

Spill Emergency Response Plan



Effective Date: 6/5/2023

Revised Date: 3/28/2024

Approved By: Brandon Rodriguez, PE

Signature:

Date:

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Appendix A - Spill Response Packet

Sanitary Sewer Spill Emergency Response Plan

(ref. State Water Resources Control Board [SWRCB] Order No. 2022-0103-DWQ, 5.12 Attachment D section 6)

Section 1 Purpose

The purpose of the City of Dixon's (City's) Spill Emergency Response Plan (SERP) is to support an orderly and effective response to sanitary sewer spills. The SERP provides guidelines for City personnel to follow in responding to, cleaning up, and reporting spills that may occur in the City's service area. This SERP satisfies the SWRCB Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WDRs), which require wastewater collection agencies to have an up to date SERP to ensure prompt detection and response to spills to reduce spill volumes and collect information for prevention of future spills.

Section 2 Policy

The City's employees are required to report all wastewater spills found and to take the appropriate action to secure the spill area, properly report to the appropriate regulatory agencies, relieve the cause of the spill, and ensure that the affected area is cleaned as soon as possible to minimize health hazards to the public, protect beneficial uses of waters of the State and protect the environment. The City's goal is to respond to sewer system spills as soon as possible following notification. The City will follow reporting procedures regarding sewer spills as set forth by the Central Valley Regional Water Quality Control Board and State Water Resources Control Board.

Section 3 Definitions in this Spill Emergency Response Plan

Annual Report: An Annual Report (previously termed as Collection System Questionnaire in Order 2006-0003-DWQ) is a mandatory report in which the Enrollee provides a calendar-year update of its efforts to prevent spills.

California Integrated Water Quality System (CIWQS): CIWQS is the statewide database that provides for mandatory electronic reporting as required in State and Regional Water Board-issued waste discharge requirements.

Beneficial uses: The term “Beneficial Uses” is a Water Code term, defined as the uses of the waters of the State that may be protected against water quality degradation. Examples of beneficial uses include but are not limited to, municipal, domestic, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

Drainage Conveyance System: A drainage conveyance system is a publicly- or privately-owned separate storm sewer system, including but not limited to drainage canals, channels, pipelines, pump stations, detention basins, infiltration basins/facilities, or other facilities constructed to transport stormwater and non-stormwater flows.

Enrollee: An Enrollee is a public, private, or other non-governmental entity that has obtained approval for regulatory coverage under this General Order, including:

- A state agency, municipality, special district, or other public entity that owns and/or operates one or more sanitary sewer systems:
 - greater than one (1) mile in length (each individual sanitary sewer system)
 - one mile or less in length where the State Water Resources Control Board or a Regional Water Quality Control Board requires regulatory coverage under this Order, or
- A federal agency, private company, or other non-governmental entity that owns and/or operates a sanitary sewer system of any size where the State Water Resources Control Board or a Regional Water Quality Control Board requires regulatory coverage under this Order in response to a history of spills, proximity to surface water, or other factors supporting regulatory coverage.

Exfiltration: Exfiltration is the underground exiting of sewage from a sanitary sewer system through cracks, offset or separated joints, or failed infrastructure due to corrosion or other factors.

FROG – Fats, Roots, Oils, and Grease: Fats, roots, oils, and grease (FROG) are typically associated with food preparation and cooking activities that can cause blockages in the sanitary sewer system.

Tree root invasion (R) presents an additional problem. If a mat of root hair forms in the sewer line, it slows the flow of wastewater and exacerbates the rate of accumulation of FROG materials.

General Order (Order): To provide a consistent, statewide regulatory approach to address sanitary sewer spills, the State Water Board adopted Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Sanitary Sewer Systems General Order) on December 6, 2022. The Sanitary Sewer Systems General Order requires public agencies that own or operate sanitary sewer systems to develop and implement sewer system management plans and report all sanitary sewer spills to the State Water Board's online California Integrated Water Quality System (CIWQS) Sanitary Sewer System Database.

Lateral (including Lower and Upper Lateral): A lateral is an underground segment of smaller diameter pipe that transports sewage from a customer's building or property (residential, commercial, or industrial) to the Enrollee's main sewer line in a street or easement. Upper and lower lateral boundary definitions are subject to local jurisdictional codes and ordinances, or private system ownership.

A lower lateral is the portion of the lateral located between the sanitary sewer system main, and either the property line, sewer clean out, curb line, established utility easement boundary, or other jurisdictional locations.

An upper lateral is the portion of the lateral from the property line, sewer clean out, curb line, established utility easement boundary, or other jurisdictional locations, to the building or property.

Legally Responsible Official (LRO): A Legally Responsible Official is an official representative, designated by the Enrollee, with authority to sign and certify submitted information and documents required by this General Order.

Mainline Sewer: The city wastewater sanitary sewer collection system piping that is not a private lateral connection to a user.

Maintenance Hole or Manhole: An engineered structure that is intended to provide access to a sanitary sewer for maintenance and inspection.

Nuisance: For the purpose of this General Order, a nuisance, as defined in Water Code section 13050(m), is anything that meets all of the following requirements:

- Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
- Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; and
- Occurs during, or as a result of, the treatment or disposal of waste.

Potential to Discharge, Potential Discharge: Potential to Discharge, or Potential Discharge, means any exiting of sewage from a sanitary sewer system which can reasonably be expected to discharge into a water of the State based on the size of the sewage spill, proximity to a drainage conveyance system, and the nature of the surrounding environment.

Private Sanitary Sewer System: A private sanitary sewer system is a sanitary sewer system of any size that is owned and/or operated by a private individual, company, corporation, or organization. A private sanitary sewer system may or may not connect into a publicly owned sanitary sewer system.

Private Lateral Sewage Discharges (PLSD): Sewage discharges that are caused by blockages or other problems within a privately owned lateral. In accordance with Dixon Municipal Code, Section 14.01 “Sewers”, laterals are privately owned and not the responsibility of the city.

Private Sewer Lateral: A private sewer lateral is the privately-owned lateral that transports sewage from private property(ies) into a sanitary sewer system.

Receiving Water: Receiving water is a water of the State that receives a discharge of waste.

Sanitary Sewer System: A sanitary sewer system is a system that is designed to convey sewage, including but not limited to, pipes, manholes, pump stations, siphons, wet wells, diversion structures and/or other pertinent infrastructure, upstream of a wastewater treatment plant headworks, including:

- Laterals owned and/or operated by the Enrollee;
- Satellite sewer systems; and/or
- Temporary conveyance and storage facilities, including but not limited to temporary piping, vaults, construction trenches, wet wells, impoundments, tanks, and diversion structures.

For the purpose of this Order, sanitary sewer systems include only systems owned and/or operated by the Enrollee.

Satellite Sewer System: A satellite sewer system is a portion of a sanitary sewer system owned or operated by a different owner than the owner of the downstream wastewater treatment facility ultimately treating the sewage.

Sensitive Area: Areas where a spill could result in a fish kill or pose an imminent or substantial danger to human health (e.g., parks, aquatic habitats)

Sewage: Sewage, and its associated wastewater, is untreated or partially treated domestic, municipal, commercial and/or industrial waste (including sewage sludge), and any mixture of these

wastes with inflow or infiltration of stormwater or groundwater, conveyed in a sanitary sewer system.

Sewer Service Lateral: The piping that conveys sewage from the building to the City's wastewater collection system. In accordance with Dixon Municipal Code, Section 14.01, laterals are privately owned and not the responsibility of the City.

Sewer System Management Plan: A sewer system management plan is a living document an Enrollee develops and implements to effectively manage its sanitary sewer system(s) in accordance with this General Order.

Spill: A spill is a discharge of sewage from any portion of a sanitary sewer system due to a sanitary sewer system overflow (SSO), operational failure, and/or infrastructure failure. Exfiltration of sewage is not considered to be a spill under this General Order if the exfiltrated sewage remains in the subsurface and does not reach a surface water of the State.

Training: Training is in-house or external education and guidance needed that provides the knowledge, skills, and abilities to comply with this General Order.

Untreated or Partially Treated Wastewater: Any volume of waste discharged from the sanitary sewer system upstream of a wastewater treatment plant headworks.

Wash Down Water: Wash down water is water used to clean a spill area.

Waste: Waste, as defined in Water Code section 13050(d), includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

Waters of the State: Waters of the State are surface waters or groundwater within boundaries of the state as defined in Water Code section 13050(e), in which the State and Regional Water Boards have authority to protect beneficial uses. Waters of the State include, but are not limited to, groundwater aquifers, surface waters, saline waters, natural washes and pools, wetlands, sloughs, and estuaries, regardless of flow or whether water exists during dry conditions. Waters of the State include waters of the United States.

Waters of the United State: Waters of the United States are surface waters or waterbodies that are subject to federal jurisdiction in accordance with the Clean Water Act.

Note: Wastewater backups into buildings or public rights-of-way caused by a blockage or other malfunction of a building lateral are not spills.

Spill Categories

Categories	Definitions
Category 1	<p>A Category 1 spill is a spill of any volume of sewage from or caused by a sanitary sewer system regulated under this General Order that results in a discharge to:</p> <ul style="list-style-type: none"> • A surface water, including a surface water body that contains no flow or volume of water; or • A drainage conveyance system that discharges to surface waters when the sewage is not fully captured and returned to the sanitary sewer system or disposed of properly. <p>Any spill volume not recovered from a drainage conveyance system is considered a discharge to surface water, unless the drainage conveyance system discharges to a dedicated stormwater infiltration basin or facility.</p> <p>A spill from an Enrollee-owned and/or operated lateral that discharges to a surface water is a Category 1 spill; the Enrollee shall report all Category 1 spills per section 3.1 of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of this General Order.</p>
Category 2	<p>A Category 2 spill is a spill of 1,000 gallons or greater, from or caused by a sanitary sewer system regulated under this General Order that does not discharge to a surface water.</p> <p>A spill of 1,000 gallons or greater that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system, is a Category 2 spill.</p>
Category 3	<p>A Category 3 spill is a spill of equal to or greater than 50 gallons and less than 1,000 gallons, from or caused by a sanitary sewer system regulated under this General Order that does not discharge to a surface water.</p> <p>A spill of equal to or greater than 50 gallons and less than 1,000 gallons, that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system is a Category 3 spill.</p>
Category 4	<p>A Category 4 spill is a spill of less than 50 gallons, from or caused by a sanitary sewer system regulated under this General Order that does not discharge to a surface water.</p> <p>A spill of less than 50 gallons that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system is a Category 4 spill.</p>
PLSD	<p>Within 24 hours of becoming aware of a spill (as described below) from a private sewer lateral or private sanitary sewer system that is not owned/operated by the Enrollee, the Enrollee is encouraged to report the following observations to the online CIWQS Sanitary Sewer System Database at the following link: https://ciwqs.waterboards.ca.gov:</p> <ul style="list-style-type: none"> • A spill equal or greater than 1,000 gallons that discharges (or has a potential to discharge) to a water of the State, or a drainage conveyance system that discharges to waters of the State; or • Any volume of sewage that discharges (or has a potential to discharge) to surface waters. <p>In the CIWQS module, the Enrollee is encouraged to identify:</p> <ul style="list-style-type: none"> • Time of observation; • Description of general spill location (for example, street name and cross street names); • Estimated volume of spill; • If known, general description of spill destination (for example, flowing into drainage channel, flowing directly into a creek, etc.); and • If known, name of private system owner/operator. <p>The CIWQS database will make the name and contact information of the entity voluntarily reporting a private spill, accessible to State and Regional Water Board staff only. The CIWQS database will only make information regarding the actual spill, accessible to the public.</p>

Section 4 State Regulatory Requirements for Element 6, Spill Emergency Response Plan

The Sewer System Management Plan (SSMP) must include an up to date Spill Emergency Response Plan (SERP) to ensure prompt detection and response to spills to reduce spill volumes and collect information for prevention of future spills. The Spill Emergency Response Plan must include procedures to:

- Notify primary responders, appropriate local officials, and appropriate regulatory agencies of a spill in a timely manner
- Notify other potentially affected entities (for example, health agencies, water suppliers, etc.) of spills that potentially affect public health or reach waters of the State
- Comply with the notification, monitoring and reporting requirements of this General Order, State law and regulations, and applicable Regional Water Board Orders
- Ensure that appropriate staff and contractors implement the Spill Emergency Response Plan and are appropriately trained
- Address emergency system operations, traffic control and other necessary response activities
- Contain a spill and prevent/minimize discharge to waters of the State or any drainage conveyance system
- Minimize and remediate public health impacts and adverse impacts on beneficial uses of waters of the State
- Remove sewage from the drainage conveyance system
- Clean the spill area and drainage conveyance system in a manner that does not inadvertently impact beneficial uses in the receiving waters
- Implement technologies, practices, equipment, and interagency coordination to expedite spill containment and recovery
- Implement pre-planned coordination and collaboration with storm drain agencies and other utility agencies/departments prior, during, and after a spill event
- Conduct post-spill assessments of spill response activities
- Document and report spill events as required in this General Order
- Annually, review and assess effectiveness of the Spill Emergency Response Plan, and update the Plan as needed

The SSMP, SERP, and critical supporting documents are available to the public at www.cityofdixon.us.

Section 5 **Goals**

The City's goals with respect to responding to Spills are as follows:

- Work safely
- Respond quickly to minimize the volume of the spill
- Eliminate the cause of the spill
- Prevent spills from entering the drainage conveyance system or waters of the state to the maximum extent practicable
- Contain the spill to the extent feasible
- Minimize public contact with the spill to the extent feasible
- Mitigate the impact of the spill to the extent feasible
- Fully document and meet the regulatory reporting requirements
- Evaluate the causes of failure related to spills through post-spill assessment
- Revise response procedures resulting from the debrief and failure analysis of certain spills

Section 6 **Spill Detection and Notification**

Processes to notify the City of the occurrence of a spill include observation by the public, receipt of an alarm, or observation by City staff or other public employees during the normal course of their work. Also reference General Order Attachment E1 “Notification, monitoring, reporting and recordkeeping requirements” and Attachment E2 “Summary of notification, monitoring and reporting requirements”.

6.1 Public Notification

Public observation is the most common way that the City is notified of spills. Contact numbers and information for reporting sewer spills and backups are in the phone book and on the City’s website: www.cityofdixon.us.

The City’s telephone number for reporting sewer problems during:

- business hours - **(707) 678-7030**
- non-business hours - **(707) 676-3156**

Business Hours

When a report of a sewer spill or backup is made during business hours, City staff receives the call, takes the information from the caller, and communicates it to the field staff.

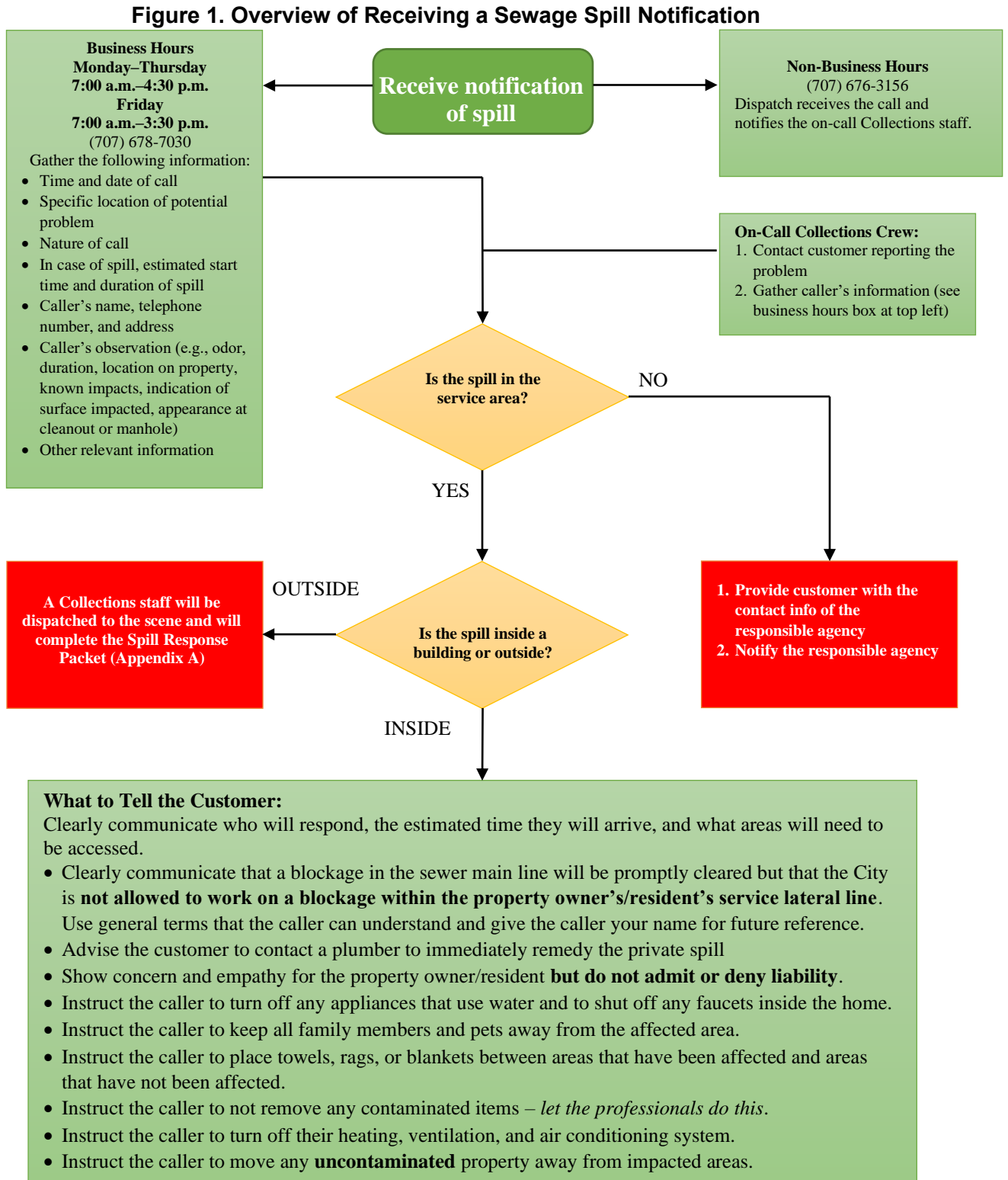
Non-Business Hours

Dispatch receives the call, takes the information from the caller, contacts the on-call city staff via cell phone, and communicates the necessary information to the on-call city staff.

When calls are received, either during business hours or non-business hours, the individual receiving the call will collect the following information:

- Time and date of call
- Specific location of potential spill
- Nature of call
- In case of spill, estimated start time and duration
- Caller’s name, telephone number, and address
- Caller’s observations (e.g., odor, duration, location on property, known impacts, indication if surface water impacted, appearance at cleanout or manhole)
- Other relevant information

Figure 1, Overview of Receiving a Sewage Spill or Backup Notification is an overview of the notification procedure regarding spills.



6.2 City Staff Observation

City staff conducts periodic inspections of its sewer system facilities as part of their routine activities. Any problems noted with the sewer system facilities are reported to appropriate City staff who, in turn, respond to emergency situations. Work orders are issued to correct non-emergency conditions.

6.3 Contractor Observation

The following procedures are to be followed if a contractor causes or witnesses a spill. If the contractor causes or witnesses a spill they will:

- Immediately notify the City by calling (707) 678-7030 during business hours or (707) 676-3156 during non-business hours
- Protect the public
- Protect drainage conveyance system
- Protect waters of the state
- Provide information, such as start time, appearance point(s), suspected cause, and weather conditions, to City staff
- Direct all media and public relations requests to the City Engineer/Director of Utilities

The Contractor Orientation section includes a handout for contractors with a flowchart of the above procedures.

6.4 Signage

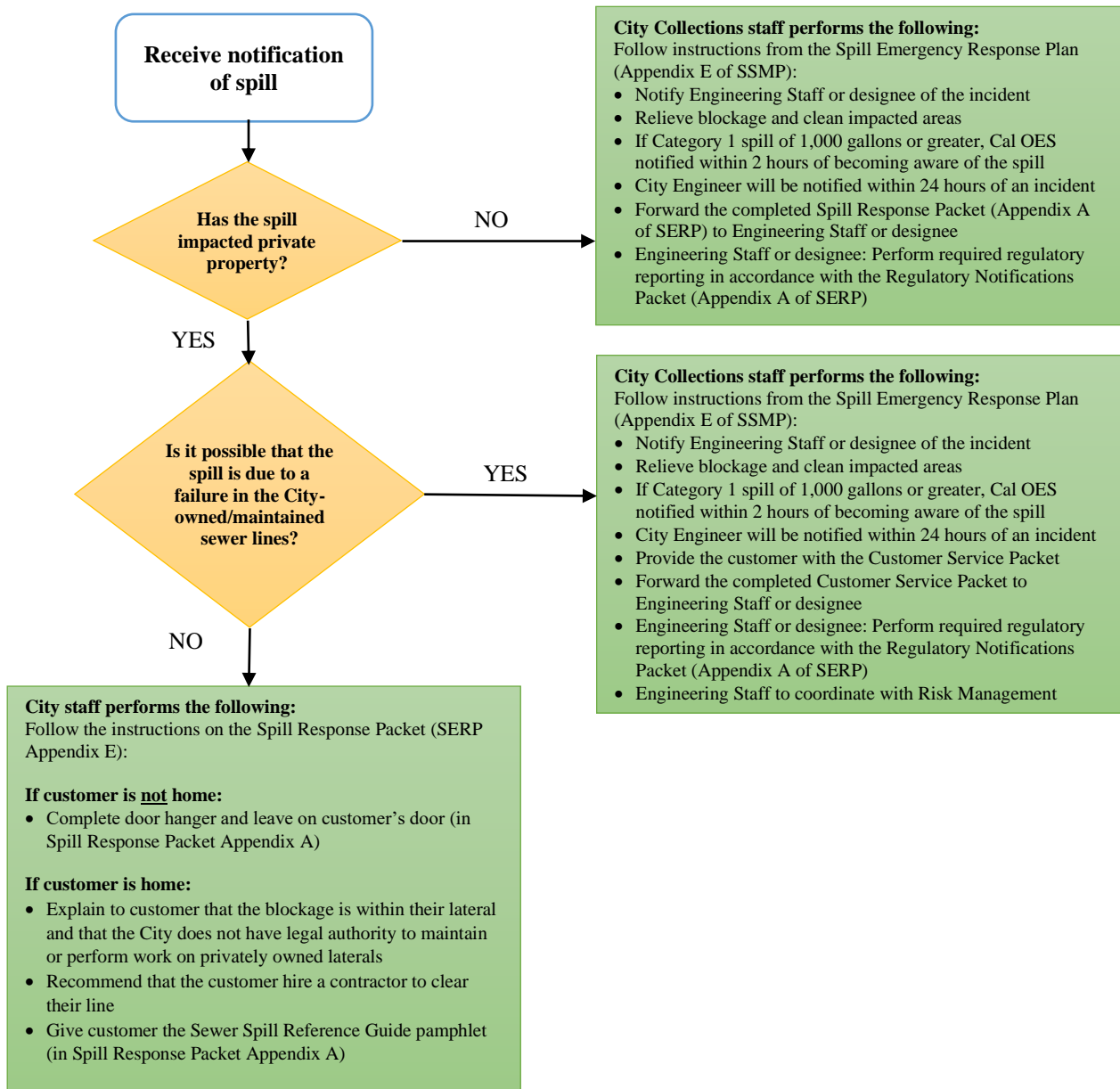
Signs will be posted, and barricades put in place to keep vehicles and pedestrians away from contact with spilled sewage. Follow County Environmental Health instructions and directions regarding placement and language of public warnings when directed. Additionally, the City Engineer will use their best judgment regarding supplemental sign placement to protect the public and local environment. Signs will not be removed until directed by County Environmental Health, City Engineer, or designee.

Section 7 Spill Response Procedures

7.1 Spill Response Summary

The City will respond to spills as soon as feasible following notification of a spill/backup or unauthorized discharge. The following Figure 2, Overview of Spill or Backup Response is an overview of the response activities.

Figure 2. Overview of Spill Response



7.2 First Responder Priorities

The following are the first responder's priorities:

- Follow safe work practices
- Respond promptly with the appropriate and necessary equipment
- Contain the spill wherever feasible
- Protect drainage conveyance system and waters of the State
- Restore flow as soon as practicable
- Minimize public access to and/or contact with the spilled sewage
- Promptly notify the City Engineer in the event of a major spill
- Return the spilled sewage to the sewer system
- Restore the area to its original condition (or as close as possible)
- Photograph and document areas affected and unaffected by the spill

7.3 Safety

The first responder is responsible for following safety procedures at all times. Special safety precautions are necessary when performing sewer work. There may be times when City personnel responding to a sewer system event are not familiar with potential safety hazards particular to sewer work. In such cases, it is appropriate to take the time to discuss safety issues, consider the order of work, and check safety equipment before starting the job. This includes use of gas monitoring detectors for air quality in manholes and traffic controls on the site.

7.4 Initial Response

The first responder must respond to the reporting party/problem site and visually check for potential sewer stoppages or spills.

The first responder will perform the following tasks:

- Note arrival time at the site of the spill
- Document site conditions upon arrival
- Verify the existence of a public sewer system spill
- Determine if the spill or blockage is from a public or private sewer
- Identify and assess the affected area and extent of the spill
- Contact caller if time permits
- Document conditions upon arrival with photographs
- Decide whether to proceed with clearing the blockage to restore the flow or initiate containment measures. Guidance for this decision is as follows:
 - Small spills (i.e., spills that are easily contained) – proceed with clearing the blockage

- Moderate or large spill where containment is anticipated to be simple – proceed with the containment measures
- Moderate or large spills where containment may be difficult – proceed with clearing the blockage; however, whenever deemed necessary, call for additional assistance and implement containment measures
- Take steps to contain the spill.

For detailed procedures refer to Appendix A, Spill Response Packet.

7.5 Initiate Spill Containment Measures

The first responder will attempt to contain as much of the spilled sewage as possible using the following steps:

- Determine the immediate destination of the spill
- Plug storm drains using air plugs, sandbags, and/or plastic mats to contain the spill, whenever appropriate. If spilled sewage has contacted the drainage conveyance system, attempt to contain the spilled sewage by plugging downstream storm drainage facilities.
- Contain/direct the spilled sewage using dike/dam or sandbags.
- Pump around the blockage/pipe failure.

For detailed procedures, refer to Appendix A.

7.6 Restore Flow

Using the appropriate cleaning equipment, set up downstream of the blockage and hydro-clean upstream from a clear manhole. Attempt to remove the blockage from the system and observe the flows to ensure that the blockage does not reoccur downstream. If the blockage cannot be cleared within a reasonable time from arrival or if the sewer requires construction repairs to restore flow, then initiate containment and/or bypass pumping. If assistance is required, immediately contact other employees, contractors, and equipment suppliers. For detailed procedures, refer to Appendix A.

7.7 Equipment

This section provides a list of specialized equipment and technology that is required to support this SERP. Standard operating procedures are stored with the equipment.

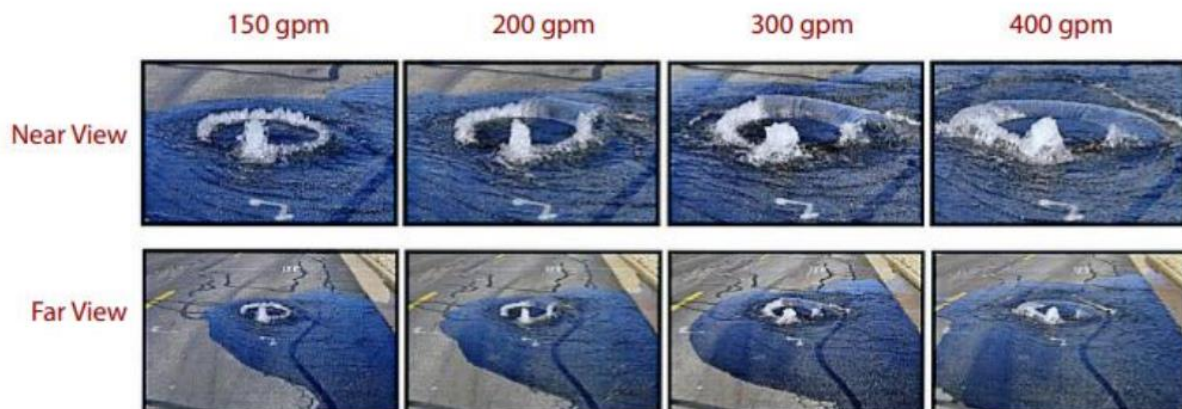
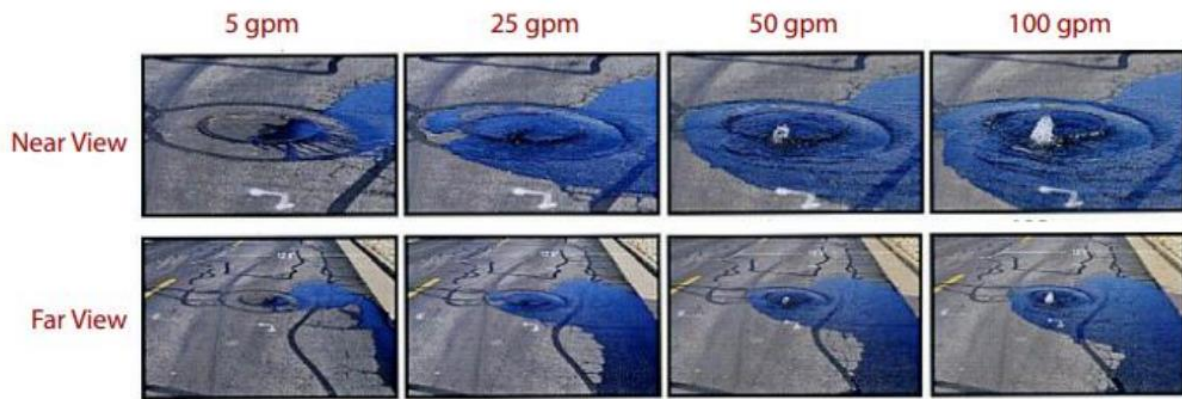
- **CCTV Inspection Unit** – A CCTV Inspection Unit is required to determine the root cause for all spills from gravity sewers.
- **Camera** – A digital camera and/or cell phone is required to record the conditions upon arrival, during cleanup, and upon departure.
- **Emergency response trucks** – A utility body pickup truck or open bed is required to store and transport the equipment needed to effectively respond to sewer emergencies. The equipment and tools will include containment and cleanup materials.

- **Portable generators, portable pumps, piping, and hoses** – This equipment will be used to bypass pump, divert, or power equipment to mitigate a spill.
- **Combination sewer cleaning trucks** – Combination high-velocity sewer cleaning trucks with vacuum tanks are required to clear blockages in gravity sewers, vacuum spilled sewage, and wash down the impacted area following the spill event.
- **Air plugs, sandbags, and plastic mats**
- **Spill sampling kits**
- **Portable lights**

7.8 Spill Volume Estimate

Use the methods outlined in the Spill Response Packet (Appendix A) or below guide to estimate the volume of the spilled sewage. Wherever possible, document the estimate using photographs and/or video of the spill site before and during the recovery operation.

Spill Volume Estimate Guide



Section 8 Recovery and Cleanup

8.1 Recovery of Spilled Sewage

Vacuum and/or pump the spilled sewage and rinse water and discharge it back into the sanitary sewer system.

8.2 Cleanup and Disinfection

Cleanup and disinfection procedures will be implemented to reduce the potential for human health issues and adverse environmental impacts that are associated with a spill event. The procedures described are for dry weather conditions and will be modified as required for wet weather conditions. Where cleanup is beyond the capabilities of City staff, a cleanup contractor will be used.

Private Property

City staff are responsible for cleanup when property damage is minor in nature and is outside private building dwellings, such as front, side, and backyards and easements. Private property cleanup will only occur if it has been determined that the source of the blockage is within the City main. In all other cases, affected property owners can call a water damage restoration contractor to complete the cleanup and restoration. If the spill into property is the definite cause of City system failure, the property owner can call a water damage restoration contractor to complete the cleanup and restoration. In all cases, City claim forms may be issued if requested by the property owners.

Hard Surface Areas

Collect all signs of sewage solids and sewage-related material either by protected hand or with the use of rakes and brooms. Wash down the affected area with clean water and non-toxic biodegradable surface disinfectant until the water runs clear. The flushing volume will be at least three times the estimated volume of the spill. Take reasonable steps to contain and vacuum the wastewater. Allow area to dry. Repeat the process if additional cleaning is required.

Landscaped and Unimproved Natural Vegetation

Collect all signs of sewage solids and sewage-related material either by protected hand or with the use of rakes and brooms. Wash down the affected area with clean water until the water runs clear. The flushing volume will be approximately three times the estimated volume of the spill. Either contain or vacuum the wash water so that none is released. Allow the area to dry. Repeat the process if additional cleaning is required.

Natural Waterways

The California Department of Fish and Wildlife will be notified by the California Governor's Office of Emergency Services for spills greater than or equal to 1,000 gallons.

Wet Weather Modifications

Omit flushing and sampling during heavy storm events (i.e., sheet of rainwater across paved surfaces) with heavy runoff where flushing is not required, and sampling will not provide meaningful results.

Section 9 Water Quality

The City does not have naturally occurring surface waters that a spill could drain to. In the City, the drainage conveyance system discharges to both private and city-maintained stormwater retention and detention ponds.

Section 10 Notification, Reporting, Monitoring, and Recordkeeping Requirements

In accordance with the General Order, the City maintains records for each spill. Records include the following:

- Spill event complaint, including but not limited to records documenting how the Enrollee responded to notifications of spills. Each complaint record must, at a minimum, include the following information:
 - Date, time, and method of notification,
 - Date and time the complainant first noticed the spill, if available,
 - Narrative description of the complaint, including any information the caller provided regarding whether the spill has reached surface waters or a drainage conveyance system, if available
 - Complainant's contact information, if available,
 - Final resolution of the complaint
- Records documenting the steps and/or remedial action(s) undertaken by the Enrollee, using all available information, to comply with this General Order, and previous General Order 2006-0003-DWQ as applicable
- Records documenting how estimate(s) of volume(s) and, if applicable, volume(s) of spill recovered were calculated
- All California Office of Emergency Services notification records, as applicable; and
- Records, in accordance with the Monitoring Requirements in General Order Attachment E1.

10.1 Regulatory Required Notification, Monitoring, and Reporting

Refer to General Order Attachment E1 “Notification, monitoring, reporting and recordkeeping requirements”. The following tables summarize the requirements.

Category 1 Spills

Spill Requirements	Due	Method
Notification	Within two (2) hours of the Enrollee’s knowledge of a Category 1 spill of 1,000 gallons or greater, discharging or threatening to discharge to surface waters: Notify the California Office of Emergency Services and obtain a notification control number.	California Office of Emergency Services at: (800) 852-7550 (Section 1 of Attachment E1)
Monitoring	<ul style="list-style-type: none"> • Conduct spill-specific monitoring; • Conduct water quality sampling of the receiving water within 18 hours of initial knowledge of spill of 50,000 gallons or greater to surface waters. 	(Section 2 of Attachment E1)
Reporting	<ul style="list-style-type: none"> • Submit Draft Spill Report within three (3) business days of the Enrollee’s knowledge of the spill; • Submit Certified Spill Report within 15 calendar days of the spill end date; • Submit Technical Report within 45 calendar days after the spill end date for a Category 1 spill in which 50,000 gallons or greater discharged to surface waters; and • Submit Amended Spill Report within 90 calendar days after the spill end date. 	(Section 3.1 of Attachment E1)

Category 2 Spills

Spill Requirements	Due	Method
Notification	Within two (2) hours of the Enrollee’s knowledge of a Category 2 spill of 1,000 gallons or greater, discharging or threatening to discharge to waters of the State: Notify California Office of Emergency Services and obtain a notification control number.	California Office of Emergency Services at: (800) 852-7550 (Section 1 of Attachment E1)
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	<ul style="list-style-type: none"> • Submit Draft Spill Report within three (3) business days of the Enrollee’s knowledge of the spill; • Submit Certified Spill Report within 15 calendar days of the spill end date; and • Submit Amended Spill Report within 90 calendar days after the spill end date. 	(Section 3.2 of Attachment E1)

Category 3 Spills

Spill Requirements	Due	Method
Notification	Not Applicable	Not Applicable
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	<ul style="list-style-type: none"> • Submit monthly Certified Spill Report to the online CIWQS Sanitary Sewer System Database within 30 calendar days after the end of the month in which the spills occur; and • Submit Amended Spill Reports within 90 calendar days after the Certified Spill Report due date. 	(Section 3.3 and 3.5 of Attachment E1)

Category 4 Spills

Spill Requirements	Due	Method
Notification	Not Applicable	Not Applicable
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	<ul style="list-style-type: none"> • If, during any calendar month, Category 4 spills occur, certify monthly, the estimated total spill volume exiting the sanitary sewer system, and the total number of all Category 4 spills into the online CIWQS Sanitary Sewer System Database, within 30 days after the end of the calendar month in which the spills occurred. • Upload and certify a report, in an acceptable digital format, of all Category 4 spills to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occur. 	(Section 3.4, 3.6, 3.7 and 4.4 of Attachment E1)

If the CIWQS Online spill Database is not available, the City Engineer will notify the SWRCB by phone in accordance with the time schedules identified above. In such an event, the City will submit the appropriate reports using the CIWQS Online spill 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 spill file.

The City always has at least one legally responsible official. Any change in the LROs, including deactivation or a change to contact information, will be submitted to the SWRCB within 30 days of the change by calling (866) 792-4977 or emailing ciwqs@waterboards.ca.gov.

10.2 Complaint Records

The City maintains records of all complaints received whether or not they result in spills. These complaint records include the following:

- Date, time, and method of notification
- Date and time the complainant or informant first noticed the spill or occurrence related to the call
- Narrative description describing the complaint
- A statement from the complainant or informant, if they know, of whether or not the potential spill may have reached waters of the state
- Name, address, and contact telephone number of the complainant or informant reporting the potential spill (if not reported anonymously)
- Follow-up return contact information for each complaint received (if not reported anonymously)
- Final resolution of the complaint with the original complainant
- Work service request information used to document all feasible and remedial actions taken

All service call requests are logged into an Excel spreadsheet and stored on a network drive showing caller, date, issue, and outcome. Service call requests will transition from being stored on network drive to computerized maintenance management system when the system is operational. If the call is a spill, the Spill Response Packet (Appendix A) is completed. If the call is not a spill the City Incident Report is completed. If the call is a PLSD, the PLSD form is completed (Appendix A).

All complaint records will be maintained for a minimum of 5 years whether or not they result in a spill. Spill records are kept under the direction and control of the City Engineer.

Section 11 Post-spill Assessment

Every spill event is an opportunity to evaluate the City response and reporting procedures. Each spill event is unique with its own elements and challenges, including volume, cause, location, terrain, climate, and other parameters.

As soon as possible after Category 1 and Category 2 spill events, all participants, from the person who received the call to the last person to leave the site, will meet to review the procedures used and to discuss what worked and where improvements could be made in preventing or responding to and mitigating future spill events. The results of the debriefing will be documented and tracked to ensure the action items are completed as scheduled. The documented results are kept with spill reporting documentation.

Section 12 Failure Analysis Investigation

The objective of the failure analysis investigation is to determine the “root cause” of the spill and to identify corrective actions needed that will reduce or eliminate future potential for the spill to recur or for other spills to occur.

The investigation will include reviewing all relevant data to determine appropriate corrective actions for the line segment. The investigation will include the following:

- Reviewing and completing the Spill Response Packet (Appendix A) and any other documents related to the incident
- Reviewing the incident timeline and other documentation regarding the incident
- Reviewing communications with the reporting party and witness
- Reviewing volume estimate, volume recovered estimate, volume estimation assumptions, and associated drawings
- Reviewing available photographs
- Interviewing staff that responded to the spill
- Reviewing past maintenance records
- Reviewing past CCTV records
- Conducting a CCTV inspection to determine the condition of all line segments immediately following the spill and reviewing the video and logs
- Reviewing any FROG-related information or results
- Posting spill debrief records
- Interviewing the public at the spill location

The product of the failure analysis investigation will be the determination of the root cause and the identification and scheduling of the corrective actions. The Collection System Failure Analysis Form (in Appendix A) will be used to document the investigation and will be stored with spill reports.

Section 13 Spill Response Training

This section provides information on the training required to support this SERP.

13.1 Initial and Annual Refresher Training

All City personnel responsible for responding to, reporting, and/or mitigating a spill will receive training on the contents of this SERP. All new employees will receive training before they are placed in a position where they may have to respond. Current employees will receive annual refresher training on this plan and the procedures to be followed. The City will document all training.

Affected employees will receive annual training on the following topics by knowledgeable trainers:

- The City's SERP and SSMP
- spill volume estimation techniques
- Researching and documenting spill start times
- Impacted surface waters: response procedures
- SWRCB employee knowledge expectations
- Employee core competency evaluations on spills
- Water Quality Sampling Plan

The City will verify that annual safety training requirements are current for each employee and that employees are competent in the performance of all core competencies. This will be verified through testing, interviews, and observations. The City will address, through additional training/instruction, any identified gaps in required core competencies.

Through SWRCB Employee Knowledge Expectations training, employees will be able to answer the following:

1. Please briefly describe your name and job title.
2. Please describe for us approximately when you started in this field and how long you have worked for your agency.
3. Please expand on your current position, duties and role in responding in the field to any spill complaints.
4. Please describe your standard operating procedures used to respond/mitigate spills when they occur.
5. Describe any training your agency provides or sends you to for conducting spill volume estimates.
6. Historically, before any recent changes, can you please walk us through how you would typically receive and respond to any spill complaints in the field?

7. Can you tell us who is responsible for estimating spill volumes discharged? If it is you, please describe how you go about estimating the spill volume that you record on the work order/service request forms?
8. What other information do you collect or record other than what is written on the work order form?
9. We understand you may be instructed to take pictures of some sewer spills/backups into structures. Other than these spills, when else would you typically take any pictures of a spill?
10. Please walk us through anything else you would like to add to help us better understand how your field staff respond and mitigate spill complaints.

13.2 Spill Response Drills

Periodic training drills or field exercises will be held once per year to ensure that employees are up to date on these procedures, equipment is in working order, and required materials are readily available. Supervisors will keep records of training drills and field exercises. The training drills will cover scenarios typically observed during sewer related emergencies (e.g., mainline blockage, mainline failure, and lateral blockage). The results and the observations during the drills will be recorded, and action items will be tracked to ensure completion.

13.3 Spill Training Record Keeping

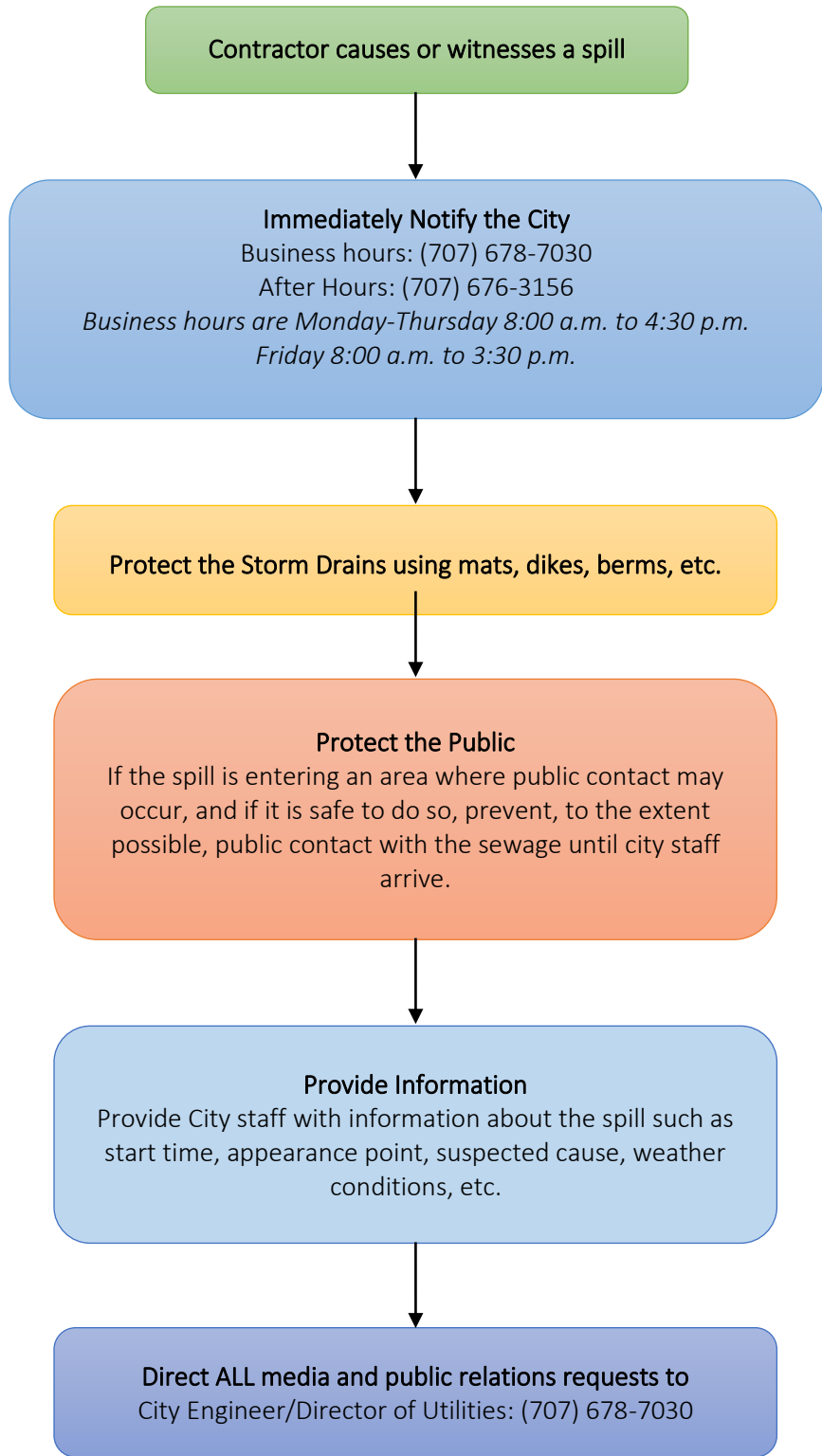
Records will be kept, by the supervisor, of all training that is provided in support of this SERP. The records for all scheduled training courses and for each spill emergency response training event will include date, time, place, content, name of trainers, and names and titles of attendees.

13.4 Contractors Working on City Sewer Facilities

All construction contractors working on City sewer facilities will be required to develop a project-specific SERP, provide project personnel with training regarding the content of the contractor's SERP and their role in the event of a spill, and follow the SERP in the event that they cause or observe a spill. Emergency response procedures shall be discussed at project pre-construction meetings, regular project meetings, and after any contractor involved incidents. Records of these items will be kept with the spill records.

13.5 Contractor Orientation

The following procedures are to be followed if you cause or witness a spill.



Spills

How to avoid them and what to do if you don't

What?

A spill is a discharge of sewage from any portion of a sanitary sewer system due to a sanitary sewer system overflow (SSO), operational failure, and/or infrastructure failure.

Where?

Spills usually occur through manholes, plumbing fixtures and service cleanouts.

Why?

Spills are usually caused by grease, debris, root balls, or personal hygiene products blocking the sewer lines, or by unusually high flow volume.

How to prevent spills

...when clearing plugged sewer laterals:

- Remove root balls, grease blockages and any other debris from the sewer
- If you can't prevent root balls, grease or debris from entering the sewer main, call us at (707) 678-7030, so we can work with you to remove the blockage and prevent blockages further downstream
- Use plenty of water to flush lines.

...when constructing or repairing sewer laterals:

- Contact the Building Department at (707) 678-7000 for a permit and lateral specifications.
- Contact the Engineering Department at 707-678- 7030 for a permit if work is within the right-of-way.
- Check your work area. Make sure there is no debris left in the sewer line before you backfill.
- Avoid offset joints, which may make sewer lines vulnerable to root intrusion and grease or debris accumulation. Properly bed your joints and don't hammer tap.

If you cause or witness a spill, immediately contact:



City of Dixon

Engineering Department
171 South 5th Street
Dixon, California 95620

www.cityofdixon.us

Section 14 Authority

- California Health and Safety Code, Sections 5410–5416
- California Water Code, Section 13271
- California Fish and Game Code, Sections 5650–5656
- SWRCB Order No. 2022-0103-DWQ
- SWRCB Order No. 2013-0058-EXEC effective September 9, 2013

Section 15 References

- Appendix A – Spill Response Packet

Appendix A – Spill Response Packet

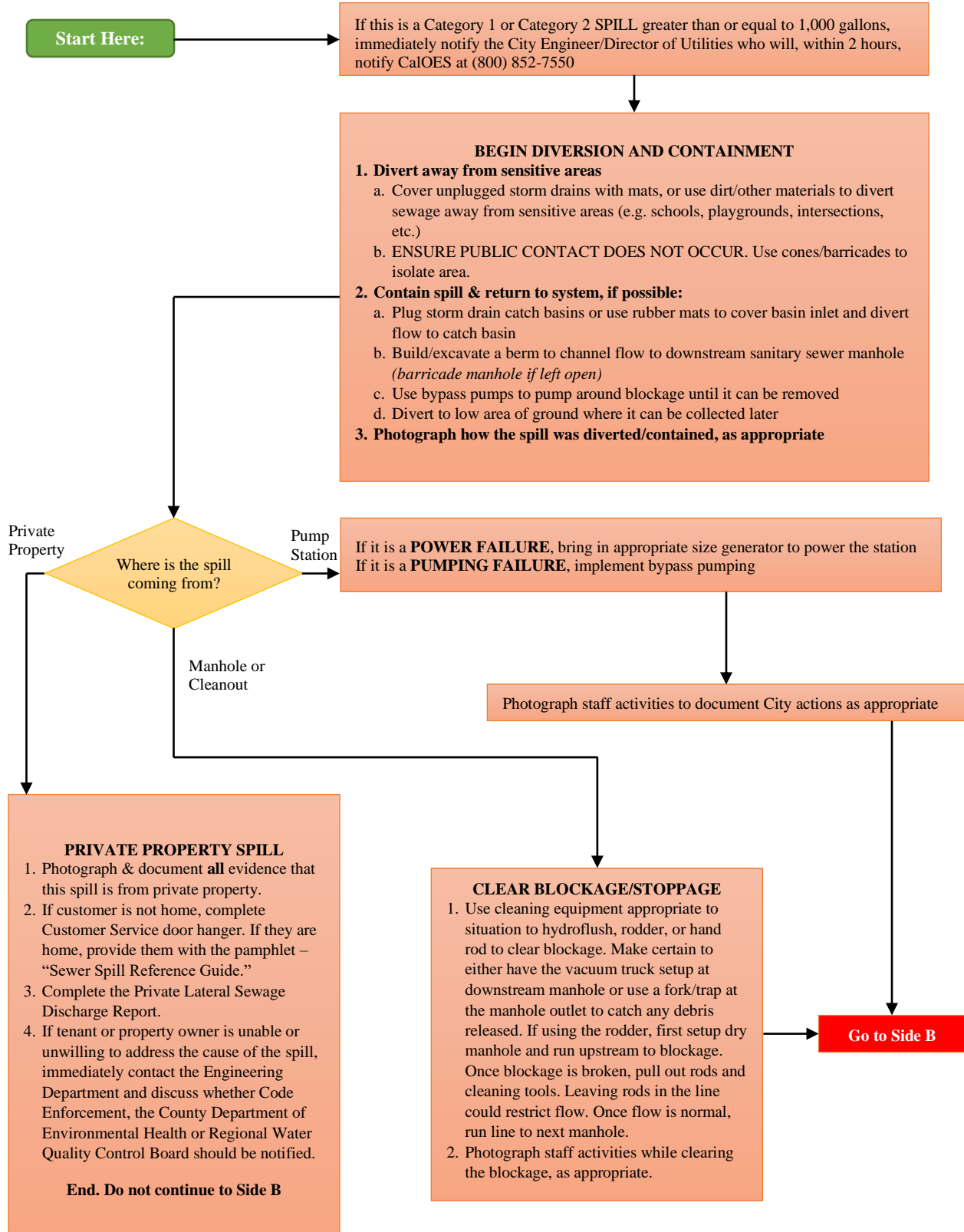
City of Dixon: Spill Emergency Response Plan – Appendix A
Spill Response Packet
Table of Contents

<u>Form</u>	<u>Form Number</u>
Instructions and Chain of Custody	C-0
Spill Response Flowchart	C-1
Private Lateral Sewage Discharge Report	C-2
Sanitary Sewer Spill Report	C-3
Start Time Determination Form.....	C-4
Volume Estimation Forms	C-5
Collection System Failure Analysis Report.....	C-6
Door Hanger.....	N/A
Pamphlet	N/A

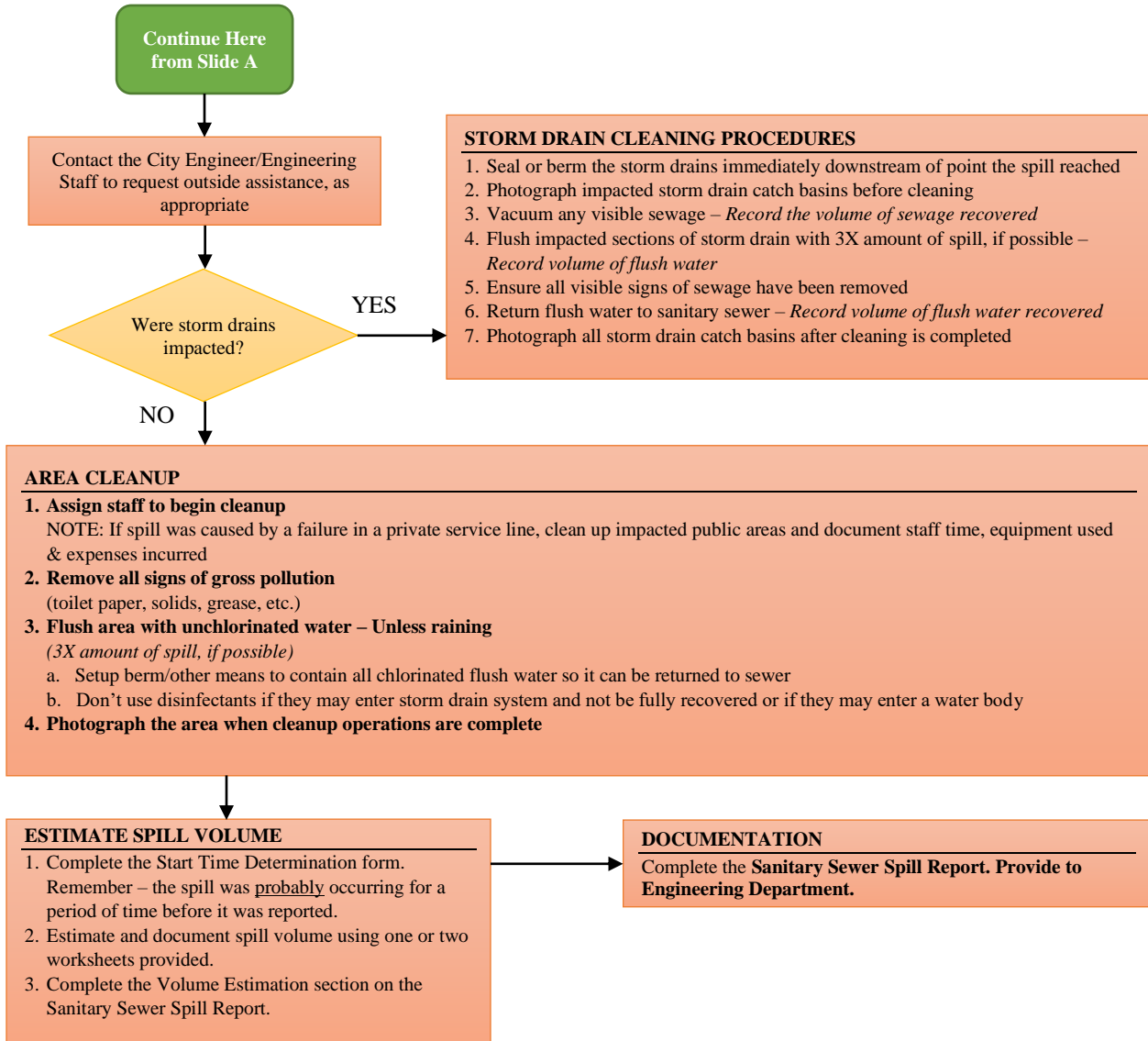
City of Dixon: SERP – Appendix A	C-0
Spill Response Packet Instructions and Chain of Custody	
In the event of a Sanitary Sewer Spill READ THIS FIRST	
<ul style="list-style-type: none"> <input type="checkbox"/> If this is a Category 1 Spill greater than or equal to 1,000 gallons, contact the City Engineer or his/her designee immediately to make the 2-hour notification to CalOES. <input type="checkbox"/> Check here if fats, roots, oils, and grease (FROG) may have caused or contributed to the spill. <input type="checkbox"/> Contact the City Engineer/Director of Utilities at (707) 678-7030 for any media requests. 	

<p>Collections Staff:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Follow instructions on the Spill Response Flowchart (C-1). <input type="checkbox"/> Refer to the Field Guide as necessary. <input type="checkbox"/> Place completed forms in this Appendix A, complete the Chain of Custody (column to right) and forward this packet to the Engineering Department 	<p>Print Name: _____</p> <p>Initial: _____</p> <p>Date: _____</p> <p>Time: _____</p>
<p>Collections Staff:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Review the enclosed forms for completeness and accuracy. <input type="checkbox"/> Place completed forms in this envelope, complete the Chain of Custody record (right) and forward this packet to the Engineering Department. 	<p>Print Name: _____</p> <p>Initial: _____</p> <p>Date: _____</p> <p>Time: _____</p>
<p>City Engineer/Engineering Department:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Review the enclosed forms. <input type="checkbox"/> Refer to <input type="checkbox"/> Archive this packet and all other information regarding this spill incident according to City policy. <input type="checkbox"/> Debrief using the Collection System Failure Analysis Form. 	<p>Print Name: _____</p> <p>Initial: _____</p> <p>Date: _____</p> <p>Time: _____</p>

City of Dixon: SERP – Appendix A	C-1 Side A
Spill Response Packet Spill Response Flowchart	



City of Dixon: SERP – Appendix A Spill Response Packet Spill Response Flowchart	C-1 Side B
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MEDIA AND PUBLIC RELATIONS GUIDELINES:

Exercise caution in contacts with the public or media when you respond to a spill. Any information you provide or statements you make may become pertinent in the event of possible court action, it is important to **AVOID THE FOLLOWING:**

- Giving out the wrong information including providing incorrect facts about a company or other agency
- Making accusations against customers, businesses, or other agencies
- Speculating about the situation you are responding to

Be courteous and attempt to provide accurate information to questions within the limits above. In some cases, it may be appropriate to say that we do not have any information or to delay answering a question and then to say when an answer might be available.

In most cases, refer media requests to the Engineering Department.

City of Dixon: SERP – Appendix A Spill Response Packet Private Lateral Sewer Discharge (PLSD) Report	C-2
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Complete pages 5 – 10.

FOR OFFICE USE

Date: _____ Time call received: _____ am/pm File Number: _____

Received by: _____ Department: _____

Caller's name: _____

Incident address: _____

Cross St: _____

City, State, Zip: _____

Caller's phone number: _____

Sewer call description: _____

Person(s) or Crew(s) Dispatched: _____ Time: _____ am/pm

1. **Spill Location Name:** _____

2. **Estimated Spill Volume** _____ gallons

3. **Did the spill discharge to a drainage channel and/or surface water:**

Yes or No

4. **Did the spill reach a storm drain pipe that is not part of a combined sewer system**

Yes or No

5. **If spill reached a separate storm drain pipe, was all of the wastewater fully captured from the separate storm drain and returned to the sanitary sewer system:**

Yes or No

6. **Estimate volume of spill recovered** _____ gallons

7. **Estimate volume of spill that reached surface water, drainage channel, or not recovered from a separate storm drain** _____ gallons

8. **Latitude of spill location** (only required if 10-14 are not answered)

Latitude of spill location: ____ deg. ____ min. ____ sec. or _____ Decimal Degrees

9. **Longitude of spill location** (only required if 10-14 are not answered)

Longitude of spill location: ____ deg. ____ min. ____ sec. or _____ Decimal Degrees

10. – 14. **Physical Location Details**

Street Number: _____ Street Name _____ Suite/Apt# _____

City: _____ Zip Code _____

15. **Spill location description** (describe in detail the location of the spill and any significant characteristics or considerations) _____

16. Spill appearance point

- | | |
|---|--|
| <input type="checkbox"/> Inside Building or Structure | <input type="checkbox"/> Gravity Mainline |
| <input type="checkbox"/> Private Lateral Cleanout | <input type="checkbox"/> Manhole |
| <input type="checkbox"/> Upper Lateral (behind property line) | <input type="checkbox"/> Pump Station |
| <input type="checkbox"/> Lower Lateral (in City ROW) | <input type="checkbox"/> Other (specify below) |

17. Spill appearance point explanation: (If “Other” and/or multiple appearance points are selected, enter a description including location details of each appearance point)

18. Final spill destination:

- | | |
|---|--|
| <input type="checkbox"/> Inside Building or Structure | <input type="checkbox"/> Storm Drain Line |
| <input type="checkbox"/> Unpaved Surface | <input type="checkbox"/> Drainage Channel |
| <input type="checkbox"/> Paved Surface | <input type="checkbox"/> Surface Water |
| <input type="checkbox"/> Street Curb and Gutter | <input type="checkbox"/> Other (specify below) |

19. Explanation of final spill destination: (If “Other” is selected)

20. Estimated spill start date/time

Date: _____MM/DD/YYYY Time _____(24-hour clock format)

21. Date and time sanitary sewer system agency was notified of or discovered the spill

Date: _____MM/DD/YYYY Time _____(24-hour clock format)

22. Estimated Operator arrival date/time

Date: _____MM/DD/YYYY Time _____(24-hour clock format)

23. Estimated spill end date/time

Date: _____MM/DD/YYYY Time _____(24-hour clock format)

24. Spill cause:

- | | |
|--|---|
| <input type="checkbox"/> ARV/BOV Failure | <input type="checkbox"/> Natural Disaster |
| <input type="checkbox"/> Debris from Construction | <input type="checkbox"/> Operator Error |
| <input type="checkbox"/> Construction Diversion Failure | <input type="checkbox"/> Pipe Structural Problem/Fail |
| <input type="checkbox"/> Collection System (CC) Maintenance
Caused Spill/Damage | <input type="checkbox"/> Pipe Structural Installation
Problem/Fail |
| <input type="checkbox"/> Damage by Others Not Related to CS
Construction | <input type="checkbox"/> Pump Station Failure-Controls |
| <input type="checkbox"/> Debris-General | <input type="checkbox"/> Pump Station Failure-Mechanical |
| <input type="checkbox"/> Debris-Rags | <input type="checkbox"/> Pump Station Failure-Power |
| <input type="checkbox"/> Flow Exceeded Capacity | <input type="checkbox"/> Rainfall Exceeded Design, I and I |
| <input type="checkbox"/> Grease Deposition (Fog) | <input type="checkbox"/> Root Intrusion |
| <input type="checkbox"/> Inappropriate Discharge | <input type="checkbox"/> Vandalism |
| | <input type="checkbox"/> Other (Specify Below) |

25. Spill Cause Explanation (If “Other” is selected):

26. PLSD Source:

- | | |
|---|---|
| <input type="checkbox"/> Single Family Home | <input type="checkbox"/> Industrial Property |
| <input type="checkbox"/> Multi-Family Home (4 or less units) | <input type="checkbox"/> Commercial Property (office, retail) |
| <input type="checkbox"/> Food Service Establishment (FSE) | <input type="checkbox"/> Public quasi-public institutions |
| <input type="checkbox"/> High Density Residential (5 or more) | (hospital, school, fire dept, etc.) |
| <input type="checkbox"/> Mixed Use Property | <input type="checkbox"/> Other (Specify Below) |

27. Explanation of PLSD Source (If “Other” is selected):

28. Where did failure occur:

- Air Relief Valve (ARV)/ Blow-Off Valve (BOV)
- Upper Lateral (behind property line)
- Lower Lateral (in City ROW)
- Gravity Mainline
- Manhole
- Pump Station-Controls
- Pump Station-Mechanical
- Pump Station-Power
- Siphon
- Other (specify below)

29. Explanation of where the failure occurred (If “Other” is selected):

30. Diameter of sewer pipe at the point of blockage or failure (if applicable): _____ inches

31. Material of sewer pipe at the point of blockage or failure (if applicable): _____

32. Estimated age of sewer asset at the point of blockage or failure (if applicable): _____ yrs

33. Spill response activities

- Cleaned-Up
- Mitigated Effects of Spill
- Contained All or Portions of Spill
- Restored Flow
- Returned All Spill to Sanitary Sewer System
- Other (Specify Below)

34. Explanation of spill response activities (If “Other” is selected):

City of Dixon: SERP – Appendix A	C-3
Spill Response Packet Sanitary Sewer Spill Report	

INSTRUCTIONS: Complete all items EXCEPT those that are shaded gray

Spill Category (check one):

- Category 1: A Category 1 spill is a spill of any volume of sewage from or caused by a sanitary sewer system regulated under this General Order that results in a discharge to:
 - A surface water, including a surface water body that contains no flow or volume of water; or
 - A drainage conveyance system that discharges to surface waters when the sewage is not fully captured and returned to the sanitary sewer system or disposed of properly.
 Any spill volume not recovered from a drainage conveyance system is considered a discharge to surface water unless the drainage conveyance system discharges to a dedicated stormwater infiltration basin or facility.
- Category 2: A Category 2 spill is a spill of 1,000 gallons or greater, from or caused by a sanitary sewer system regulated under this General Order that does not discharge to a surface water. A spill of 1,000 gallons or greater that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system, is a Category 2 spill.
- Category 3: A Category 3 spill is a spill of equal to or greater than 50 gallons and less than 1,000 gallons, from or caused by a sanitary sewer system regulated under this General Order that does not discharge to a surface water. A spill of equal to or greater than 50 gallons and less than 1,000 gallons, that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system is a Category 3 spill.
- Category 4: A Category 4 spill is a spill of less than 50 gallons, from or caused by a sanitary sewer system regulated under this General Order that does not discharge to a surface water. A spill of less than 50 gallons that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system is a Category 4 spill.
- Private Lateral Sewage Discharge (specify): Single Family Home Multi-Family Home High Density Residential (5+ units) Food Service Establishment (FSE) Mixed Use Property Industrial/Commercial Property Other:

A. SPILL LOCATION		
Spill Location Name:		
Latitude Coordinates*:	Longitude Coordinates:	
Street Name and Number:		
Nearest Cross Street:	City:	Zip Code:
County:	Spill Location Description:	

B. SPILL DESCRIPTION (Complete Volume Estimation Worksheets and/or refer to Field Guide as needed for estimations.)		
Spill Appearance Point (check one or more): <input type="checkbox"/> Combined Sewer D.I. (Combined CS Only) <input type="checkbox"/> Force Main <input type="checkbox"/> Gravity Mainline		
<input type="checkbox"/> Lateral Cleanout (Private) <input type="checkbox"/> Lateral Cleanout (Public) <input type="checkbox"/> Inside Building or Structure <input type="checkbox"/> Manhole <input type="checkbox"/> Pump Station		
<input type="checkbox"/> Lower Lateral (Private) <input type="checkbox"/> Lower Lateral (Public) <input type="checkbox"/> Upper Lateral (Private) <input type="checkbox"/> Upper Lateral (Public) <input type="checkbox"/> Other:		
Were there multiple appearance points? <input type="checkbox"/> No <input type="checkbox"/> Yes, number of appearance points:		
If the Spill reached a storm sewer, was it fully captured and returned to the Sanitary Sewer? <input type="checkbox"/> Yes <input type="checkbox"/> No (Category 1)		
Was this spill from a private lateral? <input type="checkbox"/> Yes <input type="checkbox"/> No If YES, name of responsible party:		
Final Spill Destination: <input type="checkbox"/> Building/structure <input type="checkbox"/> Separate Storm drain <input type="checkbox"/> Combined storm drain <input type="checkbox"/> Paved surface <input type="checkbox"/> Unpaved surface		
<input type="checkbox"/> Street/curb/gutter <input type="checkbox"/> Other:		
Total Estimated Spill volume in gallons:		gallons
Est. volume that reached a separate storm drain that flows to a surface water body:	gal	Recovered: gal
Est. volume discharged to land:	gal	Recovered: gal
Calc. Methods: <input type="checkbox"/> Eyeball <input type="checkbox"/> Duration/Flow Rate Comparison <input type="checkbox"/> Upstream Lat. Connections <input type="checkbox"/> Other (describe):		

C. SPILL OCCURRING TIME (complete Start Time Determination Form and then complete information below)	
Estimated Spill start date:	Estimated Spill start time:
Date Spill reported to sewer crew:	Time Spill reported to sewer crew:
Date sewer crew arrived:	Time sewer crew arrived:
Who was interviewed to help determine start time?	
Estimated Spill end date:	Estimated Spill end time:

D. CAUSE OF SPILL
Where did failure occur? (Check all that apply): <input type="checkbox"/> Air Relief or Blow-Off Valve <input type="checkbox"/> Force Main <input type="checkbox"/> Gravity Mainline <input type="checkbox"/> Siphon
<input type="checkbox"/> Lower Lateral (public) <input type="checkbox"/> Lower Lateral (private) <input type="checkbox"/> Manhole <input type="checkbox"/> Pump Station (specify): O Controls O Mechanical O Power
<input type="checkbox"/> Upper Lateral (public) <input type="checkbox"/> Upper Lateral (private) Other:

City of Dixon: SERP – Appendix A	C-3
Spill Response Packet Sanitary Sewer Spill Report	

D. CAUSE OF SPILL (continued)
Spill cause (check all that apply): <input type="checkbox"/> Air Relief or Blow-Off Valve Failure <input type="checkbox"/> Construction Diversion Failure <input type="checkbox"/> CS Maintenance <input type="checkbox"/> Damage by others <input type="checkbox"/> Debris (specify): O from Construction O from Lateral O General O Rags <input type="checkbox"/> Flow Exceeded Capacity <input type="checkbox"/> FROG (Fats, roots, oil, grease) <input type="checkbox"/> Inappropriate Discharge <input type="checkbox"/> Natural Disaster <input type="checkbox"/> Operator Error <input type="checkbox"/> Root Intrusion <input type="checkbox"/> Pipe Structural Problem/Failure <input type="checkbox"/> Pipe Structural Problem/Failure (Installation) <input type="checkbox"/> Rainfall Exceeded Design <input type="checkbox"/> Pump Station Failure (specify): O Controls O Mechanical O Power <input type="checkbox"/> Siphon Failure <input type="checkbox"/> Vandalism <input type="checkbox"/> Surcharged Pipe <input type="checkbox"/> Non - Dispersible Wipes <input type="checkbox"/> Other (specify):
Diameter (in inches) of pipe at point of blockage/spill cause (if applicable):
Sewer pipe material at point of blockage/spill cause (if applicable):
Estimated age of sewer asset at the point of blockage or failure (if applicable):
Description of terrain surrounding point of blockage/spill cause: <input type="checkbox"/> Flat <input type="checkbox"/> Mixed <input type="checkbox"/> Steep

E. SPILL RESPONSE
Spill response activities (check all that apply): <input type="checkbox"/> Cleaned-Up <input type="checkbox"/> Mitigated Effects of Spill <input type="checkbox"/> Contained All or Portion of Spill <input type="checkbox"/> Restored Flow <input type="checkbox"/> Returned All Spill to Sanitary Sewer System <input type="checkbox"/> Returned Portion of Spill to Sanitary Sewer System <input type="checkbox"/> Property Owner Notified <input type="checkbox"/> Other Enforcement Agency Notified (specify) <input type="checkbox"/> Other (specify):
Spill response completed (date & time):
Were health warnings posted? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, provide health warning/beach closure posting/details:
Recommended corrective actions: (check all that apply and provide detail) <input type="checkbox"/> Add sewer to preventive maintenance program <input type="checkbox"/> Adjust schedule/method of preventive maintenance <input type="checkbox"/> Enforcement action against FROG source <input type="checkbox"/> Inspect Sewer Using CCTV to Determine Cause <input type="checkbox"/> Plan rehabilitation or replacement of sewer <input type="checkbox"/> Repair Facilities or Replace Defect <input type="checkbox"/> Other (specify):
What major equipment was used in the response?
List all agency personnel involved in the response including name, title, and their role in the response:

F. NOTES

G. NOTIFICATION DETAILS
CalOES contacted date and time (if applicable): _____ CalOES Control Number (if applicable): _____ Spoke to: _____

This form prepared by: NAME: _____	TITLE: _____	DATE: _____
This form reviewed by: NAME: _____	TITLE: _____	DATE: _____

City of Dixon: SERP – Appendix A	C-4
Spill Response Packet Start Time Determination Form	

Spill Start Date: _____ Location: _____

Accurate start time determination is an essential part of Spill volume estimation. Depending on the flow rate, being even one minute off can have a huge impact on the volume estimation. Be as precise as possible. Do not round to quarter hour increments. Start time must be based on all available information (interviews with neighbors, emergency responders, etc.)

What time was the City notified of the Spill? _____ AM PM

Who notified the City? _____

Did they indicate what time they noticed the Spill? YES NO If yes, what time? _____ AM PM

Who at the City received the notification? _____

What time did the crew arrive at the site of the Spill? _____ AM PM

Who was interviewed regarding the start time of the Spill? Include their name, contact information, and the statement they provided:

Name	Contact Information	Statement
_____	_____	_____
_____	_____	_____
_____	_____	_____

Describe in detail how you determined the start time for this Spill:

Spill Start Date: _____ Spill Start Time: _____ AM PM

Spill End Date: _____ Spill End Time: _____ AM PM

Spill Duration: _____ **minutes**

This form completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

City of Dixon: SERP – Appendix A	C-5
Spill Response Packet	
Volume Estimation: Eyeball Estimation Method (< 200 gal)	

Use this method only for small spills of less than 200 gallons.

Spill Date: _____ Location: _____

- STEP 1:** Position yourself so that you have a vantage point where you can see the entire spill.
- STEP 2:** Imagine one or more buckets or barrels of water tipped over. Depending on the size of the spill, select a bucket or barrel size as a frame of reference. It may be necessary to use more than one bucket/barrel size.
- STEP 3:** Estimate how many of each size bucket or barrel it would take to make an equivalent spill. Enter those numbers in Column A of the row in the table below that corresponds to the bucket/barrel sizes you are using as a frame of reference.
- STEP 4:** Multiply the number in Column A by the multiplier in Column B. Enter the result in Column C.

	A	B	C
Size of bucket(s) or barrel(s)	How many of this size?	Multiplier	Estimated Spill Volume (gallons)
1 gallon water jug		x 1 gallons	
5 gallon bucket		x 5 gallons	
32 gallon trash can		x 32 gallons	
55 gallon drum		x 55 gallons	
Other: _____ gallons		x _____ gallons	
Estimated Total Spill Volume:			

STEP 5: Is rainfall a factor in the spill? Yes No

If yes, what volume of the observed spill volume do you estimate is rainfall? _____ gallons

If yes, describe how you determined the amount of rainfall in the observed spill?

STEP 6: Calculate the estimated spill volume by subtracting the rainfall from the spill volume:

$$\begin{array}{rcccl}
 \underline{\hspace{2cm}} & \text{gallons} & - & \underline{\hspace{2cm}} & \text{gallons} & = & \underline{\hspace{2cm}} & \text{gallons} \\
 \text{Estimated spill Volume} & & & \text{Rainfall} & & & \text{Total Estimated Spill Volume} &
 \end{array}$$

Do you believe that this method has estimated the entire spill? Yes No

If not, you MUST use additional methods to estimate the entire spill. If yes, it is advisable to use additional methods to support the estimation. Explain why you believe this method has/has not estimated the entire spill:

This worksheet completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

City of Dixon: SERP – Appendix A Spill Response Packet Volume Estimation: Duration and Flow Rate Comparison Method	C-5
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Spill Date: _____ Location: _____

STEP 1: Compare the spill to reference images on next page to estimate flow rate of the current spill. Describe which reference photo(s) were used and any additional factors that influenced applying the reference photo data to the actual spill:

Flow Rate Based on Photo Comparison: _____gallons per minute (gpm)

STEP 2: Complete the **Start Time Determination Form** to provide a detailed description of how the start time was determined. Copy the spill Duration from the Start Time Determination Form here:

SPILL Duration: _____minutes

STEP 3: Multiply the flow rate by the spill duration to calculate the estimated spill volume.

$$\frac{\text{_____ gpm}}{\text{Flow Rate}} \times \frac{\text{_____ minutes}}{\text{Spill Duration}} = \frac{\text{_____ gallons}}{\text{Estimated Spill Volume}}$$

STEP 4: Did the spill occur during a period of consistent flow in this portion of the system? Yes No
 If not, explain how, based on this portion of the collection system and its users, you believe it may have impacted the estimated spill volume:

By what percentage are you adjusting the estimation? increase decrease _____%

Translate the percentage into gallons: _____gallons

STEP 5: Calculate the adjusted spill volume estimate:

$$\frac{\text{_____ gpm}}{\text{Estimated Spill Volume}} + \text{or -} \frac{\text{_____ gallons}}{\text{Adjustment}} = \frac{\text{_____ gallons}}{\text{Estimated spill volume}}$$

Do you believe that this method has estimated the entire spill? Yes No

If not, you **MUST** use additional methods to estimate the entire spill. If yes, explain why you believe this method has estimated the entire spill:

This worksheet completed by:

Name: _____ Signature: _____
 Job Title: _____ Date: _____

City of Dixon: SERP – Appendix A

Spill Response Packet

Volume Estimation: Duration and Flow Rate Comparison Method

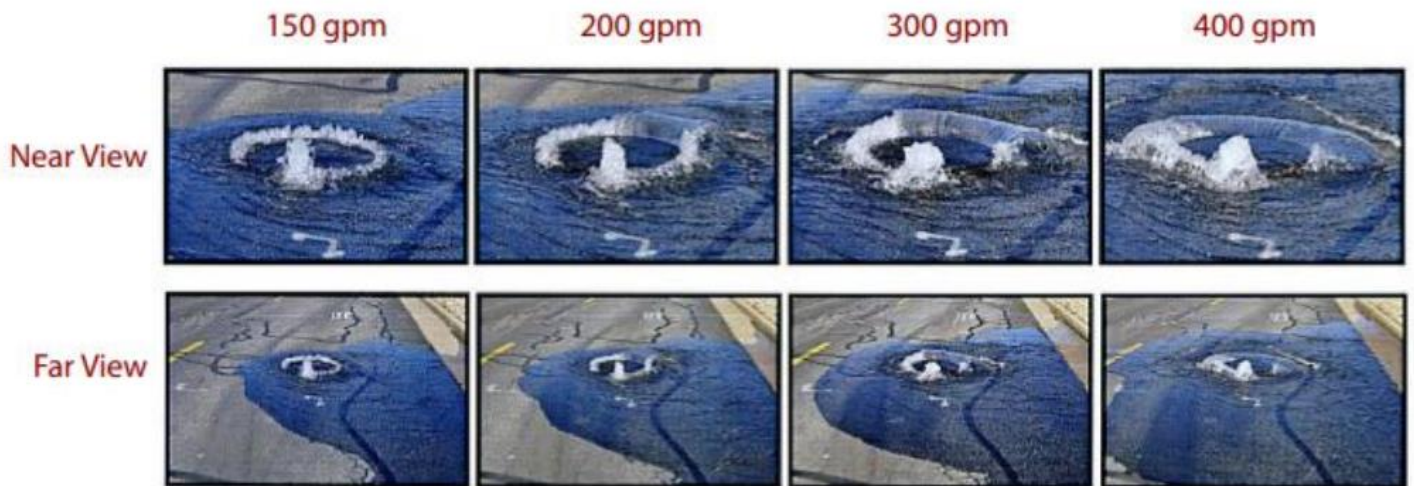
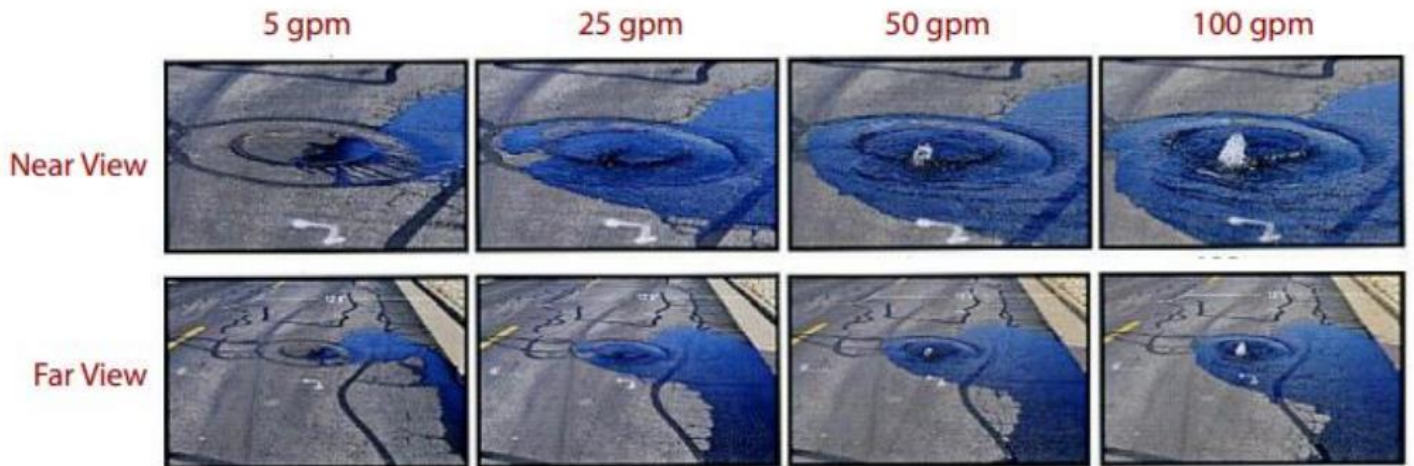
C-5

IMPORTANT NOTE:

These photographs are provided as examples only and will change with many factors.

SSCSC Manhole Overflow Gauge

CWEA Southern Section Collections Systems Committee Overflow
Simulation courtesy of Eastern Municipal Water District



City of Dixon: SERP – Appendix A	C-6
Spill Response Packet Collection System Failure Analysis	

To be completed by Engineering Staff.

Incident Report #		Prepared By	
Spill Information			
Event Date/Time	Address		
Volume Spilled	Volume Recovered		
Cause			
Summary of Historical Spills/Service Calls/Other Problems			
Date	Cause	Date Last Cleaned	Crew
Records Reviewed By:		Record Review Date:	
Summary of CCTV Information			
CCTV Inspection Date		Tape Name/Number	
CCTV Tape Reviewed By		CCTV Review Date	
Observations			

City of Dixon: SERP – Appendix A	C-6
Spill Response Packet Collection System Failure Analysis	

Recommendations				
Type	Specific Actions	Who is Responsible?	Completion Deadline	Who Will Verify Completion?
No Changes or Repairs Required	n/a	n/a	n/a	n/a
Repair(s)				
Construction				
Capital Improvement(s)				
Change(s) to Maintenance Procedures				
Change(s) to Spill Response Procedures				
Training				
Misc.				
Comments/Notes:				
Review Date:				

City of Dixon

On (date) _____, at (location) _____

we responded to a reported blockage of the sanitary sewer service to your property.

We discovered a blockage in:

- The sanitary sewer main and cleared the line
- The sanitary sewer lateral, which is your responsibility to maintain.

If you require assistance to clear the lateral you can look in the Yellow Pages of your telephone book under "Sewer Contractors" or "Plumbing Drains & Sewer Cleaning". If you plan to hire a contractor we recommend getting estimates from more than one company.

City of Dixon representative notes: _____

City of Dixon Representative: _____

For questions or comments, please call:

City of Dixon

Business Hours: (707) 678-7030
After Hours: (707) 676-3156

City of Dixon

On (date) _____, at (location) _____

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City of Dixon

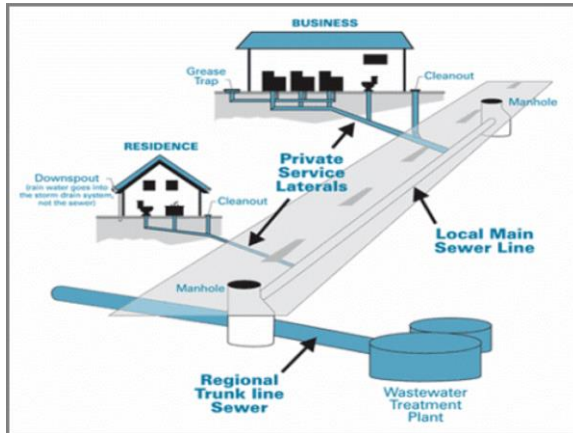
Business Hours: (707) 678-7030
After Hours: (707) 676-3156

How a Sewer System Works

A property owner's sewer pipes are called *service laterals* and are connected to larger local main and regional trunk lines.

Service laterals run from the connection at the home to the connection with the public sewer.

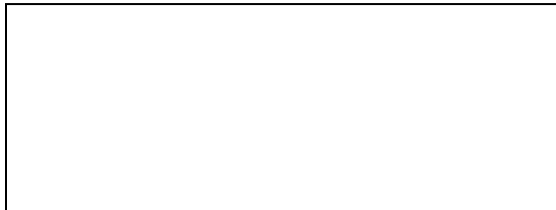
These laterals are the responsibility of the property owner and must be maintained by the property owner.



Is my home required to have a backflow prevention device?

Section 710.1 of the Uniform Plumbing Code (U.P.C.) states: "Drainage piping serving fixtures which have flood level rims located below the elevation of the next upstream manhole cover or private sewer serving such drainage piping **shall** be protected from backflow of sewage by installing an approved type of backwater valve." The intent of Section 710.1 is to protect the building interior from mainline sewer overflows or surcharges.

Additionally, U.P.C. 710.6 states: "Backwater valves shall be located where they will be accessible for inspection and repair at all times and, unless continuously exposed, **shall** be enclosed in a masonry pit fitted with an adequately sized removable cover."



If you have a sewage spill from your private sewer line that impacts storm drains, waterways or public property, contact:

City of Dixon Engineering and Utilities
(707) 678-7030

Solano County Environmental Health
(707) 784-6765

California Health and Safety Code, Sections 5410-5416 requires:

- No person shall discharge raw or treated sewage or other waste in a manner that results in contamination, pollution, or a nuisance.
- Any person who causes or permits a sewage discharge to any state waters:
 - Must immediately notify the local health agency of the discharge.
 - Shall reimburse the local health agency for services that protect the public's health and safety.
 - Who fails to provide the required notice to the local health agency is guilty of a misdemeanor and shall be punished by a fine (between \$500-\$1,000) and/or imprisonment for less than one year.

Central Valley Regional Water Quality Control Board
(916) 464-3291

Requires the prevention, mitigation, response to, and reporting of sewage spills.

RB5sSpillReporting@waterboards.ca.gov

California Governor's Office of Emergency Services (CalOES)
(800) 852-7550

California Water Code, Article 4, Chapter 4, Sections 13268-13271 & California Code of Regulations, Title 23, Division 3, Chapter 9.2, Article 2, Sections 2250-2260 require:

- Any person who causes or permits sewage in excess of 1,000 gallons to be discharged to state waters shall immediately notify the Office of Emergency Services.
- Any person who fails to provide the notice required by this section is guilty of a misdemeanor and shall be punished by a fine (less than \$20,000) and/ or imprisonment for not more than one year.

Sewer Spill Reference Guide

Your Responsibilities as a Private Property Owner

Provided to you by:

**City of Dixon
Engineering and Utilities**

**600 East A Street
Dixon, CA 95620
(707) 678-7030**

How do sewage spills happen?

Sewage spills occur when the wastewater in underground pipes overflows through a manhole, cleanout, or broken pipe. Most spills are relatively small and can be stopped and cleaned up quickly, but left unattended they can cause health hazards, damage to homes and businesses, and threaten the environment, local waterways, and beaches.

CAUTION!

When trying to locate a sewer problem, never open manholes or other public sewer structures. Only our crews are allowed to open & inspect these structures.

Common causes of sewage spills

- Grease build-up
- Tree roots
- Broken/cracked pipes
- Missing or broken cleanout caps
- Undersized sewers
- Groundwater/rainwater entering the sewer system through pipe defects and illegal connections

Prevent most sewage backups with a Backflow Prevention Device

This type of device can help prevent sewage backups into homes and businesses. If you don't already have a Backflow Prevention Device, contact a professional plumber or contractor to install one as soon as possible.

Protect the environment!

If you let sewage from your property discharge to a gutter or storm drain, you may be subject to penalties and/or out-of-pocket costs for clean-up and enforcement efforts. A property owner may be charged for costs incurred by agencies responding to spills from private properties.

What to look for:

Sewage spills can be a very noticeable gushing of water from a manhole or a slow water leak that may take time to be noticed. Don't dismiss unaccounted-for wet areas. Look for:

- Drain backups inside the building.
- Wet ground and/or water leaking around manhole lids onto your street.
- Leaking water from cleanouts or outside drains
- Unusual odorous wet areas: sidewalks, external walls, ground/ landscape around a building.

The following are indicators of a possible obstruction in your sewer line:

- Water comes up in floor drains, showers or toilets.
- Toilets, showers or floor drains below ground level drain very slowly.

What to do if there is a spill:

Immediately notify the City of Dixon. Our crews locate the blockage and determine if it is in the public sewer; if it is the crew removes the blockage and arranges for cleanup.

If the backup is in your private internal plumbing or in the private service laterals, you are required to immediately:

- Control and minimize the spill by shutting off or not using the water.
- Keep sewage out of the storm drain system using sandbags, dirt and/or plastic sheeting.
- Call a plumbing professional to clear blockages and make repairs as needed. Look in the yellow pages under "Plumbing Drain & Sewer Cleaning" or "Sewer Contractors."
- Always notify your sewer/ public works department or public sewer district of sewage spills.

Spill cleanup inside the home:

For large clean ups, a professional cleaning firm should be contacted to clean up impacted areas. You can locate local firms by looking in the Yellow Pages under "Water Damage" or "Fire Damage." If you hire a contractor, it is recommended to get estimates from more than one company. Sometimes, homeowner's insurance will pay for the necessary cleaning due to sewer backups. Not all policies have this coverage, so check with your agent. If you decide to clean up a small spill inside your home, protect yourself from contamination by observing the following safety measures. Those persons whose resistance to infection is compromised should not attempt this type of clean up.

Other Tips:

- Keep children and pets out of the affected area until cleanup has been completed.
- Turn off heating/air conditioning systems.
- Wear rubber boots, rubber gloves, and goggles during cleanup of the affected area.
- Discard items that cannot be washed and disinfected (such as: mattresses, rugs, cosmetics, baby toys, etc.).
- Remove and discard drywall and insulation that has been contaminated with sewage or flood waters.
- Thoroughly clean all hard surfaces (such as flooring, concrete, molding, wood and metal furniture,

countertops, appliances, sinks and other plumbing fixtures) with hot water and laundry or dish detergent.

- Help the drying process with fans, air conditioning units, and dehumidifiers.
- After completing cleanup, wash your hands with soap and water. Use water that has been boiled for 1 minute (allow the water to cool before washing your hands) OR use water that has been disinfected (solution of 1/8 teaspoon of household bleach per 1 gallon of water). Let it sit and for 30 min. If water is cloudy, use ¼ teaspoon of household bleach per 1 gallon of water.
- Wash clothes worn during cleanup in hot water and detergent (wash apart from uncontaminated clothes).
- Wash clothes contaminated with sewage in hot water and detergent. Consider using a Laundromat until your onsite wastewater system has been professionally inspected and serviced.
- Seek immediate attention if you become injured or ill.

Spill cleanup outside the home:

- Keep children and pets out of the affected area until cleanup has been completed.
 - Wear rubber boots, rubber gloves, and goggles during cleanup of affected area.
 - Clean up sewage solids (fecal material) and place in properly functioning toilet or double bag and place in garbage container.
 - On hard surfaces areas such as asphalt or concrete, it is safe to use a 2% bleach solutions, or ½ cup of bleach to 5 gallons of water, but don't allow it to reach a storm drain as the bleach can harm the environment.
 - After cleanup, wash hands with soap and water. Use water that has been boiled for 1 minute (allow to cool before washing your hands) OR use water that has been disinfected (solution of 1/8 teaspoon of household bleach per 1 gallon of water). Let it stand for 30 min. If water is cloudy, use ¼ teaspoon of household bleach per 1 gallon of water.
 - Wash clothes worn during cleanup in hot water and detergent (wash apart from uncontaminated clothes).
 - Wash clothes contaminated with sewage in hot water and detergent. Consider using a Laundromat until your onsite wastewater system has been professionally inspected and serviced.
- Seek immediate attention if you become injured/ ill.