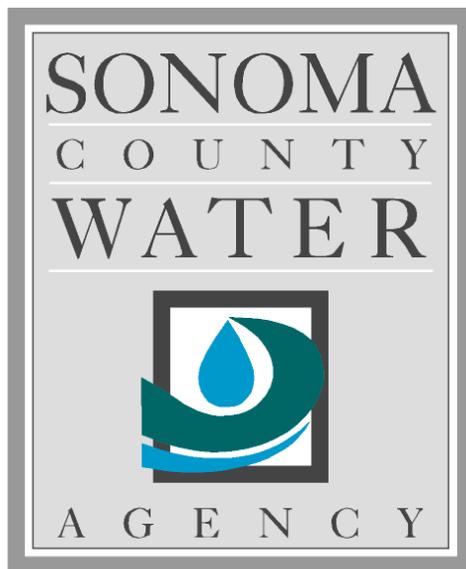


**Sonoma County Water Agency,  
Sonoma Valley County Sanitation District,  
Russian River County Sanitation District,  
& Occidental County Sanitation District**



**Sewer System Overflow  
Emergency Response Plan**

Last Updated: June 8, 2016

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## Section 1 - Introduction

The Sonoma County Water Agency manages nine (9) wastewater collection and treatment systems in Sonoma County. They are Airport-Larkfield-Wikiup Sanitation Zone, Geyserville Sanitation Zone, Occidental County Sanitation District, Penngrove Sanitation Zone, Russian River County Sanitation District, Sea Ranch Central Wastewater Sanitation Zone, Sea Ranch North Wastewater Sanitation Zone, Sonoma Valley County Sanitation District, and the South Park County Sanitation District. Throughout this report any one of the above facilities may be mentioned.

The Sewer System Overflow Emergency Response Plan (SSO ERP) defines the Sonoma County Water Agency (Water Agency), Sonoma Valley County Sanitation District, Russian River County Sanitation District, and the Occidental County Sanitation District's plans, procedures and requirements for responding, remediating and reporting overflows from sewers and lift stations and overflows from wastewater treatment plants that have the potential to reach surface waters or drainage channels. The Sewer System Overflow Emergency Response Plan (SSO ERP) was developed for use in the 8 Water Agency-managed sanitation districts and zones (South Park CSD not included), and could be adopted by other water and wastewater agencies in the Russian River and nearby watersheds to provide a consistent regional response to overflows from sewer and lift stations and overflows from wastewater treatment plants that have the potential to reach surface waters or drainage channels. The SSO ERP was developed to satisfy terms and conditions of the, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (Order No. 2006-003 and Order No. WQ 2013-0058-EXEC), and the Section 13383 Letter from the San Francisco Bay Regional Water Quality Board (May 1, 2008).

The core elements of the SSO ERP are the overflow response procedures, the regulatory agency overflow notification and reporting requirements and employee training. The SSO ERP provides continuity between core elements, from the initial receipt of a overflow notification through completion of the regulatory overflow report. SSO ERPSSO ERPSSO ERP

### ***Purpose of the Sewer System Overflow Emergency Response Plan (SSO ERP)***

The purpose of the Sewer System Overflow Emergency Response Plan (SSO ERP) is to assure prompt and appropriate response to every report of a possible sewage overflow received by the Water Agency so that any adverse effects to public health, water quality or customer service due to a confirmed sewer overflow can be minimized. SSO ERP

SSO ERPSSO ERP

For the purpose of the SSO ERP, "confirmed sewage overflow", or "overflow", is also sometimes referred to as "sanitary sewer overflow", or "SSO"; "SO"; "overflow"; or "pumping station overflow".

## **Objectives**

The primary objectives of the SSO ERP are to:

- Protect public health, wastewater treatment plant and collection system personnel, and the environment, and
- Comply with requirements governing the procedures for managing sewer overflows including notification, response procedures, reporting and training.

Additional objectives of the SSO ERP are as follows:

- Protect the collection system, pumping stations, wastewater treatment facilities, and all appurtenances;
- Protect private and public property adjacent to the collection and treatment facilities; and,

## Section 2 - Overflow Response Procedure

### ***Receipt of Information Regarding a Sewer Overflow or Lift Station Overflow***

#### **The Water Desk Operator**

- 1) The attending Operator shall record as much information as possible that is known about the overflow by the caller and other relevant information regarding the overflow using the “Initial Report of Sewer Syrem Overflow (SSO)” form, Appendix A, including:
  - Time and date the call was received.
  - Full name of reporting party.
  - Phone number(s) of the reporting party.
  - Additional contact information (Reporting party address, current location).
  - Location of problem (Address, cross street, nearby business, landmark, etc.).
  - Whether overflow is in an area with high public traffic.
  - Special circumstances such as vehicle traffic, school proximity, pedestrian traffic.
  - Time overflow was noticed.
  - Overflow continuing or stopped.
  - Description of overflow, such as “Clean” water or sewage (debris, odor, etc.).
  - Estimated volume (description of size of ponded water).
  - Estimated flow (if continuing to flow).
  - Description of downstream area (gutter, ditch, field, storm drain, etc. to determine if overflow can reach a drainage channel or surface water).
  - Additional information.

The Operator will assign a report number to the form. The report number will consist of a nine-digit code. The report number code presented below includes the date, district and overflow count.

- Six digits are used to represent the month, the day of month, and year. For example **120600** is the date for December 6, 2000;
- The district codes are:
  - AP**-Airport/Larkfield/Wikiup
  - GY**-Geyserville
  - OC**-Occidental
  - PG**-Penngrove
  - RR**-Russian River
  - SO**-South Park
  - SRC**-Sea Ranch Central
  - SRN**-Sea Ranch North
  - SV**-Sonoma Valley
- The overflow count is an alphabetical (A, B, C) listing for the multiple overflows occurring in each District/Zone on the same day. A for the first overflow, B for the second overflow and so on.

The combined code for overflows in the Russian River County Sanitation District would be as follows:

- 120600RRA - First overflow on December 6, 2000 in Russian River
- 120600RRB - Second overflow on December 6, 2000 in Russian River
- 120800RRA - First Overflow on December 8, 2000 in Russian River

The report number assigned to the Initial Report of Sewer System Overflow (SSO) form will be used on all other internal Water Agency forms and reports related to this overflow. The completed three-hole form is filed into the "Overflow Response" three-ring loose leaf binder kept at the Water Desk under the appropriate tab. A copy is sent to the Operations Coordinator that is over the district or zone in which the overflow occurred, and the Collection System Maintenance Coordinator. In addition, appropriate journal entries are made in the Operator's Daily Log, which is kept at the Water Desk.

- 2) The Water Desk Operator should immediately notify the Collection System Maintenance Coordinator of the reported sewage overflows from the collections system and unauthorized discharges from WWTPs to the Operations Coordinator. Notification shall be by telephone using work cell number), then by home or work number depending on the time of day, and day of the week. If no response is received within fifteen (15) minutes, the Water Desk Operator shall notify the next Coordinator in descending order on the telephone/contact list kept at the Water Desk for emergency and overflow response.
- 3) Sewage overflows or unauthorized discharges from WWTPs detected by any Water Agency personnel in the course of their normal duties shall be reported immediately to the Water Desk Operator by two-way radio or by telephoning "707-523-1070".
- 4) Until confirmed by a Water Agency staff member, the reported possible spill or overflow should not be referred to as a "sewage overflow" or "unpermitted discharge."

### ***Dispatch of Appropriate Crews to Site of Sewer Overflow***

The purpose of immediate response to a failure of any element within the wastewater collection, treatment and lift station systems is to isolate and correct the problem. Collection system and lift station sewage overflows will be given a high priority for crews and equipment. Also, available operations and maintenance personnel, materials and equipment shall be called in if extra resources are needed.

- 1) Dispatching Crews
  - The Collection System Maintenance Coordinator shall direct the appropriate crews, materials, supplies, and equipment to be deployed. The Collection System Maintenance Coordinator shall dispatch the crews by direct contact, mobile radio, or telephone or will request the Water Desk Operator to make direct contact. All employees dispatched to the site of a sewage overflow shall proceed immediately to that site. Any delays or conflicts in assignments must be immediately reported to the appropriate Coordinator for resolution.
  - The senior level field crew member will be in charge at the incident location and coordinate all on-site activities and communications from the field until directed otherwise by the Collection System Maintenance Coordinator, or other Water Agency Management.
  - If the overflow has reached surface water and is over 50,000 gallons, the responding crew shall contact the Water Desk Operator to notify the Operations Coordinator to send a Wastewater Operator/Environmental Compliance Inspector to the site for sampling and notify a Water Agency Biologist to assess environmental impacts.

- The Water Desk Operator or other personnel communicating with the responding crews shall ensure that the entire communication is received and acknowledged. To avoid delay, all standard communications procedures shall be followed.
- Responding crew shall report their findings, including damage to private and public property, to their Coordinator with updates as frequently as necessary to keep him/her abreast of the conditions.
- Coordinators and the Water Desk Operator shall assist, as necessary, to transfer all pertinent information to the next shift, including any details of the problems and observations described by the person who initially reported the overflow, and the status of ongoing corrections, repairs and cleanup. Overflow response crews being relieved at crew shift changes shall discuss the problems, observations, conditions and the status of ongoing corrections, repairs and cleanup with the next shift. The names of contacts, and notifications made by the overflow response crew shall also be provided to relieving crew.

## 2) Additional Resources

Based on the information provided by the responding crew leader, the Collection System Maintenance Coordinator shall directly call for additional support if needed.

## 3) Field Supervision and Inspection

- The Collection System Maintenance Coordinator or other members of the Maintenance Supervision Group should periodically visit overflow sites during all phases of the overflow response, if possible, to assure that provisions of this overflow response plan and other directives are met. If possible, the Collection System Maintenance Coordinator or Operations Coordinator should visit the site at least once during a major overflow event. This will also assist in the overflow event debriefing and the assessment of need for revisions and updates to the SSO ERP.
- The Collection System Maintenance Coordinator shall be responsible for confirming that the Maintenance Crew Report of Overflow or Stoppage form (Appendix A) is received and entered into the California Integrated Quality Water System on the California State Water Resources Control Board within the allowed time limits.

## 4) Coordination with Hazardous Material Response

- If the responding crew members encounter a suspicious substance or odor (e.g., oil sheen, foamy residue, gasoline) on the ground surface, or surface water not common to the sewer system, the response crew shall immediately notify the Collection System Maintenance Coordinator or the Water Desk Operator if the Collection System Maintenance Coordinator is not available.
- The Collection System Maintenance Coordinator or Water Desk Operator shall contact REDCOM “707-576-1365”. The responding crew shall await the arrival of the hazardous response teams to possibly take over the scene.
- Remember that any vehicle engine, portable pump or open flame (e.g., cigarette lighter) can trigger an explosion or fire where flammable fluids or vapors are present. Keep a safe distance and observe caution until assistance arrives.
- The responding crew shall also take measures to keep the general public away from the impacted area. Perimeter control of the overflow area to pedestrian and vehicular traffic shall be established using traffic barricades, barricade warning tape, or temporary barrier/safety fencing with signage, “Caution Do Not Enter” where appropriate.
- Upon arrival of the hazardous material response team, the responding crew shall take direction from the HAZ-MAT lead person. Only when that HAZ-MAT lead person determines it is safe and appropriate for the responding crew to proceed under the SSO ERP with the sewer overflow containment, correction and clean-up activities, shall the responding crew proceed.

## **Response to Lift Station Failure**

Water Agency personnel shall follow the procedure outlined below whenever a lift station fails. The same procedure is followed to repair a lift station to prevent a possible overflow as well as to stop a overflow. The Water Desk Operator or Maintenance Coordinator will dispatch a mechanic to the lift station for lift station troubleshooting and startup. The Water Desk Operator/Mechanic Coordinator will also notify a wastewater plant operator of the lift station failure, and if needed, can provide support for the mechanic. A Collection System Maintenance crew will be notified for site cleanup if required. An electrician may also be required depending on nature of the lift station failure. The steps taken to troubleshoot the lift station or to prevent and control a lift station overflow include:

- Contain the sewer overflow to the maximum extent possible including preventing the discharge of sewage into surface waters or drainage channels.
- The mechanic or operator will switch lift station operation to a backup pump or lag pump. If the backup pump will not operate, continue with steps immediately below.
- Check electrical power, replace fuses or reset breakers. If there is still no power continue with steps immediately below.
- Request delivery of a portable power generator, if required, to the lift station to operate the lift station from the portable power generator.
- If power is available, but pump does not operate, check and clean floats, if necessary. Request delivery of a portable pump and set up a bypass pumping operation when practical.
- Operate portable pump by manual control if necessary to prevent or control an overflow. (Note: Caution shall be observed under manual operation so as not to cause an overflow at a downstream location or intensify an ongoing overflow.)
- Call the Water Desk for assistance.
- The Water Desk should use SCADA to monitor lift station and wet well levels and keep responding crew leader and Coordinators informed.

## **Overflow Correction, Containment, and Cleanup**

This section describes specific actions to be performed by the responding crews during a sewer overflow or lift station overflow.

The objectives of these actions are to:

- Protect public health, environment and property from sewage overflows and restore the surrounding area back to normal as soon as possible.
- Establish perimeters and control zones with appropriate positioning of traffic cones and barricades, service vehicles, or use of natural topography (e.g., hills, berms, embankments) and mounded soil and sandbags.
- Promptly notify regulatory agencies' communication centers of preliminary overflow information and potential impacts.
- Contain the sewer overflow to the maximum extent possible including preventing the discharge of sewage into surface water or drainage channel.

Upon arrival at an overflow from the public sewer, the responding crew shall do the following:

### 1) Initial Measures for Containment

- Assess Site to ensure area is safe for responders.
- Take immediate steps to contain the overflow, e.g., block or sand bag storm drains, recover through vacuum truck, divert into downstream sanitary sewer manhole, to minimize the impact to public health or the environment.

- Determine the immediate destination of the overflow, e.g. storm drain, surface water, ground surfaces, structure, etc.
- Identify and request the necessary materials and equipment, such as sandbags, hay bales, plastic sheeting, vacuum trucks, or portable pumps and hoses, to contain or isolate the overflow, if not readily available.

2)

During pump-around operation, the crews shall monitor the bypass pumping operation. The Mechanic Coordinator shall be informed of the prolonged pumped bypass situation (e.g., need for redundancy of portable pumping, periodic follow-up notification until the lift station is returned to normal operation) to address regulatory agency issues in conjunction with emergency repairs.

Other methods of control shall be utilized when appropriate, such as fluming and berming to contain flows while repairs are made.

3) Cleanup

- Sewer overflow sites including contaminated soil, stream and riverbanks, and shorelines of other types of bodies of water, shall be thoroughly cleaned after an overflow. Solids and other debris shall be flushed, swept, raked, picked-up and transported to proper disposal area. No readily identifiable residues (e.g., fecal matter, rags, papers, or plastics) shall remain.
- Where practical, the area shall be thoroughly flushed and the wash-down water shall be contained and properly disposed of. Be aware that heavy flushing could make containment of washdown water impractical or not possible.
- The overflow site shall be secured to prevent contact by the public until the site has been thoroughly cleaned. Posting, if required, shall be undertaken pursuant to Section 4 (Public Advisory Procedure).
- In restricted conditions, the overflow site shall be disinfected and deodorized following cleanup of the site. Disinfection and deodorization should be conducted only at the direction of the Sonoma County Department of Health Services, the RWQCB, or the Collection System Maintenance Coordinator. Disinfection should be restricted to overflow near public access areas such as hospitals, schools, parks, or playgrounds, and should only be used if there is no release of chemicals to surface water. The disinfectant and any washwater shall be collected and returned to the sewer or a treatment plant.
- Where sewage has resulted in ponding, the pond shall be pumped, if practical.
- Other measures as directed by the Public Health Officer.

## ***On Site Documentation***

1) Documentation of Overflow Conditions and Actions

The maintenance crew dispatched to the overflow site shall complete a Maintenance Crew Report of Overflow or Stoppage form (Stoppage Form) to document conditions and actions taken (See Appendix A). The required information includes but is not limited to:

- a. Date and Time of arrival
- b. Overflow Report Number (Obtained from Water Desk Operator. The number should be the same Overflow Number as entered on the Initial Report of Overflow or Stoppage Report).
- c. Exact Location of the overflow (including GPS coordinates)
- d. Type of overflow or stoppage
- e. Estimated volume and flow rate

- f. Overflow documentation information (maps, pictures, etc.)
- g. Time overflow stopped
- h. Time cleanup completed and description of cleanup activities
- i. Time crew left site and crew involved at site
- j. Amount of overflow recovered
- k. Amount of flush water used and flush water recovered
- l. Time, name, and nature of any regulatory agency and Water Agency upper management notifications made by the maintenance crew.
- m. Overflow impact boundaries and name of waterway affected (if any)
- n. Cause of overflow
- o. Interviews with residents or businesses in the area to document time of spill.
- p. Other information as appropriate

The completed Stoppage Form shall be sent to the Collection System Maintenance Coordinator and to the Operations Coordinator if surface water is impacted, once overflow cleanup has been completed. Either Coordinator may request the report earlier.

## 2) SSO ERP

### 3) Document Damage to Private Property

The objective is to rapidly resolve the immediate cause of the overflow and contain it to avoid or minimize damage to property and the environment. The responding crew shall provide the owner/tenant with the Customer Information Letter Regarding Sewer Backup Claims form. Responding crews should take still photographs and video footage, if possible, of the impacted outdoor area of the sewer overflow in order to thoroughly document the nature and extent of damage. The responding crew shall forward the photographs, negatives or videotapes to the Collection System Maintenance Coordinator for filing with a copy of the Maintenance Crew Report of Overflow or Stoppage, as appropriate.

#### **Overflows that enter private property but originate from Water Agency facilities or are caused by Water Agency facilities**

Permission should be obtained from the property owner or resident if possible.

#### **Overflows that originate from private property and are not caused by a Water Agency owned facility or sewer**

These overflows are the responsibility of the property owner. Water Agency staff should provide assistance, overflow control, or cleanup when there is a severe and imminent danger to public health, public or private property, or water quality. Water Agency staff should also make an effort to notify the owner of the affected property.

### **Contact with Property Owner or Resident**

Whenever possible, obtain information from the owner or resident.

Name  
Phone  
Address

## **Chain of Custody**

1. The person completing the Stoppage Form must sign and date it, and forward it to the Collection System Maintenance Coordinator.
2. The Collection System Maintenance Coordinator signs and dates after review and forwards it to the Operations Coordinator.
3. Operations Coordinator signs and dates Stoppage Form after review.

## **Section 3 – Notification and Reporting**

### ***Notification***

The following overflow notification procedures will be followed.

- A. The Water Desk Operator shall use Attachment 3-1 (Reporting Procedures for SSO) to categorize the overflow and determine the appropriate persons and organizations to report the overflow to.
- B. The Operations Coordinator shall notify the people listed on Attachment 3. The Maintenance Assistant General Manager shall be responsible for notifying the General Manager and the Water Agency Board of Directors if the spill size and impact warrant notification.
- C. The Collection System Maintenance Coordinator shall complete a Maintenance Crew Report of Overflow or Stoppage form (See Appendix A) within 24 hours of the reported overflow confirmation. The Maintenance Crew Report of Overflow or Stoppage shall be submitted to the appropriate RWQCB. Attachment 3-1 summarizes, in part, the regulatory notification and reporting requirements.
- D. Similar to overflows from collection systems, notification of a lift station overflow is received from the Water Desk Operator by the Collection System Maintenance Coordinator who coordinates with the Mechanic Coordinator. The Mechanic Coordinator shall initiate the investigation and correction of the cause of the overflow. The Collection System Maintenance Coordinator will coordinate any overflow cleanup and communicate to the Operations Coordinator if the overflow reached surface water or a storm drain.

#### Reporting a Significant Overflow to Surface Water and/or a Drainage Inlet

In the event of a significant overflow of 1,000 gallons or more to surface water and/or a drainage inlet, a report to California Office of Emergency Services (Cal OES) is necessary within 2 hours in addition to regular overflow response actions.

#### Reporting a Major Overflow to Surface Water and/or a Drainage Inlet

In the event of a major overflow of 50,000 gallons or more to surface water and/or a drainage inlet, a report to California Office of Emergency Services (Cal OES) is necessary within 2 hours and sampling must be performed within 48 hours of initial overflow notification in addition to regular overflow response actions.

## **Documentation**

Information regarding the sewage overflow shall include the following:

- Indication of whether there was an actual observation of a sewer line overflow or lift station overflow running into surface water, or whether there was only evidence (e.g. sewage residue on the ground surface leading to the surface water) that sewage had possibly flowed to surface water, but was not actually observed.
- Indication that the sewage overflow had not reached surface water. Guidance in characterizing these overflows to include:
  - a) Sewage overflows to underground storm drains (with no public access) where a crew verifies, by inspection, that the entire volume is contained in an impoundment and where complete cleanup occurs, leaving no residue.
  - b) Overflows where observation, or on-site evidence, clearly indicates all sewage was retained on land and did not reach surface water or drainage channel, and where complete cleanup occurs leaving no residue.
- A determination of the start time of the sewer overflow using one of the following methods:
  - a) Date and time an overflow report was received by the Water Desk Operator.
  - b) Date and time of a visual observation by a Water Agency employee.
  - c) Lift station flow charts and other recorded data.
  - d) Interviews with area residents and businesses
- A determination of the time that the sewer overflow ceased using the following criteria:
  - a) When the blockage is cleared and flow is totally contained within the sewer without further aid or Water Agency action.
  - b) Visual observations of no overflowing sewage.
  - c) Upon return to normal lift station operation.
- An estimate of the rate of sewer overflow or lift station overflow or unauthorized discharge from a WWTP in gallons per minute (gpm) by direct observation of the overflow. See Appendix C for flow estimation aids.
- A determination of the volume of the sewer overflow or lift station overflow:
  - a) When the rate of sewer overflow or lift station overflow or unauthorized discharge from a WWTP is known multiply the duration by the rate of flow to determine the volume of the overflow.
  - b) When the rate of overflow is not known, investigate the surrounding area for evidence of ponding, obtain dimensions of ponding and calculate volume in gallons. Total volume divided by the appropriate time interval will provide a flow rate.
- Photographs of the event when possible.

- Document what methods were used to determine volume.

### ***Maintenance Crew Report of Overflow or Stoppage Database***

The Collection System Maintenance Section maintains a Stoppage database using information from the Initial Report of Overflow or Stoppage and the Maintenance Crew Report of Overflow or Stoppage. The database is an electronic file, which tracks the frequencies, causes and locations of sewer overflows and pumping station overflows. The database assists the Maintenance and Design Sections in directing capital-type corrective measures and to prioritize maintenance activities where chronic problems have been historically encountered.

After an overflow event, the Collection System Maintenance Section will investigate the event to establish the following:

- The cause of a sewage overflow.
- The conditions a minimum distance of one eighth (1/8) of a mile (660 feet) up-stream and down-stream from the site of the sewage overflow that could have contributed to the overflow by conducting the appropriate sewer inspection, such as manhole inspections, CCTV inspection, smoke testing, or grease trap inspections.
- The need to adjust the Preventive Maintenance (PM) schedule for the affected sewer(s) for cleaning and inspecting in order to prevent similar future occurrences. The site of the sewage overflow will remain on the adjusted PM schedule, if necessary, until it is reasonably determined that the site is no longer a risk for a future occurrence. At that time, a new PM schedule will be determined.
- The need to communicate with customers or other parties whose actions may have contributed to an overflow such as employees and managers of restaurants, manufacturers, construction contractors, etc. Communications could include providing: information on relevant codes and ordinances applicable to the given parties and type of business operation; the requirements to comply with the given ordinance; and the measures to take by the given party to eliminate future overflows. The Collection System Maintenance Section will coordinate its investigative efforts with Environmental Compliance Section.

### ***Notification Procedures***

After arriving at the overflow site and confirming its occurrence, the overflow response crew will initiate containment and clean-up procedures. Once the overflow response crew determines that an immediate threat to public health and the environment is not a concern, the crew will notify the Collection System Maintenance Coordinator who will alert the Operations Coordinator of the event.

The spill response crew will complete the Maintenance Crew Report of Spill or Stoppage. A sample report is contained in Appendix A. However, in the interest of public health and environmental protection, the spill response crew will focus initially on spill containment and clean up. The report will be completed after the spill has been stopped or controlled

and the site cleanup is complete. The Maintenance and Operations Coordinators will review the completed Maintenance Crew Report of Overflow or Stoppage and supporting documentation as thoroughly as possible within 24 hours of the incident. It is critical that the report be as complete and accurate as possible because it will serve as the basis for documenting the overflow internally within the Water Agency and for notifying regulatory agencies, other interested agencies, and the public.

The Operations Coordinator will be responsible for verbally notifying regulatory agencies of a overflow. S/He will provide each agency with his/her name, overflow location, time, date, estimated volume, name of receiving water, clean-up procedures used, status of clean-up, posting recommendations and names of other regulatory agencies contacted. In addition, s/he will be available to answer other questions that the regulatory agency representative may have. Depending on the size and nature of the overflow, the verbal notification may be followed by written notification.

The following guidelines should be used in determining what regulatory agencies are notified of an overflow event. The notification procedures are identified in Attachment 3-1 located at the end of this section.

## Attachment 3-1

### Reporting Procedures for SSO

- Report of overflow is phoned into the Water Desk Operator. The operator starts the Initial Report of Sewer System Overflow (SSO) form.
- Collection crew is dispatched, arrives on site and contacts operator with verification of SSO and a description. The operator determines what category the SSO is and responds accordingly.

	Responsible Party	Category 1A	Category 1	Category 2	Category 3
Definition	Ops	Discharges of 1,000 gallons or greater that reaches surface water and/or a drainage channel tributary to a surface water OR reach a storm drain and are not fully recovered <u>AND</u> during a non-storm event.	Discharges of any volume that reaches surface water and/or a drainage channel tributary to a surface water OR reach a storm drain and are not fully recovered.	Discharges of 1,000 gallons or greater that do not reach surface water.	Any other discharge resulting from a failure in a SCWA sewer system.
Response	-Maint -Ops	<ul style="list-style-type: none"> <li>• Stop or contain SSO</li> <li>• Clean up SSO</li> <li>• Contact Coordinator                             <ul style="list-style-type: none"> <li>- Ops</li> <li>- Maint</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Stop or contain SSO</li> <li>• Clean up SSO</li> <li>• Contact Coordinator                             <ul style="list-style-type: none"> <li>- Ops</li> <li>- Maint</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Stop or contain SSO</li> <li>• Clean up SSO</li> <li>• Contact Coordinator                             <ul style="list-style-type: none"> <li>- Ops</li> <li>- Maint</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Stop or contain SSO</li> <li>• Clean up SSO</li> <li>• Contact Coordinator                             <ul style="list-style-type: none"> <li>- Ops</li> <li>- Maint</li> </ul> </li> </ul>
Cal OES Notification	Ops	Report all Category 1A SSOs to DDW (Janice Thomas 707-533-4510). Report to Cal OES (1-800-825-7550, FAX 523-0135) and obtain a notification control number no later than <u>2 hours</u> of becoming aware of SSO.	Report all Category 1 SSOs to DDW (Janice Thomas 707-533-4510). <u>If SSO is 1,000 gallons or greater</u> , report to Cal OES (1-800-825-7550, FAX 523-0135) and obtain a notification control number no later than <u>2 hours</u> of becoming aware of SSO.	Call Red Comm at (707-576-1365).	Not necessary.
Sampling	Ops	<u>Necessary.</u> No later than <u>48 hours</u> after initial SSO notification.  Wildlife biologist shall evaluate site for impacts.	<u>Necessary if SSO is 50,000 gallons or greater.</u> No later than <u>48 hours</u> after initial SSO notification.	Not necessary.	Not necessary.

Reporting	Maint	<a href="http://ciwqs.waterboards.ca.gov">http://ciwqs.waterboards.ca.gov</a> Submit draft report within <b><u>3 business days</u></b> of becoming aware of SSO and <b><u>15 days</u></b> to certify the report.	<a href="http://ciwqs.waterboards.ca.gov">http://ciwqs.waterboards.ca.gov</a> Submit draft report within <b><u>3 business days</u></b> of becoming aware of SSO and <b><u>15 days</u></b> to certify the report.	<a href="http://ciwqs.waterboards.ca.gov">http://ciwqs.waterboards.ca.gov</a> Submit draft report within <b><u>3 business days</u></b> of becoming aware of SSO and <b><u>15 days</u></b> to certify the report.	<a href="http://ciwqs.waterboards.ca.gov">http://ciwqs.waterboards.ca.gov</a> Submit draft report within <b><u>30 calendar days</u></b> of the end of month in which the SSO occurred.
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- Operations Coordinator notifies Assistant General Managers for Operations and Maintenance, an in-house Biologist and a Public Information Officer.
- Note: Discharges of untreated or partially treated wastewater resulting from blockages or other problems within a privately owned sewer lateral connected to SCWA collection system do not have to be reported by SCWA.

## **Section 4 - Sampling of Surface Waters Affected By Sewer Overflows**

### ***General Procedures***

In the event of a Major Overflow, Water Agency Operations or Environmental Compliance staff should be deployed as soon as practicable to sample the impacts of the overflow on receiving water.

### ***Major Overflows***

A Major Overflow is defined as a overflow greater than 50,000 gallons. Sampling is required for all Major Overflows no later than 48 hours after the initial SSO notification.

Operators, Laboratory or Environmental Compliance personnel are responsible for conducting sampling operations. Maintenance personnel may conduct sampling or assist in sampling operations if they have received proper training. Grab samples shall be taken and analyzed for Fecal Coliform, Dissolved Oxygen and Ammonia Nitrogen from points safely accessible approximately one hundred yards upstream, downstream and at the location where the raw sewage enters the waterway. Sample requirements and handling are summarized in Table 4-1. Prepared sample bottles are stored at the Water Agency managed wastewater treatment plants, and at the Water Agency's laboratory at 204 Concourse Blvd, Santa Rosa.

When sample results are available, the Laboratory Section shall send them via fax to the respective RWQCB. This data will also be provided as part of the monthly report submitted to the respective RWQCB. Copies of the sample results shall be provided to the Operations Coordinator.

<b>Analysis</b>	<b>Sample Size</b>	<b>Preservative</b>	<b>Holding Period</b>
<b>Ammonia Nitrogen <sup>(1)</sup></b>			
Selective Electrode Method 4500- NH <sub>3</sub> D.	500-1000 ml	Store at 4° C Acidify(to pH <2) with H <sub>2</sub> SO <sub>4</sub>	Up to 24 hours, acidify for longer storage up to 28 days
Titrimetric Method 4500- NH <sub>3</sub> C.	500-1000 ml	Store at 4° C Acidify (to pH <2) with H <sub>2</sub> SO <sub>4</sub>	Up to 24 hours, acidify for longer storage up to 28 days
<b>Dissolved Oxygen</b>			
Membrane Electrode Method 4500-O G.	Measure in- situ or 300 ml sample	None	Not Applicable
Iodide Azide Modification Method 4500-O C. <sup>(2)</sup>	300 ml BOD bottle with glass stopper	0.7 ml H <sub>2</sub> SO <sub>4</sub> and 1 ml Sodium Azide solution	4-8 hours at collection temp.
<b>Fecal Coliform</b>			
Fecal Coliform Direct Test (EC or A-1 Medium) Method 9221 B, C & E	125-500 ml	Temp < 10° C	6 hours refrigerated

1. Ammonia Nitrogen samples analyzed by outside laboratory.
2. Iodide Method for dissolved oxygen should be used as a backup method if a portable oxygen meter is unavailable. Sample analysis is completed in laboratory.

### **Benchmark Levels**

Table 4-2 provides suggested benchmark levels for surface waters. The benchmark levels provide a comparison of typical values for surface waters and values of concern. The benchmark values are provided as a general reference to compare the required sampling of surface waters impacted by a sewage overflow to typical values and values of concern. The values presented in Table 4-2 are not intended for use to determine if surface waters have been adversely impacted by a sewage overflow, nor to determine if the public should be advised or signs should be posted.

<b>Parameter</b>	<b>Units</b>	<b>Typical Values</b>	<b>Values of Concern</b>
Ammonia-N	mg/L	<1	>2
Dissolved Oxygen	mg/L	6-7	<5
Fecal Coliform	MPN/100 ml	20	200

Source: Linvil G. Rich, Environmental Systems Engineering, McGraw-Hill. New York, (1973).

## **Section 5 - Posting and Public Advisory Procedure**

### ***Introduction***

This section describes the procedures that the Water Agency will follow to advise the public, including downstream water users, of sewage overflows.

The Water Agency manages several sanitation systems. The service areas cover many rural and urban areas, including many communities with non-English speaking residents. To advise the public of sewage overflows, the Water Agency will work cooperatively with various local, regional and state regulatory and partnering agencies. These agencies include the North Coast RWQCB, the San Francisco Bay RWQCB, Sonoma County Department of Health Services, Sonoma County Fire & Emergency Services, and California State Office of Emergency Services.

### ***Posting and Signage***

The Water Agency and the Sonoma County Department of Health Services will determine if signs are needed for sewage overflows. As required by the North Coast and San Francisco Bay RWQCB, signs will include, at a minimum, the wording of "Raw Sewage."

In the event that the RWQCB or Sonoma County Department of Health Services specifically requests public notification, the Water Agency will notify the public in accordance with the specific requirements contained in the request.

### ***Emergency Notification***

For situations posing an immediate threat to public safety, the Water Agency, in collaboration with Sonoma County Department of Health Services and Sonoma County Fire & Emergency Services, will immediately notify the affected public via radio and television using the Emergency Alert System, in accordance with the Emergency Operations Plan and the procedures identified in Section 2 "Receipt of Information Regarding a Sewer Overflow or Pumping Station Overflow". The Emergency Alert System reaches a large audience, broadcasting on both local radio and television stations. Emergency alerts will be made in both English and other languages, as appropriate; to make sure non-English speaking residents are notified. In addition, the Water Agency in collaboration with County Fire & Emergency Services may use the automated Telephone Emergency Notification System (TENS) to notify specific residents of an emergency public health concern.

## **Section 6 - Training Program**

Effective training is essential for wastewater and collection personnel to: 1) properly respond to emergency overflows and perform proper notification; 2) satisfy regulatory requirements; and 3) protect the health and safety of wastewater personnel and the general public.

The Water Agency will identify the key personnel to be trained for overflow response,

Training will be conducted annually and for new employees. Training will include overflow response procedures, overflow correction, containment and clean-up, site documentation, notification and reporting procedures, sampling and safety.

## **Section 7 - Plan Distribution and Updating of SSO ERP**

The SSO ERP reflects the procedures established for responding to reports of possible sewer overflows and confirmed overflows from the wastewater collection system and pumping station system so as to:

- Minimize the adverse effects of sewer overflows on public health, water quality and beneficial uses of the receiving waters.
- Minimize the sewer overflow volume that enters surface water.

### ***Submittal and Availability of SSO ERP***

Copies of the SSO ERP and any amendments shall be distributed to the following Water Agency Groups:

- Management Group
- Operations Coordinator Group
- Maintenance Coordinator Group
- Public Information
- Other SSO ERP Plan holders within the Water Agency.

All Water Agency staff directly involved with investigating and responding to overflows accordingly shall receive a copy. A copy of the Overflow Response and Notification Plan shall be kept at the Operations Water Desk. The master copy will be kept in the Engineers library. All other Water Agency staff who may become incidentally involved in responding to collection system and pumping station overflows shall be generally familiar with the contents of the SSO ERP.

In addition to the SSO ERP, will be annexed to the Water Agency's Emergency Operations Plan stored in the document control system and posted on Water Agency's Intranet for convenient access by all employees.

### ***Review and Update of SSO ERP***

The SSO ERP shall be reviewed and amended as appropriate. The Collection System Maintenance Coordinator will be responsible for coordinating the review and amendment process. The distribution of the plan changes to SSO ERP holders will be delegated to support staff. The Water Agency will:

- Conduct five-year review of the SSO ERP and update it with the issuance of a revised or new NPDES permit, or regulatory agency overflow response requirements.
- Conduct annual training on the use of the SSO ERP with new Water Agency personnel.
- Review and update annually the various contact lists and telephone and FAX numbers included in the SSO ERP for response personnel, regulatory agencies, and public media.

## **Section 8 - References**

### ***Reports***

1. Contingency Planning & Notification Requirements for Accidental Spills and Discharges, Order No. 74-151, 1990.
2. Memo re: Notification & Cleanup Procedures for Sewage Spills, May 3, 1999.
3. California Statute, Title 22-66265.56.

### ***Internet Sites***

1. State Water Resources Control Board Website, [www.swrcb.ca.gov](http://www.swrcb.ca.gov)
2. North Coast RWQCB Website, [www.swrcb.ca.gov](http://www.swrcb.ca.gov)
3. San Francisco Bay RWQCB Website, [www.swrcb.ca.gov](http://www.swrcb.ca.gov)

# **Appendices**

# ***Appendix A: The Water Agency Internal Overflow Report Forms***

# SONOMA COUNTY WATER AGENCY

Report No. \_\_\_\_\_

## Initial Report of Sewer System Overflow (SSO)

OPERATOR NAME	DATE	TIME

Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Address: \_\_\_\_\_

Location of Problem: \_\_\_\_\_

Time caller first noticed issue: \_\_\_\_\_

Sonoma Valley Sanitation District? Yes:  No:  | Is this Overflow Storm Related? Yes:  No:

**Time Crew Arrived**  
**Spill Confirmed:** \_\_\_\_\_ Time Flow Stopped \_\_\_\_\_ Estimated Flow \_\_\_\_\_

Describe Flow (sewage, debris, odor) \_\_\_\_\_

**2 hr Cal OES Notification**  
**Confirmed: (time)** \_\_\_\_\_ **Time Crew left site:** \_\_\_\_\_

**Description of downstream area (gutter, ditch, field, stormdrain, etc.) Try to determine proximity to creek or waterway.**

Did Flow Reach Surface Water? Yes  No  | >50,000 Gal to Surface Water? Yes  No  | ≥1,000 Gal? Yes  No

Additional Information: \_\_\_\_\_

**Signs Posted by:** \_\_\_\_\_ **Samples taken by:** \_\_\_\_\_

AGENCY STAFF NOTIFIED				
	✓	Reported To:	Time:	Notes:
Collections Systems Coordinator	<input type="checkbox"/>			
Operations Coordinator	<input type="checkbox"/>			
Other	<input type="checkbox"/>			
Other	<input type="checkbox"/>			

REGULATORY AGENCY SPILL NOTIFICATION				
Agency:	✓	Reported To: (Name)	Time:	Check if reported to voice mail
California OES -1-800-852-7550	<input type="checkbox"/>	<b>OES#</b>		
Follow-up OES Notification	<input type="checkbox"/>			
Red Comm (707) 576-1365	<input type="checkbox"/>			
DDW – Category 1 & 1A spills only Janice Thomas 707-533-4510	<input type="checkbox"/>			

Cal OES will notify Dept of Fish & Wildlife, Red Comm, and RWQCBs	<input type="checkbox"/>			
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**MAINTENANCE CREW REPORT OF SPILL OR STOPPAGE**

<b>DATE:</b>					<b>STATE EVENT ID:</b>			OES #
DETERMINE TYPE OF SPILL:	CATEGORY	1	2	3	Stoppage	Overflow	Rept. #	
***Estimated Spill volume:	<b>GPM</b>	<b>Duration in hrs</b>						GALLONS
***Did the spill discharge to a drainage channel and/or surface water					<b>HOW MUCH</b>	<b>Gals</b>	YES	NO
***Did the spill discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system?					<b>HOW MUCH</b>	<b>Gals</b>	YES	NO
***Is this a private lateral spill							YES	NO
***Latitude of Spill location (deg/min/sec or decimal degrees)								
***Longitude of spill location (deg/min/sec or decimal degrees)								
***Spill Location Name:								
***Street number					<b>UPSTREAM</b>		<b>MH</b>	<b>CO</b>
***Street Direction (E / N / NE / NW / S / SE / SW / W)					<b>Number</b>		--	--
***Street name					<b>DOWNSTREAM</b>		<b>MH</b>	<b>CO</b>
***Street Type (Alley, Ave., Blvd., Circle, Court, Drive, Lane, Loop, Parkway, Place, Road, Street, Trail or Way)					<b>Number</b>		--	--
***Cross Street								
***City (and District)								
Spill Location Description								
<b>SPILL DETAILS</b>								
***Spill Appearance Point: (Clean Out/Divers ion Structure/Ground/Lamp hole/Manhole/Other/Pipe/Pump Station/Riser/Roading Inlet)								
***Did the spill discharge to a drainage channel and/or surface water?							YES	NO
***Did the spill discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system							YES	NO
***Private Lateral Spill							YES	NO
***Final Spill Destination (Beach, Building or structure, other paved surface, storm drain, Street/curb and gutter, Surface Water, Unpaved Surface or Other)								<b>Creek Name (if any)</b>
***Estimated volume of spill recovered								
Estimated Current spill rate (if applicable)								
***Est SCWA Employee arrival date/time								<b>Est SCWA Employee departure date/time</b>
***Estimated spill end date/time								
***Spill Cause (Debris, flow exceeded capacity, grease deposition, operator error, pipe structural problem/failure, pump station failure, rainfall exceeded design storm event, root intrusion, vandalism or Other)								





**MAINTENANCE CREW REPORT OF SPILL OR STOPPAGE**

***Diameter of sewer pipe at the point of blockage or spill cause (if applicable)	
***Material of sewer pipe at the point of blockage or spill cause (if applicable)	
Description of terrain surrounding the point of blockage or spill cause (if applicable)	Flat/Mixed/Steep
***Spill response activities: Cleaned-up (mitigated effects of spill), Contained all or portion of spill, Inspected sewer using CCTV to determine cause, Restored flow, Returned all or portion of spill to sanitary sewer system, Other-please specify	Chose 1 or more
*** Spill corrective action taken (Add sewer to preventative maintenance program, Adjust schedule/method of prevention maint program, Enforce action against FOG source, Planned rehab or replacement of sewer system, repaired sewer or Other)	
Visual Inspection results from impacted receiving water:	
Overall Spill Description	
<b>Vacuumed Debris</b> <input type="checkbox"/> <b>Flushed Area</b> <input type="checkbox"/> <b>Signage Used</b> <input type="checkbox"/>	
<b>Gals of Flushed Water Used</b>	<b>Gals of Flushed Water recovered</b>
<b>Other Materials Used</b>	
(West County Only) Copy Map pages where SSO occurred. Make 3 copies of those map pages	
<b>Crew:</b>	<b>Total Time</b>
<b>Equipment:</b>	<b>Total Time</b>
Additional Details (if any)	
<b>Additional Info required:</b>	
<b>Tenant/Owner Notified Yes/No Live/Phone Message</b>	
<b>Feet to stoppage downstream MH</b>	
<b>This document prepared by</b>	<b>Date:</b>
Operations Coordinator:	Date:

\*\*\* Required Field-Must be Completed for State Electronic Filing

