CHAPTER 5
OVERFLOW EMERGENCY RESPONSE PLAN

I. Notification Procedures

The District office is open 7am – 4pm daily (Monday through Friday). Customers or members of the general public can contact the District via phone or walk-in to report any sanitary sewer overflows (SSOs). Potential overflows are called out over the District's radio system to the Operations Manager or to the collections system operators. Radios are located in each vehicle and staff carry handheld radios when away from their vehicles. The wastewater operators also carry a District issued cell phone.

A wastewater staff person is dispatched to investigate the report and to verify that it is wastewater, THCSD's responsibility, ascertain where the overflow is originating, and to report back to the Operations Manager what equipment, materials, traffic control, and manpower will be needed to contain the spill, cleanup, and then proceed with restoring normal collection system flow. If minor repairs are needed, staff initiate work immediately.

If the repair is extensive and requires heavy equipment, then the District's field supervisor is contacted and a crew is assembled to respond.

After normal working hours and on weekends, customer calls are routed to the District pager of the "on-call" staff person scheduled for that particular day. The "on-call" staff will assess the situation and notify the Operations Manager as required.

II. Response

A. General

One staff member every day is assigned to respond to all potential overflows. The on-call employee carries a cell phone and is on standby 24 hours a day for both after hours and weekend coverage. In the event of a sewer call day or night someone immediately responds in the District service truck. The District service truck carries a sewer snake, hand tools and disinfectant that allows him to take care of the majority of calls. Should additional equipment and manpower be needed, he is authorized to call out other personnel as needed. Any time that there is an overflow of significant volume, a second employee is called to take the District vacuum truck for mitigation and clean up. Calls are tracked with written action requests.

After clearing a blockage in a sewer pipeline and cleanup of any mess, the action request form is filled out detailing the probable cause, measures taken to clear the line, cleanup required and any further work that should be performed as follow-up. To prevent reoccurrences of SSOs, a video inspection is conducted and, depending on the outcome, root treatments or flushing schedules may be modified to address the specific section of line.

B. Policy for Buildings Flooded with Sewage

In all cases when a customer states that their building has been flooded with sewage an investigation will be conducted by visual inspection.

In the course of the investigation it should be determined as to whether the flooding was due to the customer's private lateral or due to a backup in a District main line.

In all cases the customer should be supplied with a list of names of companies that will conduct restoration after flooding damage. No statement should be made as to responsibility or liability.

ServiceMaster 532-1700

AAA Wesco 532-9676

Coit 533-2773

In the case of a building flooded due to a backup in a District main line, a trained representative of the District will be called in to produce a report. The following is a listing of personnel to be called in the order as listed. Claim forms will be supplied by the trained representative. No statements should be made as to responsibility or liability.

Robb Perry

Fred Eldred

Scot Moody

If none of these persons can be contacted, make a written report of damages as noted through the visual inspection. Make sure that the customer understands the importance of expedient clean-up.

If there is excessive flooding that can be immediately mitigated by removal with the District vacuum equipment, this should be done as soon as possible after the blockage has been cleared.

In all cases, a sewer popper should be installed on a clean-out that is lower than the floor of the building, if available, to help prevent future flooding.

III. Reporting & Notification

On the morning following an overflow, a report given by the first responder and plans are made for follow-up measures if needed. More comprehensive cleaning of a line may be needed. If there is a repeat stoppage at a location within six months or less, a camera inspection is scheduled. If the camera cannot access the line, a locate and dig is arranged. Work orders are used for spot repairs or smaller jobs and larger scale repairs or replacements are treated as projects.

The lists of sewer stoppages and forms for each location are filed by system area in a binder. The monthly filing is used as a vehicle for flagging chronic problem areas for rehab, repair or replacement.

Notifications are made to the Region 5 RWQCB and the local Environmental Health Department when there are blockages that involve overflows. If receiving waters are impacted, there are more stringent clean-up measures taken that include sampling above and below the point of impact for bacteriological analysis and may require posting of the site and any public access points below the place impacted. The local Environmental Health Department works closely with THCSD in the event of any overflow to receiving water. Any overflows to receiving waters, in any amount, are called to the Office of Emergency Services within 24 hours of the event. See Figure 5-1 for SSO chain of communication and Appendix 5-A for reporting forms. Public notification is made through the District's General Manager, who is responsible for issuing press releases and public service announcements.

IV. Impact Mitigation

A. Containment

Containment of the spill and preventing it from reaching surface water is first priority. The District stocks wattles, sand bags, and visquine to blind off drainage inlets. Trucks also carry plugs in order to plug upstream manholes and to facilitate bypass pumping, as needed. Culverts can be plugged with plywood or by burying the inlet. Orange construction fencing is stored in our warehouse to be used to cordon off the affected area and restrict access. Signage is also available to warn the public of the public health risk.

In the event of an on-going overflow, staff is instructed to turnoff or delay operation of upstream sewer lift stations until bypass operations are in place. If the extent of the spill is great, the District may contact an outside hauler to assist in bypassing flows. The District does not maintain and on-call contract with haulers, but has a working relationship with several.

If remediation efforts span more than one day, District staff will check weather forecasts to make sure any rain events will not result in spreading
the contamination and that drainage facilities like DIs and culverts are restored to full operation prior to the storm.

Where applicable, District staff will instruct the property owner to turn off any sprinkler systems to minimize the potential for runoff.

B. Remediation

The vacuum truck is used when site access permits. The area is sprayed down with water and simultaneously vacuumed up.

Hand work such as mopping, raking, brooming, and shoveling are also used especially when the site is in the back of a house or on a cross country section of sewer.

The District utilizes chlorine or a product called Kitchen Kleen to disinfect the spill area. The active ingredients in Kitchen Kleen are n-Alkyl dimethyl benzyl ammonium chlorides 4.5% and dimethyl ethylbenzyl ammonium chlorides 4.5%. District staff mix 1 ounce of Kitchen Kleen per gallon of water.

Sometimes topsoil from on-site is used to cover the contaminated area and prevent exposure to the public. If quantities of onsite material are insufficient, the District has stockpiles of material that can be imported and spread over the affected area.

Contaminated green waste, such as leaves, grasses, and brush are collected and disposed of at the RWWTP.

C. Preparations for Rain

When there is a possibility of precipitation that could spread the contamination, the District will take measures to contain any potential storm water from migrating off of the site. Some of the measures may include:

- Blinding off drainage inlets or culverts
- Constructing dikes or berms to contain or re-channelize flows
- Covering the contaminated area with visquine

D. Testing of Receiving Waters

The District tests for fecal coliform to assess the extent of the contamination and also to verify that remediation work was effective. Initial testing is done within 24 hours of the event. Follow up testing is done within 48 hours of the event and on the 4th day. If positive test results are detected on the 4th day, sampling continues everyday thereafter, until negative results are achieved.

V. Preventative Measures

A. Site Access

Since part of the District's collection system is situated above the snowline, it is essential that roads be cleared and passable during storm events. Most of the District's collection system is within public rights-of-way which are plowed by Tuolumne County. The District also has the capability to mount a plow blade on the front of some of its service trucks. All service trucks carry chains.

During rainy weather, access roads can become muddy and inhibit passage of the flush trailer and vacuum truck. The District regularly maintains its easements (see Chapter 4 – Operations and Maintenance Plan). The District stockpiles base rock, drain rock, and other materials that can be placed quickly in order to restore a drivable surface.

In order to minimize response times, the hydro flush trailer and vacuum truck are always emptied at the end of the day and topped off with fuel so in the event of an emergency they will be ready to roll.

B. Power Generation

Power outages occur frequently in the winter time. Typically, power outages are localized and do not effect the entire service area. However, the District does own and operate 3 sewer lift stations and must be ready to service all of them during a prolonged power outage.

Most sites have a standby generator, an emergency overflow tank sump, or both. For sites that have neither, District staff is familiar with relative inflow rates into these facilities, as well as, sump capacities and have an idea of which sites are most vulnerable to an overflow. The SCADA system also has battery backup and will produce high alarms even when the power is out.

At sites with standby generators, diesel refueling is on a set schedule to ensure that tanks are always full. Diesel refueling is done by District staff. Fuel levels are monitored on a weekly basis.

The District also has a trailer mounted generator that is kept at the water plant.

C. Bypassing

When more than one site needs to be monitored and bypassed, the District will contract with a 3rd party hauler. Some of the local companies include:

1. All Septic Service: 586-1372
2. El Dorado Septic: 396-1650
3. Mother Lode Septic: 533-1950
4. Roto-Rooter: 532-3995 or 586-1047

D. Design Measures

New lift stations, or lift station remodels, are designed with emergency overflow sumps. The District currently does not have a standard for storage time or minimum volume; this is site specific. All pumping facilities are designed with float alarms and lead/lag pump redundancy. If a lag pump is not installed, a spare pump is stored at the District shop.

VI. Training

Staff receives regular training and/or certification in:

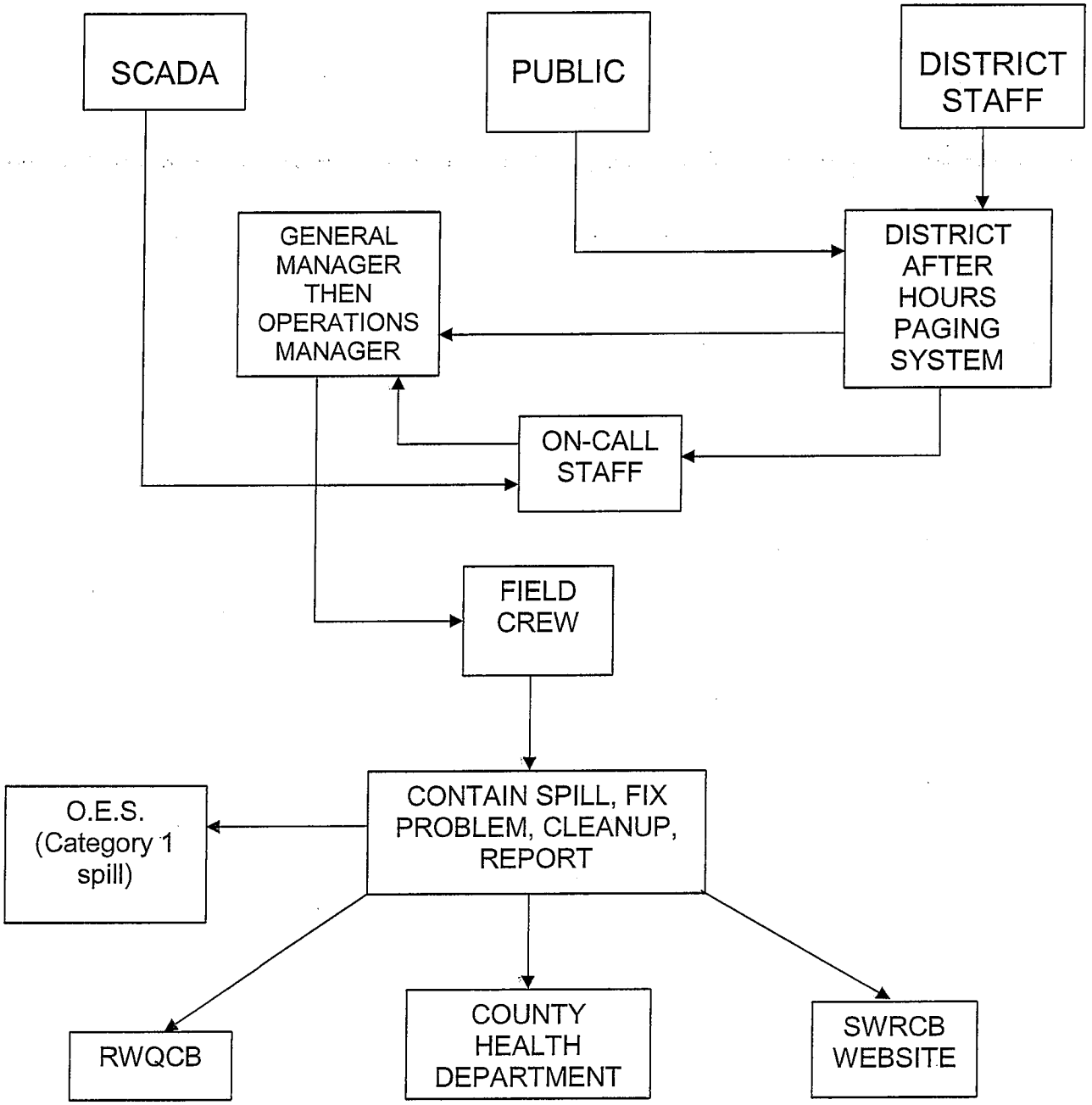
1. Confined space awareness
2. CPR and 1st Aid
3. Fire Extinguisher
4. Flagging and traffic control
5. Hazardous Materials Operations and Response
6. Use of Personal Protective Equipment
7. Sampling protocols for chlorine residual
8. Pulling and servicing pumps
9. Operation of vacuum and flush trailer
10. Operation of video inspection equipment

VII. Mutual Assistance Agreement

A mutual assistance agreement between the Tuolumne Utilities District, Jamestown Sanitary District, and Twain Harte Community Services District was executed in December 2007. The agreement outlines the procedures for requesting assistance and the conditions by which the parties involved may exchange materials, equipment, and personnel in order to respond to problems such as SSOs. A copy of this agreement is attached as Appendix 5-B.

FIGURE 5-1

SSO Chain of Communication



Appendix 5-A
SANITARY SEWER OVERFLOW (SSO) REPORT

Today's Date: _____ Time: _____ a.m./p.m. ▫ Call Out ☐ Normal Work Hours

LOCATION DETAILS _____

Street Name: _____

Street Direction: _____ Cross Street Name: _____

Street No.: _____

Longitude: _____ Map / Book / Page No: _____

Collection System: _____

County: Tuolumne State: California Zip Code: _____

Latitude _____ _____

City: _____ _____

Spill Location Description: _____

☐ **Lateral** ▫ **Main Line**

Sewer Line Entered Through: ▫ Manhole ▫ Clean out ▫ Other: _____

Responding Operators: _____

Number of Feet into Line Where Plug Was Located: _____

Number of Feet of Line Cleaned: _____

Amount of Time Spent Unplugging Line: _____

Equipment Used: _____

Describe Clean-up Action: _____

Where Did Failure Occur? ▫ Upper Lateral ☐ Lower Lateral ☐ Main Line

☐ Other (explain): _____

Explanation of Where Failure Occurred *(Required If Other Is Checked)*: _____

Was Spill Caused by Wet Weather: ☐ Yes ☐ No

Size of Pipe: _____ Type of Pipe: _____ Age of Pipe: _____

Description of Terrain: ▫ Flat ☐ Steep ▫ Mixed

☐ Other (explain): _____

Visual Inspection Results from Impacted Receiving Water: _____

Overall Spill Description: _____

Spill Response Activities: ☐ Restored Flow ▫ Return All or Portion to S.S.S. ▫ Cleaned Up Spill

☐ Contained All or Portion ☐ Inspection CCTV to Determine Cause

Explanation of Spill Response Activities *(Required If Response Is Other)*: _____

SPILL DETAILS

Spill Appearance Point: ❑ Building ❑ Force Main ❑ Gravity ❑ Pump Station
❑ Manhole _____ ❑ Clean Out _____ ❑ Other:

Spill Appearance Point Explanation *(Required If Appearance Point Is Other)*: _____

Did the Spill Discharge to a Drainage Channel and/or Surface Water? ❑ Yes ❑ No

Did the Spill Reach a Storm Drainpipe? ❑ Yes ❑ No

If Spill Reached a Storm Drainpipe, Was All of the Wastewater Fully Captured and Returned to the Sanitary Sewer System? ❑ Yes ❑ No

Private Lateral Spill? ❑ Yes ❑ No

Name of Responsible Party *(For Private Lateral Only, If Known)*: _____

Final Spill Destination: ❑ Beach ❑ Building or Structure ❑ Paved Surface ❑ Unpaved Surface
❑ Storm Drain _____ ❑ Surface Water _____ ❑ Other (explain):

Explanation of Final Spill Destination: _____

Estimated Spill Volume: _____ Gallons Estimated Volume of Spill Recovered: _____ Gallons

Estimated Current Rate *(If Applicable)*: _____ Gallons per Minute

Estimated Spill Start Date: _____ Start Time: _____ a.m./p.m.

Date and Time THCSD Was Notified of Spill: Date: _____ Time: _____ a.m./p.m.

Estimated Operator Arrival Date: _____ Time: _____ a.m./p.m.

Estimated End of Spill Date: _____ Time: _____ a.m./p.m.

Spill Cause: ❑ Debris ❑ Grease ❑ Roots ❑ Vandalism: _____

❑ Pipe / Structural Problem: _____

❑ Other: _____

Spill Cause Explanation *(Required If Other)*: _____

SAMPLE INFORMATION

Were Samples Taken? ❑ Yes ❑ No 2.

Locations *(Minimum of 3)*: 1. _____ _____
3. _____ 4. _____

Samples Taken: Date: _____ Time: _____ a.m./p.m.

NOTIFICATION DETAILS

RWQCB Called Date: _____ Time: _____ a.m./p.m.

RWQCB Faxed Date: _____ Time: _____ a.m./p.m.

CDPH Called Date: _____ Time: _____ a.m./p.m.

OES Control Number *(Required for Category 1 Spill)*: _____

OES Called Date: _____ Time: _____ a.m./p.m.

Co. Environmental Health Called: Date: _____ Time: _____ a.m./p.m.