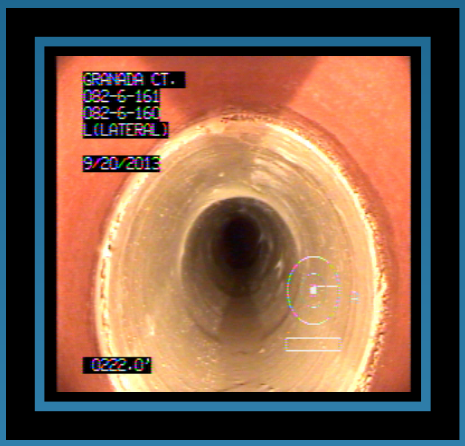
El Dorado Irrigation District

2890 Mosquito Road, Placerville, CA 95667

Sewer System Management Plan



Audit

June 2021

Abbreviations and Acronyms	
BMP	Best Management Practice
CAP	Corrective Action Program
CCTV	Closed Circuit Television
CIP	Capital Improvement Program
CMMS	Computerized Maintenance Management System
CMOM	Capacity, Management, Operations and Maintenance
CVRWQCB	Central Valley Regional Water Quality Control Board
CWEA	California Water Environment Association
District	El Dorado Irrigation District
ECS	Environmental Compliance Services
EDU	Equivalent Dwelling Unit
ERP	Enforcement Response Plan
FOG	Fats, Oils, Grease
FSE	Food Service Establishment
GI	Grease Interceptor
GIS	Geographical Information System
GRD	Grease Removal Device
GT	Grease Trap
GWDR	Statewide General Waste Discharge Requirement
I/I	Inflow / Infiltration
IPPPP	Industrial Pretreatment and Pollution Prevention Program
IWRMP	Integrated Water Resources Master Plan
NPDES	National Pollution Discharge Elimination System
O&M	Operations and Maintenance
OERP	Overflow Emergency Response Plan
PM	Preventative Maintenance
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow
SWRCB	State Water Resources Control Board
WDR	Waste Discharge Requirements

WWFMP	Wastewater Facilities Master Plan
WWTP	Wastewater Treatment Plant

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This introductory section provides background information on the purpose and organization of this Sewer System Management Plan (SSMP) and provides a brief overview of the El Dorado Irrigation District (District) service area and sewer system.

SSMP Requirement Background

The 2019 SSMP has been prepared in compliance with requirements of the State Water Resource Control Board's (SWRCB) adopted Statewide General Waste Discharge Requirement (GWDR) Order No. 2006-003-DWQ adopted in May 2006 and the amendment to the Monitoring and Reporting Program of the SSS WDR, Order No. WQ 2013-0058-EXEC.The GWDR applies to all public collection system agencies in California that own or operate collection systems comprised of more than one mile of pipe or sewer lines, which convey untreated wastewater to a publicly owned treatment facility, and requires each agency to prepare a SSMP. Per the GWDR, the District prepared and adopted an original SSMP in July 2009 and an updated version in 2014 and then in 2019. The GWDR requires that all SSMP's are audited every two years and updated every five years. This 2021 audit of the SSMP provides a general audit of all SSMP sections.

Document Organization

This SSMP is intended to meet the requirements of the statewide GWDR and is organized into the following sections.

1. Goals
2. Organization
3. Legal Authority
4. Operations and Maintenance Program
5. Design and Performance Provisions
6. Overflow Emergency Response Plan
7. Fats, Oils and Grease Control Program
8. System Evaluation and Capacity Assurance Plan
9. Monitoring, Measurement, and Program Modifications
10. SSMP Program Audits
11. Communication Program
12. SSMP Completion and Certification

El Dorado Irrigation District Services and Service Area

The District is a public agency and was organized in 1925 and is designated as an irrigation special district under the Irrigation District Law (Water Code §§20500, et seq.). Its original purpose was to ensure domestic water for Placerville and irrigation water for local farmers. The District now provides water, wastewater treatment, recycled water, hydroelectric and solar power generation, recreation, and water-use efficiency services. Included in the District service area are the communities of Cameron Park, Camino, Diamond Springs, El Dorado, El Dorado Hills, Placerville, Pollock Pines, Shingle Springs, Rescue, and many other smaller communities.

The District operates and maintains a sanitary sewer system serving a population of approximately 62,000, with over 77 square miles of service area. The system is divided into two larger shed areas; El Dorado Hills and Deer Creek, in addition to two smaller sheds; Gold Ridge and Camino Heights. The system has approximately 402 miles of gravity pipelines, 54 miles of force mains, 8,566 maintenance holes, 60 lift stations, and 23,889 sewer service laterals, which total 191 miles. The total system has approximately 647 miles of collection system pipeline owned and maintained by the District.

District Mission Statement and Goals

> **Requirement:** The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that occur. (SWRCB Order No. 2006-0003 and Order No. 2013-0058-EXEC)

This SSMP component identifies goals the District has set for the management, operation and maintenance of the sewer system and discusses the role of the SSMP in supporting these goals. The goals provide focus for District staff to continue high-quality work and implement improvements in the management of the District's wastewater collection system.

The 2021 Audit proposes no changes.

Mission Statement

El Dorado Irrigation District is a public agency that is dedicated to providing high quality water, wastewater treatment, recycled water, hydropower, and recreation services in an environmentally and fiscally responsible manner.

Goals

In support of this mission, the District has developed the following goals for the operation and maintenance of its sewer system.

(a) Maintain and improve the condition of the collection system infrastructure in order to provide continuous reliable service.

(b) Cost-effectively;

a. Reduce preventable SSO's
b. Minimize infiltration/inflow (I/I)
c. Minimize adverse impacts of SSO's
d. Improve operational efficiencies
e. Ensure corrective action is taken in a timely manner
f. Improve emergency response strategies

Requirements: The SSMP must identify each of the following items.

A. The name of the agency's responsible or authorized representative.

B. The names and telephone numbers of management, administrative, and maintenance positions with responsibility for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation.

C. The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable such as, County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (OES).

This section of the SSMP identifies District staff responsible for implementing the SSMP, responding to a SSO event, and meeting the SSO reporting requirements. This section also includes the designation of the Authorized Representative to meet RWQCB requirements for completing and certifying spill reports.

The 2021 Audit proposes no changes

A. District's Authorized Representative

The District is responsible for implementing and maintaining all components of this SSMP and is authorized to submit SSO reports to the appropriate government agencies. The authorized representative for all wastewater collection system matters is the Collection System Supervisor who is authorized to certify electronic spill reports submitted to the SWRCB. In the absence of the Collection System Supervisor a responsible charge assignment is made by the Supervisor and the Division Manager of Wastewater / Recycled Water Operations is also able to certify electronic spill reports as a backup to the Collections Supervisor, if necessary.

B. Responsible Staff and Lines of Authority

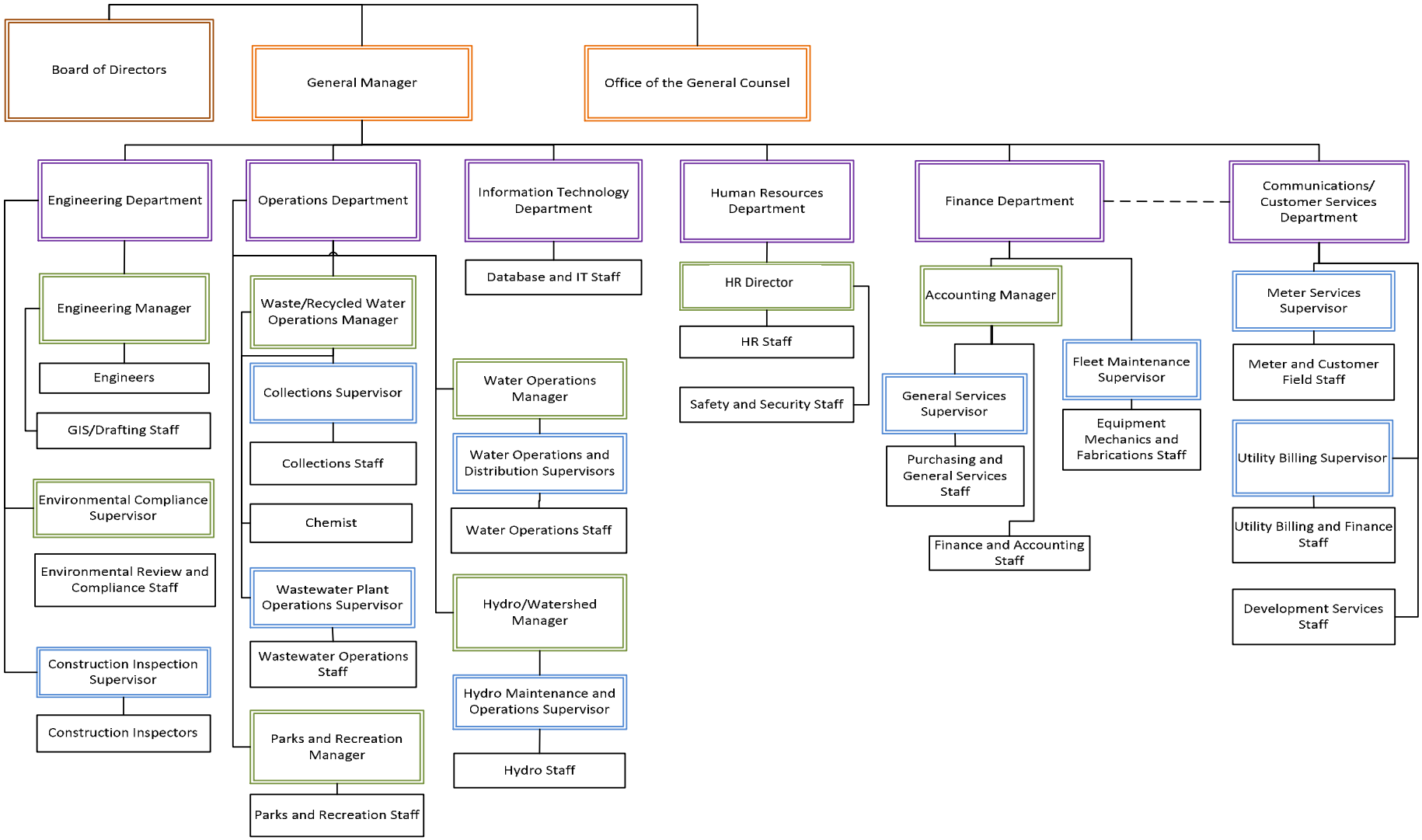
Implementation, management, and updating of the SSMP involves staff from six of the District departments. Figure 2-1 is a District organization chart showing all departments and those positions within each department that have SSMP responsibilities. Descriptions of general responsibilities for each of these positions are listed below. Names and phone numbers of staff in these positions are included in Appendix A.

- Board of Directors – Establish Policy.
- General Manager – Under administrative direction of the Board of Directors, is in charge of the operations, functions and administrative affairs of the District. The General Manager is responsible for implementing the Board's policies and administrative regulations.

- Director of Engineering – Plans, organizes, directs, and reviews the activities and operations of the Engineering Department including projects related to water, wastewater, and hydroelectric generation systems. Serves as District Engineer, coordinates assigned activities with other departments and outside agencies, and provides administrative support to the General Manager.
- Engineering Manager – Plans, schedules, directs, reviews, and coordinates engineering division activities.
- Director of Operations – Plans, organizes, directs and reviews the activities and operations of the Operations Department including water and wastewater treatment, recycled water, collection, distribution, hydroelectric generation, and construction. Coordinates assigned activities with other departments and outside agencies, and provides administrative support to the General Manager.
- Operations Division Manager Wastewater/Recycled Water - Organizes, directs and coordinates the activities of the Wastewater/Recycled Water Division within the Operations Department including the maintenance and operation of District wastewater collection and treatment facilities, and recycled water distribution facilities. Coordinates operation, maintenance and regulatory activities with other divisions and departments; and provides staff assistance to the Director of Operations.
- Collection System Supervisor – Plans, organizes, schedules, assigns and reviews the work of field crews in a variety of skilled and semi-skilled activities in general construction, repair and maintenance of wastewater collection system facilities, and has primary responsibility for the operation of lift stations.
- Plant Operators and Construction/Maintenance Workers – Routinely monitor, maintain, adjust, and clean pumping, regulator, or lift stations in order to prevent spills, and to ensure the smooth operation of the water, recycled water, and wastewater distribution, collection and storage systems. Responds to customer's problems/complaints, SCADA, and alarms.
- WW/RW Chemist – Performs routine lab testing (physical, biological, chemical, microbiological) and oversees contracted laboratory testing to meet state and federal compliance, environmental monitoring programs and facilities process control for wastewater and recycled water operations.
- Environmental Compliance Supervisor – Supervises activities of the Environmental Compliance Division including, among others, the District's Industrial Pretreatment Program, Recycled Water Compliance, Cross-Connection Control Program and Water Quality Monitoring.
- Environmental Compliance Analyst – Coordinates and oversees day-to-day implementation of the District's environmental compliance programs, which may include Water Quality Monitoring, Industrial Pretreatment, Recycled Water Compliance, Drinking Water Compliance, Cross-connection Control, and other activities necessary for the District to comply with applicable federal, state and local requirements.
- Environmental Compliance Inspector – Under supervision performs water quality sampling and testing; conducts inspections and testing of backflow devices; issues Waste Water Discharge Permits and performs inspections of industrial and commercial wastewater services; performs inspections of Food Service Enterprises (FSEs) to verify

required grease removal devices are being properly maintained and the facility is in compliance with District permitting requirements; and ensures regulatory compliance of recycled water systems.

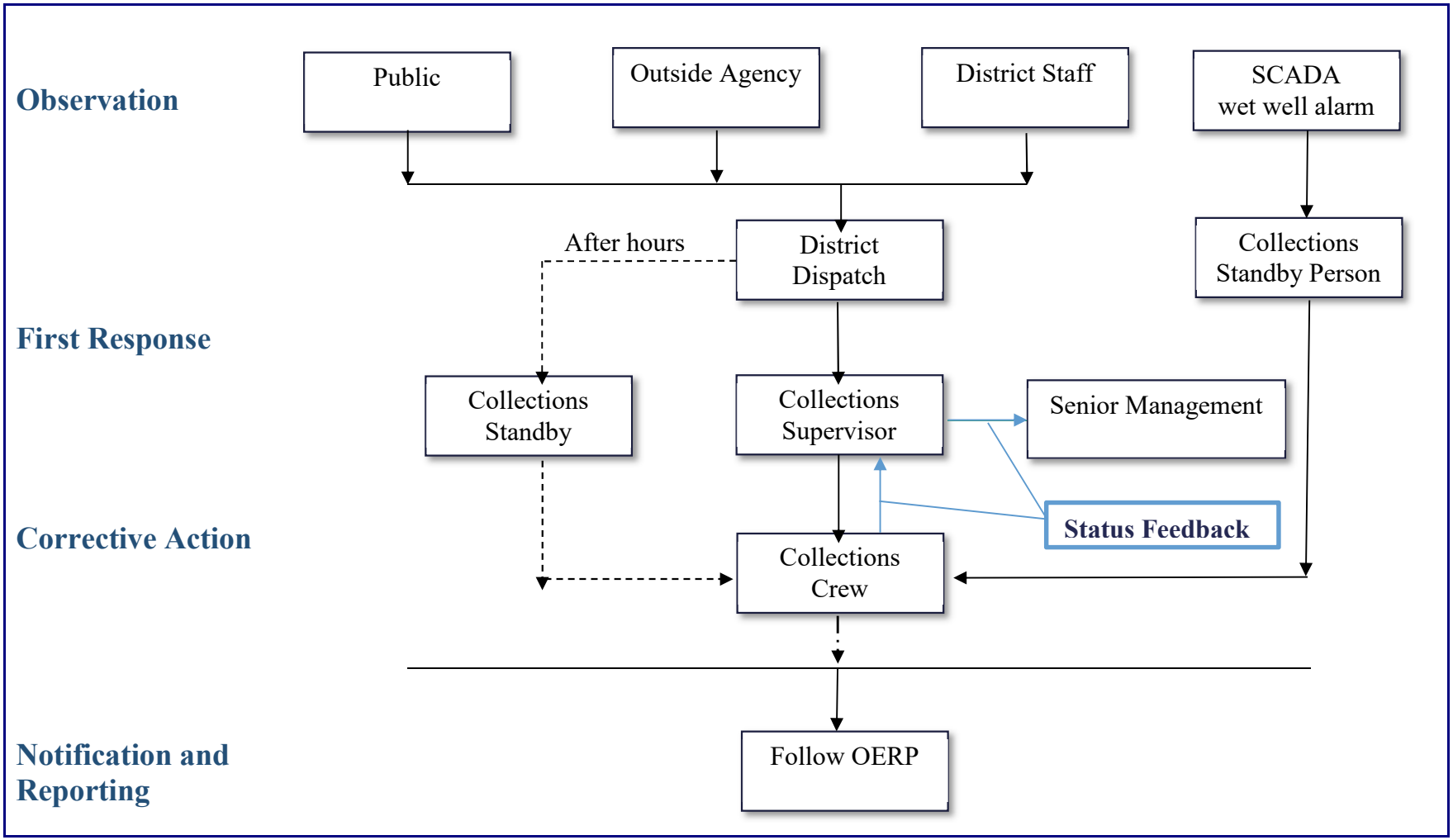
Figure 2-1 El Dorado Irrigation District Organization Chart (shows all departments, but not all positions)



C. SSO Reporting Chain of Communication

Figure 2-2, on the following page, is a flowchart depicting the chain of communication for responding to and reporting an SSO to the appropriate regulatory agencies. The SSO Reporting process is overviewed in Section 6 and provided in detail in Appendix B the Overflow Emergency Response Plan.

Figure 2-2 Emergency Response Chain of Communication



Requirement: Each enrollee must demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:

- **A.** Prevent illicit discharges into its sanitary sewer system, including Inflow/Infiltration from satellite wastewater collection systems and laterals, stormwater, unauthorized debris, etc.
- **B.** Require proper design and construction of sewers and connections.
- **C.** Ensure access for maintenance, inspection and repairs to publicly owned portions of laterals.
- **D.** Limit the discharge of fats, oils, and grease (FOG) and other debris that may cause blockages.
- **E.** Enforce any violation of its sewer ordinances.

This component of the SSMP discusses the District's legal authority, including federal and state law as well as District board policies and administrative regulations.

The 2021 Audit proposes no changes

The District derives its legal authority from, and is regulated by, federal and state law. In exercising the authority granted there under, the District has adopted Board Policies and Administrative Regulations setting forth the terms and conditions of service. The District's adopted Board Policies and Administrative Regulations are available at https://www.eid.org/home/showdocument?id=2687.

Federal and State Law

Federal and State Laws include but are not limited to:

- California Irrigation District Law (Water Code § 20500 et seq.) (grant of authority to perform "all acts necessary" in its operation and control of its sewer disposal system)
- Federal Water Pollution Control Act, commonly known as the Clean Water Act (33 U.S.C. § 1251 et seq.)
- California Porter Cologne Water Quality Act (California Water Code § 13000 et seq.)
- California Health & Safety Code § 25100 et seq.
- Resource Conservation and Recovery Act of 1976 (42 U.S.C. § 6901 et seq.)
- California Government Code §§ 54739, 54740 (grant of authority to regulate and/or prohibit the discharge of industrial waste into the District's collection system and treatment works)

El Dorado Irrigation District Board Policies and Administrative Regulations

The District Board Policies (BP) and Administrative Regulations (AR) set forth binding terms and conditions for sanitary sewer service to ensure the safe operation of its facilities and compliance with all applicable laws. The District possesses the necessary legal authority to meet its obligations under Section D, 13 (iii) (Legal Authority) of SWRCB Order No. 2006-0003 and Order No. 2013-0058-EXEC.

A. Prevention of Illicit Discharges

Illicit discharges into the District's sanitary sewer system are strictly prohibited under BP 6010-Wastewater System Management, AR 6020-Wastewater Discharge and Disposal, 6021-Industrial Pretreatment Program and AR 6022-Requirements for the Control of Fats, Oils, and Grease from Food Service Establishments.

B. Proper Design and Construction of Sewers and Connections

Sewers and connections must be properly designed and constructed in accordance with the District's *Water, Sewer and Recycled Water Design & Construction Standards,* BP 9020-Establishing New Service, and AR 9028-Extension or Improvement of Facilities. The District's *Water, Sewer and Recycled Water Design & Construction Standards* are available at https://www.eid.org/doing-business-with-eid/design-and-construction-standards.

C. Lateral Maintenance Access

Access to all sewer laterals owned or maintained by the District is ensured as a requirement of service under BP 9020-Establishing New Service, AR 9029-District Access to Facilities and AR 1120-Right of Inspection and Access.

D. Limit Discharge of FOG and Other Debris

The discharge of fats, oils, grease and other debris into the system that may cause blockages is limited under BP 6010-Wastewater System Management, AR 6020-Wastewater Discharge and Disposal, AR 6021-Industrial Pretreatment Program, and AR 6022-Requirements for the Control of Fats, Oils, and Grease from Food Service Establishments.

E. Enforcement Measures

The District is empowered to enforce any violation of its sewer requirements and seek legal redress under BP 9060-Discontinuance of Service, AR 9061-Disconnection or Discontinuation of Service, BP 1040-Restriction, Wrongful Acts, and Enforcement, AR 1040-Wrongful Acts Subject to Penalties, AR 1050-State Criminal Laws Protecting Public Water Supplies and Wastewater Systems, and AR 6021-Industrial Pretreatment Program.

Requirements: The SSMP must include those elements listed below that are appropriate and applicable to the Enrollee's system:

A. Each wastewater collection system agency shall maintain up-to-date maps of its wastewater collection system facilities, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable storm water pumping and piping facilities.

B. Describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventive Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders.

C. Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and system for ranking the conditions of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short-term and long-term plans plus a schedule for developing the funds needed for the capital improvement plan.

D. Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained.

E. Provide equipment and replacement part inventories, including identification of critical replacement parts.

This section of the SSMP discusses the District's sewer system operations and maintenance.

The 2021 Audit proposes modifications to Requirement C.

A. Collection System Map

Description of Sewer Map System

The District map system is maintained in a Geographic Information System (GIS) following ESRI's local government information model schema. Sewer, water and recycled water facilities are maintained as separate layers that can be shown separately or together over a base map of the area. The base map shows property boundaries, roads, rivers, streams, lakes and reservoirs. An example is shown in Figure 4-1. In the event that GIS is not available, the District has access to hard copy maps.

Some information about the District's sewer facilities are shown directly on these maps and additional information may be found by cross referencing work order and project numbers shown on the maps. A table of sewer system map features is shown in Table 4-1.

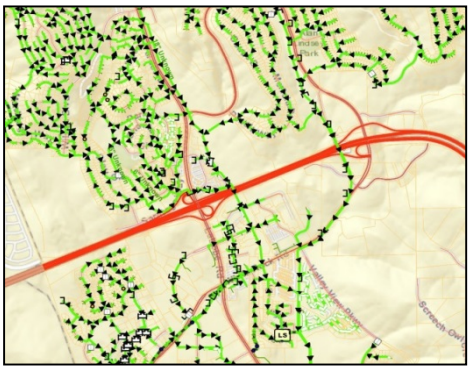


Table 4-1 Sewer System Map Features (GIS)

Facility Type	Information Available in GIS	Information Available by Cross Reference
Pipes and Forcemains	Force Main or Gravity Line	Record Drawing Number; Work Orders
	Size	Design Elevation
	Material Type	Design Slope
	Location with reference to streets and property lines	Construction Drawings
	Length	Record Drawings
Maintenance Holes	Unique Number Identifier	Record Drawing Number; Work Orders
	Location with reference to streets and property lines	Design Rim Elevation
Valves	Valve locations	Record Drawing Number
Valves Lift Stations	Location with reference to streets and property lines	Design Elevation
Lift Stations	Location with reference to streets and property lines	Lift Station Data Files: Design, Drawings, Pump Curves, Maintenance History, Operating History.

Map Updating Procedures

Assets affected by new construction or facility rehabilitation or replacement projects are updated using either red-lined map drawings or completed record drawings. When field staff identifies a discrepancy between the system map and what exists in the field, the error is noted on the GIS System maps and submitted to the Engineering GIS/Drafting unit for updates. New construction projects are input after final acceptance of the project by the District through completed record drawings.

B. Preventive Maintenance Program

The District's preventative maintenance (PM) program includes cyclical as well as focused maintenance and cleaning of the sanitary sewer system. The system of scheduling, documenting and recording these activities is facilitated with a computerized maintenance management system (CMMS).

Computerized Maintenance Management System

The CMMS utilized by the District is a database system that compiles a wide variety of information about the District's sewer system assets and maintenance of those assets. It provides the District with preventative maintenance schedules that are generated weekly, monthly, quarterly, annually, bi-annually, or as needed. Scheduling functions include the following.

- Issue scheduled PM work orders as specified by the manufacturer or maintenance personnel.
- Issue work orders for service requests or repair orders including SSOs.
- Differentiate maintenance priority status for specified areas of the system.
- Differentiate between work orders for periodic maintenance, SSO follow up, service request, or repair order.
- Maintain a detailed database of system, costs, repair times, and equipment histories.

Work orders are "closed" by maintenance staff as work is completed. Typically the following information is added to the database each time an order is closed.

- Description of work
- Parts used
- Cost and time spent on each repair task
- Observations on the equipment
- Additional maintenance recommendations
- Adjustments to the maintenance schedule
- Equipment ID number(s)
- Initiating party
- Employee or work crew assignment
- Any additional information the maintenance staff believes would be advantageous for future reference.

The CMMS database compiles information that can be used to generate reports related to a particular system asset or the system as a whole. Tailored reports can be created based on any data field. Typical reports include the following:

- Asset maintenance and repair history
- CCTV areas for history or troubleshooting
- Smoke testing
- Root control
- Cyclical or focused cleaning areas and maps
- Spill reports
- Blockages
- Asset status reports

Sewer System Preventative and Proactive Maintenance

During routine preventative maintenance, staff will conduct a condition assessment that gathers information to evaluate potential immediate and/or future impacts. Adjustments are made if necessary and documented on the work order for possible schedule adjustments. Some adjustments that may be made are as follows.

- Remain on current PM schedule
- Treat for roots or FOG

- CCTV the line
- Place on prioritized PM
- Refer to Engineering for further evaluation
- Repair

Lift Stations

Lift station operators perform routine inspections using a station checklist and construction & maintenance workers make weekend checks and provide emergency response on the off shift from a standby capacity. The majority of lift stations are inspected 2-3 times per week. Three large stations are typically inspected 6 days per week. Inspections are designed to confirm that the station is in normal operating condition and include such items as housekeeping, fluid levels, pump totalizer readings, wet well levels, and instrumentation and generator operations. Generators are exercised monthly. Maintenance performed, station statistics and observations are recorded in logbooks kept at the station. Station PM occurs as follows.

- Wet wells cleaned 4 to 24 times per year.
- Mechanical inspections, including the pumps and motors, are conducted annually.
- Priority alarms are simulated monthly.
- Generators are checked under load periodically.

Cyclical Sewer Cleaning

Sewer cleaning occurs as part of PM. The District performs cyclic cleaning based on the branching structure of the collections system. Starting from the ends of the sub-areas and working toward the wastewater treatment plant, each sub area of the system is cleaned on a rotating basis. The District takes a proactive approach on non-problem areas through cleaning of gravity lines on a rotating 6-year schedule. As cleaning is completed and condition assessments made, potential trouble areas are documented and prioritized for increased cleaning or remedial action as required.

Focused Sewer Cleaning

Focused or prioritized sewer cleaning is scheduled based on findings from PMs, SSOs, or cyclical inspections. Focused cleaning may include root control or hydro-jetting of the line.

Root Control

The District uses two methods of root control, root cutting and chemical root application. In 2007 the District conducted a study on roots and identified a method to control roots that was appropriate for the District. In early 2009 the District purchased a specialized vehicle that would cut roots and apply chemical for root control.

Fats, Oils, and Grease Control

The District has a proactive approach to PM that minimizes FOG trouble spots. Mitigation of FOG impacts to the sewer system are discussed in Section 7 of this SSMP.

Odor Control Methods

The District has been very proactive in preventing and or minimizing odors. Chemical application for odor control occurs on an as-needed basis and routinely in the summer months. The District has improved other areas by utilizing additional odor removal methods, which includes biofilters, activated carbon and other filtration methods.

Quality Control Inspections

The District is developing standard operating procedures for proper cleaning, root control, flushing methods and equipment usage. CCTVs inspections are conducted as part of the preventative maintenance schedules. Videos are reviewed periodically for assessment to determine if further action is required.

Service Requests and Repair Orders

Service requests are initiated by customers, staff or an outside entity. Service requests are prioritized by the nature of the request and initiate any of the following actions; immediate response from construction & maintenance workers in the area to investigate probable cause including CCTV of the line when necessary, public outreach/educational information describing the difference between private and public pipelines, referral for further evaluation, or referral directly to District engineering staff for replacement.

Flow Monitoring

Flow monitoring in the collection system is continuous and informs the master planning process to model the collection system capacity and to identify areas with high Inflow/Infiltration (I/I). The most recent Wastewater Facilities Master Plan (WWFMP) was updated in 2013 and contains the results of the 2012 modeling analysis. The WWFMP can be viewed on the District's website. Flow monitoring continues at alternate locations to further refine the modeling analysis.

C. Rehabilitation and Replacement Plan

The District has a rehabilitation and replacement program that identifies and prioritizes system deficiencies and implements appropriate short-term or long-term actions to address each deficiency.

Identification of System Deficiencies

Collection system deficiencies are identified by several means listed below:

- Review of CCTV surveys.
- During the process of cleaning a mainline.
- During the process of root removal and cleaning of lower laterals.
- During the process of chemical root control.
- Maintenance holes are regularly inspected for structural integrity, roots, or I/I problems during the pipeline cleaning process.
- The District's lift stations are continually monitored during routine inspections by lift station operators or construction and maintenance workers. Defects discovered are reported to supervisors and/or directly to the District's electrical/instrument technician and/or mechanic.
- If an SSO occurs, a failure analysis is conducted and appropriate action is taken.

Prioritizing System Deficiencies

When a pipeline deficiency has been identified, a systematic prioritization is used to determine when the problem needs to be addressed. Facilities thus identified receive a rank from 1 to 3. Priority 1 indicates an immediate response is needed. Priority 3 represents further action will not be needed in the next three years. Condition assessment rankings are shown in Table 4-2. It is up to operations to assign a priority rating to each discovered problem. In the case where the pipeline deficiency caused an SSO, it is always given a priority 1 status.

Table 4-2 Facility Condition Ratings

Priority	Rating	Time Frame
1	Poor	Immediately
2	Fair	Within 1-3 year
3	Good	Within 4-10 years

Implementation of Short and Long Term Rehabilitation Actions

Short Term – Facilities that receive a priority 1 or 2 are investigated and an action plan is developed. Pipelines that are at risk of failure are repaired as soon as possible. Temporary repairs, or repairs that are limited in scope, are undertaken by District staff.

Long Term – Facilities that are not in danger of immediate failure but need rehabilitation are either; scheduled to be repaired by District crews, or are placed on the Capital Improvement Plan (CIP).

Capital Improvement Plan

The District develops a five-year CIP that is updated annually. Timing of construction of both new and replacement facilities is based on priority, deficiency, and input from operations staff. Risk assessment, financing, and staffing are also considered in the long-term management of District facilities.

The CIP is funded through wastewater rates and wastewater facility connection charges. The composition of the finance package for each project is based upon the ratio of new and existing customers that will be served by the new or upgraded facility.

D. Training

The District provides extensive training for all Collections staff. Contractors performing any work on the District's collection systems, whether it is a system upgrade, rehabilitation or new installation, are required to submit a copy of their safety program prior to the start of work. Contractors are required to follow all applicable health and safety laws. All contractors are required to submit a Health and Safety Plan (HSP). The HSP is reviewed to ensure it meets Cal-OSHA requirements.

Wastewater collections staff are required to become and remain CWEA certified in the maintenance and operations of wastewater collection systems. The District assists with the certification by paying for the preparation course, take home study materials, certification exams, and required continuing education to maintain certification.

Numerous outside vendor sponsored training courses, in-house training by lead workers, and extensive cross training programs are employed to keep operators current with updated maintenance and operations practices. The following training is provided on a yearly or bi-yearly

timeframe. Additional training is made possible through CWEA local section and District participation in Collections System Committee membership.

- First-aid
- CPR
- Confined Space Entry
- Trench Safety
- Stand-by Generator Operations
- Traffic Control
- Training on the use of all collection system maintenance equipment
- Overflow Emergency Response Plan
- SSO Volume Estimation

E. Contingency Equipment and Replacement Inventories

The District maintains an extensive inventory of critical replacement parts and owns necessary construction equipment to conduct repairs.

Contingency Equipment

The District has numerous pieces of portable equipment available in the event of an emergency: pumps, generators, heavy equipment and traffic safety equipment. The District owns and operates a variety of equipment to keep the collection system in working order. At this time, the District fleet includes the following.

- (3) High power vacuum combination trucks
- (2) 4,000 gallon pumper truck
- (1) Combination pipe cleaning/chemical root control truck
- (1) Trailer mounted high pressure jet rodder; used in cleaning pipelines
- (2) CCTV truck; used to inspect inside gravity and service lines
- (2) Backhoe; earth moving equipment
- (1) Dump truck
- (1) Mini-excavator
- (1) Easement machine
- (5) Portable diesel generators
- (1) Portable diesel pump
- (1) National crane truck
- (1) Confined space rescue/entry support van

Replacement Parts Inventory

The collections division keeps a robust inventory of pipe and fitting materials. Parts that are needed routinely for preventative maintenance and repairs are kept on hand or can be easily attained from local vendors. Procedures are in place for unplanned or emergency parts purchases. Parts are also available from the wastewater treatment facilities and other divisions.

Requirements:

A. The SSMP must identify design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems.

B. The SSMP must identify the procedures and standards for inspecting and testing the installation of new sewers, pumps and other appurtenances and for rehabilitation and repair projects.

This section of the SSMP discusses the District's design and construction standards as well as procedures and standards for inspection of new or repaired facilities.

The 2021 Audit proposes no changes

A. Design and Construction Standards and Specifications

The District requires that all new sanitary sewer systems, pump stations and other appurtenances, as well as the rehabilitation and repair of existing sewer facilities, be designed and constructed in accordance with the District's *Water, Sewer and Recycled Water Design and Construction Standards*. Collection system standards include the following.

- Design Criteria and Standards
- Standardization of equipment
- Standard Sewer Construction Details
- Technical Specifications; Materials and Construction Standards

B. Inspection and Testing Procedures

Within the sewer section of the *Technical Specifications* are procedures and standards for inspecting and testing the installation of new or rehabilitated sewers, pumps and other appurtenances.

Requirements: Each Enrollee shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:

- **A.** Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner.
- **B.** A program to ensure an appropriate response to all overflows.
- **C.** Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g., health agencies, Regional Water Boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach water of the State in accordance with the MRP. All SSOs shall be reported in accordance with the MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification.
- **D.** Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained.
- **E.** Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities.
- **F.** A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

This section of the SSMP provides an overview and summary of the District's emergency response documents and procedures for sewer overflows.

The 2021 Audit proposes no changes

Purpose:

The purpose of the El Dorado Irrigation District's Overflow Emergency Response Plan (OERP) is to support an orderly and effective response to SSOs. The OERP provides guidelines for District personnel to follow in responding to, cleaning up, and reporting SSOs that may occur within the District's service area. This OERP satisfies the SWRCB Statewide General Waste Discharge Requirements (GWDR), which require wastewater collection agencies to have an OERP. The OERP is a standalone document contained in Appendix B of the SSMP.

Policy:

The District's employees are required to report all wastewater overflows found, to take the appropriate action to secure the wastewater overflow area, properly report to the appropriate regulatory agencies, relieve the cause of the overflow, and ensure that the affected area is

cleaned as soon as possible to minimize health hazards to the public and protect the environment. The District's goal is to respond to sewer system overflows as soon as possible following notification. The District will follow reporting procedures in regards to sewer spills as set forth by the Central Valley Regional Water Quality Control Board (CVRWQCB) and the California State Water Resources Control Board (SWRCB).

Goals:

The District's goals with respect to responding to SSOs are:

- Work safely;
- Respond quickly to minimize the volume of the SSO;
- Eliminate the cause of the SSO;
- Prevent sewage system overflows or leaks from entering the storm drain system or receiving waters to the maximum extent practicable;
- Contain the spilled wastewater to the extent feasible;
- Minimize public contact with the spilled wastewater;
- Mitigate the impact of the SSO;
- Meet the regulatory reporting requirements;
- Evaluate the causes of failure related to certain SSOs; and
- Revise response procedures resulting from the debrief and failure analysis of certain SSOs.

OERP Components:

The OERP is divided into sixteen sections as follows:

- Purpose
- Policy
- Definitions
- Regulatory requirements for OERP element of the SSMP
- Goals
- SSO detection and notification
- SSO response procedures
- Recovery and cleanup
- Water quality
- Sewer backup into/onto private property claims handling policy
- Notification, reporting, monitoring and recordkeeping requirements
- Post SSO event debriefing
- Failure analysis investigation
- SSO Response training
- Authority
- References.

Requirement: Each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed the Enrollee must provide justification as to why it is not needed. If FOG is found to be a problem, the Enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. This plan shall include the following as appropriate.

A. A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area.

B. The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG.

C. Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements.

D. Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance.

E. An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section.

F. Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (e) above.

G. An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG.

The 2021 Audit proposes no changes

District Evaluation of Service Area FOG

The District regulates direct and indirect contributors to the sewer system through the following actions and programs.

- Preventative Maintenance
- Source Control Measures
    - Industrial Pretreatment and Pollution Prevention Program
    - Issuance of discharge permits to and regular inspections and enforcement of Food Service Enterprises (FSE)
    - Enforcement of General Sewer System User Requirements

SWRCB requires each enrollee to evaluate its service area to determine whether a FOG control program is needed and to develop a program if needed. The District conducted an evaluation of

service area FOG and determined that proactive preventative maintenance is effective in mitigating FOG blockages in the sewer system and that a formal FOG control is not needed.

A. FOG Disposal

The District requires and/or disposes of FOG in the following ways.

- Commercial businesses with Grease Interceptors are required to have them cleaned by a licensed hauler, who then disposes of the contents to a facility out of El Dorado County.
- Commercial businesses with Grease Traps are required to clean the pretreatment device at least monthly and dispose of the contents in either a rendering container or solid waste bin, which is picked-up by a licensed hauler and disposed of accordingly.
- FOG collected in the sewer system is transported to the headworks of either the Deer Creek or the El Dorado Hills WWTP.

B. Legal Authority

The District possesses the legal authority to control sources of FOG through the following Administrative Regulations.

- AR 6020 Wastewater Discharge and Disposal: This regulation addresses wastewater discharge and disposal, and customer responsibility.
- AR 6021 Industrial Pretreatment Program: This Administrative regulation describes the Industrial Pretreatment Program.
- AR 6022: Requirements for the Control of Fats, Oils, and Grease from Food Service Establishments: This administrative regulation details the waste discharge permit program for FSEs including the authority to inspect GRDs.
- The Uniform Plumbing Code and the California Plumbing Code: Contain provisions for the sizing of GRDs. The District has adopted these codes by reference through its Administrative Regulations.

C. Discharge Permits for Grease Removal Devices

When a waste discharge permit is issued to a FSE, District staff advises the permittee on the following.

- GRD maintenance requirements
- BMP requirements
- Record keeping and reporting requirements

As part of the initial inspection for a new FSE the District inspects the GRD to confirm it is sized and installed appropriately according to the Uniform Plumbing Code based on the number and type of fixtures (e.g., sinks) installed at the facility. At this time a dye test of the FSE's plumbing system is also performed to verify the appropriate fixtures are attached and not bypassing the GRD.

All FSEs with GTs are inspected at least three times per year and FSEs with GI are inspected at least two times per year. Inspection frequency in increased when the FSE fails to maintain adequate GRD maintenance records or District preventive maintenance (PM) records indicates abnormal FOG accumulation in District facilities downstream of GRD.

Ongoing regular inspections include; verifying percentage of FOG & solids accumulation is less than or equal to 25% of volume of GRD, GRD is in proper working order, reviewing grease traps and grease interceptors cleaning records, review of FOG best management practices, and ensuring compliance with waste discharge permit conditions. A copy of the compliance inspection check-list appears in Appendix C. Non-compliance notices are issued and follow-up enforcement is conducted, as necessary, if the FSE fails to meet all permit conditions.

D. District Enforcement

In the event of non-compliance with AR 6021 and/or AR 6022, the District Enforcement Response Plan (ERP) aims to deal with the noncompliance in a just, efficient, and effective manner. The ERP addresses the different types of non-compliance and the nature of the violation, as well as the enforcement response tasks for each non-compliance matter. It also includes an enforcement matrix which shows the title and action allowed by District personnel. The necessary steps are as follows.

- Identify and respond to noncompliance as quickly as possible, in order to minimize impact on the District's collection system.
- Document and investigate noncompliance thoroughly and expeditiously.
- Ensure that enforcement actions are dictated by the severity of the violation.
- Take enforcement action in a timely manner.
- Respond to noncompliance in a consistent and objective manner.

E. Preventative Maintenance

Cyclical and focused preventative maintenance (PM) schedules consist of hydro-jet cleaning and chemical root control measures to inhibit the growth of roots where grease may accumulate. Hydro-jetting is the most common method of trunk line preventive maintenance.

Preventative maintenance for any sewer system area is prioritized based on qualitative findings of previous preventive maintenance results, such as observation of grease accumulation or grit deposits. High priority segments are placed on an accelerated PM schedule and the findings are forwarded to the District's IPP for follow-up to verify FSEs are complying with discharge permit requirements. The segment will remain on accelerated PM until subsequent observations determine that the potential for obstruction or blockage have been reduced or eliminated.

F. Source Control Measures

The Industrial Pretreatment and Pollution Prevention Program (IPP) is administered by the Environmental Compliance Division. IPP staff is responsible to permit, inspect, monitor, conduct enforcement, and assist in investigations relating to FOG control.

All FSEs are considered potential FOG generators. Currently there are over 145 FSEs in the service area. To control FOG at its source, the District issues waste discharge permits to all FSEs requiring them to do the following.

- Install Grease Removal Devices (GRD) for all new FSEs.
- Maintain GRD in proper working order.
- Limit the capacity of FOG and solids to less than or equal to 25% of the GRD volume.
- Conduct GRD scheduled maintenance a minimum of every three months or more frequently for grease interceptors (GI) and no less than monthly for grease traps (GT).

- Practice Best Management Practices (BMPs) to minimize the amount of FOG reaching GRDs.
- Maintain GT cleaning records and GI pick-up logs on site and available for review by District personnel.
- Allow District inspection of GT without impediment a minimum of every 4 months and GI a minimum of every six months or any other time the District determines necessary.

G. Public Education/Outreach Program

The District has increased public outreach and education on the sewer system in general and has embarked on a "Don't Fog your Drain" campaign on the District website, local newspaper ads during holiday periods when the potential for residential FOG production is increased, and the District Waterfront bimonthly newsletter. Additionally, the District has developed a FOG awareness door hanger that can be placed at surrounding residences following a residential blockage to inform the public of the potential for blockage and overflow due to improper FOG control practices. This brochure specifically addresses the role of FOG in causing sewer blockages, proper FOG disposal procedures, and other means of reducing backups or blockages. The brochure is displayed at the District's Headquarters and is available from the District's website at http://www.eid.org.

Requirements: The Enrollee shall prepare and implement a capital improvement plan that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. At a minimum, the plan must include:

A. Evaluation: Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs that escape the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events.

B. Design Criteria: Where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria.

C. Capacity Enhancement Measures: The steps needed to establish a short-term and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.

D. Schedule: The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a) – (c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D.14.

The 2021 Audit proposes modifications to Requirements A, B, C, and D.

A. Background and Evaluation

In 2013 the District completed an Integrated Water Resources Master Plan (IWRMP) and a Wastewater Facilities Master Plan (WWFMP). The District's primary objective is to optimize the use of water, wastewater and recycled water resources and provide a roadmap for the development of future infrastructure and the maintenance of existing facilities. The work for the WWFMP included an extensive evaluation of the collection system including flow monitoring, lift station condition assessments, hydraulic modeling of the collection system, risk and consequence analysis, and the development of a corrective action plan.

The District has completed a 2019 modeling update for the El Dorado Hills shed and is currently working on a modeling update for the Deer Creek shed. Updates include additional flow monitoring and incorporation of new and future connections. The goal of the hydraulic model update is to supplement the previously mentioned documents and further refine the schedule for necessary upgrades.

El Dorado Hills Collection System

The El Dorado Hills sewer shed encompasses approximately 24.9 square miles located between the western El Dorado County Boundary and Bass Lake Road and Folsom Lake and 3 miles south of Highway 50. In 2019, there were approximately 12,000 sewer connections equating to approximately 13,600 equivalent dwelling units (EDUs) located within this particular sewer shed.

The collection system, shown in Table 8-1, is comprised of 30 lift stations and 249 miles of pipeline ranging between 4- and 42-inches in diameter, as summarized in the Table 8-2. Pipelines are comprised of gravity sewers, force mains and portions of the laterals are owned by the District. Pipe materials consist of polyvinyl chloride (PVC), ductile iron, asbestos cement (AC), and vitreous clay and were installed between 1960 and 2020, as indicated in Table 8-2.

Table 8-1 El Dorado Hills Collection System Inventory

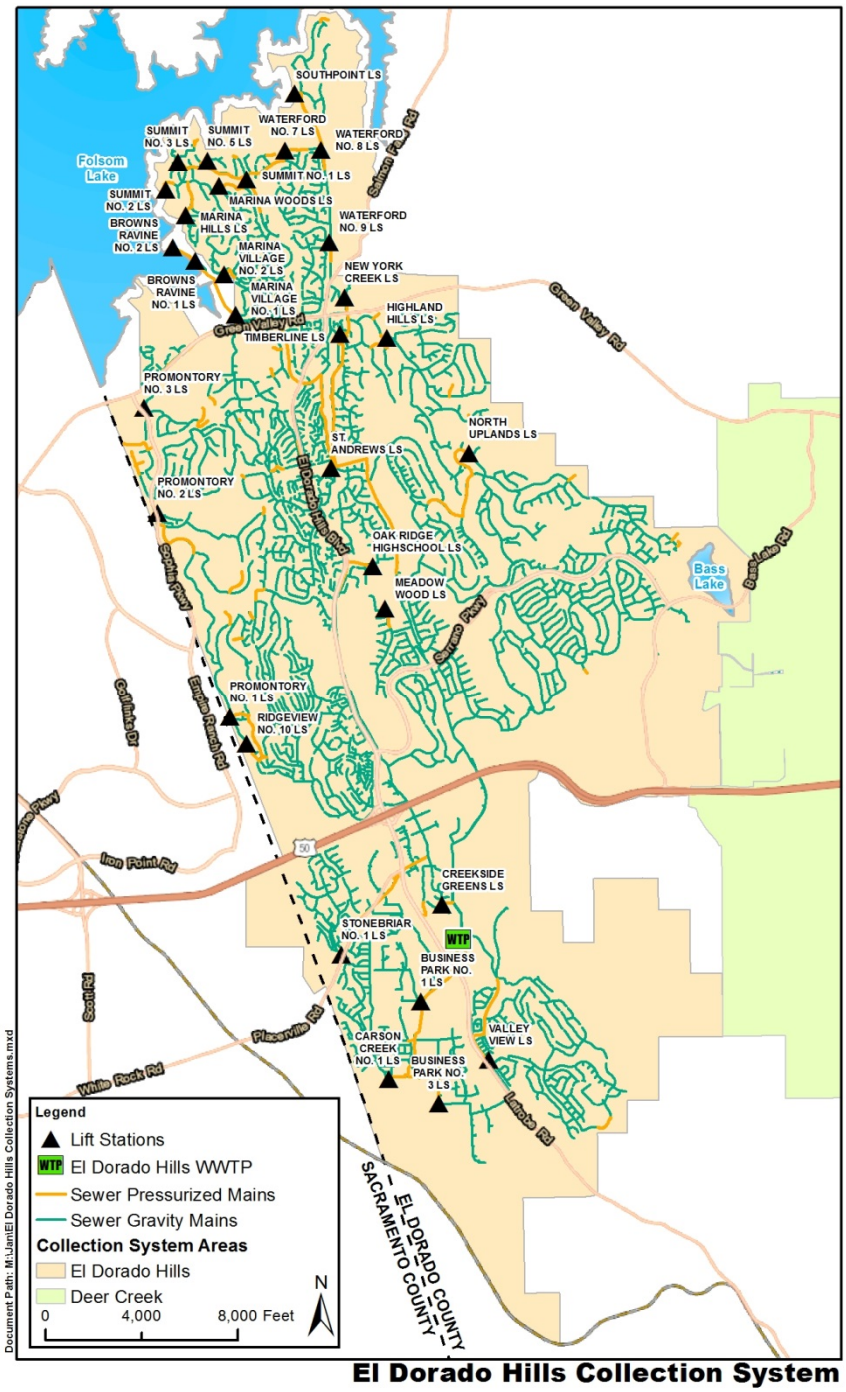
Pipe Diameter (inches)	Force main[a] (linear feet)	Gravity Sewer[a] (linear feet)	Total Pipe Length (linear feet)
Unknown	23,651	815	24,466
4	23,914	9,352	33,266
6	12,736	806,014	818,750
8	10,062	251,470	261,532
10	11,967	37,267	49,234
12	15,481	30,938	46,419
14	337	0	337
15	687	22,897	23,584
16	0	38	38
18	3,654	29,219	32,873
21	0	15,951	15,951
24	0	1,552	1,552
27	0	1,547	1,547
30	0	1,804	1,804
36	0	723	723
42	0	341	341
Total	**102,489**	**1,209,928**	**1,312,417**

Length of pipe by diameter is based on June 2021 GIS data provided by the District.

Table 8-2 El Dorado Hills Collection System Pipe Materials

Pipe Material	Length (ft)	Percent of Total (%)
PVC	1,123,607	86
Ductile Iron	16,544	1
Asbestos Cement	103,184	8
Other (SPIRO, CAS, etc.)	14,584	1
Vitreous Clay	40,430	3
Unknown	14,068	1
Total	**1,312,417**	**100**

Figure 8-1 El Dorado Hills Collection System



The El Dorado Hills Collection System includes 30 lift stations. The lift stations and their key attributes are presented in Table 8-3

Table 8-3 El Dorado Hills Lift Stations

Lift Station	Year Constructed	No. of Pumps	HP	Storage Capacity (gal)	Generator
Brown's Ravine 1	1974	2	15	Wetwell only	NA
Brown's Ravine 2	1974	2	1	Wetwell only	NA
Business Park 1	1985	4	70	Standby Power	200 kW Diesel
Carson Creek 1	2016	2	70	Standby Power	175 kW Diesel
Carson Creek 2	2018	2	34	13,650 + Standby Power	
Creekside Greens	2002	2	3	Standby Power	10 kW Diesel
Highland Hills	2003	2	30	Standby Power	60 kW Diesel
Marina Hill	1995	2	40	Wetwell only	NA
Marina Village 1	1973	4	88	20,000+ Standby Power	265 kW Diesel
Marina Village 2	1980	2	10	16,000	NA
Meadow Wood	2004	2	5	4,000	NA
New York Creek	1983	3	84	Standby Power	200 kW Diesel
North Uplands	1994	2	60	Standby Power	209 kW Propane
Oak Ridge High School	1981	2	5	Standby Power	40 kW Diesel
Promontory No. 1	2001	4	84, 48	Standby Power	240 kW Diesel
Promontory No. 2	2001	4	75, 77	Standby Power	240 kW Diesel
Promontory No. 3	2001	4	14	Standby Power	60 kW Diesel
Saint Andrews	1985	6	70,70,, 140,140,140	4,000 + Standby Power	510 kW Diesel
Southpointe	1991	2	75	Standby Power	100 kW Diesel
Stonebriar No. 1	2001	2	58	Standby Power	135 kW Diesel
Summit 1	2009	2	25	Standby Power	100 kW Diesel
Summit 2	1988	2	5	Standby Power	20 kW Propane
Summit 3	1988	2	27	Standby Power	100 kW Diesel
Summit 5	1988	2	4.5	Standby Power	20 kW Diesel
Summit 6 (Marina Woods)	1996	2	15	10,000	NA
Timberline	2011	2	75	Standby Power	180 kW Diesel
Valley View	2006	3	15, 59, 59	Standby Power	150 kW Diesel
Waterford 7	1988	2	30	Standby Power	75 kW Diesel
Waterford 8	1988	2	15	Standby Power	50 kW Diesel
Waterford 9	1988	2	15	Standby Power	50 kW Diesel

Deer Creek Collection System

The Western and Mother Lode service areas include 15 and 8 square miles, respectively. Through 2015, there were approximately 10,000 sewer connections equating to approximately 11,075 equivalent dwelling units (EDUs) located within these sewer sheds.

The collection system, shown in Figure 8-2, consists of approximately 205 miles of pipeline, ranging from 4- to 36-inches in diameter, and 30 lift stations, as shown in Table 8-4. Pipelines

are comprised of gravity sewers, force mains and District owned laterals. As shown in Table 8-5, pipe materials include asbestos cement, vitreous clay, PVC and high-density polyethylene and were installed between 1961 and 2020.

Table 8-4 Deer Creek Collection System Inventory

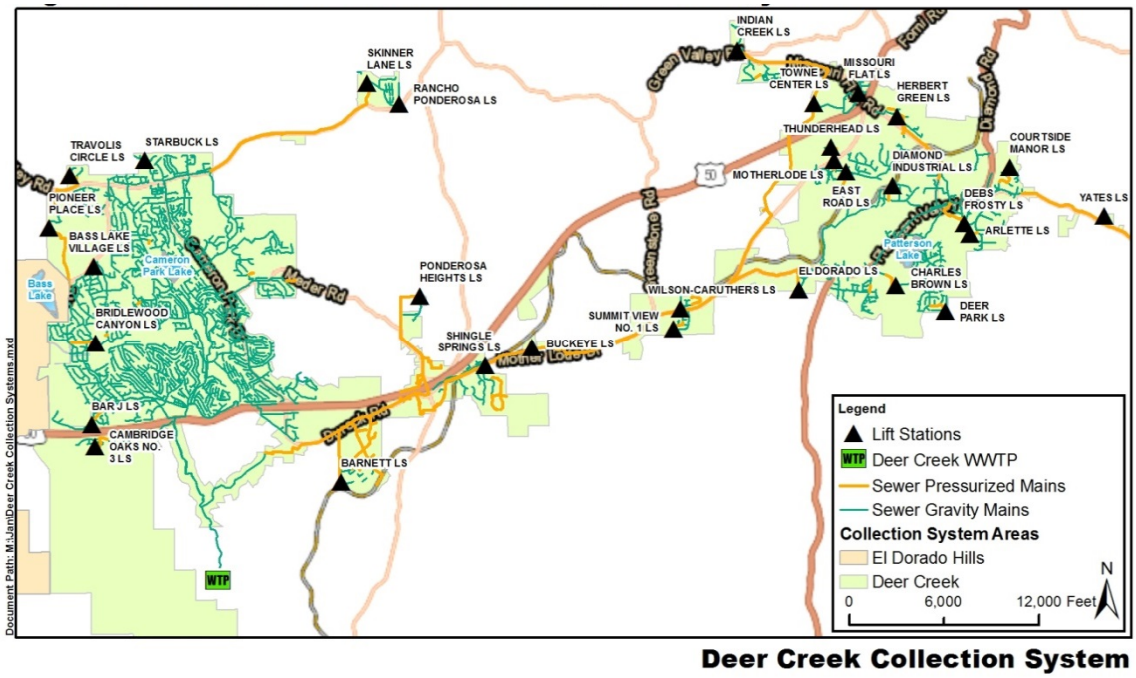
Pipe Diameter (inches)	Force main (linear feet)	Gravity Sewer (linear feet)	Total Pipe Length (linear feet)
Unknown	30,593	1,067	31,660
4	50,894	10,995	61,889
6	44,853	561,063	605,916
8	12,957	204,041	216,998
10	0	30,384	30,384
12	21,749	32,103	53,852
14	0	809	809
15	0	5,262	5,262
18	1,110	14,870	15,980
20	89	1,007	1,096
21	18,806	5,403	24,209
24	0	23,919	23,919
27	0	1,353	1,353
30	0	974	974
36	0	6,642	6,642
Total	181,051	899,892	1,080,943

Length of pipe by diameter is based on June 2021 GIS data provided by the District.

Table 8-5 Deer Creek Collection System Pipe Materials

Pipe Material	Length (ft)	Percent of Total (%)
Asbestos Cement	368,173	34
Vitreous Clay	113,969	11
PVC	518,709	48
Ductile Iron	25,304	2
Other (ABS, steel)	32,559	3
Unknown	22,229	2
Total	1,080,943	**100**

Figure 8-2 Deer Creek and Mother Lode Collection System



Deer Creek Collection System

The Deer Creek Collection System includes 30 lift stations. The lift stations and their key attributes are presented in Table 8-6.

Table 8-6 Deer Creek Lift Stations

Lift Station	Year Constructed	No. of Pumps	Horsepower	Storage Capacity (gal)	Generator
Arlette	1996	2	2	960	NA
Bar J	1987	2	15	Standby Power	35 kW Diesel
Barnette	2009	2	27		62 kW Diesel
Bass Lake Village	1994	2	11.3	Standby Power	30 kW Propane
Bridlewood Canyon	2016	2	60	Standby Power	150 kW Diesel
Buckeye	1977	2	7.5		NA
Cambridge Oaks	2003	2	40		NA
Charles Brown	1965	2	12	Standby Power	60 kW Diesel
Courtside Manor	1999	2	15	Standby Power	80kW Diesel
Deb's Frosty	1989	2	23	Standby Power	80 kW Diesel
Deer Park	1986	2	5	Standby Power	20 kW Diesel
Diamond Industrial	1981	2	7.5	Standby Power	26 kW Diesel
East Road	1965	2	23	Standby Power	125 kW Diesel
El Dorado	1977	4	10,33.5,114,114	4,630,000	350 kW Diesel
Herbert Green	1967	2	33.5	Standby Power	200 kW Diesel
Indian Creek	1988	2	40	Standby Power	75 kW Propane
Missouri Flat	2004	2	10	6,390	40 kW Diesel
Mother Lode	1978	2	6.2	2,400	NA
Pioneer Place	2000	2	40	Standby Power	100 kW Propane
Ponderosa Heights	2004	2	23	20,000	NA
Rancho Ponderosa	1964	2	7.5		NA
Shingle Springs	2006	3	60, 48, 60	Standby Power	100 kW Propane
Skinner Lane	2009	2	40	Standby Power	155 kW Diesel
Starbuck	1982	2	3	6,900	NA
Summit View No. 1	2009	2	5	18,800	NA
Thunderhead	1979	2	4.5	1,900	NA
Town Center	1993	2	20,11.3,25	Standby Power	100kW Diesel
Travolis Circle	1993	2	10		NA
Wilson - Caruthers	2000	4	7.5,30,30,30	10,000	135 kW Propane
Yates	1948/2014	2	6.5	Standby Power	26 kW Diesel

Hydraulic Modeling

The District's collection system is hydraulically modeled in InfoWorks ICM. The model represents existing conditions within the El Dorado Hills and Deer Creek sewer sheds derived from a combination of electronic and hardcopy maps of the existing collection system, as well as operational data of lift station logic and field-verified pump curves.

Wastewater flows and diurnal patterns are derived from customer class, customer account information, and flow monitoring data. The customer classes reflect user categories described in the El Dorado County General Plan and their associated flows. Analysis includes identifying

key characteristics such as, base sanitary flows, groundwater infiltration and rainfall-dependent inflow and infiltration, and seasonal variances due to impacts from the fluctuating groundwater table.

The completed model includes all key force and gravity mains within the El Dorado Hills and Deer Creek sewer sheds. An excel-based model was be prepared for the smaller Camino Heights sewer system.

Model calibration was and is continually being performed using results from dry and wet weather flow monitoring efforts to within 10 percent of recorded values, including volume and peaking factors.

The modeling update effort includes insertion of new and future connections as well as additional flow monitoring calibration. Modeling results will further enlighten District staff on timing of necessary capacity upgrade projects.

Peak Flow

The District is continuing to revise peak flow in the system by using six flow meters that provide continuous reading. This data is used to update the hydraulic model.

The District's engineering consultant utilizes the flow monitoring results to differentiate and estimate base wastewater flow, groundwater induced infiltration and inflow, and rainfall induced infiltration and inflow with respect to various land use categories. Unit demand factors derived from the flow monitoring program have been applied throughout the system. A comparison of measured and projected wastewater flows will be prepared in the upcoming hydraulic model update and used as a basis for determining specific service areas associated with relatively high I/I contributions.

Condition and Capacity of Key System Components

The condition and capacity of key system components were evaluated as follows.

Lift Stations

In 2013, hydraulic capacity of key lift stations was analyzed using data loggers, pump run times and the hydraulic model. Condition assessments performed on 10 lift stations included analysis of structural, mechanical, electrical, and field verified operational data and pump curves. Lift stations identified with deficiencies were recommended for improvement and projects were executed in the following years.

In 2019, the El Dorado Hills lift stations were assessed for capacity in the modeling update and recommended for upgrades as necessary. The Deer Creek lift stations will be assessed in the 2021 modeling update and recommended for upgrades accordingly.

In 2021, District staff initiated a lift station condition assessment with Coleman Engineering. Seventeen lift stations were inspected and the final technical memorandum will include a list of condition-based projects to program into the five-year Capital Improvement Plan.

Pipe Lines

Hydraulic capacity of main pipelines was determined using the completed 2013 model and refined in the 2019 and 2021 modeling update effort. CCTV surveys of the collection system are used to assess the condition of force mains, gravity lines and laterals. Proposed development projects requesting services from the District are analyzed by the engineering department for hydraulic capacity, water, fire-flow, and sewer capacity prior to plan approval.

B. Design Criteria

Design criteria are contained in the District's Design and Construction Standards. These standards are published on the District's website and are reviewed and updated as necessary.

C. Capacity Enhancement Measures

The District develops a five year CIP which is updated annually. CIP projects are funded through wastewater rates, wastewater facility connection charges (FCCs), and municipal bonds. The composition of the finance package for each project is based on the percentage of new and existing customers who will be served by the new or upgraded facility.

Within the CIP is programmatic funding for the Deer Creek and El Dorado Hills collection systems. The purpose of this funding is to identify and reduce I/I through repair and rehabilitation of the collection systems and replace failing appurtenances, such as ARVs, on a program level. If a large capacity improvement or rehabilitation project is identified in the condition and capacity assessment then it will be integrated into the CIP on a project specific basis.

D. Schedule

Timing of construction of both new and replacement facilities is based on priority, deficiency, and input from operations staff. The CIP contains planning, design, and construction schedules for all projects. Each individual CIP project contains the project cost estimate and the funding percentage of wastewater rates and wastewater FCCs. Risk assessment, financing, and staffing are also considered in the long-term management of District facilities and implementation of the CIP. All project funding greater than $100,000 requires approval by the EID Board.

Requirements: The Enrollee shall:

A. Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities.

B. Monitor the implementation and, where appropriate, measure the effectiveness of each component of the SSMP.

C. Assess the success of the preventive maintenance program.

D. Identify and illustrate SSO trends, including: frequency, location and volume.

This section of the SSMP discusses parameters the District tracks to monitor the success of the SSMP and how the District plans to keep the SSMP current.

The 2021 Audit proposes modifications to historical data listed in tables and figures.

A. Records Maintenance

The District uses a CMMS with Hansen software that compiles a wide variety of collection system information including all maintenance activities, SSO data, service and repair history, root control, pipe cleaning, and customer complaints. The data collected and accessed through the CMMS is used to generate management reports that are used to monitor and prioritize SSMP activities.

The District's Environmental Compliance Division manages the Industrial Pretreatment Program which is responsible for the permitting of food service establishments and commercial wastewater customers. A list of all such customers is maintained by the District and compliance inspections are conducted annually or more frequently as required.

The District's Collection System Division manages, reviews, and maintains CCTV records at the Bass Lake facility and records routinely uploaded to the District's network for archives. Root abatement and pipe cleaning maps are also maintained by the Collections division.

B. Data Reporting and Assessing the Program

The success of the preventative maintenance program is assessed through identification and tracking of trends in key performance indicators over time. The District uses the following performance indicators.

- Location of all SSOs
- SSOs by cause – roots, grease, debris, pipe failure, pump station failure, capacity
- Length and location of pipeline cleaned
- Length and location of pipeline cleared of roots
- Lift station maintenance performed
- Repairs and rehabilitation projects completed
- Number of grease traps and interceptors inspected
- SSOs per 100 miles per year

C. Identification and Illustration of SSO Trends

Performance indicator information is generated and reviewed on an annual basis. The compiled information, in the form of table-based reports, graphs, and maps, is reviewed by operations and engineering staff. Reports are generated for each collection system, and then aggregated for the entire District. Reports are described and presented below for 2012-2018

Definitions of Category Spills:

Category 1	Discharges of untreated or partially treated wastewater of any volume resulting from an enrollees sanitary sewer system failure or flow condition that: Reach surface water and/or reach a drainage channel tributary to a surface water; or Reach a municipal separate storm sewer system and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the municipal separate storm sewer system is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or ground water infiltration basin (e.g., infiltration pit, percolation pond).
Category 2	Discharges of untreated or partially treated wastewater of **1,000 gallons or greater** resulting from an enrollee's sanitary sewer system failure or flow condition that **do not** reach surface water, a drainage channel, or a municipal separate storm sewer system unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.
Category 3	All other discharges of untreated or partially treated wastewater resulting from an enrollee's sanitary sewer system failure or flow condition.

Distribution of SSOs

Table 9-1 is an aggregated summary illustrating quantity by SSO size of all SSOs for the years 2016-2020.

Table 9-1- Sewer System Overflows by Size. Includes all District Collection Systems

SSO Size	2016	2017	2018	2019	2020
Up to 10 gallons	5	6	2	0	5
11 to 99 gallons	5	3	3	2	4
100 to 999 gallons	8	4	7	3	4
1,000 to 9,999 gallons	4	2	3	1	1
10,000 gallons or greater	0	0	0	0	0

Volume of SSOs

The District produces reports for each collection system, showing statistics of all spills on an annual basis. Table 9-2 includes all district collection systems.

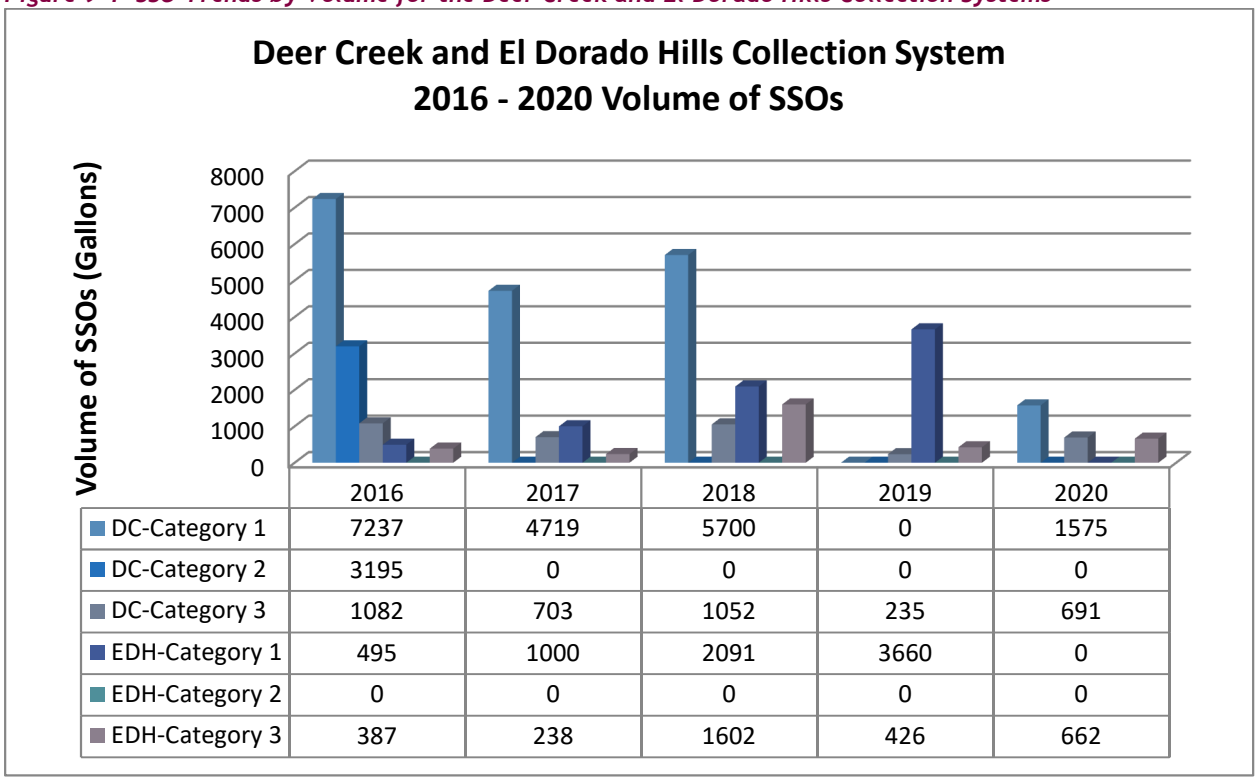
Table 9-2 Total Volume of SSOs. Includes all District Collection Systems

SSO Volume (gallons)	2016	2017	2018	2019	2020
Total number of SSO locations	22	15	15	6	13
Total volume of SSOs (gal)	12,396	5,660	10,445	4321	3128
Volume recovered	5,968	710	5,964	614	2757
Volume reaching surface waters	5,985	3,419	3,610	3060	0
Volume not recovered and not reaching waters of the state	443	1,531	2,750	412	301
Percent reaching surface waters	48%	60%	35%	9.5%	9.6%

D. Number and Size of SSOs

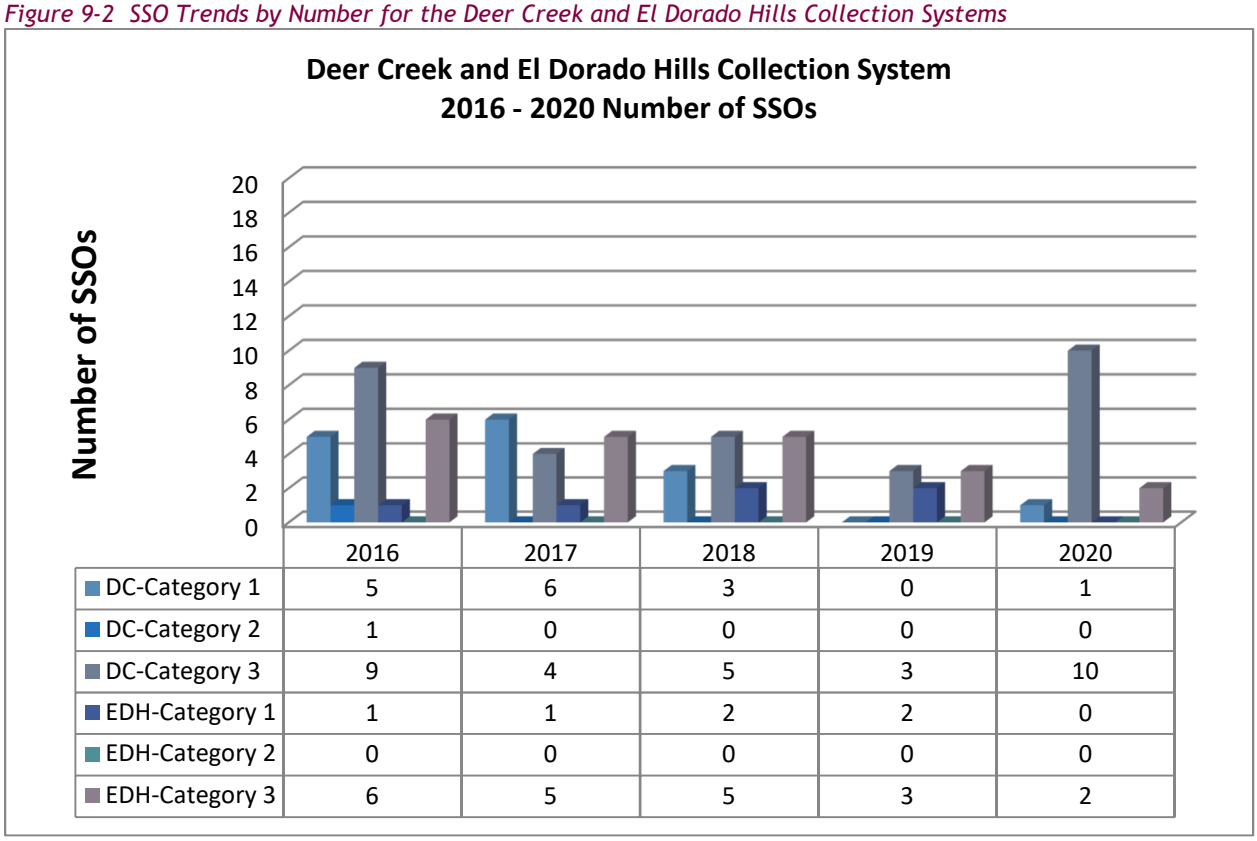
Figure 9-1 provides historical SSO data by volume while Figure 9-2 presents SSO data by the number of SSOs experienced for the El Dorado Hills and Deer Creek collections systems.

Figure 9-1 SSO Trends by Volume for the Deer Creek and El Dorado Hills Collection Systems



	2016	2017	2018	2019	2020
DC-Category 1	7237	4719	5700	0	1575
DC-Category 2	3195	0	0	0	0
DC-Category 3	1082	703	1052	235	691
EDH-Category 1	495	1000	2091	3660	0
EDH-Category 2	0	0	0	0	0
EDH-Category 3	387	238	1602	426	662

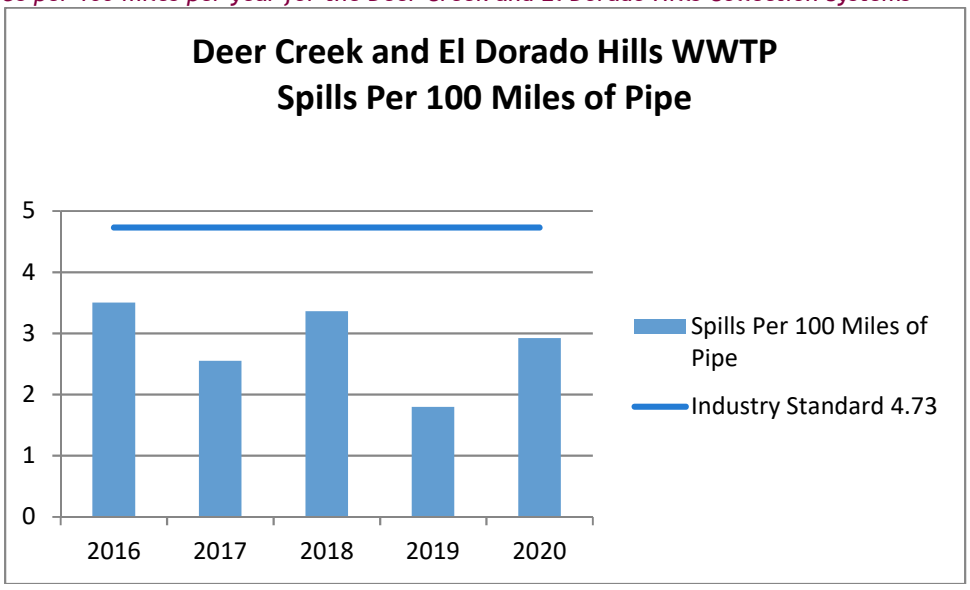
Figure 9-2 SSO Trends by Number for the Deer Creek and El Dorado Hills Collection Systems



	2016	2017	2018	2019	2020
DC-Category 1	5	6	3	0	1
DC-Category 2	1	0	0	0	0
DC-Category 3	9	4	5	3	10
EDH-Category 1	1	1	2	2	0
EDH-Category 2	0	0	0	0	0
EDH-Category 3	6	5	5	3	2

The State Water Board reported that the typical sanitary sewer overflow (SSOs) per 100 miles of piping per year was 4.73 (January 2007 – June 2014). The District SSOs per 100 miles per year has averaged 2.8 over the past five years.

Figure 9-3 SSOs per 100 miles per year for the Deer Creek and El Dorado Hills Collection Systems



Cause

Annual SSO information is presented for the Deer Creek and El Dorado Hills collection systems in Tables 9-3 and 9-4 to illustrate the contribution to total SSOs by cause.

Table 9-3 Deer Creek Collection System – SSOs by Cause 2016-2020

	2016		2017		2018		2019		2020	
Cause	Count	Volume (gal)	Count	Volume (gal)	Count	Volume (gal)	Count	Volume (gal)	Count	Volume (gal)
Blockage-Unspecified	3	2568	2	1505	0	0	0	0	0	0
Blockage-Roots	4	4090	3	22	2	414	0	0	5	1710
Blockage-Grease	2	825	0	0	0	0	0	0	2	312
Blockage-Roots&Grease	0	0	0	0	0	0	0	0	0	0
Blockage-Sand/Rocks	0	0	0	0	0	0	1	235	0	0
Blockage-Other	0	0	0	0	2	4004	0	0	4	374
Line Break	5	3931	4	3,214	2	1700	0	0	0	0
Mechanical	0	0	0	0	0	0	0	0	0	0
Excavation	1	100	0	0	0	0	0	0	0	0
Other	0	0	1	681	2	634	0	0	0	0
Collection System	15	11,514	10	5,422	8	6,752	1	235	11	2,396
Category 1	5	7237	6	4719	3	5700	0	0	1	1575
Category 2	1	3195	0	0	0	0	0	0	0	0
Category 3	9	1,082	4	703	5	1052	1	235	10	821

Table 9-4 El Dorado Hills Collection System – SSOs by Cause 2016-2020

	2016		2017		2018		2019		2020	
Cause	Count	Volume (gal)	Count	Volume (gal)	Count	Volume (gal)	Count	Volume (gal)	Count	Volume (gal)
Blockage-Unspecified	2	695	0	0	0	0	0	0	0	0
Blockage-Roots	2	20	2	105	2	994	3	3476	1	28
Blockage-Grease	0	0	0	0	1	1940	0	0	0	0
Blockage-Roots&Grease	0	0	0	0	0	0	1	360	0	0
Blockage-Sand/Rocks	0	0	0	0	0	0	0	0	0	0
Blockage-Other	0	0	1	72	1	151	1	250	0	0
Line Break	0	0	0	0	1	461	0	0	1	634
Mechanical	2	101	0	0	0	0	0	0	0	0
Excavation	1	66	1	1	0	0	0	0	0	0
Other	0	0	2	1060	2	147	0	0	0	0
Collection System	7	882	6	1,238	7	3,693	5	4,086	2	662
Category 1	1	495	1	1000	2	2091	2	3660	0	0
Category 2	0	0	0	0	0	0	0	0	0	0
Category 3	6	387	5	238	5	1602	3	426	2	662

Location of all SSOs

Data collected for SSOs is used to plot spill locations on sewer system maps of each collection system. The Collection System Supervisor reviews and coordinates with Engineering as needed.

E. Updating Program Components

Biannual program audits will be conducted to ensure that the SSMP remains current and useful over time. The District will assign staff to coordinate the biannual review of the SSMP, and each section of the SSMP will be reviewed by the appropriate District staff.

Requirement: As part of the SSMP, the Enrollee shall conduct periodic internal audits appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the Enrollee's compliance with the SSMP requirements identified in this subsection (D.13), including identification of any deficiencies in the SSMP and steps to correct them.

The 2021 Audit proposes no changes

El Dorado Irrigation District will conduct an internal audit of their SSMP every two years, and focus on the effectiveness of the SSMP and the District's compliance with the SSMP requirements of Order Numbers 2006-0003-DWQ and 2013-0058-EXEC. The audit will include, but is not be limited to, the following areas.

- Any significant changes to components of the SSMP, including but not limited to, Legal Authority, Organization, FOG Control Program, or Overflow Emergency Response Plan.
- Any significant changes to the referenced compliance documents presented as appendix items to the Sewer System Management Plan.
- SSMP implementation efforts over the past two years.
- Strategies to correct deficiencies, if identified, will be developed by the responsible District division.

Requirement: The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.

The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system.

The 2021 Audit proposes no changes

The District will communicate on a regular basis with the public on the implementation and performance of this SSMP, by providing period updates during the District's regular public Board Meetings.

The District maintains a website at http://www.eid.org that provides information to the public on a wide variety of topics. The website is a valuable and effective communication channel and a source for current District news, features, important announcements, agendas and minutes for Board meetings, and information links. The District's SSMP is posted on the web site in an area that will also be used to notify the public of information related to sewer system management.

12 SSMP Completion and Certification

Requirement: Both the SSMP and the Enrollee's program to implement the SSMP must be certified by the Enrollee to be in compliance with the requirements set forth above and must be presented to the Enrollee's governing board for approval at a public meeting. The Enrollee shall certify that the SSMP, and subparts thereof, are in compliance with the general WDRs within the time frames identified in the time schedule provided in subsection D.15 below.

In order to complete this certification, the Enrollee's authorized representative must complete the certification portion in the Online SSO Database Questionnaire by checking the appropriate milestone box, printing and signing the automated form, and sending the form to the State Water Board.

Approval of Governing Board at Public Meetings

Elements of the SSMP have been presented to the District's governing board for approval at the following public meetings.

- October 22, 2007. The Board approved three elements of the SSMP: Development Plan and Schedule, Goals, and Agency Organizational Structure.
- April 27, 2009. The Board approved seven elements of the SSMP: Goals, Organization, Legal Authority, Operations and Maintenance Program, Design and Performance Provisions, Overflow Emergency Response Plan, and Fats, Oils, and Grease.
- July 13, 2009. The Board approved four elements of the SSMP: System Evaluation and Capacity Assurance Plan, Monitoring, Measurement, and Program Modifications, Program Audits, and Communication Program.
- June 2014. The SSMP has been revised to reflect current SSO data and minor revisions to organizational structure. The revised 2014 SSMP is posted on the District's website.
- June 2016. The SSMP has been audited to reflect current SSO data and Regional Board update to add category 3 spills and minor revisions to organizational structure. The Emergency Response Plan (Appendix D) was updated. The audited 2016 SSMP is posted on the District's website.
- July 22, 2019. The SSMP has been updated to reflect current SSO data. The updated 2019 SSMP is posted on the District's website
- June 2021. The SSMP has been audited to reflect current asset quantities and SSO data. The audited 2021 SSMP is posted on the District's website.

Appendix A – District Staff Contact Information with SSMP Responsibilities

El Dorado Irrigation District Staff with SSMP Responsibilities

Position	Office Phone
General Manager	530-642-4055
Engineering Manager	530-642-4146
Waste/Recycle Water Operations Manager	530-642-4059
Collection System Supervisor	530-295-6717
Environmental Compliance Supervisor	530-295-6864
Parks and Recreation Manager	530-295-6819
Water Operations Manager	530-642-4060
Hydro/Watershed Manager	530-642-4155
Human Resources Director	530-642-4013
Accounting Manager	530-642-4019

El Dorado Irrigation District

Effective Date:	July 22, 2016
Reviewed Date:	May 25, 2021
Approved by:	Tracy Crane
Signature:	
Date:	June 25, 2021

Prepared by David Patzer, DKF Solutions Group
(707) 373-9709 dpatzer@dkfsolutions.com

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Sanitary Sewer Overflow Emergency Response Plan

(Ref. SWRCB Order No. 2006-0003-DWQ Element VI)

Appendix A: Regulatory Notifications Packet

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Sanitary Sewer Overflow Emergency Response Plan

(Ref. SWRCB Order No. 2006-0003-DWQ Element VI)

1. Purpose

The purpose of the El Dorado Irrigation District's Overflow Emergency Response Plan (OERP) is to support an orderly and effective response to Sanitary Sewer Overflows (SSOs). The OERP provides guidelines for District personnel to follow in responding to, cleaning up, and reporting SSOs that may occur within the District's service area. This OERP satisfies the SWRCB Statewide General Waste Discharge Requirements (GWDR), which require wastewater collection agencies to have an Overflow Emergency Response Plan. The OERP is a standalone document contained in Appendix D of the Sanitary Sewer Management Plan (SSMP)

2. Policy

The District's employees are required to report all wastewater overflows found and to take the appropriate action to secure the wastewater overflow area, properly report to the appropriate regulatory agencies, relieve the cause of the overflow, and ensure that the affected area is cleaned as soon as possible to minimize health hazards to the public and protect the environment. The District's goal is to respond to sewer system overflows as soon as possible following notification. The District will follow reporting procedures in regards to sewer spills as set forth by the Central Valley Regional Water Quality Control Board (CVRWQCB) and the California State Water Resources Control Board (SWRCB).

3. Definitions As Used In This OERP

BUILDING DRAIN – The building drain is that part of the lowest wastewater piping which receives the discharge from drain pipes inside the walls of a building or structure and conveys it to the private lateral (generally connecting within 2' of the building wall).

BUILDING SEWER – The building sewer are private sewer facilities that convey wastewater from the premises of a Customer to the Public Sewer System.

BUILDING WASTEWATER PIPELINES – The building wastewater pipelines are those black or grey water pipes installed within the walls of a building or structure that connect to the building drain. Building wastewater pipelines may include interior sump systems, grease traps or other appurtenances.

CALIFORNIA INTEGRATED WATER QUALITY SYSTEM (CIWQS): Refers to the State Water Resources Control Board online electronic reporting system that is used to report SSOs, certify completion of the SSMP, and provide information on the sanitary sewer system.

FOG – Fats, Oils, and Grease: FOG refers to fats, oils, and grease typically associated with food preparation and cooking activities that can cause blockages in the sanitary sewer system.

LEGALLY RESPONSIBLE OFFICIAL (LRO): Refers to an individual who has the authority to certify reports and other actions that are submitted through CIWQS.

MAINLINE SEWER: Refers to District wastewater collection system piping that is not a private lateral connection to a user.

MAINTENANCE HOLE OR MANHOLE: Refers to an engineered structure that is intended to provide access to a sanitary sewer for maintenance and inspection.

NOTIFICATION OF AN SSO: Refers to the time at which the District becomes aware of an SSO event through observation or notification by the public or other source.

NUISANCE - California Water Code section 13050, subdivision (m), defines nuisance as anything that meets all of the following requirements:

a. 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.

b. 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.

c. Occurs during, or as a result of, the treatment or disposal of wastes.

PREVENTATIVE MAINTENANCE: Refers to maintenance activities intended to prevent failures of the wastewater collection system facilities (e.g. cleaning, CCTV, inspection).

PRIVATE LATERAL(S) – That part of the generally horizontal piping of a drainage system which extends from the end of the building drain and which receives the wastewater discharge from the structure and conveys it to a public sewer or other on-site individual sewage disposal system (septic system). The Private lateral begins at Building Drain and extends to and including the wye or point of connection with the public sewer. Private laterals may include privately owned pipelines, sump systems, interceptors or other appurtenances within private streets or private property common areas that are not dedicated to or owned by the District. Private laterals may also begin at the building drain and extend to a private sewer disposal system.

PRIVATE LATERAL SEWAGE DISCHARGES – Sewage discharges that are caused by blockages or other problems within a privately owned lateral. Spills from private property are not reported to the regulatory agency.

PRIVATE SEWER DISPOSAL SYSTEM – The pipelines and points of connection of a building drain to a grease interceptor, an individual sewage disposal system (septic system), holding tank or other private point of disposal unaffiliated with the public sewer comprises a private sewer disposal system.

PRIVATE SEWER FACILITIES – These are sewer facilities that are privately constructed and not dedicated and accepted as a Public Sewer Facility by the District. Private Sewer Facilities generally include sewer facilities within a privately owned building, service laterals, private pump stations, grease interceptors, and all other facilities located between the sewer customer and the connection to the collection line, including the integral wye fitting that connects the lateral to a collection line. Sewer facilities intended for dedication to the District are Private Sewer Facilities until such time as they are accepted by the District.

PUBLIC SEWER – A public sewer is the sewer collection system owned by the District lying within limits of public streets, roads, easements, reserves, non-exclusive easements or other public rights of way and downstream of the wye or cleanout on a Private lateral nearest to a sewer main. The location of a Private lateral within any public street or right of way does not convert it to a public sewer owned by the District unless the District has taken an affirmative action to accept ownership. Public sewer facilities owned and maintained by the District, including facilities designed and constructed by the District and facilities that have been dedicated and accepted by the District. Private Sewer Facilities constructed for dedication to the District do not become public sewers until they have been accepted by the District.

PUBLIC SEWER FACILITIES OR PUBLIC SEWER SYSTEM – Sewer facilities owned and maintained by the District, including facilities designed and constructed by the District and facilities that have been dedicated and accepted by the District. Private Sewer Facilities constructed for dedication to the District do not become Public Sewer Facilities until they have been accepted by the District.

ROOTS (R) Tree root (R) invasion 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 FOG materials.

SANITARY SEWER BACKUP (BACKUP) - Wastewater backups into buildings and on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.

SANITARY SEWER OVERFLOW (SSO) - Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:

(i) Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;

(ii) Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and

(iii) Wastewater backups into buildings and on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.

SSOs that include multiple appearance points resulting from a single cause will be considered one SSO for documentation and reporting purposes in CIWQS.

NOTE: Wastewater backups into buildings caused by a blockage or other malfunction of a building lateral that is privately owned are not SSOs.

SSO Categories:

Category 1: Discharge of untreated or partially treated wastewater of any volume resulting from a sanitary sewer system failure or flow condition that either:

- Reaches surface water and/or drainage channel tributary to a surface water; or
- Reached a Municipal Separate Storm Sewer System (MS4) and was not fully captured and returned to the sanitary sewer system or otherwise captured and disposed of properly.

Category 2: Discharge of untreated or partially treated wastewater greater than or equal to 1,000 gallons resulting from a sanitary sewer system failure or flow condition that either:

- Does not reach surface water, a drainage channel, or an MS4, or
- The entire SSO discharged to the storm drain system was fully recovered and disposed of properly.

Category 3: All other discharges of untreated or partially treated wastewater resulting from a sanitary sewer system failure or flow condition.

SANITARY SEWER SYSTEM: Any publicly-owned system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant headworks used to collect and convey wastewater to the publicly owned treatment facility. Temporary storage and conveyance facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.

SENSITIVE AREA: Refers to areas where an SSO could result in a fish kill or pose an imminent or substantial danger to human health (e.g. parks, aquatic habitats, etc.)

SERVICE LATERAL OR LOWER LATERAL – Sewer pipeline from the cleanout or in the absence of a cleanout located in public streets, roads, easements, reserves, non-exclusive easements or other public rights of way to the collection line are District assets. Lower laterals intended for dedication to the District are Private Sewer Facilities until such time as they are accepted by the District.

UNTREATED OR PARTIALLY TREATED WASTEWATER: Any volume of waste discharged from the sanitary sewer system upstream of a wastewater treatment plant headworks.

WATERS OF THE STATE*:* Waters of the State (or waters of the United States) means any surface water, including saline waters, within the boundaries of California. In case of a sewage spill, storm drains are considered to be waters of the State unless the sewage is completely contained and returned to the wastewater collection system and that portion of the storm drain is cleaned.

4. State Regulatory Requirements for Element 6, Overflow Emergency Response Plan

General Waste Discharge Requirement (GWDR)

The collection system agency shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:

(a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;
(b) A program to ensure appropriate response to all overflows;
(c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, regional water boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the Monitoring and Reporting Program (MRP). All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board Waste Discharge Requirements or National Pollutant Discharge Elimination System (NPDES) permit requirements. The Sewer System Management Plan should identify the officials who will receive immediate notification;
(d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;
(e) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and
(f) A program to ensure that all reasonable steps are taken to contain untreated wastewater and prevent discharge of untreated wastewater to Waters of the United States and minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

The Sewer System Management Plan and critical supporting documents are available to the public on the District's website: www.eid.org.

5. Goals

The District's goals with respect to responding to SSOs are:

- Work safely;
- Respond quickly to minimize the volume of the SSO;
- Eliminate the cause of the SSO;
- Prevent sewage system overflows or leaks from entering the storm drain system or receiving waters to the maximum extent practicable;
- Contain the spilled wastewater to the extent feasible;
- Minimize public contact with the spilled wastewater;
- Mitigate the impact of the SSO;
- Meet the regulatory reporting requirements;
- Evaluate the causes of failure related to certain SSOs; and
- Revise response procedures resulting from the debrief and failure analysis of certain SSOs.

6. SSO Detection and Notification

Ref. SWRCB Order No. 2006-0003-DWQ VI(a)

The processes that are employed to notify the District of the occurrence of an SSO include: observation by the public, receipt of an alarm, or observation by District staff during the normal course of their work.

In the event of any pump failure at a District wastewater lift station, the high level sensor activates the SCADA alarm system and the District is contacted. To prevent overflow, wastewater from the wet well can either be pumped into a vacuum truck for disposal to a nearby sanitary sewer manhole, or bypassed around the station into the sanitary sewer system.

6.1 PUBLIC OBSERVATION

Public observation is the most common way that the District is notified of blockages and spills. Contact numbers and information for reporting sewer spills and backups are in the phone book and on the District's website: www.eid.org. **The District's telephone numbers for reporting sewer problems are (530) 642-4000 (direct dispatch) and (530) 622-4513 (main).**

Normal Work Hours
When a report of a sewer spill or backup is made during business hours, the District's Customer Services Division receives the call, collects basic information about the caller and the problem, and enters it into the District' Computerized Maintenance Management System (CMMS). This information is then forwarded via phone and email to the Collections Systems Supervisor (or designee) who will dispatch the appropriate crew based on the location and nature of the problem.

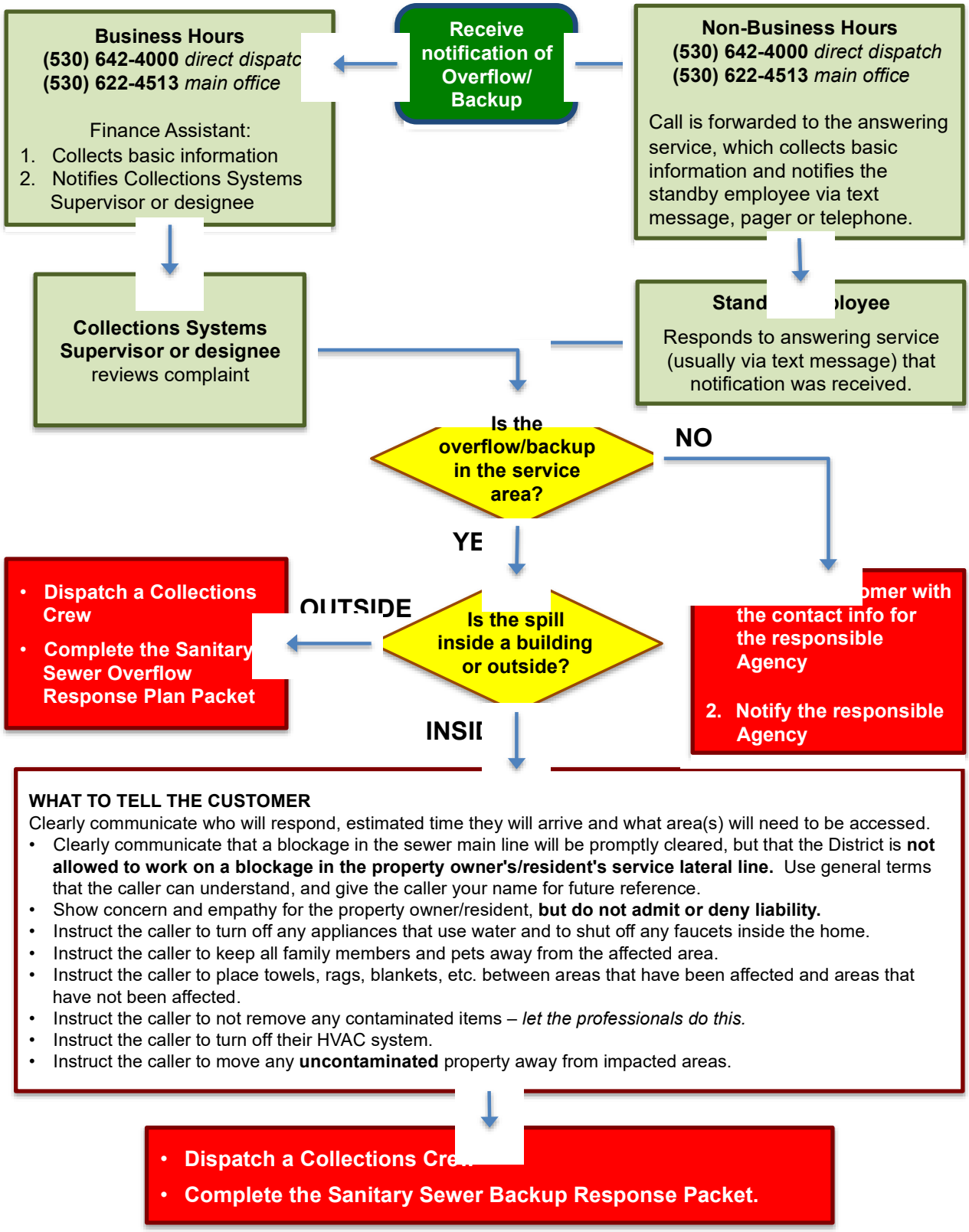
After Hours
After hours calls are automatically forwarded to an answering service, which will notify the standby employee. If the standby employee does not respond within a specified timeframe, secondary standby employee will be notified, in the event that standby cannot respond the Collections Supervisor (or his designee) will be called.

When calls are received, either during normal work hours or after hours, the individual receiving the call will collect the following information:

- Time and date of call
- Specific location of potential overflow or incident
- Nature of call
- In case of SSO, estimated start time of overflow and how long it has been occurring
- 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 6.1 is an overview of the procedure for receiving a sewage overflow or backup report *(see next page):*

Fig. 6.1 Overview of Receiving a Sewage Overflow or Backup Report Procedure



6.2 DISTRICT STAFF OBSERVATION

District 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 District staff that, in turn, responds to emergency situations. Work orders are issued to correct non-emergency conditions.

6.3 CONTRACTOR OBSERVATION

The following procedures are to be followed in the event that a contractor causes or witnesses a Sanitary Sewer Overflow. If the contractor causes or witnesses an SSO they should:

1. Immediately notify the District by calling (530) 642-4000 (direct dispatch) or (530) 622-4513 **(**main office).
2. Protect storm drains.
3. Protect the public.
4. Provide information to the Collections Crew such as start time, appearance point(s), suspected cause, weather conditions, etc.
5. Direct ALL media and public relations requests to the Public Information Officer at (530) 622-4513.

Appendix E includes a handout for Contractors with a flowchart of the above procedures.

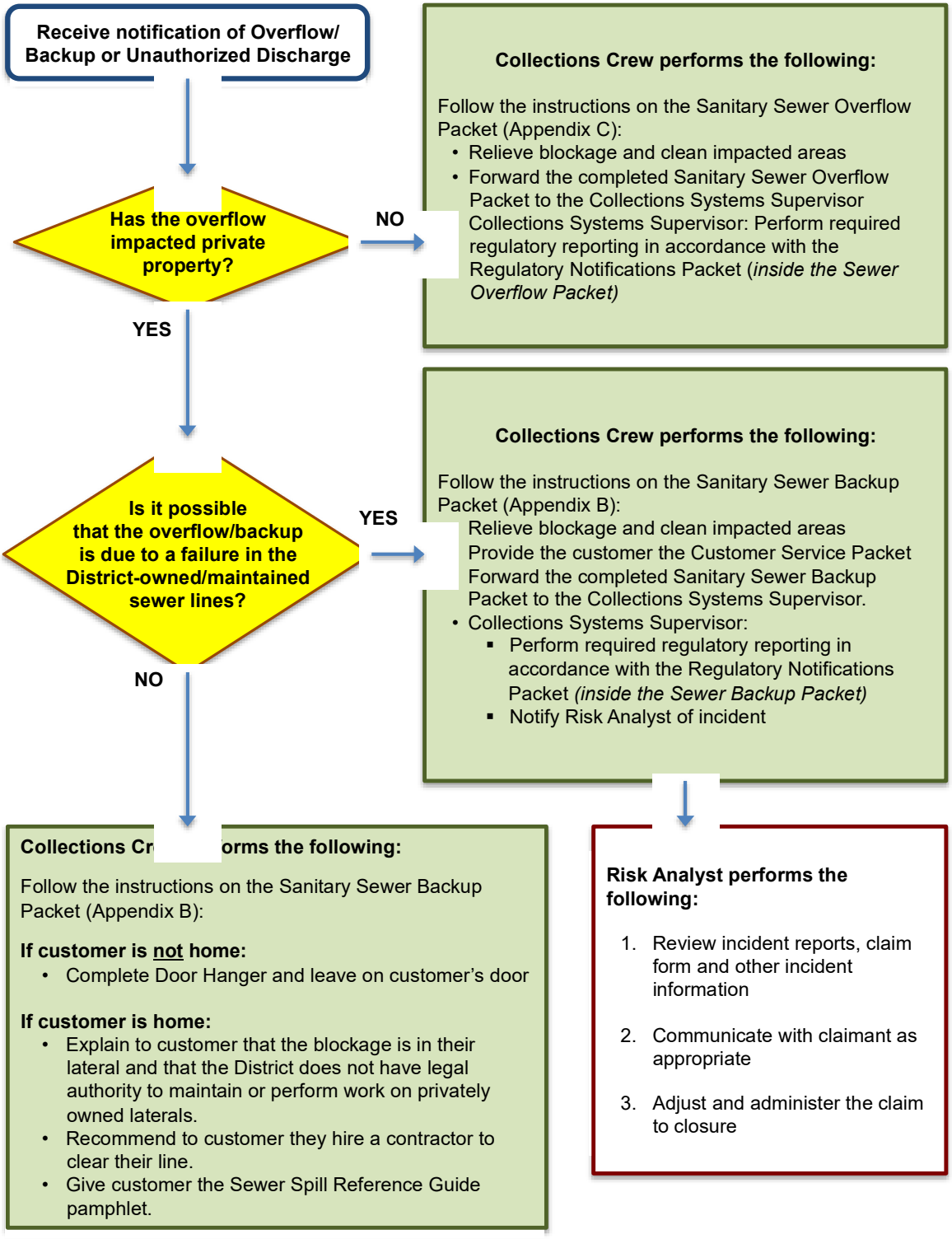
7. SSO Response Procedures

Ref. SWRCB Order No. 2006-0003-DWQ Element 6(b)

7.1 Sewer Overflow/Backup Response Summary

The District will respond to SSOs as soon as feasible following notification of an overflow/backup or unauthorized discharge. The following (Figure 7.1) is an overview of the response activities.

Figure 7.1 Overview of SSO/Backup Response



7.2 First Responder Priorities

The first responder's priorities are:

- To follow safe work practices.
- To respond promptly with the appropriate and necessary equipment.
- To contain the spill wherever feasible.
- To restore the flow as soon as practicable.
- To minimize public access to and/or contact with the spilled sewage.
- To promptly notify the Collections Systems Supervisor in event of major SSO.
- To return the spilled sewage to the sewer system.
- To restore the area to its original condition (or as close as possible).
- To photograph and document affected and unaffected areas from a spill.

7.3 Safety

The first responder is responsible for following safety procedures at all times. Special safety precautions must be observed when performing sewer work. There may be times when District personnel responding to a sewer system event are not familiar with potential safety hazards associated with 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 (follow confined space procedures) and traffic controls at 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 overflows.

The first responder will:

- Note arrival time at the site of the overflow/backup.
- Verify the existence of a public sewer system spill or backup.
- Determine if the overflow or blockage is from a public or private sewer.
- Identify and assess the affected area and extent of spill.
- Contact caller if time permits.
- If the spill is large or in a sensitive area, document conditions upon arrival with photographs. Decide whether to proceed with clearing the blockage to restore the flow or to initiate containment measures. The guidance for this decision is:
    - 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 is anticipated to be difficult – proceed with clearing the blockage; however, whenever deemed necessary, call for additional assistance and implement containment measures.
- Take steps to contain the SSO. For detailed procedures refer to Appendix B: Sanitary Sewer Backup Procedures, and Appendix C: Sanitary Sewer Overflow Packet.

7.6 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 overflowing sewage.

- Plug storm drains using air plugs, sandbags, and/or plastic mats to contain the spill, whenever appropriate. If spilled sewage has made contact with the storm drainage 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 C: Sanitary Sewer Overflow Packet.

7.5 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 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 C: Sanitary Sewer Overflow Packet.

7.6 Equipment

This section provides a list of specialized equipment that may be used to support this Overflow Emergency Response Plan.

- *Closed Circuit Television (CCTV) Inspection Unit* – A CCTV Inspection Unit is required to determine the root cause for all SSOs from gravity sewers.
- *Camera* -- A digital or disposable camera is required to record the conditions upon arrival, during clean up, 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 clean up materials.
- *Portable Generators, Portable Pumps, Piping, and Hoses* – Equipment used to bypass pump, divert, or power equipment to mitigate an SSO.
- *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 SSO event.
- *Air plugs, sandbags and plastic mats*
- *SSO Sampling Kits*

Standard operating procedures for District equipment that may be necessary in the event of a sanitary sewer overflow or backup can be found at the Bass Lake facility.

7.7 Outside Assistance

Responders will refer to the Emergency Contractor List as necessary for assistance with the response.

8. Recovery and Cleanup

Ref. SWRCB Order No. 2006-0003-DWQ Element 6(e)

The recovery and cleanup phase begins immediately after the flow has been restored and the spilled sewage has been contained to the extent possible. The SSO recovery and cleanup procedures are:

8.1 Estimate the Volume of Spilled Sewage

Use the methods outlined in the Sanitary Sewer Backup Packet (Appendix B), Sanitary Sewer Overflow Packet (Appendix C), and/or the Field Guide to estimate the volume of the spilled sewage. Wherever possible, document the estimate using photos and/or video of the SSO site before and during the recovery operation.

8.2 Recovery of Spilled Sewage

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

8.3 Clean-up and Disinfection

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

Private Property
District crews are responsible for the cleanup when the property damage is minor in nature and is outside of private building dwellings, such as in front, side and backyards, easements, etc. In all other cases, affected property owners can call a water damage restoration contractor to complete the cleanup and restoration. If the overflow onto private property is definitely the result of District system failure, the property owner can call out a water damage restoration contractor to complete the cleanup and restoration. In both cases, District 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/or deozyme or similar non-toxic biodegradable surface disinfectant until the water runs clear. The flushing volume will be approximately three times the estimated volume of the spill. Take reasonable steps to contain and vacuum up 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 up the wash water so that none is released. Allow the area to dry. Repeat the process if additional cleaning is required.

Natural Waterways
The Department of Fish and Wildlife will be notified by CalOES for SSOs 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 would not provide meaningful results

8.4 Public Notification

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

Creeks, streams and beaches that have been contaminated as a result of an SSO will be posted at visible access locations until the risk of contamination has subsided to acceptable background bacteria levels as determined by EDC Health. The warning signs, once posted, will be checked at least every day to ensure that they are still in place. Photographs of sign placement will be taken.

In the event that an overflow occurs at night, the location will be inspected first thing the following day. The field crew will look for any signs of sewage solids and sewage-related material that may warrant additional cleanup activities.

When contact with the local media is deemed necessary, the Public Information Officer or their designee will provide the media with all revelvant information.

9. Water Quality

Ref. SWRCB Order No. 2006-0003-DWQ Element 6(f)

9.1 Water Quality Sampling and Testing

Water quality sampling and testing is required for Category 1 SSOs of 50,000 gallons or greater to determine the extent and impact of the SSO. The water quality sampling procedures must be implemented within 48 hours and include the following:

- The District Chemist (or designee) will collect water samples as soon as possible after the discovery and mitigation of the SSO event.
- After business hours sampling may be performed by trained Collections Crew leads and supervisors.
- The water quality samples will be collected from upstream of the spill, from the spill area, and downstream of the spill in flowing water (e.g. creeks). The water quality samples will be collected near the point of entry of the spilled sewage.
- The samples will then be brought to a contract laboratory for analysis or prepared for pickup by the contract laboratory.

9.2 Water Quality Monitoring Plan

The District Water Quality Monitoring Plan will be implemented immediately upon discovery of any Category 1 SSO of 50,000 gallons or more in order to assess impacts from SSOs to surface waters. The SSO Water Quality Monitoring Program will:

1. Contain protocols for water quality monitoring.
2. Account for spill travel time in the surface water and scenarios where monitoring may not be possible (e.g. safety, access restrictions, etc.)

3. Require water quality analyses for ammonia and bacterial indicators to be performed by an accredited or certified laboratory.
4. Require monitoring instruments and devices used to implement the SSO Water Quality Monitoring Program to be properly maintained and calibrated, including any records to document maintenance and calibration, as necessary, to ensure their continued accuracy.
5. Within 48 hours of the District becoming aware of the SSO, require water quality sampling for ammonia and total and fecal coliform.
6. Observe proper chain of custody procedures.

9.3 SSO Technical Report

The District will submit an SSO Technical Report to the CIWQS Online SSO Database within 45 calendar days of the SSO end date for any SSO in which 50,000 gallons or greater are spilled to surface waters. The Collections Systems Supervisor will supervise and prepare this report. This report, which does not preclude the Water Boards from requiring more detailed analyses if requested, shall include at a minimum, the following:

Causes and Circumstances of the SSO:

- Complete and detailed explanation of how and when the SSO was discovered.
- Diagram showing the SSO failure point, appearance point(s), and final destination(s).
- Detailed description of the methodology employed and available data used to calculate the volume of the SSO and, if applicable, the SSO volume recovered.
- Detailed description of the cause(s) of the SSO.
- Copies of original field crew records used to document the SSO.
- Historical maintenance records for the failure location.

District's Response to SSO:

- Chronological narrative description of all actions taken by the District to terminate the spill.
- Explanation of how the SSMP Overflow Emergency Response Plan was implemented to respond to and mitigate the SSO.
- Final corrective action(s) completed and/or planned to be completed, including a schedule for actions not yet completed.

Water Quality Monitoring:

- Description of all water quality sampling activities conducted including analytical results and evaluation of the results.
- Detailed location map illustrating all water quality sampling points.

10. Sewer Backup Into/Onto Private Property Claims Handling Policy

It is the policy of the District that a claims form shall be offered to anyone wishing to file a claim. The following procedures will be observed for all sewer overflows/backups into/onto private property:

- District staff will offer a District claim form irrespective of fault whenever it is possible that the sanitary sewer backup may have resulted from an apparent blockage in the District-owned sewer lines or whenever a District customer requests a claim form. The claim may later be rejected if subsequent investigations into the cause of the loss indicate the District was not at fault.

- It is the responsibility of the Collections Systems Supervisor and the Collections Crew to gather information regarding the incident and notify the Risk Analyst.

- It is the responsibility of the Risk Analyst to review all claims and to oversee the adjustment and administration of the claim to closure.

11. Notification, Reporting, Monitoring and Recordkeeping Requirements

Ref. SWRCB Order No. 2006-0003-DWQ Element 6(c)

In accordance with the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (SSS GWDRs), the District maintains records for each sanitary sewer overflow. Records include:

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

Regulator required notifications are outlined in Section 11.1 on the following page.

11.1 Requirements Table

ELEMENT	REQUIREMENT	METHOD
NOTIFICATION	Within two hours of becoming aware of any Category 1 SSO greater than or equal to 1,000 gallons discharged to surface water or spilled in a location where it probably will be discharged to surface water, the District will notify the California Office of Emergency Services (CalOES) and obtain a notification control number.	Call Cal OES at: **(800) 852-7550**
REPORTING	• Category 1 or Category 2 SSO: The District will submit draft report within three business days of becoming aware of the SSO and certify within 15 calendar days of SSO end date. • Category 3 SSO: The District will submit certified report within 30 calendar days of the end of month in which SSO the occurred. • SSO Technical Report: The District will submit within 45 calendar days after the end date of any Category 1 SSO in which 50,000 gallons or greater are spilled to surface waters. • "No Spill" Certification: The District will certify that no SSOs occurred within 30 calendar days of the end of the month or, if reporting quarterly, the quarter in which no SSOs occurred. • Collection System Questionnaire: The District will update and certify every 12 months	Enter data into the CIWQS Online SSO Database[1] (http://ciwqs.waterboards.ca.gov/)certified by the Legally Responsible Official(s)[2]. All information required by CIWQS will be captured in the Sanitary Sewer Overflow Report. Certified SSO reports may be updated by amending the report or adding an attachment to the SSO report within 120 calendar days after the SSO end date. After 120 days, the State SSO Program Manager must be contacted to request to amend an SSO report along with a justification for why the additional information was not available prior to the end of the 120 days.
WATER QUALITY MONITORING	The District will conduct water quality sampling within 48 hours for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.	Water quality results will be uploaded into CIWQS for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.
RECORD KEEPING	The District will maintain the following records: • SSO event records. • Records documenting Sanitary Sewer Management Plan (SSMP) implementation and changes/updates to the SSMP. • Records to document Water Quality Monitoring for SSOs of 50,000 gallons or greater spilled to surface waters. • Collection system telemetry records if relied upon to document and/or estimate SSO Volume. • In accordance with District records retention schedule, records are maintained within the District's Electronic Records Management System (ERMS)	Self-maintained records shall be available during inspections or upon request.

[1] In the event that the CIWQS online SSO database is not available, the Collections Systems Supervisor will notify SWRCB by phone or email in accordance with the time schedules identified above. In such an event, the District will submit the appropriate reports using the CIWQS online SSO database when the database becomes available. A copy of all documents that certify the submittal in fulfillment of this section shall be retained in the SSO file.

[2] The District always has at least one LRO. Any change in the LRO(s) 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 help@ciwqs.waterboards.ca.gov.

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

11.2 Complaint Records

The District maintains records of all complaints received whether or not they result in sanitary sewer overflows. The information collected includes:

- Date, time, and method of notification
- Date and time the complainant or informant first noticed the SSO 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 SSO may have reached waters of the state
- Name, address, and contact telephone number of the complainant or informant reporting the potential SSO (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

Records are maintained in the District Electronic Records Management System (ERMS) for a minimum of five years whether or not they result in an SSO.

12. Post SSO Event Debriefing

Ref. SWRCB Order No. 2006-0003-DWQ Element 6(d)

Every SSO event is an opportunity to evaluate the District response and reporting procedures. Each overflow 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 SSO events, all of the 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 in responding to and mitigating future SSO events. The results of the debriefing will be documented and tracked to ensure the action items are completed as scheduled.

13. Failure Analysis Investigation

Ref. SWRCB Order No. 2006-0003-DWQ Element 6(d)

The objective of the failure analysis investigation is to determine the “root cause” of the SSO and to identify corrective action(s) needed that will reduce or eliminate future potential for the SSO to recur or for other SSOs to occur.

The investigation will include reviewing all relevant data to determine appropriate corrective action(s) for the line segment. The investigation will include:

- Reviewing and completing the Sanitary Sewer Overflow Report (in Appendices B and C) 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.
- Review 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 segment(s) immediately following the SSO and reviewing the video and logs,
- Reviewing any Fats, Oil and Grease (FOG) related information or results
- Review any root related information
- Post SSO debrief records
- Interviews with the public at the SSO 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 Appendices B and C) will be used to document the investigation.

14. SSO Response Training

Ref. SWRCB Order No. 2006-0003-DWQ Element 6(d)

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

14.1 Initial and Annual Refresher Training

All District personnel who may have a role in responding to, reporting, and/or mitigating a sewer system overflow will receive training on the contents of this OERP. 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 District will document all training.

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

- The District's Overflow Emergency Response Plan and Sanitary Sewer Management Plan
- Sanitary Sewer Overflow Volume Estimation Techniques
- Researching and documenting Sanitary Sewer Overflow Start Times
- Impacted Surface Waters: Response Procedures
- State Water Resources Control Board Employee Knowledge Expectations
- Employee Core Competency Evaluations on Sanitary Sewer Operations
- Water Quality Sampling Plan

The District 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 electronic testing, interviews and observations. The District will address, through additional training/instruction, any identified gaps in required core competencies.

Through SWRCB Employee Knowledge Expectations training the employee 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 SSO complaints.
4. Please describe your SOPs used to respond/mitigate SSOs when they occur.
5. Describe any training your agency provides or sends you to for conducting spill volume estimates.
6. We are interested in learning more about how your historical SSO response activities have worked in the field. We understand from discussions with management earlier that you use the OERP from the SSMP. Please elaborate on how you implement and utilize the procedures in the plan.
7. Historically, before any recent changes, can you please walk us through how you would typically receive and respond to any SSO complaints in the field?
8. Can you tell us who is responsible for estimating SSO volumes discharged? If it is you, please describe how you go about estimating the SSO volume that you record on the work order/service request forms?
9. What other information do you collect or record other than what is written on the work order form?
10. Describe if and when you ever talk with people that call in SSOs (either onsite or via telephone) to further check out when the SSO might have occurred based on what they or others know? If you do this, can you tell us where this information is recorded?
11. We understand you may be instructed to take pictures of some sewer spills/backups into structures. Other than these SSOs, when else would you typically take any pictures of an SSO?
12. Please walk us through anything else you'd like to add to help us better understand how your field crews respond and mitigate SSO complaints.

14.2 SSO Response Drills

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

14.3 SSO Training Record Keeping

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

14.4 Contractors Working On District Sewer Facilities

All construction contractors working on District sewer facilities will be required to develop a project-specific OERP, will provide project personnel with training regarding the content of

the contractor's OERP and their role in the event of an SSO, and to follow that OERP in the event that they cause or observe an SSO. Emergency response procedures shall be discussed at project pre-construction meetings, regular project meetings and after any contractor involved incidents.

All service contractors will be provided, and required to observe contractor procedures. See Appendix E: Contractor Orientation.

15. Authority

- Health & Safety Code Sections 5410-5416
- CA Water Code Section 13271
- Fish & Wildlife Code Sections 5650-5656
- State Water Resources Control Board Order No. 2006-0003-DWQ
- State Water Resources Control Board Order 2013-009-DWQ effective September 9, 2013

16. References

- Sanitary Sewer Overflow and Backup Response Field Guide, 2014, DKF Solutions Group, LLC
- Appendix A: Regulatory Notifications Packet
- Appendix B: Sanitary Sewer Backup Packet
- Appendix C: Sanitary Sewer Overflow Packet
- Appendix D: Field Sampling Kit
- Appendix E: Contractor Orientation

El Dorado Irrigation District
Overflow Emergency Response Plan

Appendix A

REGULATORY NOTIFICATIONS PACKET

Regulatory Notifications Packet

Instructions:

1. Receive call from on-site crew reporting a Sanitary Sewer Overflow.
2. Open this packet.
3. Refer to the Regulatory Reporting Guide (A-1) for instructions.
4. Use the SSO Reporting Checklist for the appropriate category of spill (A-2a or A-2b) to document that all notifications are made according to the reporting schedule.

Contents:

Print on 6”x9” envelope

Reporting Instructions				
Deadline	**See reverse side for contact information and definitions of the categories** of spills of untreated or partially treated wastewater from publically owned sanitary sewer system			**Spill from Private Lateral**
	Category 1	**Category 2**	**Category 3**	
2 hours after awareness of SSO	• If the SSO is greater than or equal to 1,000 gallons, call CalOES at (800) 852-7550 • If the SSO may threaten Folsom Lake, notify the Water Manager at 530-642-4060	-	-	-
48 Hours after awareness of SSO	If 50,000 gal or more will likely reach receiving waters, begin water quality sampling within 48 hours and initiate impact assessment with support from engineering	-	-	-
3 Days after awareness of SSO	Submit Draft Spill Report in the CIWQS* database	Submit Draft Spill Report in the CIWQS* database	-	-
15 Days after response conclusion	Certify Spill Report in CIWQS*. Update as needed until 120 days after SSO end time	Certify/Submit Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-	-
30 Days after end of calendar month in which SSO occurred	-	-	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-
45 days after SSO end date	If 50,000 gal or more were not recovered, submit SSO Technical Report using CIWQS*	-	-	-

* In the event that the CIWQS online SSO database is not available, make notifications to the State Water Resources Control Board (SWRCB) by phone or email until the CIWQS online SSO database becomes available. See contact information on Side B.

Note: For reporting purposes, if one SSO event results in multiple appearance points, complete one SSO report in the CIWQS SSO Online Database, and report the location of the SSO failure point, blockage or location of the flow condition that caused the SSO, in the CIWQS SSO Online Database, including all the discharge points associated with the SSO event.

Contact Information

Contact	Telephone/Email
CalOES	(800) 852-7550
Collections Supervisor	530-295-6717
Risk Analyst	(530) 622-4513
Water Manager	(530) 642-4060
El Dorado County Environmental Health	(530) 621-5300
State Water Resources Control Board (SWRCB):	
Russell Norman, P.E.	(916) 323-5598 Russell.Norman@waterboards.ca.gov
Gil Vazquez, Water Resources Control Engineer	(916) 322-1400 Gil.Vasquez@waterboards.ca.gov

Authorized Personnel

The following individuals are the District's Legally Responsible Officials (LROs) and are authorized to perform regulatory reporting and electronically sign and certify SSO reports in CIWQS.

Contact	Telephone
Collections Systems Supervisor	(530) 295-6717
Wastewater/Recycled Water Manager	(530) 642-4059
Director of Operations	(530) 642-4218

Definitions of SSO Categories

The response crew will complete the SSO Report form in the SSO Packet to document how the category was determined.

Category	Definition
Category 1:	Discharge of untreated or partially treated wastewater of any volume resulting from a sanitary sewer system failure or flow condition that either: • Reaches surface water and/or drainage channel tributary to a surface water; or • Reached a Municipal Separate Storm Sewer System (MS4) and was not fully captured and returned to the sanitary sewer system or otherwise captured and disposed of properly.
Category 2:	Discharge of untreated or partially treated wastewater greater than or equal to 1,000 gallons resulting from a sanitary sewer system failure or flow condition that either: • Does not reach surface water, a drainage channel, or an MS4, or • The entire SSO discharged to the storm drain system was fully recovered and disposed of properly.

Category 3:	All other discharges of untreated or partially treated wastewater resulting from a sanitary sewer system failure or flow condition that does not reach a storm drain of surface water.

Regulatory Notifications Packet
Category 1 SSO Reporting Checklist

A-2a

Use this Checklist for Category 1 SSOs only

STEP 1: Receive call from crew.

STEP 2: 2-hour Notification
If the SSO is greater than or equal to 1,000 gallons, notify CalOES within 2 hours of the time the agency was notified of the SSO.

☐ **Notify CalOES** at (800) 852-7550:
- Date Called: _____
- Time called: _____ : _____ ☐AM ☐PM
- CalOES Control number: _____
- District personnel who called CalOES: *Name* _____
  Title _____
- Individual they spoke to at CalOES: _____
- Statement made to OES: _____

STEP 3: Within 2 hours after awareness of SSO

☐ If the SSO may threaten Folsom Lake, notify the Water Manager

☐ If SSO impacts private property that may be due to a failure in the District sewer and/or if the District believes a claim for damages may be submitted against the District contact the Collections Supervisor (or designee).

STEP 4: Within 48 hours after awareness of SSO

☐ Only if 50,000 gallons or more was not recovered implement Water Quality Monitoring Plan.

STEP 5: Within 3 Days after awareness of SSO

☐ Submit a Draft Spill Report using the CIWQS online reporting database.

STEP 6: Within 15 Days after response conclusion

☐ LRO must certify the Spill Report using the CIWQS online reporting database. Amendments to the Spill Report may be made for up to 120 days following the conclusion of the SSO Response.

STEP 7: Within 45 Days after SSO end date

☐ Within 45 days after the SSO end date, submit an SSO Technical Report using the CIWQS online reporting database only if 50,000 gallons or more was spilled to surface waters.

This form completed by: _____ *Name* _____ *Title* _____ *Date*

Regulatory Notifications Packet
Category 2 & 3 SSO Reporting Checklist

A-2b

Use this Checklist for Category 2 and 3 SSOs only

STEP 1: Receive call from crew.

STEP 2: Within 2 hours after awareness of SSO

☐ If SSO impacts private property that may be due to a failure in the District sewer and/or if the District believes a claim for damages may be submitted against the District contact the Collections Supervisor (or designee).

STEP 3: Submit Draft Spill Report (Category 2 only)

☐ Submit a Draft Spill Report using the CIWQS online reporting database within 3 days after awareness of Category 2 SSO.

STEP 4: Certify Spill Report

☐ Certify the Spill Report using the CIWQS online reporting database:
- Category 2 SSO: Within 15 days after the conclusion of the response
- Category 3 SSO: Within 30 days after the end of the calendar month in which the SSO occurred

☐ Updates to the Spill Report may be made for up to 120 days following the conclusion of the SSO Response.

This form completed by: _____ _____ _____
Name *Title* *Date*

El Dorado Irrigation District
Overflow Emergency Response Plan

Appendix B

SANITARY SEWER BACKUP RESPONSE PACKET

Sanitary Sewer Backup Response Packet
Table of Contents

For pre-assembled packets contact DKF Solutions Group at (707) 373-9709 or losscontrol@sbcglobal.net

In the event of a **Sewer Backup** into a home/business
READ THIS FIRST

- **If this is a Category 1 SSO <u>greater than or equal to 1,000 gallons</u> immediately** contact the Collections Systems Supervisor or designee at (530) 295-6717 to make the 2-hour notification to CalOES.
- **If the backup is into/onto private property AND possibly due to a problem in the public sewer, notify** the Collections System Supervisor (or designee), and Collections System Supervisor to notify Risk Analyst.
- **For any media requests:** Contact the Public Information Officer at (530) 642-4127

NOTE:

Show concern and empathy for the property owner/tenant, but do not admit or deny liability. Do not make any promises to pay damages. Remain calm and professional, even if the property owner/tenant is distraught and emotional; if violent, leave the site, call for assistance, and complete and submit a Security Activity Report.

Collections Crew:

- ❑ Follow the instructions on the Sewer Backup Response Flowchart (B-1). Note: If multiple dwelling units are affected, use one packet per unit and check here: ☐
- ❑ If indicated on the flowchart, give the customer the Bubbled Toilets Letter and/or the Customer Service Packet and have them initial here:
  Customer acknowledgement of receipt of Bubbled Toilets Letter: _____
  Customer acknowledgement of receipt of Customer Service Packet: _____
- ❑ Ask the property owner/tenant if you may enter their home. If they allow entry, have them initial here authorizing the entry and then take photos of both the damaged and undamaged areas. _____
- ❑ Place completed forms in this envelope, complete the Chain of Custody record (right) and forward this packet to the Collections Systems Supervisor.

Print Name: _____

Initial: _____

Date: _____

Time: _____

Collections Systems Supervisor:

- ❑ Follow the instructions on the Sewer Backup Response Flowchart (B-1).
- ❑ Give the property owner/tenant your name, title, phone number and business card.
- ❑ Complete the Regulatory Notifications Packet.
- ❑ Complete the Claims Submittal Checklist.
- ❑ Complete the Chain of Custody record (right) and forward this packet to the Risk Analyst.

Print Name: _____

Initial: _____

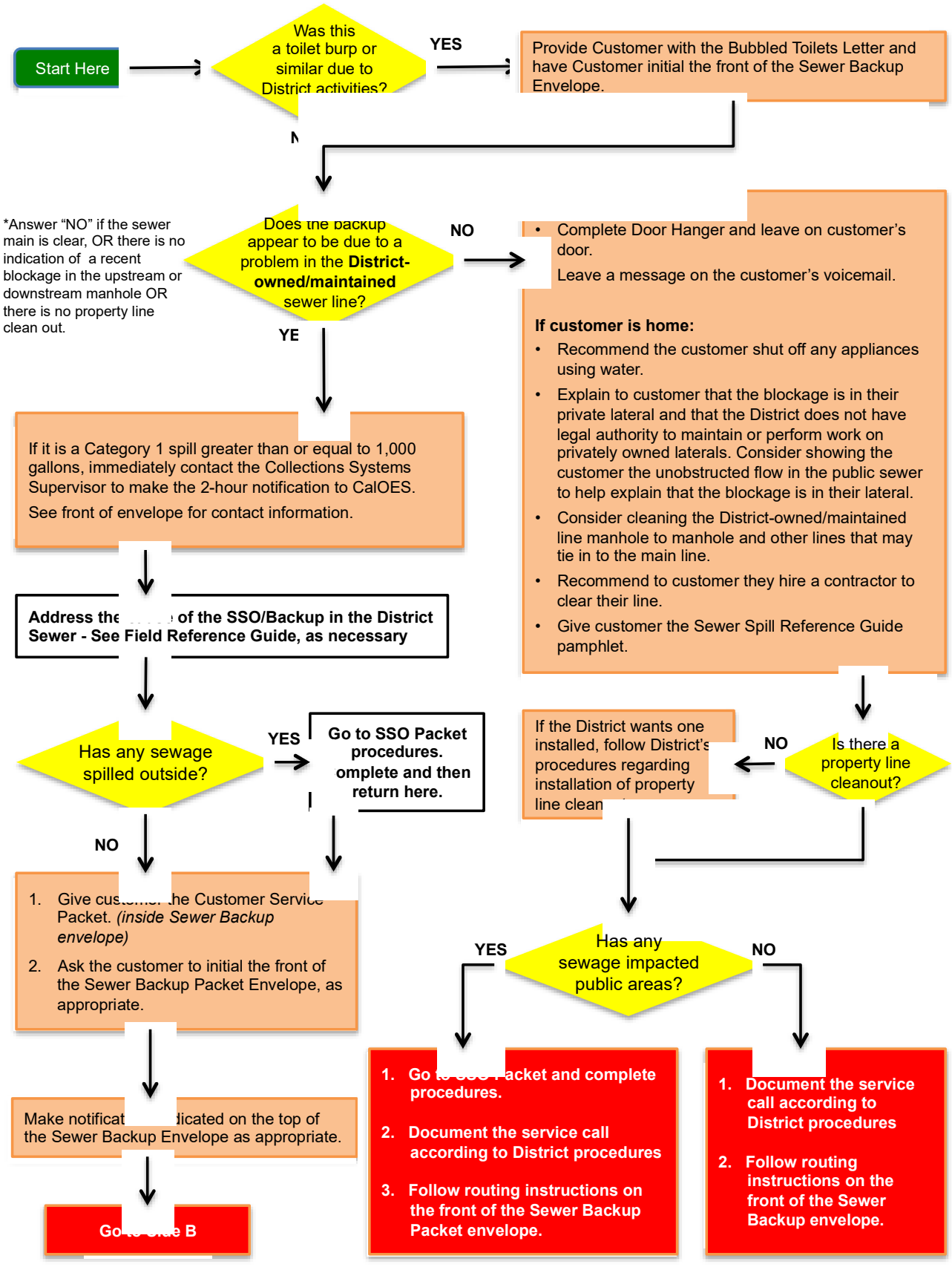
Date: _____

Time: _____

Risk Analyst: Refer to the Claims Submittal Checklist.

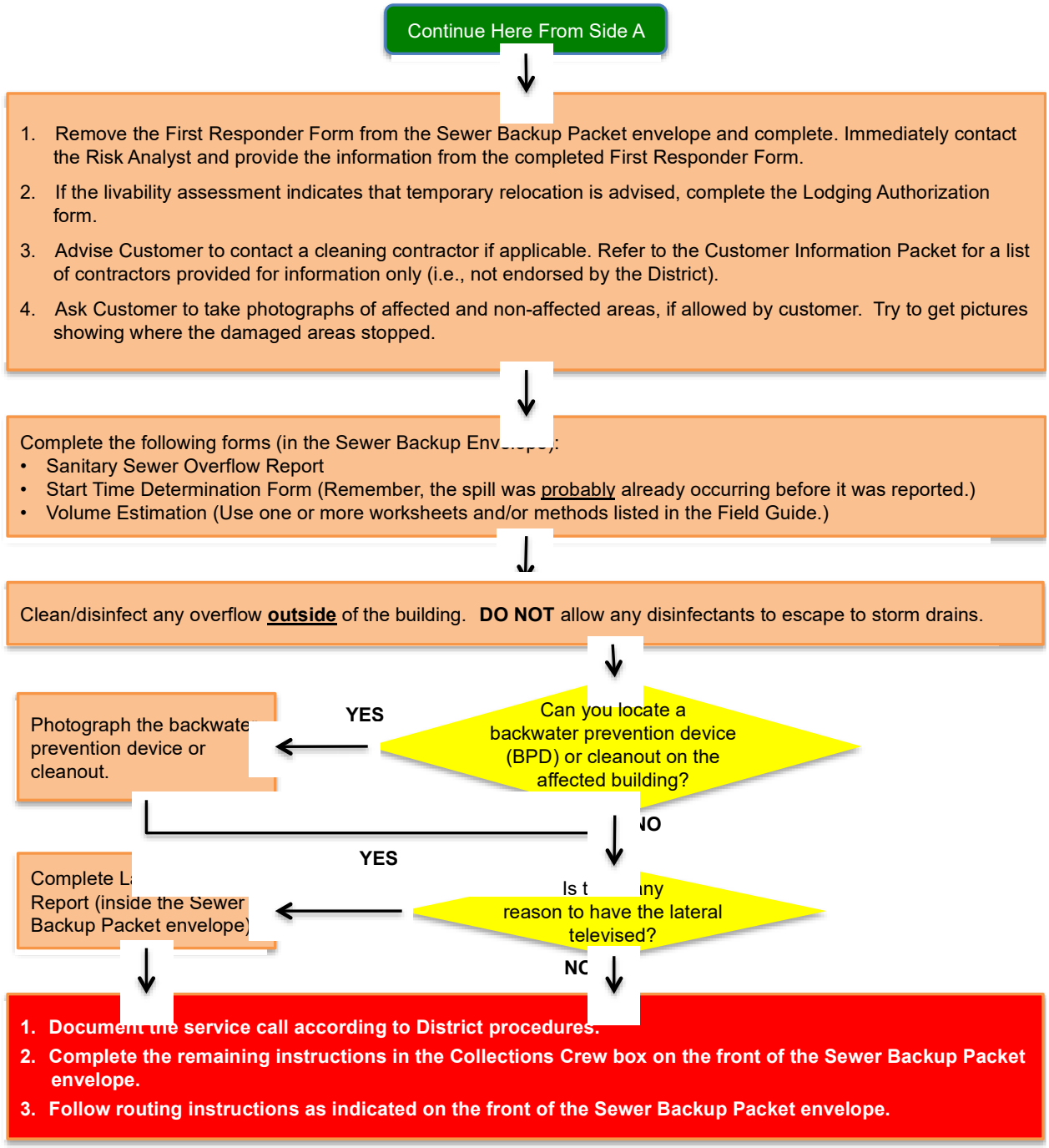
Sanitary Sewer Backup Response Packet
Backup Response Flowchart

B-1
Side A



Sanitary Sewer Backup Response Packet
Backup Response Flowchart

B-1
Side B



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,
- Providing incorrect facts about a company or other agency
- Speculating about the situation you are responding to
- Making accusations against customers, businesses or other agencies

Be courteous and refer to the Collections Supervisor or Public Information officer. In some cases, it may be appropriate to say that we are busy with the work and and they should contact the Public Information Officer for more details.

In most cases, refer media requests to the Public Information Officer indicated on the front of the Sewer Overflow Packet envelope.

Sanitary Sewer Backup Response Packet
Bubbled Toilets Letter

B-2

Dear El Dorado Irrigation District Customer,

Thank you for informing us that your toilet bubbled while our crews were working in proximity of your property. We apologize for the inconvenience and hope that this letter will answer some of your questions about bubbling toilets.

1. **Is this a health risk?**
   The water that came out of your toilet is potable water from the toilet bowl. Unless your toilet was in use when this occurred, this water is no different than that encountered while cleaning your toilet.

2. **What is the District doing in the street?**
   In order to insure reliable sewer service, the District inspects, cleans, and repairs its sewer system on a continuous basis.

3. **How does sewer cleaning cause my toilet to bubble?**
   Typical industry cleaning equipment uses high-pressure water to clean sewers. The first step is to use the high-pressure water jets to propel the hose and cleaning nozzle upstream as far as 800 feet. During this process, air within the main pipe is displaced and sometimes goes up the private lateral pipe and releases though the toilet. This can also happen during the cleaning phase, when high-pressure water is pulled downstream to the cleaning truck.

4. **What causes the air to come from my toilet?**
   Over the years, District crews have found that the bubbling of toilets has many causes, some of which are:
   - Obstructed vent pipes;
   - Vent pipes that are positioned too far from the toilet;
   - Private lateral pipes that may be in use as the crew is cleaning (e.g. draining washing machine, draining bathtub, etc.);
   - Lateral pipes that may have obstructions that are causing them to hold water (e.g. roots, grease, etc.).

5. **What does District staff do, once informed of a bubbling toilet?**
   Once notified of a bubbling toilet, the crew leader explains to the customer what has happened, and checks to see if there is a clean-out in the customer's yard that could be opened in the future during cleaning. The crew leader then makes notes and completes paperwork that puts the address on the District's computerized notification list. In the future, crews will notice that this address was "bubbled" at one time, and, before commencing the cleaning, they will notify the occupant of the possibility of bubbling toilets. In the event the occupant is not present when the cleaning begins, the crews will attempt to open clean-outs and/or lower water pressure to avoid bubbling, and/or may hang a door hanger to inform the customer that maintenance has or will occur(ed).

6. **What can I do to prevent my toilet from bubbling?**
   When a sewer begins to drain slowly, it may be a sign that it needs to be cleaned or repaired. Trees and shrubs may have root structures that are entering the lateral pipe. The homeowner needs to make sure to have a clean-out for accessing the line. It is the homeowner's responsibility to keep the sewer lateral pipe in good working condition.

It is always a good idea to keep the toilet lid down when not in use, and not install carpets in the bathroom unless they can be easily removed and cleaned. For more information please call the Collections Systems Supervisor at (530) 295-6717.

Sincerely,

El Dorado Irrigation District

Sanitary Sewer Backup Response Packet
First Responder Form

B-3
Side A

Fill out this form as completely as possible.
Ask customer if you may enter the home, if sewage entered. If so, take photos of all damaged and undamaged areas.

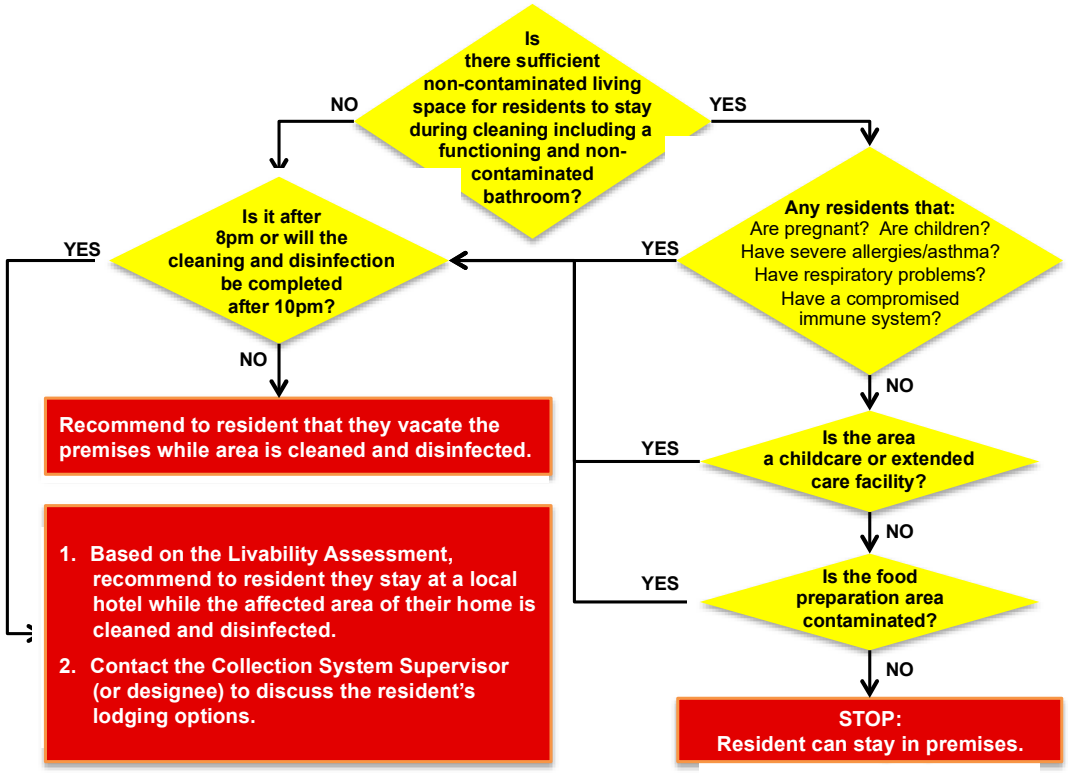
PERSON COMPLETING THIS FORM: Name: Title:	PHONE: DATE: TIME:
TIME STAFF ARRIVED ON-SITE:	
Did customer call cleaning contractor? ☐ Yes ☐ No If YES, name of contractor:	
CHECK IF SPOKE WITH OWNER: ☐ Property Owner's Name: Address: Phone: Cell Phone:	CHECK IF SPOKE WITH TENANT: ☐ Tenant's Name: Address: Phone: Cell Phone:
Is nearest upstream manhole visibly higher than the drain/fixture that overflowed? ☐ Yes ☐ No	
Number of People Living at Residence:	Do there appear to be elderly or persons with disabilities living in the home? ☐ Yes ☐ No
Approx. Age of Home: / Sub-floor Material: ☐ Wood ☐ Concrete	# of Bathrooms: / # of Rooms Affected:
Is there standing water in the home? ☐ Yes ☐ No If yes, how deep? Does the water appear to be ☐Clear ☐Gray ☐Black	What rooms appear to be affected? Is there carpet, vinyl or tile in the affected rooms? ☐ Yes ☐ No If yes, approximately how old are they?
Approximate Amount of Spill (gallons):	Approx. Time Sewage Has Been Sitting (hrs/days):
Apparent Extent of Damage:	Has District Staff taken photos/video of the incident? ☐ Yes ☐ No
Apparent cause of the incident: ☐ Line Break/Leak ☐ Stoppage	
If this is a line break/leak: What apparently caused the line break or leak? _____ Was the break or leak apparently caused by fatigue or corrosion? _____ What is the approximate age of the pipe? _____ What material is the pipe? _____ Do you know of any recent repairs or construction in the area?	**If this is a stoppage:** What apparently caused the stoppage? Was it apparently due to a foreign object? ☐ YES ☐ NO If so, describe the object:
Have there ever been any previous spills at this location? ☐ YES ☐ NO ☐ Unknown	Has the resident had any plumbing work done recently? ☐ YES ☐ NO *If YES, please describe:*

GO TO SIDE B

Sanitary Sewer Backup Response Packet
First Responder Form

B-3
Side B

LIVABILITY ASSESSMENT



SANITARY SEWER LINE BLOCKAGE LOCATION

Does property have a Property Line Cleanout or BPD? ☐ YES ☐ NO ☐ Unknown

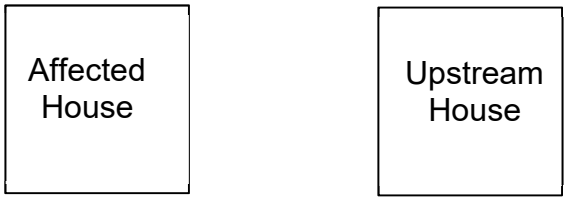
If yes, was the Property Line Cleanout/BPD operational at the time of the overflow? ☐ YES ☐ NO ☐ Unknown

PLEASE CHECK THE BOXES THAT DESCRIBE YOUR OBSERVATIONS:

Customer Cleanout Was:	Public Cleanout was:
☐ Non-Existent	☐ Non-Existent
☐ Full	☐ Full
☐ Empty	☐ Empty

Recommended Follow-Up Action(s):

On the diagram below, indicate the location of the sewer line and where the problem occurred.



Did sewage go under buildings? ☐ Yes ☐ No ☐ Unsure

Place completed form in Sewer Backup Envelope and follow routing instructions

Sanitary Sewer Backup Response Packet

Lodging Authorization Form

B-4

INSTRUCTIONS TO EMPLOYEE:

1. Contact the Collections Supervisor (or designee) at (530) 295-6717 to discuss the resident's lodging options. The Collections Supervisor (or designee) will contact the hotel to secure a reservation with District credit card or direct billing. If the Risk Analyst is unavailable, use the District credit card to secure one night's lodging for the Resident.
2. Review this form with the customer and instruct them to read the Instructions to Resident section below.
3. Instruct the customer that this emergency authorization is for LODGING ONLY – NO FOOD, MINIBAR, MOVIE, PHONE or Other Charges).
4. Explain to customer that if circumstances require additional nights' lodging and other incidentals, the Collections Supervisor (or designee) will address them.
5. Have the customer sign the Acknowledgement section of this form.
6. Complete this Authorization Form and sign.
7. Give the bottom copy of this form to the customer.

INSTRUCTIONS TO RESIDENT: The El Dorado Irrigation District recommends that you temporarily relocate to a local hotel for your safety and convenience while your residence is being cleaned. Please note that this emergency authorization is granted under the following conditions:

1. This authorization provides for one (1) nights' lodging at the hotel selected below.
2. The authorization is good for **room and tax ONLY**.
3. Additional nights, other allowances, and special circumstances may be discussed by contacting the Collections Supervisor (or designee) at 530-295-6717 or the Risk Analyst at (530) 622-4513.

CUSTOMER ACKNOWLEDGEMENT:
I/we have read and understood the terms and conditions governing this offer of temporary relocation and agree to abide by them as described above.

Customer Name (please print): _____

Customer Address: _____

Phone # where customer may be reached: _____

Customer Signature: _____ Date: _____

☐ Check here to decline this offer of temporary relocation. Customer Signature: _____

Good for one (1) night's stay on (date): _____ Number of affected residents: _____

El Dorado Irrigation District Representative's Name: _____ Phone Number: _____

This voucher is valid at the following hotels:

Best Western Plus
6850 Green Leaf Drive, Placerville, CA 95667
530) 622-9100
Pet friendly

Holiday Inn Express
4360 Town Center Boulevard, El Dorado Hills, CA 95762
(916) 358-3100
Service animals only

Distribution: Top Copy to: District records Middle Copy to: Collections Systems Supervisor Bottom Copy to Customer

El Dorado Irrigation District: Overflow Emergency Response Plan

Sanitary Sewer Backup Response Packet

Sanitary Sewer Overflow Report

B-5
Side A

INSTRUCTIONS: Complete all items *EXCEPT* those that are shaded gray

SSO Category *(check one)*:

☐ Category 1: Discharge of untreated or partially treated wastewater of any volume resulting from a sanitary sewer system failure or flow condition that either (1) Reaches surface water and/or drainage channel tributary to a surface water; OR (2) Reached a Municipal Separate Storm Sewer System (MS4) and was not fully captured and returned to the sanitary sewer system or otherwise captured and disposed of properly.

☐ Category 2: Discharge of untreated or partially treated wastewater greater than or equal to 1,000 gallons resulting from a sanitary sewer system failure or flow condition that either (1) Does not reach surface water, a drainage channel, or an MS4, OR (2) The entire SSO discharged to the storm drain system was fully recovered and disposed of properly.

☐ Category 3: All other discharges of untreated or partially treated wastewater resulting from a sanitary sewer system failure or flow condition

☐ Spill from Private Lateral (specify): ☐ Single Family Home ☐ Multi-Family Home ☐ High Density Residential (5+ units)
☐ Food Service Establishment (FSE) ☐ Mixed Use Property ☐ Industrial Property ☐ Commercial Property
☐ Public quasi-public institution (hospital, schools, fire department, etc.)

IMMEDIATE NOTIFICATION: For a Category 1 SSO ≥1,000 gallons reaching surface waters, CalOES must be contacted within 2 hours at (800) 852-7550.

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

B. SSO DESCRIPTION (Complete Volume Estimation Worksheets and/or refer to Field Guide as needed for estimations.)

SSO Appearance Point (check one or more): ☐ Force Main ☐ Gravity Mainline ☐ Lateral Cleanout (Private) ☐ Lateral Cleanout (Public) ☐ Inside Building or Structure ☐ Manhole ☐ Pump Station ☐ Lateral (Private) ☐ Service Lateral or Lower Lateral ☐ Other Sewer System Structure (specify):

Were there multiple appearance points? ☐ No ☐ Yes, number of appearance points:

Did the SSO reach a drainage channel and/or surface water? ☐ Yes (*Category 1)* ☐No

If the SSO reached a storm sewer, was it fully captured and returned to the Sanitary Sewer? ☐ Yes ☐No (*Category 1)*

Was this spill from a private lateral? ☐ Yes ☐No If YES, name of responsible party:

Final Spill Destination: ☐ Surface waters other than ocean ☐ Drainage channel ☐ Building/structure ☐ Separate Storm drain ☐ Combined storm drain ☐ Paved surface ☐ Unpaved surface ☐ Street/curb/gutter ☐ Other:
*Provide name(s) of affected drainage channels, beach, etc.:

Total Estimated SSO volume *(in gallons – 1,000gal or more = Category 1)*: gallons

Est. volume that reached a separate storm drain that flows to a surface water body:	gal	Recovered:	gal
Est. volume that reached a drainage channel that flows to a surface water body:	gal	Recovered:	gal
Est. volume discharged directly to a surface water body:	gal	Recovered:	gal
Est. volume discharged to land:	gal	Recovered:	gal

Calc. Methods: ☐Eyeball ☐Photo Comparison ☐Upstream Lat. Connections ☐Area/Volume (include sketch/photo with dimensions)
☐Other (describe):

C. SSO OCCURRING TIME (complete Start Time Determination Form and then complete information below)

Estimated SSO start date:	Estimated SSO start time:
Date SSO reported to sewer crew:	Time SSO reported to sewer crew:
Date sewer crew arrived:	Time sewer crew arrived:
Who was interviewed to help determine start time?	

* If multiple appearance points, use the GPS coordinates for the location of the SSO appearance point closest to the failure point/blockage.

Estimated SSO end date:	Estimated SSO end time:

El Dorado Irrigation District: Overflow Emergency Response Plan

Sanitary Sewer Backup Response Packet
Sanitary Sewer Overflow Report

B-5
Side B

D. CAUSE OF SSO

Where did failure occur? (Check all that apply): ☐ Air Relief or Blow-Off Valve ☐ Force Main ☐ Gravity Mainline ☐ Siphon ☐ Lower Lateral (public) ☐ Manhole ☐ Pump Station (specify): ○Controls ○Mechanical ○Power ☐ Lateral (private) ☐ Service Lateral or Lower Lateral ☐ Other:

SSO cause *(check all that apply)*: ☐ Air Relief or Blow-Off Valve Failure ☐ Construction Diversion Failure ☐ CS Maintenance ☐ Damage by others ☐ Debris (specify): ○from Construction ○from Lateral ○General ○Rags ☐ Flow Exceeded Capacity ☐ FOG (Fats, oil, grease) ☐ Inappropriate Discharge ☐ Natural Disaster ☐ Operator Error ☐ Root Intrusion ☐ Pipe Structural Problem/Failure ☐ Pipe Structural Problem/Failure (Installation) ☐ Rainfall Exceeded Design ☐ Pump Station Failure (specify): ○Controls ○Mechanical ○Power ☐ Roots ☐ Siphon Failure ☐ Vandalism ☐ Surcharged Pipe ☐ Non - Dispersible Wipes ☐ 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: ☐ Flat ☐ Mixed ☐ Steep

E. SSO RESPONSE

SSO response activities (check all that apply): ☐ Cleaned-Up ☐ Mitigated Effects of Spill ☐ Contained All or Portion of Spill ☐ Restored Flow ☐ Returned All Spill to Sanitary Sewer System ☐ Returned Portion of Spill to Sanitary Sewer System ☐ Property Owner Notified ☐ Other Enforcement Agency Notified (specify) ☐ Other (specify):

SSO response completed (date & time):

Visual inspection result of impacted waters (if applicable):

Any fish killed? ☐ Yes ☐ No Any ongoing investigation? ☐ Yes ☐ No

Were health warnings posted? ☐ Yes ☐ No If yes, provide health warning/beach closure posting/details:

Was there a beach closure? ☐ Yes ☐ No If yes, name of closed beach(es):

Were samples of impacted waters collected? ☐ Yes ☐ No
If YES, select the analyses: ☐ DO ☐ Ammonia ☐ Bacteria ☐ pH ☐ Temperature ☐ Other:

Recommended corrective actions: (check all that apply and provide detail)
☐ Add sewer to preventive maintenance program ☐ Adjust schedule/method of preventive maintenance
☐ Enforcement action against FOG source ☐ Inspect sewer using CCTV to determine cause
☐ Plan rehabilitation or replacement of sewer ☐ Repair facilities or replace defect
☐ Remove roots ☐ Spot repair
☐ 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: Enter details if applicable

CalOES contacted on (Date and Time):

Spoke to: CalOES Control Number:

This form prepared by: NAME: TITLE: DATE:

This form reviewed by: NAME:	TITLE:	DATE:

Place completed form in Sewer Backup Envelope and follow routing instructions.

Sanitary Sewer Backup Response Packet

Start Time Determination Form

B-6

SSO Start Date: _____ Location: _____

Accurate start time determination is an essential part of SSO 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 District notified of the SSO? _____ ☐ AM ☐ PM

Who notified the District? _____

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

Who at the District received the notification? _____

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

Who was interviewed regarding the start time of the SSO? 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 particular SSO:

SSO Start Date: _____ SSO Start Time: _____ ☐ AM ☐ PM

SSO End Date: _____ SSO End Time: _____ ☐ AM ☐ PM

SSO Duration: _____ **minutes**

This form completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

Sanitary Sewer Backup Response Packet

Volume Estimation: Eyeball Estimation Method

B-7a

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

SSO Date: _____ Location: _____

STEP 1: Position yourself so that you have a vantage point where you can see the entire SSO.

STEP 2: Imagine one or more buckets or barrels of water tipped over. Depending on the size of the SSO, 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 SSO 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 SSO Volume:			

STEP 5: Is rainfall a factor in the SSO? ☐ 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 SSO volume by subtracting the rainfall from the SSO volume:

_____ gallons – _____ gallons = _____ gallons

Estimated SSO Volume – Rainfall = **Total Estimated SSO Volume**

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

If no, you MUST use additional methods to estimate the entire SSO. 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 SSO:

This worksheet completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

Sanitary Sewer Backup Response Packet

Volume Estimation: Duration and Flow Rate Comparison Method

B-7b Side 1

SSO Date: _____ Location: _____

STEP 1: Compare the SSO to reference images on Side 2 to estimate flow rate of the current overflow. Describe which reference photo(s) were used and any additional factors that influenced applying the reference photo data to the actual SSO:

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 start time was determined. Copy the SSO Duration from the Start Time Determination Form here:

SSO Duration: _____minutes

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

_____gpm X _____minutes = _____gallons

Flow Rate | SSO Duration | Estimated SSO Volume

STEP 4: Did the SSO occur during a period of consistent flow in this portion of the system? ☐ Yes ☐ No

If no, explain how, based on this portion of the collection system and its users, you believe it may have impacted the estimated SSO volume:

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

Translate the percentage into gallons: _____gallons

STEP 5: Calculate the adjusted SSO volume estimate:

_____gallons + or - _____gallons = _____gallons

Estimated SSO Volume | Adjustment | **Estimated SSO volume**

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

If no, you MUST use additional methods to estimate the entire SSO. 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 SSO:

This worksheet completed by:

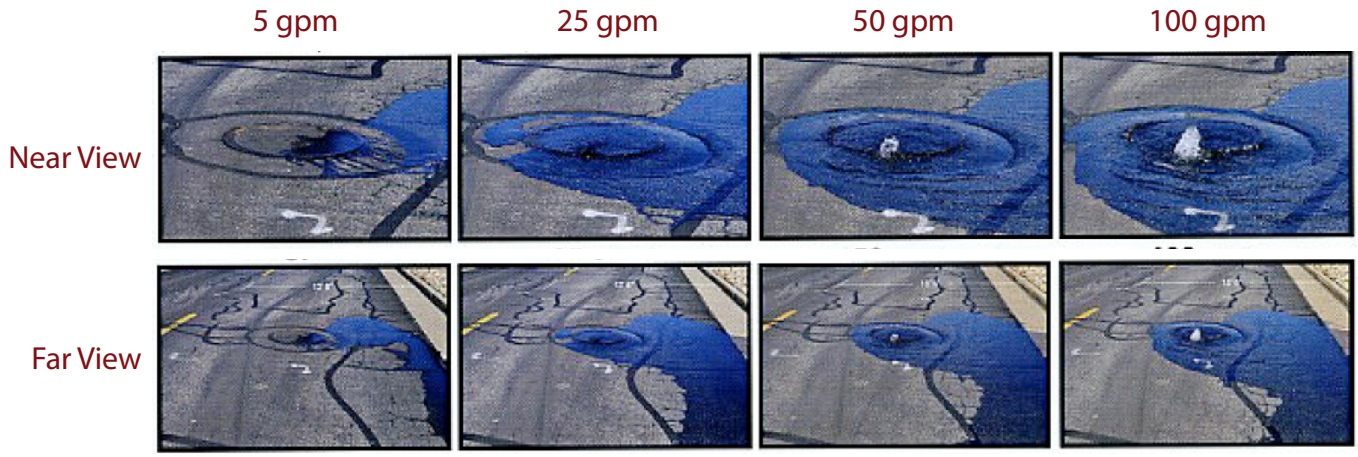
Name: _____ Signature: _____

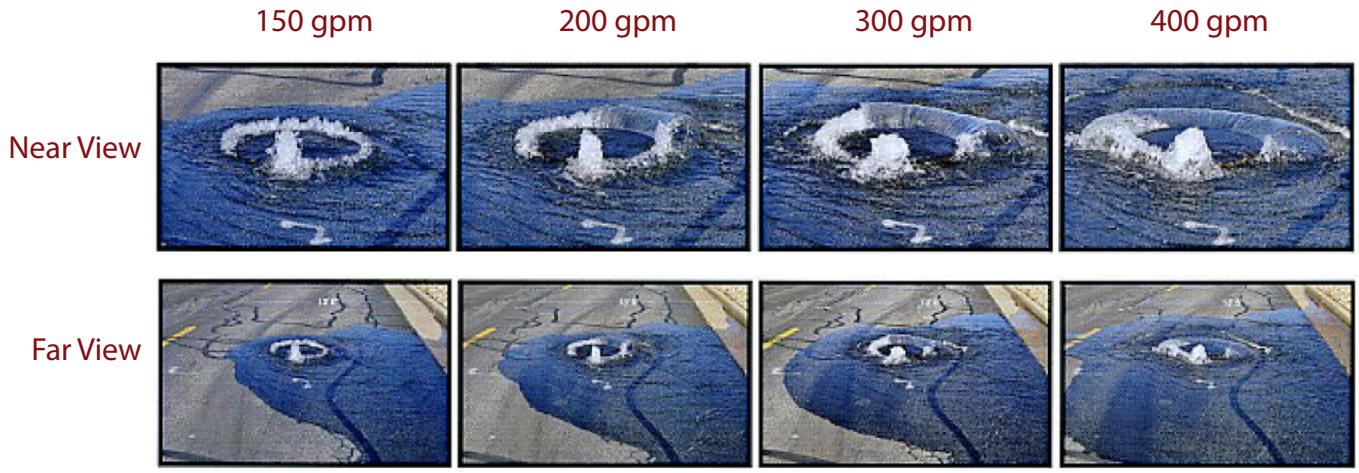
Job Title: _____ Date: _____

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





Sanitary Sewer Backup Response Packet

Volume Estimation: Upstream Lateral Connections Method

B-7c

SSO Date: _____ Location: _____

STEP 1: Determine the number of Equivalent Dwelling Units (EDUs) for this SSO: _____ EDUs
NOTE: A single-family residential home = 1 EDU. For commercial buildings, refer to agency documentation.

STEP 2: This volume estimation method utilizes daily usage data based on flow rate studies of several jurisdictions in California. Column A shows how an average daily of usage of 180 gallons per day is distributed during each 6-hour period. Adjust the table as necessary to accurately represent the actual data.

Complete Column E by entering the number of minutes the SSO was active during each 6-hour time period. Multiply column D times Column E to calculate the gallons spilled during each time period. Add the numbers in Column F together for the Total Estimated SSO Volume per EDU.

	Flow Rate Per EDU				**SSO**	
	A	**B**	**C**	**D**	**E**	**F**
Time Period	Gallons per Period	Hours per period	A ÷ B = Gallons per Hour	C ÷ 60 = Gallons per Minute	Minutes SSO was active during period	D × E = Gallons spilled per period
6am-noon	72	6	12	0.20		
noon-6pm	36	6	6	0.10		
6pm-midnight	54	6	9	0.15		
midnight-6am	18	6	3	0.05		
Total Estimated SSO Volume per EDU:						

STEP 3: Multiply the Estimated SSO Volume per EDU from Step 2 by the number of EDUs from Step 1.

_____ gallons (Volume per EDU) X _____ (# of EDUs) = _____ gallons (Estimated SSO Volume)

STEP 4: Adjust SSO volume as necessary considering other factors, such as activity that would cause a fluctuating flow rate (doing laundry, taking showers, etc.). Explain rationale below and indicate adjusted SSO estimate (attach a separate page if necessary):

Estimated SSO Volume: _____ gallons

Do you believe that this method has estimated the entire SSO? ☐ Yes ☐ No
If no, you MUST use additional methods to estimate the entire SSO. 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 SSO:

This worksheet completed by:
Name: _____ Signature: _____
Job Title: _____ Date: _____

Sanitary Sewer Backup Response Packet

Lateral CCTV Report

B-8

PLEASE COMPLETE AS THOROUGHLY AS POSSIBLE

PERSON COMPLETING THIS FORM:

DATE:
PHONE:

CAMERA TYPE:

LOCATION OF CAMERA ENTRY:

AFFECTED PROPERTY STREET ADDRESS:

LOCATION OF CAMERA STOP:

CITY, STATE AND ZIP:

DESCRIBE AREA TV'd:

PHONE

UPSTREAM MANHOLE #:

WEATHER AT TIME OF CCTV WORK:

PLEASE CHECK ALL THAT WERE DISCOVERED – *Describe Extent & Location Using Camera Entry Point As Reference*:

- ❒ Broken Lateral – Describe:
  Depth:
- ❒ Roots – Severity: ☐ Light ☐ Moderate ☐ Heavy
- ❒ Grease – Severity: ☐ Light ☐ Moderate ☐ Heavy
- ❒ Sag – Describe:
  Depth:
- ❒ Backflow Prevention Device – Describe:
  Location:
- ❒ Cleanout – Describe:
  Location:
- ❒ Joint/Junction – Describe:
  Depth
- ❒ Grade – Describe:
- ❒ Grit – Severity: ☐ Light ☐ Moderate ☐ Heavy
- ❒ Other – Describe:

TIME OF OVERFLOW:

TIME BLOCKAGE RELIEVED:

TIME LATERAL TV'd:

DEPTH OF LATERAL:

RECOMMENDED
FOLLOW UP WORK ACTIONS:

Mark for USA location? ☐ Yes ☐ No

Lateral Locations Marked in Green Paint? ☐ Yes ☐ No

SIGNATURE OF EMPLOYEE PERFORMING TV WORK:

DATE

If applicable, place completed form in Sewer Backup Packet and follow routing instructions.

Sanitary Sewer Backup Response Packet

Claims Submittal Checklist

B-9

Collections Systems Supervisor

1. **Complete the following information:**

   Title: _____

   Name: _____

   Phone: _____

   Today's Date: _____

2. **Copy the items listed below and retain originals for internal archiving purposes.**

3. **Place the copies in the Backup Response Envelope and forward to the Risk Analyst:**

   - ☐ **Form B-3: First Responder Form**
   - ☐ **Form B-4: Lodging Authorization Form**
   - ☐ **Form B-5: Sanitary Sewer Overflow Report - *copy***
   - ☐ **Form B-6: Start Time Determination Form - *copy***
   - ☐ **Form B-7: Volume Estimation Forms (a, b and/or c) - *copy***
   - ☐ **Form B-8: Lateral CCTV Report**
   - ☐ **Form B-9: Claims Submittal Checklist** *(this form)*
   - ☐ **All photos taken: Check here if copy of photographs will be forwarded separately** ☐
   - ☐ **Any other information you feel is important in this claim**

4. **Go to Regulatory Notifications Packet and make all appropriate notifications.**

5. **Complete Form BP-10: Collection System Failure Analysis**

Risk Analyst

1. **Verify claims packet is complete.**
2. **Send claim acknowledgement to customer as appropriate**
3. **Communicate with claimant as appropriate**
4. **Adjust and administer the claim to closure**

Sanitary Sewer Backup Response Packet
Collection System Failure Analysis

B-10
Side A

To be completed by the Collections Systems Supervisor

Incident Report #		Prepared By	
SSO/Backup Information			
Event Date/Time	Address		
Volume Spilled	Volume Recovered		
Cause			
Summary of Historical SSOs/Backups/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			

Go to Side B

Sanitary Sewer Backup Response Packet
Collection System Failure Analysis

B-10
Side B

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 Overflow Response Procedures				
	Training				
	Misc.				
Comments/Notes:					
Review Date:					

El Dorado Irrigation District CA

Overflow Emergency Response Plan

Customer Service Packet

Contents:

Form	Form Number
Customer Information Letter	CS-1
Claim Form	-2
Sewer Spill Reference Guide	pamphlet

Instructions:

1. Review the Customer Information letter to determine actions that need to be taken immediately.
2. See the Customer Information letter for information about filing a claim.
3. Review the Sewer Spill Reference Guide pamphlet.

If you have any questions contact:

For sewer related issues, contact the Collections Systems Supervisor:
(530) 295-6717

For claims related issues, contact the Risk Analyst:
(530) 642-4172

This packet provided by: _____

Phone: _____

Print on 6” x 9” envelope

Distrito de Riego de El Dorado, CA (El Dorado Irrigation District)
Emergency Response Plan

Paquete de servicio al cliente

Contenidos:

Formulario	Número de formulario
Carta de información para el cliente	CS-1
Formulario de reclamación	-2
Guía de referencia en caso de desborde del alcantarillado	folleto

Instrucciones:

1. Revise la carta de información para el cliente para determinar qué medidas deben tomarse inmediatamente.
2. Consulte la carta de información para el cliente sobre cómo presentar una reclamación.
3. Revise el folleto de la Guía de referencia en caso de desborde del alcantarillado.

Si tiene alguna consulta, comuníquese con las siguientes entidades:

Para los problemas relacionados con el alcantarillado, comuníquese con el Supervisor de los Sistemas de Recolección:
(530) 295-6717

Para los problemas relacionados con las reclamaciones, comuníquese con el Analista de Riesgos:
(530) 642-4172

Este paquete lo proporciona: _____

Print on 6” x 9” envelope

Teléfono: _____

Print on 6” x 9” envelope

CS-1

English

Sanitary Sewer Backup Response Packet
Customer Information Regarding Sewer Backup Claims

Dear Property Owner / Tenant:

The El Dorado Irrigation District (District) recognizes that water and sewer line incidents can be stressful and require immediate response. The District has prepared this brief information packet to help you minimize the impact of the incident by responding promptly to the situation.

At this time, the District is investigating the cause of the incident and cannot assume liability for damages until the investigation is complete. However, if our investigation determines the District is responsible for this incident, the costs you incur for reasonable and necessary cleanup will be reimbursed in the settlement of your claim. The District is not responsible for cleanup charges or damages caused by blockages in the property owner's sewer line, or by leaks or failures of potable or recycled water lines on the customer's side of the water meter. Regardless of whether the District is responsible for the incident, it is up to the property owner to arrange for the repairs and to present a claim to the District for consideration. Claims are processed under California's Government Claims Act, sections 810 to 996.6 of the California Government Code.

As the property owner/tenant, you can contact your insurance carrier to report a claim and contact a restoration company for clean-up and removal of the affected areas. If your insurance carrier does not have a list of recommended clean-up companies to call for service, the following 24-hour emergency restoration companies are available to respond:

- Zebra Restoration Services (916) 635-8571
- Belfor Property Restoration (800) 856-3333
- Certified Property Rescue (916) 939-9400
- Emergency Services Restoration (800) 577-7537
- ServiceMaster Cleaning & Restoration Services (530) 295-1608

*This list is provided as a resource only. The District does not require or endorse the use of any of these companies. This list is not exclusive, comprehensive or limiting in any way. Qualified contractors can be found online or in the Yellow Pages under "Water Damage Restoration" or "Fire & Water Damage Restoration". However, the District does recommend that you hire a firm with the experience and resources to get the job done quickly.

Water damage and bacteria growth can begin within hours after an incident occurs. Calling a professional service company immediately will increase your chances of a rapid and complete return to normal conditions. In the meantime, here are some guidelines about things not to do, and helpful things you can do.

What you need to do now:

What **NOT** to do:

- Do not enter a room with standing water until the electricity has been turned off.
- Do not use any electrical appliances in the affected areas: THEY CREATE A RISK OF ELECTROCUTION.
- Do not use a regular household vacuum to remove water.
- Do not lift tacked-down carpet without professional help.
- Do not disturb visible mold.
- Do not throw away any damaged property until it has been inspected by a representative of the District.

What **TO** Do:

- Only do activities that are safe for you to perform.
- Do what you can to minimize or mitigate impacts on your property.
- Keep people and pets away from the affected area(s).
- Try to contain the water/sewage to the already damaged area.
- Prevent any water/sewage from reaching floor vents.
- Take photographs to document conditions.

(continued on next page)

Claim Process:

- As soon as practical, call or e-mail the District's Claims Administrator and provide your contact information; i.e., name, address, phone number, cell phone number and e-mail address. Also, if you have filed a claim with your insurance company, provide contact information for your insurance company.

- As soon as practical, complete the attached claim form or download a copy at http://www.eid.org/home/showdocument?id=133 and file your claim with the El Dorado Irrigation District's Claims Administrator, 2890 Mosquito Road Placerville, CA 95667. The California Government Code, sections 900-935.4, requires filing a written claim and outlines specific timelines and notice procedures that must be followed.

- Per the California Government Code, the claim form must either be personally delivered to the District's Headquarters at 2890 Mosquito Road in Placerville or mailed using the US Postal Service. A faxed or electronic version cannot be accepted.

Important Legal Notice: For your protection, read carefully, obtain a reliable translation, and/or consult your attorney.

Paquete para respuesta ante un desborde del alcantarillado sanitario

Información para el cliente sobre reclamaciones por desborde del alcantarillado sanitario

Estimado propietario/inquilino:

El Distrito de Riego de El Dorado (El Dorado Irrigation District) (de ahora en adelante, Distrito) reconoce que los incidentes relacionados con el agua y el sistema de alcantarillado pueden ser estresantes y requieren una respuesta de inmediato. El Distrito preparó un paquete con información breve que lo ayuda a minimizar el impacto del incidente al proporcionar una respuesta adecuada ante la situación a la que se enfrente.

En esta oportunidad, el Distrito está investigando el incidente y no puede asumir la responsabilidad por los daños ocasionados hasta que se complete la investigación. Sin embargo, si nuestra investigación determina que el Distrito es responsable por dicho incidente, se reembolsarán los gastos en los que haya incurrido para la limpieza razonable y necesaria en la resolución de la reclamación. El Distrito no es responsable por los cargos por limpieza o los daños causados por bloqueos en el sistema de alcantarillado del propietario, o por pérdidas o fallas en el sistema de alcantarillado de agua potable o reciclada en el medidor de agua que le corresponde al cliente. Independientemente de la responsabilidad del Distrito por el incidente, el propietario es responsable por los arreglos y por la presentación de una reclamación ante el Distrito para que este la considere. Las reclamaciones se consideran según lo estipulado en la Ley de Reclamaciones del Gobierno de California (Government Claims Act), en las secciones 810 a 996.6 del Código de Gobierno de California.

Como propietario/inquilino, puede comunicarse con su compañía de seguro para presentar una reclamación y ponerse en contacto con una compañía de restauración para que limpie y quite las partes afectadas. Si su compañía de seguro no posee una lista de compañías de limpieza a las que pueda llamar, las siguientes empresas de restauración cuentan con servicio de emergencia las 24 horas y podrán darle una respuesta:

- Zebra Restoration Services (916) 635-8571
- Belfor Property Restoration (800) 856-3333
- Certified Property Rescue (916) 939-9400
- Emergency Services Restoration (800) 577-7537
- ServiceMaster Cleaning & Restoration Services (530) 295-1608

*Esta lista es únicamente un recurso disponible para usted. El Distrito no exige ni avala el uso de ninguna de estas compañías. Esta lista no es exclusiva o integral y tampoco plantea una limitación de ningún tipo. Puede encontrar empresas contratistas calificadas en línea o en las Páginas Amarillas (Yellow Pages) en la sección “Restauración por daño causado por agua” (Water Damage Restoration) o “Restauración por daño causado por fuego y agua” (Fire & Water Damage Restoration). Sin embargo, el Distrito sí recomienda que contrate una compañía con la experiencia y los recursos para realizar el trabajo rápidamente.

El daño causado por agua y la proliferación de bacterias puede producirse en pocas horas luego del incidente. Llamar inmediatamente a una compañía que brinde un servicio profesional aumentará las probabilidades de obtener una restauración rápida y completa de las condiciones normales. Mientras tanto, a continuación encontrará algunas pautas sobre lo que no debe hacer y medidas útiles que puede tomar.

Lo que debe hacer ahora:

Lo que **NO** debe hacer:

- No ingrese a una habitación inundada hasta que no se haya cortado la electricidad.
- No utilice dispositivos eléctricos en las áreas afectadas. EXISTE RIESGO DE ELECTROCUCIÓN.
- No utilice una aspiradora para el hogar común para quitar el agua.
- No levante la alfombra adherida al piso sin ayuda profesional.
- No toque el moho visible.
- No tire ninguna parte de la propiedad que se haya dañado hasta que un representante del Distrito no la inspeccione.

(Continúa en la página siguiente)

Lo que **SÍ** debe hacer:

- Únicamente realice actividades que sean seguras para usted.
- Haga lo que pueda para minimizar o mitigar los impactos en su propiedad.
- Mantenga a las personas y las mascotas lejos de las áreas afectadas.
- Intente contener el agua/las aguas residuales en las áreas que ya están dañadas.
- Evite que el agua/las aguas residuales lleguen a las aberturas que tenga el piso.
- Tome fotografías para documentar el estado de la propiedad.

Proceso de reclamación:

- Tan pronto como sea posible, llame o envíe un correo electrónico al Administrador de Reclamaciones del Distrito y proporciónele su información de contacto, por ejemplo, su nombre, dirección número de teléfono, número de celular y dirección de correo electrónico. Además, si presentó una reclamación a través de su compañía de seguro, proporcione la información de contacto de esta.

- Tan pronto como sea posible, complete el formulario de reclamación que se adjunta o descargue una copia del sitio http://www.eid.org/home/showdocument?id=133 y presente su reclamación ante el Administrador de Reclamaciones del Distrito de Riego de El Dorado: El Dorado Irrigation District's Claims Administrator, 2890 Mosquito Road Placerville, CA 95667. El Código de Gobierno de California, en las secciones 900 a 935.4, exige la presentación escrita de una reclamación y estipula plazos y procedimientos de notificación específicos que deben respetarse.

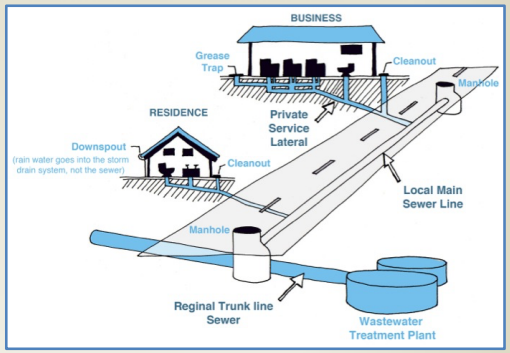
- Según el Código de Gobierno de California, el formulario de reclamación debe entregarse personalmente en la sede del Distrito en 2890 Mosquito Road en Placerville o enviarse a través del Servicio Postal de los Estados Unidos. No se aceptará una versión por fax o electrónica.

Notificación legal importante: para su protección, lea atentamente, obtenga una traducción confiable o consulte con su abogado.

INSERT CLAIM FORM in FINAL PDF

How a Sewer System Works

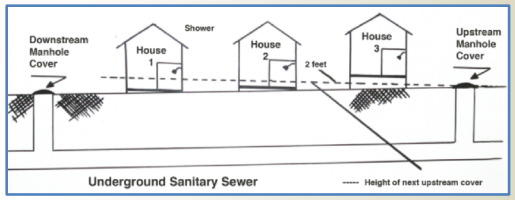
A property owner's sewer pipes are called ***service laterals*** and are connected to larger local main and regional trunk lines.
Service laterals run from the connection at the home to the connection with the public sewer. These laterals are the responsibility of the property owner and must be maintained 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:

El Dorado Irrigation District
(530) 622-4513

El Dorado County Environmental Health
(530) 621-5300
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, or if sewage probably will be discharged in or on any waters of the state:
  - 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.

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:

El Dorado Irrigation District

(530) 622-4513

www.eid.org

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 El Dorado Irrigation District. 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 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 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.

El Dorado Irrigation District

On (date) _____, at (location) _____ , we responded to a reported blockage of the sanitary sewer service to your property.

We discovered a blockage in:

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

If you require assistance to clear your portion of the lateral you can look on the Internet or 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.

El Dorado Irrigation District representative notes: _

_____

_____

El Dorado Irrigation District Representative:

_____

For questions or comments, please call

El Dorado Irrigation District

Main Office: (530) 622-4513

Direct Dispatch: (530) 642-4000

El Dorado Irrigation District

On (date) _____, at (location) _____ , we responded to a reported blockage of the sanitary sewer service to your property.

We discovered a blockage in:

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

If you require assistance to clear your portion of the lateral you can look on the Internet or 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.

El Dorado Irrigation District representative notes: _

_____

_____

El Dorado Irrigation District Representative:

_____

For questions or comments, please call

El Dorado Irrigation District

Main Office: (530) 622-4513

Direct Dispatch: (530) 642-4000

El Dorado Irrigation District
Overflow Emergency Response Plan

Appendix C

SANITARY SEWER OVERFLOW RESPONSE PACKET

Sanitary Sewer Overflow Response Packet
Table of Contents

For pre-assembled packets contact DKF Solutions Group at (707) 373-9709 or kpatzer@dkfsolutions.com

In the event of a **Sanitary Sewer Overflow**
READ THIS FIRST

- **If this is a Category 1 SSO <u>greater than or equal to 1,000 gallons</u> immediately** contact the Collections Systems Supervisor at (530) 295-6717 to make the 2-hour notification to CalOES.
- **If the SSO may threaten Folsom Lake immediately** contact the Water Manager at (530) 642-4060.
- **Check here if you believe that fats, oils and/grease (FOG) caused or contributed to the SSO.**
- **To have water samples collected during business hours,** contact the District Chemist at (530) 295-6856.
- **For any media requests:** Contact the Public Information Officer at (530) 622-4513.

Collections Crew:

- ❑ Follow the instructions on the Sewer Overflow Response Flowchart (C-1).
- ❑ Refer to the Field Guide as necessary.
- ❑ Place completed forms, camera (if applicable), and any additional notes/documentation in this envelope.
- ❑ Complete the Chain of Custody record (right) and forward this packet to Collections Systems Supervisor.

Print Name: _____

Initial: _____

Date: _____

Time: _____

Collections Systems Supervisor:

- ❑ Review the enclosed forms.
- ❑ Complete the Regulatory Notifications Packet.
- ❑ Complete the Chain of Custody Record (right) and file this completed Sewer Overflow Packet in accordance with District policy.
- ❑ Debrief using the Collection System Failure Analysis Form.

Print Name: _____

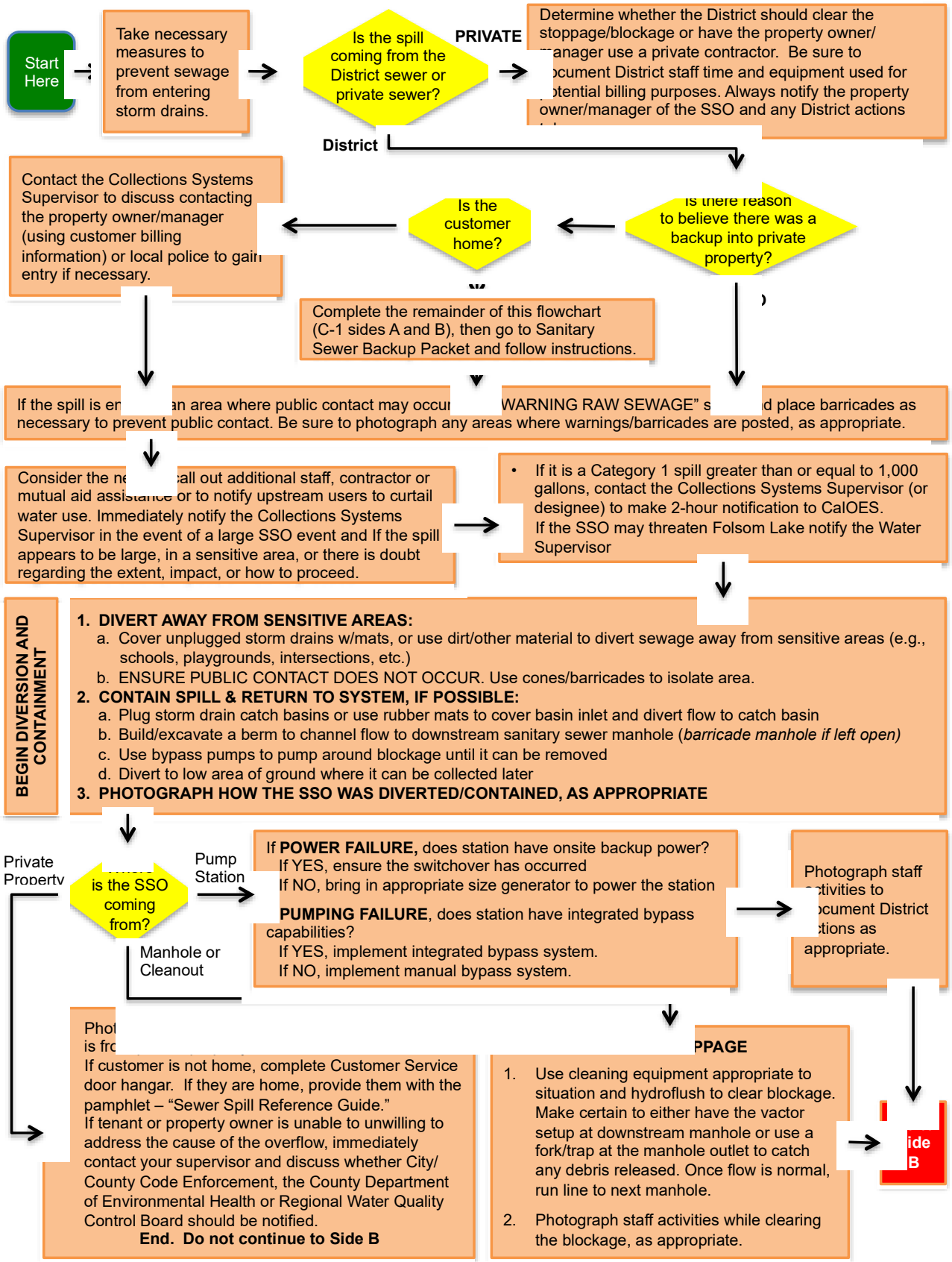
Initial: _____

Date: _____

Time: _____

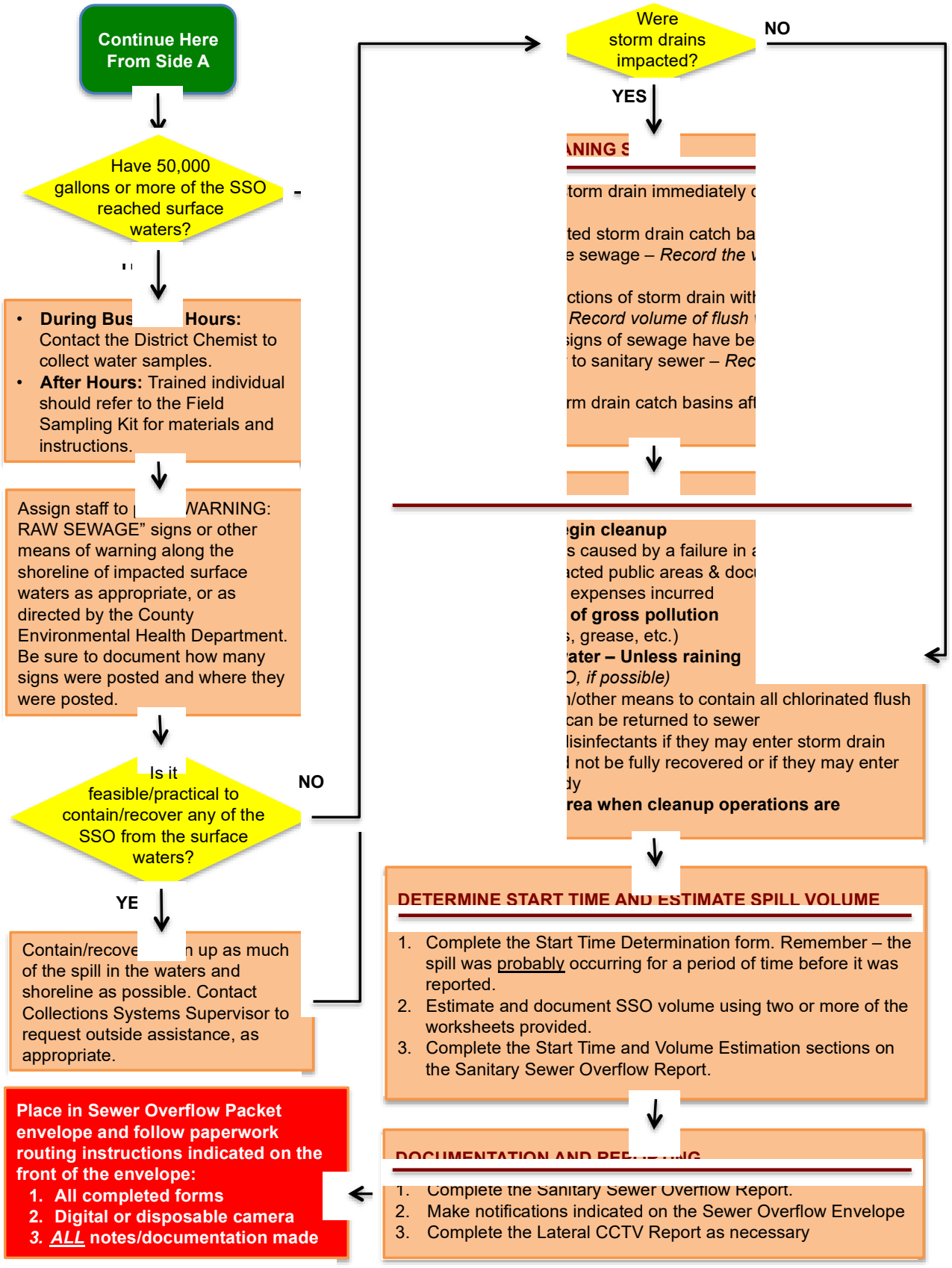
Sanitary Sewer Overflow Response Packet
Overflow Response Flowchart

C-1
Side A



Sanitary Sewer Overflow Response Packet
Overflow Response Flowchart

C-1 Side B



El Dorado Irrigation District: Overflow Emergency Response Plan

Sanitary Sewer Overflow Response Packet

Sanitary Sewer Overflow Report

C-2
Side A

INSTRUCTIONS: Complete all items *EXCEPT* those that are shaded gray

SSO Category *(check one)*:

☐ Category 1: Discharge of untreated or partially treated wastewater of any volume resulting from a sanitary sewer system failure or flow condition that either (1) Reaches surface water and/or drainage channel tributary to a surface water; OR (2) Reached a Municipal Separate Storm Sewer System (MS4) and was not fully captured and returned to the sanitary sewer system or otherwise captured and disposed of properly.

☐ Category 2: Discharge of untreated or partially treated wastewater greater than or equal to 1,000 gallons resulting from a sanitary sewer system failure or flow condition that either (1) Does not reach surface water, a drainage channel, or an MS4, OR (2) The entire SSO discharged to the storm drain system was fully recovered and disposed of properly.

☐ Category 3: All other discharges of untreated or partially treated wastewater resulting from a sanitary sewer system failure or flow condition

- Spill from Private Lateral (specify): ☐ Single Family Home ☐ Multi-Family Home ☐ High Density Residential (5+ units) ☐ Food Service Establishment (FSE) ☐ Mixed Use Property ☐ Industrial Property ☐ Commercial Property ☐ Public quasi-public institution (hospital, schools, fire department, etc.)

IMMEDIATE NOTIFICATION: For a Category 1 SSO ≥1,000 gallons, CalOES must be contacted within 2 hours at (800) 852-7550.

A. SSO LOCATION

SSO Location Name:		
Latitude Coordinates*:	Longitude Coordinates:	
Street Name and Number:		
Nearest Cross Street:	City:	Zip Code:
County:	SSO Location Description:	

B. SSO DESCRIPTION (Complete Volume Estimation Worksheets and/or refer to Field Guide as needed for estimations.)

SSO Appearance Point (check one or more): ☐ Force Main ☐ Gravity Mainline ☐ Lateral Cleanout (Private) ☐ Lateral Cleanout (Public) ☐ Inside Building or Structure ☐ Manhole ☐ Pump Station ☐ Lateral (Private) ☐ Service Lateral or Lower Lateral ☐ Other Sewer System Structure (specify):

Were there multiple appearance points? ☐ No ☐ Yes, number of appearance points:

Did the SSO reach a drainage channel and/or surface water? ☐ Yes (*Category 1)* ☐No

If the SSO reached a storm sewer, was it fully captured and returned to the Sanitary Sewer? ☐ Yes ☐No (*Category 1)*

Was this spill from a private lateral? ☐ Yes ☐No If YES, name of responsible party:

Final Spill Destination: ☐ Surface waters other than ocean ☐ Drainage channel ☐ Building/structure ☐ Separate Storm drain ☐ Combined storm drain ☐ Paved surface ☐ Unpaved surface ☐ Street/curb/gutter ☐ Other:
*Provide name(s) of affected drainage channels, beach, etc.:

Total Estimated SSO volume *(in gallons – 1,000gal or more = Category 1)*: gallons

Est. volume that reached a separate storm drain that flows to a surface water body:	gal	Recovered:	gal
Est. volume that reached a drainage channel that flows to a surface water body:	gal	Recovered:	gal
Est. volume discharged directly to a surface water body:	gal	Recovered:	gal
Est. volume discharged to land:	gal	Recovered:	gal

Calc. Methods: ☐Eyeball ☐Photo Comparison ☐Upstream Lat. Connections ☐Area/Volume (include sketch/photo with dimensions) ☐Other (describe):

C. SSO OCCURRING TIME (Complete Start Time Determination Form and then complete information below.)

Estimated SSO start date:	Estimated SSO start time:
Date SSO reported to sewer crew:	Time SSO reported to sewer crew:
Date sewer crew arrived:	Time sewer crew arrived:
Who was interviewed to help determine start time?	
Estimated SSO end date:	Estimated SSO end time:

* If multiple appearance points, use the GPS coordinates for the location of the SSO appearance point closest to the failure point/blockage.

Sanitary Sewer Overflow Response Packet

Sanitary Sewer Overflow Report

C-2
Side B

D. CAUSE OF SSO

Where did failure occur? (Check all that apply): ☐ Air Relief or Blow-Off Valve ☐ Force Main ☐ Gravity Mainline ☐ Siphon ☐ Lower Lateral (public) ☐ Manhole ☐ Pump Station (specify): ○Controls ○Mechanical ○Power ☐ Lateral (private) ☐ Service Lateral or Lower Lateral ☐ Other:

SSO cause *(check all that apply)*: ☐ Air Relief or Blow-Off Valve Failure ☐ Construction Diversion Failure ☐ CS Maintenance ☐ Damage by others ☐ Debris (specify): ○from Construction ○from Lateral ○General ○Rags ☐ Flow Exceeded Capacity ☐ FOG (Fats, oil, grease) ☐ Inappropriate Discharge ☐ Natural Disaster ☐ Operator Error ☐ Root Intrusion ☐ Pipe Structural Problem/Failure ☐ Pipe Structural Problem/Failure (Installation) ☐ Rainfall Exceeded Design ☐ Pump Station Failure (specify): ○Controls ○Mechanical ○Power ☐ Roots ☐ Siphon Failure ☐ Vandalism ☐ Surcharged Pipe ☐ Non - Dispersible Wipes ☐ 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: ☐ Flat ☐ Mixed ☐ Steep

E. SSO RESPONSE

SSO response activities (check all that apply): ☐ Cleaned-Up ☐ Mitigated Effects of Spill ☐ Contained All or Portion of Spill ☐ Restored Flow ☐ Returned All Spill to Sanitary Sewer System ☐ Returned Portion of Spill to Sanitary Sewer System ☐ Property Owner Notified ☐ Other Enforcement Agency Notified (specify) ☐ Other (specify):

SSO response completed (date & time):

Visual inspection result of impacted waters (if applicable):

Any fish killed? ☐ Yes ☐ No Any ongoing investigation? ☐ Yes ☐ No

Were health warnings posted? ☐ Yes ☐ No If yes, provide health warning/beach closure posting/details:

Was there a beach closure? ☐ Yes ☐ No If yes, name of closed beach(es):

Were samples of impacted waters collected? ☐ Yes ☐ No
If YES, select the analyses: ☐ DO ☐ Ammonia ☐ Bacteria ☐ pH ☐ Temperature ☐ Other:

Recommended corrective actions: (check all that apply and provide detail)
☐ Add sewer to preventive maintenance program ☐ Adjust schedule/method of preventive maintenance
☐ Enforcement action against FOG source ☐ Inspect sewer using CCTV to determine cause
☐ Plan rehabilitation or replacement of sewer ☐ Repair facilities or replace defect
☐ Remove roots ☐ Spot repair
☐ 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: Enter details if applicable

CalOES contacted on (Date and Time):

Spoke to: CalOES Control Number:

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

Place completed form in Sewer Backup Envelope and follow routing instructions.

Sanitary Sewer Overflow Response Packet

Start Time Determination Form

C-3

SSO Start Date: _____ Location: _____

Accurate start time determination is an essential part of SSO 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 District notified of the SSO? _____ ☐ AM ☐ PM

Who notified the District? _____

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

Who at the District received the notification? _____

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

Who was interviewed regarding the start time of the SSO? 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 particular SSO:

SSO Start Date: _____ SSO Start Time: _____ ☐ AM ☐ PM

SSO End Date: _____ SSO End Time: _____ ☐ AM ☐ PM

SSO Duration: _____ **minutes**

This form completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

Sanitary Sewer Overflow Response Packet

Volume Estimation: Eyeball Estimation Method

C-4a

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

SSO Date: _____ Location: _____

STEP 1: Position yourself so that you have a vantage point where you can see the entire SSO.

STEP 2: Imagine one or more buckets or barrels of water tipped over. Depending on the size of the SSO, 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 SSO 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 SSO Volume:			

STEP 5: Is rainfall a factor in the SSO? ☐ 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 SSO volume by subtracting the rainfall from the SSO volume:

_____ gallons – _____ gallons = _____ gallons

Estimated SSO Volume – Rainfall = **Total Estimated SSO Volume**

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

If no, you MUST use additional methods to estimate the entire SSO. 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 SSO:

This worksheet completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

Sanitary Sewer Overflow Response Packet

Volume Estimation: Duration and Flow Rate Comparison Method

C-4b Side 1

SSO Date: _____ Location: _____

STEP 1: Compare the SSO to reference images on Side 2 to estimate flow rate of the current overflow. Describe which reference photo(s) were used and any additional factors that influenced applying the reference photo data to the actual SSO:

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 start time was determined. Copy the SSO Duration from the Start Time Determination Form here:

SSO Duration: _____ minutes

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

_____ gpm X _____ minutes = _____ gallons
Flow Rate SSO Duration Estimated SSO Volume

STEP 4: Did the SSO occur during a period of consistent flow in this portion of the system? ☐ Yes ☐ No

If no, explain how, based on this portion of the collection system and its users, you believe it may have impacted the estimated SSO volume:

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

Translate the percentage into gallons: _____ gallons

STEP 5: Calculate the adjusted SSO volume estimate:

_____ gallons + or - _____ gallons = _____ gallons
Estimated SSO Volume Adjustment **Estimated SSO volume**

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

If no, you MUST use additional methods to estimate the entire SSO. 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 SSO:

This worksheet completed by:

Name: _____ Signature: _____

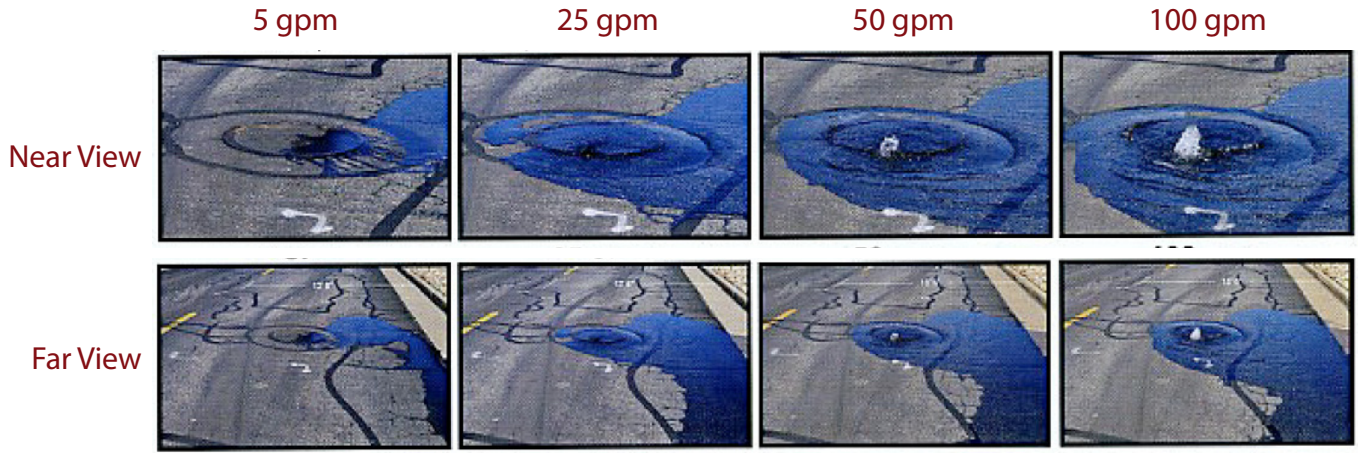
Job Title: _____ Date: _____

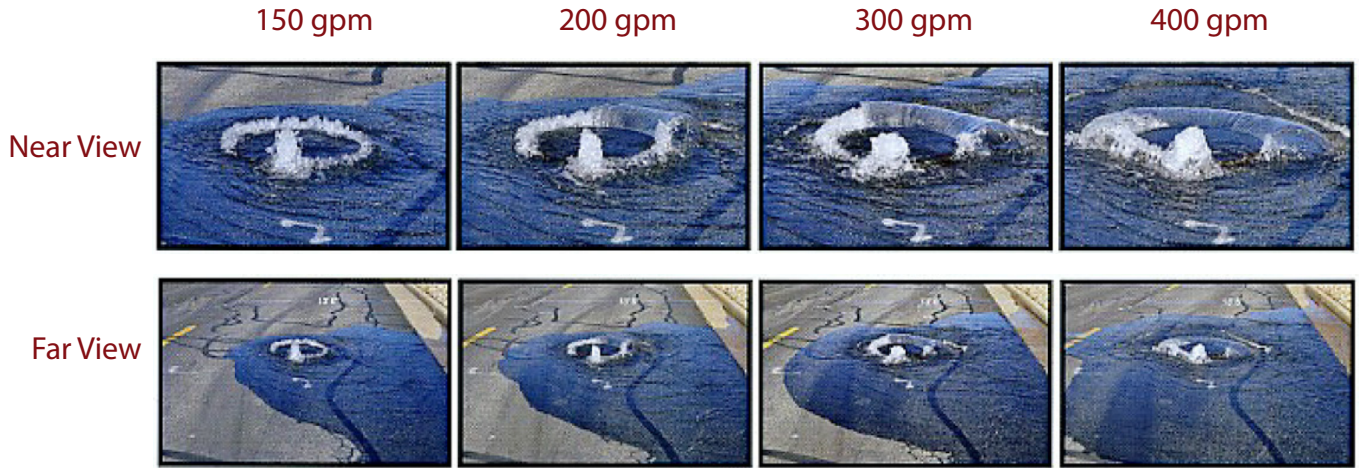
IMPORTANT NOTE:

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





Sanitary Sewer Overflow Response Packet

Volume Estimation: Upstream Lateral Connections Method

C-4c

SSO Date: _____ Location: _____

STEP 1: Determine the number of Equivalent Dwelling Units (EDUs) for this SSO: _____ EDUs
NOTE: A single-family residential home = 1 EDU. For commercial buildings, refer to agency documentation.

STEP 2: This volume estimation method utilizes daily usage data based on flow rate studies of several jurisdictions in California. Column A shows how an average daily of usage of 180 gallons per day is distributed during each 6-hour period. Adjust the table as necessary to accurately represent the actual data.

Complete Column E by entering the number of minutes the SSO was active during each 6-hour time period. Multiply column D times Column E to calculate the gallons spilled during each time period. Add the numbers in Column F together for the Total Estimated SSO Volume per EDU.

	Flow Rate Per EDU				**SSO**	
	A	**B**	**C**	**D**	**E**	**F**
Time Period	Gallons per Period	Hours per period	A ÷ B = Gallons per Hour	C ÷ 60 = Gallons per Minute	Minutes SSO was active during period	D × E = Gallons spilled per period
6am-noon	72	6	12	0.20		
noon-6pm	36	6	6	0.10		
6pm-midnight	54	6	9	0.15		
midnight-6am	18	6	3	0.05		
Total Estimated SSO Volume per EDU:						

STEP 3: Multiply the Estimated SSO Volume per EDU from Step 2 by the number of EDUs from Step 1.

_____ gallons (Volume per EDU) X _____ (# of EDUs) = _____ gallons (Estimated SSO Volume)

STEP 4: Adjust SSO volume as necessary considering other factors, such as activity that would cause a fluctuating flow rate (doing laundry, taking showers, etc.). Explain rationale below and indicate adjusted SSO estimate (attach a separate page if necessary):

Estimated SSO Volume: _____ gallons

Do you believe that this method has estimated the entire SSO? ☐ Yes ☐ No
If no, you MUST use additional methods to estimate the entire SSO. 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 SSO:

This worksheet completed by:
Name: _____ Signature: _____
Job Title: _____ Date: _____

Sanitary Sewer Overflow Response Packet

Lateral CCTV Report

C-5

PLEASE COMPLETE AS THOROUGHLY AS POSSIBLE

PERSON COMPLETING THIS FORM:

DATE:
PHONE:

CAMERA TYPE:

LOCATION OF CAMERA ENTRY:

AFFECTED PROPERTY STREET ADDRESS:

LOCATION OF CAMERA STOP:

CITY, STATE AND ZIP:

DESCRIBE AREA TV'd:

PHONE

UPSTREAM MANHOLE #:

WEATHER AT TIME OF CCTV WORK:

PLEASE CHECK ALL THAT WERE DISCOVERED – *Describe Extent & Location Using Camera Entry Point As Reference*:

- ❒ Broken Lateral – Describe:
  Depth:
- ❒ Roots – Severity: ☐ Light ☐ Moderate ☐ Heavy
- ❒ Grease – Severity: ☐ Light ☐ Moderate ☐ Heavy
- ❒ Sag – Describe:
  Depth:
- ❒ Backflow Prevention Device – Describe:
  Location:
- ❒ Cleanout – Describe:
  Location:
- ❒ Joint/Junction – Describe:
  Depth
- ❒ Grade – Describe:
- ❒ Grit – Severity: ☐ Light ☐ Moderate ☐ Heavy
- ❒ Other – Describe:

TIME OF OVERFLOW:

TIME BLOCKAGE RELIEVED:

TIME LATERAL TV'd:

DEPTH OF LATERAL:

RECOMMENDED
FOLLOW UP WORK ACTIONS:

Mark for USA location? ☐ Yes ☐ No

Lateral Locations Marked in Green Paint? ☐ Yes ☐ No

SIGNATURE OF EMPLOYEE PERFORMING TV WORK:

DATE

If applicable, place completed form in Sewer Overflow Packet and follow routing instructions.

Sanitary Sewer Overflow Response Packet

Collection System Failure Analysis

C-6 Side A

To be completed by the Collections Systems Supervisor

Incident Report #	Prepared By
SSO/Backup Information	
Event Date/Time	Address
Volume Spilled	Volume Recovered
Cause	

Summary of Historical SSOs/Backups/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	

Go to Side B

Sanitary Sewer Overflow Response Packet
Collection System Failure Analysis

C-6
Side B

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 Overflow Response Procedures				
	Training				
	Misc.				
Comments/Notes:					
Review Date:					

Overflow Emergency Response Plan
Public Posting

DANGER

RAW SEWAGE • AVOID CONTACT

PELIGRO

AGUA CONTAMINADA • EVITE TODO CONTACTO

El Dorado Irrigation District
Main Office: (530) 622-4513
Direct Dispatch: (530) 642-4000

El Dorado Irrigation District

On (date) _____, at (location) _____ , we responded to a reported blockage of the sanitary sewer service to your property.

We discovered a blockage in:

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

If you require assistance to clear your portion of the lateral you can look on the Internet or 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.

El Dorado Irrigation District representative notes: _

_____

_____

El Dorado Irrigation District Representative:

_____

For questions or comments, please call

El Dorado Irrigation District

Main Office: (530) 622-4513

Direct Dispatch: (530) 642-4000

El Dorado Irrigation District

On (date) _____, at (location) _____ , we responded to a reported blockage of the sanitary sewer service to your property.

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El Dorado Irrigation District representative notes: _

_____

_____

El Dorado Irrigation District Representative:

_____

For questions or comments, please call

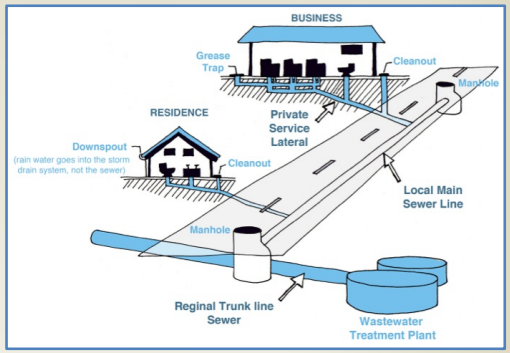
El Dorado Irrigation District

Main Office: (530) 622-4513

Direct Dispatch: (530) 642-4000

How a Sewer System Works

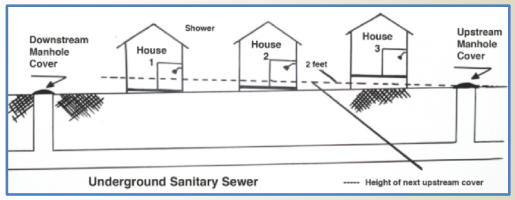
A property owner's sewer pipes are called ***service laterals*** and are connected to larger local main and regional trunk lines.
Service laterals run from the connection at the home to the connection with the public sewer. These laterals are the responsibility of the property owner and must be maintained 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:

El Dorado Irrigation District
(530) 622-4513

El Dorado County Environmental Health
(530) 621-5300
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, or if sewage probably will be discharged in or on any waters of the state:
  - 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.

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:

El Dorado Irrigation District

(530) 622-4513

www.eid.org

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 El Dorado Irrigation District. 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 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 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.

El Dorado Irrigation District
Overflow Emergency Response Plan

Appendix D

FIELD SAMPLING KIT

Field Sampling Kit
Table of Contents

Go to Water Quality Sampling Area and get the following supplies:

- Ice pack
- Ice
- Sample pole
- Latex gloves
- Long rubber gloves
- Safety glasses
- Waterproof Pen (i.e. Sharpie®)
- Chain of Custody form
- Sample Containers
  - Bac-T
  - Ammonia

Field Sampling Kit
Procedures for Sampling Receiving Waters and Posting Warnings after a Sewage Spill

D-1
Side A

Get Field Sampling Kit → Get ice pack from a convenience store and place in cooler → Determine point spill entered waterway – photograph this location (*include a reference point in the photo)* → Don the PPE from the Sampling Kit

- Collect all samples against the direction of the water flow! (face upstream)
- Collect upstream sample first!
- Collect samples well away from the bank (preferably where water is visibly flowing) and 6" below the surface
- Avoid sampling debris or scum layer from the surface.
- Photograph evidence of dead fish!

SAMPLING STEPS

Move 50' upstream of point where spill entered waterway (reference sample)

Take out the temp/pH meter. Calibrate it. Take temperature and pH of the water at that sample location. Record those results on the chain of custody form.

Remove the seal from the enterococcus sample container (100ml) just prior to collecting your sample. A chemical has been added to the sample container. Leave the chemical in the bottle and do not rinse.

1. Remove the cap immediately before collecting each sample.
2. Do not allow the inside of the cap to touch anything
3. Holding the bottle in one hand, face upstream and lower the bottle 6" below the water surface. Then sweep the bottle upstream and out of the water. Be careful not to disturb the bottom sediment. Pour a little water out so that bottle is filled to the line. Immediately replace the cap.

Open the ammonia-nitrogen sample container and follow collection process above (steps 1-3) to fill to just below the neck of the jar. NOTE: The ammonia-nitrogen sample bottle contains sulfuric acid – LEAVE THE ACID IN THE BOTTLE AND DO NOT ALLOW IT TO TOUCH YOUR SKIN!

Label all of the samples with their location and note the date and time collected → Place samples in cooler on the ice pack → Take a photo of this sample location (*include a reference point in the photo)*

Move at least 10' downstream of point where spill entered waterway and repeat sampling steps (red boxes) → Complete the Chain of Custody form from the Sampling Kit.

Immediately contact the contract lab and inform them that the following samples require processing: Ammonia-Nitrogen and Enterococcus.

Take cooler containing the samples and completed chain of custody to the District Lab sample refrigerator for pickup by the contract lab. Samples should be taken to the lab within 6 hours of collection.

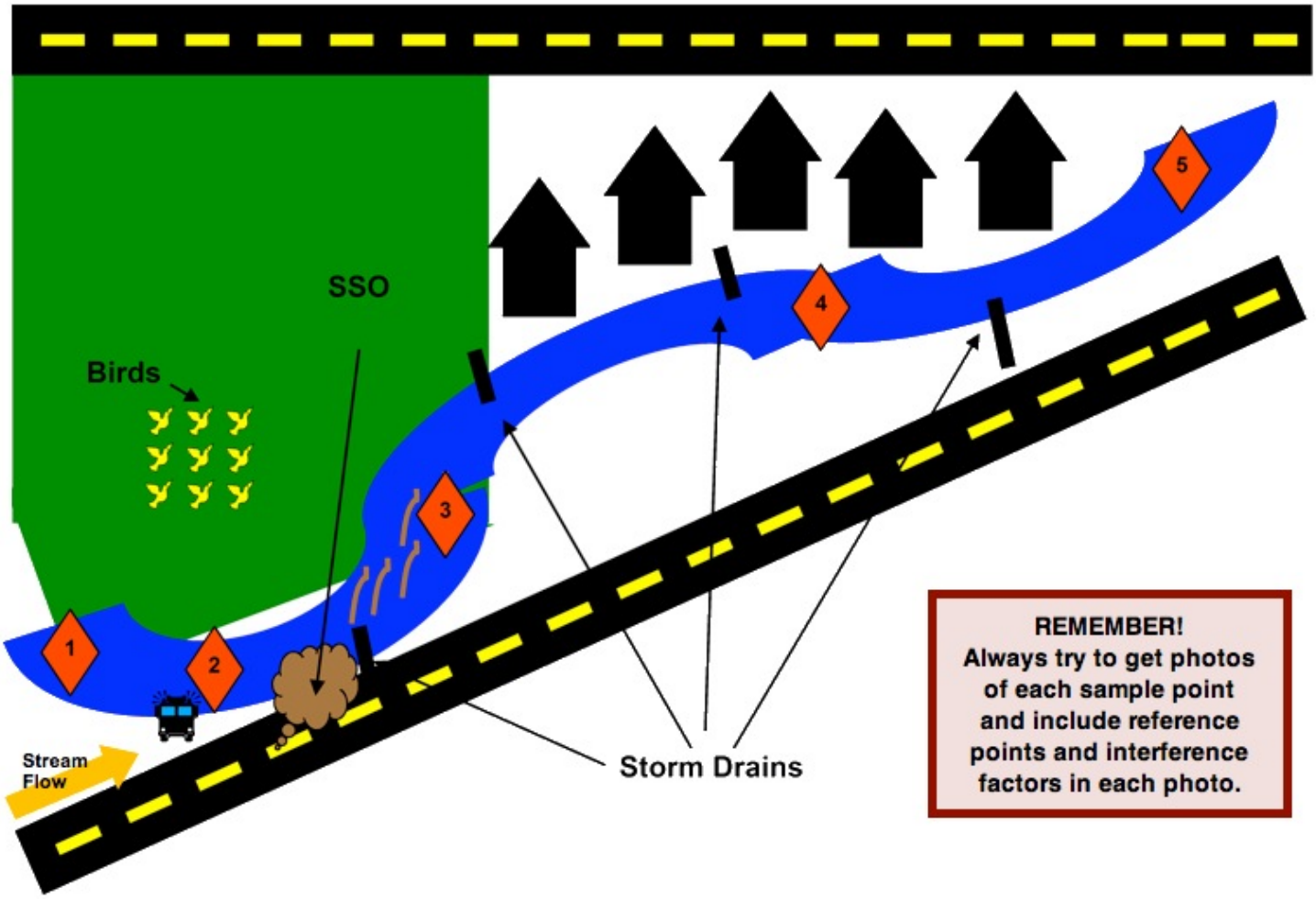
Post warning signs as directed by the County Environmental Health Department, and remove warning signs and lift restrictions when authorized by County Environmental Health.

Repeat sampling daily from time the spill is known until the results of two consecutive sets of samples indicate the return to the normal level or cessation of monitoring is authorized by the County Environmental Health Department.

Field Sampling Kit
Procedures for Sampling Receiving Waters after a Sewage Spill

D-1
Side B

This example is provided for illustrative purposes *only!* Base each sampling event on the geography, drainage and interference factors (*i.e. birds, animals, runoff, etc.)* of the area impacted. Consult the District or Contract Laboratory as needed.



1. **Sample Location 1: Baseline Sample, *no* observable interference from birds, animals, runoff, etc**
2. **Sample Location 2: Baseline Sample, *observable* interference from birds, animals, runoff, etc**
   NOTE: Only collect this sample if you observe any possible interfering factors upstream from the spill location
3. **Sample Location 3: Immediately downstream of SSO entry point**
4. **Sample Location 4: Further downstream of SSO entry point – note any possible interfering factors**
5. **Sample Location 5: Further downstream of SSO entry point – note any possible interfering factors**

El Dorado Irrigation District: Overflow Emergency Response Plan

Field Sampling Kit
Sample Collection Chain of Custody Record

D-2

Customer Name				☐	**Hazardous Waste**	**PO#**	
Customer Address				☐	**Unknown Material**	**WO#**	
Customer Telephone		**Mail Code**		**CONTRACT LAB INFORMATION**		**Turnaround Requirement**	
Program Name				Ship to:		☐ Normal (21 days)	
Lab Program Coordinator		**Phone #**		Ship Date:		☐ Rush: _____	
Sampled By				Courier:		☐ Other:	

LIMS# (Issued by Lab)	SAMPLE COLLECTION INFORMATION								Analysis Requested					QA/QC Requirements	
	Date	Time	Type: Composite	Type: Grab	Sample Location	Field pH	Field Temp	# Containers	Matrix*	Ammonia	Enterococcus			☒ Lab Standard ☐ Special (see attached)	Remarks/Notes
			☐	☒	Upstream			2	A	☒	☒	☐	☐	☐	
			☐	☒	Entry Point			2	A	☒	☒	☐	☐	☐	
			☐	☒	Downstream			2	A	☒	☒	☐	☐	☐	
			☐	☐				2		☐	☐	☐	☐	☐	
			☐	☐				2		☐	☐	☐	☐	☐	
			☐	☐				2		☐	☐	☐	☐	☐	
			☐	☐				2		☐	☐	☐	☐	☐	

*Matrix: P = Potable Water, W = Wastewater, A = Ambient Water, G = Groundwater, S = Soil, B = Biosolids, I = Industrial, O = Other (specify in remarks)

Relinquished	Date	Time

Relinquished to	Date	Time

Transport/Shipping Information		
☐ USPS	☐ UPS	☐ FedEx
Tracing #:		
☐ Other:		

Sample Receiving Documentation

Container intact? ☐ Yes ☐ No	Correct container? ☐ Yes ☐ No	Field preserved? ☐ Yes ☐ No	Custody tape intact? ☐ Yes ☐ No
Cooled? ☐ Yes ☐ No	Temp. Blank? ☐ Yes ☐ No (°C)	Comments:	
Sample distribution: ☐ Lab bench ☐ Ice chest ☐ Walk-in cooler shelf #		Disposal Date:	Disposed by: (inits.)

C-O-C Distribution courier	Date:	By:	☐ Lab Admin File	☐ Prog/proj Mgr.	☐ Lab Prog. Coord.	☐ Delivery courier	☐ Pick-up

El Dorado Irrigation District
Overflow Emergency Response Plan

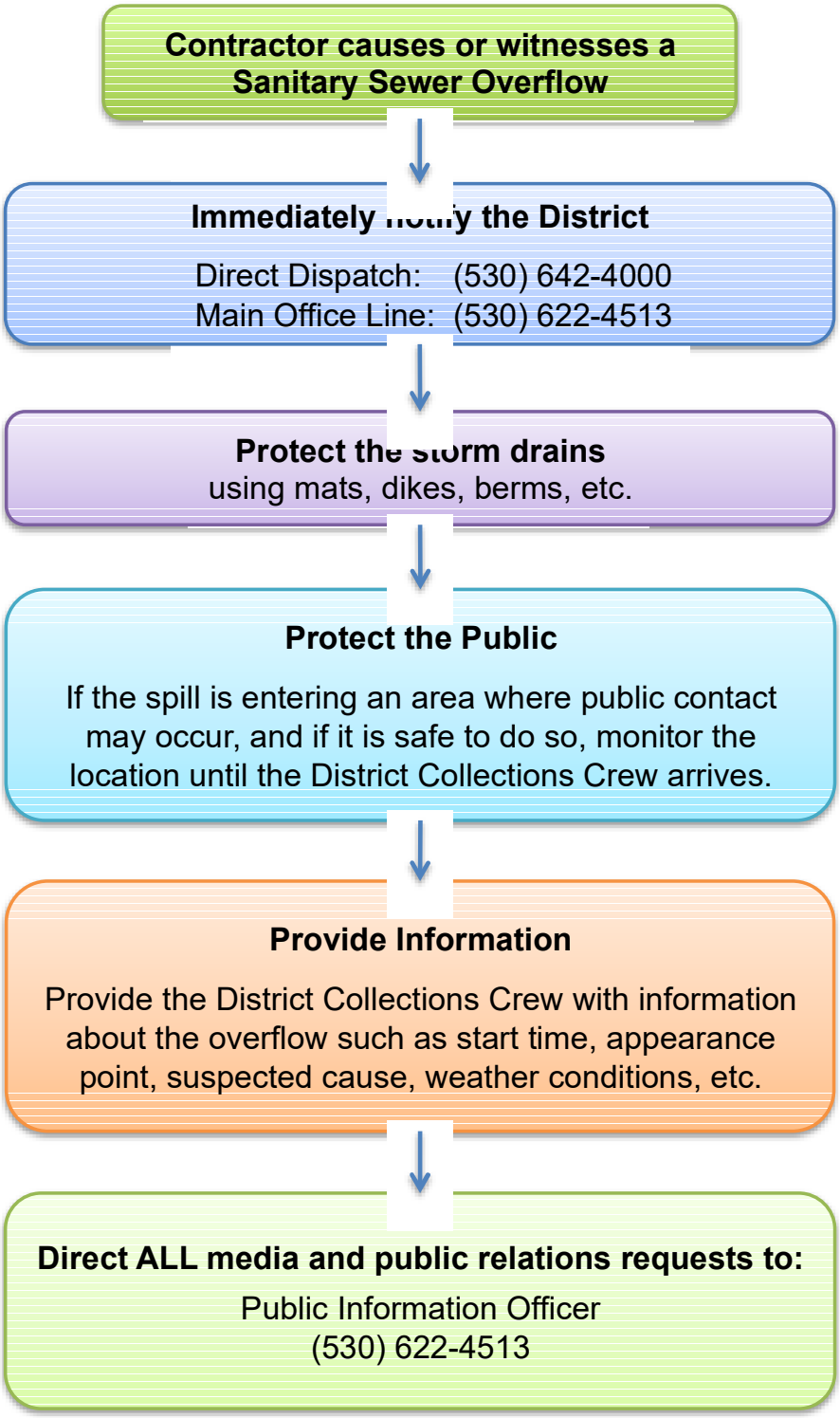
Appendix E

CONTRACTOR ORIENTATION

El Dorado Irrigation District: Overflow Emergency Response Plan

CONTRACTOR ORIENTATION

The following procedures are to be followed in the event that you cause or witness a Sanitary Sewer Overflow.



Sanitary Sewer Overflows

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

What? A sanitary sewer overflow (SSO) is a discharge of untreated human and industrial waste before it reaches the wastewater treatment facility.

Where? SSOs usually occur through manholes, plumbing fixtures and service cleanouts.

Why? SSOs 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 SSOs:

…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 the numbers listed to the right, 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:

- Refer to the El Dorado Irrigation District website (www.eid.org) for design specifications. Permits are issued through the El Dorado County Building Division
- 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 an SSO, immediately contact:

El Dorado Irrigation District

Direct Dispatch:
(530) 642-4000

Main Office Line:
(530) 622-4513

El Dorado Irrigation District

2890 Mosquito Road
Placerville, CA 95667

www.eid.org

EL DORADO IRRIGATION DISTRICT
2890 MOSQUITO ROAD•PLACERVILE•CA•95667-4761

FOOD SERVICE ESTABLISHMENT
WASTEWATER DISCHARGE INSPECTION REPORT

Name of Facility			
Facility Address			
Mailing Address			
Name of Owner		Phone	

Type of Facility

☐	Full service restaurant	☐	Hospital	☐	Church	☐	Caterer
☐	Fast food restaurant	☐	School/College	☐	Club/Organization	☐	Convenience shop
☐	Carry out	☐	Bakery	☐	Nursing home	☐	Coffee shop
☐	Cafeteria	☐	Ice cream shop	☐	Grocery store	☐	Other:

Type of Grease Removal Device (GRD) (check all that apply)

☐	Grease interceptor	☐	Manual grease trap	☐	Mechanical GRD	☐	Other:

Types of Fixtures (check all that apply)

		Connected to a GRD (Y/N)			Connected to a GRD (Y/N)			Connected to a GRD (Y/N)
☐	Deep fryer		☐	3-compartment sink		☐	Wok range	
☐	Grills		☐	2-compartment sink		☐	Garbage grinder	
☐	Ovens		☐	1-compartment sink		☐	Dishwasher	
☐	Rotisserie		☐	Pre-wash sink		☐	Other:	
☐	Tilt kettle		☐	Mop sink		☐	Other:	

Inspection Checklist

Number	Item Description	Field Data	Compliance Status [1]
1.	The establishment recycles used cooking oil and can provide record of this.		
2.	Food waste is properly disposed of by recycling or solid waste removal and is not discharged to the grease trap or interceptor.		
3.	The establishment “dry wipes” pots, pans, and dishware prior to rinsing and washing.		
4.	Grease trap(s) is cleaned as stated on permit and the establishment can provide records of this. (**Note and record the frequency and last date of cleaning.**)		
5.	Grease trap does not contain greater than 25% the depth in FOG and solids accumulation. (**Estimate and record amount of grease in trap.**)		
6.	Grease interceptor does not contain greater than 25% the depth in FOG and solids accumulation. (**Estimate and record amount of grease in interceptor.)**		
7.	Grease interceptor is completely pumped regularly and the establishment can provide records of this. (**Note and record the frequency and last date of pumping.**)		
8.	Absorbent pads or other material (e.g., “kitty litter”, etc.) are used to clean up grease spills before reaching floor drains.		
9.	Method and frequency floor mats and exhaust systems filters are cleaned. If cleaned on premises ensure process includes a GRD.		
10.	Screens are located or placed on each sink and floor drains.		
11.	Additives are not placed into the kitchen drains or GRD (i.e., enzymes, bacteria, etc.).		
12.	“No Grease” signs are posted at appropriate locations.		
13.	The establishment has implemented a training program to ensure that kitchen BMPs are followed. The establishment can provide records (sign-in sheets).		