>
</tr>
<tr>
<td></td>
<td>▪ If spill involved drainage channel or surface water</td>
</tr>
<tr>
<td></td>
<td>▪ If spill reached storm drainpipe.</td>
</tr>
<tr>
<td></td>
<td>▪ If spill reached storm drain, was waste water fully captured and returned</td>
</tr>
<tr>
<td></td>
<td>to sewer system</td>
</tr>
<tr>
<td>Tab</td>
<td>Quality Control</td>
</tr>
<tr>
<td>-----</td>
<td>----------------</td>
</tr>
</tbody>
</table>
| **Category 3** | o Spill location  
  - Closest address located to spill  
  - Cross Street – not mandatory  
  - Lat/Long – Obtained from GIS (Use GPS coordinates for the appearance point closest to the failure point)  
  o Spill Dates  
    - Completed using 24-hour time  
    - When was the spill first noticed  
    - When did the spill end  
  o Name and Title (Contact person who can answer specific questions about this SSO)  
  o Contact Person (Phone Number)  
  o Number of Spill Appearance Points  
  o Spill Appearance Point  
    - Pull down – explanation required if “Other”  
  o Spill Cause  
    - Explanation required if “Other” is selected  
  o Where did Failure Occur  
  o Final Spill Destination  
  o Explanation required if “Other” is selected |
| **BIS** | o BIS Assessment Detail  
  - Incidental, Major or Minor  
  - Special Circumstances if any  
  o Insurance Adjustor  
    - Verify if adjustor was called  
  o Consultations  
    - Verify these three areas in regards to Cleaning:  
      1. Was Cleaning Offered?  
      2. Cleaning Accepted?  
      3. Waiver Signed?  
  o Relocation  
    - SPLM completes  
  o Cleaning Contractor  
    - SPLM completes |
| **Status/State Cert** | o Once all work orders associated with the SR have been reviewed and closed as needed by the manager, the manager adds a row and documents the overflow is “QC Complete” |
11.8.2.4 SSO Responder Manager Review – Category 1 and 2 SSO’s

The SSO Responder Manager has the responsibility to review all associated SRs and WOs to ensure the written report details are consistent, and meet the “true, accurate, and complete” criteria.

The SSO must be certified in CIWQS within 15 calendar days of the completion of the SSO response and remediation.

Table 11-4: SSO Responder Manager Review Quality Control

<table>
<thead>
<tr>
<th>Tab</th>
<th>Quality Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Category 1 and 2</td>
<td>o Spill Response Activities</td>
</tr>
<tr>
<td></td>
<td>▪ Check all that apply</td>
</tr>
<tr>
<td></td>
<td>▪ Explanation required if “Other” is selected</td>
</tr>
<tr>
<td></td>
<td>o Response and Sampling</td>
</tr>
<tr>
<td></td>
<td>▪ Verify information meets investigation specifics</td>
</tr>
<tr>
<td></td>
<td>▪ Time OES was called</td>
</tr>
<tr>
<td></td>
<td>▪ OES Control Number</td>
</tr>
<tr>
<td></td>
<td>o Water Quality Samples Analyzed</td>
</tr>
<tr>
<td></td>
<td>▪ Select all that apply</td>
</tr>
<tr>
<td></td>
<td>▪ Explanation required if “Chemical, Biological or Other” is selected</td>
</tr>
<tr>
<td></td>
<td>o Water Quality Results Reported to</td>
</tr>
<tr>
<td></td>
<td>▪ Check all that apply</td>
</tr>
<tr>
<td></td>
<td>▪ Explanation required if “Other” is selected</td>
</tr>
<tr>
<td></td>
<td>o Explanation of volume estimation methods used</td>
</tr>
<tr>
<td></td>
<td>▪ Check all that apply</td>
</tr>
<tr>
<td></td>
<td>Explanation required if “Other” is selected</td>
</tr>
<tr>
<td>• Status State Cert</td>
<td>o Add a row to document Submit Draft and enter the Event ID from CIWQS if SASD responsibility.</td>
</tr>
<tr>
<td></td>
<td>o Add a row to document Certified and enter the Event ID from CIWQS.</td>
</tr>
</tbody>
</table>
11.8.2.5 Customer Service Staff QC Process

Once the SR and associated WOs have been reviewed by the Prechecker’s manager and the status has been changed to “QC Complete,” this will move the SR to the SSO QC Staff for review. After reviewing the data and determining it is error free, the SR status will be changed to “AM QC Complete.”

Table 11-5: Customer Service Staff Quality Control Process

<table>
<thead>
<tr>
<th>Tab</th>
<th>Quality Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Request</td>
<td></td>
</tr>
<tr>
<td>• User Information</td>
<td>Completed by Dispatch/County Central</td>
</tr>
<tr>
<td>• Service Request</td>
<td></td>
</tr>
<tr>
<td>Details</td>
<td>Ensure Classification is populated: CMPLNT/BIS or CMPLNT/OVRFLW</td>
</tr>
<tr>
<td>• Dates</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Check box “Has Overflow?” if valid</td>
</tr>
<tr>
<td></td>
<td>All date and time entries are correct</td>
</tr>
<tr>
<td>Overflow</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Overflow Type is populated and matches investigation information</td>
</tr>
<tr>
<td></td>
<td>Details are consistent with investigation information</td>
</tr>
<tr>
<td></td>
<td>▪ Estimated spill volume that reached a separate storm drain that flows to a</td>
</tr>
<tr>
<td></td>
<td>surface water body</td>
</tr>
<tr>
<td></td>
<td>▪ Estimated spill volume recovered from the separate storm drain that flows</td>
</tr>
<tr>
<td></td>
<td>to a surface water body</td>
</tr>
<tr>
<td></td>
<td>▪ Estimated spill volume that reached a drainage channel that flows to a</td>
</tr>
<tr>
<td></td>
<td>surface water body</td>
</tr>
<tr>
<td></td>
<td>▪ Estimated spill volume that was recovered from the drainage channel</td>
</tr>
<tr>
<td></td>
<td>▪ Estimated spill volume discharged directly to a surface water body</td>
</tr>
<tr>
<td></td>
<td>▪ Estimated spill volume recovered from the surface water</td>
</tr>
<tr>
<td></td>
<td>▪ Estimated spill volume discharged to land</td>
</tr>
<tr>
<td></td>
<td>▪ Estimated spill volume recovered from the discharge to land</td>
</tr>
<tr>
<td></td>
<td>▪ Private/SASD</td>
</tr>
<tr>
<td></td>
<td>▪ Is it raining</td>
</tr>
<tr>
<td></td>
<td>▪ Was the spill associated with a storm event</td>
</tr>
<tr>
<td></td>
<td>▪ Date &amp; time SSO was first noticed</td>
</tr>
<tr>
<td></td>
<td>▪ If spill involved drainage channel or surface water</td>
</tr>
<tr>
<td></td>
<td>▪ If spill reached storm drainpipe.</td>
</tr>
<tr>
<td></td>
<td>▪ If spill reached storm drain, was waste water fully captured and returned to</td>
</tr>
<tr>
<td></td>
<td>sewer system</td>
</tr>
<tr>
<td>Tab</td>
<td>Quality Control</td>
</tr>
<tr>
<td>-----</td>
<td>----------------</td>
</tr>
</tbody>
</table>
| **Category 3** | | o Spill location  
  ▪ Closest address located to spill  
  ▪ Cross Street – not mandatory  
  ▪ Lat/Long – Obtained from GIS (Use GPS coordinates for the appearance point closest to the failure point)  
  o Spill Dates  
  ▪ Completed using 24-hour time  
  ▪ When was the spill first noticed  
  ▪ When did the spill end  
  o Name and Title (Contact person who can answer specific questions about this SSO)  
  o Contact Person (Phone Number)  
  o Number of Spill Appearance Points  
  o Spill Appearance Point  
  ▪ Pull down – explanation required if “Other”  
  o Spill Cause  
  ▪ Explanation required if “Other” is selected  
  o Where did Failure Occur  
  o Final Spill Destination  
  ▪ Explanation required if “Other” is selected |
| **BIS** | | o BIS Assessment Detail  
  ▪ Incidental, Major or Minor  
  ▪ Special Circumstances if any  
  o Insurance Adjustor  
  ▪ Verify if adjustor was called  
  o Consultations  
  ▪ Verify these three areas in regards to Cleaning:  
    1. Was Cleaning Offered?  
    2. Cleaning Accepted?  
    3. Waiver Signed?  
  o Relocation  
  ▪ SPLM completes  
  o Cleaning Contractor  
  ▪ SPLM completes |
| **Status/State Cert** | | o Once all work orders associated with the SR have been reviewed and closed as needed by the QC Staff, they will add a row and documents the overflow is “AM QC Complete” |
11.8.2.6 LRO QC Process

Once the SR and associated WOs have been reviewed by the Customer Service Staff, and the status has been changed to “AM QC Complete,” the SR is ready for LRO to review. The LRO will QC the information entered into the CIWQS website and certify it. Certification of the data must be completed within 30 days after the end of the calendar month in which the SSO occurred.

Table 11-6: LRO QC Process

<table>
<thead>
<tr>
<th>Tab</th>
<th>Quality Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Request</td>
<td>• User Information</td>
</tr>
<tr>
<td></td>
<td>○ Completed by Dispatch/County Central</td>
</tr>
<tr>
<td></td>
<td>○ Ensure Classification is populated: CMPLNT/BIS or CMPLNT/OVRFLW</td>
</tr>
<tr>
<td></td>
<td>○ Check box “Has Overflow?” if valid</td>
</tr>
<tr>
<td></td>
<td>○ All date and time entries are correct</td>
</tr>
<tr>
<td></td>
<td>• Service Request Details</td>
</tr>
<tr>
<td></td>
<td>○ Classification is populated: CMPLNT/BIS or CMPLNT/OVRFLW</td>
</tr>
<tr>
<td></td>
<td>• Dates</td>
</tr>
<tr>
<td></td>
<td>○ Overflow Type is populated and matches investigation information</td>
</tr>
<tr>
<td></td>
<td>○ Details are consistent with investigation information</td>
</tr>
<tr>
<td></td>
<td>• Category 3</td>
</tr>
<tr>
<td></td>
<td>○ Spill location</td>
</tr>
<tr>
<td></td>
<td>▪ Closest address located to spill</td>
</tr>
<tr>
<td></td>
<td>▪ Cross Street – not mandatory</td>
</tr>
<tr>
<td></td>
<td>▪ Lat/Long – Obtained from GIS (Use GPS coordinates for the appearance point closest to the failure point)</td>
</tr>
<tr>
<td></td>
<td>○ Spill Dates</td>
</tr>
<tr>
<td></td>
<td>▪ Completed using 24-hour time</td>
</tr>
<tr>
<td></td>
<td>▪ When was the spill first noticed</td>
</tr>
<tr>
<td></td>
<td>▪ When did the spill end</td>
</tr>
<tr>
<td></td>
<td>○ Name and Title (Contact person who can answer specific questions about this SSO)</td>
</tr>
<tr>
<td></td>
<td>○ Contact Person (Phone Number)</td>
</tr>
<tr>
<td></td>
<td>○ Number of Spill Appearance Points</td>
</tr>
<tr>
<td></td>
<td>○ Spill Appearance Point</td>
</tr>
<tr>
<td></td>
<td>▪ Pull down – explanation required if “Other”</td>
</tr>
<tr>
<td></td>
<td>○ Spill Cause</td>
</tr>
<tr>
<td></td>
<td>▪ Explanation required if “Other” is selected</td>
</tr>
<tr>
<td></td>
<td>○ Where did Failure Occur</td>
</tr>
<tr>
<td></td>
<td>○ Final Spill Destination</td>
</tr>
<tr>
<td></td>
<td>▪ Explanation required if “Other” is selected</td>
</tr>
<tr>
<td>Tab</td>
<td>Quality Control</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>BIS</td>
<td>o BIS Assessment Detail</td>
</tr>
<tr>
<td></td>
<td>▪ Incidental, Major or Minor</td>
</tr>
<tr>
<td></td>
<td>▪ Special Circumstances if any</td>
</tr>
<tr>
<td></td>
<td>o Insurance Adjustor</td>
</tr>
<tr>
<td></td>
<td>▪ Verify if adjustor was called</td>
</tr>
<tr>
<td></td>
<td>o Consultations</td>
</tr>
<tr>
<td></td>
<td>▪ Verify these three areas in regards to Cleaning:</td>
</tr>
<tr>
<td></td>
<td>1. Was Cleaning Offered?</td>
</tr>
<tr>
<td></td>
<td>2. Cleaning Accepted?</td>
</tr>
<tr>
<td></td>
<td>3. Waiver Signed?</td>
</tr>
<tr>
<td></td>
<td>o Relocation</td>
</tr>
<tr>
<td></td>
<td>▪ SPLM completes</td>
</tr>
<tr>
<td></td>
<td>o Cleaning Contractor</td>
</tr>
<tr>
<td></td>
<td>▪ SPLM completes</td>
</tr>
<tr>
<td>Status/State Cert</td>
<td>o Once all work orders associated with the SR have been reviewed by the LRO, they will add a row and documents the overflow is “Batch Ready”</td>
</tr>
</tbody>
</table>

### 11.9 Time Keeping

The following are categories of cost roll-ups that SASD is collecting for SSOs and BISs. The purpose of separating into categories is to collect costs that are above and beyond SASD’s normal response to these events. The categories are as follows:

- Private Events: For PLSDs, provide copies of all job-sheets/time-sheets to the designated Administrative Services Officer.

- Large Events: A large event could require SASD to track time and equipment for possible cost recovery from other agencies (FEMA, etc.). The work performed by Risk Management and SPLM may not constitute a large event.
  - Cause of SSO or BIS in private (non-SASD) or SASD line – use sequential code set aside for special events – Contact SDA’s Office of Finance to get the next sequential number (i.e. Emergency Event X)

- All other events:
  - Cause of SSO or BIS in Regional San pipe
    - Service Request is part of normal operations, and the charges are the same as any non-SSO/BIS service request
    - Work Orders to assist in containment, clean up, or any other support as requested by Regional San from a Regional San system caused SSO or BIS are charge to Regional San Overflow Response.
SASD has provided the following labor and supply charge codes to be applied to all SSO and BIS responses.

### 11.9.1 Regional San Overflow Response

**SASD Staff**

<table>
<thead>
<tr>
<th>Description</th>
<th>Labor Order</th>
<th>Supplies</th>
<th>Cost Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underground &amp; Facilities</td>
<td>CDU502</td>
<td>CDU502</td>
<td>3028620000</td>
</tr>
<tr>
<td>Planning/Scheduling</td>
<td>CDR502</td>
<td>CDR502</td>
<td>3005081000</td>
</tr>
<tr>
<td>Public Affairs Office (PAO)</td>
<td>RGO838</td>
<td>RGO838</td>
<td>3028670000</td>
</tr>
<tr>
<td>Wastewater Source Control Section (WSCS)</td>
<td>RGT838</td>
<td>RGT838</td>
<td>3028440000</td>
</tr>
</tbody>
</table>

### 11.9.2 General Services Overflow Response

**SASD Staff**

**Underground & Facilities Staff**

<table>
<thead>
<tr>
<th>Facility</th>
<th>Cost Center</th>
<th>Labor Order</th>
<th>Supplies</th>
</tr>
</thead>
<tbody>
<tr>
<td>GS RCCC (00080)</td>
<td>7007420100</td>
<td>CDU524</td>
<td>CDU524</td>
</tr>
<tr>
<td>GS RCCC #1 Sewer Facility (0G099)</td>
<td>7007420100</td>
<td>CDU538</td>
<td>CDU538</td>
</tr>
</tbody>
</table>

**Planning/Scheduling Staff (WILL REQUIRE ACTIVATION WHEN NEEDED)**

<table>
<thead>
<tr>
<th>Facility</th>
<th>Cost Center</th>
<th>Labor Order</th>
<th>Supplies</th>
</tr>
</thead>
<tbody>
<tr>
<td>GS RCCC (00080)</td>
<td>7007420100</td>
<td>CDR524</td>
<td>CDR524</td>
</tr>
<tr>
<td>GS RCCC #1 Sewer Facility (0G099)</td>
<td>7007420100</td>
<td>CDR538</td>
<td>CDR538</td>
</tr>
</tbody>
</table>
12. CIWQS/RWQCB REPORTING

12.1 Category 1 or 2 SSO
12.1 Category 1 or 2 SSO

12.1.1 RWQCB

For Category 1 and 2 SSOs greater than or equal to 25,000 gallons, an SSO Summary Report is required. The SSO Summary Report is in electronic format (searchable PDF) and consists of a cover letter; photographs (Attachment A); chronology of events (Attachment B); Sanitary Sewer Overflow Report Form (Attachment C); water sample results (Attachment D), if necessary; and detailed overflow volume calculations (Attachment E), if necessary.

The SSO Responder will submit the draft SSO Summary Report to the SSO Responder Manager for review within 20 calendar days following the incident.

The SSO Responder Manager will submit the SSO Summary Report to the LRO within 25 calendar days following the incident. The LRO will review and revise the SSO Summary Report as necessary, and sign the final SSO Summary Report. The LRO is responsible for submitting the final SSO Summary Report to the RWQCB within 30 calendar days following the incident. The SSO Summary Report will be emailed to the RWQCB by the Administrative Clerical Staff. The following table will be included in the body of the email.

*Table 12-1: Example of Email Information Table for SSO Summary Report to RWQCB*

<table>
<thead>
<tr>
<th>Regulatory Program</th>
<th>NPDES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit</td>
<td>“Compliance”</td>
</tr>
<tr>
<td>Regulated Party Name (Discharger)</td>
<td>Sacramento Area Sewer District</td>
</tr>
<tr>
<td>Facility Name</td>
<td>Sacramento Area Sewer District CS</td>
</tr>
<tr>
<td>County</td>
<td>Sacramento</td>
</tr>
<tr>
<td>CIWQS Place ID</td>
<td>630675</td>
</tr>
</tbody>
</table>
## 12.1.2 Emergency Release Follow-Up Notice Reporting Form

For Category 1 SSOs greater than or equal to 1,000 gallons, the SSO Responder will complete the Emergency Release Follow-Up Notice Reporting Form and submit it to the SSO Responder Manager for review and approval. The SSO Responder Manager is responsible to review, sign, and submit the form by certified mail to Cal-OES within 30 calendar days of the overflow incident date.

### Emergency Release Follow-Up Notice Reporting Form

<table>
<thead>
<tr>
<th>A</th>
<th>BUSINESS NAME:</th>
<th>FACILITY EMERGENCY CONTACT/PHONE NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sacramento Area Sewer District</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B</th>
<th>INCIDENT DATE:</th>
<th>TIME CAL OES WAS NOTIFIED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(24 HOUR TIME)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C</th>
<th>INCIDENT LOCATION:</th>
<th>CITY/COMMUNITY</th>
<th>COUNTY</th>
<th>ZIP</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>D</th>
<th>CHEMICAL OR TRADE NAME:</th>
<th>CAS NUMBER:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>D</th>
<th>CHECK IF CHEMICAL IS LISTED IN 40 CFR 355, APPENDIX A</th>
<th>CHECK IF RELEASE REQUIRES NOTIFICATION UNDER 42 U.S.C 9603 (x)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>{}</td>
<td>{}</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D</th>
<th>PHYSICAL STATE CONTAINED:</th>
<th>PHYSICAL STATE RELEASED:</th>
<th>QUANTITY RELEASED:</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] SOLID</td>
<td>[ ] LIQUID</td>
<td>[ ] GAS</td>
<td>[ ] SOLID</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D</th>
<th>ENVIRONMENTAL CONTAMINATION:</th>
<th>TIME OF RELEASE:</th>
<th>DURATION OF RELEASE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] AIR</td>
<td>[ ] WATER</td>
<td>[ ] GROUND</td>
<td>[ ] OTHER</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E</th>
<th>ACTIONS TAKEN:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>F</th>
<th>POSSIBLE HEALTH EFFECTS (EXPLAIN YOUR RESPONSE. ALSO COMPLETE SECTION H, COMMENTS.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[ ] ACUTE OR IMMEDIATE:</td>
</tr>
<tr>
<td></td>
<td>[ ] CHRONIC OR DELAYED:</td>
</tr>
<tr>
<td></td>
<td>[ ] UNKNOWN</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>G</th>
<th>ADVICE REGARDING MEDICAL ATTENTION FOR EXPOSED INDIVIDUALS:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>H</th>
<th>COMMENTS (INDICATE SECTION A THROUGH G AND ITEM)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>I</th>
<th>CERTIFICATION: I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE, AND COMPLETE.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>I</th>
<th>REPORTING FACILITY REPRESENTATIVE:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>I</th>
<th>NAME:</th>
<th>DATE:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>I</th>
<th>SIGNATURE:</th>
</tr>
</thead>
</table>

### DISTRIBUTION:

**COPY:** Certified Mail to:
- CAL OES
- ATTN: Section 304 Reports
- 3650 Shriever Ave
- Mather, CA 65655

1 Copy – Rosemary Clark, Director of Ops.
1 Copy – Nancy Walker, M&O Asst. Superintendent
Original – Roy Carlson, SSO Manager
REPORTING FORM INSTRUCTIONS

GENERAL INFORMATION

Chapter 6.95 of Division 20 of the California Health and Safety Code requires that written emergency release follow-up notices prepared pursuant to 42 U.S.C. § 11004, be submitted using this reporting form. Non-permitted releases of reportable quantities of Extremely Hazardous Substances (listed in 40 CRF 355, appendix A) or of chemicals that require release reporting under Section 103(s) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9603(s)) must be reported on the form, as soon as practicable, but no later than 30 days, following a release. The written follow-up report is required in addition to the verbal notification.

- Ensure that all information requested by the form is provided as completely as possible.
- Prepare one (1) report form for each reported chemical released.
- If the incident involves a series of separate releases of chemical(s) at different times, the releases should be reported on separate forms.

INSTRUCTIONS—EMERGENCY RELEASE FOLLOW-UP FORM

**Block A - Fill-in:**
- Name of the business
- Name and phone of contact person (who can provide detailed facility information)

**Block B - Fill-in:**
- Date of incident
- Time verbal notification was made to OES
- Control number, provided by OES, when notification was made
- Enter the control number in the space provided

**Block C - Fill-in:**
- Location release occurred
- Street address
- City or community
- County and zip code

**Block D - Provide:**
- Name of specific chemical released. Include the chemical or trade name and the Chemical Abstract Service (CAS) number.
  - Check all categories that apply.
  - Best available information on quantity, time and duration of the release.

**Block E:**
- Indicate all actions taken to respond to and contain the release as specified in 42 U.S.C. § 11004 (c).

**Block F:**
- Check the categories that apply to the health effects that occurred or could result from the release. Provide an explanation or description of the effects in the space provided. Use Block H for additional comments/information if necessary to meet requirements specified in 42 U.S.C. § 11004 (c).

**Block G:**
- Type of medical attention required for exposure to chemical(s) released
- Indicate when and how this information was made available to individuals exposed and to medical personnel, if appropriate, as specified in 42 U.S.C. § 11004 (c).

**Block H:**
- List any additional pertinent information

**Block I:**
- Type name of the facility representative submitting the report, include the official signature, and date that form was prepared
12.1.3 CIWQS

This report consists of entries in the CIWQS database. Reports will be submitted electronically to the CIWQS (https://ciwqs.waterboards.ca.gov/ciwqs/index.jsp) within three business days of being notified of the SSO.

The SSO Responder will make all entries and submit draft in CIWQS within three business days of the incident. The SSO Responder Manager will review the report and the LRO will certify the report in CIWQS within 15 calendar days of the incident.

Business day begins at the time of the overflow. For example, if an overflow occurs Monday morning at 08:52, then business day one ends on Tuesday at 08:52. Business day two ends on Wednesday at 08:52, and so on. Note: this differs from the RWQCB interpretation above.

In the event that CIWQS is unavailable, SASD will fax or email all required information to the RWQCB in accordance with the required time schedules. SASD will enter all required information into CIWQS when the database becomes available.

12.1.4 CIWQS Technical Report

SASD will submit an SSO Technical Report in CIWQS within 45 calendar days of the SSO end date for any Category 1 SSO in which 50,000 gallons or more are spilled to surface waters. The report should be formatted similar to the report to the RWQCB in Tab 12, Section 12.1.1: RWQCB. The report at a minimum will include the following:

i. Cover Sheet

   a. **Quick Summary of the Overflow** – The summary should include the overflow volume, discharge locations, cause of the overflow, and if the overflow was contained and recovered.

   b. **Actions Taken** – This section should explain how and when the overflow was discovered. This may require some discussion with the caller to include details. This section will also include all the activities performed to respond to the SSO and an explanation of how the SSOERPM was implemented. Include activities such as clearing the stoppage, containment, recovery, etc. Include details on how the cause of the stoppage was determined.

   c. **Water Sampling and Posting** – This section should provide a summary of the where the water samples were taken and how they were collected. Include details on how the samples are preserved and what instrumentation were used for field testing. Follow the procedures in the Water Quality Monitoring Program in Tab 6, Section 6.3: SSO Water Quality Monitoring Program.

   d. **Conclusion/Future Actions** – This section should discuss the water sample results and final corrective actions. Any actions that are planned should also be included and the expected schedule for completion.
ii. **Supporting Attachments.**

   a. **Aerial Maps and Pictures** – Aerial Map showing SSO failure point, appearance points, and final destinations. Also include contamination warning signs and water sampling locations on the aerial map. Pictures of the appearance points and final destinations should also be included.

   b. **Chronology of Events** – Provide dates and times of all actions taken by the SASD to terminate the spill. Include a brief narrative of each action.

   c. **Overflow Volume Calculations** – Provide a detailed description of the methodology and data used to calculate the overflow volume and amount that was recovered. Include a copy of the methodology in **Tab 7, Section 7.1: Volume Estimation** that was used in calculating the volume.

   d. **Water Sampling Results** – Provide a copy of the water sample results from the lab.

   e. **Field Notes** – Provide copies of all field notes used. These include the notes taken by the SSO Responder and Prechecker.

   f. **Historical Records** – Provide a copy of the “Work Orders” tab in Maximo or CMMS of all the work orders performed on the asset where the failure occurred.
13. **Public Interface**

13.1 Media Evaluation  
13.2 Customer Service Liaison  
13.3 PAO  
13.4 Public Awareness  
13.5 Traffic Control  
13.6 Contamination Warning Signs
13.1 Media Evaluation

Upon arrival, or any point during an event, the Prechecker or responsible SASD staff will evaluate the situation and potential for media interest.

The Prechecker will contact the “Responsible Manager” and he/she will notify PAO, if the following conditions exist.

Areas of High Media Interest:

- Multiple unit/large facility impact (i.e. hospitals, schools, or numerous apartment units affecting large number of people)
- Group home or care facility (i.e. residents with special medical needs or disabilities)
- Significant work-related and visible impacts along major roadways (i.e. road/lane closures, numerous trucks and equipment)
- A major business closure (i.e. restaurant with numerous patrons)
- If media is onsite upon arrival or during the investigation

If the Prechecker or field staff are approached by the media during an event, they should explain to the reporter that they are not the designated media contact and that they will have the appropriate person contact them. The staff will then notify the Responsible Manager and give them the contact information so they can inform PAO.

If the Prechecker has a customer with a complaint that cannot be resolved onsite, they should contact the Responsible Manager who can give the customer the Customer Service Liaison’s phone number and/or email or can contact the Customer Service Liaison and request they contact the customer to try and resolve the issue if necessary.

13.2 Customer Service Liaison

The Customer Service Liaison serves to investigate and resolve complaints that might arise during any portion of the SSO event.

13.3 PAO

**BIS with Relocation** – Not likely to generate media attention

A. Prepare an informational email to notify the Board Member(s) who represent the County District(s) and/or City Jurisdiction(s) where the SSO occurred, no later than the next business day. (Email distribution should include SASD management.)

B. Provide email or phone updates to Board Member(s), when necessary.

C. Provide ongoing assistance to SASD’s Customer Service Liaison, as needed.
BIS with Potential Media Interest –

A. Discuss incident with the Responsible Manager to assess the situation. Respond onsite to incident only if necessary.

B. Prepare key messages and respond to media inquiries as necessary.

C. Prepare an informational e-mail to notify Board Member(s) who represent the County District(s) and/or City Jurisdiction(s) where the SSO occurred, no later than the next business day. (Email distribution should include Director of Operations and District Engineer.)

D. Provide email or phone updates to Board Member(s), when necessary.

E. If appropriate, prepare a notification flyer for impacted residents and/or businesses, and assist with distributing flyers to impacted area with Customer Service Liaison.

F. Provide any ongoing assistance to SASD management, Customer Service Liaison, and other staff.

13.4 Public Awareness

Crowd control during an SSO is needed to prevent public contact with sewage and minimize the chance of sewage spreading to other areas. An SSO can be in a structure, and the occupants may not understand the potential health effects from sewage exposure. Also, they may not know the proper containment and disposal procedures for sewage in their home or business. To prevent enlarging the contaminated area, follow the procedures below as the event requires.

Procedures

Prechecker

- Notify civilians to stay away from the contaminated area.
- Secure the contaminated area with cones, barricades, caution tape, parked vehicles, or other means necessary to prevent others from contacting sewage.
- If anyone becomes a threat to completing the cleanup, notify the Responsible Manager that help is needed from local law enforcement.
- Refer any individual to the Customer Service Liaison if they want to file a complaint.
- The Prechecker should not leave an overflow site unattended until the site has been cleaned.

Responsible Manager

- If the EMD standby personnel are not responsive, the Responsible Manager will determine the best course of action to resolve the situation.
- Coordinate with the local law enforcement, when necessary, if required to complete cleanup.
13.5 Traffic Control

Traffic control may be required immediately to protect the public or M&O staff. Typically, traffic control is necessary if any of the following occur:

- Street collapses
- Significant depression in the pavement
- Manhole is ajar
- SSO causes street flooding
- Prevent sewage from further disbursing
- Protect the M&O crew while containing the SSO and removing the blockage

Provide traffic control in accordance with SASD’s Traffic Control Plan Policy and Procedure. If traffic control needs cannot be addressed using SASD-approved standards, escalation may be needed. See Tab 5: Notifications for notification guidelines.

If necessary, use other agencies, including local law enforcement, to ensure proper traffic control (refer to Notification, Tab 5: Notifications)

If detours or lane closures are expected, the Prechecker will notify the Responsible Manager.

13.6 Contamination Warning Signs

Contamination warning signs will be posted at SSO event sites until contained and cleaned when the SSO is exposed on a public facility and/or enters a waterway. The designated SSO Responder will be responsible for posting and will coordinate with the SSO Responder Manager to determine the duration posting is required.