



OVERFLOW EMERGENCY RESPONSE PLAN



Truckee Sanitary District
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Prepared by





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CHAPTER 1 INTRODUCTION

On May 2, 2006, the SWRCB issued a directive through Order No. 2006-0003-DWQ to require all public wastewater collection system agencies in California with greater than one mile of sewers, including Truckee Sanitary District (TSD or District) to be regulated under General Waste Discharge Requirements (Statewide WDR). The State Water Resources Control Board (SWRCB) action also mandates the development of an SSMP and the reporting of sanitary sewer overflows (SSOs) using an electronic reporting system. The SWRCB issued new requirements to the Statewide WDR that became effective on September 9, 2013.

Under this Order, each public wastewater collection system agency shall develop and implement an Overflow Emergency Response Plan (OERP) that identifies measures to protect public health and the environment.

1.1 OERP Goal

The purpose of the sanitary sewer Overflow Emergency Response Plan (OERP) is to minimize the impact of sanitary sewer overflows (SSOs) to the public and the environment. All sanitary sewer overflows will be responded to in a timely manner and all necessary steps will be taken expeditiously to stop the overflow. Relieving the sewage blockage and containing the spill will be our highest priority, taking into consideration public health concerns.

This OERP will be the guideline for the standard operating procedures in the event of a sanitary sewer overflow. The response plan will be reviewed periodically to ensure that all corrective measures are being taken.

1.2 Truckee Sanitary District (TSD) Service Area

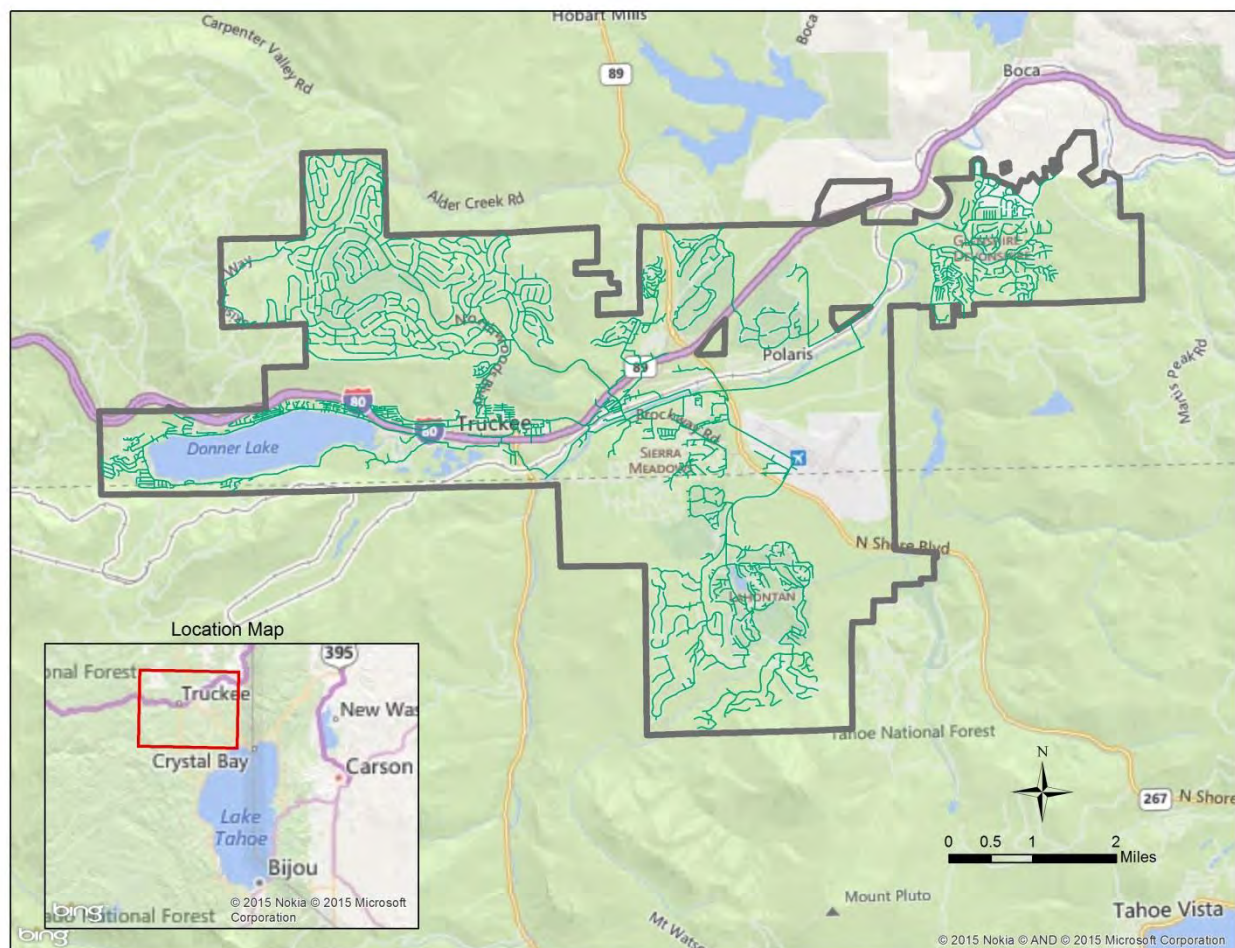
TSD boundaries currently encompass an area of approximately 39 square miles in Placer and Nevada Counties. TSD operates and maintains approximately 300 miles of gravity sewer pipelines containing 4,500 manholes, 15 miles of pressure pipeline, 10 main lift stations, and 32 smaller lift stations. The entire collection system is closely monitored 24 hours a day through a computerized telemetry and flow metering system.

The collection system primarily services residential customers. Small businesses and restaurants contribute only a small percent of TSD's total wastewater flow. TSD does not service any heavy industrial customers.

At present, there are approximately 10,800 residential and 650 commercial accounts discharging into TSD's wastewater collection system.

Figure 1-1 on the following page shows the District's service area.

Figure 1-1: TSD Service Area



1.3 Statewide WDR Requirement

TSD shall develop and implement an Overflow Emergency Response Plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:

- Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner
- A program to ensure appropriate response to all overflows
- Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, regional water boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the Statewide MRP. All SSOs shall be reported in accordance with this



MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDR or National Pollution Discharge Elimination System (NPDES) permit requirements. The SSMP should identify the officials who will receive immediate notification.

- Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the emergency response plan and are appropriately trained
- Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities
- A program to ensure that all reasonable steps are taken to contain untreated wastewater and prevent discharge of untreated wastewater to waters of the United States and minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge

CHAPTER 2

SSO CATEGORIES

The responsibilities of the SSO response team depend on the volume and location of an incident. Three categories of SSOs are defined by the SWRCB:

- 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 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 municipal separate storm sewer system is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or ground water 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 municipal separate storm sewer system 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.

CHAPTER 3 NOTIFICATION PROCEDURES

3.1 Notification to TSD

Telephone calls reporting SSOs are received at the District Office **24-hour Sewer Emergency Number: 530-587-3804**. This number is posted clearly on the District's webpage, and is also included in the telephone directory.

Table 3-1: TSD Hours of Operation

Days	Hours
Monday - Thursday	7:00 a.m. – 4:30 p.m.
Friday	7:00 a.m. – 4:00 p.m.
Saturday, Sunday and Holidays	Closed

The TSD Administrative Office is located at **12304 Joerger Drive** Truckee. The office can be reached as follows:

Coming from I-80

1. From I-80 take the Hwy 267 south towards Kings Beach.
2. Take left on Soaring Way (first light after the Bridge).
3. Take left on Joerger Drive.
4. Proceed approximately 1/2 mile to TSD. The office is on the left just past the ball fields.

Coming from Kings Beach

1. Take Hwy 267 north towards Truckee.
2. Take right on Soaring Way.
3. Take left on Joerger Drive.
4. Proceed approximately 1/2 mile to TSD. The office is on the left just past the ball fields.

All information regarding contact information, address/directions, hours and holiday schedule can be found in the District's website: www.truckeesan.org.

Figure 3-1: TSD Office Map



The District's reporting chain of communication is included in Section 4.

3.1.1 Normal Working Hours

During normal business hours (Monday to Thursday from 07:00 to 16:30 and Friday from 07:00 to 16:00), incoming telephone calls reporting a potential SSO are dispatched to the Superintendent. If the Superintendent is not available, the call is redirected to a Collections Systems Maintenance Supervisor. The Superintendent or, in his/her absence, the Collections Systems Maintenance Supervisor initiates completion of SSO documentation, using one of the SSO Field Report Forms provided in Appendix OERP-A, or an alternative form of documentation.

In addition to completing the documentation, the Superintendent or Collections Systems Maintenance Supervisor deploys the Field Crew. The Field Crew responds to the SSO site within a target range of 30 minutes or less and evaluates the severity of the SSO. Response time may be impacted by snow conditions.

The Field Crew addresses the SSO and relays appropriate information to the Superintendent and/or Collection Systems Maintenance Supervisor. During and after business hours, the Superintendent is the Legally Responsible Official (LRO) responsible for SSO reporting.

3.1.2 After Normal Working Hours

After normal business hours, incoming calls are automatically routed to a contracted answering service, who then contact the Lift Station On-Call staff, who are field staff on a rotational list. The Lift Station On-Call person responds to the call and assesses the response required. If other crews are required, the On-Call person calls the Administrative On-Call person. The Administrative on-call list includes the District Engineer, Superintendent, and Administrative Services Manager. Each of these staff is on a weekly rotation with primary responsibility for on-call response. The On-Call staff contact the Superintendent (if not already On-Call), and in his or her absence, the Collections Maintenance Supervisor to provide the necessary response. The Superintendent or Collections Maintenance Supervisor notifies other staff members as required to assist in spill response. Response and reporting are completed following the same procedure that is used during business hours.

3.1.3 Notification from Pump Station SCADA Alarms

All District pump stations are polled continuously via a telemetry system for a variety of parameters. When a pump station alarm occurs at the TSD office during working hours, office staff are notified by an audible alarm and immediately contact lift station maintenance staff. The Lift Station On-Call person is notified by telephone during non-business hours. Field crews are dispatched as required to resolve the issue and ensure public and environmental safety, following the process used for TSD Standard Operating Procedures Manual, which is included in Appendix OERP-B.

CHAPTER 4 RESPONSE PROGRAM

4.1 Designated Responders

The following positions are designated to respond to reported SSOs:

Table 4-1: Designated Responders

TSD Position	Name	Contact info
General Manager	Blake R. Tresan	(530) 587-3804
District Engineer	Ray Brown	(530) 550-3135
Superintendent	Lee Wright	(530) 550-3111
Administrative Services Manager	Rebecca Ruby	(530) 550-3121

Note: Name of individuals designated with each specific TSD position is current as of April 2015.

The designated responders listed above are authorized to contact outside agencies and contractors as needed. All contact information including names and numbers are included in Appendix OERP-A.

These entities include:

- In Case of Emergency: 911
- Truckee Police Dispatch
- Nevada County Environmental Health
- Placer County Environmental Health
- Lahontan Regional Water Quality Control Board
- Glendale Treatment Plant / Truckee Meadows Water (if SSO is anticipated to reach the Truckee River)
- California Department of Fish and Wildlife Services
- California Office of Emergency Services
- For Sewage Cleanup: BELFOR Property Restoration or CALNEVA Hydro Steam
- For Industrial Hygiene: Environmental Testing & Consulting Inc., Reno, NV
- Outside Assistance:
 - North Tahoe Public Utility District
 - Tahoe City Public Utility District
 - Alpine Septic

- Waters Septic Service
- Tahoe-Truckee Sanitation Agency
- Truckee Donner P.U.D.

4.2 TSD Spill Response Equipment

The TSD crew will respond to the site of the complaint with the proper Spill Response Equipment. A variety of equipment is available, including the following:

Sewer Maintenance Fleet

- Trucks
- Small construction equipment
- Two Vactor trucks
- Hydrojet truck
- CCTV equipment

Dedicated Emergency Response Equipment

- One large bypass trailer
- One small bypass trailer
- Five portable generators
- Four portable pumps
- Inventory of spare hoses and parts.

Outside Agency/ Contractors

- North Tahoe PUD – Vactors, Bypass Equipment, Staff
- Tahoe City PUD – Vactors, Bypass Equipment, Staff
- Alpine Septic – Tank Trucks
- Water Septic Services – Tank Trucks

Equipment lists are included in Appendix OERP-B.

If assistance is needed from outside services, the agencies and outside contractors listed in Table 4-2 on the following page may be contacted.

Table 4-2: Resources for Outside Assistance

Agency/Vendor	Equipment	Business Hour Phone	After Hours Phone
North Tahoe PUD	Vactors, Bypass Equipment , Staff	530 546-4212	530 546-4212
Tahoe City PUD	Vactors, Bypass Equipment, Staff	530 583-3717	530 583-3717
Alpine Septic	Tank Trucks	530 577-7867	530 577-7867
Waters Septic Service	Tank Trucks	775 825-1595	888-909-7867
Al Pombo Inc.	Excavating Equipment, Tank Truck	530-587-0302	530-392-5534
Heavy Equipment Inc	Excavating Equipment, Tank Truck	530-587-3260	

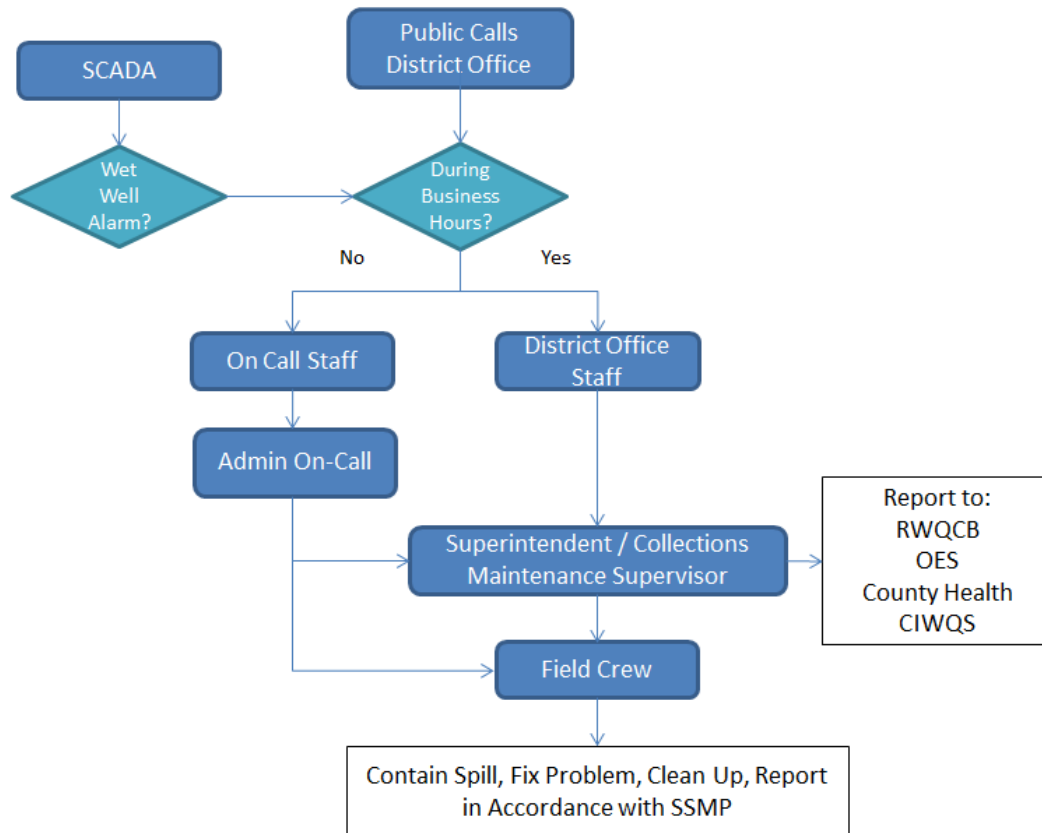
4.3 Initial Spill Response

The initial spill response of the District requires clear communication. When the District is notified of a potential sanitary sewer overflow during working hours, the Operations & Maintenance Superintendent or a Collection Systems Maintenance Supervisor will immediately be notified and a crew dispatched. After hours, the On Call person will initially notify the Administrative On-Call person of a potential sanitary sewer overflow. The On Call Employee will provide the first response. The Administrative On-Call person shall notify other staff members from the District to assist in the spill response as required. If the Administrative On-Call person cannot be contacted, the On Call Employee shall contact other employees while not delaying the response.

The TSD SSO Reporting Chain of Communications Chart shown on Figure 4-1 on the following page is used for notification procedures so that the primary responders and regulatory agencies are informed of all SSO's in a timely manner.

The crew will respond to the site of the complaint with the proper Spill Response equipment. If the problem is identified as an actual spill, it may be necessary to send for additional equipment or personnel. The crew will assess the problem and take the necessary steps to contain the spill, eliminate the overflow, and begin necessary cleanup. Additionally, crew will be responsible for signage, photos, water quality sampling and notifications. If the problem has escalated to an emergency situation, further staff assistance, such as List Station operators may be contacted.

Figure 4-1: TSD SSO Reporting Chain of Communication



4.3.1 External SSO Response

Upon arrival at the site, the First Responder completes the following:

- Notes arrival time at spill site, and include the time in the SSO record. The First Responder records basic incident information on site, and should complete the form after finishing the response.
 - TSD keeps standardized SSO reporting forms on hand to internally document the contact and response for each SSO that occurs. The most current forms are named, “SSO Field Report Form” and “Category 1 SSO Field Report Form.” Both forms are included in the OERP. However, use of these specific forms is currently left to the judgment of the First Responder.
- Verifies the existence of the SSO
- Field verifies the address and nearest cross street, and confirms that the SSO is part of the TSD sewer/conveyance system. If needed, the First Responder notifies the Administrative On-Call person and sends for additional equipment or personnel, and

- Conducts visual monitoring to determine immediate actions, starting with documentation of SSO volume using the methods included in the OERP
- Identify and clearly assess the affected area and extent of spill, including possible impacts on surface water. Where it is safe and practical, visually inspect surface water in the vicinity of the SSO and record observations. Record signs of receiving water impacts include clear signs of sewage (solids, grease, and paper), abnormal color, fish kills, etc.
- Estimate spill volume using one or more SSO flow estimation guidelines in Appendix OERP-B. These guidelines follow the information that is published by DKF Solutions, as supported by the California Water Environment Association (CWEA).
- Contain, mitigate, and minimize impacts from the SSO. **Containment is top priority**, and the crew should make every reasonable attempt to keep the SSO in as small an area as possible, and out of storm drains.
- If the SSO is the result of a blockage, follow the **Mainline Stoppage Procedure** in Appendix OERP-B.
- If the blockage is not relieved within the first few attempts or 20 minutes, whichever is sooner, the General Manager and Superintendent must be immediately informed. The Administrative On-Call person or the Superintendent will call up other employees and local contractors to initiate emergency repair to restore flow and also provide assistance to initiate spill containment or bypass pumping as described in Appendix E (OERP-B).
- Where safe and feasible, take necessary water quality samples at the point of discharge and at upstream and downstream locations. Use best judgment and consult with the District Engineer if uncertain. It is a Regional and State Board requirement to use the **Water Quality Monitoring Plan**, see Appendix OERP-C for SSOs greater than 50,000 gallons. Water quality monitoring is not given precedence over stopping the SSO or protecting public health. However, if sufficient personnel are available, monitoring is conducted in parallel with these activities or with the cleanup effort.
- Complies with all safety precautions (traffic, confined space, etc.). For SSOs in high traffic areas, additional staff should be contacted to provide traffic control. If traffic control is required on a State highway, both Highway Patrol and CalTrans shall be contacted.
- Contacts caller, if time permits. Identify SSO cause, including conducting CCTV inspection as appropriate.
- Document all activities through photos and written documentation.

4.3.2 Internal SSO Response (Residential Sewage Backup)

Upon arrival at the location of a spill into a house or a building, the First Responder should evaluate and determine if the spill was caused by a blockage in the private lateral or in the District-owned sewer main or lower lateral. If a blockage is found in a property owner's lateral, it should be clearly communicated that response and repair of private laterals is not the District's responsibility. The homeowner is responsible for clearing any blockage in the home's plumbing

system or private lateral and for any resulting flood damage to the structure. The homeowner is also responsible for damage that happens because a lateral was not properly installed.

- Sewer intrusion into a private residence or commercial building caused by a blockage or SSO related to a District owned and operated facility will be handled by the Superintendent or the Administrative On-Call person. Property damage shall be immediately documented and photographed by the field crew during first response. A professional and certified sewage cleanup contractor shall be dispatched to begin cleanup procedures.
- The District's Administrative Services Manager shall be notified of the occurrence and will contact the District's Insurance carrier to begin the loss process. Property damage caused by a blockage or SSO in the private lateral or customer owned facilities shall be reviewed and the customer shall be given contact information for certified sewage clean up specialists.

Sewage Cleanup Contractors

CALNEVA HYDRO STEAM (for sewage cleanup)
24 hour emergency service/Howard or Anna Rankell
(530) 587-0505 or 583-3645
or 546-3756 or (775) 831-3645

BELFOR PROPERTY RESTORATION (for sewage cleanup)
24 hour emergency response
1- 800-856-3333

In addition, the following guidelines should be followed for an internal SSO:

- Keep all family members and pets away from the affected area
- Place towels, rags, blankets, etc between areas that have been affected and areas that have not been affected, and move any uncontaminated property away from the overflow area
- Move any uncontaminated property away from the overflow area. Do not remove any contaminated items.
- Turn off the heating and ventilation systems.
- The First Responder should follow the following steps to assist the homeowner:
 - Gather information
 - Call a restoration company (contact numbers are included in Appendix OERP-A), and wait for the restoration firm to arrive
 - Forward incident reports and related documents to the Superintendent

4.3.3 Pump Station SSO Response

The First Responder to a potential pump station or force main failure should determine whether flow can be restored within a reasonable time. If it appears that flow cannot be restored within a reasonable time or if the conveyance system facility requires construction and/or repairs, then the First Responder should employ the actions that are described in the **Standard Operating Procedure Manual**. This document provides instructions for addressing anticipated bypass and emergency response needs, including a power outage at a small or large lift station, lift station pumped bypass, force main bypass, and gravity main bypass. The Standard Operating Procedure Manual is in Appendix OERP-B of this document.

In addition, other SSO response activities discussed above should be implemented where applicable.

4.4 Emergency Traffic Control

In the event that the spill is located in a high traffic area, additional staff shall be contacted to provide traffic control. Traffic control may be needed immediately to protect the public and TSD crew while containing the overflow and removing blockage. Traffic control may also be needed to prevent wastewater from being further dispersed. If the traffic control will be on a State Highway, both Highway Patrol and Cal Trans shall be contacted as outlined in table 4-3.

General steps in implementing traffic and crowd control include the following:

- Contact impacted agencies, local law enforcement and fire/sheriff as needed
- Set up barriers and delineation directing human and vehicular traffic around spill area, including closing any entrances or exits from adjacent facilities
- Establish signage including signs protecting public health and safety
- Use staff personnel to control traffic and pedestrians

Table 4-3: Traffic Control Agencies

Traffic Control Agency	Contact Number
TOT Police Dispatch	(530) 550-2320
California Highway Patrol / Truckee Dispatch	(530) 582-7500
Cal Trans	(530) 583-3201

4.5 Containment

Containment of already spilled material is top priority. The crew will make every effort to keep the SSO in as small an area as possible. It is preferred that the crew keeps the SSO in the street

and out of storm drains. To make sure the SSO is contained, the crew may use the following methods:

- Determine the immediate destination of the overflowing sewage.
- Use drain covers, 3 inch high rubber dams, sand bags or soil to keep the overflow from reaching a storm drain
- Should the overflow take place in an area not normally accessible to the public, such as; (fields, tributaries, etc.), the crew will use any reasonable means to contain the flow in that area for recovery
- The crew will make every reasonable attempt to dam up the spill in the storm drain or catch basin and recover it from that point
- Take photos of all containment efforts

If an SSO reaches a water body, follow the requirements below for posting and SSO notification signage. Also conduct water quality sampling as discussed above.

4.6 Bypass and Clearing Blockage

Once on site, and after the blockage is assessed, District staff will make every attempt to clear the blockage as quickly as possible. If the blockage is not relieved within the first few attempts (20 minutes), it is crucial that bypass or storage procedures are followed immediately. The standard procedure in addressing a blockage is summarized below:

- Containment of the overflow while the vactor or bypass equipment is being setup
- Determine if a pump station can be isolated and used for temporary storage. Consult with the Lift Station Supervisor or Lift Station Maintenance Worker.
- In small residential areas, the storage capacity of the Vactor(s) may be sufficient to bypass flows and stop the spill until the blockage is cleared or a larger bypass is set up
- Locate the nearest downstream manhole that can accept the additional flow
- Set up necessary bypass equipment
- Take photos of containment areas and/or bypass setups

4.7 Sewage Estimation

Use the methods outlined in Appendix OERP-B to estimate the volume of the spilled sewage. These guidelines follow the information that is published by DKF Solutions, as supported by the California Water Environment Association (CWEA).

Some spills may occur in locations where the wastewater can seep into the ground or flow away from the spill location. In such conditions, consider when the spill was first detected and observations from bystanders in order to determine the total spill volume.

4.8 Water Quality Sampling

Water quality sampling and testing are required within 48 hours after initial SSO notification whenever the spilled sewage enters any active creek, stream, or river or has reached Donner Lake. Further, with an SSO greater than 50,000 gallons, the District must follow the Water Quality Monitoring Plan in Appendix OERP-C. The purpose of testing is to determine the extent and impact of the SSO.

A spill sample kit is located in the Safety/PPE storage room in the Field Operations Building.

Extreme care shall be taken to ensure samples are taken properly and stored properly. The samples shall be analyzed for ammonia and fecal coliform, which the Tahoe-Truckee Sanitation Agency (T-TSA) will perform. Additional analysis may be required by the Regional Water Quality Control Board. The following steps shall be followed to make sure samples are collected properly. Two samples from each collection site shall be taken. One sample will be tested for ammonia and one for fecal coliform (bacteria indicator).

- The First Responder should arrange for collection of samples
- Contact T-TSA as soon as possible after it is determined the spill requires water quality sampling, but no later than 48 hours after the discovery of the SSO event
- If the SSO occurs on the weekend, contact the on-duty operator at **T-TSA at 530-587-2525**. T-TSA's office is located at **13720 Butterfield Drive Truckee, CA 96161**. Let them know you need the lab to accept and set up these samples within 6-24 hours of being collected.
- Always wear sterile blue nitrile gloves while handling the sample containers. Change gloves after each sample bottle is filled.
- Always sample in a clean to dirty order. Sample lakes, creeks, streams and rivers upstream **first**, downstream **second** and at the **location of the spill last**.
 - Donner Lake: Collect one sample along the shoreline approximately 100' away from the point of entry of the SSO (i.e., upstream). Collect another sample 100' in the opposite direction of the SSO point of entry from the first sample (i.e., downstream). Collect one sample at or near the point of entry of the SSO to the Lake.
 - Creeks, Rivers and Streams: Collect one sample 100' upstream of the point of entry of the SSO. Collect one sample 100' downstream of the point of entry of the SSO. Collect one sample at or near the point of entry of the SSO.
- Label each sample bottle with a specific sample ID prior to filling.
- Water quality sampling procedures are provided in detail in the OERP, and should include the following procedures:
 - **For ammonia samples:**
 - The sample bottle is 500 mLs

- Keep the sterile bottle closed until it is to be filled
 - Remove cap and hold the bottle near its base and plunge it, neck downward, below the surface
 - Collect water sample just below the surface in knee deep water, approximately 3 feet deep (full arm's length). If needed, extend the sampling pole to the fullest length to reach deeper water depth.
 - When the sample is grabbed, the bottle should be rinsed twice at the site and then the **third dip shall be the grab sample**
 - Take great care to assure no debris, dirt or sediment enters the sample bottle. Do not touch the inside of the sample bottle or lid with your fingers or any foreign objects
 - Turn bottle until neck points slightly upward and mouth is directed toward the current
 - Fill the sample container to the 500mL line, and quickly replace lid and tighten securely
 - Dry the bottle. Label container with distinctive sample site name, date, and time collected.
 - Note any field observations that may have occurred during the sampling.
- **For the fecal coliform samples:**
- The sample bottle size is 120 mL
 - Keep the sterile bottle closed until it is to be filled
 - Remove cap and hold the bottle near its base and plunge it, neck downward, below the surface
 - Collect water sample just below the surface in knee deep water, approximately 3 feet deep (full arm's length). If needed, extend the sampling pole to the fullest length to reach deeper water depth.
 - The bottle contains a preservative so the first dip is the grab sample. **Do not rinse this sample bottle.** This sample has a 6 hour incubation from collection to laboratory set up.
 - Do not touch the inside of the sample bottle or lid with your fingers or any foreign objects
 - Turn bottle until neck points slightly upward and mouth is directed toward the current
 - Fill the sample container to the 120mL line, and quickly replace lid and tighten securely

- Dry the bottle. Label container with distinctive sample site name, date, and time collected.
- Note any field observations that may have occurred during the sampling
- Record date, time and location that each sample is taken on the chain of custody forms in the kit. There should be one chain of custody form per sample bottle. There is a different chain of custody form for ammonia and fecal coliform samples. All paperwork will be in the sampling kit.
- Place each sample bottle into a separate and unused zip lock bag and place into a cooler with a frozen blue ice pack or cubed ice placed in a sealed zip lock bag. Place chain of custody forms (one per bottle) in a zip lock bag and place in the cooler with the samples.
- Samples shall be transported and analyzed at the T-TSA within 6 hours for Total Coliform, and 6 to 24 hours of being collected for ammonia.
- Take photos at the sample sites

Records of monitoring information shall include the date, exact place, and time of sampling or measurements, the individual(s) who performed the sampling or measurements, the date(s) analyses were performed, the individual(s) who performed the analyses, the analytical technique or method used, and the results of such analyses.

4.9 Water Quality Monitoring Program

A Water Quality Monitoring Plan must be implemented immediately upon discovery of any Category 1 SSO of 50,000 gallons or more in order to assess impacts from SSOs to surface waters. Water quality testing must be completed within 48 hours of the District becoming aware of the SSO.

TSD's SSO Water Quality Monitoring Program is included in Appendix OERP-C, and includes the items listed below. All staff should be familiar with the Water Quality Monitoring Program, which provides administrative requirements beyond the sample collection requirements described above.

- Protocols for water quality monitoring, which are also described above
- Requirement to account for spill travel time in the surface water and scenarios where monitoring may not be possible (e.g. safety, access restrictions, etc.)
- Requirement for water quality analyses for ammonia and bacterial indicators to be performed by an accredited or certified laboratory, following the District's standard practice
- Requirement for monitoring instruments and devices used to implement the SSO Water Quality Monitoring Program to be properly maintained and calibrated, including any records to document maintenance and calibration, as necessary, to ensure their continued accuracy

4.10 Site Restoration and Cleanup

The recovery and clean-up phase must begin when the flow has been restored and the spilled sewage has been contained to the extent possible. Spilled sewage shall be vacuumed or pumped and discharged to the extent possible back into the sanitary sewer system. The surrounding environment shall be restored as closely as possible to the condition that existing before the SSO occurred.

4.10.1 Cleanup and Disinfection

Clean up and disinfection procedures must be implemented to reduce the potential for human health issues and adverse environmental impacts that are associated with an SSO event. The procedures described are for dry weather conditions and should be modified as required for wet weather conditions. Clean up should proceed quickly in order to minimize negative impact. Where cleanup is beyond the capabilities of District staff, contact a cleanup contractor to complete the work. Phone numbers are provided in the emergency response list in Appendix A and this OERP.

Spills inside houses or buildings should be cleaned by a professional cleaning company as discussed above. Contact information for professional cleaning companies can be found in the “Water Damage Restoration” section of the Yellow Pages and is also provided in the emergency response list. Claims by homeowners should be forwarded to the District’s General Manager.

In the event of an SSO event during night time hours, the incident must be re-inspected as soon as possible the following day. The site shall be inspected for any signs of sewer related debris/material that may warrant additional cleanup activities.

4.10.2 Cleanup Procedure

Every effort to restore the environment to the condition that existed before the SSO occurred will be made by using the following procedures:

- If the SSO occurred in the street, staff should apply a light mist of diluted household bleach to the affected area. If the SSO occurred in an unpaved/dirt area, staff should vacuum up all affected areas and loose material and apply a light application of diluted household bleach to the saturated areas.
- Document the volume and application of disinfectant that is employed.
- Collect and dispose of any standing or pooled sewage that is accessible to the public.
- Attempt to recover all signs of sewage solids and sewage-related material in gutters, storm drains, culverts, swales, ditches, dry creeks, etc.
- If the spill area is not accessible to vacuum up, rake up all loose material and debris and place into garbage bags, scarify the soil with a rake and apply a diluted household bleach solution.
- Allow area to dry then repeat the process if additional cleaning is required

- Quantify the volume of all sewage recovered at the time it is disposed of out of the truck
- Clear surrounding area of paper, solids, and any other signs of a SSO
- Take photos of site restoration and cleanup

If the SSO has reached the **storm drain system**, the combination sewer cleaning truck should be used to vacuum/pump out the catch basin and any other portion of the storm drain that may contain sewage. In the event that an overflow occurs at night, the location should be re-inspected as soon as possible the following day. The operator should look for any signs of sewage solids and sewage-related material that may warrant additional cleanup activities.

4.11 SSO Notification Signage

Notification signage and barriers should be installed where required to prevent the public from having contact with the sewage. Signs are stored in the Field Operations Building in the upstairs mezzanine. Signs should be posted with yellow “caution” tape to keep vehicles and pedestrians away from contact with spilled sewage. “Closed” signs should be posted at the outfall of streams and a minimum of 100 feet upstream and 100 feet downstream of the discharge. If there is a large volume of sewage, more signs must be posted downstream.

Signs must remain in place until Department of Health Services determines that the risk of contamination has subsided to acceptable levels. Warning signs should be checked every day in order to ensure that they are still in place.

A sample warning sign is found in Appendix OERP-C.

4.12 Blockage Investigation

Following elimination of the blockage and after cleanup activities have been completed, the cause of the spill shall be investigated. If the spill occurred in a gravity sewer main or lower lateral, the affected segment of line shall be televised using the District CCTV equipment.

For each substantive SSO event as determined by the General Manager, all response participants– from the person who received the call to the last person to leave the site – should meet, as soon as feasible, after the event to review and evaluate the incident and the TSD response procedures. The objective of the Post-SSO debrief is to determine actions necessary, if any, to reduce the recurrence and better mitigate the effects of SSOs.

General procedures for investigating an SSO are as follows, and may be adjusted depending on the specific details of the SSO:

- Review and complete SSO documentation
- Review the incident timeline and other documentation regarding the incident

- Review actions by all persons involved in the response, including the initial recipient of the complaint
- Review communications with the all reporting parties, and witnesses
- Review volume estimate, volume recovered estimate, volume estimation assumptions and associated drawings
- Review available photographs
- Interview staff that responded to the spill
- Review past maintenance and inspection records of all affected manholes and pipe segments
- Review FOG information or results
- Identify any changes or additions needed to the OERP and SSMP following the event

The product of the blockage investigation should be the determination of the root cause and identification of the corrective actions.

CHAPTER 5 DOCUMENTATION

5.1 Documentation

In accordance with the WDR, the District maintains records for each sanitary sewer overflow. Records include:

- Documentation of response steps and/or remedial actions
- Photographic evidence to document the extent of the SSO, field crew response operations
- Site conditions after field crew SSO response operations have been completed
- The date, time, location, and direction of photographs taken will be documented
- Documentation of how any estimations of the volume of discharged and/or recovered overflow were calculated

The records are maintained at the District office and are also entered into the District's CMMS system. The District also maintains records of complaints received, even if the complaint does not relate to a TSD SSO.

5.2 Sewer Service Request

The District's Sewer Service Request Procedures are used as a tool to ensure appropriate response to all overflows. The following procedures are followed as appropriate by TSD staff when receiving notice of a potential overflow from the public. A sewer-related call, especially a possible sewage spill, is of critical importance. Nothing is more important than SSO response, other than the safety of individuals. The main objective of District personnel at the spill site is to relieve the problem, stop the overflow, and clean up the site as quickly as possible, no matter where the site is, whether it is on public or private property.

The following are procedures for processing a Sewer Service Request (SSR) received over the telephone. When a SSR is received alerting TSD of a sewer problem, never place the caller on hold without first identifying the nature of the call.

- Ask the caller if there is any sewage flowing; if so, get the site address, the name of the nearest cross street, their name and phone number. Get as much information as possible. Then ask the caller to please hold.
- If the call is sewer spill/blockage related, immediately contact the TSD Operations & Maintenance Superintendent or a Collection Systems Maintenance Supervisor. Confirm who is responding to the SSR.
- Thank the caller for calling. Advise the caller that a Supervisor will be contacting them to meet at the site to assess the situation. (Pull the APN file and make a copy of the Inspector's as-built drawing for the Supervisor.)

- Get started with **Lucity** software:
 - Double click on the Lucity Web icon, which should be on your desktop.
 - Click on **Go to Menu** and then one click on **SEWER SERVICE REQUEST**.
 - Below, on second line, appears **Sewer Service Request**, one click on this opens the program ready for you to input the information.
 - Complete the form. The items with an asterisk are required fields.
 - Click on **Submit**, then a summary of the information provided will be displayed.
 - One more step left, scroll down, you must click on “**Send e-mail copy**”. This will distribute the summary information to all Outlook Users.
 - Click on **close** button and exit the program.
- If the sewer spill relates to Lift Stations or Force Mains, contact the Senior Engineer or the Lift Station Maintenance Supervisor. Supervisors will dispatch the appropriate personnel and equipment immediately to the site, if necessary. TSD field personnel hearing the radio traffic and already in the area shall acknowledge their location via radio and respond to the site as needed.
- If a sewer complaint call is received out in the field, contact the office personnel and inform them of the situation. Ask them to start the SSR procedures.
- Once everything is entered on the SSR in the computer, print and give the original SSR to the person who responded to the call for completion
- It is the responsibility of the person who took the SSR to **make sure that a TSD employee has responded to the call**
- Stand by for further radio and telephone communications from the field staff. Listen for updates that will be given via the radio as additional information and details are obtained.
- Ask other office staff to assist with unrelated incoming phone calls if needed
- Keep all personnel up to date on the status of the request as needed via e-mail
- The General Manager, Operations & Maintenance Superintendent, District Engineer or Administrative Services Manager will initiate telephone calls to the agencies listed in Table 5-1 on the following page, if appropriate.

Table 5-1: List of Agencies in Concern

Agency	Normal Hours	24 Hours
Nevada County Environmental Health	(530) 582-7884	Haz Mat Emergency Hotline: (530) 265-1778 OR call 911
Placer County Environmental Health	(530) 581-6240	Sheriff Dispatch: (530) 581-6305 Haz Mat call 911
Lahontan Regional Water Quality Control Board	(530) 542-5400	California State Warning Center w/OES (800) 852-7550
Glendale Treatment Plant/Truckee Meadows Water (if spill is anticipated to reach the Truckee River)	(775) 834-8140	Previous number also 24hrs: (775) 834-8140
California Department of Fish and Game	Northern Central Regional Office (Rancho Cordova) (916) 358-2900	(916) 445-0411 (916) 653-7664
For Sewage Clean Up: BELFOR Property Restoration	(800) 856-3333	(800) 856-3333
For Sewage Clean Up: CALNEVA Hydro Steam	(530) 587-0505, 583- 3645, 546-3756, (775) 831-3645 Direct Line: (775) 831- 9790	All numbers 24 Hour Emergency Service (Anna/Howard Rankell)
Industrial Hygiene Co: Environmental Testing & Consulting, Inc., Reno, NV	Office: (775) 847-7878	Cell: (775) 691-5506

- The SSR must be filled out completely by the Superintendent or the Collection Systems Maintenance Supervisor who responded or was in charge of the action taken at the site. The action taken should be documented, what happened, date and time of who you spoke with on the conversation, possibly a work order was created, additional reports, photographs, follow up, etc.
- Turn the completed SSR and all other documentation pertaining to the request to the Administrative Maintenance Support (Lisa Snider) for final processing and follow up.

5.3 SSO Technical Report

If 50,000 gallons or greater from an SSO reaches surface waters, an SSO Technical Report must be prepared and submitted to the CIWQS online SSO database within 45 calendar days of the SSO end date. The SSO Technical Report template is attached, and includes the following required elements:

1. Causes and Circumstances of the SSOs
2. Complete and detailed explanation of how and when the SSO was discovered
3. Diagram showing the SSO failure point, appearance point(s), and final destination(s)
4. Detailed description of the causes(s) of the SSO
5. Copies of the original field crew records used to document the SSO
6. Historical maintenance records for the failure location
7. Response to SSOs:
 - a) Chronological narrative description of all actions taken to terminate the SSO
 - b) Explanation of how the OERP was implemented to respond to and mitigate the SSO
 - c) Final corrective action(s) completed and/or planned to be completed, including a schedule or actions not yet completed
8. Water Quality Monitoring:
 - a) Description of all water quality sampling activities conducted including analytical results and evaluation of the results
 - b) Detailed location map illustrating all water quality sampling point

The District Engineer is responsible for the development and certification of the SSO Technical Report.



CHAPTER 6 REPORTING AND NOTIFICATION

6.1 SSO Notification Requirements

The District's SSO Reporting Requirements document, located on the following page, should be used to ensure prompt notification to appropriate regulatory agencies of all SSOs that potentially affect public health or reach the waters of the State. All SSOs shall be reported in accordance with this SSMP, which follows SWRCB Order No. WQ 2013-0058-EXEC.



TRUCKEE SANITARY DISTRICT SSO REPORTING REQUIREMENTS

NOTIFICATIONS – COMPLETE ALL REQUIRED NOTIFICATIONS	
If Spill is greater than 1,000 gal OR spill reached surface water or storm drain, Contact:	
OFFICE OF EMERGENCY SERVICES (800-852-7550):	DATE & TIME:
PERSON CONTACTING:	SPOKE TO:
CONTROL NUMBER:	
If Spill Impacted Public Areas, Warning Signs were Posted, and/or Human Contact Occurred, Contact:	
NEVADA COUNTY ENVIRONMENTAL HEALTH (530) 582-7884	DATE & TIME:
Haz Mat Emergency Hot Line (530) 265-1778	
PERSON CONTACTING:	SPOKE TO:
PLACER COUNTY ENVIRONMENTAL HEALTH (530) 581-6240 Sheriff Dispatch (530) 581-6305	DATE & TIME:
PERSON CONTACTING:	SPOKE TO:
LAHONTAN REGIONAL WATER QUALITY CONTROL BOARD during normal hours (530) 542-5400	DATE & TIME:
24-Hours (800) 852-7550 Calif. State Warning Center w/OES	
PERSON CONTACTING:	SPOKE TO:
If Spill Backups into a Property, Contact:	
<u>CALNEVA HYDRO STEAM</u> (for sewage cleanup) 24 hour emergency service/Howard or Anna Rankell (530) 587-0505 or 583-3645 or 546-3756 or (775) 831-3645 PO Box 580, Carnelian Bay, CA 96140	DATE & TIME:
PERSON CONTACTING:	SPOKE TO:
BELFOR Property Restoration (800) 856-3333	



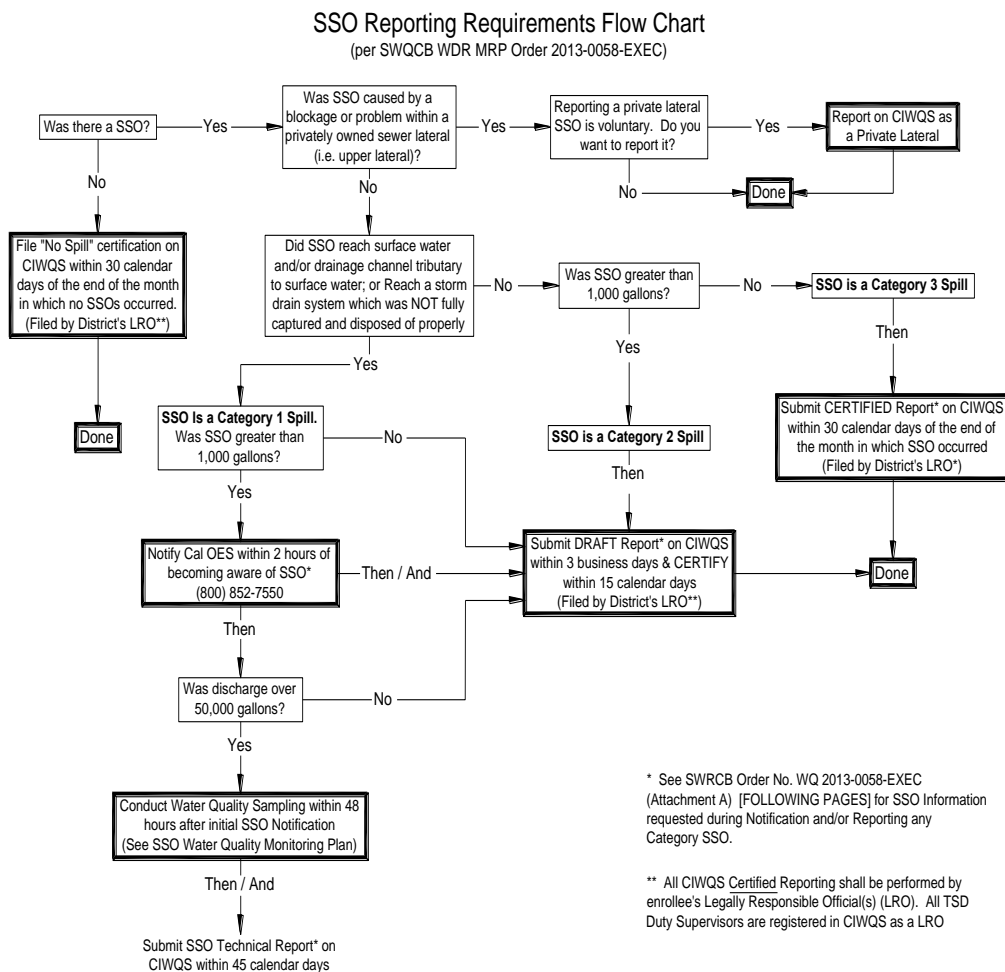
Note: *Category 2 Spill requires notification in CIWQS in 3 business days.*

6.2 Regulatory Reporting Requirements

SSOs that occur as a result of a failure within the District's sanitary sewer system must be reported by the District using the State Water Resources Control Board (SWRCB) Sanitary Sewer Overflow eReporting Program @ <http://ciwqs.waterboards.ca.gov/>.

Notification and reporting requirements are based on SWRCB Order No. WQ 2013-0058-EXEC, Adopted Amended Monitoring and Reporting Requirements for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (as of September 9, 2013). Figure 6-1 is a reporting flowchart to be used to determine reporting type, schedule and completion timelines.

Figure 6-1: SSO Reporting Requirement Flow Chart



6.2.1 Multiple Appearance Points – Single SSO

For reporting purposes, if one SSO event of whatever category results in multiple appearance points in a sewer system, a single SSO report is required in CIWQS which includes the global positioning system (GPS) coordinates for the location of the SSO appearance point closest to the failure point, blockage or location of the flow condition that caused the SSO, and descriptions of the locations of all other discharge points associated with the single SSO event.

6.2.2 2-Hour Notification to Regulatory Agencies of SSOs

Cal OES is only to be notified of a 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. The Administrative On-Call person or the Superintendent is responsible for reviewing field data for reporting to regulatory agencies. If it is determined that the criteria for

OES notification was met, than the Administrative On-Call person or the Superintendent must notify OES of the event no later than two (2) hours after:

- The District has knowledge of the SSO;
- Notification is possible; and
- Notification can be provided without substantially impeding cleanup or other emergency measures.

The OES phone number is (800) 852-7550. The First Responder is responsible for obtaining an OES Control number. Following the initial notification to OES and until the SSO report is certified in the SWRCB online SSO Database, the LRO will provide updates (or provide direction for updates to be provided) to OES regarding substantial changes to estimated volume of untreated or partially treated sewage discharged and any substantial changes to known impact(s).

6.2.3 Detailed Reporting Requirements

Table 6-1 provides detail on the District's regulatory reporting process, which is also described below.

SSO Reporting for Category 1 SSOs

Cal OES shall receive notification of Category 1 SSOs greater than or equal to 1,000 gallons, as stated earlier in this Section.

The Data Submitter must then submit the initial draft report to the SWRCB's CIWQS Online SSO database @ <http://ciwqs.waterboards.ca.gov/ciwqs> within 3 business days of becoming aware of the SSO.

Within 15 calendar days of the SSO end date, the LRO must review and certify the report in the CWIQS Online SSO database @ <http://ciwqs.waterboards.ca.gov/ciwqs>

SSO Reporting for Category 2 SSOs

Within 3 business days of becoming aware of the SSO, the Superintendent or Manager must submit the initial report to the SWRCB's CWIQS Online SSO database @ <http://ciwqs.waterboards.ca.gov/ciwqs>.

Within 15 calendar days of the SSO end date, the LRO must review and certify the report in the CWIQS Online SSO database @ <http://ciwqs.waterboards.ca.gov/ciwqs>.

SSO Reporting for Category 3 SSOs

Within 30 calendar days of the end of the calendar month in which the SSO occurred, the LRO must submit and certify a report to the SWRCB's CWIQS Online SSO database @ <http://ciwqs.waterboards.ca.gov/ciwqs>.

No Spill Certification (Monthly)

Within 30 calendar days of the end of a calendar month that there are no SSO's, the LRO must submit and certify a "No Spill" certification to the CIWQS online SSO database.

6.2.4 CIWQS Not Available

In the event that the CIWQS online SSO database is not available, the LRO should fax or e-mail all required information to the Lahontan Regional Water Quality Control Board South Lake Tahoe office at (530) 544-2271 in accordance with the time schedules identified above. In such an event, the District will submit the appropriate reports using the CIWQS online SSO database when the database becomes available. A copy of all documents that certify the submittal in fulfillment of this section shall be retained in the SSO document file.

6.2.5 Amending SSO Reports

The LRO is responsible for amending SSO reports. Certified SSO reports may be updated by amending the report or adding an attachment to the SSO report within 120 calendar days after the SSO end date. After 120 days, the District must contact the State SSO Program Manager to request to amend an SSO report along with a justification for why the additional information was not available prior to the end of the 120 days. The SWRCB SSO Program Manager contact information is as follows:

Russell Norman, P.E.
State Water Resources Control Board
Division of Water Quality
1001 I Street 15th Floor
Sacramento, CA 95814
E-mail: Russell.norman@waterboards.ca.gov
Phone: (916) 323-5598

Table 6-1. SSO Reporting Requirements

Element	Requirement	Method
<ul style="list-style-type: none"> NOTIFICATION 	<ul style="list-style-type: none"> Within two 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, the District will notify the California Office of Emergency Services (OES) and obtain a notification control number. 	<ul style="list-style-type: none"> Call Cal OES at: (800) 852-7550
<ul style="list-style-type: none"> REPORTING 	<ul style="list-style-type: none"> Category 1 SSO: The District will submit a draft report within three business days of becoming aware of the SSO and certify within 15 calendar days of SSO end date. Category 2 SSO: The District will submit a 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: The District will submit a certified report within 30 calendar days of the end of month in which SSO the occurred. SSO Technical Report: The District will submit 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. 	<ul style="list-style-type: none"> Enter data into the CIWQS Online SSO Database (http://ciwqs.waterboards.ca.gov/), certified by the Legally Responsible Official(s). All information required by CIWQS will be captured in the SSO report. Certified SSO reports may be updated by amending the report or adding an attachment to the SSO report within 120 calendar days after the SSO end date. After 120 days, the State SSO Program Manager must be contacted to request to amend an SSO report along with a justification for why the additional information was not available prior to the end of the 120 days.
<ul style="list-style-type: none"> WATER QUALITY MONITORING 	<ul style="list-style-type: none"> The District will conduct water quality sampling within 48 hours after initial SSO notification for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters. 	<ul style="list-style-type: none"> Water quality results will be uploaded into CIWQS for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.
<ul style="list-style-type: none"> RECORD-KEEPING 	<ul style="list-style-type: none"> The District will maintain the following records: <ul style="list-style-type: none"> SSO event records. Records documenting Sanitary Sewer Management Plan (SSMP) implementation and changes/updates to the SSMP. Records to document Water Quality Monitoring for SSOs of 50,000 gallons or greater spilled to surface waters. 	<ul style="list-style-type: none"> Self-maintained records shall be available during inspections or upon request.

CHAPTER 7 TRAINING

7.1 Training

This section provides information on the training that is required to support this Overflow Emergency Response Plan.

7.1.1 Initial and Annual Refresher Training

All of the TSD Field Maintenance Crews are aware of and trained in District Emergency Response Procedures. The District's collection system staff is trained in OERP as new employees. The following training procedures must be completed within the first 180 days of employment:

- Injury and illness prevention
- Hazard communication
- Safety inspections
- Fall protection
- Confined space entry
- Motorized equipment operations
- Traffic control

District employees responsible for responding to and reporting a SSO event must complete the following SSO-related training procedures within 180 days of employment and annually thereafter:

- TSD Overflow Emergency Response Plan
- SSO Volume Estimation Techniques
- First aid/Cardio Pulmonary Resuscitation (every two years)

Employees are also trained in the following procedures specific to sanitary sewer stoppages:

- Mainline Stoppage Procedure (included in Appendix OERP-B)
- Mainline Troubleshooting (included in Appendix OERP-B)

7.2 SSO Response Drills

Periodic training drills should be held to ensure that employees are up to date on these procedures, equipment is in working order, and the required materials are readily available. The training drills will cover scenarios typically observed during sewer related emergencies (e.g. mainline blockage, mainline failure, force main failure, pump station failure, and lateral blockage). The results and the observations during the drills will be recorded and action items should be tracked to ensure completion.

7.3 SSO Training Record Keeping

Records should be kept of all training that is provided in support of this plan. The records for all scheduled training courses and for each overflow emergency response training event and will include date, time, place, content, name of trainer(s), and names of attendees.

7.4 Contractors Working On District Sewer Facilities

Beginning in 2014, all contractors working on District sewer facilities will be trained in the District's OERP and will be required to follow the OERP in the event that they cause or observe an SSO.



Appendix A
Supporting Documents for OERP

SSO Field Report Form

Category 1 SSO Field Report Form

SSO Reporting Contact List

TRUCKEE SANITARY DISTRICT SSO FIELD REPORT FORM



General SSO Information	
Name of person who reported SSO:	
Contact number for person reporting SSO:	
SSO location	Address:
	Closest Cross Street:
TSD Facility ID (MH/LS/CO) spilling:	
Date & Time SSO first reported:	
Estimated Date & Time SSO started:	
Name of TSD person(s) responding to SSO:	
Date and time TSD person arrived at SSO:	
Were photos taken: <input type="checkbox"/> Yes <input type="checkbox"/> No; Was video taken: <input type="checkbox"/> Yes <input type="checkbox"/> No	
If SSO is ongoing, estimate SSO discharge rate (gpm):	
Date & Time SSO stopped:	
Estimated SSO volume discharged (gallons):	
Did SSO reach surface water (Y/N), If Yes, fill out Category 1 info below: <input type="checkbox"/> Yes <input type="checkbox"/> No	
Estimated amount of SSO discharged to surface water (gallons):	
Estimated amount of SSO recovered from surface water (gallons):	
SSO Cause (if known):	
Describe weather:	
Describe incident & response (use separate sheet if necessary):	
Sketch of Incident (use separate sheet if necessary):	

Initial: _____

Date: _____

TRUCKEE SANITARY DISTRICT

CATEGORY 1 SSO FIELD REPORT FORM



Category 1 SSO Data
Required Notifications
California Office of Emergency Services
Date and Time CalOES [800-852-7550] Contacted:
TSD Person contacting Cal OES:
Cal OES contact person:
Cal OES Control Number:
Nevada or Placer County Departments of Environmental Health
Date and Time Nevada [582-7884]/Placer County [581-6240] EHS Contacted:
TSD Person contacting County EHS:
County contact person:
Lahontan Regional Water Quality Control Board
Date and Time Lahontan RWQCB [530-542-5400] Contacted:
TSD Person contacting Lahontan:
Lahontan contact person:
Category 1 SSO Data
Name of surface water impacted:
Photos of SSO discharge to surface water taken? <input type="checkbox"/> Yes <input type="checkbox"/> No
Health warnings posted? <input type="checkbox"/> Yes <input type="checkbox"/> No
Photos of health warnings taken? <input type="checkbox"/> Yes <input type="checkbox"/> No
Water Quality samples taken? <input type="checkbox"/> Yes <input type="checkbox"/> No
Location and time of samples taken:
Destination of samples (i.e. T-TSA):
Describe incident & response (use separate sheet if necessary):
Sketch of Incident (use separate sheet if necessary):

Initial: _____

Date: _____

TRUCKEE SANITARY DISTRICT EMERGENCY CONTACT LIST



CONTACT LIST		HOME	CELL	WORK
<u>TSD Management Team</u>				
	Blake Tresan, General Manager	550-2998	913-0013	587-3804
	Lee Wright, Superintendent of Operations	994-1098	913-0014	587-3804
	Raymond Brown, District Engineer	775-782-7285	913-0006	587-3804
	Rebecca Ruby, Administrative Services Manager	775-857-1832	913-0007	587-3804
<u>Regulators</u>				
	California Office of Emergency Services			800-852-7550
	Lahontan Regional Water Quality Control Board			542-5400
	Nevada County Department of Environmental Health			582-7884
	Placer County Department of Environmental Health			581-6305
<u>Other Agencies</u>				
	CalTrans			741-4571
	CHP			582-7570
	Liberty Energy			775-834-4100
	Nevada County Sheriff's Office			582-7838
	North Tahoe Public Utilities District			546-4212
	Northstar Community Services District			562-0747
	Southwest Gas			582-7200
	Tahoe City Public Utilities District			583-3717
	Tahoe Forest Hospital			587-6011
	Tahoe Truckee Sanitation Agency			587-2525
	Town of Truckee			582-7700
	Truckee Donner Public Utilities District			587-3896
	Truckee Meadows Water Authority (Reno)			775-834-8080
	Truckee Police Department			550-2323
	USA North			800-227-2600
<u>Excavation Contractors</u>				
	Al Pombo Inc		392-5534	587-4112
	Hall's Excavating		277-1093	587-6487
	Heavy Equipment		210-0362	587-3260
	AMX Construction		308-0581	587-2878
<u>Plumbing/Specialty Contractors</u>				
	Mountain Pipeline			550-9301
	Rain-for-Rent			775-358-3598
<u>Restoration Contractors</u>				
	BELFOR			800-856-3333
	CalNeva Hydro Steam			546-3756
<u>Septage Haulers</u>				
	Water's Trucks			775-825-1595
	Alpine Septic		775-291-8711	530-577-7867
<u>Insurance Representative</u>				
	LP Insurance Services: Randy House			530-414-7979



Appendix B
Supporting Documents for OERP

Emergency Standard Operating Procedures Manual

Fleet Inventory

Spill Volume Estimation

Mainline Stoppage and Troubleshooting Procedure

Truckee Sanitary District
Standard Operating Procedures Manual



Emergency Procedures

Truckee Sanitary District Standard Operating Procedures Manual

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Introduction

Overview

Purpose of Manual

This Standard Operating Procedures (SOP) Manual identifies and defines the tasks carried out by the Truckee Sanitary District's faculty that carry out emergency procedures. It has been put together to provide step-by-step instruction for TSD's faculty members so that they are able to perform the tasks included in an efficient and consistent manner.

Scope of Manual

This SOP manual applies to Truckee Sanitary District's faculty who intend to carry out the tasks included in this manual.

Power Outage at a Small Lift Station

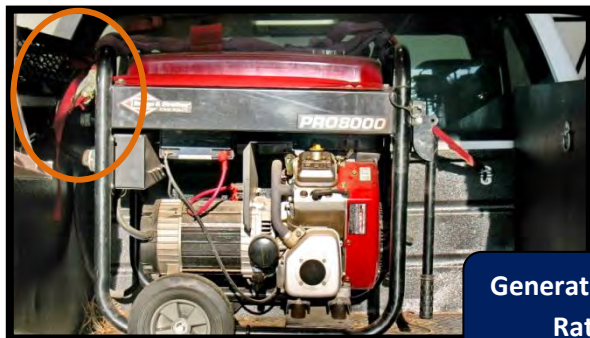
Auxiliary Generator Small Unit #2

Overview	
Personnel Required	1 minimum
Personal Protective Equipment (PPE)	General: <ul style="list-style-type: none"> • Traffic vest • Steel-toed boots • Hardhat • Safety gloves
Required Materials/Equipment	Minimum Equipment: <ul style="list-style-type: none"> • Unit #2 with Unit #2 portable generator
Safety Notes	N/A

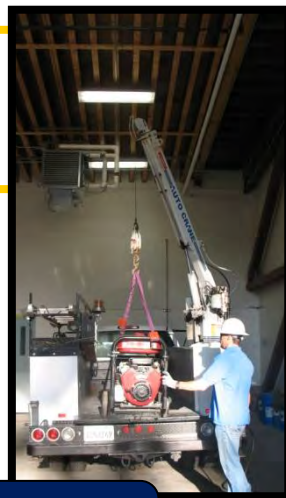
Auxiliary Generator Small Unit #2 Procedure

1

Load the generator into the front of the truck bed using the crane and then secure it with a ratchet strap



Generator Secured with Ratchet Strap



2

Check both the gas and oil levels and make sure the generator starts *before leaving the yard*

3

Upon arrival at the lift station, open the station control panel and turn the pumps off

Station Control Panel



Both should be in 'OFF' position

4

Move the control panel's power manual disconnect to the 'PORTABLE GEN' position



5

Plug in the auxiliary power cord (cord reel located on the truck's passenger side rear box) into the receptacle. [See photo](#)



6

Turn the reel circuit breaker to the 'ON' position



(Continued on Next Page)

7

Start auxiliary generator by following steps 7a-7c:

7a

Plug cord in to the generator

7b

Turn generator run switch to 'RUN' position

7c

Turn generator breaker switch to 'ON' position



8

Start the generator by pulling cord



(Continued on Next Page)

9

Turn one pump on to 'AUTO' until it turns off

NOTE: If additional time is needed, you can pump manually to a slightly lower level

IMPORTANT!

DO NOT PUMP SO LOW THAT THE PRESSURE GAUGE READS LESS THAN 10 INCHES [IN H₂O UNITS]. IT IS IMPORTANT TO REMAIN ABOVE 10 INCHES TO ALLOW FOR SUFFICIENT STORAGE, OTHERWISE YOU COULD CAVITATE THE PUMPS.

10

Turn auxiliary generator 'OFF'

11

Move the control panel's power manual disconnect switch back to the 'MAIN POWER' position



12

Lock the manual disconnect switch in position

13

Verify that pumps are set back to the 'AUTO' position on the HOA switches inside the station control panel



14

Lock the control panel

Power Outage at a Small Lift Station

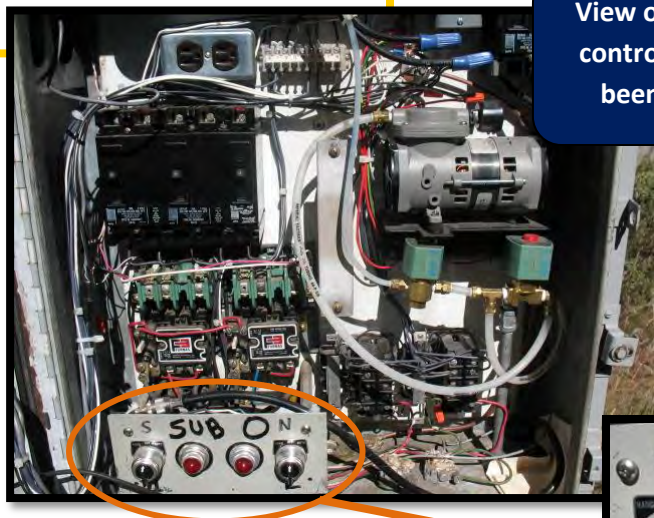
Auxiliary Generator Small Unit #39

Overview	
Personnel Required	1 minimum
Personal Protective Equipment (PPE)	General: <ul style="list-style-type: none"> • Traffic vest • Steel-toed boots • Hardhat • Ear plugs • Work gloves
Required Materials/Equipment	Minimum Equipment: <ul style="list-style-type: none"> • Unit #39
Safety Notes	N/A

Auxiliary Generator Small Unit #39 Procedure

1

Open the station's control panel and turn pumps off.



View once station control panel has been opened.



Hand-Off-Auto (HOA) Switch:
Turn knobs to 'OFF' position to turn pumps off.

2

Move the control panel's power manual disconnect to the 'PORTABLE GENERATOR' position.



3

Plug in the auxiliary power cord (cord reel located on the truck's passenger side rear box) into the receptacle. See photos to right.



Auxiliary Power Cord

4

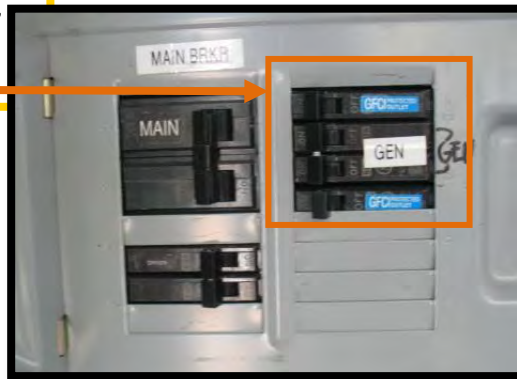
Located in the truck's passenger side rear box, pull out the crane and generator hand control and switch it to the 'GEN' position. See photo to the right.



Crane and
Generator Hand
Control

5

Verify that the breaker for the auxiliary cord reel is in the 'OFF' position. See photo to the right.



6

Start the truck's engine. Make sure the vehicle is running and in park—**set the E-brake**

7

Switch on **BOTH** PTO knobs (located near the steering wheel inside vehicle).



8

Now, move the auxiliary cord reel circuit breaker to the 'ON' position. See step 5 for picture reference.

9

Turn one pump on to auto until it turns off.

NOTE: If additional time is needed, you can pump manually to a slightly lower level.

IMPORTANT!

DO NOT PUMP SO LOW THAT THE PRESSURE GAUGE READS LESS THAN 10 INCHES [IN H₂O UNITS]. IT IS IMPORTANT TO REMAIN ABOVE 10 INCHES TO ALLOW FOR SUFFICIENT STORAGE, OTHERWISE YOU COULD CAVITATE THE PUMPS.

10

Now, turn the auxiliary cord reel circuit breaker to the 'OFF' position.
See step 5 for picture reference.

11

Turn the auxiliary generator to the 'OFF' position.

12

Move the control panel's power manual disconnect switch back to the 'MAIN POWER' position.



13

Properly lock-up the manual disconnect box before leaving the lift station site.

14

Verify that the pumps are set to 'AUTO' on the HOA switch.



15

Properly lock-up the control panel before leaving the lift station site.

Power Outage at a Large Lift Station

Auxiliary Generator Large

Overview	
Personnel Required	2 minimum
Personal Protective Equipment (PPE)	General: <ul style="list-style-type: none"> • Traffic vest • Steel-toed boots • Hardhat • Ear plugs • Work gloves
Required Materials/Equipment	Minimum Equipment: <ul style="list-style-type: none"> • ¾-ton pickup or vehicle of equivalent weight • A station portable generator as identified on the Portable Generator Chart
Safety Notes	N/A

Auxiliary Generator Large Procedure

1

Check both the oil and coolant levels and make sure the generator starts *before leaving the yard*

2

Hook up the generator to vehicle.

2a

Verify that the pintle hook engages.

Pintle
Hook

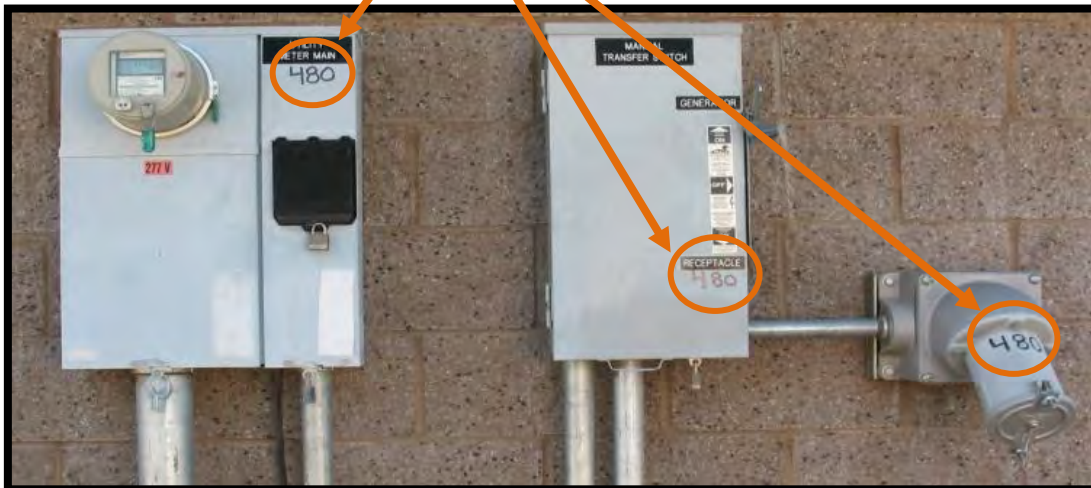
**2b**

Attach safety chains and connect light electrical plug.

Safety
Chains

3

Upon arrival at the lift station, verify the incoming power—will be labeled with the following voltages: either **240** or **480** (see photos below)



4

Turn pumps off by turning the knobs on the pump control panel to the 'OFF' position. (See photo)



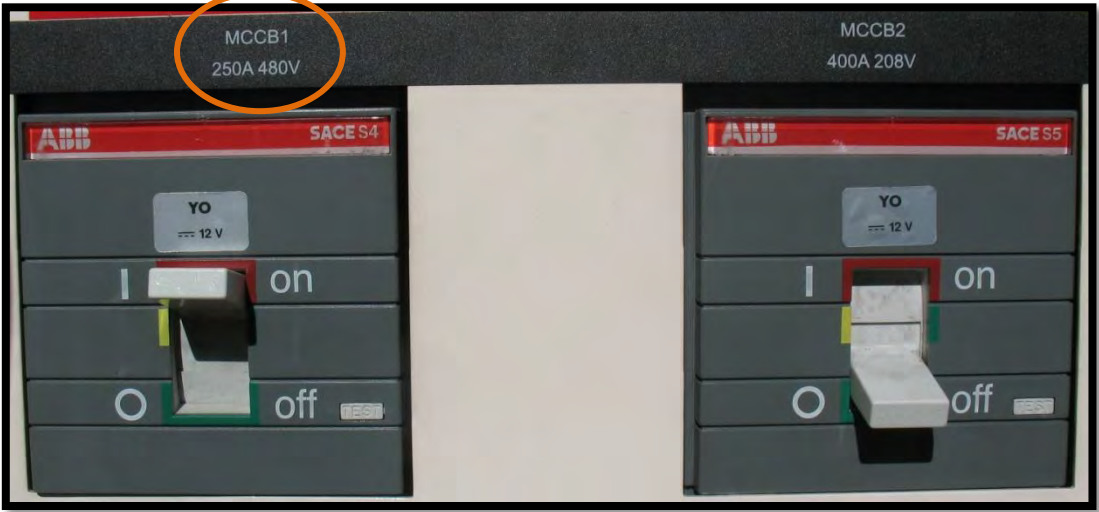
5

Turn the breaker (located on the portable generator) that matches the incoming voltage from the station that should have been verified in step #3 to the 'ON' position. (See photo below)

EXAMPLE:

Reads
480V

NOTE: You may need to adjust the voltage using the adjustment dial



(Continued on Next Page)

6

Plug the pigtail into the receptacle.



Receptacle



Pigtail



Pigtail plugged into
Receptacle

7

Turn the manual disconnect switch, located inside the lift station, to the 'Aux Gen' setting.

8

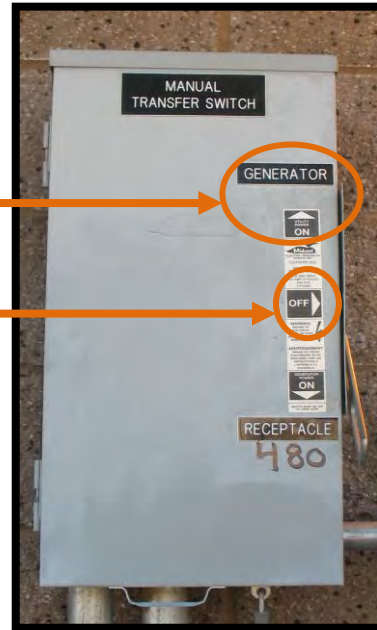
Verify that the generator breaker is in the 'OFF' position. (See photo to right)

9

Start the generator.

10

Switch the generator breaker to the 'ON' position.



11

Turn one pump to the 'HAND' position on the Hand-Off-Auto (HOA) switch and pump down wet well to the normal level.



12

Then, set the HOA switch to back to 'AUTO' position once the wet well has reached the normal level.



13

Once normal line power is back and verified:

- A. Turn off Generator breaker
- B. Let Generator run for 2 minutes in cool down mode
- C. Shut down Generator
- D. Remove pigtail/pin from receptacle/sleeve
- E. Wrap cord back up on Generator

14

Disconnect Auxiliary Generator from vehicle at the TSD vehicle storage building. To do this, disconnect all safety chains, the electrical plug, and pintle hook, **in that order**.

Lift Station Pumped Bypass

Bypass Station (Alder Creek and Schussing)

Overview	
Personnel Required	2 minimum
Personal Protective Equipment (PPE)	General: <ul style="list-style-type: none"> • Traffic vest • Steel-toed boots • Hardhat
Required Materials/Equipment	Minimum Equipment: <ul style="list-style-type: none"> • Unit #2 or Unit #39 • P-9 Pump • Wrenches • 2-inch valve key (can be found inside the station)
Safety Notes	Be careful when relieving pressure from the system

Bypass Station (Alder Creek) Procedure

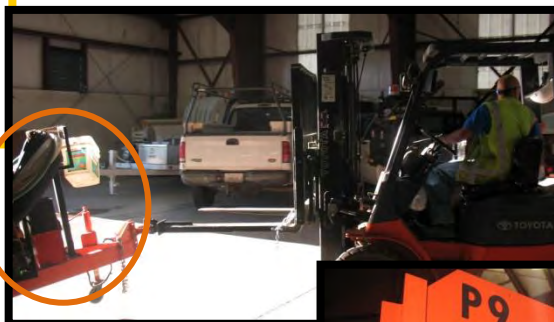
1

Make sure to check both the oil and coolant levels as well as test the pump to make sure that it starts *prior to leaving the vehicle storage building*

2

Haul pump out of vehicle storage building using a fork lift. **MAKE SURE TO USE ALDER/SCHUSS PUMP P9**

Pump P9



3

Hook up pump to the vehicle

3a

Verify that the pintle hook engages

3b

Attach safety chains and connect light electrical plug

4

Upon arrival at the lift station, place the pump near the wet well/overflow tank

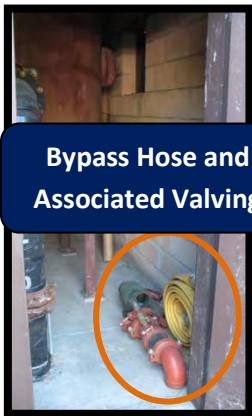
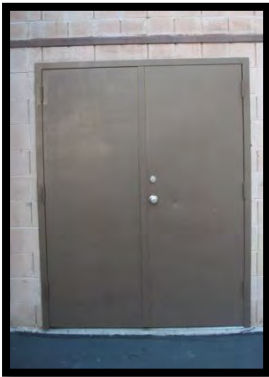
5

Turn off station pump



6

Obtain bypass hose and associated valving out of the surge tank storage building



Bypass Hose and Associated Valving

7

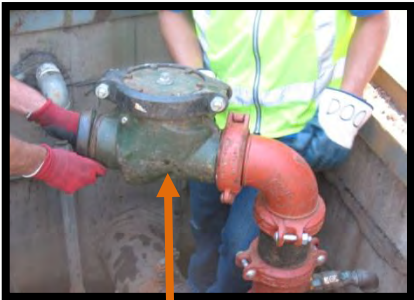
Open the single bypass port located on the exterior of the station



Bypass Port

8

Connect the steel extension, steel 90, and check valve to riser



Check Valve

Steel 90

9

Attach the bypass hose to the check valve

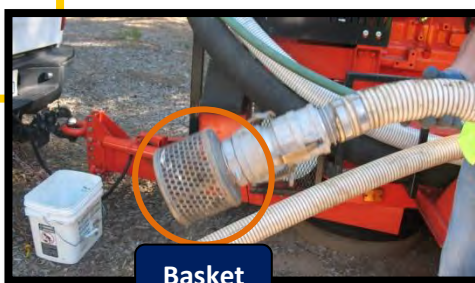
10

Connect the hose from the riser assembly to Pump P-9's discharge



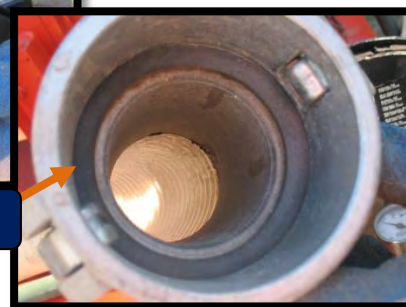
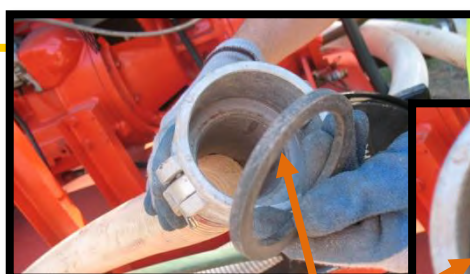
11

Attach basket to end of the pump discharge hose and drop basket into wet well/overflow tank



12

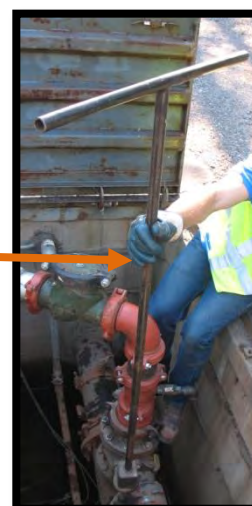
Check to make sure the end of the suction hose that connects to Pump P-9 has an "O" ring inside of it (see photo to right). Then, connect suction hose to Pump P-9



13

Open the isolation valve located on the single bypass port

NOTE: A 2-inch valve key is required to close the isolation valve—this key should be located inside the station.



14

The final setup should look like the photo below



15

Start Pump P-9

15a

Turn the key to start and be sure to push tattletail button at the same time.

15b

Adjust speed with the control knob.

16

Once Pump P-9 has been started, verify that flow is going through the pump

NOTE: If there is no flow, increase speed.

18

Once the operation is complete, close the riser valve

19

Turn on station pumps

20

Verify that the station pumps are operating properly

CAUTION:

The check valve assembly tied to the single bypass port will still have some pressure on it. Remove cautiously, and replace Victaulic cap on single bypass port.

21

Open the drain on Pump P-9 to relieve pressure.

22

Once pressure has been released, remove hoses. Make sure to drain hose into the wet well or containment structure

23

Store all items in proper location

24

Clean up all items as necessary

25

Close bypass port

26

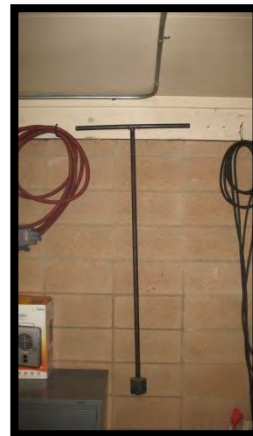
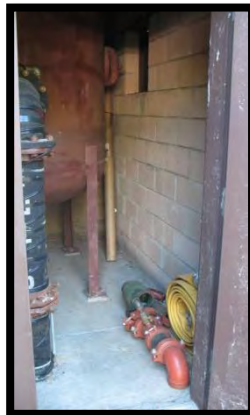
Clean overflow tank as required

27

Replace all lids and store pump back in Vehicle Maintenance Facility.

28

Refuel pump when finished with use

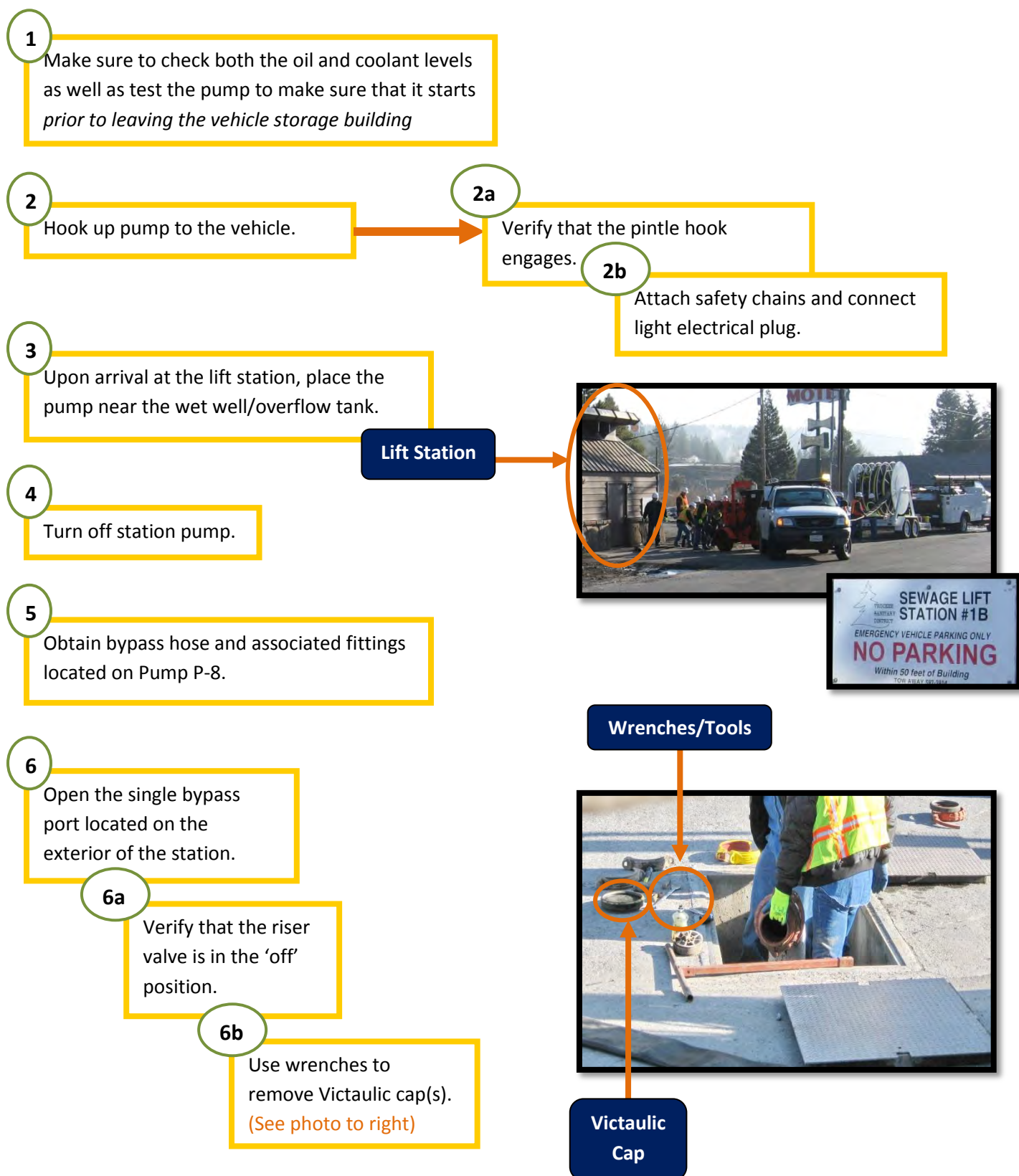


Lift Station Pumped Bypass

Bypass Station (All stations other than Alder Creek and Schussing)

Overview	
Personnel Required	2 minimum
Personal Protective Equipment (PPE)	General: <ul style="list-style-type: none"> • Traffic vest • Steel-toed boots • Hardhat • Rubber boots (bypass box could be flooded)
Required Materials/Equipment	Minimum Equipment: <ul style="list-style-type: none"> • Unit #2 or Unit #39 • P-8 Pump • Wrenches • 2-inch valve key (can be found inside the station) • 1 ¼" socket to remove Victaulic cap • Extra equipment stored in front of the pump on the floor which includes: <ul style="list-style-type: none"> ○ Blue hose clamp ○ Yellow 25' 6" discharge hose ○ 3 6" clamps ○ 8" Aluminum riser ○ Transition clamp for aluminum riser (CI to steel)
Safety Notes	Be careful when relieving pressure from the system.

Bypass Station (All Stations other than Alder Creek and Schussing) Procedure

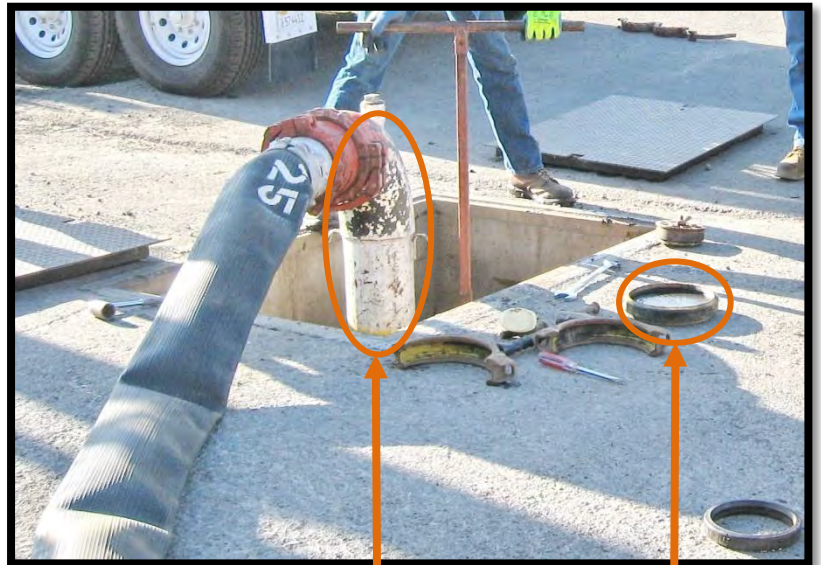


7

Connect the steel extension and steel 90 to the riser

8

Connect the hose from the riser assembly to Pump P-8's discharge.



Steel 90

Victaulic Cap

9

Connect suction hose to Pump P-8.
(See photo below)

NOTE: Make sure to check for gasket or O-ring on the suction hose before use



(Continued on Next Page)

10

Verify that the basket is on the bottom of discharge hose and drop into wet well/overflow tank

11

Open the isolation valve located on the single bypass port

NOTE: A 2-inch valve key is required to close the isolation valve—this key should be located inside the station

Valve
Key



12

Start Pump P-8

12a

Turn the key to start pump and be sure to push tattletail button at the same time.

12b

Adjust speed with the control knob.

13

Once Pump P-8 has been started, verify that flow is going through the pump

NOTE: If there is no flow, increase speed.

14

Pump wet well/overflow tank down, and then shut the pump off.

NOTE: Repeat as necessary.

15

Once the previous steps have been completed, close the isolation valve

16

Turn on the station pumps

17

Verify that the station pumps are operating properly

18

Open the drain on Pump P-8 to relieve pressure

19

Once pressure has been released, remove hoses. Be sure to drain into either the wet well (see photos to right) or containment structure

20

Store all items in their proper location

21

Clean up all items as necessary

22

Close bypass port

23

Clean overflow tank as required

24

Replace all lids and store the pump in its rightful place in the Vehicle Maintenance Facility

CAUTION:

The check valve assembly tied to the single bypass port will still have some pressure on it. Remove cautiously, and replace Victaulic cap on single bypass port.



Wet Well



Force Main Bypass

Force Main Bypass

Overview	
Personnel Required	6 minimum
Personal Protective Equipment (PPE)	General: <ul style="list-style-type: none"> • Traffic vest • Steel-toed boots • Hardhat
Required Materials/Equipment	Minimum Equipment: <ul style="list-style-type: none"> • Unit #2 or Unit #39 • ¾-ton pickup • Bypass Trailer T-2 • Portable communication devices
Safety Notes	Be cautious when removing Victaulic caps in bypass port

Force Main Bypass Procedure

1 Identify the location of the break and the bypass port section

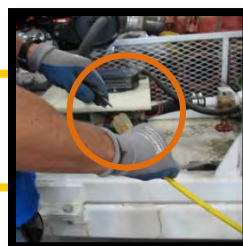
2 Turn the pumps, located on the force main, 'OFF'

3 **ONLY IF IT WILL NOT CAUSE AN ADDITIONAL SPILL**, send a crew out to close the middle valve on the double bypass ports isolating the broken section

4 Review the mapbook and determine the length of hose required to perform the bypass—Write this length down

5 *Before leaving the vehicle storage building, check to make sure all of the necessary equipment is working*

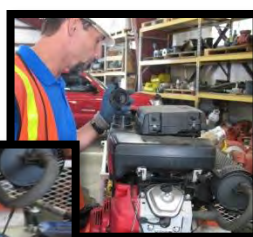
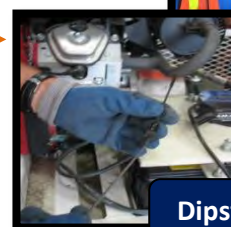
5a Unplug the battery charger. *See photo to the right*



5b Check the motor oil level—check both the tank and the dipstick

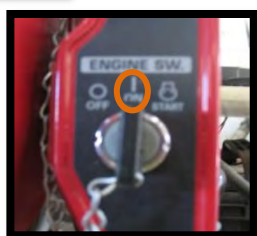


5c Check the hydraulic oil level



Dipstick

5d Turn the pump 'ON'



6

Hook up the hose reel to the trailer

6a

Verify that the pintle hook engages

Pintle Hook



6b

Attach safety chains and connect light electrical plug



Safety Chains and Electrical Plug

7

Pull up on site at one end of the bypass section

NOTE: Bypass port will be marked with post as in [photo to right](#)



Bypass Port

7a

Have the crew open the bypass port (see interior of bypass port in [photo to right](#)) at this end and remove the Victaulic caps on the riser port. Once removed, install the metal extensions with a 90, followed by a drain T and a drain/vent valve

NOTE: These parts are located on the bypass trailer T-2



Interior of Bypass Port

Victaulic Cap

8

Now, prepare to roll out the hose using the following procedure:

- Park vehicle with hose as shown in (See Photo A)
- One person will be dedicated to the hydraulic pump for off-wheeling (See Photo B)
- One person will be driving the truck that is towing the trailer (See Photo C)
- At least two people will be pulling the hose off of the trailer as the truck is slowly driven forward
 - Hook-up the yellow hose to the black hose (See Photo D) prior to roll-out

A



B

Hydraulic
Pump



Hydraulic
Pump Operator
Control Lever

C



D



9

Once the hose has been measured (measurement obtained from mapbook) and laid out on the ground so that one end is at the upstream bypass port and the other end is at the downstream bypass, connect the hose to the rise ports and verify that all connections have been made and are secure, connect the hose to the rise ports and verify that all connections have been properly made

See Photo E for individual parts and see Photo F for complete set-up visual

E



F



NOTE: The procedure for hose connection described in Step 9 is the same at both the upstream and downstream bypass ports and should be carried out at both ends.

10

If not already done, close the middle valves on the double bypass ports at both ends

(Continued on Next Page)

11

At the downstream end, “crack” the riser valve in order to charge the bypass hose. **At the same time** crack the upstream drain “T” valve to remove air from the hose

NOTE: DO NOT go too fast or the personnel upstream may “hammer” the system when they close their drain/vent valve

12

Once the bypass hose is charged, open the riser valve on the upstream side in order to get the flow moving

13

Now, turn on the pumps to perform the bypass; the repair may now be performed

14

Once the repair has been made, open the center valves on the double bypass port

15

Now, close the riser valves.

16

Determine the best way to dewater the pipe—it may be done by pumping, vactor, or pneumatic pumping

17

Once a technique for dewatering has been selected, use the drain/vent valve to dewater the bypass hose

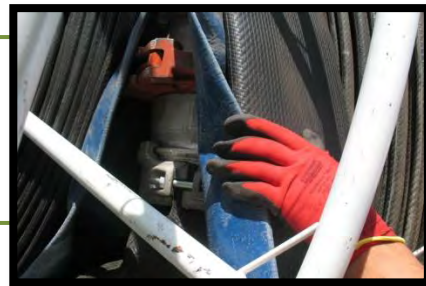
18

Now, disconnect the hose from the risers and roll it up onto the bypass trailer using the following procedure

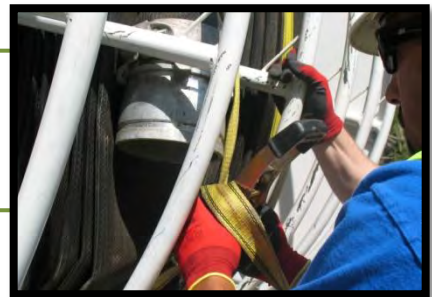
NOTE:

- One person will be dedicated to the hydraulic pump for off-wheeling
- One person will be driving the truck that is towing the trailer
- At least two people will be rolling the hose back up onto the trailer as the driver slowly drives in reverse

NOTE: Be sure to insert the blue protective sheet around the hose connection while rolling hose onto trailer to prevent rubbing that could cause damage to the hose



NOTE: Make sure that once the hose is rolled back up onto the bypass trailer that it is properly secured with straps

**19**

Now, disconnect the stand pipes, install caps, and return the associated fittings to the bypass trailer

20

Disinfect and clean all surfaces as needed

21

Close ports and return all equipment to the Vehicle Maintenance Facility

Gravity Main Bypass

Manhole to Manhole Bypass

Overview	
Personnel Required	6 minimum
Personal Protective Equipment (PPE)	General: <ul style="list-style-type: none"> • Traffic vest • Steel-toed boots • Hardhat • Safety gloves
Required Materials/Equipment	Minimum Equipment: <ul style="list-style-type: none"> • Unit #2 or Unit #39 • ¾-ton pickup • Bypass Trailer T-8 • Pipe plugs with portable air • Portable communication devices
Safety Notes	Working with a pressurized system so always be cautious and make sure all connections are secure.

Manhole to Manhole Bypass Procedure

1

Identify the location of the break and the size of the pipe.

2

ONLY IF IT WILL NOT CAUSE AN ADDITIONAL SPILL, send a crew out to plug the manhole upstream from the broken line

3

Review the mapbook and determine the length of hose required to perform the bypass—Write this length down

4

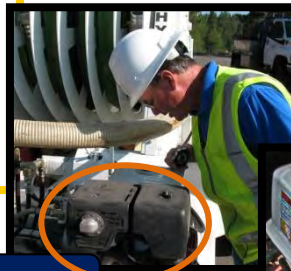
Before leaving the vehicle storage building, check to make sure that all of the necessary equipment is working properly

4a

Check the oil level of the hydraulic pump on the T-8 trailer—check both the tank and the dipstick. Also make sure the water jug is full. *Fill any and all of the above as needed*



Refill

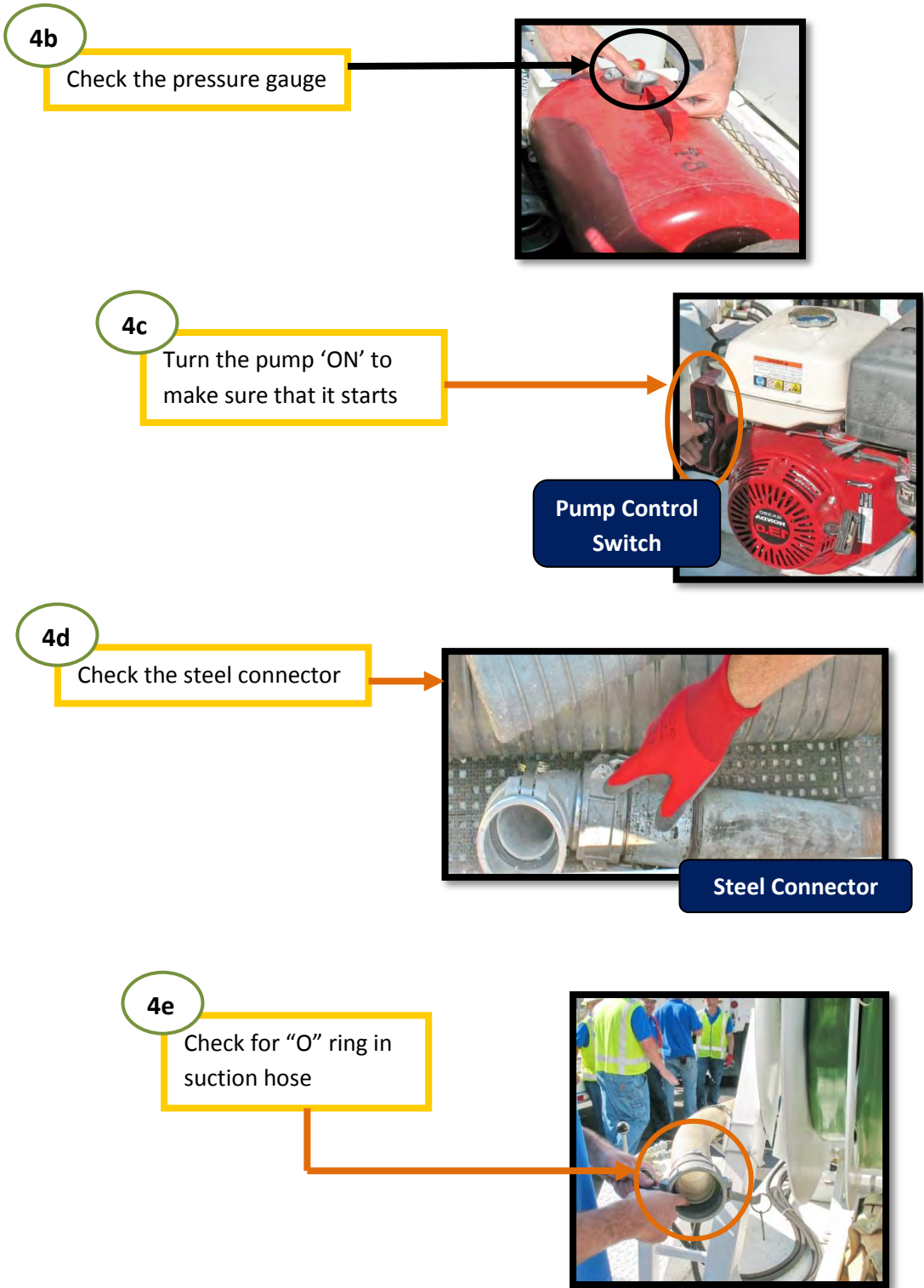


Gas Tank



Dipstick

(Continued on Next Page)



5

Hook up the pump to vehicle

5a

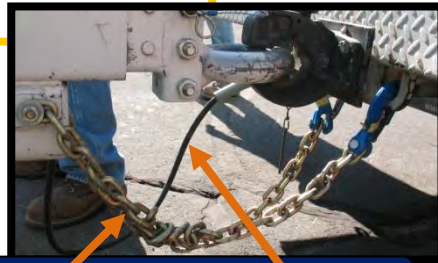
Verify that the pintle hook engages



Pintle Hook

5b

Attach safety chains and connect light electrical plug



Safety Chains and Electrical Plug

6

Measure the distance between the two manholes that the bypass is being performed on in order to determine the appropriate length of hose needed for the bypass—use the mapbook as a reference for this distance



Measuring distance between manholes with walking wheel

7

Pull-up vehicle onto the site at one end of the bypass section near the manhole

8

Now, prepare to roll out the hose using the following procedure:

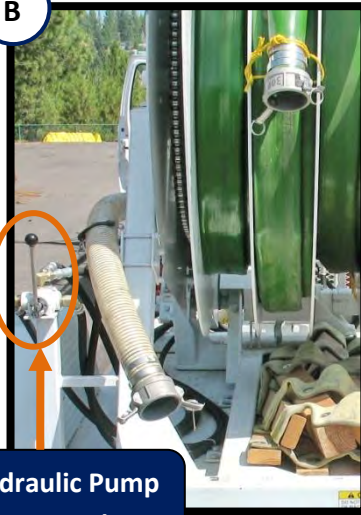
- Park vehicle with hose near the manhole (See Photo A)
- One person will be dedicated to the hydraulic pump for off-wheeling (See Photo B)
- One person will be driving the truck that is towing the trailer
- At least two people will be rolling the hose off of the trailer as the truck is slowly driven forward (See Photo C)

A



Manhole

B

Hydraulic Pump
Control

C



9

Take the trash pump off of the trailer



9a

Connect the hose to the pump discharge



9b

Connect the strainer to one end of the suction hose



9c

Connect the suction hose to the inlet



10

Connect a Steel 90 on the end of the downstream bypass hose if the velocity is expected to move the hose (this occurs when the velocity is at 100 gallons per minute [gpm] or greater). Secure the hose in location and keep someone there to monitor it



11

Install plug in the upstream manhole to create a "wet well"

Metal Rod

11a

In order to create the plug, first attach the black plug to the metal rod as shown in the [photo to the right](#)



Black Plug

11b

Then lower the plug attached to the metal rod down into the manhole as shown [photo to the right](#)



Manhole Plug

12

Start the bypass pump and dewater the manhole. Turn pump on and off as needed in order to keep up with the flow

13

The repair may now be performed

14

Once the repair has been made, dewater the manhole one more time and pull the plug

15

Disconnect the hose from the pump

16

Walk the hose end out to the downstream manhole so that it may be dewatered into the downstream manhole. See photo to right

17

Replace the lids on both manholes to close them up



18

Now, roll the hose back up onto the bypass trailer using the following procedure:

- One person will be dedicated to the hydraulic pump for off-wheeling
- One person will be driving the truck that is towing the trailer
- At least two people will be rolling the hose on the trailer

19

Remount the pump and the suction hose onto the T-8 Trailer

20

Disinfect and clean all surfaces as needed

21

Return all equipment to the Vehicle Maintenance Facility

TSD FLEET INVENTORY SUMMARY REPORT

Data in this report comes from the Equipment/Fleet/Fleet Module (Hourly cost comes from Work Flow Setup).
Report only includes operational equipment.

Thursday, December 19, 2013



Fleet ID	GBA ID	Description	Year	VIN	License #	Department	Operator	Hourly Cost
00001	19	U-01 Chevrolet Tahoe	2007	1GNFK13097J139447	1208002	Admin	Rebecca	9.75
00002	20	U-02 GMC 1 Ton Pickup-Utility Body w/Crane	2005	1GDKJ34205E293352	1157169	Lift Station	Jim	9.75
00003	21	U-03 Ford F-150 1/2 Ton Pickup	1999	1FTRF18WXXKA37981	1022937	Shop	John	9.75
00004	51	U-04 Chevrolet One Ton PU	2008	1GCHK346X8E191583	1267479	Construction	John	9.75
00005	23	U-05 GMC C-5500 Utility Truck	2007	1GDE5C3217F408385	1157220	Construction	John	19.75
00006	24	U-06 Ford F350 1 Ton Pickup	1999	1FTSF31S7XEB13532	E994943	Construction	John	9.75
00007	25	U-07 Chevy Tahoe	2004	1GNEK13T04R296593	1173117	Admin	Lee	9.75
00008	26	U-08 GMC 1/2 Ton Pickup	2004	1GTEK14T34Z217019	1157118	Inspections	Mike W	9.75
00009	27	U-09 GMC 1/2 Ton Pickup	2004	1GTEK14T34Z217070	1157119	Inspections	Steve G	9.75
00010	28	U-10 Caterpillar 938G Loader w/12 ft Blade	2005	CAT0938GVRTB01888	SE574409	Construction	John	87.82
00011	29	U-11 Ford Expedition	2003	1FMPU16L63LB79721	1112853	Lift Station	Raymond	9.75
00012	30	U-12 Ford Expedition	2003	1FMPU16L83LB79722	1112852	Admin	Sarah	9.75
00014	31	U-14 Ford F-150 1/2 Ton Pickup	1999	1FTRF18W8XKB72313	1026452	TV	Gordon	9.75
00015	32	U-15 Ford F-150 1/2 Ton Pickup	2002	1FTRF18WG2NB19102	1118414	Cleaning	Joe	9.75
00016	33	U-16 Ford F450, Dump Bed & Crane	1997	3FELF47G2VMA34071	E991875	Construction	John	22.50
00017	34	U-17 Ford F350 Cab/Chassis Truck & Utility Body	2000	1FDWF37S4YEA49276	1058575	Cleaning	Joe	9.75
00019	36	U-19 Volvo/Vactor Vacuum Cleaning Truck	1999	4VHJCMFP2XN866814	1029710	Cleaning	Joe	122.50
00020	37	U-20 CAT BACKHOE/Loader #430-D	2006	CAT0430DABNK07234	SE574410	Construction	John	48.56
00024	40	U-24 CAT 426B Backhoe/Loader	1995	6KL00780	E034109	Construction	John	48.56
00025	41	U-25 Mack Dumptruck	1996	1M2P267Y7TM025672	E034616	Construction	John	46.50
00026	43	U-26 Chevy TV Van	2006	1GBJK34D86E277637	1157228	TV	Gordon	141.25
00027	44	U-27 Ford F-150 1/2 Ton Pickup	2002	1FTRF18WX2NB19104	1118415	Inspections	Insp Extra	9.75
00028	45	U-28 Ford Expedition	2003	1FMPU16L43LB79720	1112851	Admin	Blake	9.75
00029	46	U-29 Ford F-150 1/2 Ton Pickup	2002	1FTRF18W82NB19103	1118416	Shop	John	9.75
00030	47	U-30 GMC 1/2 Ton Pickup	2004	1GTEK14T54Z215496	1157120	Lift Station	Jim	9.75
00031	48	U-31 Holder Tractor w/Zaugg Snowblower	2006	52410476H	SE574408	Construction	John	140.00
00033	49	U-33 GMC 5500 4x4 Truck w/PipeHunter Jet Rodder	2007	1GDE5C3977F424037	1260450	Cleaning	Joe	100.00
00034	54	U-34 2008 Chevy Silverado	2008	1GCHK34608E199854	1304580	Construction	John	9.75
00035	56	U-35 CAT Mini Excavator	2008	CAT3035CJDMY03098	N/A	Construction	John	29.41

TSD FLEET INVENTORY SUMMARY REPORT

Data in this report comes from the Equipment/Fleet/Fleet Module (Hourly cost comes from Work Flow Setup).
Report only includes operational equipment.

Thursday, December 19, 2013



Fleet ID	GBA ID	Description	Year	VIN	License #	Department	Operator	Hourly Cost
00036	57	U-36 CAT Small Loader	2008	CAT0277CHJWF01970	N/A	Construction	John	37.64
00037	58	U-37 GMC C5500 5-yd Dump Truck	2009	1GDG5C3939F412866	1265239	Construction	John	25.50
00038	77	U-38 Chevy Silverado 1/2 ton Pick-Up	2010	1GCPKPE06AZ199448	1329780	Lift Station	Jim	9.75
00039	78	U-39 Ford F550 4x4 Cab/Chassis/Crane	2011	1FDUF5HT5BEB25976	1343051	Lift Station	Jim	22.50
00040	82	U-40 Chevy C3500 TV VAN 4x4 Chasis	2012	1GCZGUCL3C1141109	1399787	TV	Gordon	141.25
00041	89	U-41 Freightliner/Vactor Vacuum Cleaning Truck	2013	1FVAC7CY7DDBV5558	1381453	Cleaning	Joe	122.50
C-1	2	Compressor - Ingersol/Rand 160 CFM	2008	5037392724	SE570985	Construction	John	17.20
G-06	3	Generator - Caterpillar-150kw	1983	CH4609	SE319989	Lift Station	Jim	40.50
G-10	4	Generator - Caterpillar - 75kw	1999	1K9BP142XWR153146	SE491670	Lift Station	Jim	28.50
G-11	6	Generator Onan 20DNAF/Glenshire Gen Shed/Sulfid	1999	CA972898	SE623258	Lift Station	Jim	28.50
G-13	5	Generator - Caterpillar - 60KW	2002	16MPF102X2D032852	SE574718	Lift Station	Jim	28.50
G-15	7	Generator - Caterpillar - 100 KW	2004	16MPF11274D037976	SE574411	Lift Station	Jim	28.50
P-8	8	Pump - Godwin 6"	1999	23274	SE491671	Lift Station	Jim	31.50
P-9	9	Pump - Godwin 3"	1998	23315	SE488741	Lift Station	Jim	31.50
SE-06	10	Crafco EZ Pour 50 (crack fill trailer)	2004	1C9EJ081941418212	E1157136	Construction	John	25.00
SE-08	11	Forklift - Toyota	2001	62236	N/A	Shop	Dave	30.00
T-1	12	Trailmax / Equipment Trailer	2001	1G9KS37221A065333	E1070554	Construction	John	11.45
T-12	80	T-12 Utility Equipment Trailer	2011	5UCPY2127CA001157	1343068	Construction	Lee	11.45
T-2	13	Bypass Trailer/Hose Reel System	2005	H1405018900000129	SE574412	Lift Station	Jim	20.00
T-5	15	Shoring Trailer - Brite	1992	1B9F14206N1031824	E915531	Construction	John	0.00
T-6	16	Airtest Trailer	1991	N/A	N/A	Cleaning	Joe	0.00
T-7	17	Sani Hut Toilet Trailer	1999	1F9FS1111XS222327	SE491672	Construction	John	20.00
T-8	18	Bypass Trailer/Hose Reel System (Martis Camp)	2007	1H9BU18117N500836	E570986	Lift Station	Jim	20.00

Methods for Estimating Spill Volume

A variety of approaches exist for estimating the volume of a sanitary sewer spill. This Appendix documents the three methods that are most often employed. The person preparing the estimate should use the method most appropriate to the sewer overflow in question and use the best information available.

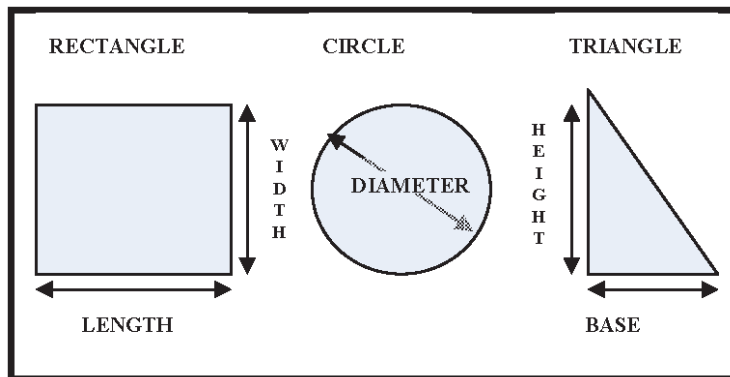
Method 1: Eyeball Estimate

The volume of small spills can be estimated using an “eyeball estimate”. To use this method imagine the amount of water that would spill from a bucket or a barrel. A bucket contains 5 gallons and a barrel contains 50 gallons. If the spill is larger than 50 gallons, try to break the standing water into barrels and then multiply by 50 gallons. This method is useful for contained spills up to approximately 200 gallons.

Method 2: Measured Volume

The volume of most small spills that have been contained can be estimated using this method. The shape, dimensions, and the depth of the contained wastewater are needed. The shape and dimensions are used to calculate the area of the spills and the depth is used to calculate the volume.

Common Shapes and Dimensions



- Step 1 Sketch the shape of the contained sewage (see figure above).
- Step 2 Measure or pace off the dimensions.
- Step 3 Measure the depth at several locations and select an average.
- Step 4 Convert the dimensions, including depth, to feet.
- Step 5 Calculate the area in square feet using the following formulas:
Rectangle: $\text{Area} = \text{length (feet)} \times \text{width (feet)}$
Circle: $\text{Area} = \text{diameter (feet)} \times \text{diameter (feet)} \times 0.785$
Triangle: $\text{Area} = \text{base (feet)} \times \text{height (feet)} \times 0.5$
- Step 6 Multiply the area (square feet) times the depth (in feet) to obtain the volume in cubic feet.
- Step 7 Multiply the volume in cubic feet by 7.5 to convert it to gallons

Method 3: Duration and Flowrate

Calculating the volume of larger spills, where it is difficult or impossible to measure the area and depth, requires a different approach. In this method, separate estimates are made of the duration of the spill and the flowrate. The methods of estimating duration and flowrate are:

Duration

The duration is the elapsed time from the time the spill started to the time that the flow was restored.

Start Time: The start time is sometimes difficult to establish. Here are some approaches:

1. Local residents can be used to establish start time. Inquire as to their observations.

Spills that occur in rights-of-way are usually observed and reported promptly. Spills that occur out of the public view can go on longer. Sometimes observations like odors or sounds (e.g. water running in a normally dry creek bed) can be used to estimate the start time.

2. Changes in flow on a downstream flowmeter can be used to establish the start time.

Typically the daily flow peaks are “cut off” or flattened by the loss of flow. This can be identified by comparing hourly flow data during the spill event with flow data from prior days. This method will likely only be effective with consistent weather.

3. Conditions at the spill site change over time and can be used to establish the start time. Initially there will be limited deposits of toilet paper and other sewage solids. After a few days to a week, the sewage solids form a light-colored residue. After a few weeks to a month, the sewage solids turn dark. The quantity of toilet paper and other materials of sewage origin increase over time. These observations can be used to estimate the start time in the absence of other information. Taking photographs to document the observations can be helpful if questions arise later in the process. This method is valid for spills that have been occurring for a long time and may be used in conjunction with either of the above methods.

4. It is important to remember that spills may not be continuous. Blockages are not usually complete (some flow continues). In this case the spill would occur during the peak flow periods (typically 10:00 to 12:00 and 13:00 to 16:00 each day). Spills that occur due to peak flows in excess of capacity will occur only during, and for a short period after, heavy rainfall.

End Time: The end time is usually much easier to establish. Field crews on-site observe the “blow down” that occurs when the blockage has been removed. The “blow down” can

also be observed in downstream flowmeters.

Flow Rate

The flowrate is the average flow that left the sewer system during the time of the spill.

There are three common ways to estimate the flowrate:

1. **The San Diego Manhole Flowrate Chart:** This chart, included as at the end of this appendix, shows sewage flowing from manhole covers at a variety of flowrates. The observations of the field crew can be used to select the appropriate flowrate from the chart. If possible, photographs are useful in documenting basis for the flowrate estimate.

2. **Flowmeter:** Changes in flows in downstream flowmeters can be used to estimate the flowrate during the spill.

3. **Counting Connections:** Once the location of the spill is known, the number of upstream connections can be determined from the sewer maps. Multiply the number of connections by 200 to 250 gallons per day per connection or 8 to 10 gallons per hour per connection.

For example: 22 upstream connections * 9 gallons per hour per connection
 = 198 gallons per hour / 60 minutes per hour
 = 3.3 gallons per minute

Spill Volume

Once duration and flowrate have been estimated, the volume of the spill is the product of duration (hours or days) and the flowrate (gallons per hour or gallons per day).

For example: Spill start time = 11:00
 Spill end time = 14:00
 Spill duration = 3 hours
 3.3 gallons per minute x 3 hours x 60 minutes per hour
 = 594 gallons



City of San Diego
Metropolitan Wastewater Department

**Reference Sheet for Estimating Sewer Spills
from Overflowing Sewer Manholes**

All estimates are calculated in gallons per minute (gpm)

Wastewater Collection Division
(619) 654-4160



5 gpm



25 gpm



50 gpm



100 gpm



150 gpm



200 gpm



225 gpm



250 gpm



275 gpm

All photos were taken during a demonstration using metered water from a hydrant in cooperation with the City of San Diego's Water Department.

rev. 4/99



MAINLINE STOPPAGE & TROUBLE SHOOTING PROCEDURE



Truckee Sanitary District
Updated May 2015

Prepared by



V.W. HOUSEN
& ASSOCIATES

The 6-Step Process for Mainline Stoppage

- Step 1:** If a mainline stoppage is reported **call for a Vactor** to respond to the location immediately.
- Step 2:** Proceed to the location of the reported stoppage and evaluate the situation. If it is a TSD problem, advise Vactor crew. If **not** a TSD problem contact other utility and advise them of the situation, and notify Vactor to cancel response.
- A.** Determine if the stoppage is creating an overflow at a manhole. If **YES**
1. Try to contain the overflow while waiting for the Vactor (make a berm, shovel out a pit, try to divert flow to a containment area)
 2. Use the vacuum to stop the overflow if possible. (low flow areas)
 3. Clean and vacuum line segment from downstream manhole using a penetrator nozzle to break through the stoppage.
 4. Continue to clean and vacuum until line is flowing normal.
 5. Notify admin on call personnel that a spill occurred or is ongoing.
 6. Televis the line if possible to identify **cause** of blockage.
- B.** If **NO** overflow is evident or overflow is from a private clean out, open upstream and downstream manholes to verify the line segment that is blocked.
1. Clean and vacuum the line segment from the downstream manhole using a penetrator nozzle to break through the stoppage.
 2. Continue to clean and vacuum until the line is flowing normal.
 3. Televis the line if possible to identify **cause** of blockage.
- Step 3:** Clean area contaminated by the overflow.
- A.** Rake or vacuum debris and remove from location.
- B.** Disinfect entire area with a bleach water solution. (Approximately 20% - 80%)
- Step 4:** Determine if any follow up work is needed and **issue ARF's** accordingly.
- Step 5:** Fill out a work order describing the work completed and the time, materials, labor, and equipment used on the job.
- Step 6:** If the work is determined to be reimbursable make sure the **WO** states this and is billed to the responsible party.

MAINLINE TROUBLE SHOOTING PROCEDURES

Vactor hose stuck in the line

- Step 1:** If the main line is flowing normal, call for a TV truck to verify what the nozzle is hanging up on or exactly what the problem is.
- Step 2:** Try bringing the hose back with the water off. (No pressure)
- Step 3:** Try working the nozzle back and forth at high pressure a little at a time.
- Step 4:** Give the hose some slack and then try pulling hard with the reel speed set to fast and no pressure. (Same with pressure)
- Step 5:** If the hose will still go out, try and run it to the next MH. Remove the skid and nozzle, and pull the hose back.
- Step 6:** Hook a chain to the hose and try to pull it out with another vehicle.
- Step 7:** Using the TV equipment, the hose footage, or locating equipment verify the location of the nozzle as close as possible.
- Step 8:** Dig the line up at the location where the nozzle is stuck and free the hose.
- Step 9:** If the truck has to be moved, cut the hose and proceed with “6” above. Excavate to remove the nozzle.

Blockage Impenetrable

- Step 1:** Make sure the forward jet on the penetrator nozzle isn't plugged.
- Step 2:** Try cleaning from both directions.
- Step 3:** TV the line to try and determine what is stopping the flow.
- Step 4:** Try to locate the exact spot of the impenetrable blockage.
- Step 5:** Excavate and remove the blockage.

Low Power or Pressure on Vactor hose

- Step 1:** Make sure only one water supply valve is open. (Check the body wash, hand gun, etc.)
- Step 2:** Make sure the hydraulic tool circuit is turned completely off.
- Step 3:** Check the filter screens by the pump and flush the drains at the bottom of the pump.



Appendix C
Supporting Documents for OERP

Water Quality Monitoring Program

Sample Warning Sign

TRUCKEE SANITARY DISTRICT WATER QUALITY MONITORING PROGRAM

INTRODUCTION

This Water Quality Monitoring Program provides the Truckee Sanitary District's (District) response activities and standard operating procedures to be utilized in the Overflow Emergency Response Plan (OERP), in the event a sanitary sewer overflow (SSO) exceeds 50,000 gallons. This program is reviewed periodically and may be updated as necessary.

State Water Resources Control Board Order No. WQ 2013-0058-EXEC, **Amending Monitoring And Reporting Program For Statewide General Waste Discharge Requirements For Sanitary Sewer Systems** (Effective September 9, 2013), requires the following:

SSO WDR Section D. Water Quality Monitoring Requirements

To comply with subsection D.7(v) of the SSS WDRs, the enrollee shall develop and implement an SSO Water Quality Monitoring Program to assess impacts from SSOs to surface waters in which 50,000 gallons or greater are spilled to surface waters. The SSO Water Quality Monitoring Program, shall, at a minimum:

1. Contain protocols for water quality monitoring.
2. Account for spill travel time in the surface water and scenarios where monitoring may not be possible (e.g. safety, access restrictions, etc.).
3. Require water quality analyses for ammonia and bacterial indicators to be performed by an accredited or certified laboratory.
4. Require monitoring instruments and devices used to implement the SSO Water Quality Monitoring Program to be properly maintained and calibrated, including any records to document maintenance and calibration, as necessary, to ensure their continued accuracy.
5. Within 48 hours of the enrollee becoming aware of the SSO, require water quality sampling for, at a minimum, the following constituents:
 - i. Ammonia
 - ii. Appropriate Bacterial indicator(s) per the applicable Basin Plan water quality objective or Regional Board direction which may include total and fecal coliform, enterococcus, and e-coli.

Additionally, for spills greater than 50,000 gallons, an SSO Technical Report is required and must be submitted within 45 calendar days from the SSO end date. The SSO Technical Report requirements are described in Element VI of the OERP.

SAFETY

Be aware of safety issues and do not subject personnel to unsafe conditions in order to comply with this Water Quality Monitoring Plan. Scenarios where monitoring may not be possible may include, but are not limited to, heavy rain/storm events where access points have been compromised, flooding around low level areas, or fast-moving water. Employ the buddy system as required to maximize employee safety when sample collection is required.

ESTIMATION OF SPILL TRAVEL TIME

The follow methods are recommended to estimate spill travel time and direction:

- Method-1; use a velocity probe if available to determine the rate of flow in the surface water or
- Method-2; take visual ft/sec measurement from above, based on floating debris, to estimate the number of feet the debris has traveled in seconds.

Either method will provide a means to estimate the distance traveled and identify where the SSO may be headed within the waterway.

WATER QUALITY SAMPLING PROCEDURES

- In the event an SSO reaches a surface water or (flowing) drainage channel tributary, take samples for spills less than 50,000 gallons as appropriate and within 48 hours for spills greater than 50,000 gallons. The purpose of water quality sampling is to determine the nature and extent of the impact of the SSO.
- When sampling an SSO, take a minimum of three separate sample sets as conditions allow. Water quality sampling should not be given precedence over stopping the spill or protection of public health.
- One sample shall be located approximately 100' upstream of the discharge location. The second sample shall be taken at the downstream location. A third sample shall be taken at the discharge location. Actual distances from the discharge location will depend on the nature of the SSO and must consider safety and access.
- Sample for Fecal Coliform and Ammonia as a minimum.
- Additional follow-up samples are recommended to confirm the extent that the impact reverts back to baseline levels. Follow-up samples may be used to determine if posting of warning signs should be discontinued (if signs were posted).
- Collaboration with the County Health Department should continue until closure is obtained.
- Take into account Spill Travel Time.

WATER QUALITY SAMPLING EQUIPMENT

The following list describes equipment that should be stocked and readily available for each water quality sampling event.

- Personnel protective equipment including latex/nitrile gloves and eye protection
- 3 – 120 mL sterile plastic containers for coliform analysis.
- 3 – 500 mL Poly containers preserved with H₂SO₄ for Ammonia analysis.
- 3 – sterile funnels
- 1 – Sample Collection Container
- Cooler with ice packs
- Chain of Custody forms

Ensure that there are adequate quantities of sample containers-kits if there are more than three sample locations.

WATER QUALITY SAMPLING PROCEDURE

1. Put on all required protective equipment including latex/nitrile gloves and eye protection
2. Use the 120 mL sterile container for coliform, and 120mL poly container for ammonia. Ammonia sample requires preservation with H₂SO₄.
3. Collect three sets of samples for each incident:
 - a. 100 feet upstream
 - b. 100 feet downstream
 - c. At the SSO entry point
4. Collect all grab samples approximately 3' - 6" below the surface (or if shallower, as close as possible to this depth) to avoid sampling debris or scum from the surface.
5. Collect the sample in a safe manner in the middle of the flow, against the direction of water flow.
6. Rinse the sample collection container.
7. Collect sample in sample collection container and photo-document the locations.
8. Transfer sample from sample collection container to individual sample bottle(s).
9. Leave approximately one inch of head space in individual sample bottles. Do not overfill.
10. Once the lid is opened for the individual sample bottle, do not touch the inside surface of the bottle or lid.
11. For the sample bottles that contain a preservative, take care to keep the preservation material in the container.
12. Immediately place all sample bottles on ice.
13. Complete Chain of Custody form and take samples to contracted environmental laboratory as described in the OERP.

Following are allowable hold times for the sample bottles:

- Ammonia - 28 days (preserved and cooled)
- Bacterial Indicator (enterococcus or fecal/total coliform) - 8 hours (preserved and cooled)

TSD Sample Warning Sign

