COLLECTION SYSTEM
SANITARY SEWER OVERFLOW (SSO)
EMERGENCY RESPONSE & ACTION PLAN

ATTACHMENT A

DEPARTMENT OF WATER AND WASTEWATER RESOURCES
NORTH SAN MATEO COUNTY SANITATION DISTRICT
COLLECTION SYSTEM MAINTENANCE
153 LAKE MERCED BOULEVARD
DALY CITY, CA 94015
(650) 991-8200
Revision Table

January 23, 2014 – Incorporated new MRP requirements – Natalia Mulawa; Kevin McCarthy and Cynthia Royer
April 25, 2014 – Formatting, added appendices – Cynthia Royer
July 10, 2014 – Adding tony Pereur to crew roster – Kevin McCarthy
October 6, 2016 – updating crew roster, phone numbers, etc.
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I. INTRODUCTION:

The purpose of this Sanitary Sewer Overflow Emergency Response Plan is to identify measures to protect public health, the environment as well as ensuring compliance with state and federal regulatory requirements in case of a Sanitary Sewer Overflow (SSO).

DEFINITION OF A SANITARY SEWER OVERFLOW (SSO) - Any overflow, spill, release, discharge, or diversion of untreated or partially treated wastewater from a sanitary sewer system.

SSOs include:

a. Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;

b. Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and

c. 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.

II. SSO CATEGORIES:

1) CATEGORY 1:

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

a. Reach surface water and/or reach a drainage channel tributary to a surface water; or

b. Reach a Municipal Separate State 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).

2) CATEGORY 2:

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

3) CATEGORY 3:

Any other discharges of untreated or partially treated wastewater resulting from an enrollee’s sanitary sewer system failure or flow condition.

4) PRIVATE LATERAL SEWAGE DISCHARGE (PLSD):

Discharges of untreated or partially treated wastewater resulting from blockages or other problems within a privately owned sewer lateral connected to the enrollee’s sanitary sewer system or from other private sewer asset. PLSDs that the enrollee becomes aware of, may be voluntarily reported to the California Integrated Water Quality System (CIWQS) online SSO database.
III. SCOPE OF THE PLAN:

This procedure is intended to outline the minimum steps to be taken by Collection System personnel. The procedural steps indicated are intended to identify baseline requirements. All steps will not apply in every case. Additional steps may be necessary in some cases. The procedures must be used based on experience with the Collection System and applicable regulatory provisions. It is the goal of this document to establish and follow guidelines to enable personnel to recognize, assess, and remedy any Sanitary Sewer Overflow (SSO) promptly. Further, it is intended to provide steps to ensure minimal environmental impact to receiving waters of the United States of America, and to minimize exposure to the general public and to private property.

IV. RESPONSE PROCEDURES FOLLOWING SSO

1. RESPONSIBILITIES:

   It is the responsibility of the responder to a SSO to immediately address and remedy the condition.

   THE ORDER OF NOTIFICATION SHALL BE AS FOLLOWS:

   a. Field Supervisor who notifies:
   
   b. Collections System Manager, who notifies
   
   c. California Office of Emergency Services (Cal OES) – for Category 1 SSO greater than or equal to 1,000 gallons discharged to surface water or spilled in a location where it probably will be discharged to water.

   In case of any Category 1 SSO greater than or equal to 1,000 gallons discharged to surface water or spilled in a location where it probably will be discharged to surface water follow 2 Hour Notice – (TAB 1).

V. WATER QUALITY MONITORING PLAN (ATTACHMENT L):

   In case of Category 1 SSOs where 50,000 gallons or greater were spilled to surface waters follow (TAB 3). Water Quality Monitoring Plan has to be implemented within 48 hours after initial notification. Water quality results are required to be uploaded into CIWQS.

2. RECEIVING A CALL/RECORDING VITAL INFORMATION

   a. WHEN A CALL IS RECEIVED:

      Log all information requested on a Service Call form. Information from each call shall be placed on a separate Service Request form (TAB 4).

   b. VERIFY THE ADDRESS:

      Check map book or street index to confirm address is in the District. If not in the District, refer the call to the appropriate agency:

<table>
<thead>
<tr>
<th>NAME OF THE AGENCY</th>
<th>BUSINESS HOURS PHONE #</th>
<th>AFTER HOURS PHONE #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bayshore Sanitary Dist.</td>
<td>(415) 467-1144</td>
<td>(650) 366-1059</td>
</tr>
<tr>
<td>Town of Colma</td>
<td>(650) 757-8888</td>
<td>(650) 757-8888</td>
</tr>
<tr>
<td>Pacifica</td>
<td>(650) 738-7314</td>
<td>(650) 738-7314</td>
</tr>
<tr>
<td>San Francisco</td>
<td>(415) 695-2096</td>
<td>(415) 695-2020</td>
</tr>
<tr>
<td>San Mateo County</td>
<td>(650) 372-6200</td>
<td>(650) 363-4963</td>
</tr>
<tr>
<td>South San Francisco</td>
<td>(650) 877-8558</td>
<td>(650) 877-8558</td>
</tr>
</tbody>
</table>
3. DISPATCHING RECEIVED CALLS:
   
1. During regular working hours:
   
   When received during working hours, notify the designated Response Crew.
   They can be contacted by vehicle radio or by working hours response phone.
   (650) 452-9531.

2. After working hours, on weekends and holidays contact stand by personnel:
   
   Collection System Maintenance                      Standby Pager: (650) 997-1944
   Collection System Maintenance                      Stand By Cell Phone: (650) 740-2573
   Field Supervisor                                  Cell Phone: (650)515-0262
   Field Supervisor                                  Cell Phone: (650)515-0263
   Field Supervisor                                  Cell Phone: (650)515-0264
   C&D Manager                                       Cell Phone: (650) 872-9019
                                           Office: (650)991-8200

4. REACHING STANDBY PERSONNEL:
   
1. Call the stand by pager at (650) 997-1944 (dial number, after a beep enter the number you wish
   the standby person to call, then press “#” and hang up when you hear a beep or a fast busy
   signal).

2. If you do not receive a response within 10 minutes contact Field Supervisor.

3. Do not leave messages; call until you reach a person listed. Do not attempt to call the standby
   person at home; the pager duties may have been switched to someone else.
5. **EMERGENCY CALLOUT LIST COLLECTION SYSTEM MAINTENANCE (SEWER)**

In case of an emergency, use the callout list. Call the people below in the order listed until you reach someone. Inform them of the problem and advise them that you were not able to contact the standby person. Do not leave messages. Call until you reach someone on this list.

1. **Tom Piccolotti:** Collection and Distribution System Manager  
   Office: (650) 991-8207  
   Cell: (650) 872-9019  
   Pager: (650) 997-7002

2. **Kevin McCarthy:** Collection System Field Supervisor  
   Home: (650) 583-8218  
   Cell: (650) 515-0263

3. **Sione Kofeloa:** Collection System Maintenance Worker II  
   Home: (650) 380-9523  
   Cell: (650) 515-0262

4. **Anthony Smith:** Collection System Maintenance Worker II - (415) 724-4090

5. **Dave McNicoll:** Collection System Maintenance Worker II - (650) 619-5266

6. **Rich Cortese:** Collection System Maintenance Worker II - (650) 892-0368

7. **Sam Iosia:** Collection System Maintenance Worker II - (415) 596-5765

8. **Hector Lugo:** Collection System Maintenance Worker I – (510) 209-7763

9. **Martin Moreno:** Collection System Maintenance Worker I - (510) 707-0036

10. **Ernie Barroso:** Collection System Maintenance Worker I – (510) 812-2683

11. **Ken Holmes**  
   Collection System Maintenance Worker I – (415) 724-9894

12. **Matangi Tonga**  
   Collection System Maintenance Worker I – (650) 346-4055

13. **Patrick Sweetland**  
   DWWR Director  
   Home: (415) 924-0201  
   Cell: (650) 740-2579

PG&E 24 hour hotline for power failure information:
1-888-743-4911
6. **RESPONDING TO A SERVICE CALL FROM A DISPATCHER:**

a. Be sure to obtain adequate information from the dispatcher, including the name, address, and telephone number of person who reported the service call and the nature of the problem.

b. Review the District map to determine location of sewers in the area of the reported SSO.

c. Upon arrival at the site of SSO, look for apparent overflows. If an overflow or surcharged sewer main is located, check downstream manholes until a dry manhole (normal flow or less) is located. If a second person is needed to assist in clearing a stoppage; the responder should contact a second person using the Call-Out List (see page 4).

d. Using the appropriate cleaning equipment, work upstream from the dry manhole to clear the SSO (in some cases it may be necessary to work downstream from the last surcharged manhole). The line should be cleaned after clearing the blockage and cleaned again the following work day. Observe flows to ensure there is no reoccurrence downstream. Stay at job site until flows return to normal.

e. Contact homeowner or person who reported the problem. If damage or overflow into private property exists, call the Manager or Field Supervisor for dispatch of a restoration company. Where sewage has overflowed out of a manhole or cleanout, contain the area and collect all flow, paper and solids as possible. Wash manhole rungs and shelves to clear debris whether or not overflows have occurred. Video inspect line to help determine cause of the overflow.

**RESPONDER'S ROLE:**

1. Protect public health and property from sewage spill events and restore area back to normal as soon as possible.

2. Establish perimeters and control zones with use of cones, barricades, vehicles or terrain.

3. Promptly notify Manager or Field Supervisor of preliminary spill information and potential impacts.

4. Contain the sewage overflow to the maximum extent possible. Every effort must be made to prevent the discharge of sewage into waters of the state.

7. **SPILL VOLUME ESTIMATION METHODS:**

**NOTE: PICTURES OF ANY OVERFLOWED MANHOLES ARE MANDATORY FOR ALL OF THE SCENARIO’S BELOW!**

a. To calculate general volume of spill use the following formula:

\[
\text{Volume (V)} = \text{Length (L)} \times \text{Width (W)} \times \text{Diameter (D)} \times 7.48 \text{ Gallons per cubic foot or} \\
V = L \times W \times D \times 7.48 = \text{Gallons}
\]

Example 1: A spill 100’ by 100’ by 6” deep = 100’x 100’ x 0.5’ x 7.48 Ft³/gallon = 37,400 gal

b. If a spill that has been running into a storm drain use following formula:

\[
\text{Volume (V)} = \text{Laterals in blocked line (L)} \times \text{Time (24 hour period) flow has been running (T)} \\
\text{C x 200 Gallons per lateral per 24 hours (G)} \\
\text{or} \\
V = L \times T \times G
\]

Example 1: A line with 6 laterals has been overflowing for 24 hours = 6 x 1 x 200 = 1,200 gallons

Example 2: A line with 60 houses has been overflowing for 1 hour = 60 x 200/24 = 500 gallons

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c. If it’s a bypass (backup) in a lift station:
   Time (24 hour period) flow has been running (T) x gallons/minute (checked on SCADA)

d. If it’s a manhole overflow (compare with reference sheet – (TAB 5):
   Volume (V) = (Time x Picture guide from TAB 5) – Volume collected (recovered)
If the flow is coming from a cleanout or a broken line, count the number of upstream connections and
estimate the time that the flow has been occurring. Document times (time call was received, and when
cause of problem was relieved). Each residence contributes between 160 and 200 gallons per day or about
8 gallons per hour (depending on the time of the day). Assuming no flow is going through the plug/break,
multiply the number of residences by estimated gallons per hour times the number of hours. This gives
you an approximate number of gallons.
   I. Volume (V) = Size of a pipe x Flow rate x House usage per day
   II. Size of a pipe = (Length (L) x Width (W) x Diameter (D))

8. SEWER BACKUP RESPONSE PROCEDURES
When responding to a service call, if it is found that a District sewer main has or is causing damage to
private or public property and there is any potential for a claim, the **first priority must be to stop the
inflow of sewage onto the property**. Where damage has occurred, the following steps should be taken
after the problem is cleared:
   a. Contact the Manager or Field Supervisor and describe the conditions found, the extent of the
damage. Summon other employees for assistance if necessary.
   b. The Manager will notify the Director and/or Risk Management if there is damage or possible
damages which may result in a major claim.
   c. **Do NOT acknowledge or discuss liability or responsibility for damages.** Refer these questions
to the Manager or Field Supervisor.
   d. Where flooding has occurred on public properties (streets, parks, schools, creeks, beach grounds
etc.) remove any visible signs of the flooding by containing, washing down with potable water,
and vacuuming the areas affected.
   e. Where minor flooding to private property occurs due to a sanitary sewer system problem and the
area can be easily cleaned, collection workers shall assist the resident with a cleanup.
   f. Where flooding is extensive, a professional clean-up service should be immediately called to the
scene upon authorization from the Manager or Field Supervisor (see Emergency Clean up
Contractor list- TAB 11).
   g. Record damages by use of pictures and documentation. Pictures from a digital camera are OK.
Initiate a written list of damages that you have observed. The restoration company will repeat
these steps.
   h. The responder will file a complete written report with the Field Supervisor describing details of
the service call, who responded, what was found, and what was done. The Field Supervisor shall
investigate the report and manage the initial claims process.

VI. SPILL CONTAINMENT
   a. Make every effort to use diversion/containment equipment on response truck while waiting for assistance.
   b. Note time equipment was put into place for reporting purposes.
   c. In case of blockage, relieve the stoppage as soon as possible and try to determine what caused it. Try to
recover any foreign material that may have contributed (bricks, towels, tools, etc.).
VII. **CLEANUP PROCEDURES AND WARNING SIGNS**

a. If there was a sewage backup into a home or business, a restoration company will be called for cleanup (see Restoration Contractor list- TAB 12). Manager or Field Supervisor must be notified.

b. By using plugs, sandbags, straw waddles, hay bales, felt rolls or any other available material divert and isolate surface runoff for recovery and return.

c. Wash down and disinfect surface areas, use mechanical or manual methods to remove any solids, paper, etc.

d. Remove and dispose of contaminated material. Restoration contractor will remediate any water damage to interior of homes or businesses.

e. If backup was only on street surface, wash area down with potable water and recapture with VacCon and return water to the sanitary sewer.

f. If there was sewage lost down a storm system line, recovery via plugs, pumps or VacCon will be utilized. If recovery is partial, estimate gallons lost and notify the Manager or Field Supervisor for reporting purposes.

g. When contamination is significant in areas accessible to the General Public, such as parks, creeks, rivers, beaches, oceans, or any receiving water body of the USA, post “Warning/Spill” signs (TAB 2) and block off the areas with yellow caution tape. Signs and barricades are located at the Westlake Pump Station warehouse.

h. For a list of spill containment equipment and materials see TAB 6.

i. For pumping equipment inventory see TAB 7.

j. For generator set listing see TAB 8.

k. For discharger responder/storm drain cleaning contractor list see TAB 9.

l. For Emergency Clean up Contractor list see TAB 11.

m. For Restoration Contractor list see TAB 12.

n. For Bypass Plans see TAB 15.

o. For Personnel Contact List see TAB 13.

VIII. **DOCUMENTATION OF A SPILL**


b. Provide map of problem location- manhole(s) involved - and where the spill was discharged (e.g., storm drain, field, and stream).

c. Take photos of events if possible. Pictures of the overflowed manholes are mandatory!

d. Complete the Service Request form (TAB 4) and submit report to the Manager and Field Supervisor as soon as possible.

IX. **VIDEO INSPECTION**

A video inspection of the mainline segment where the stoppage occurred will be done the following day to inspect the condition of the line and identify any items that may have contributed to the stoppage.

Any repairs to the line that result from the inspection will be completed ASAP given the constraints of USA notification or any other mitigating circumstances.
X. **REGULATORY REPORTING REQUIREMENTS**

1) **REPORTING RESPONSIBILITY:**

a. Collection Division Manager or Field Supervisor is responsible for submitting draft of Cat.1 or Cat.2 SSO submitted within 3 business days. The Manager of Technical Services reviews, amends and then certifies within 15 calendar days of SSO end date.

b. Collections staff is responsible to report to the Manager of Technical Services of any SSO’s. The Manager of Technical Services will submit certified report of Cat.3 SSO within 30 calendar days after the end of month in which SSO occurred.

c. Collection system staff is responsible for submitting the draft SSO Technical Report within one month. The Manager of Technical Services will finalize the document and submit it within 45 calendar days after the end date of any Category 1 SSO in which 50,000 gallons or greater are spilled to surface waters.

d. Collections staff is responsible to report to the Manager of Technical Services of any SSO for the previous month by the 1st of next month. The Manager of Technical Services is responsible for obtaining “No Spill” Certification at the end of the month (Note: “No spill” certifications can be made quarterly if necessary).
2) MANDATORY REGULATORY REPORTING REQUIREMENTS FOR SANITARY SEWER OVERFLOWS:

<table>
<thead>
<tr>
<th>Communication Type (all are required)</th>
<th>Agency Being Contacted</th>
<th>Timeframe Requirements</th>
<th>Method for Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Notification</td>
<td>California Office of Emergency Services (Cal OES)</td>
<td>Within 2 hours of becoming aware of any Category 1 SSO greater than or equal to 1,000 gallons discharged to surface water or spilled in a location where it probably will be discharged to surface water (TAB 1)</td>
<td>Call: (800) 852-7550 (obtain a notification control number from Cal OES)</td>
</tr>
<tr>
<td>2. Reporting</td>
<td>State Water Board (CIWQS)</td>
<td>Category 1 SSO: submit draft within 3 business days of becoming aware of SSO (provide updates regarding substantial changes to the estimated volume of the SSO and the impact), certify within 15 calendar days of SSO end date. Submit SSO Technical Report within 45 calendar days after the end date of any Category 1 SSO in which 50,000 gallons or greater are spilled to surface waters. Category 2 SSO: submit draft report within 3 business days of becoming aware of the SSO and certify within 15 calendar days of the SSO end date. Category 3 SSO: Submit certified report within 30 calendar days after the end of the month in which SSO the occurred. Private Lateral Sewage Discharge (PLSD) - discharges of untreated or partially treated wastewater resulting from blockages or other problems within a privately owned sewer lateral connected to the enrollee’s sanitary sewer system or from other private sewer asset. PLSDs that the enrollee becomes aware of may be voluntarily reported to the California Integrated Water Quality System (CIWQS). “No Spill” Certification: Certify that no SSOs occurred within 30 calendar days of the end of the month in which no SSOs occurred. Amending SSO Reports- all SSO reports shall be updated or additional information to a certified SSO report added within 120 calendar days after the SSO end date by amending the report or by adding an attachment to the SSO report in the CIWQS Online SSO Database. SSO reports certified in the CIWQS Online SSO Database prior to the adoption date of this MRP may only be amended up to 120 days after the effective date of this MRP. After 120 days, the enrollee may contact the SSO Program Manager to request to amend an SSO report if the enrollee also submits justification for why the additional information was not available prior to the end of the 120 days</td>
<td>Electronic (only) to CIWQS. <a href="http://ciwqs.waterboards.ca.gov">http://ciwqs.waterboards.ca.gov</a> Electronic (only) to CIWQS. Electronic (only) to CIWQS. Electronic (only) to CIWQS. Electronic (only) to CIWQS.</td>
</tr>
</tbody>
</table>
3) **ANNUAL REPORT TO SAN FRANCISCO REGIONAL WATER QUALITY CONTROL BOARD:**
   a. No longer submitted to board, still done annually, and kept on file for review upon request.
   b. Include charts showing trends in number, volume, causes of SSOs, plus discussion of data
   c. Provide certification signature
   d. Hard copy required, electronic copy voluntary but requested

4) **RECORDS TO BE MAINTAINED BY DISTRICT:**
   Records shall be maintained by the enrollee for a minimum of five (5) years and shall be made available for review by the Water Boards during an onsite inspection or through an information request.
   a. General Records: The enrollee shall maintain records to document compliance with all provisions of the SSS WDRs and this MRP for each sanitary sewer system owned including any required records generated by an enrollee’s sanitary sewer system contractor(s);
   b. SSO records: SSO event records, records to document Water Quality Monitoring for SSOs of 50,000 gallons or greater spilled to surface waters and Collection system telemetry records if relied upon to document and/or estimate SSO Volume;
   c. Electronic monitoring records relied upon for documenting SSO events and/or estimating the SSO volume discharged;
   d. Records documenting Sanitary Sewer Management Plan (SSMP) implementation and changes/updates to the SSMP;