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<td>CIP</td>
<td>Capital Improvement Program</td>
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<td>CMOM</td>
<td>Capacity, Management, Operations and Maintenance</td>
<td></td>
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<td>CVRWQCB</td>
<td>Central Valley Regional Water Quality Control Board</td>
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<td>CWEA</td>
<td>California Water Environment Association</td>
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<td>El Dorado Irrigation District</td>
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<tr>
<td>ECS</td>
<td>Environmental Compliance Services</td>
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<td>EDU</td>
<td>Equivalent Dwelling Unit</td>
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<td>Enforcement Response Plan</td>
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<td>Fats, Oils, Grease</td>
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<td>Food Service Establishment</td>
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<td>Grease Interceptor</td>
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<td>GIS</td>
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<td>GRD</td>
<td>Grease Removal Device</td>
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<td>GT</td>
<td>Grease Trap</td>
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<tr>
<td>GWDR</td>
<td>Statewide General Waste Discharge Requirement</td>
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<td>I/I</td>
<td>Inflow / Infiltration</td>
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<td>IPPPP</td>
<td>Industrial Pretreatment and Pollution Prevention Program</td>
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<td>IWRMP</td>
<td>Integrated Water Resources Master Plan</td>
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<td>NPDES</td>
<td>National Pollution Discharge Elimination System</td>
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<td>O&amp;M</td>
<td>Operations and Maintenance</td>
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<td>Overflow Emergency Response Plan</td>
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<td>Preventative Maintenance</td>
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<td>Sewer System Management Plan</td>
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<td>SSO</td>
<td>Sanitary Sewer Overflow</td>
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<td>WDR</td>
<td>Waste Discharge Requirements</td>
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INTRODUCTION

This introductory section provides background information on the purpose and organization of this Sewer System Management Plan (SSMP) 2018 audit and provides a brief overview of the El Dorado Irrigation District (District) service area and sewer system.

2018 SSMP Audit Executive Summary
The audit of the 2016 Audit SSMP show that El Dorado Irrigations District (District) has had an increase of 20 miles of pipe, 1,971 service laterals and 1,168 manholes. The total number of lift stations has been reduced by one, and the districts mapping services have been updated to GIS based services. Each section of the 2018 audit of the SSMP contains a brief summary if bold type of the changes, if any, that have been made during this audit. All tables and charts have been updated to reflect the latest information that is available to the District. Currently the District is working on updating the sewer model and will have the results available for the 2019 revised SSMP.

SSMP Requirement Background
The 2014 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. The GWDR requires that all SSMP’s are audited every two years and updated every five years. This 2018 audit of the SSMP reflects changes in the District’s organization update to the Overflow Emergency Response Plan (OERP) located in Appendix B, and also provides a general update 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
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 has approximately 386 miles of gravity pipelines, 55 miles of force mains, 9372 maintenance holes, 60 lift stations, and 23,633 sewer service laterals, which total 207 miles. The total system has approximately 648 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 2018 recommends no changes to the District’s Mission Statement and Goals section.

**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
2 Organization

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 2018 audit recommends no changes to the District’s Organization section.

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 Collections Section Supervisor who is authorized to certify electronic spill reports submitted to the SWRCB. In the absence of the Collections Section 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.
2. Organization

- **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 Division Manager** – Manages activities of the Environmental Division including, among others, the District’s Industrial Pretreatment Program, Recycled Water Compliance and Water Quality Monitoring.

- **Environmental Compliance Analyst** – Coordinates and oversees day-to-day implementation of the District’s environmental compliance programs, which 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.
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

Observation

First Response

Corrective Action

Notification and Reporting

Public
Outside Agency
District Staff
SCADA wet well alarm

District Dispatch

Collections Standby

Collections Supervisor

Collections Crew

Follow OERP

After hours

Senior Management

Status Feedback

Collections Standby Person

Public

Outside Agency

District Staff

SCADA wet well alarm

District Dispatch

Collections Standby

Collections Supervisor

Collections Crew

Follow OERP

Senior Management

Status Feedback

Collections Standby Person

Public

Outside Agency

District Staff

SCADA wet well alarm

District Dispatch

Collections Standby

Collections Supervisor

Collections Crew

Follow OERP

Senior Management

Status Feedback

Collections Standby Person

Public

Outside Agency

District Staff

SCADA wet well alarm

District Dispatch

Collections Standby

Collections Supervisor

Collections Crew

Follow OERP

Senior Management

Status Feedback

Collections Standby Person

Public

Outside Agency

District Staff

SCADA wet well alarm

District Dispatch

Collections Standby

Collections Supervisor

Collections Crew

Follow OERP

Senior Management

Status Feedback

Collections Standby Person

Public

Outside Agency

District Staff

SCADA wet well alarm

District Dispatch

Collections Standby

Collections Supervisor

Collections Crew

Follow OERP

Senior Management

Status Feedback

Collections Standby Person
3 Legal Authority

**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 District derives its legal authority from, and is regulated by, federal and state law and their administrative agencies. 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 2018 audit recommends no changes to the District’s Legal Authority section.

**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.
- 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.

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.
4 Operations and Maintenance 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 a 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 2018 audit has found improvements in the GIS mapping resulting in improved inventory numbers on the amount of pipe in the District as well as more information has been added to the GIS database. Old mapping systems have been retired. The District is currently working on implementing mobile tablets to aid in mapping efforts.

**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.

### 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 data base 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
Plant 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 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 monthly.

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 has been conducted in the past few years as part of the master planning process to model the collection system capacity and to identify areas with high Inflow/Infiltration (I/I). The Wastewater Facilities Master Plan (WWFMP) was updated in 2013 and contains the results of the modeling analysis. The WWFMP can be viewed on the District’s website. Flow monitoring is continuing at several locations within the sewer system for refinement of the collection system capacity model.

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 Plant 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.
- District staff also review monthly reports generated from the CMMS locating potential areas of concern.
- 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 5. Priority 1 indicates an immediate response is needed. Priority 5 represents further action will not be needed for some time. 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>
<thead>
<tr>
<th>Priority</th>
<th>Rating</th>
<th>Time Frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Poor</td>
<td>Immediately</td>
</tr>
<tr>
<td>2</td>
<td>Fair</td>
<td>Within 1 year</td>
</tr>
<tr>
<td>3</td>
<td>Good</td>
<td>Within 2-5 years</td>
</tr>
<tr>
<td>4</td>
<td>Very Good</td>
<td>Within 5-10 years</td>
</tr>
<tr>
<td>5</td>
<td>Excellent</td>
<td>20+ years</td>
</tr>
</tbody>
</table>

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 encouraged 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
- Annual Response Drill

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
- (1) 4,000 gallon pumper truck
- (1) Combination pipe cleaning/chemical root control truck
- (1) Trailer mounted high pressure jet rodder; used in cleaning pipelines
- (1) CCTV truck; used to inspect inside gravity and service lines
- (2) Backhoe; earth moving equipment
- (2) Dump truck
- (1) Mini-excavator
- (1) Easement machine
- (4) 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.
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 2018 audit recommends no changes to the District’s Design and Performance Provisions Section.

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.
Overflow Emergency Response Plan

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 2018 audit recommends no changes to the District’s Overflow Emergency Response Plan Section.

Overflow Emergency Response Plan for Wastewater (OERP)

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.
Fats, Oils and Grease (FOG) Control Program

**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.

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**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.
The 2018 audit had clarifications in sections C and F. These clarifications require the GRD to be in proper working order and that FOG’s are not more than 25% or less of total volume. Section A removed a part pertaining to residential grease as it was not an enforceable requirement and is covered in section G.

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 is increased when the FSE fails to maintain adequate GRD maintenance records or PM 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 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](http://www.eid.org).
8 System Evaluation and Capacity Assurance Plan

**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.

**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 is currently working on an updated sewer collection system model. The model outcome and recommendations will be incorporated in the revised 2019 SSMP. For the 2018 audit, pipe inventory and lift station list have all been updated.

**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 2018, 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 285 miles of pipeline ranging between 2- and 36-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 2018, as indicated in Table 8-2.

**Table 8-1 El Dorado Hills Collection System Inventory (Revised 2018 Audit)**

<table>
<thead>
<tr>
<th>Pipe Diameter (inches)</th>
<th>Force main(a) (linear feet)</th>
<th>Gravity Sewer(a) (linear feet)</th>
<th>Total Pipe Length (linear feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown</td>
<td>28,773</td>
<td>12,144</td>
<td>40,917</td>
</tr>
<tr>
<td>4</td>
<td>24,995</td>
<td>9,685</td>
<td>34,680</td>
</tr>
<tr>
<td>6</td>
<td>10,449</td>
<td>746,259</td>
<td>756,208</td>
</tr>
<tr>
<td>8</td>
<td>10,119</td>
<td>237,645</td>
<td>247,764</td>
</tr>
<tr>
<td>10</td>
<td>6,848</td>
<td>34,811</td>
<td>41,659</td>
</tr>
<tr>
<td>12</td>
<td>15,614</td>
<td>29,951</td>
<td>45,565</td>
</tr>
<tr>
<td>14</td>
<td>345</td>
<td>0</td>
<td>345</td>
</tr>
<tr>
<td>15</td>
<td>0</td>
<td>22,509</td>
<td>22,509</td>
</tr>
<tr>
<td>16</td>
<td>0</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>18</td>
<td>3,696</td>
<td>30,529</td>
<td>34,225</td>
</tr>
<tr>
<td>21</td>
<td>0</td>
<td>15,883</td>
<td>15,883</td>
</tr>
<tr>
<td>24</td>
<td>0</td>
<td>1,598</td>
<td>1,598</td>
</tr>
<tr>
<td>27</td>
<td>0</td>
<td>1,536</td>
<td>1,536</td>
</tr>
<tr>
<td>30</td>
<td>0</td>
<td>1,794</td>
<td>1,794</td>
</tr>
<tr>
<td>36</td>
<td>0</td>
<td>724</td>
<td>724</td>
</tr>
<tr>
<td>42</td>
<td>0</td>
<td>326</td>
<td>326</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100,839</strong></td>
<td><strong>1,145,434</strong></td>
<td><strong>1,246,273</strong></td>
</tr>
</tbody>
</table>

Length of pipe by diameter is based on January 2018 GIS data provided by the District.

**Table 8-2 El Dorado Hills Collection System Pipe Materials (Revised 2018 Audit)**

<table>
<thead>
<tr>
<th>Pipe Material</th>
<th>Length (ft)</th>
<th>Percent of Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC</td>
<td>1,028,206</td>
<td>83</td>
</tr>
<tr>
<td>Ductile Iron</td>
<td>16,240</td>
<td>1</td>
</tr>
<tr>
<td>Asbestos Cement</td>
<td>115,198</td>
<td>9</td>
</tr>
<tr>
<td>Other (SPIRO, CAS, etc.)</td>
<td>122</td>
<td>0</td>
</tr>
<tr>
<td>Vitreous Clay</td>
<td>10,756</td>
<td>1</td>
</tr>
<tr>
<td>Unknown</td>
<td>75,751</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,246,273</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
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 (Revised 2018 Audit)

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

**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 280 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 2018.

Table 8-4 Deer Creek Collection System Inventory (Revised 2018 Audit)

<table>
<thead>
<tr>
<th>Pipe Diameter (inches)</th>
<th>Force main (linear feet)</th>
<th>Gravity Sewer (linear feet)</th>
<th>Total Pipe Length (linear feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown</td>
<td>86,167</td>
<td>32,806</td>
<td>118,973</td>
</tr>
<tr>
<td>4</td>
<td>40,744</td>
<td>7,662</td>
<td>48,406</td>
</tr>
<tr>
<td>6</td>
<td>35,714</td>
<td>532,812</td>
<td>868,526</td>
</tr>
<tr>
<td>8</td>
<td>17,822</td>
<td>197,602</td>
<td>215,424</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>30,557</td>
<td>30,557</td>
</tr>
<tr>
<td>12</td>
<td>7,699</td>
<td>32,515</td>
<td>40,214</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
<td>998</td>
<td>998</td>
</tr>
<tr>
<td>15</td>
<td>0</td>
<td>5,100</td>
<td>5,100</td>
</tr>
<tr>
<td>18</td>
<td>0</td>
<td>15,045</td>
<td>15,045</td>
</tr>
<tr>
<td>20</td>
<td>292</td>
<td>1,007</td>
<td>1,299</td>
</tr>
<tr>
<td>21</td>
<td>0</td>
<td>3,349</td>
<td>3,349</td>
</tr>
<tr>
<td>24</td>
<td>0</td>
<td>22,994</td>
<td>22,994</td>
</tr>
<tr>
<td>27</td>
<td>-</td>
<td>1,691</td>
<td>1,691</td>
</tr>
<tr>
<td>30</td>
<td>-</td>
<td>968</td>
<td>968</td>
</tr>
<tr>
<td>36</td>
<td>-</td>
<td>6,686</td>
<td>6,686</td>
</tr>
<tr>
<td>Total</td>
<td>188,438</td>
<td>891,792</td>
<td>1,080,230</td>
</tr>
</tbody>
</table>

Length of pipe by diameter is based on January 2018 GIS data provided by the District.

Table 8-5 Deer Creek Collection System Pipe Materials (Revised 2018 Audit)

<table>
<thead>
<tr>
<th>Pipe Material</th>
<th>Length (ft)</th>
<th>Percent of Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asbestos Cement</td>
<td>377,934</td>
<td>35</td>
</tr>
<tr>
<td>Vitreous Clay</td>
<td>9,735</td>
<td>1</td>
</tr>
<tr>
<td>PVC</td>
<td>453,495</td>
<td>42</td>
</tr>
<tr>
<td>Ductile Iron</td>
<td>32,617</td>
<td>3</td>
</tr>
<tr>
<td>Other (ABS, steel)</td>
<td>29,885</td>
<td>3</td>
</tr>
<tr>
<td>Unknown</td>
<td>176,564</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>1,080,230</td>
<td>100</td>
</tr>
</tbody>
</table>
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 (Revised 2018 Audit)**

<table>
<thead>
<tr>
<th>Lift Station</th>
<th>Year Constructed</th>
<th>No. of Pumps</th>
<th>Horsepower</th>
<th>Storage Capacity (gal)</th>
<th>Generator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arlette</td>
<td>1996</td>
<td>2</td>
<td>2</td>
<td>960</td>
<td>NA</td>
</tr>
<tr>
<td>Bar J</td>
<td>1987</td>
<td>2</td>
<td>15</td>
<td>Standby Power</td>
<td>35 kW Diesel</td>
</tr>
<tr>
<td>Barnette</td>
<td>2009</td>
<td>2</td>
<td>27</td>
<td></td>
<td>62 kW Diesel</td>
</tr>
<tr>
<td>Bass Lake Village</td>
<td>1994</td>
<td>2</td>
<td>11.3</td>
<td>Standby Power</td>
<td>30 kW Propane</td>
</tr>
<tr>
<td>Bridlewood Canyon</td>
<td>2016</td>
<td>2</td>
<td>60</td>
<td>Standby Power</td>
<td>150 kW Diesel</td>
</tr>
<tr>
<td>Buckeye</td>
<td>1977</td>
<td>2</td>
<td>7.5</td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td>Cambridge Oaks</td>
<td>2003</td>
<td>2</td>
<td>40</td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td>Charles Brown</td>
<td>1965</td>
<td>2</td>
<td>12</td>
<td>Standby Power</td>
<td>60 kW Diesel</td>
</tr>
<tr>
<td>Courtside Manner</td>
<td>1999</td>
<td>2</td>
<td>15</td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td>Deb’s Frosty</td>
<td>1989</td>
<td>2</td>
<td>23</td>
<td>Standby Power</td>
<td>80 kW Diesel</td>
</tr>
<tr>
<td>Deer Park</td>
<td>1986</td>
<td>2</td>
<td>5</td>
<td>Standby Power</td>
<td>20 kW Diesel</td>
</tr>
<tr>
<td>Diamond Industrial</td>
<td>1981</td>
<td>2</td>
<td>7.5</td>
<td>Standby Power</td>
<td>26 kW Diesel</td>
</tr>
<tr>
<td>East Road</td>
<td>1965</td>
<td>2</td>
<td>23</td>
<td>Standby Power</td>
<td>80 kW Diesel</td>
</tr>
<tr>
<td>El Dorado</td>
<td>1977</td>
<td>4</td>
<td>10,33.5,114,114</td>
<td>4,630,000</td>
<td>350 kW Diesel</td>
</tr>
<tr>
<td>Herbert Green</td>
<td>1967</td>
<td>2</td>
<td>33.5</td>
<td>Standby Power</td>
<td>125 kW Diesel</td>
</tr>
<tr>
<td>Indian Creek</td>
<td>1988</td>
<td>2</td>
<td>40</td>
<td>Standby Power</td>
<td>75 kW Propane</td>
</tr>
<tr>
<td>Missouri Flat</td>
<td>2004</td>
<td>2</td>
<td>10</td>
<td>6,390</td>
<td>40 kW Diesel</td>
</tr>
<tr>
<td>Mother Lode</td>
<td>2008</td>
<td>2</td>
<td>6.2</td>
<td>2,400</td>
<td>NA</td>
</tr>
</tbody>
</table>
Hydraulic Modeling
Collection system information was migrated into InfoWorks CS to provide a hydraulic model of the collection system. The model represents existing conditions within the El Dorado Hills, Deer Creek, and Motherlode sewer sheds using 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 were analyzed by customer class and based on 3-years of customer account and flow monitoring data. The customer classes reflect user categories described in the El Dorado County General Plan and their associated flows. Analysis included 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, Deer Creek, and Motherlode sewer sheds. An excel-based model was be prepared for the smaller Camino Heights sewer system.

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

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 flow model.

The District’s engineering consultant utilized 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 and used as a basis for determining specific service areas associated with relatively high I/I contributions.

Condition and Capacity of Key System Components

<table>
<thead>
<tr>
<th>Location</th>
<th>Year</th>
<th>Customer</th>
<th>Flow Range</th>
<th>Standby Power</th>
<th>Power Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pioneer Place</td>
<td>2000</td>
<td>2</td>
<td>40</td>
<td>Standby Power</td>
<td>100 kW Propane</td>
</tr>
<tr>
<td>Ponderosa Heights</td>
<td>2004</td>
<td>2</td>
<td>23</td>
<td>20,000</td>
<td>NA</td>
</tr>
<tr>
<td>Rancho Ponderosa</td>
<td>1964</td>
<td>2</td>
<td>7.5</td>
<td>Standby Power</td>
<td>NA</td>
</tr>
<tr>
<td>Shingle Springs</td>
<td>2006</td>
<td>3</td>
<td>60, 48, 60</td>
<td>Standby Power</td>
<td>100 kW Propane</td>
</tr>
<tr>
<td>Skinner Lane</td>
<td>2009</td>
<td>2</td>
<td>40</td>
<td>Standby Power</td>
<td>155 kW Diesel</td>
</tr>
<tr>
<td>Starck</td>
<td>1982</td>
<td>2</td>
<td>3</td>
<td>6,900</td>
<td>NA</td>
</tr>
<tr>
<td>Summit View No. 1</td>
<td>2009</td>
<td>2</td>
<td>5</td>
<td>18,800</td>
<td>NA</td>
</tr>
<tr>
<td>Thunderhead</td>
<td>1979</td>
<td>2</td>
<td>4.5</td>
<td>1,900</td>
<td>NA</td>
</tr>
<tr>
<td>Town Center</td>
<td>1993</td>
<td>2</td>
<td>20, 11, 3, 25</td>
<td>38,900</td>
<td>NA</td>
</tr>
<tr>
<td>Travolis Circle</td>
<td>1993</td>
<td>2</td>
<td>10</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Wilson - Caruthers</td>
<td>2000</td>
<td>4</td>
<td>7.5, 30, 30, 30</td>
<td>10,000</td>
<td>135 kW Propane</td>
</tr>
<tr>
<td>Yates</td>
<td>1948/2014</td>
<td>2</td>
<td>6.5</td>
<td>Standby Power</td>
<td>26 kW Diesel</td>
</tr>
</tbody>
</table>
The condition and capacity of key system components were evaluated as follows.

**Lift Stations**

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.

**Pipe Lines**

Hydraulic capacity of main pipelines was determined using the completed model. 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.

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**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.

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**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 a Corrective Action Program (CAP) for the Deer Creek and El Dorado Hills collection systems. The purpose of the CAP is to identify and reduce I/I through repair and rehabilitation of the collection systems. The CAP is also used to 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.

Key findings derived from the collection system capacity analysis will be prioritized in terms of the ability of the corrective action to add value to the collection system in one or more of the following areas: capacity, operations, life extension, maintenance, code compliance, safety, regulatory compliance, reliability, and reduction of customer complaints. Results of the analysis are presented in the Wastewater Facilities Master Plan and are integrated into the District’s CIP.

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**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 $50,000 requires approval by the EID Board.
9 Monitoring, Measurement, and Program Modifications

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.

For the 2018 SSMP audit, current data was collected from GIS to obtain updated information regarding pipes (length, size, use and material), SSO’s (number, cause and category), and lift stations. The audit also determined that GIS is the preferred mapping system for the District and the old quad maps have been placed as a backup. All associated tables and sections have been updated and annotated showing that information has changed. All sections of the SSMP have been reviewed and where a summary added noting any changes.

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
Monitoring, Measurement, and Program Modifications

- Length and location of pipeline cleared of roots
- Lift station maintenance performed
- Repairs and rehabilitation projects completed
- Number of grease 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 2011-2015.

Definitions of Category Spills:

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1</td>
<td>Discharges of untreated or partially treated wastewater of any volume resulting from an enrollee’s sanitary sewer system failure or flow condition that: Reach surface water and/or reach a drainage channel tributary to a surface water; or Reach a municipal separate storm sewer system and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the municipal separate storm sewer system is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or ground water infiltration basin (e.g., infiltration pit, percolation pond).</td>
</tr>
<tr>
<td>Category 2</td>
<td>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.</td>
</tr>
<tr>
<td>Category 3</td>
<td>All other discharges of untreated or partially treated wastewater resulting from an enrollee’s sanitary sewer system failure or flow condition.</td>
</tr>
</tbody>
</table>

Distribution of SSOs

Table 9-1 is an aggregated summary illustrating quantity by SSO size of all SSOs for the years 2011-2017.

Table 9-1- Sewer System Overflows by Size. Includes all District Collection Systems (Revised 2018 Audit)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 10 gallons</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>11 to 99 gallons</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>100 to 999 gallons</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>7</td>
<td>3</td>
<td>8</td>
<td>4</td>
</tr>
</tbody>
</table>
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 (Revised 2018 Audit)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000 to 9,999 gallons</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>2</td>
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<tr>
<td>10,000 gallons or greater</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
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</table>

Pipeline Maintenance
Targeted maintenance activities such as pipe cleaning and root abatement programs are reported annually in table format and on collection system maps. Pipeline maintenance activities are summarized in Table 9-3 below.

Table 9-3 Pipeline Maintenance Activities (Revised 2018 Audit)

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Pipeline root abatement(ft)</td>
<td>78,342</td>
<td>89,022</td>
<td>58,009</td>
<td>20,740</td>
<td>46,223</td>
<td>45,366</td>
<td>45,988</td>
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<tr>
<td>CCTV – Pipeline inspection (ft)</td>
<td>82,944</td>
<td>179,821</td>
<td>160,396</td>
<td>82,703</td>
<td>157,967</td>
<td>157,290</td>
<td>206,177</td>
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<tr>
<td>Pipeline Cleaning (ft)</td>
<td>650,533</td>
<td>444,168</td>
<td>425,571</td>
<td>305,566</td>
<td>517,151</td>
<td>407,908</td>
<td>644,273</td>
</tr>
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</table>

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 (Revised 2018 Audit)

![Graph showing SSO trends by volume for Deer Creek and El Dorado Hills Collection Systems.]

Figure 9-2  SSO Trends by Number for the Deer Creek and El Dorado Hills Collection Systems (Revised 2018 Audit)

![Graph showing SSO trends by number for Deer Creek and El Dorado Hills Collection Systems.]

El Dorado Irrigation District Sewer System Management Plan 9-4
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 two over the past five years.

**Figure 9-3 SSOs per 100 miles per year for the Deer Creek and El Dorado Hills Collection Systems (Revised 2018 Audit)**

![Deer Creek and El Dorado Hills WWTP Spills Per 100 Miles of Pipe](image)

**Cause**

Annual SSO information is presented for the Deer Creek and El Dorado Hills collection systems in Tables 9-4 and 9-5 to illustrate the contribution to total SSOs by cause.

**Table 9-4 Deer Creek Collection System - SSOs by Cause 2011-2017 (Revised 2018 Audit)**

<table>
<thead>
<tr>
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<tbody>
<tr>
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<td>0</td>
<td>0</td>
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<td>0</td>
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<td>0</td>
<td>3</td>
<td>2568</td>
<td>2</td>
<td>1505</td>
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<tr>
<td>Blockage-Roots</td>
<td>6</td>
<td>191</td>
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<td>21</td>
<td>2</td>
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<td>185</td>
<td>3</td>
<td>42</td>
<td>4</td>
<td>4090</td>
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<td>Blockage-Grease</td>
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<td>0</td>
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<td>575</td>
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<td>825</td>
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<td>0</td>
<td>0</td>
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<td>120</td>
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Category 3

| Category 3 | 0 | 0 | 0 | 0 | 0 | 7 | 1,650 | 5 | 847 | 9 | 1,082 | 4 | 703 |
Table 9-5 El Dorado Hills Collection System - SSOs by Cause 2011-2017 (Revised 2018 Audit)

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<td>0</td>
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<td>5</td>
<td>1</td>
<td>723</td>
<td>4</td>
<td>227</td>
<td>5</td>
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</table>

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.
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, and the revised MRP WQ 2013-0058. 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.

The 2018 audit recommends no changes to the District’s SSMP Program Audits Section.
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 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.

The 2018 audit recommends no changes to the District’s Communication Program Section.
**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.
- **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.
- **XXXX 2018.** The SSMP has been audited to reflect current SSO data. The lengths of pipe and EDU’s have been updated to reflect resent growth. The audited 2018 SSMP is posted on the District’s website.
## El Dorado Irrigation District Staff with SSMP Responsibilities

<table>
<thead>
<tr>
<th>Position</th>
<th>Office Phone</th>
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</thead>
<tbody>
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<td>General Manager</td>
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</tr>
<tr>
<td>Engineering Manager</td>
<td>530-642-4146</td>
</tr>
<tr>
<td>Waste/Recycle Water Operations Manager</td>
<td>530-642-4059</td>
</tr>
<tr>
<td>Environmental Manager</td>
<td>530-642-4082</td>
</tr>
<tr>
<td>Parks and Recreation Manager</td>
<td>530-295-6819</td>
</tr>
<tr>
<td>Water Operations Manager</td>
<td>530-642-4060</td>
</tr>
<tr>
<td>Hydro/Watershed Manager</td>
<td>530-642-4155</td>
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<tr>
<td>Human Resources Manager</td>
<td>530-642-4013</td>
</tr>
<tr>
<td>Accounting Manager</td>
<td>530-642-4019</td>
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El Dorado Irrigation District

Overflow Emergency Response Plan

Effective Date: July 22, 2016
Revised Date: June 30, 2016
Approved by: Margaret P. Washko, P.E.
Signature: [Signature]
Date: June 30, 2016

Prepared by David Patzer, DKF Solutions Group
(707) 373-9709 dpatzer@dkfsolutions.com
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El Dorado Irrigation District: Overflow Emergency Response Plan

Table of Contents

Sanitary Sewer Overflow Emergency Response Plan
(Ref. SWRCB Order No. 2006-0003-DWQ Element VI)

1. Purpose
2. Policy
3. Definitions as used in this OERP
4. Regulatory Requirements for OERP Element of SSMP
5. Goals
6. Sanitary Sewer Overflow (SSO) Detection and Notification
7. SSO Response Procedures
8. Recovery and Cleanup
9. Water Quality
10. Sewer Backup Into/Onto Private Property Claims Handling Policy
11. Notification, Reporting, Monitoring and Recordkeeping Requirements
12. Post SSO Event Debriefing
13. Failure Analysis Investigation
14. SSO Response Training
15. Authority
16. References

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Category 2 and 3 SSO Reporting Checklist .........................................................................-2b

Appendix B: Sanitary Sewer Backup Packet
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First Responder Form ................................................................................................................-3
Lodging Authorization Form ....................................................................................................-4
Sewer Overflow Report ...........................................................................................................-5
Start Time Determination Form ................................................................................................-6
Volume Estimation Methods
   Eyeball Estimation ..............................................................................................................-7a
   Duration and Flow Rate Photo Comparison ......................................................................-7b
   Upstream Lateral Connections ..........................................................................................-7c
Lateral CCTV Report ................................................................................................................-8
Claims Submittal Checklist ......................................................................................................-9
Collection System Failure Analysis Form ..............................................................................-10
Customer Service Packet
   Instructions ..............................................................................................................................envelope
   Customer Information ..........................................................................................................CS-1
   Sewer Spill Reference Guide .............................................................................................pamphlet
   Regulatory Notifications Packet .........................................................................................See contents list above
   Door Hanger .........................................................................................................................N/A
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**Appendix C: Sanitary Sewer Overflow Packet**
- Instructions and Chain of Custody ................................................................. Packet Envelope
- Overflow Response Flowchart ........................................................................... C-1
- Sewer Overflow Report ....................................................................................... -2
- Start Time Determination Form ........................................................................... -3
- Volume Estimation Methods
  - Eyeball Estimation .......................................................................................... -4a
  - Duration and Flow Rate Photo Comparison ....................................................... -4b
  - Upstream Lateral Connections ....................................................................... -4c
- Lateral CCTV Report ........................................................................................... -5
- Collection System Failure Analysis Form ............................................................-6
- Regulatory Notifications Packet .......................................................................... See contents list above
- Public Posting ..................................................................................................... N/A
- Door Hanger ........................................................................................................ N/A
- Sewer Spill Reference Guide ............................................................................... pamphlet

**Appendix D: Field Sampling Kit**
- Procedures for Sampling Receiving Waters and Posting
- Warnings after a Sewage Spill .............................................................................. D-1
- Sample Collection Chain of Custody Record ......................................................... -2

**Appendix E: Contractor Orientation**
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

**Business Hours**
(530) 642-4000 *direct dispatch*
(530) 622-4513 *main office*

- Finance Assistant:
  1. Collects basic information
  2. Notifies Collections Systems Supervisor or designee

**Receive notification of Overflow/Backup**

**Collections Systems Supervisor or designee**
reviews complaint

**Non-Business Hours**
(530) 642-4000 *direct dispatch*
(530) 622-4513 *main office*

- Call is forwarded to the answering service, which collects basic information and notifies the standby employee via text message, pager or telephone.

**Standby Employee**
Responds to answering service (usually via text message) that notification was received.

- Is the overflow/backup in the service area?
  - NO
  - YES

**OUTSIDE**
- Dispatch a Collections Crew
- Complete the Sanitary Sewer Overflow Response Plan Packet

**INSIDE**
- Is the spill inside a building or outside?
  - INSIDE
  - OUTSIDE

**OUTSIDE**
- 1. Provide Customer with the contact info for the responsible Agency
- 2. Notify the responsible Agency

**INSIDE**
- 1. Provide Customer with the contact info for the responsible Agency
- 2. Notify the responsible Agency

**WHAT TO TELL THE CUSTOMER**
Clearly communicate who will respond, estimated time they will arrive and what area(s) will need to be accessed.
- Clearly communicate that a blockage in the sewer main line will be promptly cleared, but that the District is *not allowed to work on a blockage in the property owner's/resident's service lateral line*. Use general terms that the caller can understand, and give the caller your name for future reference.
- Show concern and empathy for the property owner/resident, **but do not admit or deny liability**.
- Instruct the caller to turn off any appliances that use water and to shut off any faucets inside the home.
- Instruct the caller to keep all family members and pets away from the affected area.
- Instruct the caller to place towels, rags, blankets, etc. between areas that have been affected and areas that have not been affected.
- Instruct the caller to not remove any contaminated items – *let the professionals do this*.
- Instruct the caller to turn off their HVAC system.
- Instruct the caller to move any *uncontaminated* property away from impacted areas.

- Dispatch a Collections Crew
- Complete the Sanitary Sewer Backup Response Packet.
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

Receive notification of Overflow/Backup or Unauthorized Discharge

Collections Crew performs the following:
Follow the instructions on the Sanitary Sewer Overflow Packet (Appendix C):
• Relieve blockage and clean impacted areas
• Forward the completed Sanitary Sewer Overflow Packet to the Collections Systems Supervisor
• Collections Systems Supervisor: Perform required regulatory reporting in accordance with the Regulatory Notifications Packet (inside the Sewer Overflow Packet)

Has the overflow impacted private property?

NO

YES

Is it possible that the overflow/backup is due to a failure in the District-owned/maintained sewer lines?

NO

YES

Collections Crew performs the following:
Follow the instructions on the Sanitary Sewer Backup Packet (Appendix B):
• Relieve blockage and clean impacted areas
• Provide the customer the Customer Service Packet
• Forward the completed Sanitary Sewer Backup Packet to the Collections Systems Supervisor.
• Collections Systems Supervisor:
  • Perform required regulatory reporting in accordance with the Regulatory Notifications Packet (inside the Sewer Backup Packet)
  • Notify Risk Analyst of incident

Collections Crew performs the following:
If customer is not home:
• Complete Door Hanger and leave on customer’s door

If customer is home:
• Explain to customer that the blockage is in their lateral and that the District does not have legal authority to maintain or perform work on privately owned laterals.
• Recommend to customer they hire a contractor to clear their line.
• Give customer the Sewer Spill Reference Guide pamphlet.

Risk Analyst performs the following:
1. Review incident reports, claim form and other incident information
2. Communicate with claimant as appropriate
3. Adjust and administer the claim to closure
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.
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 relevant 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

<table>
<thead>
<tr>
<th>ELEMENT</th>
<th>REQUIREMENT</th>
<th>METHOD</th>
</tr>
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<tbody>
<tr>
<td>NOTIFICATION</td>
<td>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.</td>
<td>Call Cal OES at: (800) 852-7550</td>
</tr>
<tr>
<td>REPORTING</td>
<td>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.</td>
<td>Enter data into the CIWQS Online SSO Database¹ (<a href="http://ciwqs.waterboards.ca.gov/">http://ciwqs.waterboards.ca.gov/</a>) 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.</td>
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<td></td>
<td>Category 3 SSO: The District will submit certified report within 30 calendar days of the end of month in which SSO the occurred.</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td></td>
<td>&quot;No Spill&quot; 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.</td>
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<td>Collection System Questionnaire: The District will update and certify every 12 months</td>
<td></td>
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<tr>
<td>WATER QUALITY MONITORING</td>
<td>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.</td>
<td>Water quality results will be uploaded into CIWQS for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.</td>
</tr>
<tr>
<td>RECORD KEEPING</td>
<td>The District will maintain the following records:</td>
<td>Self-maintained records shall be available during inspections or upon request.</td>
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<td></td>
<td>SSO event records.</td>
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<td></td>
<td>Records documenting Sanitary Sewer Management Plan (SSMP) implementation and changes/updates to the SSMP.</td>
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<td></td>
<td>Records to document Water Quality Monitoring for SSOs of 50,000 gallons or greater spilled to surface waters.</td>
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<td></td>
<td>Collection system telemetry records if relied upon to document and/or estimate SSO Volume.</td>
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<tr>
<td></td>
<td>In accordance with District records retention schedule, records are maintained within the District’s Electronic Records Management System (ERMS)</td>
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</tbody>
</table>

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 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

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
Appendix A

REGULATORY NOTIFICATIONS PACKET
El Dorado Irrigation District: Overflow Emergency Response Plan

Regulatory Notifications Packet

Instructions:

1. Receive call from on-site crew reporting a Sanitary Sewer Overflow.
2. Open this packet.
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:

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<th>Form</th>
<th>Page Number</th>
</tr>
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<tr>
<td>Regulatory Reporting Guide</td>
<td>A-1</td>
</tr>
<tr>
<td>Reporting Checklist: Category 1</td>
<td>-2a</td>
</tr>
<tr>
<td>Reporting Checklist: Categories 2 and 3</td>
<td>-2b</td>
</tr>
</tbody>
</table>

Print on 6”x9” envelope
## Reporting Instructions

<table>
<thead>
<tr>
<th>Deadline</th>
<th>Category 1</th>
<th>Category 2</th>
<th>Category 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 hours after awareness of SSO</td>
<td>• If the SSO is greater than or equal to 1,000 gallons, call CalOES at (800) 852-7550</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>• If the SSO may threaten Folsom Lake, notify the Water Manager at 530-642-4060</td>
<td></td>
<td></td>
</tr>
<tr>
<td>48 Hours after awareness of SSO</td>
<td>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</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3 Days after awareness of SSO</td>
<td>Submit Draft Spill Report in the CIWQS* database</td>
<td>Submit Draft Spill Report in the CIWQS* database</td>
<td>-</td>
</tr>
<tr>
<td>15 Days after response conclusion</td>
<td>Certify Spill Report in CIWQS*. Update as needed until 120 days after SSO end time</td>
<td>Certify/Submit Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time</td>
<td>-</td>
</tr>
<tr>
<td>30 Days after end of calendar month in which SSO occurred</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>45 days after SSO end date</td>
<td>If 50,000 gal or more were not recovered, submit SSO Technical Report using CIWQS*</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

* 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

<table>
<thead>
<tr>
<th>Contact</th>
<th>Telephone/Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>CalOES</td>
<td>(800) 852-7550</td>
</tr>
<tr>
<td>Collections Supervisor</td>
<td>530-295-6717</td>
</tr>
<tr>
<td>Risk Analyst</td>
<td>(530) 622-4513</td>
</tr>
<tr>
<td>Water Manager</td>
<td>(530) 642-4060</td>
</tr>
<tr>
<td>El Dorado County Environmental Health</td>
<td>(530) 621-5300</td>
</tr>
<tr>
<td>State Water Resources Control Board (SWRCB):</td>
<td></td>
</tr>
<tr>
<td>Russell Norman, P.E.</td>
<td>(916) 323-5598</td>
</tr>
<tr>
<td>Gil Vazquez, Water Resources Control Engineer</td>
<td>(916) 322-1400</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Contact</th>
<th>Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collections Systems Supervisor</td>
<td>(530) 295-6717</td>
</tr>
<tr>
<td>Wastewater/Recycled Water Manager</td>
<td>(530) 642-4059</td>
</tr>
<tr>
<td>Director of Operations</td>
<td>(530) 642-4218</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Category</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1:</td>
<td>Discharge of untreated or partially treated wastewater of any volume resulting from a sanitary sewer system failure or flow condition that either:</td>
</tr>
<tr>
<td></td>
<td>• Reaches surface water and/or drainage channel tributary to a surface water;</td>
</tr>
<tr>
<td></td>
<td>• Reached a Municipal Separate Storm Sewer System (MS4) and was not fully captured and returned to the sanitary sewer system or otherwise captured</td>
</tr>
<tr>
<td></td>
<td>and disposed of properly.</td>
</tr>
<tr>
<td>Category 2:</td>
<td>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:</td>
</tr>
<tr>
<td></td>
<td>• Does not reach surface water, a drainage channel, or an MS4, or</td>
</tr>
<tr>
<td></td>
<td>• The entire SSO discharged to the storm drain system was fully recovered and disposed of properly.</td>
</tr>
<tr>
<td>Category 3:</td>
<td>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.</td>
</tr>
</tbody>
</table>
### Regulatory Notifications Packet

**Category 1 SSO Reporting Checklist**

**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:  

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Date</th>
</tr>
</thead>
</table>

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**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:  

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Date</th>
</tr>
</thead>
</table>
Appendix B

SANITARY SEWER BACKUP RESPONSE PACKET
# El Dorado Irrigation District: Overflow Emergency Response Plan

## Sanitary Sewer Backup Response Packet

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<td>-2</td>
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<td>First Responder Form</td>
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<td>Claims Submittal Checklist</td>
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<tr>
<td>Collection System Failure Analysis Form</td>
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<tr>
<td>Customer Service Packet</td>
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<td>Instructions</td>
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<td>Customer Information</td>
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</tr>
<tr>
<td>Claim Form</td>
<td>-2</td>
</tr>
<tr>
<td>Sewer Spill Reference Guide</td>
<td>pamphlet</td>
</tr>
<tr>
<td>Regulatory Notifications Packet</td>
<td></td>
</tr>
<tr>
<td>Instructions</td>
<td>envelope</td>
</tr>
<tr>
<td>Regulatory Reporting Guide</td>
<td>A-1</td>
</tr>
<tr>
<td>Category 1 SSO Reporting Checklist</td>
<td>-2a</td>
</tr>
<tr>
<td>Category 2 &amp; 3 SSO Reporting Checklist</td>
<td>-2b</td>
</tr>
<tr>
<td>Door Hanger</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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 greater than or equal to 1,000 gallons 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

---

**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.

---

**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.

---

**Risk Analyst:** Refer to the Claims Submittal Checklist.

---

**El Dorado Irrigation District Overflow Emergency Response Plan: Sanitary Sewer Backup Packet**

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Was this a toilet burp or similar due to District activities?

NO

Does the backup appear to be due to a problem in the District-owned/maintained sewer line?

NO

If customer is not home:
- Complete Door Hanger and leave on customer’s door.
- Leave a message on the customer’s voicemail.

YES

If customer is home:
- Recommend the customer shut off any appliances using water.
- Explain to customer that the blockage is in their private lateral and that the District does not have legal authority to maintain or perform work on privately owned laterals. Consider showing the customer the unobstructed flow in the public sewer to help explain that the blockage is in their lateral.
- Consider cleaning the District-owned/maintained line manhole to manhole and other lines that may tie in to the main line.
- Recommend to customer they hire a contractor to clear their line.
- Give customer the Sewer Spill Reference Guide pamphlet.

If the District wants one installed, follow District’s procedures regarding installation of property line cleanouts.

NO

Is there a property line cleanout?

YES

Has any sewage impacted public areas?

NO

Go to SSO Packet procedures. Complete and then return here.

Has any sewage spilled outside?

NO

Make notifications indicated on the top of the Sewer Backup Envelope as appropriate.

NO

Go to Side B

YES

If it is a Category 1 spill greater than or equal to 1,000 gallons, immediately contact the Collections Systems Supervisor to make the 2-hour notification to CalOES. See front of envelope for contact information.

Address the cause of the SSO/Backup in the District Sewer - See Field Reference Guide, as necessary

NO

1. Provide Customer with the Bubbled Toilets Letter and have Customer initial the front of the Sewer Backup Envelope.

1. Document the service call according to District procedures
2. Follow routing instructions on the front of the Sewer Backup Envelope.

1. Go to SSO Packet and complete procedures.
2. Document the service call according to District procedures
3. Follow routing instructions on the front of the Sewer Backup Packet envelope.

1. Give customer the Customer Service Packet. *(inside Sewer Backup envelope)*
2. Ask the customer to initial the front of the Sewer Backup Packet Envelope, as appropriate.

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1. Remove the First Responder Form from the Sewer Backup Packet envelope and complete. Immediately contact the Risk Analyst and provide the information from the completed First Responder Form.

2. If the livability assessment indicates that temporary relocation is advised, complete the Lodging Authorization form.

3. Advise Customer to contact a cleaning contractor if applicable. Refer to the Customer Information Packet for a list of contractors provided for information only (i.e., not endorsed by the District).

4. Ask Customer to take photographs of affected and non-affected areas, if allowed by customer. Try to get pictures showing where the damaged areas stopped.

Complete the following forms (in the Sewer Backup Envelope):
- Sanitary Sewer Overflow Report
- Start Time Determination Form (Remember, the spill was probably already occurring before it was reported.)
- Volume Estimation (Use one or more worksheets and/or methods listed in the Field Guide.)

Clean/disinfect any overflow outside of the building. DO NOT allow any disinfectants to escape to storm drains.

Yes

Photograph the backwater prevention device or cleanout.

Can you locate a backwater prevention device (BPD) or cleanout on the affected building?

No

Complete Lateral CCTV Report (inside the Sewer Backup Packet envelope)

Is there any reason to have the lateral televised?

1. Document the service call according to District procedures.

2. Complete the remaining instructions in the Collections Crew box on the front of the Sewer Backup Packet envelope.

3. Follow routing instructions as indicated on the front of the Sewer Backup Packet envelope.

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,
- Speculating about the situation you are responding to
- Providing incorrect facts about a company or other agency
- 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.

© 2004-2016 DKF Solutions Group All rights reserved.
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 through 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
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.

<table>
<thead>
<tr>
<th>PERSON COMPLETING THIS FORM:</th>
<th>PHONE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td></td>
</tr>
<tr>
<td>Title:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PHONE:</th>
<th>DATE:</th>
<th>TIME:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>TIME STAFF ARRIVED ON-SITE:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Did customer call cleaning contractor?</td>
<td>☐ Yes ☐ No</td>
</tr>
<tr>
<td>If YES, name of contractor:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CHECK IF SPOKE WITH OWNER:</th>
<th>CHECK IF SPOKE WITH TENANT:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property Owner’s Name:</td>
<td>Tenant’s Name:</td>
</tr>
<tr>
<td>Address:</td>
<td>Address:</td>
</tr>
<tr>
<td>Phone:</td>
<td>Phone:</td>
</tr>
<tr>
<td>Cell Phone:</td>
<td>Cell Phone:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PHONE:</th>
<th>DATE:</th>
<th>TIME:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>PHONE:</th>
<th>DATE:</th>
<th>TIME:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Is nearest upstream manhole visibly higher than the drain/fixture that overflowed?</th>
<th>☐ Yes ☐ No</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Number of People Living at Residence:</th>
<th>Do there appear to be elderly or persons with disabilities living in the home?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐ Yes ☐ No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Approx. Age of Home:</th>
<th>Sub-floor Material:</th>
<th># of Bathrooms:</th>
<th># of Rooms Affected:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐ Wood ☐ Concrete</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Is there standing water in the home?</th>
<th>☐ Yes ☐ No</th>
</tr>
</thead>
<tbody>
<tr>
<td>If yes, how deep?</td>
<td></td>
</tr>
<tr>
<td>Does the water appear to be ☐ Clear ☐ Gray ☐ Black</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What rooms appear to be affected?</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Is there carpet, vinyl or tile in the affected rooms?</th>
<th>☐ Yes ☐ No</th>
</tr>
</thead>
<tbody>
<tr>
<td>If yes, approximately how old are they?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Approximate Amount of Spill (gallons):</th>
<th>Approx. Time Sewage Has Been Sitting (hrs/days):</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Apparent Extent of Damage:</th>
<th>Has District Staff taken photos/video of the incident?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐ Yes ☐ No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Apparent cause of the incident:</th>
<th>☐ Line Break/Leak ☐ Stoppage</th>
</tr>
</thead>
</table>

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:

<table>
<thead>
<tr>
<th>Have there ever been any previous spills at this location?</th>
<th>Has the resident had any plumbing work done recently?</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ YES ☐ NO ☐ Unknown</td>
<td>☐ YES ☐ NO If YES, please describe:</td>
</tr>
</tbody>
</table>
**Sanitary Sewer Backup Response Packet**

**First Responder Form**

### LIVABILITY ASSESSMENT

- **Is there sufficient non-contaminated living space for residents to stay during cleaning including a functioning and non-contaminated bathroom?**
  - **YES**
  - **NO**

- **Is it after 8pm or will the cleaning and disinfection be completed after 10pm?**
  - **YES**
  - **NO**

  - **Recommend to resident that they vacate the premises while area is cleaned and disinfected.**

1. Based on the Livability Assessment, recommend to resident they stay at a local hotel while the affected area of their home is cleaned and disinfected.
2. Contact the Collection System Supervisor (or designee) to discuss the resident’s lodging options.

### 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:**

<table>
<thead>
<tr>
<th>Customer Cleanout Was:</th>
<th>Public Cleanout was:</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Non-Existent</td>
<td>☐ Non-Existent</td>
</tr>
<tr>
<td>☐ Full</td>
<td>☐ Full</td>
</tr>
<tr>
<td>☐ Empty</td>
<td>☐ Empty</td>
</tr>
</tbody>
</table>

**Recommended Follow-Up Action(s):**

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

- **Affected House**
- **Upstream House**

- **Did sewage go under buildings?**
  - **Yes**
  - **No**
  - **Unsure**

---

Place completed form in Sewer Backup Envelope and follow routing instructions

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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) night’s 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

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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?

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.
### 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  
- 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:  
- Add sewer to preventive maintenance program  
- Enforcement action against FOG source  
- Adjust schedule/method of preventive maintenance  
- 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:
El Dorado Irrigation District: Overflow Emergency Response Plan

Sanitary Sewer Backup Response Packet
Start Time Determination Form

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:

<table>
<thead>
<tr>
<th>Name</th>
<th>Contact Information</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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: ________________________________
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.

<table>
<thead>
<tr>
<th>Size of bucket(s) or barrel(s)</th>
<th>How many of this size?</th>
<th>Multiplier</th>
<th>Estimated SSO Volume (gallons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 gallon water jug</td>
<td></td>
<td>x 1 gallons</td>
<td></td>
</tr>
<tr>
<td>5 gallon bucket</td>
<td></td>
<td>x 5 gallons</td>
<td></td>
</tr>
<tr>
<td>32 gallon trash can</td>
<td></td>
<td>x 32 gallons</td>
<td></td>
</tr>
<tr>
<td>55 gallon drum</td>
<td></td>
<td>x 55 gallons</td>
<td></td>
</tr>
<tr>
<td>Other: ______ gallons</td>
<td></td>
<td>x _____ gallons</td>
<td></td>
</tr>
</tbody>
</table>

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:

Estimated SSO Volume − Rainfall = ______________________ gallons

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: __________________________

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El Dorado Irrigation District: Overflow Emergency Response Plan

Sanitary Sewer Backup Response Packet

Volume Estimation: Duration and Flow Rate Comparison Method

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.

\[
\text{Flow Rate} \times \text{SSO Duration} = \text{Estimated SSO Volume}
\]

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:

\[
\text{Estimated SSO Volume} + \text{or} - \text{Adjustment} = \text{Estimated SSO volume}
\]

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: ____________________________

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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

<table>
<thead>
<tr>
<th>Flow Rate</th>
<th>Near View</th>
<th>Far View</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 gpm</td>
<td><img src="image1" alt="Image" /></td>
<td><img src="image2" alt="Image" /></td>
</tr>
<tr>
<td>25 gpm</td>
<td><img src="image3" alt="Image" /></td>
<td><img src="image4" alt="Image" /></td>
</tr>
<tr>
<td>50 gpm</td>
<td><img src="image5" alt="Image" /></td>
<td><img src="image6" alt="Image" /></td>
</tr>
<tr>
<td>100 gpm</td>
<td><img src="image7" alt="Image" /></td>
<td><img src="image8" alt="Image" /></td>
</tr>
<tr>
<td>150 gpm</td>
<td><img src="image9" alt="Image" /></td>
<td><img src="image10" alt="Image" /></td>
</tr>
<tr>
<td>200 gpm</td>
<td><img src="image11" alt="Image" /></td>
<td><img src="image12" alt="Image" /></td>
</tr>
<tr>
<td>300 gpm</td>
<td><img src="image13" alt="Image" /></td>
<td><img src="image14" alt="Image" /></td>
</tr>
<tr>
<td>400 gpm</td>
<td><img src="image15" alt="Image" /></td>
<td><img src="image16" alt="Image" /></td>
</tr>
</tbody>
</table>
**Sanitary Sewer Backup Response Packet**  
**Volume Estimation: Upstream Lateral Connections Method**

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.

<table>
<thead>
<tr>
<th>Time Period</th>
<th>A Gallons per Period</th>
<th>B Hours per Period</th>
<th>C = A ÷ B = Gallons per Hour</th>
<th>D = C ÷ 60 = Gallons per Minute</th>
<th>E Minutes SSO was active during period</th>
<th>F D x E = Gallons spilled per period</th>
</tr>
</thead>
<tbody>
<tr>
<td>6am-noon</td>
<td>72</td>
<td>6</td>
<td>12</td>
<td>0.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>noon-6pm</td>
<td>36</td>
<td>6</td>
<td>6</td>
<td>0.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6pm-midnight</td>
<td>54</td>
<td>6</td>
<td>9</td>
<td>0.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>midnight-6am</td>
<td>18</td>
<td>6</td>
<td>3</td>
<td>0.05</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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.

\[
\frac{\text{gallons}}{\text{Volume per EDU}} \times \frac{\text{gallons}}{\text{# of EDUs}} = \frac{\text{gallons}}{\text{Estimated SSO Volume}}
\]

**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: __________________________________________

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### Lateral CCTV Report

#### PLEASE COMPLETE AS THOROUGHLY AS POSSIBLE

<table>
<thead>
<tr>
<th>PERSON COMPLETING THIS FORM:</th>
<th>DATE:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PHONE:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAMERA TYPE:</th>
<th>LOCATION OF CAMERA ENTRY:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>AFFECTED PROPERTY STREET ADDRESS:</th>
<th>LOCATION OF CAMERA STOP:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>CITY, STATE AND ZIP:</th>
<th>DESCRIBE AREA TV’d:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>PHONE</th>
<th>UPSTREAM MANHOLE #:</th>
</tr>
</thead>
</table>

#### 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.

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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
To be completed by the Collections Systems Supervisor

<table>
<thead>
<tr>
<th>Incident Report #</th>
<th>Prepared By</th>
</tr>
</thead>
</table>

**SSO/Backup Information**

<table>
<thead>
<tr>
<th>Event Date/Time</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume Spilled</td>
<td>Volume Recovered</td>
</tr>
<tr>
<td>Cause</td>
<td></td>
</tr>
</tbody>
</table>

**Summary of Historical SSOs/Backups/Service Calls/Other Problems**

<table>
<thead>
<tr>
<th>Date</th>
<th>Cause</th>
<th>Date Last Cleaned</th>
<th>Crew</th>
</tr>
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<tr>
<td></td>
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Records Reviewed By: __________ Record Review Date: __________

**Summary of CCTV Information**

<table>
<thead>
<tr>
<th>CCTV Inspection Date</th>
<th>Tape Name/Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CCTV Tape Reviewed By: __________ CCTV Review Date: __________

Observations

Go to Side B
<table>
<thead>
<tr>
<th>Type</th>
<th>Specific Actions</th>
<th>Who is Responsible?</th>
<th>Completion Deadline</th>
<th>Who Will Verify Completion?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Changes or Repairs Required</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Repair(s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital Improvement(s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change(s) to Maintenance Procedures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change(s) to Overflow Response Procedures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Misc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments/Notes:

Review Date:
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.

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) 622-4513

This packet provided by: ________________________________

Phone: ________________________________
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) 622-4513

Este paquete lo proporciona: ________________________________

Teléfono: ________________________________
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.

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

<table>
<thead>
<tr>
<th>What TO Do:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Only do activities that are safe for you to perform.</td>
</tr>
<tr>
<td>• Do what you can to minimize or mitigate impacts on your property.</td>
</tr>
<tr>
<td>• Keep people and pets away from the affected area(s).</td>
</tr>
<tr>
<td>• Try to contain the water/sewage to the already damaged area.</td>
</tr>
<tr>
<td>• Prevent any water/sewage from reaching floor vents.</td>
</tr>
<tr>
<td>• Take photographs to document conditions.</td>
</tr>
</tbody>
</table>

(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.
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 enfrenta.

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 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)
Información para el cliente sobre reclamaciones por desborde del alcantarillado (Español)
Página 2 de 2

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 proporcionele 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.

---

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 13269-13271 & 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.

---

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 rings 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.”
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 Landromat 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 Landromat until your onsite wastewater system has been professionally inspected and serviced.
- Seek immediate attention if you become injured or ill.
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
Appendix C

SANITARY SEWER OVERFLOW RESPONSE PACKET
<table>
<thead>
<tr>
<th>Form</th>
<th>Form Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructions and Chain of Custody</td>
<td>envelope label</td>
</tr>
<tr>
<td>Overflow Response Flowchart</td>
<td>C-1</td>
</tr>
<tr>
<td>Sewer Overflow Report</td>
<td>-2</td>
</tr>
<tr>
<td>Start Time Determination Form</td>
<td>-3</td>
</tr>
<tr>
<td>Volume Estimation Forms</td>
<td>-4a, -4b, -4c</td>
</tr>
<tr>
<td>Lateral CCTV Report</td>
<td>-5</td>
</tr>
<tr>
<td>Collection System Failure Analysis Report</td>
<td>-6</td>
</tr>
<tr>
<td>Regulatory Notifications Packet</td>
<td></td>
</tr>
<tr>
<td>Instructions</td>
<td>envelope</td>
</tr>
<tr>
<td>Regulatory Reporting Guide</td>
<td>RN-1</td>
</tr>
<tr>
<td>Category 1 SSO Reporting Checklist</td>
<td>-2a</td>
</tr>
<tr>
<td>Category 2 &amp; 3 SSO Reporting Checklist</td>
<td>-2b</td>
</tr>
<tr>
<td>Public Posting</td>
<td>n/a</td>
</tr>
<tr>
<td>Door Hanger</td>
<td>n/a</td>
</tr>
<tr>
<td>Pamphlet</td>
<td>n/a</td>
</tr>
</tbody>
</table>

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 greater than or equal to 1,000 gallons** 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.

**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.

---

Don't forget photos!
Sanitary Sewer Overflow Response Packet
Overflow Response Flowchart

**1. DIVERT AWAY FROM SENSITIVE AREAS:**
   a. Cover unplugged storm drains w/mats, or use dirt/other material to divert sewage away from sensitive areas (e.g., schools, playgrounds, intersections, etc.)
   b. ENSURE PUBLIC CONTACT DOES NOT OCCUR. Use cones/barricades to isolate area.

**2. CONTAIN SPILL & RETURN TO SYSTEM, IF POSSIBLE:**
   a. Plug storm drain catch basins or use rubber mats to cover basin inlet and divert flow to catch basin
   b. Build/excavate a berm to channel flow to downstream sanitary sewer manhole (barricade manhole if left open)
   c. Use bypass pumps to pump around blockage until it can be removed
   d. Divert to low area of ground where it can be collected later

**3. PHOTOGRAPH HOW THE SSO WAS DIVERTED/CONTAINED, AS APPROPRIATE**

- If POWER FAILURE, does station have onsite backup power?
  - If YES, ensure the switchover has occurred
  - If NO, bring in appropriate size generator to power the station

- If PUMPING FAILURE, does station have integrated bypass capabilities?
  - If YES, implement integrated bypass system.
  - If NO, implement manual bypass system.

**CLEAR BLOCKAGE/STOPPAGE**

1. Use cleaning equipment appropriate to situation and hydroflush to clear blockage. Make certain to either have the vactor setup at downstream manhole or use a fork/trap at the manhole outlet to catch any debris released. Once flow is normal, run line to next manhole.
2. Photograph staff activities while clearing the blockage, as appropriate.

End. Do not continue to Side B

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Continue Here From Side A

Have 50,000 gallons or more of the SSO reached surface waters? 

• During Business Hours: Contact the District Chemist to collect water samples.
• After Hours: Trained individual should refer to the Field Sampling Kit for materials and instructions.

Assign staff to post “WARNING: RAW SEWAGE” signs or other means of warning along the shoreline of impacted surface waters as appropriate, or as directed by the County Environmental Health Department. Be sure to document how many signs were posted and where they were posted.

Is it feasible/practical to contain/recover any of the SSO from the surface waters?

Area Cleanup

1. Assign staff to begin cleanup
   NOTE: If SSO was caused by a failure in a private service line, clean up impacted public areas & document staff time, equipment used & expenses incurred
2. Remove all signs of gross pollution
   (toilet paper, solids, grease, etc.)
3. Flush area with water – Unless raining
   (3X amount of SSO, if possible)
   a. Setup berm/other means to contain all chlorinated flush water so it can be returned to sewer
   b. Don’t use disinfectants if they may enter storm drain system and not be fully recovered or if they may enter a water body
4. Photograph the area when cleanup operations are complete

Determine Start Time and Estimate Spill Volume

1. Complete the Start Time Determination form. Remember – the spill was probably occurring for a period of time before it was reported.
2. Estimate and document SSO volume using two or more of the worksheets provided.

Documentation and Reporting

2. Make notifications indicated on the Sewer Overflow Envelope
3. Complete the Lateral CCTV Report as necessary

Place in Sewer Overflow Packet envelope and follow paperwork routing instructions indicated on the front of the envelope:
1. All completed forms
2. Digital or disposable camera
3. ALL notes/documentation made
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

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

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 (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:

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

<table>
<thead>
<tr>
<th>Estimated volume</th>
<th>Recovered</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>that reached a separate storm drain that flows to a surface water body:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>that reached a drainage channel that flows to a surface water body:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>that discharged directly to a surface water body:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>to land:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.
El Dorado Irrigation District: Overflow Emergency Response Plan

Sanitary Sewer Overflow Response Packet
Sanitary Sewer Overflow Report

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): OControls OMechanical OPower
☐ 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): Ofrom Construction Ofrom Lateral OGGeneral ORags  ☐ 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): OControls OMechanical OPower  ☐ 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):

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

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.

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:

<table>
<thead>
<tr>
<th>Name</th>
<th>Contact Information</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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: __________________________

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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.

<table>
<thead>
<tr>
<th>Size of bucket(s) or barrel(s)</th>
<th>How many of this size?</th>
<th>Multiplier</th>
<th>Estimated SSO Volume (gallons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 gallon water jug</td>
<td></td>
<td>x 1 gallons</td>
<td></td>
</tr>
<tr>
<td>5 gallon bucket</td>
<td></td>
<td>x 5 gallons</td>
<td></td>
</tr>
<tr>
<td>32 gallon trash can</td>
<td></td>
<td>x 32 gallons</td>
<td></td>
</tr>
<tr>
<td>55 gallon drum</td>
<td></td>
<td>x 55 gallons</td>
<td></td>
</tr>
<tr>
<td>Other: ______ gallons</td>
<td></td>
<td>x _____ gallons</td>
<td></td>
</tr>
</tbody>
</table>

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:

\[
\text{Estimated SSO Volume} - \text{Rainfall} = \text{Total Estimated SSO Volume}
\]

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: ____________________________

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El Dorado Irrigation District: Overflow Emergency Response Plan

Sanitary Sewer Overflow Response Packet
Volume Estimation: Duration and Flow Rate Comparison Method

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

5 gpm  25 gpm  50 gpm  100 gpm
Near View

150 gpm  200 gpm  300 gpm  400 gpm
Near View

Far View
El Dorado Irrigation District: Overflow Emergency Response Plan

Sanitary Sewer Overflow Response Packet
Volume Estimation: Upstream Lateral Connections Method

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 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.

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Flow Rate Per EDU</th>
<th>SSO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Gallons per Period</td>
<td>Hours per period</td>
</tr>
<tr>
<td>6am-noon</td>
<td>72</td>
<td>6</td>
</tr>
<tr>
<td>noon-6pm</td>
<td>36</td>
<td>6</td>
</tr>
<tr>
<td>6pm-midnight</td>
<td>54</td>
<td>6</td>
</tr>
<tr>
<td>midnight-6am</td>
<td>18</td>
<td>6</td>
</tr>
</tbody>
</table>

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.

\[
\text{Volume per EDU} \times \frac{\text{gallons}}{\text{EDUs}} = \frac{\text{Estimated SSO Volume}}{\text{gallons}}
\]

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: _______________________________
<table>
<thead>
<tr>
<th>PLEASE COMPLETE AS THOROUGHLY AS POSSIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERSON COMPLETING THIS FORM:</td>
</tr>
<tr>
<td>CAMER TYPE:</td>
</tr>
<tr>
<td>AFFECTED PROPERTY STREET ADDRESS:</td>
</tr>
<tr>
<td>CITY, STATE AND ZIP:</td>
</tr>
<tr>
<td>PHONE</td>
</tr>
</tbody>
</table>

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.

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## Sanitary Sewer Overflow Response Packet
### Collection System Failure Analysis

To be completed by the Collections Systems Supervisor

<table>
<thead>
<tr>
<th>Incident Report #</th>
<th>Prepared By</th>
</tr>
</thead>
</table>

### SSO/Backup Information

<table>
<thead>
<tr>
<th>Event Date/Time</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume Spilled</td>
<td>Volume Recovered</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cause</th>
</tr>
</thead>
</table>

### Summary of Historical SSOs/Backups/Service Calls/Other Problems

<table>
<thead>
<tr>
<th>Date</th>
<th>Cause</th>
<th>Date Last Cleaned</th>
<th>Crew</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Records Reviewed By: Record Review Date:

### Summary of CCTV Information

<table>
<thead>
<tr>
<th>CCTV Inspection Date</th>
<th>Tape Name/Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCTV Tape Reviewed By</td>
<td>CCTV Review Date</td>
</tr>
</tbody>
</table>

Observations

---

Go to Side B
## Recommendations

<table>
<thead>
<tr>
<th>Type</th>
<th>Specific Actions</th>
<th>Who is Responsible?</th>
<th>Completion Deadline</th>
<th>Who Will Verify Completion?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Changes or Repairs Required</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Repair(s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital Improvement(s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change(s) to Maintenance Procedures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change(s) to Overflow Response Procedures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Misc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Comments/Notes:**

**Review Date:**

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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

© 2004-2016 DKF Solutions Group, LLC. All rights reserved.
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
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.

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 no 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

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**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 clean out 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.
Appendix D

FIELD SAMPLING KIT
Form | Form Number
--- | ---
Procedures for Sampling Receiving Waters and Posting Warnings after a Sewage Spill | D-1
Sample Collection Chain of Custody Record | -2

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
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!

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)

Complete the Chain of Custody form from the Sampling Kit.

Move at least 10’ downstream of point where spill entered waterway and repeat sampling steps (red boxes)

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

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

REMEMBER!
Always try to get photos of each sample point and include reference points and interference factors in each photo.

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### Field Sampling Kit
#### Sample Collection Chain of Custody Record

<table>
<thead>
<tr>
<th>Customer Name</th>
<th>□ Hazardous Waste</th>
<th>□ Unknown Material</th>
<th>PO#</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Address</td>
<td>□</td>
<td>□</td>
<td>WO#</td>
<td></td>
</tr>
<tr>
<td>Customer Telephone</td>
<td>□</td>
<td>□</td>
<td>Mail Code</td>
<td>CONTRACT LAB INFORMATION</td>
</tr>
<tr>
<td>Program Name</td>
<td>□</td>
<td>□</td>
<td>Phone #</td>
<td>□</td>
</tr>
<tr>
<td>Lab Program Coordinator</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Sampled By</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

#### SAMPLE COLLECTION INFORMATION

<table>
<thead>
<tr>
<th>LIMS# (Issued by Lab)</th>
<th>Date</th>
<th>Time</th>
<th>Type</th>
<th>Sample Location</th>
<th>Field pH</th>
<th>Field Temp</th>
<th># Containers</th>
<th>Matrix*</th>
<th>Analysis Requested</th>
<th>QA/QC Requirements</th>
<th>Remarks/Notes</th>
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</thead>
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</tbody>
</table>

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

#### Transport/Shipping Information

<table>
<thead>
<tr>
<th>□ USPS</th>
<th>□ UPS</th>
<th>□ FedEx</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Tracing #:</th>
<th>□</th>
<th>□</th>
<th>□</th>
</tr>
</thead>
</table>

#### Sample Receiving Documentation

<table>
<thead>
<tr>
<th>Container intact?</th>
<th>□ Yes</th>
<th>□ No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correct container?</td>
<td>□ Yes</td>
<td>□ No</td>
</tr>
<tr>
<td>Field preserved?</td>
<td>□ Yes</td>
<td>□ No</td>
</tr>
<tr>
<td>Custody tape intact?</td>
<td>□ Yes</td>
<td>□ No</td>
</tr>
<tr>
<td>Cooled?</td>
<td>□ Yes</td>
<td>□ No</td>
</tr>
<tr>
<td>Temp. Blank?</td>
<td>□ Yes</td>
<td>□ No</td>
</tr>
<tr>
<td>Sample distribution:</td>
<td>□ Lab bench</td>
<td>□ Ice chest</td>
</tr>
<tr>
<td>Disposal Date:</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Disposed by:</td>
<td>(inits.)</td>
<td></td>
</tr>
<tr>
<td>C-O-C Distribution</td>
<td>□ Lab Admin File</td>
<td>□ Prog/proj Mgr.</td>
</tr>
</tbody>
</table>

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Appendix E

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

Contractor causes or witnesses a Sanitary Sewer Overflow

Immediately notify the District
Direct Dispatch: (530) 642-4000
Main Office Line: (530) 622-4513

Protect the storm drains
using mats, dikes, berms, etc.

Protect the Public
If the spill is entering an area where public contact may occur, and if it is safe to do so, monitor the location until the District Collections Crew arrives.

Provide Information
Provide the District Collections Crew with information about the overflow such as start time, appearance point, suspected cause, weather conditions, etc.

Direct ALL media and public relations requests to:
Public Information Officer
(530) 622-4513
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
## 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

#### 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)

- 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

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