CITY OF JACKSON

Sewer System Management Plan
April 2017

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Original Resolution: 2008-03
City WDID #5SSO10895
Table of Contents

Introduction................................................................................................... 1
Sewer System Management Plan ................................................................. 1
Sanitary Sewer System Facilities ................................................................. 2
Definitions, Acronyms, and Abbreviations ................................................ 6
References .................................................................................................... 13

Element I: Goals.......................................................................................... 14
I-1. SSMP Goals .......................................................................................... 14
I-2. References - None .................................................................................. 14

Element II: Organization ............................................................................. 15
II-1. Organizational Structure ....................................................................... 15
II-2. Authorized Representatives ................................................................. 16
II-3. Responsibility for SSMP Implementation and Maintenance .............. 17
II-4. SSO Reporting Chain of Communication .......................................... 19
   II-4.1. Reporting Structure ....................................................................... 19
   II-4.2. SSO Response Chain of Communication ..................................... 20
      II-4.2.1 Responding to Service Calls .................................................. 20
   II-4.3. Legally Responsible Officials (LRO) ............................................ 21
II-5. References - None ............................................................................... 21

Element III: Legal Authority ...................................................................... 22
III-1. Municipal Code ................................................................................... 22
III-2. Agreements with Satellite Agencies .................................................... 23
III-3. References ........................................................................................... 23
   • City Municipal Code Titles 8 and 9 ..................................................... 23

Element IV: Operations and Maintenance Program .................................. 24
IV-1. Collection System Mapping ................................................................. 24
   IV-1.1. Wastewater collection system map .......................................... 25
   IV-1.2. Storm drainage map ................................................................. 25
IV-2. Operations and Preventive Maintenance ........................................... 25
   IV-2.1. Gravity Sewers .......................................................................... 26
      IV-2.1.1 Cleaning ............................................................................. 26
IV-2.1.2 CCTV Inspection and Condition Assessment ................................................. 26
IV-2.1.3 Root Foaming .................................................................................................. 27
IV-2.2. Pump Stations ................................................................................................. 27
IV-2.3. Private Sewer Laterals ............................................................................... 29
IV-2.4. Rehabilitation and Replacement Program ................................................... 29
IV-2.5. Training ............................................................................................................. 30
IV-2.6. Equipment and Replacement Parts ............................................................... 30
IV-2.7. Outreach to Sewer Service Contractors ......................................................... 30
IV-3. References ........................................................................................................... 31
IV-4. Element IV Appendices ...................................................................................... 32
Appendix IV-A: Standard Operating Procedures ....................................................... 32
Appendix IV-B: Renewal & Replacement Program Budget in $1000’s ...................... 33
Appendix IV-C: Major Sewer System Equipment Inventory ....................................... 34
Appendix IV-D: Critical Sewer System Replacement Parts Inventory ....................... 35

Element V: Design and Performance Provisions ................................................. 36
V-1. Design Criteria for Installation, Rehabilitation and Repair ............................... 36
  V-1.1. General ............................................................................................................. 36
  V-1.2. Private Sewer Systems and Private Laterals .................................................... 36
V-2. Inspection and Testing Criteria ............................................................................ 36
V-3. References ............................................................................................................ 37

Element VI: Overflow Emergency Response Plan ............................................. 38
VI-1. Purpose ................................................................................................................. 38
VI-2. Policy .................................................................................................................. 39
VI-3. Goals ................................................................................................................... 39
VI-4. Complete Overflow Emergency Response Plan ............................................... 39
VI-5. References ........................................................................................................... 39

Element VII: Fats, Oils, and Grease (FOG) Control Program .............................. 41
VII-1. Nature and Extent of FOG Problem ............................................................... 41
VII-2. FOG Control Program & Inspections .............................................................. 42
VII-3. Response to GWDR Requirements ................................................................. 44
VII-4. References - None .......................................................................................... 46

Element VIII: System Evaluation and Capacity Assurance Plan ..................... 47
VIII-1. System Evaluation - Collection System Master Plan ..................................... 47
Element IX: Monitoring, Measurement, and Program Modifications 50
IX-1. Performance Measures ................................................................. 50
IX-2. Baseline Performance .................................................................. 50
   IX-2.1. Mains, Pump Stations, and Force Mains ......................... 51
IX-3. Performance Monitoring and Program Changes ......................... 51
IX-4. References ................................................................................. 52

Element X: SSMP Program Audits ......................................................... 53
X-1. Audits ......................................................................................... 53
X-2. SSMP Updates ............................................................................ 54
X-3. References ................................................................................ 60

Element XI: Communication Program .................................................. 61
XI-1. Communication during SSMP Development and Implementation ..... 61
XI-2. Communicating Sanitary Sewer System Performance .................. 61
XI-3. Communication with Satellite Wastewater Collection Systems ........ 62
XI-4. References - None ..................................................................... 62

Appendices .............................................................................................. 63
Appendix A: Sewer System Management Plan Audit Reports ................ 63
Appendix B: Log of Sewer System Management Plan Changes ............. 64
Appendix C: Sewer System Management Plan Council Adoption Documents .... 65
Appendix D: City of Jackson Overflow Emergency Response Plan .......... 66
Appendix E: Water Quality Monitoring Program

Appendix F: Annual Performance Reports

Appendix G: FOG Control Program Documents
# Table of Tables

Intro Table 1: Gravity Sewer System Size Distribution .................................................... 4
Intro Table 2: Sewer System Materials of Construction .................................................... 4
Intro Table 3: Inventory of Sewer Lines by Pipe Age ....................................................... 5
Table II - 1: Responsible Officials in Public Works Chain of Communication .............. 18
Table II - 2: Contacts on the SSMP Organization Chart ................................................. 19
Table III - 1: Summary of Legal Authorities City of Jackson Municipal Code and Other Sources ...................................................................................................................... 22
Table IV - 1: Hot Spot Lines ............................................................................................ 26
Table IV - 2: Pump Station Locations and Descriptions ................................................... 28
Table IV - 3: Force Main Locations and Descriptions ....................................................... 29
Table VII - 1: Historical FOG-Related SSOs ................................................................. 42
Table VII - 2: Fats, Oils and Grease Haulers ................................................................. 46
Table IX - 1: Gravity Sewer, Pump Station, and Force Main SSOs by Fiscal Year ........... 51
Table IX - 2: FY Totals for SSOs by Cause ...................................................................... 51
Table IX - 3: FY Totals for Sewer Mains (Volume Spilled, Portion Contained, and Volume to Surface Waters) ....................................................................................... 51
Table X - 1: SSMP Audit Checklist .................................................................................. 55
Table of Figures

Intro Figure 1: Jackson Sewer System Map ................................................................. 3
Figure II - 1: Jackson Public Works Collection Systems Organization Chart .......... 15
Figure II - 2: Jackson SSO Response Chain of Communication Chart .................. 20
Introduction

Sewer System Management Plan

This Sewer System Management Plan (SSMP) has been prepared by the Public Works Department of the City of Jackson with the assistance of Causey Consulting, Walnut Creek, CA. It is a compendium of the policies, procedures, and activities that are included in the planning, management, operation, and maintenance of the City’s sanitary sewer system.

The State Water Resources Control Board (SWRCB) has issued statewide waste discharge requirements for sanitary sewer systems, which include requirements for development of an SSMP. The State Water Board requirements are outlined in Order No. 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, dated May 2, 2006 (GWDR), and Order No. WQ-2008-0002-EXEC, dated February 20, 2008, which was amended by Order No. 2013-0058-EXEC, effective September 9, 2013, which changed the Monitoring and Reporting Program (MRP). This SSMP is intended to update the City’s existing SSMP, in continued compliance with the GWDR.

The structure (section numbering and nomenclature) of this SSMP follows the above referenced GWDR and MRP. This SSMP is organized using the SWRCB outline of elements in WDR Section D.13; and contains language taken from the GWDR at that beginning of each element. The GWDR uses the term “Enrollee” to mean each individual municipal wastewater agency that has completed and submitted the required application for coverage under the WDR (in this case, the Enrollee is the City of Jackson). The City’s waste discharge identification number (WDID) in the California Integrated Water Quality System (CIWQS) is 5SSO10895. The City also maintains and treats all sewage discharged from the service area at the City Wastewater Treatment Plant that operates pursuant to a National Discharge Elimination System permit (NPDES) Permit No. 0079391 issued by the Central Valley Regional Board by Order R5-2013-0146-01. The City has recently been working with the Regional Water Quality Control Board (RWQCB) on issues related to the operation and maintenance of its collection system as relates to conformance with the GWDR. These discussions have required the submission of several reports and a time schedule for the completion of the revisions to the City SSMP. Previous actions have included enhanced training for collection emergency response staff, development of an improved overflow emergency response plan and water quality monitoring plan. Finally, the RWQCB has required reporting of all SSOs to the
State CIWQS system along with proper record keeping pursuant to the recent MRP revisions. As a result of the RWQCB actions, the City has responded and submitted the required documents and is further evaluating its collection system operations and maintenance and emergency response to assure that they are fully compliant with the GWDR regulations and that the SSMP properly describes the City procedures for the collection system.

**Sanitary Sewer System Facilities**

The City of Jackson’s sanitary sewer collection system serves a population of approximately 4,450 as estimated in 2015 in a service area of 3.51 square miles. The system includes 2139 service connections including 1850 residential, 240 commercial and 19 institutional and industrial customers and 30 wastewater connections outside of the City. The collection system consists of 30 miles of gravity sewers, and 591 manholes. The entire laterals are privately owned and maintained. The gravity sewer lines range in size from 6 inches to 16 inches in diameter. The City also operates three (3) lift stations and associated force mains of 1 mile. All wastewater is conveyed to and treated at the City’s Wastewater Treatment Plant.

**Intro Figure 1**: Jackson Sewer System Map

**Intro Table 1**: Gravity Sewer System Size Distribution

**Intro Table 2**: Sewer System Materials of Construction

**Intro Table 3**: Inventory of Sewer Lines by Pipe Age.
Intro Figure 1: Jackson Sewer System Map
<table>
<thead>
<tr>
<th>Diameter, inches</th>
<th>Number of Line Segments</th>
<th>Pipe Length, Linear feet</th>
<th>Portion of Sewer System, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>314</td>
<td>65,170</td>
<td>41.1</td>
</tr>
<tr>
<td>8</td>
<td>235</td>
<td>56,848</td>
<td>35.9</td>
</tr>
<tr>
<td>10</td>
<td>19</td>
<td>3,769</td>
<td>2.4</td>
</tr>
<tr>
<td>12</td>
<td>2</td>
<td>417</td>
<td>0.3</td>
</tr>
<tr>
<td>14</td>
<td>6</td>
<td>1,637</td>
<td>1.0</td>
</tr>
<tr>
<td>16</td>
<td>6</td>
<td>1,731</td>
<td>1.1</td>
</tr>
<tr>
<td>Unknown, est.</td>
<td>128</td>
<td>28,828</td>
<td>18.2</td>
</tr>
<tr>
<td>Totals</td>
<td>710</td>
<td>158,400</td>
<td>100.0</td>
</tr>
<tr>
<td>Total, Miles</td>
<td>N/A</td>
<td>30.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Material</th>
<th>Number of Line Segments</th>
<th>Pipe Length, LF</th>
<th>Percent of Sewer System</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCP</td>
<td>98</td>
<td>23,272</td>
<td>14.7</td>
</tr>
<tr>
<td>ACP</td>
<td>74</td>
<td>17,246</td>
<td>10.9</td>
</tr>
<tr>
<td>DIP</td>
<td>35</td>
<td>8,669</td>
<td>5.5</td>
</tr>
<tr>
<td>CIP</td>
<td>9</td>
<td>1,185</td>
<td>0.8</td>
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<tr>
<td>PVC</td>
<td>365</td>
<td>80,413</td>
<td>50.8</td>
</tr>
<tr>
<td>Unknown, est.</td>
<td>129</td>
<td></td>
<td>17.3</td>
</tr>
<tr>
<td>Total</td>
<td>710</td>
<td>158,400</td>
<td>100.0</td>
</tr>
<tr>
<td>Total, miles</td>
<td></td>
<td>30.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>
## Intro Table 3: Inventory of Sewer Lines by Pipe Age

<table>
<thead>
<tr>
<th>Age, Years</th>
<th>Construction Period</th>
<th>Percent of System*</th>
<th>Linear Feet of Main</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-15</td>
<td>2000 - current</td>
<td>10</td>
<td>15,840</td>
</tr>
<tr>
<td>56 – 75</td>
<td>1940 – 1959</td>
<td>10</td>
<td>15,840</td>
</tr>
<tr>
<td>76 - 95</td>
<td>1920 – 1939</td>
<td>20</td>
<td>31,680</td>
</tr>
<tr>
<td>95 - 115</td>
<td>1900 – 1119</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>&gt;115</td>
<td>Before 1900</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total, linear feet</strong></td>
<td></td>
<td></td>
<td><strong>158,400</strong></td>
</tr>
<tr>
<td><strong>Total Miles</strong></td>
<td></td>
<td></td>
<td><strong>30.0</strong></td>
</tr>
</tbody>
</table>

* Source: CIWQS Collection System Questionnaire 5/23/16
Definitions, Acronyms, and Abbreviations

**Asset Inventory Management Systems (AIMS)** – see CMMS

**Best Management Practices (BMP)**
Refers to the procedures employed in commercial kitchens to minimize the quantity of grease that is discharged to the sanitary sewer system. Examples include scraping food scraps into a garbage can and dry wiping dishes and utensils prior to washing.

**Building Lateral – see Private Sewer Lateral**

**Calendar Year (CY)**

**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. The electronic reporting requirement became effective on May 2, 2007 in Region 2.

**Capital Improvement Plan (CIP)**
Refers to the document that identifies future capital improvements to the City’s sanitary sewer system.

**Cast Iron Pipe (CIP)**

**City**
Refers to the City of Jackson

**Closed Circuit Television (CCTV)**
Refers to the process and equipment that is used to internally inspect the condition of gravity sewers.

**Computerized Maintenance Management System (CMMS)**
Refers to the computerized maintenance management system that is used by the City to plan, dispatch, and record the work on its sanitary sewer system. The City currently uses a system called Asset Inventory Management System (AIMS).

**Corrugated Pipe (CP)**

**CVRWQCB**
Refers to the Central Valley Regional Water Quality Control Board
**Ductile Iron Pipe (DIP)**

**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.

**Fats, Roots, Oils and Grease (FROG)**

**Feet per sec (fps)**

**First Responder**
Refers to the field crew or the On Call personnel that are the City’s initial response to an SSO event or other sewer system event.

**Fiscal Year (FY)**
Means a 12-month periods beginning July 1st and ending June 30th.

**Food Service Establishment (FSE)**
Refers to commercial or industrial facilities where food is handled/prepared/served that discharge to the sanitary sewer system.

**Full-time Equivalent (FTE)**
Refers to the equivalent of 2,080 paid labor hours per year by a regular, temporary, or contract employee.

**General Waste Discharge Requirements (GWDR or WDR)**

**Geographical Information System (GIS)**
Refers to the City’s system that it uses to capture, store, analyze, and manage geospatial data associated with the City’s sanitary sewer system assets.

**Global Positioning System (GPS)**
Refers to a field device it that is recommended to determine the longitude and latitude of sanitary sewer overflows for use in meeting CIWQS reporting requirements.

**Gallons per Day (GPD)**

**Grease Removal Device (GRD)**
Refers to grease traps and grease interceptors that are installed to remove FOG from the wastewater flow at food service establishments.
**High Density Polyethylene (HDPE)**

**Infiltration/Inflow (I/I)**
Refers to water that enters the sanitary sewer system from storm water and/or groundwater.

- Infiltration enters through defects in the sanitary sewer system after flowing through the soil.
- Inflow enters the sanitary sewer without flowing through the soil. Typical points of inflow are holes in manhole lids and direct connections to the sanitary sewer (e.g. storm drains, area drains, and roof leaders).

**Lateral – See Private Sewer Lateral**

**Legally Responsible Official (LRO)**
Person(s) designated by the City of Jackson to be responsible for formal reporting and certifying of all reports submitted to CIWQS and the SWRCB or CVRWQCB.

**Manhole (MH)**
Refers to an engineered structure that is intended to provide access to a sanitary sewer for maintenance and inspection.

**Mainline Sewer**
Refers to City wastewater collection system piping that is not a private lateral connection to a user.

**Monitoring, Measurement, and Plan Modifications (MMPM) Element IX of the SSMP.**

**Monitoring and Reporting Program (MRP)**

**Notice of Correction (NOC)**

**Notification of an SSO**
Refers to the time at which the City 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.

**Office of Emergency Services (OES)**
Refers to the California State Office of Emergency Services.

**Operations and Maintenance (O&M)**

**Overflow Emergency Response Plan (OERP) Element VI of this SSMP.**

**Pipeline Assessment and Certification Program (PACP)**
Refers to the NASSCO certification program that is used for the evaluation and condition assessment of sewer lines and appurtenances from closed circuit televising of the lines and appurtenances.

**Polyvinylchloride Pipe (PVC)**

**Publicly Owned Treatment Works (POTW) – see WPCP below**

**Preventive Maintenance (PM)**
Refers to maintenance activities intended to prevent failures of the sanitary sewer system facilities (e.g. cleaning, CCTV, repair, etc.).

**Private Sewer Lateral (PSL)**
That portion of a private property’s building sewer as defined by the plumbing code, and is further defined as the piping of a drainage system that extends from the end of the building drain to the public sewer which includes the connection to the public sewer unless there is a cleanout in the sidewalk or within two and half feet of the property line. In this case the property owner is responsible for the lateral from the building drain to the cleanout only.

**Private Lateral Sewage Discharges (PLSD)**
Sewage discharges that are caused by blockages or other problems within a privately owned lateral.

**Property Damage Overflow**
Refers to a sewer overflow or backup that damages a property owner’s premises.
Public Works (PW)

Pump Station (LS)
A facility that transmits and pumps sewage into the City gravity sanitary sewer collection system

Regional Water Quality Control Board (CVRWQCB)
Refers to the Central Valley Regional Water Quality Control Board.

Reinforced Concrete Pipe (RCP)

Sanitary Sewer Backup (Backup)
A wastewater backup into a building and/or on private property caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.

Sanitary Sewer Overflows (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 or Sewer System
Refers to the sanitary sewer facilities that are owned and operated by the City of Jackson and includes main line sewers, manholes, pump stations, force mains and certain lower laterals and any other appurtenances in the publicly owned sewer system.

Sensitive Areas
Refers to areas where an SSO could result in a fish kill or pose an imminent or substantial danger to human health.

Sewer Service Lateral
Refers to the piping that conveys sewage from the building to the City’s wastewater collection system or to the property line cleanout.

Sewer System Management Plan (SSMP)

Standard Operating Procedures (SOP)
Refers to written procedures that pertain to specific activities employed in the operation and maintenance of the sanitary sewer system.

Standard Specifications
Refers to the latest edition of Standard Specifications published by the City of Jackson.

State Water Resources Control Board (SWRCB)
Refers to the California Environmental Protection Agency, State Water Resources Control Board.

Note: The State Board is a separate entity from the Central Valley Regional Water Quality Control Board, although the two agencies are closely connected.
System Evaluation and Capacity Assurance Plan (SECAP) Element VIII of this SSMP.

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

Utility & Operations Division (U&O)

Vitrified Clay Pipe (VCP)

Waste Discharge Identification Number (WDID)
State of California Waste Discharge Identification Number for reporting sanitary sewer overflows and other required information required by the GWDR.

Waste Discharge Regulation (WDR) see GWDR above

Water Body
Any stream, creek, river, pond, impoundment, lagoon, wetland, or bay.

Water of the State
Refers to “any surface water or groundwater, including saline waters, within the boundaries of the state.” (California Water Code § 13050(e)).

Water of the United States or Surface Waters
Refers to the Environmental Protection Agency definition included in the Clean Water Act Part 230.3 Definitions.

Water Pollution Control Plan (WPCP)
The City owned sewage treatment facility operated by the Public Works Department and located at 400 East Jackson Avenue.

Water Quality Monitoring Program Plan (WQMP)

Work Order (WO)
Refers to a document (paper or electronic) that is used to assign work and to record the results of the work.
References


*Central Valley Regional Board*, Order R5-2013-0146-01National Discharge Elimination System Permit (NPDES) Permit No. 0079391
Element I: Goals

The goals of the City of Jackson SSMP are:

- To meet all applicable regulatory notification and reporting requirements.
- To protect public health and safety and the environment.
- To perform all operations and maintenance in a safe manner.
- To ensure corrective actions are taken in a timely manner.
- To involve employees in the strategic planning processes for the collection system.
- To maintain and improve the condition and performance of the collection system.
- To be available and responsive to the needs of the public and work cooperatively with local, state and federal agencies to reduce, mitigate the impacts of and properly report all SSOs.
- To implement regular proactive maintenance of the system to remove roots, debris and fats, oils and grease (FOG) in areas prone to blockages that may cause sewer backups or SSOs.

I-2. References - None

SWRCB Waste Discharge Requirement:

The goal of the Sewer System Management Plan (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 do occur.
II. Element II: Organization

SWRCB Waste Discharge Requirement:

The Sewer System Management Plan (SSMP) must identify:

a. The name of the responsible or authorized representative as described in Section J of this Order.

b. The names and telephone numbers for management, administrative, and maintenance positions responsible 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; and

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)).

II-1. Organizational Structure

The organization chart for the management, operation, and maintenance of the City’s wastewater collection system is shown below.

Figure II - 1: Jackson Public Works Collection Systems Organization Chart
II-2. Authorized Representatives

The City’s Legally Responsible Officials (LRO) for wastewater collection system matters as required by Section J of the WDR are identified below along with their roles and responsibilities for the collection system operations. They are authorized to submit electronic and written spill reports to the Office of Emergency Services (OES) to certify electronic spill reports and other required submittals to the SWRCB CIWQS. In addition the other City classifications that are responsible for collection system work are identified and their roles and responsibilities described.

City Manager - Establishes policy, plans strategy, leads staff and delegates responsibility, allocates resources, authorizes outside contractors to perform, services and may serve as public information officer.

Public Works Superintendent - Oversees the overall sanitary sewer program, communicates with the City Manager, provides reports to the City Council, establishes policy, plans strategy, reviews and certifies SSMP, allocates resources, delegates responsibility, authorizes outside contractors to perform services, and designates additional Legally Responsible Officials (LRO) to certify SSO reports and all Data Submitters (DS). Reports to Public Works Director.


Maintenance Worker Lead Worker - Legally Responsibility Official (LRO) Responds to SSOs. Performs preventive maintenance activities and responds to notification of stoppages and SSO’s. Reports to Public Works Supervisor.

Maintenance Worker I - Responds to SSOs. Performs preventive maintenance activities and responds to notification of stoppages and SSO’s. Reports to Public Works Supervisor.

City Engineer (Contract Employee) - Plans, designs, reviews, and prepares detailed engineering plans, specifications, cost estimates, contracts, and related documents for sewer and other public works projects. Coordinates with the Utilities and Operations Department on sanitary sewer system issues. Administers major public works projects. Updates engineering standard plans and specifications. Prepares reports, correspondence, budget documentation and other administrative documents. Prepares the Capital Improvement Plan and budget. Acts as resident engineer for public works projects.
**Administrative Assistant** - Provides clerical and administrative support to the collection system operations under direction of the Public Works Director. Supports the City AIMS system by producing and completing works orders into the AIMS system, by supporting the data management in the AIMS system. Receives and responds to public inquires related to public works operations. Supports public works staff as requested and required.

**Senior Building Inspector** - Ensure that new and rehabilitated assets meet City’s standard, works with field crew to handle emergencies when contractors are involved, and provides reports to the City Manager. Handles the FOG Control program.

**Contractors** - The City utilizes many outside service contractors to support collection system functions such as major electrical and instrumentation operations, major mechanical equipment, pump maintenance, engineering design and support and root control operations. These services are provided through service agreements or purchase orders issued by the City.

**II-3. Responsibility for SSMP Implementation and Maintenance**

The Public Works Superintendent shall have the overall responsibility for, implementing, periodically auditing, and maintaining the City’s SSMP. He/she may delegate these responsibilities to his/her staff.

Other City Staff responsible for developing, implementing, and maintaining specific elements of the City’s SSMP, along with their job titles and contact information, is shown in **Table II - 1**.
<table>
<thead>
<tr>
<th>Element</th>
<th>Element Name</th>
<th>Responsible City Official</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Introduction</td>
<td>City Manager</td>
<td>209-223-1646</td>
<td><a href="mailto:cmanager@ci.jackson.ca.us">cmanager@ci.jackson.ca.us</a></td>
</tr>
<tr>
<td>1</td>
<td>Goals</td>
<td>Public Works Superintendent</td>
<td>209-223-2178</td>
<td><a href="mailto:dwurzburger@ci.jackson.ca.us">dwurzburger@ci.jackson.ca.us</a></td>
</tr>
<tr>
<td>2</td>
<td>Organization</td>
<td>City Manager</td>
<td>209-223-1646</td>
<td><a href="mailto:cmanager@ci.jackson.ca.us">cmanager@ci.jackson.ca.us</a></td>
</tr>
<tr>
<td>3</td>
<td>Legal Authority</td>
<td>City Attorney</td>
<td>916-325-4000</td>
<td><a href="mailto:Joshua.nelson@bbklaw.com">Joshua.nelson@bbklaw.com</a></td>
</tr>
<tr>
<td>4</td>
<td>Operations and Maintenance Program</td>
<td>Wastewater Collection Technician</td>
<td>209-223-2178</td>
<td><a href="mailto:cinfo@ci.jackson.ca.us">cinfo@ci.jackson.ca.us</a></td>
</tr>
<tr>
<td></td>
<td>Design and Performance Provisions</td>
<td>City Engineer</td>
<td>209-754-1824</td>
<td><a href="mailto:g.ghio@wgainc.net">g.ghio@wgainc.net</a></td>
</tr>
<tr>
<td>6</td>
<td>Overflow Emergency Response Plan</td>
<td>Wastewater Collection Technician</td>
<td>209-223-2178</td>
<td><a href="mailto:cinfo@ci.jackson.ca.us">cinfo@ci.jackson.ca.us</a></td>
</tr>
<tr>
<td>7</td>
<td>Fats, Oils and Grease (FOG) Control Program</td>
<td>City Building Inspector</td>
<td>209-223-1646</td>
<td><a href="mailto:mhooper@ci.jackson.ca.us">mhooper@ci.jackson.ca.us</a></td>
</tr>
<tr>
<td>8</td>
<td>System Evaluation and Capacity Assurance Plan</td>
<td>Wastewater Collection Technician</td>
<td>209-223-2178</td>
<td><a href="mailto:cinfo@ci.jackson.ca.us">cinfo@ci.jackson.ca.us</a></td>
</tr>
<tr>
<td>9</td>
<td>Monitoring, Measurement and Program Modifications</td>
<td>Wastewater Collection Technician</td>
<td>209-223-2178</td>
<td><a href="mailto:cinfo@ci.jackson.ca.us">cinfo@ci.jackson.ca.us</a></td>
</tr>
<tr>
<td>10</td>
<td>Program Audits</td>
<td>Wastewater Collection Technician</td>
<td>209-223-2178</td>
<td><a href="mailto:cinfo@ci.jackson.ca.us">cinfo@ci.jackson.ca.us</a></td>
</tr>
<tr>
<td>11</td>
<td>Communications Program</td>
<td>Wastewater Collection Technician</td>
<td>209-223-2178</td>
<td><a href="mailto:cinfo@ci.jackson.ca.us">cinfo@ci.jackson.ca.us</a></td>
</tr>
<tr>
<td>Appendix A</td>
<td>SSO Change Log</td>
<td>Public Works Superintendent</td>
<td>209-223-2178</td>
<td><a href="mailto:dwurzburger@ci.jackson.ca.us">dwurzburger@ci.jackson.ca.us</a></td>
</tr>
</tbody>
</table>
II-4. SSO Reporting Chain of Communication

The SSO Reporting Chain of Command follows the Organization Chart shown above in Figure II - 1: Jackson Public Works Collection Systems Organization Chart. The SSO reporting process and responsibilities are described in detail in the Overflow Emergency Response Plan in Element VI and Appendix D.

II-4.1. Reporting Structure

The sewer crew reports to the Public Works Superintendent. These meetings are to encourage adequate communication among the groups and to ensure information is relayed and problems are addressed to provide better service to the customers.

Table II - 2: Contacts on the SSMP Organization Chart

<table>
<thead>
<tr>
<th>Title</th>
<th>Name</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Manager</td>
<td>Susan Peters</td>
<td>209-223-1646</td>
</tr>
<tr>
<td>City Engineer</td>
<td>Gary Ghio</td>
<td>209-754-1824</td>
</tr>
<tr>
<td>Public Works Superintendent</td>
<td>Dan Wurzburger</td>
<td>209-223-2178</td>
</tr>
<tr>
<td></td>
<td></td>
<td>209-304-3822</td>
</tr>
<tr>
<td>Maintenance Lead Worker - LRO</td>
<td>Bree Wilder</td>
<td>209-223-2178</td>
</tr>
<tr>
<td></td>
<td></td>
<td>209-304-8807</td>
</tr>
<tr>
<td>Administrative Assistant</td>
<td>Gisele Wurzburger</td>
<td>209-223-1646</td>
</tr>
<tr>
<td>Senior Building Inspector</td>
<td>Michael Hooper</td>
<td>209-223-2178</td>
</tr>
<tr>
<td></td>
<td></td>
<td>209-304-4038</td>
</tr>
<tr>
<td>Contractor Sweet Pea</td>
<td>Backup – Emergency Response Sewer Lift Stations</td>
<td>209-267-5010</td>
</tr>
</tbody>
</table>
II-4.2. **SSO Response Chain of Communication**

*Figure II - 2: Jackson SSO Response Chain of Communication Chart*

SSO Reporting Chain of Communications

- Public
- City Staff
- Probes
- Water Utilities Department
- Public Works Department
- Police Dispatch
- Wet Well Alarms
- Public Works Superintendent
- Field Crew
- Contain Spill
- Fix Problem
- Cleanup, Report
- RWQCB
- O.E.S.
- County Health Department
- SWRCB Web Site
II-4.2.1 **Responding to Service Calls**

- After the Sewer Maintenance Crew has contained the spill, fixed the sewer-related problem, and performed cleanup, the Sewer Maintenance Crew submits a report to the Public Works Superintendent.
- The SSO Reporting Process is described in detail in the Overflow Emergency Response Plan, Element VI of the SSMP, which has been prepared and is currently in-place.
- The City office is open Monday through Friday, 8:30 A.M. to 5:00 P.M. All service calls received during the business hours are directed to the Public Works Superintendent or Lead Worker and the information are recorded with a Service Call Number assigned to the service call. The office receptionist then relays the message to the Public Works Superintendent. Service calls received after business hours are directed to call 911 at the County Sheriff’s Department Dispatch Center, and the message is relayed to the designated on-call sewer worker. The sewer worker summons additional help as necessary.
- The ability of the police, fire department, or citizen to be able to talk to a live person 24 hours per day adds the positive benefits of human interaction, significantly reducing the possibility of a missed call or misunderstanding about the nature of a problem.
- The Maintenance Lead Worker reports on every SSO. All SSO reports are forwarded to the appropriate regulatory agencies.

II-4.3. **Legally Responsible Officials (LRO)**

1) Maintenance Lead Worker, Bree Wilder

II-5. **References - None**
III Element III: Legal Authority

SWRCB Waste Discharge 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:

- Prevent illicit discharges into its sanitary sewer system (examples may include I/I, stormwater, chemical dumping, unauthorized debris and cut roots, etc.);
- Require that sewers and connections be properly designed and constructed;
- Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;
- Limit the discharge of fats, oils, and grease and other debris that may cause blockages, and enforce any violation of its sewer ordinances.

III-1. Municipal Code
The Jackson Municipal Code describes the City’s current legal authority required for compliance with the GWDR. That authority is specifically contained within of the Municipal Code and generally within other Municipal Code Titles that are summarized below.

Table III - 1: Summary of Legal Authorities City of Jackson Municipal Code and Other Sources

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Jackson Municipal Code Title 13: Public Utilities, Sewers</th>
</tr>
</thead>
</table>
| Prevent illicit discharges into the wastewater collection system | 13.20.20  
|  | 13.20.160  
|  | 13.20.170  
|  | 13.20.180  |
| Limit the discharge of fats, oils, and grease and other debris that may cause blockages | 13.20.190  
<p>|  | 13.20.200  |</p>
<table>
<thead>
<tr>
<th>Requirement</th>
<th>Jackson Municipal Code Title 13: Public Utilities, Sewers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Require that sewers and connections be properly designed and constructed</td>
<td>13.20.050 13.20.060 13.20.090</td>
</tr>
<tr>
<td>Require proper installation, testing, and inspection of new and rehabilitated sewers</td>
<td>13.20.290</td>
</tr>
<tr>
<td>Clearly define City responsibility and policies for sewer lateral ownership, maintenance and rehabilitation or repair</td>
<td>13.20.010 13.20.155</td>
</tr>
<tr>
<td>Ensure access for maintenance, inspection, or repairs for portions of the service lateral owned or maintained by the City</td>
<td>13.20.010 Not applicable</td>
</tr>
<tr>
<td>Control infiltration and inflow (I/I) from private service laterals</td>
<td>13.20.155</td>
</tr>
<tr>
<td>Requirements to install grease removal devices (such as traps or interceptors), design standards for the grease removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements</td>
<td>13.20.190 13.20.200 14.04.10F 14.04.40</td>
</tr>
<tr>
<td>Authority to inspect grease producing facilities</td>
<td>13.20.290</td>
</tr>
<tr>
<td>Enforce any violation of its sewer ordinances</td>
<td>13.20.320 1.20 1.22</td>
</tr>
</tbody>
</table>

### III-2. Agreements with Satellite Agencies

The City of Jackson has one (1) extraterritorial service to the Mariposa area that serves approximately thirty (30) residential units.

### III-3. References

- City Municipal Code Titles 13 and 14
IV Element IV: Operations and Maintenance

SWRCB Waste Discharge Requirement:

The Sewer System Management Plan (SSMP) must include those elements listed below that are appropriate and applicable to the Enrollee’s system:

a) Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance 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 condition 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- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan; and

d) Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained; and provide equipment and replacement part inventories, including identification of critical replacement parts.

IV-1. Collection System Mapping

The wastewater collection system map and the storm water drainage map include the facilities and basic map information described herein. Some areas or facilities may not
have the complete information; however, the maps are updated during operation and maintenance of the collection system and during implementation of City projects.

IV-1.1. **Wastewater collection system map**

- Manhole – ID number, location with reference to streets and property lines.
- Pipe and Force Main – name, location, size, shape, direction of flow, length, type of material.
- Pump Station – name, location.

IV-1.2. **Storm drainage map**

- Manhole – ID number, location.
- Storm water facilities – direction of flow, location, size.
- Pump Station – name, location.

The storm water facilities are not included on the same wastewater collection system map, but are shown on a separate set of maps. However, all of these maps are readily accessible to cross-verify the existence of both sanitary sewer and storm drainage facilities at the Corporation Yard and at the Engineering Office. In addition, the emergency response vehicles have copies of both of these maps. All maps are updated by Engineering based upon reports of changes from the field, additions or changes due to capital project work or other changes identified by either Public Works or Engineering.

**IV-2. Operations and Preventive Maintenance**

The elements of the City’s sewer system O&M program include:

- Proactive, preventive, and corrective maintenance of gravity sewers;
- CCTV inspection program to determine the condition of the gravity sewers following emergency responses and other operations related problems;
- Rehabilitation and replacement of sewers that are in poor condition; and
- Periodic inspection and preventive maintenance for the pump stations and force mains.

The City Public Works Department is responsible for the operations, maintenance and emergency response for all collection system assets. The Public Works staff is responsible for all traditional Public Works programs and has allocated approximately 1.75 full time equivalent (FTEs) to the collections program.
IV-2.1. **Gravity Sewers**

IV-2.1.1 **Cleaning**

The City has historically cleaned the entire Sanitary Sewer System on a 15 year frequency or about two miles per year. With the hiring of an additional employee and changes to the cleaning practices applied to the collection system the cleaning schedule has been amended to a 5 year frequency.

In addition, a separate cleaning program for hotspot locations is also conducted by the City. Summary list of the hot spot lines is shown below in Table IV-1. These lines are cleaned more frequently due to the deposition of FOG and/or roots. The cleaning is done based upon field inspection of adjacent manholes.

<table>
<thead>
<tr>
<th>Line Location</th>
<th>Line Size, inches</th>
<th>Description of the Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>420 N. Main Street</td>
<td>8</td>
<td>Roots and backyard line</td>
</tr>
<tr>
<td>326 Broadway</td>
<td>6</td>
<td>Grease in a low spot</td>
</tr>
<tr>
<td>2 Water Street</td>
<td>6</td>
<td>Misaligned joints</td>
</tr>
</tbody>
</table>

The historical line cleaning results have not been maintained in the past. The City has initiated a new process in 2017 for the tracking of all line cleaning performance as outlined in Element IX.

IV-2.1.2 **CCTV Inspection and Condition Assessment**

The City currently conducts limited CCTV assessments of its mainline sewers. With the hiring of an additional employee and changes to the maintenance practices applied to the collection system the CCTV schedule has been revised. Inspections will be done over a 2 year period for non-PVC lines or approximately 25,000 linear feet per year. A schedule for CCTV inspection on PVC lines will be implemented after completion of the 2 year schedule.
No formal performance results are currently available but the City does CCTV after all SSO events and other areas where problems with cleaning require visual inspection of the lines. The City has recently instituted new procedures for the proper tracking and reporting of all CCTV work done in the sewer collection system and will report the results regularly as stated in Element IX of this SSMP.

The City will be evaluating by the next SSMP audit the use of pipeline condition assessment techniques such as PACP for future pipeline CCTV evaluations and assessments. This information will be used to inform and establish priorities for the renewal and replacement of sewer lines as well as repairs to reduce infiltration and inflow.

**IV-2.1.3 Root Foaming**

The City conducts root foaming of lines as needed to areas that are known to have root related intrusions. No formal program definition has currently been defined. The City will, within the next five years, formalize the root foaming program and define the locations and requirements for the use of this maintenance activity.

**IV-2.2. Pump Stations**

The City operates and maintains three pump stations and associated force mains: ranging in capacity from 200 to 600 gallons per minute (gpm). Each of the 3 pump station locations and descriptions and associated force mains are identified and described in Table IV - 2: Pump Station Locations and Descriptions and Table IV - 3: Force Main Locations and Descriptions shown on the following pages.

The City conducts regular operational inspections of its pump stations.

All pump stations include alarm call boxes that automatically page City staff if unusual conditions or alarms are registered 24/7. The High School Pump Station also has an audible alarm system at the station when any station malfunctions occur. The audible alarm requires direct reporting to the City or County Dispatch when is sounds. The Public Works Superintendent is responsible for all work scheduling and documentation for the pump stations maintenance. In addition, he/she is to provide training to other collections system staff on the operations of each pump station so that staff is familiar with emergency response procedures in case of emergencies. An outside service contractor specializing in pump station maintenance provides major high voltage electrical maintenance to all three stations.

The Public Works Department has established emergency response procedures during power outages for pump station operations. The City has individual pump station
contingency plans for each of the stations. These documents include important response information from SSOs that might reach Waters of the United States.

The contingency plans include wet well retention times, overflow containment directions and locations and directions of overflow paths from the stations. These procedures are intended to assure the maximum protection of the City’s very important environmentally sensitive areas. All emergency response employees are trained and required to understand these important procedures.

**Table IV - 2: Pump Station Locations and Descriptions**

<table>
<thead>
<tr>
<th>Pump Station Name/Install Date</th>
<th>Pump Station Address</th>
<th>Number of Pumps</th>
<th>Pump Manufacturer</th>
<th>Pump Station Capacity, gpm</th>
<th>Standby Power, kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scottsville</td>
<td>NE Corner Scottsville Dr &amp; Hwy 49</td>
<td>2</td>
<td>Flygt</td>
<td>400</td>
<td>Currently being rehabilitated</td>
</tr>
<tr>
<td>West View</td>
<td>End of Arroyo Drive</td>
<td>2</td>
<td>Barnes</td>
<td>600</td>
<td>12</td>
</tr>
<tr>
<td>High School</td>
<td>501 Argonaut Lane</td>
<td>2</td>
<td>Flygt</td>
<td>200</td>
<td>14</td>
</tr>
</tbody>
</table>
Table IV - 3: Force Main Locations and Descriptions

<table>
<thead>
<tr>
<th>Force Main Name/Install Date</th>
<th>Force Main Length, LF</th>
<th>Force Main Size, Inches</th>
<th>Force Main Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scottsville</td>
<td>1,700</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>West View</td>
<td>1,100</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td>1,400</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>4,200</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

IV-2.3. **Private Sewer Laterals**

The City has no responsibility for the installation, maintenance, operation, repair or replacement of private sewer laterals from the building to the City sewer mains. A recent revision to the City ordinances (Ordinances 698 and 699, Municipal Code Section 13.20.155) has clearly placed the full responsibility for operation, maintenance, repair, and replacement with the private property owner.

IV-2.4. **Rehabilitation and Replacement Program**

The City’s Capital Improvement Plan for the next five (5) years is being developed from the recent Infiltration and Inflow Study in April 2016 and from staff evaluations of field conditions inspected during the recent winter rains as well as evaluation of illegal connections found in areas of high I/I. The information gathered from the I/I Study and during these field assessments was used to select gravity sewers for repair/rehabilitation/replacement. The City has estimated the costs for identified improvements to date and will be scheduling these improvements over the next five years as part of the Council approval of the 2017/18 Capital Improvement Program.

The City intends to establish a more comprehensive sewer rehabilitation and replacement program in the next year as they evaluate the means and methods along with the costs of a more comprehensive program for the collection system. The current projects that are included in the **City’s Renewal & Replacement Program Budget are listed in Appendix IV-B**. The funds that support the Capital Improvement Program come from
the City’s sewer service charges that are based upon a regular sewer service charge rate analyses.

IV-2.5. **Training**

The City uses a combination of in-house classes and field exercises, on the job training, conferences, seminars, OSHA classes, and other training opportunities that are provided in the California area. The City requires all but entry level wastewater collection system employees to be certified in Collection System Maintenance by the California Water Environment Association. The certification process requires employees to demonstrate that they have participated in 12 hours of training every two years in order to renew their certificates.

The City conducts department seminars for its wastewater collection system employees on collection system regulations and both the SSMP and OERP annually, including volume estimation and SSO start time determinations. This training includes field exercises in the estimation of SSO volume and SSO containment.

In addition, the City conducts annual confined space entry and certification for all employees that might be required to enter confined spaces anywhere in the City. Finally, the City conducts weekly tailgate meetings with all collections system staff to discuss topics related to safety, operations, and performance expectations.

IV-2.6. **Equipment and Replacement Parts**

The list of the major equipment that City uses in the operation and maintenance of its sewer system is included in Appendix IV-C: Major Sewer System Equipment Inventory.

The City has developed a Critical Replacement Parts List. It has also developed a Replacement Parts Inventory procedure that is included in Appendix IV-D: Critical Sewer System Replacement Parts Inventory.

IV-2.7. **Outreach to Sewer Service Contractors**

Public Works Standards for Public Works Construction on City projects require plumbers and contractors to implement proper procedures in preventing blockages in sanitary sewer laterals and sewer mains. Plumbers and contractors are required to use the specific materials and methods, and to conduct good housekeeping during their work, such as removal of foreign materials in the pipes, by not disposing or pushing these materials into the main. In addition, during lateral maintenance, plumbers are required to place traps downstream of the lateral to catch and dispose of all materials from cleaning.
During permit applications or response to questions from plumbers and building contractors, Public Works refers this group of people to the City Standard Drawings and the City Municipal Code that are both available on the web or at the Public Works counter at City Hall where experienced staff are always available.

The City’s standard service and construction contract language requires all contractors working in the wastewater collection system to provide training for their employees on the City’s Sanitary Sewer Overflow Emergency Response Plan, or demonstrate they have been trained on an equivalent emergency response plan of their own.

The City’s general provisions provide language requiring that contractor’s certify to the City that their emergency response programs are at least as comprehensive as the City OERP. Emergency response procedures are reviewed at all pre-construction meetings and regularly during City construction projects.

All construction contractors working on City 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.

IV-3. References - None
IV-4. Element IV Appendices

Appendix IV-A: Standard Operating Procedures

The purpose of this Standard Operating Procedure (SOP) is to aid staff in prompt and responsible SSO response and is intended only as a condensed version of the Sewer System Management Plan (SSMP).

Addressing Service Calls

1. The regular working hours are Monday through Thursday from 6:00 am to 4:00 pm, except holidays. When a report of a sewer spill or backup is made, City staff reports the call to the Public Works Superintendent who responds to the caller and takes the pertinent information.
2. After working hours, callers are referred to the on-call Public Works employee who then responds to the incident.
3. The response measures will be based on the information provided by the caller, weather and traffic conditions, small back up vs. sewage flowing on the ground, etc. If additional help is needed, the on-call employee will contact other employees, contractors, and/or equipment supplies as necessary.

Responding to SSO

1. The Responder shall visit the site immediately in an attempt to minimize or eliminate an overflow. Respond with the appropriate vehicle depending on the situation.
2. Upon arrival at the site, clearly assess the situation and comply with all safety precautions (traffic, confined space, etc.) and verify the existence of a sewer system spill or backup.
3. Identify and assess the affected area and extent/impact of the spill and request additional help as needed for line cleaning or repair, containment, recovery, lab analysis and site cleanup.
4. Using the appropriate cleaning equipment, set up downstream of the blockage and hydro clean upstream from a clear maintenance hole. Attempt to remove the blockage from the system and observe the flows to ensure that the blockage does not recur downstream.
5. If the blockage cannot be cleared within a reasonable time or conveyance system requires construction repairs, contingency plans must be employed as needed, including containment, bypass pumping, contractual assistance etc.
6. Use barricades, caution tape, cones, etc. as needed to keep the public away from a sewage release.
7. If the spill reaches a drainage channel or water body, refer to the sampling requirements in Appendix E of this document.
8. Accurate and responsive reporting is vital. Refer to the reporting requirements in Appendix D – Overflow Emergency Response Plan.
## Appendix IV-B: Renewal & Replacement Program Budget in $1000’s

<table>
<thead>
<tr>
<th>Description</th>
<th>FY 16-17</th>
<th>FY 17-18 to 22/23 est.*</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewer Pipeline Repairs and Replacements</td>
<td>200,000</td>
<td>0</td>
<td>200,000</td>
</tr>
<tr>
<td>Equipment Purchases</td>
<td>50,000</td>
<td>0</td>
<td>50,000</td>
</tr>
<tr>
<td>Court Street Sewer Replacement</td>
<td>0</td>
<td>15,000</td>
<td>15,000</td>
</tr>
<tr>
<td>Clinton Road Sewer Bursting</td>
<td>0</td>
<td>80,000</td>
<td>80,000</td>
</tr>
<tr>
<td>Rose Lane Sewer Replacement</td>
<td>0</td>
<td>13,000</td>
<td>13,000</td>
</tr>
<tr>
<td>Broadway Sewer Replacement</td>
<td>0</td>
<td>15,000</td>
<td>15,000</td>
</tr>
<tr>
<td>Kern Street Sewer Replacement Phase II</td>
<td>0</td>
<td>20,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Infiltration/Inflow Projects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Westview Subdivision Manhole Replacements</td>
<td>0</td>
<td>130,000</td>
<td>148,000</td>
</tr>
<tr>
<td>Rose Lane Manhole Replacement</td>
<td>0</td>
<td>13,000</td>
<td></td>
</tr>
<tr>
<td>Deter Park Manhole Replacement</td>
<td>0</td>
<td>5,000</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>250,000</td>
<td>291,000</td>
<td>541,000</td>
</tr>
</tbody>
</table>

*Due to staff changes the City will be prioritizing project schedules above with the 17/18 budget for the next five years.*
## Appendix IV-C: Major Sewer System Equipment Inventory

<table>
<thead>
<tr>
<th>Equipment Number</th>
<th>Major Equipment Type</th>
<th>Year Purchased</th>
</tr>
</thead>
<tbody>
<tr>
<td>n/a</td>
<td>1991 Ford 1,600 Gallon Vactor Truck</td>
<td></td>
</tr>
<tr>
<td>n/a</td>
<td>Trailer Mounted Vacuum</td>
<td></td>
</tr>
<tr>
<td>n/a</td>
<td>1976 Truck with Electric Eel – 400 Foot Rod</td>
<td></td>
</tr>
<tr>
<td>n/a</td>
<td>HYD Rodder with 500 Foot Rod</td>
<td></td>
</tr>
</tbody>
</table>

* Equipment Inventory as of April 2017
### Appendix IV-D: Critical Sewer System Replacement Parts Inventory

<table>
<thead>
<tr>
<th>Part Description as of February 2016</th>
<th>Number in Inventory</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Various sizes of pipe fittings</td>
<td>n/a</td>
<td>Corporation Yard</td>
</tr>
<tr>
<td>Various sizes of pipe</td>
<td>n/a/</td>
<td>Corporation Yard</td>
</tr>
</tbody>
</table>
Element V: Design and Performance Provisions

SWRCB Waste Discharge Requirement:

a) Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and
b) Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.

V-1. Design Criteria for Installation, Rehabilitation and Repair

The City Improvement Standards, April 2012, are maintained and administered by the Engineering Department of the City with input from the Public Works Department. Design standards are included in Section 12 and Construction standards are included in Section 15 supplemented by Standards Details in Section 16.

V-1.1. General

The City’s standards provide for both new construction and rehabilitation and repair of all main line sewers, trunk sewers, manholes, and other collection system appurtenances in Section 15. Pump station design and construction testing are as required, by the City Engineer, of private design professional engineers.

V-1.2. Private Sewer Systems and Private Laterals

The City has just recently amended the City Municipal Code to clarify the roles and responsibilities for private property owners (Section 13.20.155). The changes clearly state that the City has no responsibility for any private sewer systems or sewer laterals. As defined a private lateral (service lateral) is any sewer line connecting one or more buildings to City sewer mains. All private systems or lines are required to follow requirements in the City of Jackson Uniform Plumbing Code and are inspected by the City Building Department prior to approval to discharge.

V-2. Inspection and Testing Criteria

The City assigns an inspector or contracts with an engineering firm to inspect new construction, rehabilitation and repair projects. The inspector ensures that all construction complies with City standards and codes prior to acceptance of the work.
The procedures and standards for inspecting and testing the installation of new sewers and its appurtenances, rehabilitation and repair projects are described in the City standards and specifications, contract documents, manufacturer’s specifications and the City Municipal Code. These include testing of manholes, gravity pipes, force mains, cleanouts, pump stations and valves; compaction and material testing; pipe cleaning and CCTV inspections; requirements for performance bonds; inspection fees; and inspectors checklists which needs to be addressed before acceptance of the work

V-3. References

- City of Jackson Improvement Standards, April 2012
Element VI: Overflow Emergency Response Plan

SWRCB Waste Discharge Requirement:

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 the Waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The Sewer System Management Plan (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; and

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.

VI-1. Purpose

The purpose of the City’s Overflow Emergency Response Plan (OERP) is to support an orderly and effective response to Sanitary Sewer Overflows (SSOs). The OERP provides guidelines for City personnel to follow in responding to, cleaning up, and reporting SSOs that may occur within the City’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.

VI-2. Policy

The City’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 City’s goal is to respond to sewer system overflows as soon as possible following notification. The City 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).

VI-3. Goals

The City’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.

VI-1. Complete Overflow Emergency Response Plan

The complete City of Jackson Overflow Emergency Response Plan is included in Appendix D along with all field response packets. The MRP required Water Quality Monitoring Plan is included in Appendix E.

VI-2. References

- Sanitary Sewer Overflow and Backup Response Field Guide, 2016, 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
• City of Jackson Water Quality Monitoring Plan, August 2016
Element VII: Fats, Oils, and Grease (FOG) Program

SWRCB Waste Discharge 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 for 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) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;

b) 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;

c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;

d) 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;

e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;

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

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

VII-1. Nature and Extent of FOG Problem

FOG has not been a major problem in the City and contributes a very small percentage of the total overflows in the past. The majority of City SSOs are caused by roots and debris in the collection systems. The City currently has twenty-three (23) food service establishments in the City system that are listed as having grease handling facilities. The City
is in the process of defining a more aggressive FOG program and is currently identifying additional FSEs located within their city limits.

**Table VII - 1: Historical FOG-Related SSOs** below lists the total number of FOG-related mainline SSOs in 2013.

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>2</td>
</tr>
</tbody>
</table>

VII-2. **FOG Control Program & Inspections**

The City’s FOG Control Program is intended to work in conjunction with the City’s preventive maintenance program to prevent FOG-related SSOs. It remains an essential component in meeting and maintaining its projected SSO reduction performance goals. The elements of the City’s FOG Control Program include:

- Requirement for the installation of grease removal devices (GRDs);
- Permitting food service establishments (FSE);
- Requirement for proper operation and maintenance of GRDs;
- Verification of grease handling and disposal practices;
- FSE inspections;
- Public Education and Outreach; and
- Enforcement.

The City Building Inspection Department is responsible for administering the City’s FOG Control Program and has recently taken over the program from the City Wastewater Treatment Plant and is working to develop a more complete program. In the past the City maintained a list of FSEs in the service areas but has not necessarily conducted regular inspections nor has enforcement been required as grease has not been found to contribute to SSOs. It is anticipated that within the next year a more formal program including application process and expanded permitting requirements will be defined along with revisions to the City Municipal Code to assure the City has the full authority to address FOG issues. The Building Inspector has already defined Inspection Forms, created grease related BMPs (see Appendix G) and is developing revisions to the Code that will provide for full enforcement for failures to properly handle FOG discharged to the City collection.
system. The City will also be updating and adopting the revisions to the Uniform Plumbing Code.

The legal authority to implement, monitor, and enforce the elements of the FOG Program in the service area is governed in Chapter 13.20 of the Municipal Code and in the California Plumbing Code Jackson Municipal Code, Chapter 14.04.010F. These code sections provide the legal authority to prohibit FOG discharges to the sanitary sewer collection system.

FSEs subject to the FOG Program are required to install GRDs consistent with the recommended procedures for design, construction, and installation based on the current adopted Jackson Plumbing Code enforced by the Building Inspector. Plan check review for grease removal device installation is coordinated during the building permit application process.

FSEs subject to the FOG Program will be required to obtain a wastewater discharge permit, which provides the legal framework to enforce the elements of the FOG Program. The discharge permit contains specific permit conditions, which require FSEs to implement FOG Best Management Practices (BMP) including:

- Proper GRD operation and maintenance;
- Documentation and retention of GRD pumping/cleaning activities;
- Employee training on FOG handling BMPs, proper equipment cleaning, spill response clean up and control procedures;
- Prohibition on the installation and use of food waste disposal grinder;
- Proper disposal of grease, oils, and meat fat; and
- Prohibition on the use or addition of chemical or biological agent for the maintenance of GRD.

The discharge permit will provide information on facility specifics relating to local limits, inspection requirements and rights of entry, reporting requirements relating to spill or accidental discharges, records retention, confidential information, limit or permit transfer, perjury clause, fees, permit duration, and renewal process. The City will initiate progressive enforcement actions for various field violation scenarios which include verbal and written notice of correction, notices of violations, cleanup requirements, and administrative and criminal penalties. Each level of corrective action includes a schedule to achieve timely compliance. Inspectors will strive to provide educational information to ensure FSE staff and management to ensure continued compliance with their discharge permit. Collection crew provides additional outreach by distributing FOG door hangers.
and brochures to homeowners during service calls and routine preventive maintenance activity.

**VII-3. Response to GWDR Requirements**

**Requirement (a):**

An implementation plan and schedule for a public education outreach program should promote proper disposal of FOG.

**Response:**

In order to educate the public on proper FOG disposal, a residential outreach program will be initiated by the City upon adoption of the revisions to the SSMP. This program will include the following activities:

- FOG prevention messages will be placed on the sewer page of the City website.
- Regular display of educational handouts at City Hall.

**Requirement (b):**

A plan and schedule for the disposal of FOG generated within the 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.

**Response:**

The City has identified grease hauler that operate in the local area and included it as **Table VII - 2: Fats, Oils and Grease Haulers** shown below. The City will be searching for additional haulers and locations

**Requirement (c):**

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

**Response:**

The Titles 13 and 14 of the Jackson Municipal Code provides the legal basis and authority for the City’s FOG Control Program as stated in Element III of this SSMP. Additional authority will be developed and taken to the City Council within the next year that will enhance and expand the FOG program.
Requirement (d):

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

Response:

The City’s FOG Control Program described above, currently meets these requirements. The Uniform Plumbing Code of the City of Jackson provides the proper authority for the installation and Municipal Code Section 13.20.290 provides the inspection authority. The City intends within the next year to add additional Code authority to clarify maintenance, recordkeeping, and reporting requirements.

Requirement (e):

Authority to inspect grease producing facilities, enforcement authorities, and determination of whether the collection system agency has sufficient staff to inspect and enforce the FOG ordinance.

Response:

The City’s Municipal Code Section 13.20.290 provides the authority to enter into private property to inspect sewage discharging facilities.

Requirements (f) and (g):

Requirement (f) is an identification of sewer system sections subject to FOG blockages and the establishment of a cleaning maintenance schedule for each section, and Requirement (g) is the development and implementation of source control measures, for all sources of FOG discharged to the sewer system.

Response:

The City has identified only one pipe segment that requires enhanced maintenance. The City will be conducting future CCTV assessments to further evaluate the need for a broad hot spot maintenance program. The City does immediately try to repair situations resulting from grease or other pipe problems as soon as possible when these situations are identified.
Table VII - 2: Fats, Oils and Grease Haulers

<table>
<thead>
<tr>
<th>Grease Hauler</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACES Waste Services</td>
<td>209-274-2237</td>
</tr>
<tr>
<td></td>
<td>209-296-2237</td>
</tr>
<tr>
<td>SRC Companies</td>
<td>800-339-6493</td>
</tr>
<tr>
<td></td>
<td>916-363-4821</td>
</tr>
<tr>
<td>Reno Rendering Co.</td>
<td>800-733-6498</td>
</tr>
<tr>
<td>Sweet Pea Septic Services</td>
<td>209-267-5010</td>
</tr>
</tbody>
</table>

VII-4. References - None
Element VIII: System Evaluation and Capacity Assurance Plan

SWRCB Waste Discharge Requirement:

The Enrollee shall prepare and implement a Capital Improvement Plan (CIP) 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 from 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- 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 programs, 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 Sewer System Management Plan (SSMP) review and update requirements as described in Section D. 14.

VIII-1. System Evaluation - Collection System Master Plan

As part of the City evaluation of improvements to the wastewater treatment facility improvements project, the City collection system for infiltration and inflow in three branches of the City collection system were reviewed and evaluated. That evaluation resulted in a determination that the system did contain sufficient I/I to warrant further investigation. That determination was based upon a per capita flow criteria for influent
flow at the wastewater treatment as stated in both California and Environmental Protection Agency (EPA). These findings were stated in Chapters 5 and 8 of the January 30, 2015 City of Jackson Wastewater Treatment Facility Improvements Project Report by Stantec.

Subsequent to the submittal of that report the City, following a collection system inspection by the RWQCB in January 2016, received a Notice of Violation and a 13267 Order for information relative to the operation and maintenance of the City collection system. One of the required submittals was Infiltration and Inflow Reduction Report. The City hired Weatherby-Reynolds-Fritson Engineering & Design to prepare the required report which identified ten (10) areas where illegal connections to the City collection system from roof leaders and down spouts. The City has been working directly with the property owners to eliminate these connections. In addition, the City staff has undertaken steps through the 2017 winter months to identify and locate leaking manholes with direct groundwater inflows to the collection system. This work has resulted in the development of a list of capital improvement projects identified in Appendix IV-B that will be prioritized over the next five years as part of the 2017/2018 Capital Improvement Program.

The City has not in the past developed a comprehensive capacity evaluation of the collection system facilities nor has it completed a condition assessment of all collection system pipes. The City staff is not aware of any existing capacity restrictions from the operations of the collection system in the past. The City staff does however perform CCTV inspections of areas that exhibit maintenance challenges or where SSOs have been experienced. The staff will be developing a formal evaluation and condition assessment program of the City facilities in the next five years to include regular CCTV condition Assessment based upon PACP, further identification of I/I locations and leaking pipes and completion of a Sewer System Master Plan to prioritize improvements that are found from theses evaluations.

VIII-2. Design Criteria

The capacity-related design criteria, including base wastewater flow and peaking factors, are included in the 2012 City of Jackson Improvement Standards detailed in Element V above.

The City annually prepares a list of capital improvement projects. The City’s Capital Improvement Program Budget is included as Appendix IV-B, Renewal & Replacement Program Budget in $1000s. The City is in the process of developing a system wide capacity evaluation program that will include training for City employees in PACP.
condition assessment techniques for CCTV, development of a CCTV program starting with the oldest or most likely locations for SSOs that will result in the full assessment of all 30 miles of the collection system in ten (10) years, continued evaluation of illegal connections to the collection system, and finally the preparation of a Sewer System Master Plan including evaluation of system capacity deficiencies and the development of a pipeline priority system for repairs and replacements of pipelines.

### VIII-3. Schedule

The City has identified several current pipe and manhole improvements for the elimination of I/I that will be prioritized as part of the 2017/18 Capital Improvement program. Development of the broader capacity related program in Section VIII-2 above will be detailed and scheduled as part of the 2018/19 Capital Improvement Program.

### VIII-4. References

- City of Jackson Wastewater Treatment Facility Improvements, Stantec Consulting Services, Inc., Chapter 5, January 30, 2015
- Infiltration and Inflow (I/I) Reduction Report, WRF Engineering and Design, April 20, 2016
- City of Jackson Improvement Standards, April 2012, Chapters 12, 13 and 15
Element IX: Monitoring, Measurement, and Program Modifications

SWRCB Waste Discharge Requirement:

The Enrollee shall:

a. Maintain relevant information that can be used to establish and prioritize appropriate Sewer System Management Plan (SSMP) activities;
b. Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;
c. Assess the success of the preventive maintenance program;
d. Update program elements, as appropriate, based on monitoring or performance evaluations; and
e. Identify and illustrate SSO trends, including: frequency, location, and volume.

IX-1. Performance Measures

The indicators that the City will use to measure the performance of its wastewater collection system and the effectiveness of its SSMP are:

- Total number of SSOs;
- Number of SSOs for each cause (roots, grease debris, pipe failure, capacity, pump station failures, and other);
- Portion of sewage recovered compared to total volume spilled;
- Volume of spilled sewage discharged to Waters of the State;
- CCTV inspection, linear feet;
- Mainline cleaning, linear feet;
- Hot spot cleaning, linear feet; and
- Annual SSO Rate per 100 miles.

IX-2. Baseline Performance

The City has performance measures in place and it will evaluate its performance annually following the end of the fiscal year. The City began tracking these performance measures in 2016 but will hereinafter collect the information on a fiscal year basis. The 2016 SSO summaries are provided in the Tables IX-1 to IX-3. The City SSO rate for 2016 is 32.3 SSOs per 100 miles of public lines (mainlines plus force mains). In comparison the SSO
rates for Region 5S and for all reporting collection systems are 10.18 and 1.03 for the same period as the Jackson rate.

IX-2.1.  Mains, Pump Stations, and Force Mains

The baseline performance and SSO trends for gravity mains, Pump stations, and force mains are shown below.

Table IX - 1: Gravity Sewer, Pump Station, and Force Main SSOs by Fiscal Year

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Gravity Sewer SSOs</th>
<th>Pump Station SSOs</th>
<th>Force Main SSOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>10</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table IX - 2: FY Totals for SSOs by Cause

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Roots</th>
<th>Debris</th>
<th>Grease</th>
<th>Capacity</th>
<th>Other</th>
<th>Pipe Failure</th>
<th>PS Failure</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>10</td>
</tr>
</tbody>
</table>

Table IX - 3: FY Totals for Sewer Mains (Volume Spilled, Portion Contained, and Volume to Surface Waters)

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Total Volume Spilled, gallons</th>
<th>Portion Contained and Returned to Sewers, %</th>
<th>Total Volume Entering Surface Waters, gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>24,739</td>
<td>310</td>
<td>2,527</td>
</tr>
</tbody>
</table>

IX-3.  Performance Monitoring and Program Changes

The City will evaluate the performance of its wastewater collection system at least annually at the end of a fiscal year using the performance measures identified in this Element. The City will update the data and analysis at the time of the evaluation and will place the annual performance report in Appendix F.
The City may use other performance measures in its evaluation. The City will prioritize its actions and initiate changes to this SSMP, its operations and maintenance practices, and any related programs based on the results of the evaluation. This will be done as part of the annual self-audit (see Element X).

IX-4. References

The data used in this section were taken from the following:

- CIWQS SSO data as of March 27, 2017
Element X: SSMP Program Audits

X-1. Audits

The City will audit its implementation and compliance with the provisions of this SSMP every two years as required by the WDR. The first audit will be conducted and completed no later than April 2019. Thereafter the audits will be completed every two years from the adoption date. The audit team may include members from other areas of the City, outside agencies, or contractors. It is also recommended that at the same time the City conduct an audit of its SSO files to assure that the files are complete, contain all required records as stated in the MRP and that the files contain no extraneous or conflicting documents that are not adequately reviewed and explanations provided.

The Sewer System Management Plan Audit Report Form (Table X-1) is used to guide the audit process and includes the GWDR requirements for each SSMP element. The results of the audit, including the identification of any deficiencies and the steps taken or planned to correct them will be included in an Audit Report. Upon completion of the audit, the City will include a copy of the report in Appendix A, Sewer System Annual Audit Reports. Modifications and changes to the SSMP will be identified and tracked in Appendix B, SSMP Change Log.

The audit can contain information about successes in implementing the most recent version of the SSMP, and identify revisions that may be needed for a more effective program. Information collected can be used in preparing the audit. Tables and figures or charts can be used to summarize information about these indicators. An explanation of the SSMP development, and accomplishments in improving the sewer system, should be included in the audit, including:

- How the sewer system agency implemented SSMP elements during the audit period;

SWRCB Waste Discharge Requirement:

As part of the Sewer System Management Plan (SSMP), the Enrollee shall conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the Enrollee’s compliance with the SSMP requirements identified in this subsection (D.13), including identification of any deficiencies in the SSMP and steps to correct them.
• The effectiveness of implementing SSMP elements;
• A description of the additions and improvements made to the sanitary sewer collection system in the past reporting period; and
• A description of the additions and improvements planned for the upcoming reporting year with an estimated schedule for implementation.
• The Audit Reports described in the Element are in addition to the annual reports required by the consent decree that addresses many of the same performance criteria

X-2. SSMP Updates

The City will recertify its SSMP at least every five years from the original City Council adoption and approval date of January 28, 2008 or when substantial changes are made in the SSMP. The City will determine the need to update its SSMP more frequently based on the results of the audits and the performance of its wastewater collection system using information from Element IX, Monitoring and Measuring Program. In the event that the City decides that an update is warranted, the process to complete the update will be identified and a schedule established for completion. The City will complete the update and take the revisions to the City Council within one year of identifying the need for the update.
Table X-1: SSMP Audit Checklist

The purpose of the SSMP Audit is to evaluate the effectiveness of the City of Jackson SSMP and to identify any needed for improvement.

Directions: Please check YES or NO for each question. If NO is answered for any question, describe the updates/changes needed and the timeline to complete those changes.

<table>
<thead>
<tr>
<th>ELEMENT I - GOALS</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Are the goals stated in the SSMP still appropriate and accurate?</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Discussion:

<table>
<thead>
<tr>
<th>ELEMENT II - ORGANIZATION</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Is the List of City Staff Responsible for SSMP current?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>B. Is the Sanitary Sewer Overflow Responder List current?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>C. Is Figure II-1 of the SSMP, the City Organization Chart, current?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>D. Are the position descriptions an accurate portrayal of staff responsibilities?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>E. Is Table II-2 in the Chain of Communication for Reporting and Responding to SSOs section accurate and up-to-date?</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Discussion:

<table>
<thead>
<tr>
<th>ELEMENT III – LEGAL AUTHORITY</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the SSMP contain current references to the City of Jackson Municipal Code documenting the City’s legal authority to:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Prevent illicit discharges?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>B. Require proper design and construction of sewers and connections?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>C. Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the City?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>D. Limit discharges of fats, oils and grease?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>E. Enforce any violation of its sewer ordinances?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>F. Were any changes or modifications made in the past year to City Sewer Ordinances, Regulations or standards?</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Discussion:
### ELEMENT IV – OPERATIONS AND MAINTENANCE

#### Collection System Maps

| A. | Does the SSMP reference the current process and procedures for maintaining the City’s wastewater collection system maps? | ☐ | ☐ |
| B. | Are the City’s wastewater collection system maps complete, current and sufficiently detailed? | ☐ | ☐ |
| C. | Are storm drainage facilities identified on the collection system maps? If not, are SSO responders able to determine locations of storm drainage inlets and pipes for possible discharge to waters of the state? | ☐ | ☐ |

#### Prioritized Preventive Maintenance

| D. | Does the SSMP describe current preventive maintenance activities and the system for prioritizing the cleaning of sewers? | ☐ | ☐ |
| E. | Based upon information in the Annual SSO Report, are the City’s preventive maintenance activities sufficient and effective in minimizing SSOs and blockages? | ☐ | ☐ |

#### Scheduled Inspections and Condition Assessments

| F. | Is there an ongoing condition assessment program sufficient to develop a capital improvement plan addressing the proper management and protection of infrastructure assets? Are the current components of this program documented in the SSMP? | ☐ | ☐ |

#### Contingency Equipment and Replacement Inventory

| G. | Does the SSMP list the major equipment currently used in the operation and maintenance of the collection system and documents the procedures of inventory management? | ☐ | ☐ |
| H. | Are contingency and replacement parts sufficient to respond to emergencies and properly conduct regular maintenance? | ☐ | ☐ |

#### Training

| I. | Does the SSMP document current training expectations and programs? | ☐ | ☐ |

#### Outreach to Plumbers and Building Contractors

| J. | Does the SSMP document current outreach efforts to plumbers and building contractors? | ☐ | ☐ |

#### Discussion:
### ELEMENT V- DESIGN AND PERFORMANCE STANDARDS

<p>| | | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>A.</td>
<td>Does the SSMP reference current design and construction standards for the installation for new sanitary sewer systems, Pump stations and other appurtenances and for the rehabilitation and repair of existing sanitary sewer systems?</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>B.</td>
<td>Does the SSMP document current procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and the rehabilitation and repair of existing sewer lines?</td>
<td>☐ ☐</td>
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</tbody>
</table>

**Discussion:**

### ELEMENT VI – OVERFLOW AND EMERGENCY RESPONSE PLAN

<p>| | | |</p>
<table>
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<tbody>
<tr>
<td>A.</td>
<td>Does the City’s Sanitary Sewer Overflow Emergency Response Plan establish procedures for the emergency response, notification, and reporting of SSOs?</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>B.</td>
<td>Is City staff and contractor personnel appropriately trained on the procedures of the Sanitary Sewer Overflow Emergency Response Plan?</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>C.</td>
<td>Considering SSO performance data, is the Sanitary Sewer Overflow Emergency Response Plan effective in handling SSOs in order to safeguard public health and the environment?</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>D.</td>
<td>Are all SSO and claims reporting forms current or do they require revisions or additions?</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>E.</td>
<td>Does all SSO event recordkeeping meet the SSS GWDR requirements? Are all SSO event files complete and certified in the CIWQS system?</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>F.</td>
<td>Is all information in the CIWQS system current and correct? Have periodic reviews of the data been made during the year to assure compliance with GWDR? Have all Technical Report and Water Quality Sampling requirements been confirmed and uploaded to the CIWQS data management system?</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>G.</td>
<td>Was required training on SSMP and OERP completed and documented? Were field exercises with field staff on SSO volume estimation conducted and documented?</td>
<td>☐ ☐</td>
</tr>
</tbody>
</table>
### H. Did all public improvement plans and specifications that could impact collection system operations include requirements for OERP training or were contractor OERP programs at least as stringent as the City OERP? Were regular items included in project meeting agendas to discuss emergency response procedures and communications? ☐ ☐

**Discussion:**

### ELEMENT VII – FATS, OILS AND GREASE (FOG) CONTROL PROGRAM

| A. | Does the FOG Control Program include efforts to educate the public on proper handling and disposal of FOG? ☐ ☐ |
| B. | Does the FOG Control Program identify sections of the collection system subject to FOG blockages, establish a cleaning schedule and address source control measures to minimize these blockages? ☐ ☐ |
| C. | Are requirements for grease removal devices, best management practices (BMP), record keeping and reporting established in the City’s FOG Control Program? ☐ ☐ |
| D. | Does the City have sufficient legal authority to implement and enforce the FOG Control Program? ☐ ☐ |
| E. | Is the current FOG program effective in minimizing blockages of sewer lines resulting from discharges of FOG to the system ☐ ☐

**Discussion:**

### ELEMENT VIII- SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

| A. | Does the Wet Weather Alternatives Analysis Report evaluate hydraulic deficiencies in the system, establish sufficient design criteria and recommend both short and long term capacity enhancement and improvement projects? ☐ ☐ |
| B. | Does the City’s Capital Improvement Plan (CIP) establish a schedule of approximate completion dates for both short and long-term improvements and is the schedule reviewed and updated to reflect current budgetary capabilities and activity accomplishment? ☐ ☐

**Discussion:**
## ELEMENT IX - MONITORING, MEASUREMENT, AND PROGRAM MODIFICATIONS

<p>| | |</p>
<table>
<thead>
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<tbody>
<tr>
<td>A.</td>
<td>Does the SSMP accurately portray the methods of tracking and reporting selected performance indicators?</td>
</tr>
<tr>
<td>B.</td>
<td>Is the City able to sufficiently evaluate the effectiveness of the SSMP elements based on relevant information?</td>
</tr>
<tr>
<td>C.</td>
<td>Were the consent decree performance metrics met?</td>
</tr>
</tbody>
</table>

**Discussion:**

## ELEMENT X – SSMP AUDITS

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>A.</td>
<td>Will the SSMP Audit be completed, reviewed and filed in Appendix A?</td>
</tr>
</tbody>
</table>

**Discussion:**

## ELEMENT XI – COMMUNICATION PROGRAM

<p>| | |</p>
<table>
<thead>
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<tbody>
<tr>
<td>A.</td>
<td>Does the City effectively communicate with the public and other agencies about the implementation of the SSMP and continue to address any feedback?</td>
</tr>
<tr>
<td>B.</td>
<td>Did the City Council receive and review an Annual Sewer System Report? Was the annual report uploaded to the City Sewer Section website and added to Appendix A?</td>
</tr>
</tbody>
</table>

**Discussion:**

## Change Log

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>A.</td>
<td>Is the SSMP Change Log, current and up to date?</td>
</tr>
</tbody>
</table>

**Discussion:**
X-3. ‘References - None
Element XI: Communication Program

SWRCB Waste Discharge Requirement:

The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its Sewer System Management Plan (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.

XI-1. Communication during SSMP Development and Implementation

The City, at least annually, communicates with the City Council at a public meeting that allows for input from the public with regard to the implementation and results of the collection system operations.

The City has developed a private lateral maintenance policy for "Property Owners Need to Know" that clearly defines the property owners’ responsibilities for the ownership, maintenance and replacement of the private lateral.

Other information provided upon request to interested parties includes: a copy of completed SSMP, brochures and materials regarding collection system operations and maintenance, FOG and contact information and/or opportunities for input into the development and implementation process. The complete SSMP and all references are available on the City webpage.

The City will also have brochures and information on collection system programs at various department counters in the City as well as available on the City website.

XI-2. Communicating Sanitary Sewer System Performance

The City Council, annually at a regularly scheduled meeting, receives collection system performance information that is included in the minutes of that public meeting. The performance information will include the performance measures listed in Element IX: Monitoring, Measurement, and Program Modifications and will be compiled in an annual collection system performance report and placed in Appendix F of this SSMP.
XI-3. Communication with Satellite Wastewater Collection Systems

The City has four (4) extraterritorial systems that discharge to the City collection system. The City communicates as needed with these systems. These systems are required to meet all City requirements for the discharge of sewage to the City collection system.

XI-4. References - None
Appendices

Appendix A: Sewer System Management Plan Audit Reports

The following is a list of the available Annual Reports prepared the City.
### Log of SSMP Changes

<table>
<thead>
<tr>
<th>Date</th>
<th>SSMP Element #</th>
<th>Description of Change/Revision Made</th>
<th>Person Authorizing Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/14/16</td>
<td>All</td>
<td>Complete revision to the SSMP and each Element</td>
<td>City Council</td>
</tr>
</tbody>
</table>


Appendix D: City of Jackson Overflow Emergency Response Plan
City of Jackson

Overflow Emergency Response Plan

Effective Date: _______________________
Revised Date: _______________________
Approved by: ________________________
Signature: _________________________
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

Appendix A: Regulatory Notifications Packet

Instructions....................................................................................................................Packet Envelope

Regulatory Reporting Guide ...........................................................................................A-1

Category 1 SSO Reporting Checklist............................................................................-2a

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

Spill Notification Report..............................................................................................-3

Appendix B: Sanitary Sewer Backup Packet

Response Instructions....................................................................................................Packet Envelope

Backup Response Flowchart.......................................................................................B-1

Bubbled Toilets Letter .................................................................................................-2

Declination of Cleaning Services ................................................................................-3

First Responder Form ..................................................................................................-4

Lodging Authorization Form .......................................................................................-5

Rejection of Lodging/Relocation Recommendation .................................................-6
Sewer Overflow Report ................................................................................................................ -7
Start Time Determination Form ................................................................................................... -8

Volume Estimation Methods

Eyeball Estimation ..................................................................................................................... -9a
Duration and Flow Rate Photo Comparison ........................................................................... -9b
Upstream Lateral Connections ............................................................................................... -9c

Claims Submittal Checklist ........................................................................................................ -10

Collection System Event Analysis .......................................................................................... -11

Customer Service Packet

Instructions ................................................................................................................................. envelope
Customer Information ............................................................................................................. CS-1
Claim Form .............................................................................................................................. -2
Sewer Spill Reference Guide .................................................................................................... pamphlet

Regulatory Notifications Packet ............................................................................................. See contents list above

Door Hanger
Appendix C: Sanitary Sewer Overflow Packet

Instructions and Chain of Custody ...................................................................................... Packet Envelope
Responding to a Sanitary Sewer Overflow ........................................................................... 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
Collection System Event Analysis .......................................................................................... -5
Regulatory Notifications Packet .......................................................................................... See contents list above
Public Posting
  Door Hanger
  Sewer Spill Reference Guide

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
Sanitary Sewer Overflow Emergency Response Plan

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

1. Purpose

The purpose of the City’s Overflow Emergency Response Plan (OERP) is to support an orderly and effective response to Sanitary Sewer Overflows (SSOs). The OERP provides guidelines for City personnel to follow in responding to, cleaning up, and reporting SSOs that may occur within the City’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.

2. Policy

The City’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 City’s goal is to respond to sewer system overflows as soon as possible following notification. The City 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

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.

FROG – Fats, Roots, Oils, and Grease: 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 City 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 City 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:

- 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 SEWAGE DISCHARGES:** Sewage discharges that are caused by blockages or other problems within a privately owned lateral.

**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.).

SEWER SERVICE LATERAL: Refers to the piping that conveys sewage from the building to the City’s wastewater collection system.

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 made available to the public through submission of an electronic copy to the State Water Resources Control Board.

5. Goals

The City’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 City of the occurrence of an SSO include: observation by the public, receipt of an alarm, or observation by City staff during the normal course of their work.

In the event of any pump failure, the high level sensor activates the alarm system and the City 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 City is notified of blockages and spills. Contact numbers and information for reporting sewer spills and backups are in the phone book. To report sewer problems in the City, customers call (209) 223-2178. After hours callers are directed to contact 911.

When a report of a sewer spill or backup is received during business hours the person answering the call will collect basic information and enter it on the Sewer Reporting Information form. After hours calls are received via 911 and the Sherriff’s dispatch will contact a Public Works employee to respond.

When a call is received, the following information is collected:

- 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, address, and telephone number
• 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

The following (Fig. 6.1) is an overview of 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**
Public Works: (209) 223-2178
City Hall: (209) 223-1646

Person answering call gathers information from the caller and enters it into the Sewer reporting Information form, and dispatches a Public Works crew.

**Non-Business Hours**
911
Sherriff's Dispatch contacts a Public Works employee to respond.

**Public Works Employee**
1. Contact customer reporting the problem.
2. Gather caller’s name, address of the problem and call back number.

**Is the overflow/backup in the service area?**

**YES**

1. Provide Customer with the contact information for the responsible agency.
2. Notify the responsible agency.

**NO**

**Is the spill inside a building or outside?**

**Outside**

Complete the Sanitary Sewer Overflow Response Packet

**Inside**

Complete the Sanitary Sewer Overflow Response Packet

**WHAT TO TELL THE CUSTOMER (See Field Guide for tips)**
- 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 City 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.
6.2 CITY STAFF OBSERVATION

City staff conducts periodic inspections of its sewer system facilities as part of their routine activities. Any problems noted with the sewer system facilities are reported to appropriate City staff 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 will:

1. Immediately notify the City
2. Protect storm drains
3. Protect the public
4. Provide Information to the City Public Works Crew such as start time, appearance point(s), suspected cause, weather conditions, etc.
5. Direct all media and public relations requests to the Superintendent of Public Works

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 City 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](image-url)

**Public Works Crew performs the following:**

Follow the instructions on the Sanitary Sewer Overflow Packet:
- Relieve blockage and clean impacted areas
- Forward completed Sanitary Sewer Overflow Packet to the Superintendent of Public Works
- Superintendent of Public Works performs required regulatory reporting in accordance with the Regulatory Notifications Packet (*inside the Sewer Overflow Packet*)

**Public Works Crew performs the following:**

Follow the instructions on the Sanitary Sewer Backup Packet:
- Relieve blockage and clean impacted areas
- Provide the Customer Service Packet
- Forward completed Sanitary Sewer Backup Packet to the Superintendent of Public Works
- Superintendent of Public Works performs required regulatory reporting in accordance with the Regulatory Notifications Packet (*inside the Sewer Backup Packet*)

**City Manager performs the following:**

1. Review incident reports, claim form and other incident information and forward, as appropriate, to:
   - NCCSIF c/o York Insurance Services
   - Attn: Shawn Miliar, York Insurance Adjustor
   - 48 Hanover C
   - Chico CA 95973
   - (530) 680-7272 or (530) 230-3704 or (916) 960-0900

2. Communicate with claimant, as appropriate, and NCCSIF to adjust and administer the claim to closure
7.2 First Responder Priorities

The first responder’s priorities are:

- To call in a second responder for any potential SSO call-out.
- 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 Superintendent of Public Works of any 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 City personnel responding to a sewer system event are not familiar with potential safety hazards peculiar to sewer work. In such cases it is appropriate to take the time to discuss safety issues, consider the order of work, and check safety equipment before starting the job. This includes use of gas monitoring detectors for air quality in manholes and traffic controls 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.
- Comply with all safety precautions including traffic and crowd control if necessary.
- Document the SSO event from start to finish with a time-stamped photographic timeline of the event in addition to narrative documentation.
- 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.
7.5 Initiate Spill Containment Measures

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

- Determine the immediate destination of the 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.

7.6 Restore Flow

Using the appropriate cleaning equipment set up downstream of the blockage and hydro-clean upstream from a clear manhole. Attempt to remove the blockage from the system and observe the flows to ensure that the blockage does not reoccur downstream. If the blockage cannot be cleared within a reasonable time from arrival, or 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.

7.7 Equipment

This section provides a list of specialized equipment that is required 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.
- Hand Rods – Equipment used in easements and locations inaccessible by vehicles.
- Plugs, Sandbags, Plastic Mats
- Portable Lights
- SSO Sampling Kit

The standard operating procedures for all equipment are located at the Corp Yard or Sewer Plant.
8. Recovery and Cleanup

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

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

8.1 Estimate the Volume of Spilled Sewage

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

8.2 Recovery of Spilled Sewage

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

8.3 Clean-up and Disinfection

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

Private Property

City 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. If the City is responsible for the discharge, the Public Works Lead Worker will call in an approved water damage restoration company. In all other cases, affected property owners can call a water damage restoration company to complete the cleanup and restoration. In both cases, City claim forms may be issued if requested by the property owners.

Hard Surface Areas

Remove all signs of sewage solids and sewage-related material either by protected hand or with the use of rakes and brooms, then 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. Crews will take reasonable steps to contain and vacuum up the wastewater, allow area to dry, and 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 Superintendent of Public Works will use his/her 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, Superintendent of Public Works, 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. 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 Superintendent of Public Works 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 whenever spilled sewage enters a water body and is performed to determine the extent and impact of the SSO. The water quality sampling procedures must be implemented with 48 hours and include the following:

- The City Public Works Crew should collect water samples as soon as possible after the discovery and mitigation of the SSO event.
- The water quality samples should 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 should be collected near the point of entry of the spilled sewage.
- The samples will be picked up and analyzed by Alpha Labs or other approved laboratory facility.

9.2 Water Quality Monitoring Plan

The City Water Quality Monitoring Plan will be implemented immediately upon discovery of any Category 1 SSO of 1,000 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 City becoming aware of the SSO, require water quality sampling for ammonia and total and fecal coliform.
6. Observe proper chain of custody procedures.

9.4 SSO Technical Report

The City 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 Superintendent of Public Works will supervise the preparation of this report and certify it. 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.

City’s Response to SSO:

• Chronological narrative description of all actions taken by the City 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 City 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:

• City staff will offer a City claim form irrespective of fault whenever it is possible that the sanitary sewer backup may have resulted from an apparent blockage in the City-owned sewer lines or whenever a City customer requests a claim form. The claim may later be rejected if subsequent investigations into the cause of the loss indicate the City was not at fault.
• It is the responsibility of the Public Works Crew to gather information regarding the incident and notify the Superintendent of Public Works.
• It is the responsibility of the Superintendent of Public Works 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 City of Jackson 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>
</thead>
<tbody>
<tr>
<td><strong>NOTIFICATION</strong></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 City 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><strong>REPORTING</strong></td>
<td>- Category 1 SSO: The City 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.</td>
</tr>
<tr>
<td></td>
<td>- Category 2 SSO: The City will submit draft report within 3 business days of becoming aware of the SSO and certify within 15 calendar days of the SSO end date.</td>
<td>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 City will submit certified report within 30 calendar days of the end of month in which SSO the occurred.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- SSO Technical Report: The City 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>
<tr>
<td></td>
<td>- “No Spill” Certification: The City 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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<tr>
<td></td>
<td>- Collection System Questionnaire: The City will update and certify every 12 months</td>
<td></td>
</tr>
<tr>
<td><strong>WATER QUALITY MONITORING</strong></td>
<td>The City will conduct water quality sampling within 48 hours after initial SSO notification for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.</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>
</tbody>
</table>

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¹ In the event that the CIWQS online SSO database is not available, the Superintendent of Public Works will notify SWRCB by phone in accordance with the time schedules identified above. In such an event, the City will submit the appropriate reports using the CIWQS online 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 City 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.
<table>
<thead>
<tr>
<th>RECORD KEEPING</th>
<th>The City will maintain the following records:</th>
<th>Self-maintained records shall be available during inspections or upon request.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• SSO event records.</td>
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<tr>
<td></td>
<td>• Records documenting Sanitary Sewer Management Plan (SSMP) implementation and changes/updates to the SSMP.</td>
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<tr>
<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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<tr>
<td></td>
<td>• Collection system telemetry records if relied upon to document and/or estimate SSO Volume.</td>
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</tbody>
</table>

For reporting purposes, if one SSO event of whatever category results in multiple appearance points in a sewer system, a single SSO report is required in CIWQS 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 City maintains records of all complaints received whether or not they result in sanitary sewer overflows. These complaint records include:

- 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; and
- Work service request information used to document all feasible and remedial actions taken.

Records will be maintained for a minimum of five years in the Sewer Files at the Corp Yard.
12. Post SSO Event Debriefing

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

Every SSO event is an opportunity to evaluate the 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 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(es);
- 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 segments immediately following the SSO and reviewing the video and logs;
- Reviewing any FROG related information or results;
- Post SSO debrief records; and
- 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 Event Analysis Form 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 City 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 City will document all training.

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

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

Through SWRCB Employee Knowledge Expectations training 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 of all training that is provided in support of this plan. The records for all scheduled training courses and for each overflow emergency response training event and will include date, time, place, content, name of trainer(s), and names and titles of attendees.

14.4 Contractors Working On City Sewer Facilities

All construction contractors working on City 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, 2013, 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
Instructions:

1. Receive notification 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:

<table>
<thead>
<tr>
<th>Form</th>
<th>Page Number</th>
</tr>
</thead>
<tbody>
<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>
<tr>
<td>Spill Notification Report</td>
<td>-3</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>-</td>
<td>Notify the Central Valley Regional Water Quality Control Board (CVRWQCB)</td>
<td>Notify the Central Valley Regional Water Quality Control Board (CVRWQCB)</td>
</tr>
<tr>
<td></td>
<td>If the spill is greater than or equal to 1,000 gallons, call CalOES at (800) 852-7550</td>
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<tr>
<td></td>
<td>Notify the Central Valley Regional Water Quality Control Board (CVRWQCB)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Notify Amador Environmental Health Department</td>
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<td>-</td>
</tr>
<tr>
<td>48 Hours after awareness of SSO</td>
<td>If 50,000 gal or more were not recovered, begin water quality sampling and initiate impact assessment</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>Within 2 Weeks after completion of cleanup</td>
<td>Submit Spill Notification Report to Central Valley Regional Water Quality Control Board (CVRWQCB)</td>
<td>Submit Spill Notification Report to Central Valley Regional Water Quality Control Board (CVRWQCB)</td>
<td>Submit Spill Notification Report to Central Valley Regional Water Quality Control Board (CVRWQCB)</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 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>Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time</td>
</tr>
<tr>
<td>45 days after SSO end time</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, notify 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>Central Valley Regional Water Quality Control Board (CVRWQCB):</td>
<td>Mohammad Farhad: (916) 464-1181</td>
</tr>
<tr>
<td>NCCSIF:</td>
<td>(530) 680-7272 or (530) 230-3704 or (916) 960-0900</td>
</tr>
<tr>
<td>Amador County Environmental Health Department:</td>
<td>(209) 223-6439</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</td>
<td><a href="mailto:Russell.Norman@waterboards.ca.gov">Russell.Norman@waterboards.ca.gov</a></td>
</tr>
<tr>
<td></td>
<td>(916) 323-1400</td>
</tr>
<tr>
<td></td>
<td><a href="mailto:Gil.Vazquez@waterboards.ca.gov">Gil.Vazquez@waterboards.ca.gov</a></td>
</tr>
</tbody>
</table>

Authorized Personnel

The following are the City’s Legally Responsible Officials (LROs) and are authorized to perform regulatory reporting including electronically signing and certifying SSO reports in CIWQS:

- Superintendent of Public Works, (209) 223-2178
- Lead Worker, (209) 223-2178
## 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; or</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 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</td>
</tr>
</tbody>
</table>
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:
  o Date Called: ____________________________
  o Time called: __________ : _______ AM □ PM
  o CalOES Control number: ____________________________
  o City personnel who called CalOES: Name ____________________________
  o Title ____________________________
  o Individual they spoke to at CalOES: ____________________________

☐ Notify Central Valley Regional Water Quality Control Board (CVRWQCB). See RN-1 Side B for contact information.

☐ Notify Amador County Environmental Health. See RN-1 Side B for contact information.

STEP 3: Within 48-Hours after awareness of SSO

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

STEP 4: Within 3 Days after awareness of SSO

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

STEP 5: Within 2 weeks of the completion of spill cleanup

☐ Submit Spill Notification Report (SNR) to Central Valley Regional Water Quality Control Board (CVRWQCB). Once completed the SNR form needs to be submitted electronically to:
  o CVRWQCB at centralvalleysacramento@waterboards.ca.gov, Kenny Croyle at Kenny.Croyle@waterboards.ca.gov, and
  o Mike Israel (Amador Co. Environmental Health) at misrael@amadorgov.org.

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 conclusion of SSO response

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

This form completed by: ____________________________ ____________________________ ____________________________
  Name                             Title                             Date

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City of Jackson: Overflow Emergency Response Plan

Regulatory Notifications Packet
Category 2 & 3 SSO Reporting Checklist

Use this Checklist for Category 2 and 3 SSOs only

STEP 1: Receive call from crew

STEP 2: 2-hour Notification

- Notify Central Valley Regional Water Quality Control Board (CVRWQCB). See RN-1 Side B for contact information.

STEP 3: Within 3 days after awareness of SSO (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: Within 2 weeks of the completion of spill cleanup

- Submit Spill Notification Report to Central Valley Regional Water Quality Control Board (CVRWQCB). Once completed the SNR form needs to be submitted electronically to:
  - CVRWQCB at centralvalleysacramento@waterboards.ca.gov, Kenny Croyle at Kenny.Croyle@waterboards.ca.gov, and
  - Mike Israel (Amador Co. Environmental Health) at misrael@amadorgov.org.

STEP 5: Certify Spill Report

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

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

This form completed by: ____________________________  ____________________________  ____________________________

Name  Title  Date

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I am hereby submitting to the Central Valley Water Board the following information:

**Spill Description:**

Location of spill (address):

Map of area affected by spill (please attach):

Date and time spill was discovered:

Time discharge was ceased:

Cause of spill:

Estimated volume spilled:

Was the spill contained on site?

Did spill reach any surface water drainages?

Description of cleanup procedures (please attach post cleanup photographs):

**Corrective Actions Taken to Prevent Future Spills:**

Fully describe corrective actions taken to prevent re-occurrence of spills. These actions may include operational and mechanical improvements to the facility. If the improvements have not already been implemented then a schedule for implementing the corrective actions shall be included with this report. If additional room is necessary, please attach the corrective actions description and implementation schedule to this Spill Notification Report.
Certification Statement:

“I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.”

Signature: ____________________________ Phone: ____________________

Printed Name: ____________________________ Date: ____________________

Electronic Report Submittal:

To submit the electronic reports please do the following:

1. First make a PDF copy of your report and include this form as the first page of the report.
2. Attach the PDF file to the email.
   Send the email and PDF attachment to centralvalleysacramento@waterboards.ca.gov (Please note that in order to ensure your reports are cataloged correctly and routed to the appropriate Regional Board staff, only one report/attachment shall be included with each email.)
Appendix B

SANITARY SEWER BACKUP RESPONSE PACKET
## City of Jackson: Overflow Emergency Response Plan

### Sanitary Sewer Backup Response Packet

#### Table of Contents

<table>
<thead>
<tr>
<th>Form</th>
<th>Form Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructions and Chain of Custody</td>
<td>packet envelope</td>
</tr>
<tr>
<td>Backup Response Flowchart</td>
<td>B-1</td>
</tr>
<tr>
<td>Bubbled Toilets Letter</td>
<td>-2</td>
</tr>
<tr>
<td>Declination of Cleaning Services (3-copy NCR)</td>
<td>-3</td>
</tr>
<tr>
<td>First Responder Form</td>
<td>-4</td>
</tr>
<tr>
<td>Lodging Authorization Form (3-copy NCR)</td>
<td>-5</td>
</tr>
<tr>
<td>Rejection of Lodging/Relocation Recommendation (3-copy NCR)</td>
<td>-6</td>
</tr>
<tr>
<td>Sewer Overflow Report</td>
<td>-7</td>
</tr>
<tr>
<td>Start Time Determination Form</td>
<td>-8</td>
</tr>
<tr>
<td>Volume Estimation Forms</td>
<td>-9a, -9b, -9c</td>
</tr>
<tr>
<td>Claims Submittal Checklist</td>
<td>-10</td>
</tr>
<tr>
<td>Collection System Event Analysis</td>
<td>-11</td>
</tr>
<tr>
<td>Customer Service Packet</td>
<td></td>
</tr>
<tr>
<td>Instructions</td>
<td>packet envelope</td>
</tr>
<tr>
<td>Customer Information</td>
<td>CS-1</td>
</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>
</tbody>
</table>

### Door Hanger

© 2004-2016 DKF Solutions Group All rights reserved.
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 one of the following to make the 2-hour notification to CalOES:
  - Superintendent of Public Works: (209) 915-3448 (cell)
  - Lead Worker, Bree Wilder: (209) 781-5518 (cell)

- If the backup is into/onto private property AND possibly due to a problem in the public sewer, notify NCCSIF:
  - Shawn Milar, York Insurance Adjustor: (530) 680-7272 or (530) 230-3704 or (916) 960-090

- If the resident should temporarily relocate contact the City Manager at (209) 223-1646.

- Media requests must be directed to the Superintendent of Public Work.

Public Works 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: ____________
- Place completed forms in this envelope, complete the Chain of Custody record (right) and forward this packet to the Superintendent of Public Works.

Superintendent of Public Works:
- Follow the instructions on the bottom of the Sewer Backup Response Flowchart (B-1).
  - Complete the Regulatory Notifications Packet.
  - Complete the Claims Submittal Checklist.
  - Complete the Chain of Custody record (right) and forward this packet to the City Clerk.

City Clerk:
- Refer to the Claims Submittal Checklist.
City of Jackson: Overflow Emergency Response Plan
Sanitary Sewer Backup Response Packet
Backup Response Flowchart

B-1
Side A

Start Here

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

YES

Provide Customer with the Bubbled Toilets Letter.

NO

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

YES

If customer is not home:

• Complete Door Hanger and leave on customer’s door.
• Leave a message on the customer’s voicemail.

If customer is home:

• Recommend the customer shut off any appliances using water.
• Explain to customer that the blockage is in their lateral and that the City 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 City-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.

Immediately contact the Superintendent of Public Works:

• If it is a Category 1 spill greater than or equal to 1,000 gallons, advise them to contact CalOES at (800) 852-7550 to make 2-hour notification.
• Request additional resources if necessary

NO

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

Has any sewage spilled outside?

YES

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

NO

Has any sewage impacted public areas?

YES

Has any sewage impacted public areas?

YES

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

NO

Document the service call according to City procedures

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

NO

Is there a property line cleanout?

YES

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.

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

NO

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

*Answer “NO” if the sewer main is clear, OR there is no indication of a recent blockage in the upstream or downstream manhole OR there is no property line cleanout.

Has any sewage spilled outside?

NO

NO

YES

YES

YES

YES

YES

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NO
City of Jackson: Overflow Emergency Response Plan

Sanitary Sewer Backup Response Packet
Backup Response Flowchart

Continue Here From Side A

Does the customer want cleaning service?

NO

1. Have property owner sign the Cleaning Declination form (inside Sewer Backup envelope).
2. Ask permission to photograph the affected area. If they decline, note on the Cleaning Declination form.
3. Give the customer the bottom copy of the form and put other copies in the Sewer Backup envelope.

YES

1. Contact the Lead Worker, Bree Wilder, to call for restoration/remediation.
2. Wait for restoration team to arrive, if possible.
3. Clean/disinfect any overflow outside of the building. **Note:** DO NOT allow any disinfectants to escape to storm drains.

Remove the First Responder form from the Sewer Backup Packet envelope, complete Side A and perform the Livability Assessment on Side B.

Does the Livability Assessment indicate a hotel is needed?

YES

1. Follow the instructions on the Lodging Authorization Form.
2. Complete the form and give the CUSTOMER the bottom copy.

NO

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

YES

Ask for permission to photograph the backwater prevention device or cleanout and photograph, if allowed.

NO

1. Document the Sanitary Sewer Overflow if not already documented as part of the SSO Packet:
   - SSO Report
   - Start Time Determination Form
   - Volume Estimation (one or more methods)
2. Document the service call according to City procedures.
3. Complete the remaining instructions in the Field Crew box on the front of the Sewer Backup Packet envelope.
4. 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,
- Making accusations against customers, businesses or other agencies
- Speculating about the situation you are responding to
- Providing incorrect facts about a company or other agency

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

Refer media requests to the media coordinator indicated on the Sewer Backup Envelope.
Dear City of Jackson 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 City doing in the street?**
   In order to insure reliable sewer service, the City 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 600 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, City 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;
   - 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 City 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. The crew leader then makes notes and completes paperwork instructing the City to send a Backflow Prevention Device (BPD) installation letter to the homeowner. It is the owner’s responsibility to install a BPD once the problem has been identified.

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 City at (209) 223-1646.

Sincerely,

City of Jackson
## Customer Information

<table>
<thead>
<tr>
<th>NAME:</th>
<th>ADDRESS:</th>
<th>TELEPHONE:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### GALLONS OF:

- Sewage
- Grey Water
- Toilet Bowl Water
- Odor
- Other (describe):

### On (date) At (time) Approximately (quantity)

<table>
<thead>
<tr>
<th>Overflowed from (or odor emanating from):</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Toilet</td>
</tr>
<tr>
<td>☐ Shower/Tub</td>
</tr>
<tr>
<td>☐ Washer</td>
</tr>
<tr>
<td>☐ Other (describe):</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The overflow affected the following areas:</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Bathroom</td>
</tr>
<tr>
<td>☐ Bedroom</td>
</tr>
<tr>
<td>☐ Hallway</td>
</tr>
<tr>
<td>☐ Garage</td>
</tr>
<tr>
<td>☐ Kitchen</td>
</tr>
<tr>
<td>☐ Crawlspace</td>
</tr>
<tr>
<td>☐ Other (specify):</td>
</tr>
</tbody>
</table>

### The overflow affected the following flooring and/or additional materials:

- ☐ Tile
- ☐ Wood Flooring
- ☐ Linoleum
- ☐ Carpet
- ☐ Area Rugs
- ☐ Towels
- ☐ Clothing
- ☐ Other (specify):
- ☐ Other (specify):

### Were photos taken?  ☐ Yes  ☐ No  If yes, where are photos stored?

### This Form Completed By:

<table>
<thead>
<tr>
<th>Name:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Write legibly)

<table>
<thead>
<tr>
<th>Title:</th>
<th>Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**CUSTOMER, please read the following and sign below:**

I/We acknowledge that City of Jackson, CA (City) has offered to provide professional cleaning and decontamination services to remediate the sewage backup and/or overflow described above and that we declined the offer. We further understand and acknowledge that because we have declined, any necessary remediation activities will be conducted without City assistance, and that the City will not accept responsibility for work performed by persons other than those engaged by the City. The City will also not accept responsibility for any charges related to this incident that are not usual and customary. Please refer to the Customer Service Packet for whom to contact if you have any questions.
The information above was explained to the customer by the following employee:

**Name:**
**Title:**
**Signature:**
**Date:**

*Note to responders: if customer declines to sign this form, then have a co-worker sign here as a witness:

**Name:** __________________________ **Signature:** __________________________ **Date:** __________

Recommendations to customer to clean up the spill:

- Keep pets and children out of the affected area.
- Turn off heating/air conditioning systems and block floor level heating/air conditioning ducts to prevent contamination.
- Wear rubber boots, rubber gloves, and goggles during cleanup of the affected area.
- Remove and 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 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 all clothes worn during the cleanup in hot water and detergent (wash separately from uncontaminated clothes).
- Wash clothes contaminated with flood or sewage water in hot water and detergent. Use a laundromat for washing large quantities of clothes and linens until your onsite wastewater system has been professionally inspected and serviced.
- Seek immediate attention if you become injured or ill.

Distribution Instructions – Top Copy to City records; Middle Copy to NCCSIF; Bottom Copy to Customer
**Sanitary Sewer Backup Response Packet**

**First Responder Form**

Fill out this form as completely as possible.

Ask customer if you may enter the home. 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>TIME STAFF ARRIVED ON-SITE:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE:</td>
<td></td>
</tr>
<tr>
<td>TIME:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DID CUSTOMER CALL CLEANING CONTRACTOR? □ Yes □ No</th>
</tr>
</thead>
</table>

If YES, name of contractor:

<table>
<thead>
<tr>
<th>RESIDENT NAME:</th>
<th>IF RENT,</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Owner</td>
<td>PROPERTY MANAGER(S):</td>
</tr>
<tr>
<td>□ Renter</td>
<td>OWNER:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STREET ADDRESS:</th>
<th>STREET ADDRESS:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CITY, STATE AND ZIP:</th>
<th>CITY, STATE AND ZIP:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

<table>
<thead>
<tr>
<th># OF PEOPLE LIVING AT RESIDENCE:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Approximate Age of Home:</th>
<th># of Bathrooms:</th>
<th># of Rooms Affected:</th>
</tr>
</thead>
</table>

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

<table>
<thead>
<tr>
<th>Numbers of Photographs or Videos Taken:</th>
<th>Where are photos/video stored?</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Photographs □ Video</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Does property have a Property Line Cleanout or BPD? □ YES □ NO □ Unknown</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>If yes, was the Property Line Cleanout/BPD operational at the time of the overflow? □ YES □ NO □ Unknown</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Have there ever been any previous spills at this location? □ YES □ NO □ Unknown</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Has the resident had any plumbing work done recently? □ YES □ NO</th>
</tr>
</thead>
</table>

*If YES, please describe:*
City of Jackson: Overflow Emergency Response Plan

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?

Is it after 8pm or will the cleaning and disinfection be completed after 10pm?

Any residents that:
- Are pregnant?
- Are children?
- Have severe allergies/asthma?
- Have respiratory problems?
- Have a compromised immune system?

Is the area a childcare or extended care facility?

Is the food preparation area contaminated?

STOP: Resident can stay in premises.

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. Provide the Lodging Authorization Form and review the instructions with the resident.
3. Follow the instructions on the Lodging Authorization Form.

Ask resident to vacate premises while area is cleaned and disinfected.
INSTRUCTIONS TO EMPLOYEE: Review this form with the customer and instruct them to read and select, in order of preference, which of the hotels below they wish to stay at.

1. Contact the City Manager and request they contact the selected hotel and provide payment for one nights lodging for the customer named below.
2. Explain to resident that additional nights and other incidentals will be addressed by the City Clerk or the City’s insurance claims administrator, the Northern California Cities Self Insurance Fund (NCCSIF).
3. Instruct the resident that this emergency authorization is for LODGING AND FOOD ONLY – NO MINIBAR, MOVIE, PHONE or OTHER CHARGES).
4. Have the resident sign the Acknowledgement section of this form.
5. Complete the voucher information and sign. Please note that an unsigned voucher will not be honored at the hotels.
6. Give the bottom copy of this form to the resident.

INSTRUCTIONS TO RESIDENT: City of Jackson recommends that you temporarily relocate to one of the hotels listed below for your safety and convenience while your residence is being cleaned. Please note that this emergency authorization is granted under the following conditions:

1. The voucher authorizes payment of one (1) night’s stay at one of the hotels listed below.
2. The voucher is good for room, tax, and food ONLY. Phone, mini-bar and other incidental charges will be your responsibility.
3. Additional nights/other allowances/incidentals may be discussed by contacting the City’s insurance claims administrator, the Northern California Cities Self Insurance Fund (NCCSIF) at (530) 680-7272, or the City Clerk at (209) 223-1646.
4. Please bring a photo ID with you so that hotel staff can verify the voucher’s authenticity.

RESIDENT 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.

Resident Name (please print): ________________________________
Resident Address: ____________________________________________
Phone # where Resident may be reached: _________________________
Resident Signature: __________________________________________ Date: __________

Good for one (1) night’s stay on (date): __________________________ Number of affected residents: __________
City Representative’s Name: _________________________________
City Representative’s Phone Number: __________________________

This voucher is valid at the following hotels. Note that all three hotels have rooms with kitchenettes. The hotels marked with an asterisk (*) allow some pets. Contact the hotel directly for more information.

<table>
<thead>
<tr>
<th>Hotel Name</th>
<th>Address</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Best Western Amador Inn*</td>
<td>200 S. State Highway 49 Jackson, CA 95642 (800) 780-7234</td>
<td></td>
</tr>
<tr>
<td>Jackson Lodge*</td>
<td>850 N. State Highway 49 Jackson, CA 95642 (209) 257-4077</td>
<td></td>
</tr>
<tr>
<td>Holiday Inn Express</td>
<td>101 Clinton Road Jackson, CA 95642 (209) 257-1500</td>
<td></td>
</tr>
</tbody>
</table>

HOTEL STAFF: Please direct any questions regarding this voucher to the City of Jackson City Clerk at (209) 223-1646 or the Northern California Cities Self Insurance Fund (NCCSIF) at (530) 680-7272.
On ________________, a sewer backup into a residence occurred at ___________________________
(date)  (Address)

Resident’s Name: ___________________________________________________________
(Please Print)

Due to a backup into the structure, the above listed property has sewage to be cleaned up/mitigated, which may also include remediation of part of the structure. It is recommended by the City of Jackson that the residents of the above listed property relocate until the cleanup/mitigation and any required remediation is completed.

Resident(s) determined that they did not want to relocate and will remain in the structure.

PROPERTY OWNER/RESIDENT RELEASE OF LIABILITY AND ASSUMPTION OF RISK

I have decided that I do not want to relocate from the address listed above during any cleanup/mitigation and/or remediation. I understand that there are inherent risks with exposure to sewage and the associated cleanup/mitigation and/or remediation process due to the potential for coming into contact with sewage through breathing, swallowing, or cuts and abrasions in the skin that may cause pathogens. Risks may range from (1) minor temporary discomfort and illness, (2) more serious illness that may require medical treatment, and/or (3) very serious illness that could result in life threatening conditions and including death. I know, understand, and appreciate these and other risks inherent in being exposed to sewage. I knowingly assume all such risks that may result from my own actions, inactions, or negligence of others, and the condition of the structure during the cleanup/mitigation and/or remediation process.

I, for myself, my heirs, personal representative or assigns, hereby release, discharge and hold harmless the City of Jackson, its respective Boards, officers, employees, agents and contractors from any and all claims, actions, causes of action, demands, rights, damages, costs, loss of service, expenses, legal expenses, including subrogation or liens or damage caused by or related to my remaining in the structure while cleanup/mitigation and/or remediation is performed as a result of the sewer backup.

Resident Signature: ________________________________  Date: __________________________

City of Jackson Witness: ________________________________  Date _______________________

Comments: 

Distribution Instructions – Top Copy to City records; Middle Copy to NCCSIF; Bottom Copy to Customer
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:** If this is a Category 1 SSO ≥1,000 gallons, CalOES must be notified within 2 hours.

### A. SSO LOCATION

<table>
<thead>
<tr>
<th>SSO Location Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latitude Coordinates:</td>
</tr>
<tr>
<td>Street Name and Number:</td>
</tr>
<tr>
<td>Nearest Cross Street:</td>
</tr>
<tr>
<td>County:</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>SSO Appearance Point (check one or more):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined Sewer D.I. (Combined CS Only)</td>
</tr>
<tr>
<td>Force Main</td>
</tr>
<tr>
<td>Gravity Mainline</td>
</tr>
<tr>
<td>Lateral Cleanout (Private)</td>
</tr>
<tr>
<td>Lateral Cleanout (Public)</td>
</tr>
<tr>
<td>Inside Building or Structure</td>
</tr>
<tr>
<td>Manhole</td>
</tr>
<tr>
<td>Pump Station</td>
</tr>
<tr>
<td>Lower Lateral (Private)</td>
</tr>
<tr>
<td>Lower Lateral (Public)</td>
</tr>
<tr>
<td>Upper Lateral (Private)</td>
</tr>
<tr>
<td>Upper Lateral (Public)</td>
</tr>
<tr>
<td>Other Sewer System Structure (specify):</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Were there multiple appearance points?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
</tr>
<tr>
<td>Yes, number of appearance points:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Did the SSO reach a drainage channel and/or surface water?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes (Category 1)</td>
</tr>
<tr>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>If the SSO reached a storm sewer, was it fully captured and returned to the Sanitary Sewer?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No (Category 1)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Was this spill from a private lateral?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>If YES, name of responsible party:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Final Spill Destination:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ocean/ocean beach*</td>
</tr>
<tr>
<td>Surface waters other than ocean</td>
</tr>
<tr>
<td>Drainage channel</td>
</tr>
<tr>
<td>Building/structure</td>
</tr>
<tr>
<td>Separate Storm drain</td>
</tr>
<tr>
<td>Combined storm drain</td>
</tr>
<tr>
<td>Paved surface</td>
</tr>
<tr>
<td>Unpaved surface</td>
</tr>
<tr>
<td>Street/curb/gutter</td>
</tr>
</tbody>
</table>

* If multiple appearance points, use the GPS coordinates for the location of the SSO appearance point closest to the failure point/blockage.
*Provide name(s) of affected drainage channels, beach, etc.:

<table>
<thead>
<tr>
<th>Total Estimated SSO volume (in gallons – 1,000gal or more = Category 1):</th>
<th>gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Est. volume that reached a separate storm drain that flows to a surface water body:</td>
<td>gal</td>
</tr>
<tr>
<td>Est. volume that reached a drainage channel that flows to a surface water body:</td>
<td>gal</td>
</tr>
<tr>
<td>Est. volume discharged directly to a surface water body:</td>
<td>gal</td>
</tr>
<tr>
<td>Est. volume discharged to land:</td>
<td>gal</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)

<table>
<thead>
<tr>
<th>Estimated SSO start date:</th>
<th>Estimated SSO start time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date SSO reported to sewer crew:</td>
<td>Time SSO reported to sewer crew:</td>
</tr>
<tr>
<td>Date sewer crew arrived:</td>
<td>Time sewer crew arrived:</td>
</tr>
<tr>
<td>Who was interviewed to help determine start time?</td>
<td></td>
</tr>
<tr>
<td>Estimated SSO end date:</td>
<td>Estimated SSO end time:</td>
</tr>
</tbody>
</table>
### D. CAUSE OF SSO

**Where did failure occur? (Check all that apply):**
- [ ] Air Relief or Blow-Off Valve
- [ ] Force Main
- [ ] Gravity Mainline
- [ ] Siphon
- [x] Lower Lateral (public)
- [ ] Lower Lateral (private)
- [ ] Manhole
- [ ] Pump Station (specify):
  - [ ] Controls
  - [ ] Mechanical
  - [ ] Power
- [ ] Upper Lateral (public)
- [ ] Upper Lateral (private)
- [ ] 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
- [ ] FROG (Fats, roots, oil, grease)
- [ ] Inappropriate Discharge
- [ ] Natural Disaster
- [ ] Operator Error
- [ ] Root Intrusion
- [ ] Pipe Structural Problem/ Failure
- [ ] Pipe Structural Problem/ Failure (Installation)
- [ ] Rainfall Exceeded Design
- [ ] Pump Station Failure (specify):
  - [ ] Controls
  - [ ] Mechanical
  - [ ] Power
- [ ] Siphon Failure
- [ ] Vandalism
- [ ] Surcharged Pipe
- [ ] Non-Dispersible Wipes
- [ ] Other (specify):

**Diameter (in inches) of pipe at point of blockage/spill cause (if applicable):**

**Sewer pipe material at point of blockage/spill cause (if applicable):**

**Estimated age of sewer asset at the point of blockage or failure (if applicable):**

**Description of terrain surrounding point of blockage/spill cause:**
- [ ] Flat
- [ ] Mixed
- [ ] Steep

### E. SSO RESPONSE

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

**SSO response completed (date & time):**

**Visual inspection result of impacted waters (if applicable):**

**Any fish killed?**
- [ ] Yes
- [ ] No

**Any ongoing investigation?**
- [ ] Yes
- [ ] No

**Were health warnings posted?**
- [ ] Yes
- [ ] No

**If yes, provide health warning/beach closure posting/details:**

**Was there a beach closure?**
- [ ] Yes
- [ ] No

**If yes, name of closed beach(es):**

**Were samples of impacted waters collected?**
- [ ] Yes
- [ ] No

**If YES, select the analyses:**
- [ ] DO
- [ ] Ammonia
- [ ] Bacteria
- [ ] pH
- [ ] Temperature
- [ ] Other:

**Recommended corrective actions: (check all that apply and provide detail)**
- [ ] Add sewer to preventive maintenance program
- Adjust schedule/method of preventive maintenance
- Enforcement action against FROG source
- Inspect Sewer Using CCTV to Determine Cause
- Plan rehabilitation or replacement of sewer
- Repair Facilities or Replace Defect
- Other (specify)

**What major equipment was used in the response?**

**List all agency personnel involved in the response including name, title and their role in the response:**

**F. NOTES**

**G. NOTIFICATION DETAILS**

CalOES contacted date and time (if applicable):

CalOES Control Number (if applicable): Spoke to:

This form prepared by: NAME: TITLE: DATE:

This form reviewed by: NAME: TITLE: DATE:

Place completed form in Sewer Backup Envelope and follow routing instructions.
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 City notified of the SSO? ____________________________ ☐ AM ☐ PM

Who notified the City? ____________________________

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

Who at the City received the notification? ____________________________

What time did the crew arrive at the site of the 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>
<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>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 gallon water jug</td>
<td>How many of this size?</td>
<td>x 1 gallons</td>
<td>Multiplier</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:

___________ gallons − _______ gallons = _________________________ gallons

Estimated SSO Volume Rainfall Total Estimated SSO Volume
Do you believe that this method has estimated the entire SSO? ☐ Yes ☐ No

If no, you MUST use additional methods to estimate the entire SSO. If yes, it is advisable to use additional methods to support the estimation. Explain why you believe this method has/has not estimated the entire SSO.

This worksheet completed by:

Name: _______________________________  Signature: _______________________________

Job Title: _______________________________  Date: _______________________________
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.

\[
gpm \times \text{minutes} = \text{gallons}
\]

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:

\[
\text{gallons} + \text{or} - \text{gallons} = \text{gallons}
\]

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

Far View

150 gpm 200 gpm 300 gpm 400 gpm

Near View

Far View
**City of Jackson: Overflow Emergency Response Plan**

**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>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.

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

**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: ___________________________
Superintendent of Public Works

1. Complete the following information:
   - Title: 
   - Name: 
   - Phone: 
   - Today's Date: 

2. Copy the items listed below and retain originals for internal archiving purposes.
   - Form B-3: Declination of Cleaning Services
   - Form B-4: First Responder Form
   - Form B-5: Lodging Authorization Form
   - Form B-6: Rejection of Relocation Recommendation
   - Form B-7: Sanitary Sewer Overflow Report
   - Form B-8: Start Time Determination Form
   - Form B-9: Volume Estimation Forms (a, b, and/or c)
   - Form B-10: Claims Submittal Checklist (this form)
   - All photos taken. Check here if digital photographs will be forwarded separately ☐
   - Any other information you feel is important in this claim

3. Place the copies in the Backup Response Envelope and forward to the City Clerk:

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

5. Complete the Collection System Event Analysis (Form B-11).

City Clerk

1. Verify claims packet is complete and forward to:
   - NCCSIF c/o York Insurance Services
     Attn: Shawn Milar, York Insurance Adjustor
     48 Hanover C
     Chico CA 95973
     (530) 680-7272 or (530) 230-3704 or (916) 960-0900

2. Communicate with claimant as appropriate

3. Coordinate with NCCSIF as they administer the claim to closure
Sanitary Sewer Backup Response Packet
Collection System Event Analysis

To be completed by the Superintendent of Public Works

<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>

**Cause**

**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>
</tr>
<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>
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<th>CCTV Review Date</th>
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**Observations**

Go to Side B
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<tr>
<th>Type</th>
<th>Specific Actions</th>
<th>Assigned To?</th>
<th>Completion Deadline</th>
<th>Who Will Verify Completion?</th>
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</thead>
<tbody>
<tr>
<td>No Changes or Repairs Required</td>
<td>n/a</td>
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<tr>
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<td>Change(s) to Maintenance Procedures</td>
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<td>Change(s) to Overflow Response Procedures</td>
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<td>Training</td>
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<tr>
<td>Misc.</td>
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Comments/Notes:

Review Date:
Customer Service Packet

Contents:

<table>
<thead>
<tr>
<th>Form</th>
<th>Form Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Information Letter</td>
<td>CS-1</td>
</tr>
<tr>
<td>Claim Form</td>
<td>-2</td>
</tr>
<tr>
<td>Sewer Spill Reference Guide</td>
<td>pamphlet</td>
</tr>
</tbody>
</table>

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 the Superintendent of Public Works at (209) 915-3448

This packet provided by:

(name)

title)

(phone)
Dear Resident:

We recognize that sewer back flow incidents can be stressful and require immediate response when all facts concerning how an incident occurred are unknown. Rest assured that we do all we can to prevent this type of event from occurring. Nevertheless, occasionally tree roots or other debris in the sewer lines cause a backup into homes immediately upstream of the blockage. At this time the City is investigating the cause of this incident.

If the City is found to be responsible for the incident, we are committed to cleaning and restoring your property, and to protecting the health of those affected during the remediation process.

The cleaning contractor provided by the City has been selected because of their adherence to established protocols that are designed to assure all parties thorough, cost-effective and expeditious cleaning services. You also have the right to select your own cleaning contractor, but the City does not guarantee payment of fees/expenses incurred and reserves the right to dispute fees/expenses deemed not usual and customary.

The City Clerk has the responsibility for processing any claims for damages that are submitted. If you wish to discuss this matter, or submit a claim for damages, please contact the City Clerk at (209) 223-1646.

What you need to do now:

The City has prepared this brief set of instructions to help you minimize the impact of the loss by responding promptly to the situation.

- Do not attempt to clean the area yourself; let the cleaning and restoration company handle this.
- Keep people and pets away from the affected area(s).
- Turn off all appliances that use water.
- Turn off heating/air conditioning systems and block floor level vents to prevent contamination.
- Do not remove items from the area – the cleaning and restoration company will handle this.
- If you had recent plumbing work, contact your plumber or contractor and inform them of this incident.
- If you intend to file a claim, do so as soon as practical in order to have your claim considered. To obtain a claim form, contact the City Clerk at (209) 223-1646.

Please Note: The general provisions for the filing of claims against public entities are contained in Part 3 (commencing at Section 900) of Division 3.6 of the Government code. Certain claims are not governed by these provisions, including tax and assessment matters, liens, employee compensations, workers' compensation, unemployment compensation, welfare, securities, and others.

The form and contents of a claim are specified by Section 910, et seq. A claim relating to a cause of action for death or for injury to person or to personal property or growing crops shall be presented not later than six months after accrual of the cause of action; other claims shall be presented within one year (Section 911.2).

Claims are to be presented by delivery or mailing to the City Clerk, 33 Broadway, Jackson California 95642. (Section 915).

It is suggested that the claimant refer to claims law and be fully advised with respect to the exceptions and further provisions contained therein.

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

Reconocemos que los incidentes de flujo de regreso de alcantarillado puede ser estresante y requiere una respuesta inmediata cuando se desconocen todos los hechos relativos a cómo se produjo un incidente. Tenga la seguridad de que vamos a hacer todo lo posible para evitar que este tipo de eventos que se produzcan. Sin embargo, en ocasiones, raíces de árboles u otros residuos en las líneas de alcantarillado causan una copia de seguridad en los hogares inmediatamente aguas arriba de la obstrucción. En este momento la ciudad está investigando la causa de este incidente.

Si la ciudad se encuentra para ser responsable del incidente, estamos comprometidos con la limpieza y restauración de su propiedad, y para proteger la salud de los afectados durante el proceso de reparación.

El contratista de limpieza proporcionado por la Ciudad ha sido seleccionado debido a su adhesión a los protocolos establecidos que están diseñados para asegurar que todas las partes servicios exhaustivas y rentables y limpieza rápida. Usted también tiene el derecho de escoger su propio contratista de limpieza, pero la Ciudad no garantiza el pago de honorarios/gastos incurridos y se reserva el derecho de disputar honorarios/gastos no se considera normal y habitual.

El Secretario de la Ciudad tiene la responsabilidad de tramitar las reclamaciones por daños que se presenten. Si desea discutir este asunto, o presentar una reclamación por daños y perjuicios, por favor, póngase en contacto con la Secretaría de la Ciudad al (209) 223 a 1646.

Lo que hay que hacer ahora:

La Ciudad ha preparado esta breve serie de instrucciones para ayudar a minimizar el impacto de la pérdida de responder rápidamente a la situación.

- No intente limpiar la zona a sí mismo; dejar que la empresa de limpieza y restauración de manejar esto.
- Mantenga a las personas y mascotas lejos de la zona afectada (s).
- Apague todos los electrodomésticos que utilicen agua.
- Apague los sistemas de calefacción / aire acondicionado y de piso a nivel de bloque para evitar la contaminación.
- No quitar elementos de la zona - la empresa de limpieza y restauración se encargará de esto.
- Si tuvo el trabajo de plomería reciente, póngase en contacto con un plomero o contratista e informarles acerca de este incidente.
- Si tiene la intención de presentar una reclamación, que lo hagan tan pronto como sea posible con el fin de han considerado su reclamo. Para obtener un formulario de reclamación en contacto con el Secretario de la Ciudad al (209) 223 a 1646.

○ **Tenga en cuenta**: Las disposiciones generales para la presentación de reclamaciones contra entidades públicas están contenidas en la Parte 3 (comenzando en la Sección 900) de la División 3.6 del Código de Gobierno. Ciertas afirmaciones no se rigen por las mismas, incluidas las cuestiones fiscales y de evaluación, embargos, compensaciones de empleados, compensación de trabajadores, compensación por desempleo, el bienestar, valores y otros.

○ La forma y el contenido de una reclamación se especifican en la Sección 910, et seq. Una reclamación relativa a una causa de acción por muerte o por lesiones a la persona o a la propiedad personal o cultivos en crecimiento se presentará a más tardar seis meses después de la acumulación de la causa de la acción; otras reclamaciones deberán presentarse dentro de un año (Sección 911.2).

○ Reclamaciones deben ser presentadas por correo a la Secretaría de la Ciudad, 33 Broadway, Jackson California 95642. (Sección 915).

○ Se sugirió que el demandante se refiere a la ley de reclamaciones y se aconseja totalmente con respecto a las excepciones y otras disposiciones contenidas en el mismo.

**Aviso legal importante**: Para su protección, lea cuidadosamente, obtener una traducción fiable, y/o consulte a su abogado.
How a Sewer System Works

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

Is my home required to have a backflow prevention device?

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

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

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

City of Jackson
(209) 223-1646

Amador County Environmental Health
(209) 223-6439
California Health and Safety Code, Sections 5410-5416 requires:

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

Central Valley Regional Water Quality Control Board
(916) 464-3291
Requires the prevention, mitigation, response to, and reporting of sewage spills.

California Governor’s Office of Emergency Services (CalOES)
(800) 852-7550
California Water Code, Article 4, Chapter 4, Sections 13268-13271 & California Code of Regulations, Title 23, Division 3, Chapter 9.2, Article 2, Sections 2250-2260 require:

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

Sewer Spill Reference Guide

Your Responsibilities as a Private Property Owner

Provided to you by:

City of Jackson
33 Broadway
Jackson, California 95642
(209) 223-1646

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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 cleanout caps
- Undersized sewers
- Groundwater/rainwater entering the sewer system through pipe defects and illegal connections

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

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

What to look for:
Sewage spills can be a very noticeable gushing of water from a manhole or a slow water leak that may take time to be noticed. Don’t dismiss unaccounted-for wet areas. Look for:
- Drain backups inside the building.
- Wet ground and/or water leaking around manhole lids onto your street.
- Leaking water from cleanouts or outside drains
- Unusual odorous wet areas: sidewalks, external walls, ground/landscape around a building.

The following are indicators of a possible obstruction in your sewer line:
- Water comes up in floor drains, showers or toilets.
- Toilets, showers or floor drains below ground level drain very slowly.

What to do if there is a spill:
Immediately notify the City of Jackson. Our crews locate the blockage and determine if it is in the public sewer; if it is the crew removes the blockage and arranges for cleanup. If the backup is in your private internal plumbing or in the private service laterals, you are required to immediately:
- Control and minimize the spill by shutting off or not using the water
- Keep sewage out of the storm drain system using sandbags, dirt and/or plastic sheeting
- Call a plumbing professional to clear blockages and make repairs as needed. Look in the yellow pages under “Plumbing Drain & Sewer Cleaning” or “Sewer Contractors.”
- Always notify your sewer/public works department or public sewer district of sewage spills.

Spill cleanup inside the home:
For large clean ups, a professional cleaning firm should be contacted to clean up impacted areas. You can locate local firms by looking in the Yellow Pages under “Water Damage” or “Fire Damage.” If you hire a contractor, it is recommended to get estimates from more than one company. Sometimes homeowner’s insurance will pay for the necessary cleaning due to sewer backups. Not all policies have this coverage, so check with your agent.

If you decide to clean up a small spill inside your home, protect yourself from contamination by observing the following safety measures. Those persons whose resistance to infection is compromised should not attempt this type of clean up.

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

Thoroughly clean all hard surfaces (such as flooring, concrete, molding, wood and metal furniture, countertops, appliances, sinks and other plumbing fixtures) with hot water and laundry or dish detergent.
Help the drying process with fans, air conditioning units, and dehumidifiers.

After completing cleanup, wash your hands with soap and water. Use water that has been boiled for 1 minute (allow the water to cool before washing your hands) OR use water that has been disinfected (solution of 1/8 teaspoon of household bleach per 1 gallon of water). Let it stand for 30 min. If water is cloudy, use ¼ teaspoon of household bleach per 1 gallon of water.
Wash clothes worn during cleanup in hot water and detergent (wash apart from uncontaminated clothes).
Wash clothes contaminated with sewage in hot water and detergent. Consider using a Laundromat until your onsite wastewater system has been professionally inspected and serviced.

Seek immediate attention if you become injured or ill.

Spill cleanup outside the home:
Keep children and pets out of the affected area until cleanup has been completed.
- Wear rubber boots, rubber gloves, and goggles during cleanup of affected area.
- Clean up sewage solids (fecal material) and place in properly functioning toilet or double bag and place in garbage container.
- On hard surfaces areas such as asphalt or concrete, it is safe to use a 2% bleach solution, or ¼ 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).
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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.
we responded to a reported blockage of the sanitary sewer service to your property.

We discovered a blockage in:

☐ The sanitary sewer main and cleared the line
☐ 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.

City representative notes: _______________________

______________________________

______________________________

City representative: ________________________________________

For questions or comments, please call

City of Jackson
(209) 223-1646
Form | Form Number
--- | ---
Instructions and Chain of Custody | envelope label
Responding to a Sanitary Sewer Overflow | C-1
Sewer Overflow Report | -2
Start Time Determination Form | -3
Volume Estimation Forms | -4a, -4b, -4c
Collection System Event Analysis | -5
Regulatory Notifications Packet
  | Instructions | envelope
  | Regulatory Reporting Guide | RN-1
  | Category 1 SSO Reporting Checklist | -2a
  | Category 2 & 3 SSO Reporting Checklist | -2b
Public Posting
Door Hanger
Sewer Spill Reference Guide
If this is a Category 1 SSO greater than or equal to 1,000 gallons, IMMEDIATELY contact one of the following to make the 2-hour notification to CalOES:

- Superintendent of Public Works: (209) 915-3448 (cell)
- Lead Worker, Bree Wilder: (209) 781-5518 (cell)

Check here if you believe that fats, roots, oils and grease (FROG) caused or contributed to the SSO.

Media requests must be directed to the Superintendent of Public Works.

Instructions

**Public Works 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 the Superintendent of Public Works.

**Superintendent of Public Works:**
- Review the enclosed forms.
- Complete the Regulatory Notifications Packet.
- Place completed forms, camera (if applicable), and any additional notes/documentation in this envelope.
- Complete the Chain of Custody Record (right) and file this completed Sewer Overflow Packet in accordance with City policy.
- Debrief using the Collection System Failure Analysis Form.

MEDIA AND PUBLIC RELATIONS GUIDELINES:
Exercise caution in contacts with the public or media when you respond to a spill. Any information you provide or statements you make may become pertinent in the event of possible court action, it is important to **AVOID THE FOLLOWING:**
- Giving out the wrong information including providing incorrect facts about a company or other agency
- Making accusations against customers, businesses or other agencies
- Speculating about the situation you are responding to

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

Take necessary measures to prevent sewage from entering storm drains.

Contact the Superintendent of Public Works to discuss contacting the property owner/manager (using customer billing information) or local police to gain entry if necessary.

Is the spill coming from the City sewer or private sewer?

PRIVATE

CITY

Determine whether the City should clear the stoppage/blockage or have the property owner/manager use a private contractor. Be sure to document City staff time and equipment used for potential billing purposes. Always notify the property owner/manager of the SSO and any City actions taken.

Is the customer home?

YES

NO

Is there reason to believe there was a backup into private property?

Complete the remainder of this flowchart (C-1 sides A and B), then go to Sanitary Sewer Backup Packet and follow instructions.

If the spill is entering an area where public contact may occur, post “WARNING RAW SEWAGE” signs and place barricades as necessary to prevent public contact. Be sure to photograph any areas where warnings/barricades are posted, as appropriate.

Consider the need to call out additional staff, contractor or mutual aid assistance or to notify upstream users to curtail water use. Immediately notify the Superintendent of Public Works in the event of a large SSO event and if the spill appears to be large, in a sensitive area, or there is doubt regarding the extent, impact, or how to proceed.

BEGIN DIVERSION AND CONTAINMENT

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 it is a Category 1 spill greater than or equal to 1,000 gallons, contact the Superintendent of Public Works to make 2-hour notification to CalOES.

If the SSO is coming from a private property, consider whether the SSO is from private property.

If customer is not home, complete Customer Service door hangar. If they are home, provide them with the pamphlet “Sewer Spill Reference Guide.”

If tenant or property owner is unable to unwilling to address the cause of the overflow, immediately contact your supervisor and discuss whether City Code Enforcement, the County Department of Environmental Health or Regional Water Quality Control Board should be notified.

1. Photograph & document all evidence that this SSO is from private property.
2. If customer is not home, complete Customer Service door hangar. If they are home, provide them with the pamphlet “Sewer Spill Reference Guide.”
3. If tenant or property owner is unable to unwilling to address the cause of the overflow, immediately contact your supervisor and discuss whether City Code Enforcement, the County Department of Environmental Health or Regional Water Quality Control Board should be notified.

End. Do not continue to Side B

CITY

PRIVATE

PHOTO FAILURE, ensure the switchover to onsite backup power has occurred.

If PUMPING FAILURE, does station have integrated bypass capabilities?

If YES, implement integrated bypass system.

If NO, implement manual bypass system.

Pump Station

Manhole or Cleanout

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.

Go to Side B

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STORM DRAIN CLEANING SOP

1. Seal or berm the storm drain immediately downstream of point the SSO reached
2. Photograph impacted storm drain catch basins before cleaning
3. Vacuum any visible sewage – *Record the volume of sewage recovered*
4. Flush impacted sections of storm drain with 3X amount of SSO, if possible – *Record volume of flush water*
5. Ensure all visible signs of sewage have been removed
6. Return flush water to sanitary sewer – *Record volume of flush water recovered*
7. Photograph all storm drain catch basins after cleaning is completed

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 w/unchlorinated 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

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 SSO volume using one or more worksheets and/or methods listed in the Field Guide.

DOCUMENTATION

Complete the *Sanitary Sewer Overflow Report*.

---

Collect water samples. Refer to the Field Sampling Kit for procedures.

Assign staff to post “WARNING: RAW SEWAGE” signs or other means of warning along the shoreline of impacted receiving 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 receiving waters?

NO

YES

Contain/recover/clean-up as much of the spill in the waters and shoreline as possible. Contact Superintendent of Public Works to request outside assistance recovering any debris from the water, as appropriate or possible.

Has 1,000 gallons or more reached surface waters?

NO

YES

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
City of Jackson: Overflow Emergency Response Plan

Sanitary Sewer Overflow Response Packet
Sanitary Sewer Overflow Report

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: If this is a Category 1 SSO ≥1,000 gallons, CalOES must be notified within 2 hours.

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): ☐ Combined Sewer D.I. (Combined CS Only) ☐ Force Main ☐ Gravity Mainline ☐ Lateral Cleanout (Private) ☐ Lateral Cleanout (Public) ☐ Inside Building or Structure ☐ Manhole ☐ Pump Station ☐ Lower Lateral (Private) ☐ Lower Lateral (Public) ☐ Upper Lateral (Private) ☐ Upper Lateral (Public) ☐ 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: ☐ Ocean/ocean beach* ☐ Surface waters other than ocean ☐ Drainage channel ☐ Building/structure ☐ Separate Storm drain ☐ Combined storm drain ☐ Paved surface ☐ Unpaved surface ☐ Street/curb/gutter ☐ Other:

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

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**Provide name(s) of affected drainage channels, beach, etc.:**

<table>
<thead>
<tr>
<th>Total Estimated SSO volume (in gallons – 1,000gal or more = Category 1):</th>
<th>gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Est. volume that reached a separate storm drain that flows to a surface water body:</td>
<td>gal</td>
</tr>
<tr>
<td>Est. volume that reached a drainage channel that flows to a surface water body:</td>
<td>gal</td>
</tr>
<tr>
<td>Est. volume discharged directly to a surface water body:</td>
<td>gal</td>
</tr>
<tr>
<td>Est. volume discharged to land:</td>
<td>gal</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)

<table>
<thead>
<tr>
<th>Estimated SSO start date:</th>
<th>Estimated SSO start time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date SSO reported to sewer crew:</td>
<td>Time SSO reported to sewer crew:</td>
</tr>
<tr>
<td>Date sewer crew arrived:</td>
<td>Time sewer crew arrived:</td>
</tr>
<tr>
<td>Who was interviewed to help determine start time?</td>
<td></td>
</tr>
<tr>
<td>Estimated SSO end date:</td>
<td>Estimated SSO end time:</td>
</tr>
</tbody>
</table>
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)
- Lower Lateral (private)
- Manhole
- Pump Station (specify): Controls
- Mechanical
- Power
- Upper Lateral (public)
- Upper Lateral (private)
- 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
- OGeneral
- ORags
- Flow Exceeded Capacity
- FROG (Fats, roots, oil, grease)
- Inappropriate Discharge
- Natural Disaster
- Operator Error
- Root Intrusion
- Pipe Structural Problem/Failure
- Pipe Structural Problem/Failure (Installation)
- Rainfall Exceeded Design
- Pump Station Failure (specify): Controls
- Mechanical
- Power
- Siphon Failure
- Vandalism
- Surcharged Pipe
- Non - Dispersible Wipes
- Other (specify):

Diameter (in inches) of pipe at point of blockage/spill cause (if applicable):

Sewer pipe material at point of blockage/spill cause (if applicable):

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

Description of terrain surrounding point of blockage/spill cause:
- Flat
- Mixed
- Steep

E. SSO RESPONSE

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

SSO response completed (date & time):

Visual inspection result of impacted waters (if applicable):

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

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

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

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

Recommended corrective actions: (check all that apply and provide detail)
- Add sewer to preventive maintenance program
- Adjust schedule/method of preventive maintenance
- Enforcement action against FROG source
- Inspect Sewer Using CCTV to Determine Cause
- Plan rehabilitation or replacement of sewer
- Repair Facilities or Replace Defect
- Other (specify)

What major equipment was used in the response?

List all agency personnel involved in the response including name, title and their role in the response:

F. NOTES

G. NOTIFICATION DETAILS

CalOES contacted date and time (if applicable):

CalOES Control Number (if applicable): Spoke to:

This form prepared by: NAME: TITLE: DATE:

This form reviewed by: NAME: TITLE: DATE:

Place completed form in Sewer Backup Envelope and follow routing instructions.
City of Jackson: Overflow Emergency Response Plan

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. Start time must be based on all available information (interviews with
neighbors, emergency responders, etc.)

What time was the City notified of the SSO? ____________________________________________ ☐AM ☐PM

Who notified the City? ________________________________________________________________

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

Who at the City received the notification? _______________________________________________

What time did the crew arrive at the site of the 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>
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<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>x 1 gallons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 gallon bucket</td>
<td>x 5 gallons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32 gallon trash can</td>
<td>x 32 gallons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>55 gallon drum</td>
<td>x 55 gallons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other: ______ gallons</td>
<td>x _____ gallons</td>
<td></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:

______ gallons − ________ gallons = ________ gallons

Estimated SSO Volume    Rainfall    Total Estimated SSO Volume
Do you believe that this method has estimated the entire SSO? ☐ Yes  ☐ No

If no, you MUST use additional methods to estimate the entire SSO. If yes, it is advisable to use additional methods to support the estimation. Explain why you believe this method has/has not estimated the entire SSO:

This worksheet completed by:

Name: ___________________________  Signature: ___________________________

Job Title: ___________________________  Date: ___________________________
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: _______________________________

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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

Near View

Far View

5 gpm  25 gpm  50 gpm  100 gpm

Near View

Far View

150 gpm  200 gpm  300 gpm  400 gpm

Near View

Far View
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>Flow Rate Per EDU</th>
<th></th>
<th></th>
<th>SSO</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td></td>
<td>Gallons per Period</td>
<td>Hours per period</td>
<td>A ÷ B = Gallons per Hour</td>
<td>C ÷ 60 = Gallons per Minute</td>
<td>Minutes SSO was active during period</td>
</tr>
<tr>
<td>6am-noon</td>
<td>72</td>
<td>6</td>
<td>12</td>
<td>0.20</td>
<td></td>
</tr>
<tr>
<td>noon-6pm</td>
<td>36</td>
<td>6</td>
<td>6</td>
<td>0.10</td>
<td></td>
</tr>
<tr>
<td>6pm-midnight</td>
<td>54</td>
<td>6</td>
<td>9</td>
<td>0.15</td>
<td></td>
</tr>
<tr>
<td>midnight-6am</td>
<td>18</td>
<td>6</td>
<td>3</td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td><strong>Total Estimated SSO Volume per EDU:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

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: ___________________________
To be completed by the Superintendent of Public Works

<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>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
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<td></td>
<td></td>
<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></td>
<td></td>
</tr>
</tbody>
</table>

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

Observations

Go to Side B
## Recommendations

<table>
<thead>
<tr>
<th>Type</th>
<th>Specific Actions</th>
<th>Assigned To?</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:**
DANGER

RAW SEWAGE ● AVOID CONTACT

PELIGRO

AGUA CONTAMINADA ● EVITE TODO CONTACTO

City of Jackson

(209) 223-2178
For questions or comments, please call
City of Jackson
(209) 223-1646

On (date) ____________________, at
How a Sewer System Works

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

Is my home required to have a backflow prevention device?

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

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

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

**City of Jackson**
(209) 223-1646

**Amador County Environmental Health**
(209) 223-6439
California Health and Safety Code, Sections 5410-5416 requires:

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

**Central Valley Regional Water Quality Control Board**
(916) 464-3291
Requires the prevention, mitigation, response to, and reporting of sewage spills.

**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 92, 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.
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 on your street.
- Leaking water from cleanouts or outside drains
- Unusual odorous wet areas: sidewalks, external walls, ground/landscape around a building.

The following are indicators of a possible obstruction in your sewer line:
- Water comes up in floor drains, showers or toilets.
- Toilets, showers or floor drains below ground level drain very slowly.

What to do if there is a spill:
Immediately notify the City of Jackson. 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.

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 ⅛ cup of bleach to 5 gallons of water, but don’t allow it to reach a storm drain as the bleach can harm the environment.
- After cleanup, wash hands with soap and water. Use water that has been boiled for 1 minute (allow to cool before washing your hands) OR use water that has been disinfected (solution of 1/8 teaspoon of household bleach per 1 gallon of water). Let it stand for 30 min. If water is cloudy, use ¼ teaspoon of household bleach per 1 gallon of water.
- Wash clothes worn during cleanup in hot water and detergent (wash apart from uncontaminated clothes).
- Wash clothes contaminated with sewage in hot water and detergent. Consider using a Laundromat until your onsite wastewater system has been professionally inspected and serviced.
- Seek immediate attention if you become injured/ill.

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/ill.
Appendix D

FIELD SAMPLING KIT
The Field Sample Kit contains:

- Cooler w/ice pack
- Latex gloves
- Safety glasses
- Water quality sample bottles
- Waterproof Pen (i.e. Sharpie®)
- Coliform sample bottles
- Combination temperature/pH meter
- Extra batteries for temperature/pH meter
- Chain of Custody form
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)

Put on the PPE from the Sampling Kit.

- Collect all samples against the direction of the water flow! (face upstream)
- Collect downstream sample first and work your way upstream!
- 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 10’ downstream of point where spill entered waterway (reference sample). Attach a map of sampling points.

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 50’ upstream of point where spill entered waterway and repeat sampling steps (red boxes).

Immediately contact Alpha Labs at (209) 770-4862 and inform them you have the following samples that require processing: Ammonia-Nitrogen and Enterococcus

Samples should be picked up by the lab within 6 hours of collection time.

Post warning signs as directed by the County Environmental Health Department or the Superintendent of Public Works. (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 and Posting Warnings after a Sewage Spill

NOTE: 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.
# Field Sampling Kit
## Sample Collection Chain of Custody Record

### Customer Information
- **Customer Name:**
- **Hazardous Waste:**
- **PO#**
- **Unknown Material:**
- **WO#**

### Program Information
- **Program Name:**
- **Customer Address:**
- **Mail Code:**
- **Customer Telephone:**
- **CONTRACT LAB INFORMATION**
  - **Ship to:**
  - **Contract Lab Information**
    - **Ship Date:**
    - **Ship to:**
    - **Courier:**

### Sample Collection Information

<table>
<thead>
<tr>
<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>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Upstream</td>
<td></td>
<td></td>
<td>2</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Entry Point</td>
<td></td>
<td></td>
<td>2</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Downstream</td>
<td></td>
<td></td>
<td>2</td>
<td>A</td>
<td></td>
<td></td>
</tr>
</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
- **USPS**
- **UPS**
- **FedEx**

### Remarks/Notes

### Relinquished Information
- **Relinquished to:**
- **Date**
- **Time**

### Transport/Shipping Information
- **Tracing #:**
<table>
<thead>
<tr>
<th>Sample Receiving Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Container intact? □ Yes □ No</td>
</tr>
<tr>
<td>Cooled? □ Yes □ No</td>
</tr>
<tr>
<td>Sample distribution: □ Lab bench □ Ice chest □ Walk-in cooler shelf #</td>
</tr>
<tr>
<td>C-O-C Distribution Date: By:</td>
</tr>
</tbody>
</table>
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 City
(209) 223-2178

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 Public Works Crew arrives.

Provide Information
Provide the Public Works 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:
Superintendent of Public Works or designee at (209) 223-2178
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 (209) 223-2178, so we can work with you to remove the blockage and prevent blockages further downstream.
- Use plenty of water to flush lines.

…when constructing or repairing sewer laterals:
- Contact the City Hall Planning Office at (209) 223-1646 for a permit and lateral specifications.
- 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:

City of Jackson
(209) 223-2178

City of Jackson
200 Cemetery Lane
Jackson, California 95642
ci.jackson.ca.us
Appendix E: City of Jackson Water Quality Monitoring Plan
City of Jackson

Water Quality Monitoring Plan

August 20, 2016
Table of Contents

1. PURPOSE OF PROGRAM PLAN ....................................................................................................... 3

2. DEFINITIONS ...................................................................................................................................... 3

3. RESPONSIBILITY ............................................................................................................................... 5

4. AUTHORITY AND REFERENCES ...................................................................................................... 7

5. IDENTIFICATION OF LOCAL SURFACE WATERS AND CHARACTERISTICS ................................ 8
   A. Background Monitoring
   B. Surface Waters of Concern

6. LAB SELECTION .............................................................................................................................. 11
   A. Analytical Lab
   B. Getting Samples to the Lab
   C. Lab Contact Info

7. SAMPLING PARAMETERS .............................................................................................................. 11
   A. Required Sampling Parameters
   B. Sampling Parameters for Jackson

8. SAMPLING EQUIPMENT AND CALIBRATION ............................................................................... 17
   A. Sampling Equipment Used at Jackson
   B. Calibration and Record Keeping

9. SAMPLING PROCEDURES .............................................................................................................. 17
   A. Sample Location and Identification Procedures
   B. Sample Types
   C. Decontamination Procedures
   D. Sample Labeling and Chain of Custody Procedures
   E. Safety Considerations
   F. Stream Velocity Measurements
   G. Grab-n-Go Sampling Kit
   H. Surface Water Maps
I. Follow Up Sampling

J. Surface Water Sampling Standard Operating Procedure (SOP)

10. NOTIFICATIONS OF SENSITIVE RECEPTORS AND REGULATORY AGENCIES .................25

11. TECHNICAL REPORT ........................................................................................................26

12. RECORDKEEPING ................................................................................................................26

13. TRAINING ............................................................................................................................27

14. INTERNAL REVIEW AND UPDATE OF THE WQMP .........................................................28

ATTACHMENTS

A. Change Log............................................................................................................................29

B. Surface Water Sampling Standard Operating Procedure (SOP) ........................................31

C. Chain of Custody Form..........................................................................................................33

D. Surface Water Sampling Worksheet ...................................................................................35

E. Technical Report ..................................................................................................................37

F. Surface Water Maps ............................................................................................................39
1. PURPOSE OF PROGRAM PLAN

The purpose of this Water Quality Monitoring Program Plan (WQMP or Plan) is to implement the requirements for sampling of sanitary sewer overflows (SSOs) greater than 50,000 gallons that reach surface waters. This plan conforms to the State Water Resources Control Board Waste Discharge Requirements Order No. 2006-0003-DWQ, Section D.7(v) and Monitoring and Reporting Program (MRP) Section D, Water Quality Monitoring Requirements issued by executive order number WQ 2013-0058-EXEC effective on September 9, 2013. This WQMP provides the City of Jackson (City) policies and procedures to assure consistent conformance to the regulatory requirements and to establish procedures for City staff and contractors in their responses to large releases of sanitary sewage that reach surface waters. This WQMP is consistent with and supplemental to the City of Jackson Overflow Emergency Response Plan, Element VI of its SSMP. Finally, this document will be used to coordinate training for the City’s new employees and regular refresher training for existing employees.

Additionally this Plan is also used as a guideline for monitoring and sampling requirements that may be imposed upon the City from citizen suits under the Clean Water Act (CWA) resulting in settlement agreements, stipulated orders or consent decrees that can require monitoring and sampling of sanitary sewer overflows of any kind or size. This Plan establishes procedures for the identification of sampling locations, protocols for the proper collection of samples, the chain of custody for sample collections, the handling of samples, the reporting and recordkeeping to assure the legal integrity of monitoring for compliance with regulatory requirements. The plan will also establish policies and procedures that will be used to assure proper coordination between the taking and testing of samples, as well as assure that samples taken will satisfy the local regulatory agency’s Basin Plan and the unique character of the City’s local service area and surface waters.

This Plan is intended to establish protocols for all sampling including when, where and how; establish the required water quality sample analyses that will be conducted; identify the access and safety requirements related to sampling considerations; and identify any local concerns that this monitoring plan should address. In addition, the Plan establishes the requirements for equipment calibration, notification requirements related to an overflow, recordkeeping requirements, staff training issues and requirements for the regular reviews and audits of the WQMP. Finally, all City forms used for water quality monitoring are included and available for use in any SSO incident.

2. DEFINITIONS

The following definitions and acronyms are used in this Program Plan:

BACTERIA Probaryotic microorganisms typically a few micrometers in length, with shapes from spheres to rods and spirals

CalOES State of California Office of Emergency Services

CALOSHA California Division of Occupational Safety and Health

CFR Code of Federal Regulations

CFS Cubic feet per second

CIWQS California Integrated Water Quality System
CSRMA  California Sanitation Risk Management Association
CWA    Clean Water Act
DH2O   Distilled Water
DEET   N,N-Diethyl-meta-toluamide
DOHS   California Department of Health Services
E. Coli Escherichia coli (bacteria)
ELAP   Environmental Laboratory Accreditation Program
EPA    Environmental Protection Agency
Field QC Field Quality Control
GPM    Gallons per minute
GWDR   General Waste Discharge Requirements or WDR
GIS    Geographic Information System
LIMS   Laboratory Information Management System
LRO    Legally Responsible Official
mg/l   Milligrams per liter
ml     Milliliter
MPN    Most probable number
MRP    Monitoring and Reporting Program
NH3    Ammonia
NH3-N  Ammoniacal Nitrogen
NPDES  National Pollution Discharge and Elimination System
OERP   Overflow Emergency Response Plan
OES    See CalOES
PPE    Personal Protective Equipment
ppm    Parts per million
QA/QC  Quality Assurance/Quality Control
RWQCB  Regional Water Quality Control Board
SOP    Standard Operating procedure
SSC    Sewer Service Charge
SSMP   Sanitary Sewer Management Plan
SSO   Sanitary Sewer Overflow
SSO GWDR Sanitary Sewer Overflow General Waste Discharge Requirements

SURFACE WATER
All waters whose surface is naturally exposed to the atmosphere; for example, rivers, lakes, reservoirs, ponds, streams, seas, estuaries, etc., and all springs, wells, or other collectors directly influenced by surface water.

SWRCB State Water Resources Control Board
WQMP Water Quality Monitoring Program Plan
WQ Water Quality
WDR Waste Discharge Requirements
VOC Volatile Organic Compound

3. RESPONSIBILITY

The City shall designate responsibility for all WQMP roles to appropriate classifications in the City’s organizational structure to assure conformance of all activities for the monitoring of SSOs greater than 50,000 gallons reaching surface waters (Category 1 SSO), to reduce potential liability, protect public health, and to assure those responsible for this Plan are trained in their roles and responsibilities for the performance of proper protocols. It is further recognized that the proper application of this Plan will assure that all monitoring can withstand regulatory or legal scrutiny of the State, Regional Board, or from the actions of a citizen lawsuit. These roles and responsibilities are intended to be compliant with WDR Sections D.13(vi), G and Section C.5 and D of the September 9, 2013 MRP.

The following table contains the roles and responsibilities as assigned by the City to individual classifications or service contractors of the City:

<table>
<thead>
<tr>
<th>Roles and Responsibility</th>
<th>Responsible Classification</th>
</tr>
</thead>
</table>
| Provide and document regular training on WQMP for all City classifications that have a role or responsibility in the WQMP and identified herein | City of Jackson
Superintendent of Public Works
(209) 223-2178 |
| Identification and assessment of potential impacts to local areas with surface waters that may require WQMP (i.e. aerial crossings, creeks, waterways, rivers, bays, estuaries, etc.) | City of Jackson
Superintendent of Public Works
(209) 223-2178 |
| Certification of calibration of sampling equipment and maintenance of calibration records | Alpha Labs
(209) 770-4862 |
<p>| Determination of specific sampling protocols and analytic methods to be used for the City-required | Alpha Labs |</p>
<table>
<thead>
<tr>
<th>Activity</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Testing</td>
<td>(209) 770-4862</td>
</tr>
<tr>
<td>Determination of appropriate bacterial indicators for sampling</td>
<td>City of Jackson Superintendent of Public Works</td>
</tr>
<tr>
<td></td>
<td>(209) 223-2178</td>
</tr>
<tr>
<td>Quarterly completion of the monitoring and sampling kit checklist from Appendix E.</td>
<td>City of Jackson Superintendent of Public Works</td>
</tr>
<tr>
<td></td>
<td>(209) 223-2178</td>
</tr>
<tr>
<td>Annual review of all standard operating procedures related to this WQMP especially the Sample Collection procedures</td>
<td>City of Jackson Superintendent of Public Works</td>
</tr>
<tr>
<td></td>
<td>(209) 223-2178</td>
</tr>
<tr>
<td>Decision to invoke a WQMP and direct the monitoring program to conclusion</td>
<td>City of Jackson Superintendent of Public Works</td>
</tr>
<tr>
<td></td>
<td>(209) 223-2178</td>
</tr>
<tr>
<td>Selection of sampling locations</td>
<td>City of Jackson Superintendent of Public Works</td>
</tr>
<tr>
<td></td>
<td>(209) 223-2178</td>
</tr>
<tr>
<td>Coordination of field sampling</td>
<td>City of Jackson Superintendent of Public Works</td>
</tr>
<tr>
<td></td>
<td>(209) 223-2178</td>
</tr>
<tr>
<td>Conduct field sampling per City protocols</td>
<td>City of Jackson Superintendent of Public Works</td>
</tr>
<tr>
<td></td>
<td>(209) 223-2178</td>
</tr>
<tr>
<td>Authorization and direction for placement of public notifications and signage</td>
<td>City of Jackson Superintendent of Public Works</td>
</tr>
<tr>
<td></td>
<td>(209) 223-2178</td>
</tr>
<tr>
<td>Photographs of sampling and signage placed to protect public health and safety</td>
<td>City of Jackson Superintendent of Public Works</td>
</tr>
<tr>
<td></td>
<td>(209) 223-2178</td>
</tr>
<tr>
<td>Preparation of Chain of Custody for all samples taken including proper labeling</td>
<td>City of Jackson Superintendent of Public Works</td>
</tr>
<tr>
<td>Task Description</td>
<td>Responsible Party</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>Determination of spill travel time, if applicable.</td>
<td>City of Jackson</td>
</tr>
<tr>
<td></td>
<td>Superintendent of Public Works</td>
</tr>
<tr>
<td>Review and evaluate lab results for termination of sampling and to determine</td>
<td>City of Jackson</td>
</tr>
<tr>
<td>the nature and impact of the release</td>
<td>Superintendent of Public Works</td>
</tr>
<tr>
<td>Decision to terminate sampling</td>
<td>City of Jackson</td>
</tr>
<tr>
<td></td>
<td>Superintendent of Public Works</td>
</tr>
<tr>
<td>Preparation of detailed sampling location map</td>
<td>City of Jackson</td>
</tr>
<tr>
<td></td>
<td>Superintendent of Public Works</td>
</tr>
<tr>
<td>Conduct sample analysis</td>
<td>Alpha Labs</td>
</tr>
<tr>
<td>Preparation of water quality sampling activities narrative for Technical</td>
<td>City of Jackson</td>
</tr>
<tr>
<td>Report</td>
<td>Superintendent of Public Works</td>
</tr>
<tr>
<td>Review and Approval of Technical Report</td>
<td>City of Jackson</td>
</tr>
<tr>
<td></td>
<td>Superintendent of Public Works</td>
</tr>
<tr>
<td>Certification and placement of Technical report in the CIWQS spill</td>
<td>City of Jackson</td>
</tr>
<tr>
<td>reporting system.</td>
<td>Superintendent of Public Works</td>
</tr>
<tr>
<td>Failure Analysis Investigation of all water quality monitoring from the SSO</td>
<td>City of Jackson</td>
</tr>
<tr>
<td>event to determine all necessary changes or modifications to the WQMP</td>
<td>Superintendent of Public Works</td>
</tr>
<tr>
<td>Audits of the WQMP as required by City SSMP Element 10, Audit.</td>
<td>City of Jackson</td>
</tr>
<tr>
<td></td>
<td>Superintendent of Public Works</td>
</tr>
</tbody>
</table>
It is recommended that this list of responsibilities be placed on a laminated card and kept in the Monitoring and Sampling Kit for easy access during an SSO sampling incident.

4. AUTHORITY AND REFERENCES

The authority and/or requirements for the monitoring and sampling of sanitary sewer overflows are contained in the following regulations:

2. State Water Resources Control Board Monitoring and Reporting Program (MRP) Sections C.5 D, Executive Order number WQ 2013-0058-EXEC effective September 9, 2013
4. Clean Water Act Sections 301(a), 304(h), and 501(a).

There are a number of applicable references that are available to assist with the Water Quality Monitoring Program as follows:

A. Basin Plan of the Regional Water Quality Control Board
C. City Overflow Emergency Response Plans

5. IDENTIFICATION OF LOCAL SURFACE WATERS AND CHARACTERISTICS

An important element of any water quality monitoring program is the proper and thorough understanding of the service area and the various challenges the geography and sanitary sewer infrastructure of the service area present for the potential of wastewater reaching surface waters or storm water facilities. By evaluating the areas of concern in a service area such as lakes, rivers, dry creeks, aerial pipeline crossings over water ways and all storm water related infrastructure, the City can be better prepared to timely respond to any SSO reaching surface waters and to minimize the impacts of an SSO in or around local surface waters and storm water infrastructure.
A. Surface Waters of Concern

For the purposes of this Plan, surface waters are defined as all waters whose surface is naturally exposed to the atmosphere, for example, rivers, lakes, reservoirs, ponds, streams, seas, estuaries, etc., and all springs, wells, or other collectors directly influenced by surface water. In addition, the City will also identify and evaluate areas where collection system pipelines and force mains cross over or under waterways as these crossings can require additional resources and equipment to properly address any SSO from these collection system assets.

Surface waters of concern are those surface waters with the City’s service area that may be impacted by a sanitary sewer overflow from the City’s sanitary sewer collection system. Prior planning, review and evaluation of potential failure mechanisms can help minimize any potential impacts to surface waters or storm water infrastructure when and if the WQMP must be invoked. Any review of these important areas of potential surface water contamination in advance of an SSO should allow the City to be better prepared to respond to an SSO with the proper equipment and a better understanding of the procedures that may need to be invoked during the SSO such as flow rate of a creek or stream, and potential areas of significant environmental concern such as shell fish beds or fish habitats. In addition, having all storm water infrastructure located on the collection system field maps will help the City’s responders quickly determine if SSOs may flow into storm drains reach and impact surface waters.

The following (Table 5.1) are the surface waters of concern within the City’s jurisdiction:
Freshwater wetlands that are poorly drained and characterized by a buildup of peat.

Generally, water containing dissolved minerals in amounts that exceed normally acceptable standards for municipal, domestic, and irrigation uses. Considerably less saline than sea water. Also, Marine and Estuarine waters with Mixohaline salinity (0.5 to 30 due to ocean salts). Water containing between 1,000-4,000 parts per million (PPM) Total Dissolved Solids TDS). The term brackish water is frequently interchangeable with Saline Water. The term should not be applied to inland waters.

A natural stream of water, smaller than a river or creek; especially a small stream or rivulet which breaks directly out of the ground, as from a spring or seep; also, a stream or torrent of similar size, produced by copious rainfall, melting snow and ice, etc.; a primary stream not formed by tributaries, though often fed below its source, as by rills or runlets; one of the smallest branches or ultimate ramifications of a drainage system.

A constructed open channel for transporting water.

An area that contains continuously or periodically flowing water that is confined by banks and a stream bed.

A buried pipe that allows streams, rivers, or runoff to pass under a road.

A long narrow trench or furrow dug in the ground, as for irrigation, drainage, or a boundary line.

(1) An artificial channel constructed around a town or other point of high potential flood damages to divert floodwater from the main channel to minimize flood damages. (2) A channel carrying water from a diversion dam.

For the purposes of complying with the Statewide Sanitary Sewer Order, (1) a man-made canal used to transport storm water as part of a municipal separate storm sewer system, or (2) an intermittent or perennial stream bed.

A streambed that carries water only during and immediately following rainstorms.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Map Location</th>
<th>Background Monitoring?</th>
<th>Access Considerations</th>
<th>Safety Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jackson Creek</td>
<td>Stream</td>
<td>Point A</td>
<td>No</td>
<td>None</td>
<td>No special concerns. Always be careful when sampling, especially during high flows.</td>
</tr>
<tr>
<td>Moore Ditch</td>
<td>Canal</td>
<td>Point B</td>
<td>No</td>
<td>None</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ephemeral Streams</td>
<td>Streams which flow only in direct response to precipitation and whose channel is at all times above the water table.</td>
</tr>
<tr>
<td>Freshwater marsh</td>
<td>Open wetlands that occur along rivers and lakes.</td>
</tr>
<tr>
<td>Intermittent stream</td>
<td>Any nonpermanent flowing drainage feature having a definable channel and evidence of scour or deposition. This includes what are sometimes referred to as ephemeral streams if they meet these two criteria.</td>
</tr>
<tr>
<td>Perennial streams</td>
<td>Streams which flow continuously.</td>
</tr>
<tr>
<td>Pipe crossing</td>
<td>Crossing of a pipe or force main over or under a surface water body.</td>
</tr>
<tr>
<td>Riverine</td>
<td>Relating to, formed by, or resembling a river including tributaries, streams, brooks, etc.</td>
</tr>
<tr>
<td>Slough</td>
<td>A shallow backwater inlet that is commonly exposed at low tide.</td>
</tr>
<tr>
<td>Stream</td>
<td>A general term for a body of flowing water; natural water course containing water at least part of the year. In Hydrology, the term is generally applied to the water flowing in a natural channel as distinct from a canal. More generally, as in the term Stream Gaging, it is applied to the water flowing in any channel, natural or artificial.</td>
</tr>
</tbody>
</table>

*For additional definitions refer to the glossary at [http://www.streamnet.org/glossarystream.html](http://www.streamnet.org/glossarystream.html).*
6. LAB SELECTION

A. Analytical Lab

Samples collected for SSO response and background monitoring purposes pursuant to Section 5.0 will be analyzed at Alpha Labs:

**Central Valley Satellite Laboratory ELAP#2922**

9090 Union Park Way, Suite 113 Elk Grove, CA 95624

Phone: 916.686.5190 FAX: 916.686.5192

adam@alpha-labs.com

This lab is accredited through California’s Department of Public Health Environmental Laboratory Accreditation Program (ELAP). ELAP provides evaluation and accreditation of environmental testing laboratories to ensure the quality of analytical data used for regulatory purposes to meet the requirements of the State’s drinking water, wastewater, shellfish, food, and hazardous waste programs. The State agencies that monitor the environment use the analytical data from these accredited labs. The ELAP-accredited laboratories have demonstrated capability to analyze environmental samples using approved methods.

B. Getting Samples to the Lab

At all times, sample hold times identified below will be observed in accordance with Section 7.0. Once samples are collected, they will be transported to the lab as follows:

1. During Business Hours: By City staff in City owned vehicle using approved sampling kit.
2. After Hours: By City staff in City owned vehicle using approved sampling kit.

7. SAMPLING PARAMETERS

A. Required Sampling Parameters

The RWQCB Basin Plan and/or NPDES permit set the water quality standards against which one can judge the levels of impacts of an SSO on surface waters.

In accordance with the SWRCB Revised MRP WQ 2013-0058, the following parameters will be sampled:

1. Ammonia

   Ammonia-N, is a key indicator of the extent of the gross pollution of the receiving water from a SSO. Untreated wastewater or partially-treated wastewater is generally high in ammonia-N (typical 20-30 mg/L). In comparison the natural background concentration in the surface water is low, typically, less than 0.5 mg/L. Therefore, the elevated concentration of ammonia of the surface water downstream or at the site of the SSO, as compared to that upstream of the site is a reasonable indication of the extent of gross contamination from the SSO.
2. Bacteriological Indicator as specified in the local Basin Plan

Total coliform, fecal coliform and enterococci count are indicators of potential public health impacts of an SSO on the receiving waters. If the concentrations of these groups of bacteria are elevated above and beyond the natural background levels, public notification and posting may be necessary.

It should be noted that there may be non-SSO-related causes of elevated bacteria in surface water, for example, animal sources or storm drain discharge. The upstream and/or other samples may reflect the extent of bacterial contamination from these other sources. Sometimes the extent of the SSO may be indistinguishable from the other natural sources beyond the City’s control. This is particularly true when taking Source samples based on an estimated downstream location of the SSO plume (reference Section 7F).

Generally, if the concentrations of these groups of bacteria at the downstream or at the site of impact are within the range of the non-impacted site (i.e. upstream) or levels indicated in historical background monitoring levels, the water quality impacts of the SSO are considered insignificant.

B. Sampling Parameters for City of Jackson

1. Ammonia
   - Discussion: See Section 7A
   - Sample Container: Plastic/glass
   - Sample Type: Grab
   - Sample Volume Required: 200 ml. minimum
   - Hold Time: 28 days
   - Preservative: Sulfuric acid

2. Total Coliform/Fecal
   - Discussion: See Section 7A.2
   - Sample Container: Plastic (sterile)
   - Sample Type: Grab
   - Sample Volume Required: 100 ml. minimum
   - Hold Time: 8 hours
   - Preservative: None if waters are not chlorinated
   - Analytical Method: Method 9221 B, C and E, Standard Methods for the Examination of Water or Wastewater, 21st Edition

8. SAMPLING EQUIPMENT AND CALIBRATION

A. Sampling Equipment Used at the City of Jackson

The following are the sampling equipment used by the City

- Sampling pole with fixed container
- Sampling pole with removable container
- Sampling pail and rope
• Stream velocity meter
• Grab-n-Go Sample Kit containing:
  o Ice pack
  o Waterproof pen
  o Sample labels
  o Camera
  o Sample bottles
  o Etc.

B. Calibration and Record Keeping

Each piece of equipment is required to have an up-to-date calibration and maintenance logbook. The logbook will be maintained to have consecutively numbered pages and shall contain at least the following:

• Date
• Calibration Results
• Calibration comments
• Initials of the individual calibrating the instrument

Each instrument must be clearly identified (e.g., the make, model, serial and/or ID number) to differentiate among multiple meters.

The appropriate calibration procedure must be followed pursuant to City standard calibration operating procedure and if the instrumentation does not have an electronic program that maintains a running calibration log, then the results must be recorded in the logbook each time a piece of field equipment is used, along with the date and name/initials of the person performing the calibration.

If difficulty is encountered in calibrating an instrument, or if the instrument will not hold calibration, this information must also be recorded. Malfunctioning equipment should not be used to collect data. Steps should be taken to correct the problem as soon as possible. All equipment maintenance should be recorded in the logbook indicating what was done to correct the problem, along with the date and signature/initials of the staff person that corrected the problem.

9. Sampling Procedures

A. Sample Location and Identification Procedures:

Samples will be collected by Collection System Division staff. The most precise and accurate analytical measurements are worthless and even detrimental if performed on a sample that was improperly collected and stored, or was contaminated in the process. The purpose of sampling and analysis is to provide data that can be used to interpret the quality or condition of the water under investigation.

Unfortunately, water quality characteristics are not spatially or temporally uniform from one effluent to another. A sampling program must recognize such variations and provide a basis for compensations for their effects. The sample must be:

1. Representative of the material being examined;
2. Uncontaminated by the sampling technique or container;
3. Of adequate size for all laboratory examinations;
4. Properly and completely identified;
5. Properly preserved, and
6. Delivered and analyzed within established holding times.

These six requirements are absolutely necessary for a proper assessment of water quality.

It is impossible to establish hard and fast rules concerning sampling locations. However, the following general guidelines should be applied whenever City personnel conduct surface water sampling:

1. The sampling location should be far enough upstream or downstream of confluences or point sources so that the surface water and SSO volume is well mixed. Natural turbulence can be used to provide a good mixture.

2. Samples should be collected at a location where the velocity is sufficient to prevent deposition of solids, and to the extent practical, should be in straight reach having uniform flow. All flow in the reach should be represented, so divided flow areas should be avoided and samples should be taken towards the middle of the reach where feasible.

3. Sampler must always stand downstream of the collection vessel, and sample “into the current”. Care must be taken to avoid introducing re-suspended sediment into the sample.

B. Sample Types:

Grab samples are appropriate for the characterization of surface waters at a particular time and place, to provide information about minimum and maximum concentrations, to allow for the collection of variable sample volume.

Grab samples may be collected directly into the sample container, or a clean decontaminated intermediate container may be used if a wading sample is not possible or safe. If an intermediate container is used, when in the field, double rinse the sampling device (bucket, automatic sampler) with sample water prior to collecting the sample and be sure to discard rinse water downstream of where sample will be collected. If samples are collected in a bucket and distributed a consolidation collection container, swirl the contents of the bucket as it is being poured into the consolidation collection container to avoid settling of solids (and pour in back and forth pattern – e.g., 1-2-3-3-2-1).

**Grab Sample:** A grab sample is defined as an individual sample collected at a given time. Grab samples represent only the condition that exists at the time the sample is collected (US EPA 1977).
Surface Grab Sample: A sample collected at the water surface (i.e. skimming) directly into the sample container or into an intermediate container such as a clean bucket. A single or discrete sample collected at a single location.

Field Blanks are used to evaluate the potential for contamination of a sample by site contaminants from a source not associated with the sample collected (e.g., airborne dust, etc.). Sterile, deionized water is taken into the field in a sealed container. This is the stock water. The stock water is then poured into the sample container. The containers and sample submission forms are labeled as “Field Blank”. The same template selected for the test samples should be used. Field blanks are subject to the same holding time limitations as samples. The appropriate FIELD QC box on the sample Chain of Custody form should be checked.

C. Decontamination Procedures

Removing or neutralizing contaminants from sampling equipment minimizes the likelihood of sample cross contamination, reduces or eliminates transfer of contaminants to clean areas, and prevents the mixing of incompatible substances.

Gross contamination can be removed by physical decontamination procedures. These abrasive and non-abrasive methods include the use of brushes, air and wet blasting, and high and low pressure water cleaning.

The decontamination procedure described above may be summarized as follows:

1. Physical removal
2. Non-phosphate detergent wash
3. Tap water rinse
4. Distilled/deionized water rinse
5. Air dry

D. Sample Labeling and Chain of Custody Procedures

A sample is a physical evidence of a facility or the environment. An essential part of all enforcement investigations is that evidence gathered be properly documented. To accomplish this, the following sample identification and chain of custody procedures are established.

1. The method of sample identification depends on the type of measurement or analyses performed. When in-situ measurements are made, the data are recorded directly in Field Data Worksheets with identifying information, field observations, and remarks. Examples of in-situ measurements are:
   - pH
   - Temperature
• Dissolved Oxygen
• Stream Flow Measurement

Samples other than in situ measurements must be identified by a sample label. These samples are removed from the sample location and transported to a laboratory for analyses. Before removal, however, a sample is often separated into portions depending upon the analyses to be performed. Each portion is preserved in accordance with applicable procedures and each sample container is identified by a sample label.

2. At a minimum, the following grab samples will be collected, in duplicate:

• Field Blank: See Section 9.B for discussion.
• Upstream: This sample will be collected far enough upstream of the SSO’s point of entry into the surface water as to be free of contaminants from the SSO. Typically, 50-feet is sufficient, but this may vary on circumstances of the spill.
• Source: Immediate vicinity where the SSO entered the surface water. This point will actually be downstream of the actual SSO entry point for SSO’s that have stopped entering the surface water to be sampled. If the SSO has stopped, calculate the approximate downstream distance from the original SSO location by dividing the time since the SSO occurred by the estimated velocity. This is the approximate downstream distance from the SSO discharge point to the “source” sampling location.
  o See Section 9.F for information on determining velocity of the surface water in order to determine the Source sample location.
• “Downstream” of SSO: This sample will be collected far enough downstream to be representative of the water quality of the surface water after adequate mixing of the surface water and the SSO have occurred. Typically, this location will be 50-feet downstream of the Source sample, but this may vary on the size and velocity of the surface water to be sampled.

3. Sample labels shall be completed for each sample, using waterproof ink. The information recorded on the sample tag/label includes:

• Date: a six digit number indicating the year, month, day of collection
• Time: a four-digit number indicating military time of collection (e.g., 0954)
• Sample Location: sampling location description as either Upstream, Source, or Downstream
• Samplers: each sampler is identified
• Parameter/preservative: the analysis to be conducted for the sample /sample preservation

4. Photos or video of each sample location will be taken, properly labeled with date, time, and view direction and a map of the photo locations completed. Photos and videos shall include relevant landmarks to identify sampling locations and their surroundings.

Due to the evidentiary nature of samples collected during enforcement investigations, possession must be traceable from the time the samples are collected until they are analyzed. To maintain and document sample possession, a Surface Water Sample Chain
of Custody Record (Attachment C) must be completed. A sample is under custody if:

- It is in your possession, or
- It is in your view, after being in your possession, or
- It was in your possession and under your control to prevent tampering, or
- It is in a designated secure area.

5. As few people as possible should handle samples. The person taking the samples is personally responsible for the care and custody of the samples collected until they are transferred or dispatched properly.

6. Samples are accompanied by a chain of custody record. When transferring the possession of samples, the individuals relinquishing and receiving will sign, date, and note the time on the record. This record documents sample custody transfer from the sampler, often through another person, to the analyst at the laboratory. The samples are typically transferred to the sample-receiving custodian at the laboratory.

E. Safety Considerations

Personal safety of staff engaged in any fieldwork activity (e.g., in transit, walking or hiking, and any field activities while at the sample site) is of primary importance. Staff should never place themselves in dangerous or risky situations. Any hazards that are known by field personnel should be communicated to other members of the field crew.

Fieldwork should be postponed if there is indication that engagement in the field activity could cause bodily harm. Working during lightning storms, in heavy vegetation or poison oak, near aggressive wildlife or domestic animals, traversing steep or rugged terrain, unstable slopes or creek banks, near swiftly moving water or potential flash flood conditions, or during snowy weather is not considered "normal risk". If any member of the field crew is uncomfortable with a reasonable self-determined hazardous field condition, it is that person’s responsibility to bring this to the attention of the on site field supervisor or their supervisor. A “reasonable self-determined hazardous field condition” is defined as other than normal risk. Supervisors shall not dismiss any person’s spoken concerns that field conditions are too hazardous to complete the work assignment.

The person taking the samples must have adequate protection, including protective clothing. They must wear gloves, as protection against chemical and/or bacteriological hazards, while they are sampling or handling samples that are known or suspected to be hazardous (e.g. visible solids or sheens, downstream from sewage spills, etc.), or if hands have open wounds. The type of gloves worn shall be determined by the sampling circumstance and type of pollutants expected – for instance longer gloves are needed when samples must be taken well below the surface.

When in a boat or wading in a stream, a personal floatation device shall be worn at all times. Other protective measures shall be taken in accordance with City safety procedures.
Upon arrival at a sampling site, safety equipment such as signs, cones, lights, etc. shall be set out as appropriate. Vehicles shall be parked in locations and directions to minimize traffic disruption and avoid sample contamination. Photos should be ultimately taken of the placement of all safety equipment and signage.

The following guidelines apply to all fieldwork by City staff.

- No sample or measurement is worth the risk of injury.
- All staff shall use proper personnel protective gear as appropriate for the incident (e.g., life preservers, gloves, goggles, etc.)
- Field sampling crews should consist of at least two members unless otherwise approved by a supervisor.
- Be conscious of the whereabouts of rattlesnakes, mountain lions, and other dangerous animals.
- Open body wounds are entry sites for infection; take the necessary precautions for self-protection.
- If there is storm activity in the work area, wait for safer conditions to develop or postpone the sampling.
- Do not sample at night without approval from supervisor.
- Do not trespass on private property, or posted restricted public lands without prior permission and written approval from property owner or administrator.
- If strange or suspicious looking people are in the work area, either wait for them to leave or postpone the work to a later time. Do not force confrontations with strangers and back away from any confrontations with the public. Be courteous and understanding of public concerns of the situation.
- Take the necessary precautions against exposure to harmful weather conditions such as heat, wind, snow, cold, rain, etc.
- Carefully evaluate a given on-site situation to determine if the task can be performed safely.
- Wear protective footwear when entering streams.
- Do not enter the stream if the water is flowing too fast.

F. Stream Velocity Measurements

If sampling is performed after the SSO has stopped, the velocity of the impacted surface water must be determined in order to estimate SSO travel time and select an accurate Source sample location. One way to measure the SSO travel time is to use a velocity probe (such as a Global Water FP111-S Flow Probe) to determine the rate of flow in the water body. In cases where a water velocity probe is used, the manufacturer’s instructions will be followed.

G. Grab-n-Go Sampling Kit

The City maintains a Grab-n-Go sampling kit located at the City of Jackson, Public Works Operations Center, 400 East Jackson Avenue, Jackson, CA 94030. The kit is inspected
quarterly by the City Lab staff. Additionally, any City staff utilizing the kit is responsible for decontaminating sampling equipment and field monitoring devices and replenishing the kit.

SSO Sample Collection Kit Inventory:

- Cooler
- Surface Water Sampling SOP (Attachment B)
- Ice Pack (stored in freezer)
- 5 Ammonia sample bottles, preserved (3 for samples, 1 for Field Blanks and 1 extra in the event of contamination, spillage of the preservative or other contingency)
- 8 Coliform sample bottles (6 for samples, 1 for Field Blanks and 1 extra in the event of contamination, or other contingency)
- Latex gloves
- Safety glasses/goggles
- Surface Water Sampling Worksheet (Attachment D)
- Sampling Pole
- Field Lights
- Waterproof Pen
- Minimum of 20 blank sample bottle labels
- Chain of Custody form (Attachment C)

H. Surface Water Maps

Maps of surface waters in the City of Jackson service area that may be impacted by an SSO are located in Attachment F.

I. Follow Up Sampling

1. Sampling will be repeated every 24 hours, or as directed by the RWQCB or Amador County Environmental Health Department, until such time as one of the following criteria have been met:

   - The County Environmental Health Department or the RWQCB indicates follow up sampling is no longer required, or
   - Both the ammonia and bacteria levels downstream are approximately equal to or less than the upstream levels.

10. NOTIFICATIONS OF SENSITIVE RECEPTORS AND REGULATORY AGENCIES

Table 10.1 describes regulatory and other notifications that must be made in accordance with the triggers indicated:
Table 10.1 Notifications of Sensitive Receptors and Regulatory Agencies

<table>
<thead>
<tr>
<th>Contact</th>
<th>Trigger</th>
<th>Deadline</th>
<th>How</th>
<th>Person(s) Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>OES</td>
<td>If SSO is greater than or equal to 1,000 gallons and reaches or has potential to reach surface waters.</td>
<td>2 hours after awareness of SSO</td>
<td>Call CalOES at (800) 852-7550.</td>
<td></td>
</tr>
<tr>
<td>County Environmental Health</td>
<td>If SSO is greater than or equal to 1,000 gallons and reaches or has potential to reach surface waters.</td>
<td>2 hours after awareness of SSO</td>
<td>Call (209) 223-6439</td>
<td></td>
</tr>
<tr>
<td>SWRCB</td>
<td>If 50,000 gal or more were not recovered.</td>
<td>45 days after SSO end time, Submit SSO Technical Report.</td>
<td>CIWQS*</td>
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</table>

* In the event that the CIWQS online SSO database is not available, notify the State Water Resources Control Board (SWRCB) by phone or email and provide required information until the CIWQS online SSO database becomes available.

11. TECHNICAL REPORT

The MRP requires that in the event of a 50,000 gal or greater overflow spilled to surface waters, the City must prepare and submit an SSO Technical Report that includes a description of all water quality sampling activities conducted, a location map of all water quality sampling points, and the analytical results and evaluation of the results, pursuant to Section B.5 of the MRP. In addition, this report must be submitted to the CIWQS Online SSO Database within 45 days of the end of the SSO and must be certified by the City’s Legally Responsible Official, City of Jackson Public Works Supervisor, Collections Division.

12. RECORDKEEPING

All sampling related records associated with this WQMP should be contained in the appropriate SSO Incident file designated with a specific locator record number. These records shall include at least the following documents related to the WQMP:

- A narrative description of water quality sampling activities associated with the event.
- Timeline of the sampling activities until sampling is terminated.
- All surface water sampling worksheets.
- Computations of spill travel time in surface waters, if appropriate.
- Chain of Custody for all samples.
• Sampling Map of all sample locations.
• All photos or video showing sampling activities.
• Final analytical results from the certified laboratory conducting the sample analysis along with an Agency evaluation of the results to determine the nature and impact of the release.
• Failure analysis reviews of the WQMP including recommendations for changes and modifications.
• Calibration records for specific equipment used in the sampling processes.
• Notification documentation for all public and private agencies involved with or requiring monitoring related to final sample results.

The City shall maintain all records including records from service contractors associated with this WQMP as part of the file records for an SSO as required by the WDR and MRP. These records shall be maintained for a minimum period of five-years from the end date of the SSO unless required by regulatory enforcement action, request of the State or Regional Board or as support for claims litigation resulting from the SSO. All records associated with the SSO shall be destroyed upon reaching the end of the file retention period or as otherwise required by the Regional or State Board.

Samples of all City forms and records used in this WQMP are included as attachments.
13. TRAINING

Training will be provided in accordance with Table 13.1.

<table>
<thead>
<tr>
<th>Table 13.1 City of Jackson surface water sampling training program</th>
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<tbody>
<tr>
<td>Who Is Trained To Collect Surface Water Samples?</td>
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<tr>
<td>Trainer Qualifications</td>
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<td>Training Curriculum</td>
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<tr>
<td>Training Documentation</td>
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<td>Refresher Training Frequency</td>
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<td>Who is Responsible for Ensuring Training Occurs?</td>
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<tr>
<td>Required Training Records</td>
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<tr>
<td>Who is Responsible for Maintaining Records?</td>
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14. INTERNAL REVIEW AND UPDATE OF THE WQMP

The WQMP is a requirement of the WDR and MRP regulations and therefore the WQMP must be adopted by the City governing board when completed and thereafter at the same time as the new adoption of the SSMP every five years or when major changes to the SSMP are required. Internal reviews of the WQMP should be conducted at a minimum with City SSMP audits or with a failure
analysis following a SSO event requiring the use of this WQMP. This latter evaluation should be used to determine if any procedures or program changes would improve the WQMP.

The internal review of the WQMP must include a thorough review of the then existing WQMP against actual performance by the agency staff and testing laboratory during and after the event. All documents associated with the water quality sampling should be reviewed and included in the SSO file and compared to the requirements in this Plan. Particular attention should be given to all dates and times associated with the monitoring, proper tests in support of the Regional Board Basin Plan, proper completion of the Chain of Custody, equipment calibration documentation of all equipment used for sampling and available photographs or video of the sampling processes, review and sign-offs by all responsible parties, review of the sampling locations map, final lab results and the certification report that the Technical Report was submitted within 45 calendar days of the end of the SSO to the CIWQS system.

In addition, the City should also conduct regular reviews of the WQMP at least annually or along with the bi-annual SSMP Audit required by the WDR. The review should be undertaken to determine that all information in the Program is current, that all classification responsibilities have not changed, that all forms are still appropriate and that all contract relationships with testing laboratories, if not associated with the agency, are still current and available 24 hours per day and 7 days per week. The review should also include a review of the Regional Board Basin Plan to assure continuing conformance with the Basin Plan.

This internal review should be conducted by senior management of the collection systems personnel, laboratory management and any outside contract laboratory services subsequent to any event or once per year if the WQMP has not had to be invoked during the preceding year.

Finally, a schedule and assignment of responsibility for completion of the recommended changes should be prepared along with additions to the SSMP Change Log for these changes and modifications of the WQMP.

CHANGE LOG

The new MRP, Section E.3 requires that all changes to the Sanitary Sewer Management Plan be recorded and documented using an SSMP Change Log indicating what section is being change, a description of the changes, and the person or persons authorizing the changes. Because the WQMP is required by the WDR and MRP, it is also necessary that changes to the WQMP be included in the documentation of changes to the SSMP. Any changes resulting from Section 14 above should be added to the Change Log of the SSMP upon implementation and adoption of the changes as required by the WDR.
ATTACHMENT A
Water Quality Monitoring Plan Change Log
<table>
<thead>
<tr>
<th>Date</th>
<th>Section(s) Changed</th>
<th>Summary of Change</th>
<th>Approved (signature)</th>
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ATTACHMENT B

Surface Water Sampling SOP
Surface Water Sampling Standard Operating Procedure

**Start Here**
- Get ice pack or ice and place in cooler

- Determine point spill entered waterway. Photograph this location (include a reference point in the photo)

- Remove and begin completing the Surface Water Sampling Worksheet

- Determine direction of water movement from point of discharge.

  - Collect all samples against the direction of the water flow! (face upstream so any sediment disturbed flows behind and away from you.)
  - Collect upstream sample first!
  - Collect samples well away from the bank (preferably where water is visibly flowing)
  - Avoid sampling debris or scum layer from the surface.
  - Photograph evidence of dead fish!

  Determine approximate stream velocity, if applicable, and how long it has been since the SSO flow to the surface water stood, and move downstream the appropriate distance to collect the downstream sample. Move upward to collect the Spill Entry Point sample and keep moving upstream the appropriate distance to collect the Upstream or Reference sample.

**Don the PPE from the Sampling Kit.**

- Label all samples with their location, your name and the date/time collected. Record this on the Surface Water Sampling Worksheet.

**Sampling Steps**

- Take photo of each sample location (include a reference point in the photo). Remove the seal from the bacteria sample container (100ml) just prior to collecting your sample.
  1. Remove the cap immediately before collecting each sample.
  2. Avoid allowing 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 cap.

- Open the ammonia-nitrogen sample container and allow water to gently flow into the bottle 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!

- Repeat sampling steps (red boxes) to collect downstream and discharge point samples.

- Place samples in cooler on the ice pack.

- Take cooler containing samples and complete Chain of Custody to the lab within 6 hours of collection time.

- Contact the lab and inform them that the following samples require processing: Ammonia-Nitrogen and coliform.

- Complete the Chain of Custody form and the Surface Water Sampling Worksheet.

- Post warning signs as directed by County Environmental Health or the staff member responsible for signage. Remove warning signs and lift restrictions when authorized by County Environmental Health.

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

Sample Collection Chain of Custody Record
City of Jackson - Water Quality Monitoring Program Plan
Surface Water Sample Collection Chain of Custody Record

<table>
<thead>
<tr>
<th>Customer Name</th>
<th>Hazardous Waste</th>
<th>PO#</th>
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<tbody>
<tr>
<td>Customer Address</td>
<td>Unknown Material</td>
<td>WO#</td>
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<tr>
<td>Customer Telephone</td>
<td>Mail Code</td>
<td>CONTRACT LAB INFORMATION</td>
</tr>
<tr>
<td>Program Name</td>
<td>Ship to:</td>
<td></td>
</tr>
<tr>
<td>Lab Program Coordinator</td>
<td>Phone #</td>
<td>Ship Date:</td>
</tr>
<tr>
<td>Sampled By</td>
<td>Courier:</td>
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**SAMPLE COLLECTION INFORMATION**

<table>
<thead>
<tr>
<th>LIMS#</th>
<th>Date</th>
<th>Time</th>
<th>Type</th>
<th>Sample Location</th>
<th>#Containers</th>
<th>Matrix</th>
<th>Analysis Requested</th>
<th>QA/QC Requirements</th>
<th>Remarks/Notes</th>
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<tr>
<td></td>
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<td></td>
<td>Compost</td>
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<td>Grab</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Downstream</td>
<td>2</td>
<td>A</td>
<td></td>
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</tbody>
</table>

**Relinquished**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
</tr>
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<tbody>
<tr>
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</table>

**Relinquished to**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

**Transport/Shipping Information**

<table>
<thead>
<tr>
<th>USPS</th>
<th>UPS</th>
<th>FedEx</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tracing #:

Other:

Sample Receiving Documentation

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<table>
<thead>
<tr>
<th>Container intact?</th>
<th>☐ Yes</th>
<th>☐ No</th>
<th>Correct container?</th>
<th>☐ Yes</th>
<th>☐ No</th>
<th>Field preserved?</th>
<th>☐ Yes</th>
<th>☐ No</th>
<th>Custody tape intact?</th>
<th>☐ Yes</th>
<th>☐ No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooled?</td>
<td>☐ Yes</td>
<td>☐ No</td>
<td>Temp. Blank?</td>
<td>☐ Yes</td>
<td>☐ No</td>
<td>°C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample distribution:</td>
<td>☐ Lab bench</td>
<td>☐ Ice chest</td>
<td>☐ Walk-in cooler shelf #</td>
<td>Disposal Date:</td>
<td>Disposed by:</td>
<td>(inits.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C-O-C Distribution</td>
<td>Date:</td>
<td>By:</td>
<td>☐ Lab Admin File</td>
<td>☐ Prog/proj Mgr.</td>
<td>☐ Lab Prog. Coord.</td>
<td>☐ Delivery courier</td>
<td>☐ Pick-up courier</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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ATTACHMENT D

Surface Water Sampling Worksheet
Surface Water Sampling Worksheet

<table>
<thead>
<tr>
<th>Sample Date:</th>
<th>Sample Time:</th>
<th>☐ AM ☐ PM</th>
<th>Sample Location:</th>
</tr>
</thead>
</table>

| Sampler(s)’ Name(s): | | | |
|----------------------|| | |

| Sampler(s)’ Signature(s): | | | |
|---------------------------|| | |

What is being sampled?
☐ Stream ☐ Pond ☐ Lake ☐ River ☐ Other:

If the SSO was not actively entering the surface water during sampling:

A. Stream Velocity: ___________ CFS
B. How Long Has the SSO NOT Been Entering the Surface Water?
   _____ minutes × 60 sec/min = _____ seconds
C. How Far Downstream Did You Travel To Collect The SOURCE Sample?
   (A × C = Feet): ___________ feet
D. Explain why you travelled a different distance, if you did, to collect the source sample:

Weather at time of sampling:
☐ Sunny ☐ Overcast
☐ Sprinkling ☐ Raining ☐ Snowing

Was the SSO actively entering the surface water during Sampling?
☐ YES ☐ NO

If no, complete A-D in the gray box to the right ➔

<table>
<thead>
<tr>
<th>Sample Location</th>
<th># of Samples*</th>
<th>Photo ID# of Sample Location</th>
<th>Visual Observations and/or Interferences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Downstream</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field Blank</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Minimum of 2 per location

FINISH CHECKLIST

NOTES / OBSERVATIONS
### Surface Water Sampling Worksheet

#### City of Jackson

**Water Quality Monitoring Program Plan**

<table>
<thead>
<tr>
<th>All Samples Labeled with:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Date: a six-digit number indicating the year, month, day of collection</td>
</tr>
<tr>
<td>- Time: a four-digit number indicating military time of collection. e.g. 0954</td>
</tr>
<tr>
<td>- Sample Location: Upstream, Source, or Downstream</td>
</tr>
<tr>
<td>- Samplers: each sampler is identified</td>
</tr>
<tr>
<td>- Parameter/preservative: analysis to be conducted for sample/sample preservation</td>
</tr>
</tbody>
</table>

- Chain of Custody Completed
- Samples on Ice in Cooler
- Pictures Taken of Each Sample Location and the Photo ID/# Noted Above
- All Sampling Equipment Collected

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1. Introduction
   Agency/system description

2. SSO Technical Report - Contents and Responses
   a. Causes and Circumstances of the SSO
      i. Detailed explanation of how and when SSO was discovered
      ii. Diagram indicating SSO "Cause point", appearance point, and final destination (use attachments, maps and diagrams as needed)
      iii. Detailed description of methodology employed and available data used to calculate the SSO volume and any volume recovered
      iv. Detailed description of the cause(s) of the SSO
   b. Agency's Response to the SSO
      i. Chronological narrative description of actions taken by agency to terminate the SSO
      ii. Description of how the OERP was implemented to respond to and mitigate any impacts of the SSO
      iii. Final corrective action(s) completed and/or planned, including a schedule for actions not yet completed
   c. Water Quality Monitoring
      i. Description of all water quality sampling activities conducted, including analytical results and evaluation of the results
      ii. Detailed location map illustrating all water quality sampling points

3. Conclusions
Appendix F: Annual Performance Reports
Appendix G: FOG Control Program Documents

G-1: Instructions and Examples for a Fats, Oils and Grease Best Management Plan
G-2: Grease Trap and Grease Interceptor Inspection Form
G-3: Grease Trap/Interceptor Cleaning Log
DEFINITIONS:

FOG - Fats, Oils and Grease

BMP - Best Management Plan

Food Service Establishments – all food service operations or retail food establishments that produce, or may produce FOG containing wastewater that is discharged, directly or indirectly, to the City of Jackson sewer system.

Grease Interceptor – a device located underground and outside of a food service facility designed to collect, contain or remove food wastes and grease from the wastewater while allowing the balance of the liquid waste to discharge to the wastewater collection system by gravity. Interceptors shall have at least one inspection hatch on the top surface to facilitate inspection, cleaning and maintenance.

Grease Trap – a device located in a food service facility or under a sink designed to collect, contain or remove food wastes and grease form the wastewater while allowing the balance of the liquid waste to discharge to the wastewater collection system by gravity. Traps shall have a removable lid on the top surface to facilitate inspection, cleaning and maintenance.

EXAMPLES:

Item 1 – List FOG sources and handling/cleaning practices to minimize discharge

Food wastes from salad dressings, butter, fats and grease from meat.

Food preparation

Grease from cooking (grill troughs, grease deep fryer, hood filters, etc.)

Employees instructed to scrape food wastes into trash prior to cleaning dishes.

Employees instructed to dump waste into barrel for off-site disposal.
Item 2 – List any additional practices to minimize FOG discharges or buildup in sewer lines.

Employees have been instructed to use paper towels to wipe grease from items such as grill utensils and cooking pans prior to washing.

Recently posted “NO GREASE” signs above the three-compartment sink and mop sinks. A separate sign explains the garbage disposal is not routed to the grease trap or interceptor.

All new employees will review our BMP.

Evaluated and implemented menu changes (such as changing to baked fries) to limit FOG generation.

Employees have been instructed to conserve water; this will allow the grease trap or grease interceptor to work more efficiently.

Employees have been trained to use the proper concentrations of cleaners and soaps to improve grease trap or grease interceptor effectiveness.

Using dishwashing detergents specifically designed to allow optimal separation of grease in the grease trap or grease interceptor.

Item 3 – List routine inspection and maintenance procedures of the grease trap or interceptor:

The condition of the grease trap or grease interceptor will be checked each time it is cleaned. If the condition is not satisfactory, notify the kitchen manager.

Certification Statement

Authorized Facility Representative shall sign their name, title and date. The completed FOG BMP and associated documents must be kept on-site and must be available for review by the City Inspector or a copy submitted to the City upon request.

All BMP’s shall be kept with the Grease Trap/Interceptor Cleaning Logs for a minimum of 3 years. The on-site copy of the cleaning log and BMP are subject to review by Amador County Environmental Health Department or by the City of Jackson Sewer Department upon request.

For more information please call the City of Jackson at (209) 223-1646.
City of Jackson, CA Sanitary Sewer Management Plan
Grease Trap and Grease Interceptor Inspection Form

Inspector: Establishment:
Signature: Address:
Date: Contact Name:
Time Inspection Started: Phone:
Time Inspection Completed:

Field data Compliance

1. The establishment has implemented a training program to ensure that the BMP’s are followed.
2. The establishment recycles waste cooking oil and can provide records of this.

3. Water temperatures at all sinks, especially the pre-rinse sink before the mechanical dishwasher or the sinks in the three-sink system, are less than 140F. Measure and record the temperature.

4. The establishment “dry wipes” pots, pans, and dishware prior to rinsing and washing.

5. Food waste is properly disposed of and is not discharged to the grease traps or interceptors.

6. The grease trap or interceptor is cleaned and maintained regularly. Note and record the frequency of cleaning and maintenance.

7. The cleaning frequency of the grease trap or interceptor is documented on a maintenance or cleaning log. Obtain a copy of the document.

8. The grease trap or interceptor does not contain greater than 1/3 the depth in grease accumulation. Estimate and record amount of grease in the unit.

9. The grease trap or interceptor does not contain greater than 1/4 the depth in sediment accumulation. Estimate and record amount of sediment if possible.

10. Outdoor grease and oil storage containers are covered and do not show signs of overflowing.

11. Grease and oil storage containers are protected from discharge to storm drains.

12. The exhaust system filters are cleaned regularly, which is documented by cleaning records. Note and record frequency of cleaning.

Additional Notes and Comments:
<table>
<thead>
<tr>
<th>Date Cleaned:</th>
<th>Gallons of Grease Removed*</th>
<th>Grease Trap/Interceptor Condition**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

* Record the gallons of grease removed, NOT the total volume of liquid removed.

** Mark the Trap/Interceptor Condition as “Satisfactory or Unsatisfactory”. If the condition is unsatisfactory, indicate the action taken to correct the problem.

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION ON THIS FORM AND BELIEVE THE INFORMATION IS TRUE, ACCURATE AND COMPLETE.

Authorized Representative Signature  Title  Date

____________________________________  ________________________