2. SSO Response Procedures

City of Roseville Wastewater Collection has developed the following procedures for responding to sanitary sewer overflows (SSOs). The purpose of these procedures is to ensure that all SSO responses are handled efficiently and effectively and that all regulatory requirements are met. Collection Systems Division staff is required to know and follow these procedures. These procedures are summarized in the SSO Flow Chart attached to this document and are also presented in detail below.

I. Investigate and Assess Problem - Customer Service Representative (CSR) / On-Call Personnel (OCP)

CSR or OCP responds and performs a quick assessment of the overflow to determine the extent of the overflow, what additional resources will be needed, and if notification of Superintendent / Supervisor is required at that time.

A. Locate SSO by address, cross street and point of overflow (i.e. manhole, cleanout, pump station, broken pipe) and GPS coordinates. Note time call received as well as time of arrival. Time call received will be used on spill report form as time SSO started.

B. Determine the current magnitude of the SSO

- Flooded structure
- Storm water inlet or drainage way
- Potential for public exposure
- Related problems
  a. Is overflow related to a street collapse?
  b. Is overflow related to construction work?
  c. Is overflow causing a traffic hazard such as displaced manhole cover or street flooding?
- Provide initial estimate of overflow rate using pictures and tables (See Tab 2 for spill estimation). ***ALWAYS*** Take pictures of area.
- **If SSO is a category 1 spill immediately contact the WWC Supervisor or Superintendent (Category 1 spill is defined as** any discharges of sewage that results in a discharge into a drainage channel or a surface water,)

  Note: Superintendent or his designated representative will handle all notification to regulatory agencies regarding the reportable SSO.

  If SSO is a category 2 spill Refer to Section II, and start with containment.

C. If overflow enters a creek, stream, river, or other body of water, sample receiving water to obtain baseline data. Sample should be taken upstream, at entry point and downstream of overflow location as determined by site-specific conditions.

1. Call Industrial Waste Section to obtain and handle sample

D. Begin initial CMMS documentation and if reportable start SSO Field Report Form

II. Contain SSO (**CSR / OCP**)

The overflow must be contained. Containment becomes more difficult if the overflow reaches the storm drain system or drainage way since the overflow can rapidly contaminate receiving waters such as creeks, streams, rivers, and other water bodies. During dry weather, the storm drain system shall be used to store the overflow if it can be plugged downstream of the overflow .

A. Options for containing overflow

1. Overflow onto ground
   a. Containment Berm at catch basin or inlet
   b. Use rubber mats and sandbags to block DI
   c. Sand bags in gutter
   d. Dig trench in earth
   e. Vactor
2. Overflow in building
   a. Evacuate affected people
   b. Advise customer to keep all family members & pets out of any contaminated areas and not to track contamination throughout non-affected areas.
   c. Notify Chuck w/ George Hills Company at 774-5420 or 435-4959 if unable to reach Chuck, contact Art at 956-3222
   d. If adjuster is not able to respond:
      - Contact one of the approved restoration companies:
        - ServPro of Auburn-Rocklin 916-632-2250
        - Restoration Mgmt Co. 609-2400 or 800-400-5058

   <u>If the restoration company arrives before the adjuster, authorize only emergency cleaning services, not demolition</u>.

      - Take photographs of affected and non-affected areas of property
      - If property owner declines to allow clean up, request they sign and date the Declination of Clean Up Services Form.

3. Overflow into storm drain/drainage way
   a. Trace overflow in storm drainage system to downstream end point
   b. Plug all affected storm system outlets or block the creek and channels if necessary to contain spill
   c. Turn off storm water pump station if available

B. Post warning signs around contaminated area and follow directions from the RWQCB staff (Region 5) or Fish and Game staff.
C. Required equipment for containing overflows
   1. Overflow onto ground and in buildings
      a. Containment Berm
      b. Sand bags
      c. Plastic sheets
      d. Vactor
   2. Overflow into storm drain/drainage way
      a. Plugs
      b. Bypass pump
      c. Vactor
   3. Overflow at pump station
      a. Emergency generator
      b. Bypass pump
      c. Vactor
   4. Warning signs to post around contaminated areas
   5. Begin preliminary notifications: Refer to SSO Notification Guide,

III. Traffic Control (CSR, OCP, Responding maintenance crew)

Traffic control may be needed immediately to protect the public or maintenance staff. Typically, immediate traffic control is needed if there is a street collapse or significant depression in the pavement that is related to the sewer, if the maintenance hole is ajar, or if the overflow causes flooding of the street. Traffic control may also be needed to prevent wastewater from being further disbursed and to protect the M&O crew while containing the overflow and removing the blockage.

A. Provide traffic control per Cal Trans Work Area Traffic Control Handbook (WATCH)
B. If necessary, use other departments including Police, Public Works, or Fire Dept to ensure proper traffic control

IV. Correct Cause (**Maintenance crew**)

The cause of the overflow may be located a considerable distance downstream of the actual overflow in areas with flat terrain. During large storms, overflows may occur because of infiltration and inflow (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. Under these conditions, it may not be possible to stop the overflow until the flows recede.

A. Locate cause of overflow
   1. Sewer main
      a. Check flow in maintenance holes
      b. Blockage should be between maintenance hole with sluggish flow or surcharging and maintenance hole with very little flow or is dry
   2. Service Sewer
      a. Check flow in City of Roseville cleanout. If cleanout does not have flow, stoppage is located on private property and is not the City of Roseville's responsibility.
      b. If there is no existing City of Roseville cleanout, notify property owner to clear stoppage or expose lateral so that City can install a cleanout
      c. If address is on a dead end main, regardless if the cleanout is clear, clean main-line using high pressure cleaner (Vactor)
   3. Pump station (**Mechanical**)
      a. Check alarm system for indication of problem. All alarms are telemetered by the SCADA system to the Dry Creek Regional WWTP
      b. If power failure has occurred, determine if pump station has an emergency generator and if emergency generator is operating.
      c. Check flow meters and pressure gauges to determine if pumps are operating within normal ranges

B. Clear Blockage
   1. Within Sewer Main
      a. Clear line from dry maintenance hole if possible with high pressure cleaner (Vactor).
      b. Determine cause of blockage (if possible and note on spill report)
   2. Within Service line
      a. CSR attempts to clear with hand tape. Call necessary personnel and equipment as needed
      b. Use mechanical eel to clear line if necessary. Call necessary personnel if necessary.
   3. If blockage cannot be cleared:
      a. Increase containment or initiate bypass pumping and
      b. Perform CCTV inspection to determine problem
      c. Repair broken sewer line or dig up blockage

C. Pump Station (**Mechanical**)
   1. If pump station does not have power, connect portable emergency generator or portable bypass pump. Electricians are needed to connect a portable

emergency generator to the pump station if an electric plug connection is not provided

2. Check fuel for emergency generator or bypass pump
3. If a pump is not operating properly, activate standby pump.
4. Investigate force main for possible damage or blockage.
5. Make other repairs as necessary

V. Final Volume Estimate (**CSR / OCP**)

The final overflow volume is estimated to determine if additional reporting to regulatory agencies is required and for the City of Roseville's records.

A. Estimate final overflow rate using tables and pictures (refer to the binder in service truck)

B. Overflow volume can also be estimated by multiplying the overflow duration by the overflow rate.

C. Subtract the total volume captured from the overflow estimate to get the final volume of the SSO.

VI. Initiate Clean-up (**Maintenance Crew**)
Disinfection of contaminated soil or drainage ways is only performed when directed by the appropriate agencies (e.g. Environmental Health Dept., Dept. of Fish and Game)

A. Flooded building: follow Flooded Structure Procedure (Tab 11)

B. Storm drain or drainage way
   1. Pump out /Vacuum any ponded wastewater
   2. Remove debris
   3. Wash concrete and contain wash water, pump out
   4. Remove contaminated soil/plants
   5. High pressure clean affected storm drain and vacuum water.
   6. Remove all plugs/dams used to contain overflow

C. Street
   1. Remove debris
   2. Wash pavement and vacuum wash water with Vactor
      a. If the Vactor decant pump is used to remove water from debris body, the manhole decant apparatus will be used to alleviate the possibility of a secondary spill and provide fall protection at the open manhole.

VII. Receiving Water Sampling (**Industrial Waste Section**)

A. Industrial Waste Section will obtain and handle sample (see Resource Guide, Tabs 5 and 13)

VIII. Report(s) (**Superintendent / Supervisor**)

All overflows are required by law to be promptly reported to regulatory agencies. The superintendent or his or her designated representative will make all notifications to regulatory agencies regarding reportable SSOs. All overflows are tracked by the City of Roseville in CMMS

A. Prompt notification to regulatory agencies
   1. Refer to SSO Notification Guide

B. Review, complete and sign required reports
   1. Hazardous Spill Reporting Form
   2. Emergency Release Follow-up Notice Reporting Form (Tab 10)
   3. Reportable SSO Field Report Form

C. Documentation and Data Tracking
   1. All SSO's are tracked using a service request (SR) in the CMMS. Completed SR's are turned in to admin staff and resolved in CMMS with all pertinent information.
   2. Follow up PM work orders are generated at this time to CCTV inspect affected lines, with recommendations from field to follow. Comments are reviewed by WW Supervisor
   3. Field spill report forms are filled out and transferred to the Superintendent for review

IX. Report(s) and Data Capture (**Supervisor**)

All SSOs must be tracked in the Computerized Maintenance Management System (CMMS) regardless of volume, District/Private, reportable or not. Private SSO" will require the submittal of cost documents.

A. Assure that all appropriate documentation has been completed in the CMMS.

B. For private, commercial SSO provide work order request with time, hours worked and equipment used to supervisor for billing purposes.

C. For private residential SSO, provide work order request to supervisor with hours worked, equipment used, and actions taken at the site.