

AGENDA REPORT



Meeting Date May 1, 2018

Agenda Item

City Manager Approval:

TO: Honorable Mayor and Members of the City Council
FROM: Robin Kampmann, PUBLIC WORKS DIRECTOR
SUBJECT: WATER QUALITY MONITORING PLAN (WQMP) AND OVERFLOW EMERGENCY RESPONSE PLAN (OERP) ACCEPTANCE

RECOMMENDED COUNCIL ACTION:

City Council adopts the attached WQMP and OERP.

SUMMARY:

The State Water Resource Control Board (SWRCB) adopted Order No. 2006-2003 regarding statewide general waste discharge requirements for sanitary sewer systems. Order No. 2006-2003 requires the City of Red Bluff to approve a WQMP and an OERP as it is referenced in the Sanitary Sewer Management Plan (SSMP).

PREVIOUS COUNCIL ACTION:

On March 17, 2009, City Council approved the previous SSMP. The current SSMP is on the agenda tonight, for certification of the updates.

DISCUSSION:

The State Water Resource Control Board adopted Order No. 2006-2003 regarding statewide general waste discharge requirements for sanitary sewer systems. Order No. 2006-2003 requires the City of Red Bluff develop, update and implement a SSMP and present revisions and updates to City Council for acceptance. The WQMP and OERP are an integral part of the SSMP.

CITY FISCAL IMPACT:

None.

ATTACHMENTS:

WQMP and OERP

City of Red Bluff
Water Quality Monitoring Plan
FINAL 11/05/16

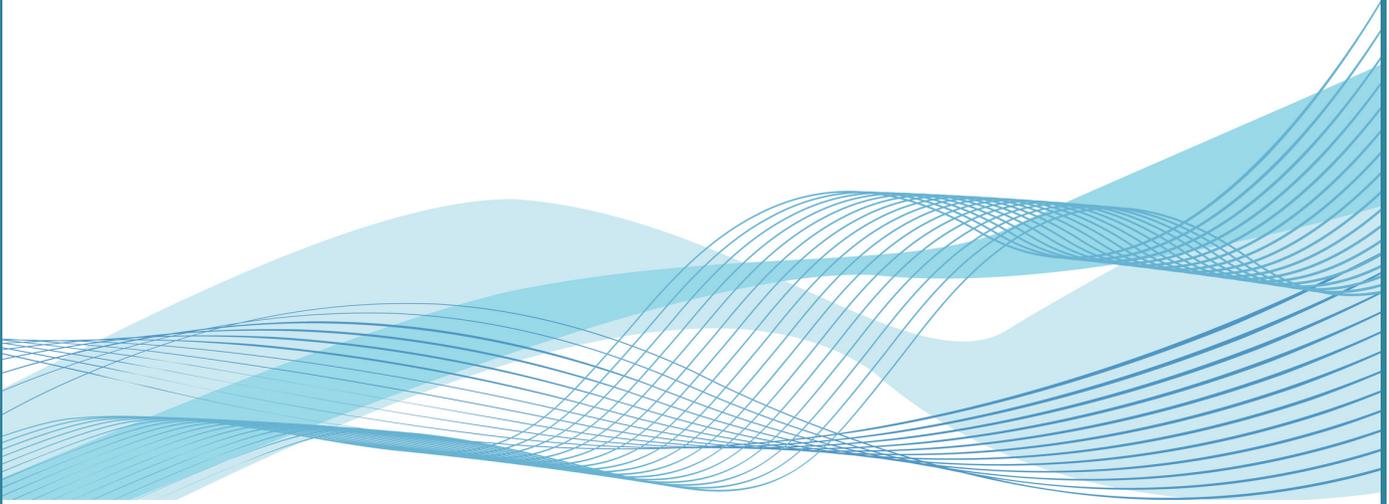


Table of Contents

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 7
 A. Surface Waters of Concern

6. LAB SELECTION 10
 A. Analytical Lab
 B. Getting Samples to the Lab

7. SAMPLING PARAMETERS 10
 A. Required Sampling Parameters
 B. Sampling Parameters for the City of Red Bluff

8. SAMPLING EQUIPMENT AND CALIBRATION 16
 A. Sampling Equipment Used at the City of Red Bluff

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 REGULATORY AGENCIES 24

11. TECHNICAL REPORT 25

12. RECORDKEEPING 25

13. TRAINING 26

14. INTERNAL REVIEW AND UPDATE OF THE WQMP 27

ATTACHMENTS

 A. Change Log 28

 B. Surface Water Sampling Standard Operating Procedure (SOP) 30

 C. Chain of Custody Form 32

 D. Surface Water Sampling Worksheet 34

 E. Technical Report 36

 F. Surface Water Maps 38

1. PURPOSE OF PROGRAM PLAN

The purpose of this Water Quality Monitoring Program Plan (WQMP or Plan) is to implement the recent 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 Red Bluff (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 Red Bluff 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	Prokaryotic 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:

<u>Roles and Responsibility</u>	<u>Responsible Classification</u>
Provide and document regular training on WQMP for all City classifications that have a role or responsibility in the WQMP and identified herein	Wastewater Division Supervisor
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.)	Wastewater Division Supervisor

Certification of calibration of sampling equipment and maintenance of calibration records	Wastewater Division Supervisor
Determination of specific sampling protocols and analytic methods to be used for the City -required testing	Wastewater Division Supervisor
Quarterly completion of the monitoring and sampling kit checklist from Appendix E.	Wastewater Division Supervisor or designee
Annual review of all standard operating procedures related to this WQMP especially the Sample Collection procedures	Wastewater Division Supervisor
Decision to invoke a WQMP and direct the monitoring program to conclusion	Wastewater Division Supervisor
Selection of sampling locations	Wastewater Division Supervisor or designee
Coordination of field sampling	Wastewater Division Supervisor or designee
Conduct field sampling per City protocols	Wastewater Division Supervisor or designee
Authorization and direction for placement of public notifications and signage	Wastewater Division Supervisor or designee
Photographs of sampling and signage placed to protect public health and safety	Wastewater Division Supervisor or designee
Preparation of Chain of Custody for all samples taken including proper labeling	Wastewater Division Supervisor or designee
Determination of spill travel time, if applicable.	Wastewater Division Supervisor or designee
Review and evaluate lab results for termination of sampling and to determine the nature and impact of the release	Wastewater Division Supervisor or designee
Decision to terminate sampling	Wastewater Division Supervisor or designee
Preparation of detailed sampling location map	Wastewater Division Supervisor or designee
Conduct sample analysis	Wastewater Treatment Plant Lab
Preparation of water quality sampling activities narrative for Technical Report	Wastewater Division Supervisor
Review and Approval of Technical Report	Wastewater Division Supervisor
Certification and placement of Technical report in the CIWQS spill reporting system.	Wastewater Division Supervisor
Failure Analysis Investigation of all water quality monitoring from the SSO event to determine all necessary changes or modifications to the WQMP	Wastewater Division Supervisor or designee
Audits of the WQMP as required by City SSMP Element 10, Audit.	Wastewater Division Supervisor
Management of Change responsibilities for the WQMP and all associated forms and documents required for use during an incident	Wastewater Division Supervisor

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:

1. State Water Resources Control Board Waste Discharge Requirements Order No. 2006-0003-DWQ, Section D.7(v).
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
3. Standard Methods for the Examination of Water and Wastewater, 22nd Edition, American Public Health Organization et al.
4. Clean Water Act Sections 301(a), 304(h), and 501(a).
5. Code of Federal Regulations, Title 40, Part 136.

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
- B. Best Management Practices for Sanitary Sewer Overflow (SSO) Reduction Strategies, Central Valley Clean Water Associates and Bay Area Clean Water Agencies, December 2009
- C. City Overflow Emergency Response Plans
- D. Field Guide for Surface Water Sample and Data Collection, Air Program, USDA Forest Service, June 2001.
- E. Standard Operating Procedures for Surface Water Quality Sampling, Arizona Department of Environmental Quality, Surface Water Section, September 2012.
- F. Surface Water Sampling_AF.R3, Document Number SESDPROC-201-R3, Region 4, Environmental Protection Agency, Science and Ecosystem Support Division, Athens, Georgia, February 28, 2013.

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 are the surface waters of concern within the City's jurisdiction:

- Sacramento River
- East Sand Slough
- Red Bank Creek
- Reeds Creek
- Brickyard Creek
- Brewery Creek
- Grasshopper Creek

6. LAB SELECTION

A. Analytical Lab

Samples collected for SSO response and background monitoring purposes pursuant to Section 5.0 will be analyzed at City of Red Bluff Wastewater Treatment Plant Lab. 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 City of Red Bluff Wastewater Treatment Plant Lab.

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 and/or above the RWQCB Basin Plan Water Quality Standards (objective), 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.

The surface water quality objectives of these groups of bacteria are shown in Table 7.1.

Beneficial Use	Fecal Coliform (MPN/100ml)	Total Coliform (MPN/100ml)
Water Contact Recreation	Geometric mean < 200 90 th percentile < 400	Median < 240 No sample > 10,000
Non-contact Water Recreation ^d	Mean < 2000 90 th percentile < 4000	
Municipal Supply: • Surface Water ^c • Groundwater	Geometric Mean < 20	Geometric Mean < 100 < 1.1 ^e

NOTES:

- a. Based on a minimum of five consecutive samples equally spaced over a 30-day period.
- b. Based on a five-tube decimal dilution test or 300 MPN/100ml when a three-tube decimal dilution test is used.
- c. Source: Report of the Committee on Water Quality Criteria, National Technical Advisory Committee, 1968.
- d. Based on multiple tube fermentation technique; equivalent test results based on other analytical techniques, as specified in the National Primary Drinking Water Regulation, 40 CFR, Part 1421.21 (f), revised June 10, 1992, are acceptable.

Source: Central Valley Region Basin (Region 5R) Water Quality Control Plan (Basin Plan) April 2016

B. Sampling Parameters for City of Red Bluff

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
- Analytical Method: Method 4500-XX R and C, Standard Methods for the Examination of Water or Wastewater, 21st Edition

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 Red Bluff

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:
 - Ice pack
 - Waterproof pen
 - Sample labels
 - Camera
 - Sample bottles
 - Etc.

9. Sampling Procedures

A. Sample Location and Identification Procedures:

Samples will be collected by the City Sewer Crew. 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 procedures for the sample types and sampling equipment (other than sample bottles, which are provided to Sewer Staff in a "ready to be used" condition by the lab) used at the City of Red Bluff may be summarized as follows:

1. Physical removal
2. Tap water rinse
4. 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.
 - 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 your 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 Corp Yard. The kit is inspected quarterly by the Wastewater Division Supervisor or designee. Additionally, any City of Red Bluff employee 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
- 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 (3 sets of duplicates), 1 for Field Blanks and 1 extra in the event of contamination, or other contingency)
- Digital camera, with extra batteries
- Latex gloves

- Safety glasses/goggles
- Surface Water Sampling Worksheet (Attachment D)
- Sampling Pole
- Waterproof Pen
- Minimum of 20 blank sample bottle labels
- Chain of Custody form (Attachment C)
- Velocity meter

H. Surface Water Maps

Maps of surface waters in the City of Red Bluff 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 the Tahama Environmental Health Department, until such time as one of the following criteria have been met:

- The Tehama 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; or
- The concentration of ammonia is at or below that of the upstream sample, or the un-ionized ammonia is below *0.16 mg/L as N*; and the concentration of fecal bacteria levels are below the applicable acute water quality objective listed in the table below, which was excerpted from the Basin Plan.

Table 9.1 Basin Plan				
Beneficial Use	Fecal Coliform (MPN/100mL)	Total Coliform (MPN/100mL)	Enterococcus Bacteria (MPN/100mL)	E. coli (MPN/100mL)
			Fresh Water	Fresh Water
Water Contact Recreation	90th percentile < 400	no sample > 10,000	Max at 89	Max at 298
Non-contact Water Recreation	90th percentile < 4,000	--	--	--

J. Surface Water Sampling SOP

The Surface Water Sampling SOP, Attachment B, provides step-by-step procedures to collect samples and deliver them for analysis in accordance with Sections 6, 7 and 9.

10. NOTIFICATIONS OF REGULATORY AGENCIES

Regulatory notification requirements are located in the City of Red Bluff Sanitary Sewer Overflow Emergency Response Plan section 11.0 (effective 9/2016).

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.

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 13.1 City of Red Bluff surface water sampling training program	
Who Is Trained To Collect Surface Water Samples?	Sewer Crew
Training Curriculum	at a minimum, training shall include: <ul style="list-style-type: none"> • The City of Red Bluff Water Quality Monitoring Plan • Sampling technique, including hands on practice

	<ul style="list-style-type: none"> • Sampling equipment calibration, use and decontamination procedures, including hands on practice • Sampling safety • Completion of the Sampling Equipment Calibration/Maintenance Log, Surface Water Sampling Report and Chain of Custody
Training Documentation	Attendees shall be required to sign-in to all training on the appropriate forms used by AGENCY.
Refresher Training Frequency	Annual
Who is Responsible for Ensuring Training Occurs?	Wastewater Division Supervisor
Required Training Records	Employee training sign in log
Who is Responsible for Maintaining Records?	Wastewater Division Supervisor

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

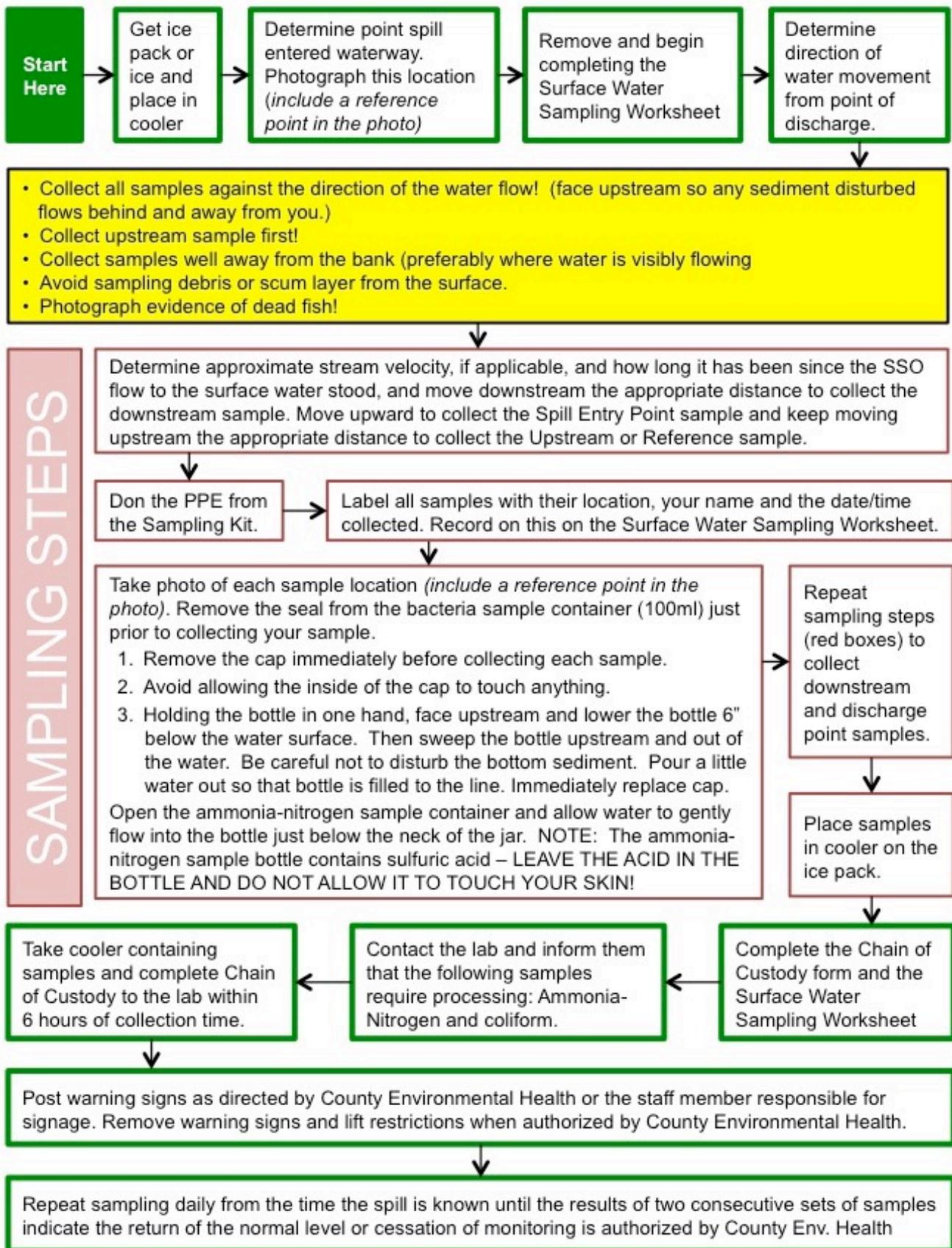
The new MRP, Section E.3 requires that all changes to the Sanitary Sewer Management Plan be recorded and documented using an SSMP Change Log indicating what section is being change, a description of the changes, and the person or persons authorizing the changes. Because the WQMP is required by the WDR 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

ATTACHMENT B
Surface Water Sampling SOP

**City of Red Bluff
Water Quality Monitoring Program Plan**

Surface Water Sampling Standard Operating Procedure



ATTACHMENT C
Sample Collection Chain of Custody Record

City of Red Bluff Water Quality Monitoring Program Plan Surface Water Sample Collection Chain of Custody Record

Customer Name		<input type="checkbox"/>	Hazardous Waste	PO#	
Customer Address		<input type="checkbox"/>	Unknown Material	WO#	
Customer Telephone	Mail Code	CONTRACT LAB INFORMATION			Turnaround Requirement
Program Name	Ship to:			<input type="checkbox"/> Normal (21 days)	
Lab Program Coordinator	Phone #	Ship Date:			<input type="checkbox"/> Rush: _____
Sampled By	Courier:			<input type="checkbox"/> Other:	

LIMS# (Issued by Lab)	SAMPLE COLLECTION INFORMATION						# Containers	Matrix*	Analysis Requested					QA/QC Requirements		Remarks/Notes
	Date	Time	Type		Sample Location	Sample Label ID			Ammonia	Total and Fecal Coliform				<input checked="" type="checkbox"/>	Lab Standard	
			Composite	Grab										<input type="checkbox"/>	Special (see attached)	
			<input type="checkbox"/>	<input checked="" type="checkbox"/>	Upstream		2	A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
			<input type="checkbox"/>	<input checked="" type="checkbox"/>	Entry Point		2	A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
			<input type="checkbox"/>	<input checked="" type="checkbox"/>	Downstream		2	A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
			<input type="checkbox"/>	<input type="checkbox"/>			2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

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

Relinquished	Date	Time

Relinquished to	Date	Time

Transport/Shipping Information		
<input type="checkbox"/> USPS	<input type="checkbox"/> UPS	<input type="checkbox"/> FedEx
Tracing #:		
<input type="checkbox"/> Other:		

Sample Receiving Documentation

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

ATTACHMENT D
Surface Water Sampling Worksheet

Surface Water Sampling Worksheet

Sample Date:	Sample Time: <input type="checkbox"/> AM <input type="checkbox"/> PM	Sample Location:	
Sampler(s)' Name(s):			
Sampler(s)' Signature(s):			
What is being sampled? <input type="checkbox"/> Stream <input type="checkbox"/> Pond <input type="checkbox"/> Lake <input type="checkbox"/> River <input type="checkbox"/> 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 X 60sec/min = _____ seconds C. How Far Downstream Did You Travel To Collect The SOURCE Sample? (A X C = Feet): _____ feet D. Explain why you travelled a different distance, if you did, to collect the source sample:	
Weather at time of sampling: <input type="checkbox"/> Sunny <input type="checkbox"/> Overcast <input type="checkbox"/> Sprinkling <input type="checkbox"/> Raining <input type="checkbox"/> Snowing			
Was the SSO actively entering the surface water during Sampling? <input type="checkbox"/> YES <input type="checkbox"/> NO If no, complete A-D in the gray box to the right →			

Sample Location	# of Samples*	Photo ID# of Sample Location	Visual Observations and/or Interferences
Upstream			
Source			
Downstream			
Field Blank			

* Minimum of 2 per location

FINISH CHECKLIST	NOTES / OBSERVATIONS
<input type="checkbox"/> All Samples Labeled with: <input type="checkbox"/> Date: a six-digit number indicating the year, month, day of collection <input type="checkbox"/> Time: a four-digit number indicating military time of collection. e.g. 0954 <input type="checkbox"/> Sample Location: Upstream, Source, or Downstream <input type="checkbox"/> Samplers: each sampler is identified <input type="checkbox"/> Parameter/preservative: analysis to be conducted for sample/sample preservation <input type="checkbox"/> Chain of Custody Completed <input type="checkbox"/> Samples on Ice in Cooler <input type="checkbox"/> Pictures Taken of Each Sample Location and the Photo ID/# Noted Above <input type="checkbox"/> All Sampling Equipment Collected	

ATTACHMENT E
Technical Report

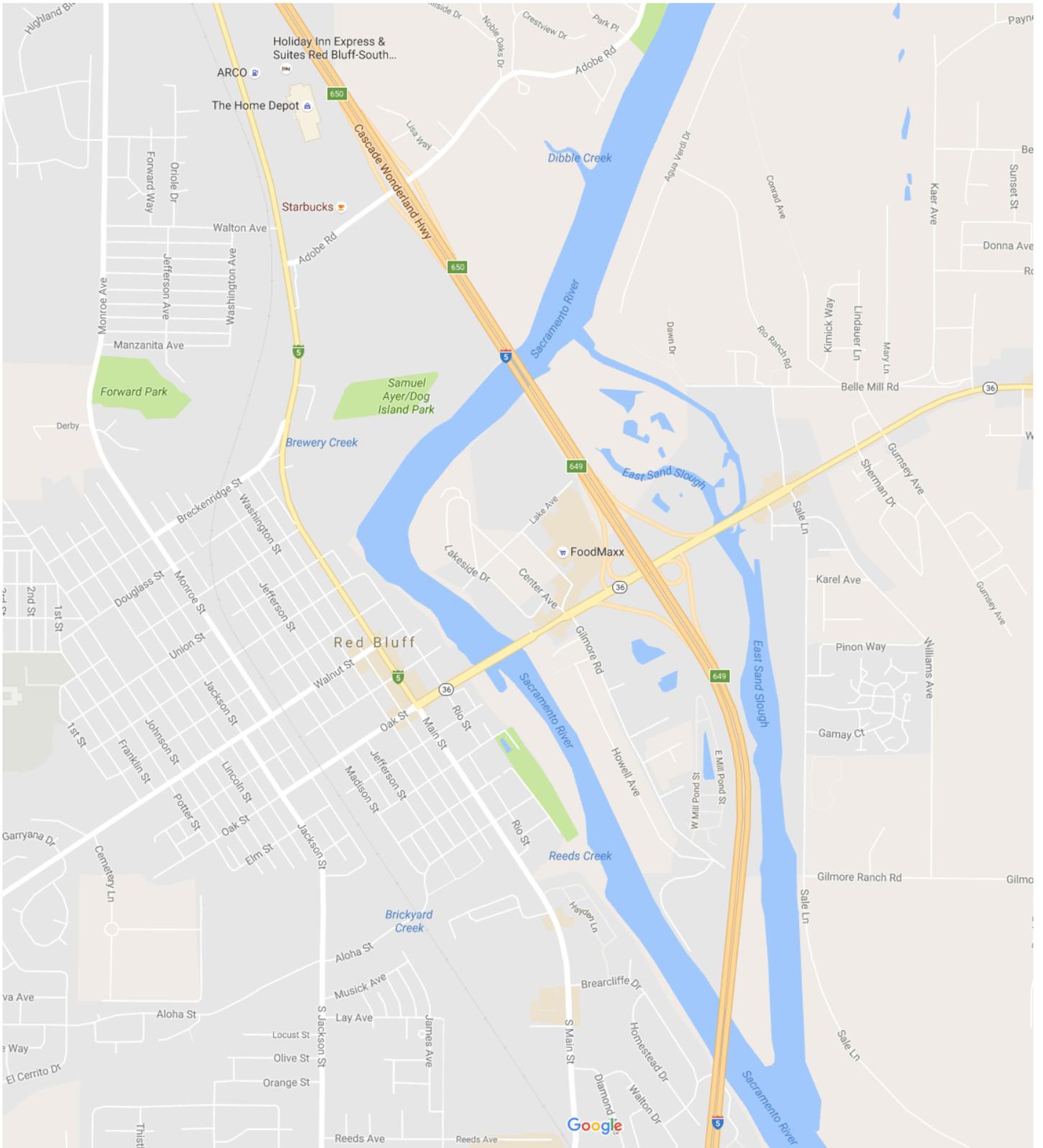
City of Red Bluff
Water Quality Monitoring Program Plan

Technical Report
Outline

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
 - v. Copies of the original field crew records used to document the SSO (attachment)
 - vi. Historical maintenance records for the lines involved in the cause of the SSO (attachment)
 - 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

ATTACHMENT F
SURFACE WATER MAPS

City of Red Bluff Water Quality Monitoring Program Plan



City of Red Bluff

Overflow Emergency Response Plan



Effective Date: _____

Revised Date: _____

Approved by: _____

Signature: _____

Date: _____

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

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

Table of Contents

Sanitary Sewer Overflow Emergency Response Plan (OERP)

(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 Sewer System Management Plan (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

Appendix B: Sanitary Sewer Overflow/Backup Response Packet

Response Instructions and Chain of Custody.....	Packet Envelope
Sanitary Sewer Overflow/Backup Response Flowchart.....	B-1
Bubbled Toilets Letter	-2
Declination of Cleaning Services	-3
First Responder Form	-4
Lodging Authorization Form.....	-5
Start Time Determination Form.....	-6
Volume Estimation Methods	
Eyeball	-7a
Area/Volume	-7b
Upstream Lateral Connections	-7c
Sewer Overflow Report.....	-8
Lateral CCTV Report	-9
Claims Submittal Checklist	-10
Collection System Failure Analysis Form	-11
Customer Service Packet	
Instructions.....	envelope
Customer Information	CS-1
Sewer Spill Reference Guide.....	pamphlet
Regulatory Notifications Packet	See contents list above

Public Posting n/a
Door Hanger n/a

Appendix C: Field Sampling Kit

Procedures for Sampling Receiving Waters and Posting
Warnings after a Sewage Spill..... C-1
Sample Collection Chain of Custody Record..... -2

Appendix D: Contractor Orientation

Sanitary Sewer Overflow Emergency Response Plan

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

1. Purpose

The purpose of the City of Red Bluff 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 State Water Resources Control Board (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

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

BUILDING SEWER – Private Sewer Facilities that convey wastewater from the premises of a Customer to the Public Sewer System.

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

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

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

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

MAINLINE SEWER: Refers to the City's 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:

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

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

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

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

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

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

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

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

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

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

- (ii) Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and
- (iii) Wastewater backups into buildings and on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.

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

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

SSO Categories:

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

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

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

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

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

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

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

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

SEWER SERVICES: The sewers leading from the sewer mains to and serving the property on either side are called sewer services.

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 (SSMP) and critical supporting documents are made available to the public on the City's website: www.cityofredbluff.org.

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 at a City wastewater lift station, the high level sensor activates the SCADA 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 and on the City's website: www.cityofredbluff.org. **The City's telephone number for reporting sewer problems is (530) 527-2605.**

Normal Work Hours

Public observation is a common way that the City is notified of blockages and spills. When a report of a sewer spill or backup is made, the front desk at City Hall receives the call, takes the information from the caller, and completes a Work Order Form. They then contact a Sewer Crew via radio for dispatch.

After Hours

The main number will instruct callers to call 911 for sewer emergencies. 911 dispatch will contact the Standby Employee who will respond. The Standby Employee will contact the City Hall front desk the following day to complete a Work Order.

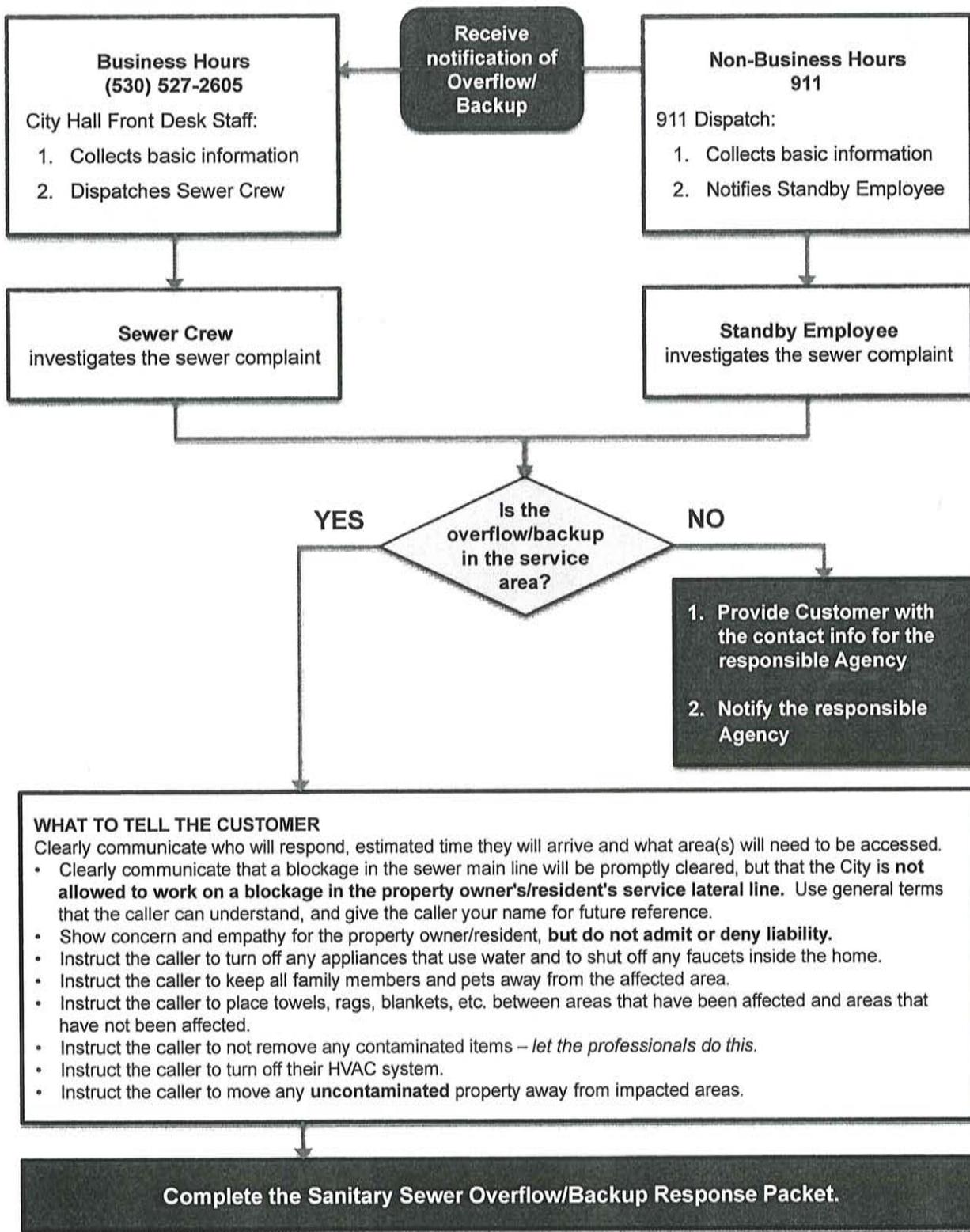
The Sewer Crew will complete the service request and will contact City Hall front desk with information on the service request and the resolution. The completed work orders will be kept in a Work Order Closed Binder.

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

- Time and date of call
- Specific location of potential overflow or incident
- Nature of call
- In case of SSO, estimated start time of overflow and how long it has been occurring
- Caller's name, telephone number and address
- Caller's observations (e.g., odor, duration, location on property, known impacts, indication if surface water impacted, appearance at cleanout or manhole)
- Other relevant information

Figure 6.1 is an overview of the procedure for receiving a sewage overflow or backup report (*see next page*):

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



6.2 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 should:

1. Immediately notify the City by calling (530) 527-2605.
2. Protect storm drains.
3. Protect the public.
4. Provide information to the Sewer Crew such as start time, appearance point(s), suspected cause, weather conditions, etc.
5. Direct ALL media and public relations requests to the City Manager at (530) 527-2605.

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

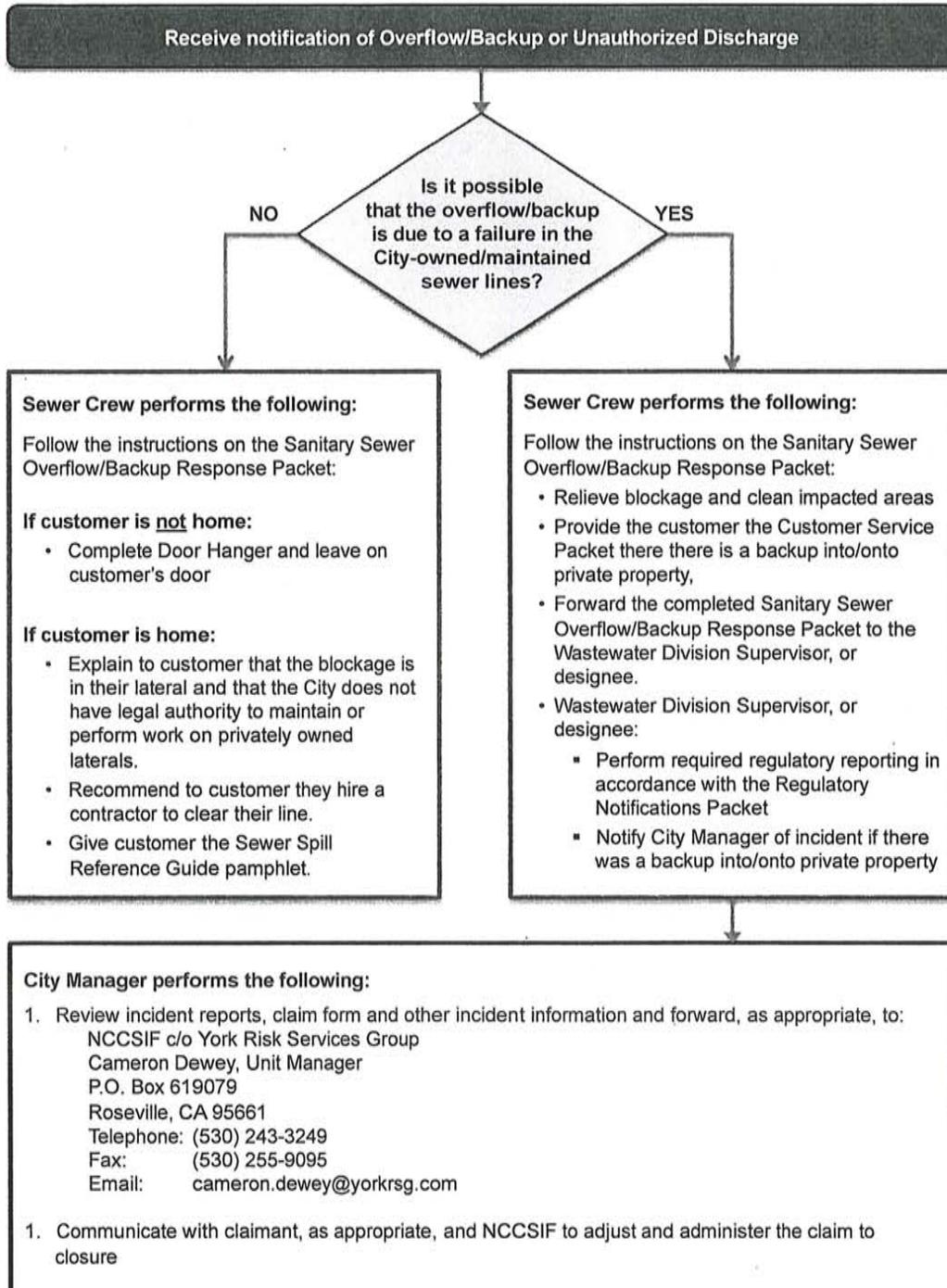
7. SSO Response Procedures

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



7.2 First Responder (Sewer Crew) Priorities

The first responder's priorities are:

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

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 associated with sewer work. In such cases it is appropriate to take the time to discuss safety issues, consider the order of work, and check safety equipment before starting the job. This includes use of gas monitoring detectors for air quality in manholes (follow confined space procedures) and traffic controls at the site.

7.4 Initial Response

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

The first responder will:

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

7.6 Initiate Spill Containment Measures

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

- Determine the immediate destination of the overflowing sewage.

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

For detailed procedures refer to Appendix B: Sanitary Sewer Overflow and Backup Response Procedures.

7.5 Restore Flow

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

7.6 Equipment

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

- *Closed Circuit Television (CCTV) Inspection Unit* – A CCTV Inspection Unit is required to determine the root cause for all SSOs from gravity sewers.
- *Camera* -- A digital or disposable camera is required to record the conditions upon arrival, during clean up, and upon departure.
- *Emergency Response Trucks* -- A utility body pickup truck, or open bed is required to store and transport the equipment needed to effectively respond to sewer emergencies. The equipment and tools will include containment and clean up materials.
- *Portable Generators, Portable Pumps, Piping, and Hoses* – Equipment used to bypass pump, divert, or power equipment to mitigate an SSO.
- *Combination Sewer Cleaning Trucks* -- Combination high velocity sewer cleaning trucks with vacuum tanks are required to clear blockages in gravity sewers, vacuum spilled sewage, and wash down the impacted area following the SSO event.
- *Air plugs, sandbags and plastic mats*
- *SSO Sampling Kits*

Standard operating procedures for City equipment that may be necessary in the event of a sanitary sewer overflow or backup can be found at the Corp Yard.

7.7 Outside Assistance

Responders will refer to the current City-approved vendor list as necessary for assistance with the response.

8. Recovery and Cleanup

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

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

8.1 Estimate the Volume of Spilled Sewage

Use the methods outlined in the Sanitary Sewer Overflow and Backup Response Procedures (Appendix B), 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. In all other cases, affected property owners can call a water damage restoration contractor to complete the cleanup and restoration. If the overflow onto private property is definitely the result of City system failure, the property owner can call out a water damage restoration contractor to complete the cleanup and restoration. In both cases, City claim forms may be issued if requested by the property owners.

Hard Surface Areas

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

Landscaped and Unimproved Natural Vegetation

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

Natural Waterways

The Department of Fish and Wildlife will be notified by CalOES for SSOs greater than or equal to 1,000 gallons.

Wet Weather Modifications

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

8.4 Public Notification

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

Creeks, streams and beaches that have been contaminated as a result of an SSO will be posted at visible access locations until the risk of contamination has subsided to acceptable background bacteria levels. 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 City Manager or their designee will provide the media with all relevant information.

9. Water Quality

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

9.1 Water Quality Sampling and Testing

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

- The Sewer Crew will collect water samples as soon as possible after the discovery and mitigation of the SSO event.
- The water quality samples will be collected from upstream of the spill, from the spill area, and downstream of the spill in flowing water (e.g. creeks). The water quality samples will be collected near the point of entry of the spilled sewage.
- The samples will then be brought to the Wastewater Reclamation Plant Laboratory for analysis at a contract laboratory.

9.2 Water Quality Monitoring Plan

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

The SSO Water Quality Monitoring Program will:

1. Contain protocols for water quality monitoring.
2. Account for spill travel time in the surface water and scenarios where monitoring may not be possible (e.g. safety, access restrictions, etc.)
3. Within 48 hours of the City becoming aware of the SSO, require water quality sampling for ammonia and total and fecal coliform. 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. Observe proper chain of custody procedures.

9.3 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 Wastewater Division Supervisor will supervise and prepare this report. This report, which does not preclude the Water Boards from requiring more detailed analyses if requested, shall include at a minimum, the following:

Causes and Circumstances of the SSO:

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

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 Sewer Crew to gather information regarding the incident and notify the City Manager.
- It is the responsibility of the City Manager 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 maintains records for each sanitary sewer overflow. Records include:

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

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

11.1 Requirements Table

ELEMENT	REQUIREMENT	METHOD
NOTIFICATION	Within two hours of becoming aware of any Category 1 SSO greater than or equal to 1,000 gallons discharged to surface water or spilled in a location where it probably will be discharged to surface water, the City will notify the California Office of Emergency Services (CalOES) and obtain a notification control number.	Call Cal OES at: (800) 852-7550
REPORTING	<ul style="list-style-type: none"> • Category 1 or Category 2 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. • Category 3 SSO: The City will submit certified report within 30 calendar days of the end of month in which SSO the occurred. • 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. • "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. • Collection System Questionnaire: The City will update and certify every 12 months 	Enter data into the CIWQS Online SSO Database ¹ (http://ciwqs.waterboards.ca.gov/) certified by the Legally Responsible Official(s) ² . All information required by CIWQS will be captured in the Sanitary Sewer Overflow Report. Certified SSO reports may be updated by amending the report or adding an attachment to the SSO report within 120 calendar days after the SSO end date. After 120 days, the State SSO Program Manager must be contacted to request to amend an SSO report along with a justification for why the additional information was not available prior to the end of the 120 days.
WATER QUALITY MONITORING	The City will conduct water quality sampling within 48 hours for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.	Water quality results will be uploaded into CIWQS for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.
RECORD KEEPING	The City will maintain the following records: <ul style="list-style-type: none"> • SSO event records. • Records documenting Sanitary Sewer Management Plan (SSMP) implementation and changes/updates to the SSMP. • Records to document Water Quality Monitoring for SSOs of 50,000 gallons or greater spilled to surface waters. • Collection system telemetry records if relied upon to document and/or estimate SSO Volume. • In accordance with City records retention schedule, paper (hard copy) records are maintained. 	Self-maintained records shall be available during inspections or upon request.

¹ In the event that the CIWQS online SSO database is not available, the Wastewater Division Supervisor or designee will notify SWRCB by phone or email 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.

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

11.2 Complaint Records

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

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

Completed Sanitary Sewer Overflow Reports and records are kept in the SSO Binder at the Corp Yard for a minimum of five years whether or not the incidents resulted in an SSO.

12. Post SSO Event Debriefing

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

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

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

13. Failure Analysis Investigation

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

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

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

- Reviewing and completing the Sanitary Sewer Overflow Report (in Appendix B) and any other documents related to the incident
- Reviewing the incident timeline and other documentation regarding the incident,
- Reviewing communications with the reporting party and witness.
- Review volume estimate, volume recovered estimate, volume estimation assumptions and associated drawings,
- Reviewing available photographs,
- Interviewing staff that responded to the spill.
- Reviewing past maintenance records,
- Reviewing past CCTV records,
- Conducting a CCTV inspection to determine the condition of all line segment(s) immediately following the SSO and reviewing the video and logs,
- Reviewing any Fats, Oil and Grease (FOG) related information or results
- Review any root related information
- Post SSO debrief records
- Interviews with the public at the SSO location

The product of the failure analysis investigation will be the determination of the root cause and the identification and scheduling of the corrective actions. The Collection System Failure Analysis Form (in Appendix B) 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 with Human Resources of all training that is provided in support of this plan. The records for all scheduled training courses and for each overflow emergency response training event and will include date, time, place, content, name of trainer(s), and names and titles of attendees.

14.4 Contractors Working On 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 D: Contractor Orientation.

15. Authority

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

16. References

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

Appendix A
REGULATORY NOTIFICATIONS PACKET

Regulatory Notifications Packet

Instructions:

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

Contents:

<u>Form</u>	<u>Page Number</u>
Regulatory Reporting Guide	A-1
Reporting Checklist: Category 1	-2a
Reporting Checklist: Categories 2 and 3	-2b

Print on 6"x9" envelope

**Regulatory Notifications Packet
Regulatory Reporting Guide**

Reporting Instructions

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

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

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.

Regulatory Notifications Packet
Regulatory Reporting Guide**Contact Information**

Contact	Telephone/Fax/Email
CalOES	(800) 852-7550
City Manager	(530) 527-2605
York Risk Services Group Cameron Dewey, Unit Manager	(530) 243-3249 Cameron.Dewey@yorkrsg.com
Tehama County Environmental Health	(530) 527-8020
Central Valley Regional Water Quality Control Board (CVRWQCB):	Telephone: (530) 224-4845 Fax: (530) 224-4857
State Water Resources Control Board (SWRCB):	
Russell Norman, P.E.	(916) 323-5598 Russell.Norman@waterboards.ca.gov
Gil Vazquez, Water Resources Control Engineer	(916) 322-1400 Gil.Vasquez@waterboards.ca.gov

Authorized Personnel

The following are authorized to perform regulatory reporting:

Title	Telephone
Wastewater Division Supervisor*	(530) 527-4300
Lead Worker	(530) 527-2605
City Manager	(530) 527-2605

* This individual is the City's Legally Responsible Official (LRO) and is authorized to perform regulatory reporting and electronically sign and certify SSO reports in CIWQS.

Definitions of SSO Categories

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

Category	Definition
Category 1:	Discharge of untreated or partially treated wastewater of any volume resulting from a sanitary sewer system failure or flow condition that either: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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

**Regulatory Notifications Packet
Category 1 SSO Reporting Checklist**

A-2a

Use this Checklist for Category 1 SSOs only

STEP 1: Receive call from crew.

STEP 2: 2-hour Notification

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

Notify CalOES at (800) 852-7550:

- o Date Called: _____
- o Time called: _____ : _____ AM PM
- o CalOES Control number: _____
- o City personnel who called CalOES: *Name* _____
Title _____
- o Individual they spoke to at CalOES: _____

STEP 3: Within 2 hours after awareness of SSO

- If SSO impacts private property that may be due to a failure in the City sewer and/or if the City believes a claim for damages may be submitted against the City, contact York Risk Services Group.

STEP 4: Within 48 hours after awareness of SSO

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

STEP 5: Within 3 Days after awareness of SSO

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

STEP 6: Within 15 Days after response conclusion

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

STEP 7: Within 45 Days after SSO end date

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

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

**Regulatory Notifications Packet
Category 2 & 3 SSO Reporting Checklist**

A-2b

Use this Checklist for Category 2 and 3 SSOs only

STEP 1: Receive call from crew.

STEP 2: Within 2 hours after awareness of SSO

- If SSO impacts private property that may be due to a failure in the City sewer and/or if the City believes a claim for damages may be submitted against the City, contact York Risk Services Group.

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

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

STEP 4: Certify Spill Report

- Certify the Spill Report using the CIWQS online reporting database:
- Category 2 SSO: Within 15 days after the conclusion of the response
 - Category 3 SSO: Within 30 days after the end of the calendar month in which the SSO occurred
- Updates to the Spill Report may be made for up to 120 days following the conclusion of the SSO Response.

This form completed by: _____
Name Title Date

Appendix B

SANITARY SEWER OVERFLOW/BACKUP RESPONSE PACKET

**Sanitary Sewer Overflow/Backup Response Packet
Table of Contents**

<u>Form</u>	<u>Form Number</u>
Response Instructions and Chain of Custody	Packet Envelope
Sanitary Sewer Overflow/Backup Response Flowchart	B-1
Bubbled Toilets Letter	-2
Declination of Cleaning Services.....	-3
First Responder Form.....	-4
Lodging Authorization Form	-5
Start Time Determination Form	-6
Volume Estimation Methods	
Eyeball Estimation	-7a
Area/Volume Estimation	-7b
Upstream Lateral Connections	-7c
Sanitary Sewer Overflow Report.....	-8
Lateral CCTV Report.....	-9
Claims Submittal Checklist.....	-10
Collection System Failure Analysis Form.....	-11
Customer Service Packet	
Instructions	envelope
Customer Information (English).....	CS-1 English
Customer Information (Spanish).....	CS-1 Spanish
Sewer Spill Reference Guide	pamphlet
Regulatory Notifications Packet	See contents list above
Public Posting	
Door Hanger	

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

Sanitary Sewer Overflow/Backup Response Packet

If this is a Category 1 SSO greater than or equal to 1,000 gallons immediately contact the Wastewater Division Supervisor at (530) 527-4300 to make the 2-hour notification to CalOES.

Notifications Trigger:	Contact Immediately:
For all backups into/onto private property possibly due to problems in the public sewer	York Risk Services Group Cameron Dewey, Unit Manager (530) 243-3249
For restoration/remediation	Wastewater Division Supervisor (530) 527-4300 or City Manager: (530) 527-2605
For any media requests*	City Manager: (530) 527-2605

* Refer to the Media and Public Relations Guidelines on Page 4 of the SSO/Backup Response Flowchart.

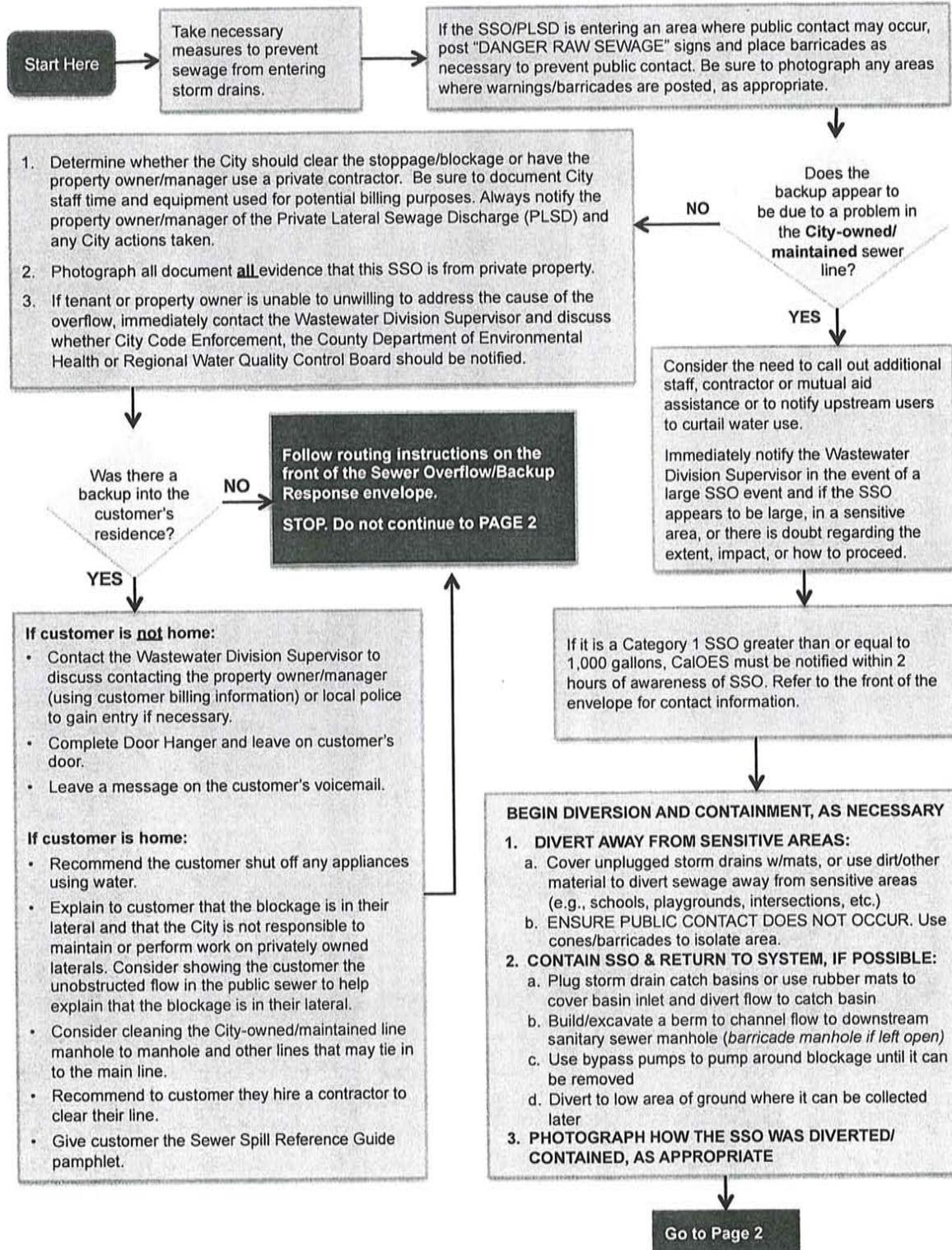
Check here if you believe that fats, roots, oils and/grease (FROG) caused/contributed to the SSO:

<p>Sewer Crew:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Follow the instructions on the Sanitary Sewer Overflow/Backup Response Flowchart. Note: If there is a backup and multiple dwelling units are affected, use one packet per unit and check here: <input type="checkbox"/> <input type="checkbox"/> If indicated on the flowchart, give the customer the Bubbled Toilets Letter and/or the Customer Service Packet and have them initial here: <i>Customer acknowledgement of receipt of Bubbled Toilets Letter:</i> _____ <i>Customer acknowledgement of receipt of Customer Service Packet:</i> _____ <input type="checkbox"/> Place completed forms in this envelope, complete the Chain of Custody record (right) and forward this packet to the Wastewater Division Supervisor. 	<p style="text-align: center;">CHAIN OF CUSTODY</p> <p>Print Name: _____</p> <p>Initial: _____</p> <p>Date: _____</p> <p>Time: _____</p>
--	---

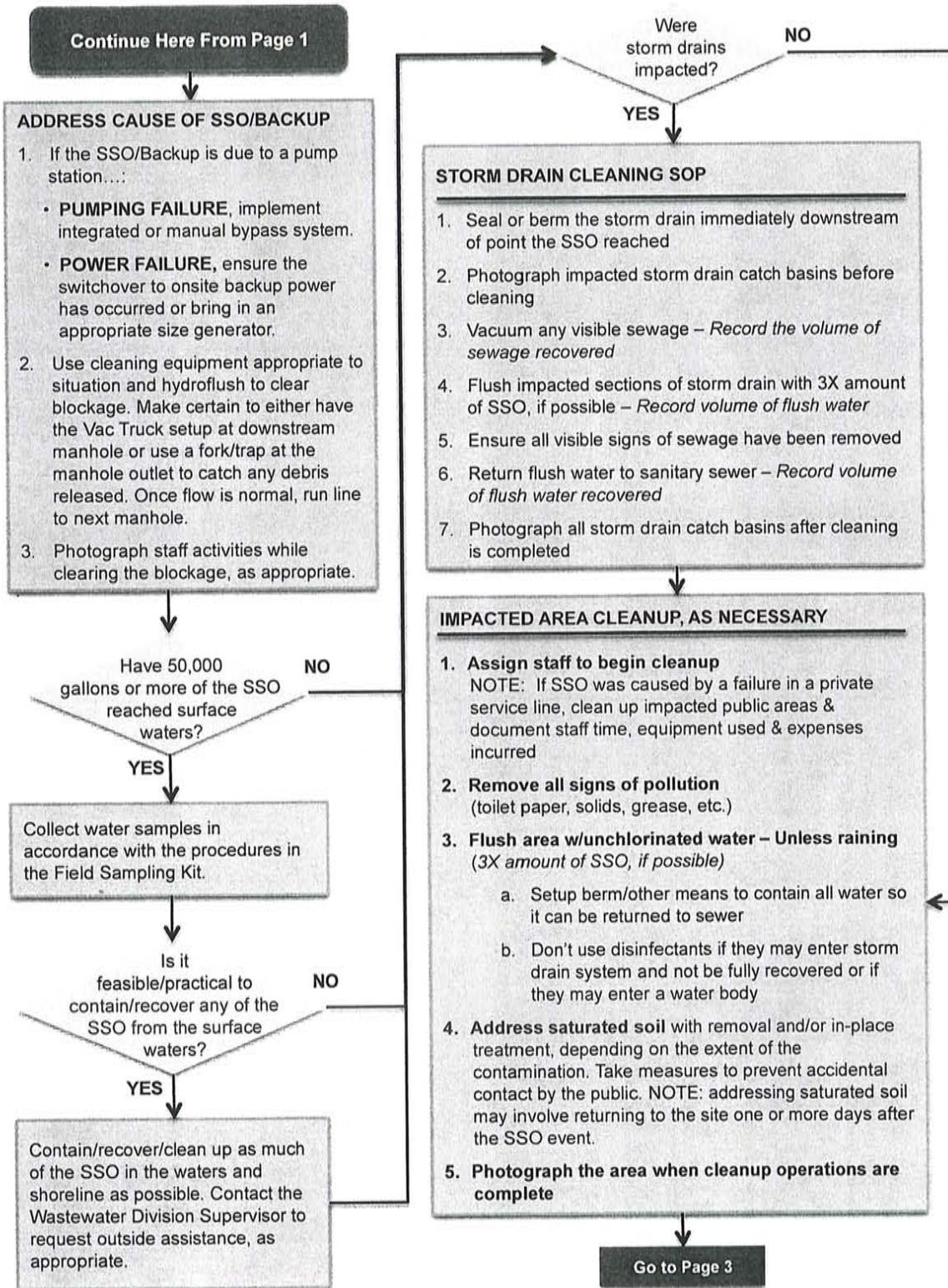
<p>Wastewater Division Supervisor:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Follow the instructions on the bottom of the Sanitary Sewer Overflow/Backup Response Flowchart. <input type="checkbox"/> Complete the Regulatory Notifications Packet. <input type="checkbox"/> Complete the Chain of Custody record (right). <input type="checkbox"/> If there is a backup: <ul style="list-style-type: none"> <input type="checkbox"/> Complete the Claims Submittal Checklist. <input type="checkbox"/> Forward this completed packet to the City Manager <input type="checkbox"/> If no backup, file this completed packet in accordance with City policy. 	<p style="text-align: center;">CHAIN OF CUSTODY</p> <p>Print Name: _____</p> <p>Initial: _____</p> <p>Date: _____</p> <p>Time: _____</p>
--	---

City Manager: Refer to the Claims Submittal Checklist.

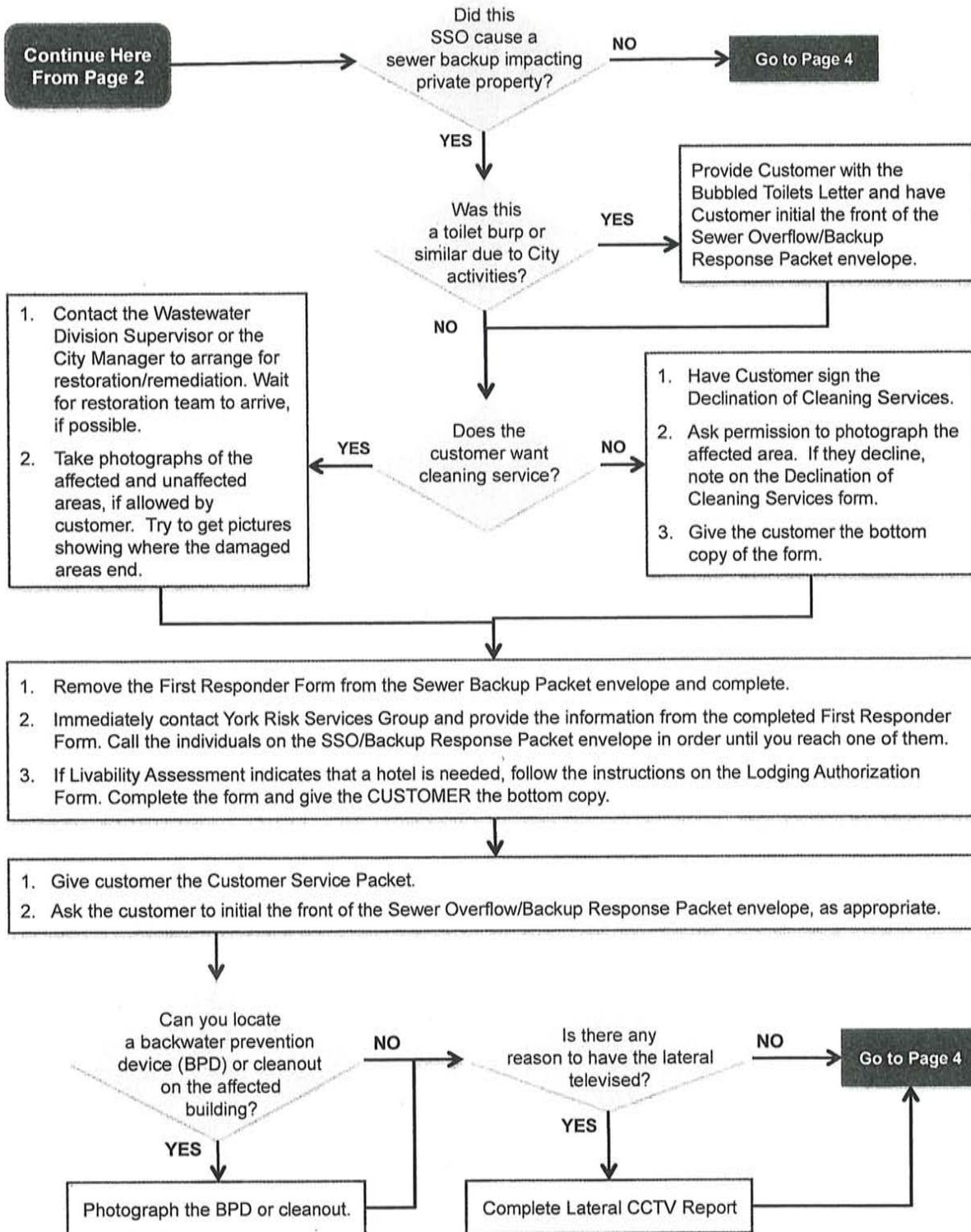
Sanitary Sewer Overflow/Backup Response Flowchart



Sanitary Sewer Overflow/Backup Response Flowchart



Sanitary Sewer Overflow/Backup Response Flowchart



Sanitary Sewer Overflow/Backup Response Flowchart

Continue Here
From Page 3

DETERMINE START TIME AND ESTIMATE SSO VOLUME

1. Complete the Start Time Determination form. Remember – the SSO was probably occurring for a period of time before it was reported.
2. Estimate and document SSO volume using two or more of the worksheets provided.
3. Complete the Start Time and Volume Estimation sections on the Sanitary Sewer Overflow Report.

DOCUMENTATION AND REPORTING

1. Complete the Sanitary Sewer Overflow Report.
2. Make notifications indicated on the Sanitary Sewer Overflow/Backup Response Packet envelope
3. Complete the Lateral CCTV Report as necessary

Place in Sewer Overflow Packet envelope and follow paperwork routing instructions indicated on the front of the envelope:

1. All completed forms
2. Digital or disposable camera
3. All notes/documentation made
4. Document the service call according to City procedures

MEDIA AND PUBLIC RELATIONS GUIDELINES:

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

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

- Giving out the wrong information,
- Speculating about the situation you are responding to
- Making accusations against customers, businesses or other agencies
- 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.

**Sanitary Sewer Overflow/Backup Response Packet
Bubbled Toilets Letter**

B-2
ENGLISH

Dear City of Red Bluff 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 800 feet. During this process, air within the main pipe is displaced and sometimes goes up the private lateral pipe and releases through the toilet. This can also happen during the cleaning phase, when high-pressure water is pulled downstream to the cleaning truck.

4. What causes the air to come from my toilet?

Over the years, City crews have found that the bubbling of toilets have 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 that could be opened in the future during cleaning. The crew leader then makes notes and completes paperwork that puts the address on the City's computerized notification list. In the future, crews will notice that this address was "bubbled" at one time, and, before commencing the cleaning, they will notify the occupant of the possibility of bubbling toilets. In the event the occupant is not present when the cleaning begins, the crews will attempt to open clean-outs and/or lower water pressure to avoid bubbling.

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 contact the Wastewater Division Supervisor at (530) 527-4300.

Sincerely,

City of Red Bluff

Estimado cliente de la ciudad de Red Bluff:

Gracias por informarnos que su inodoro burbujeó mientras nuestros equipos trabajaban en las cercanías de su propiedad. Pedimos disculpas por las molestias y esperamos que esta carta responda algunas de sus preguntas sobre los inodoros que burbujan.

1. ¿Es un riesgo para la salud?

El agua que salió de su inodoro es agua potable de la taza del inodoro. A menos que el inodoro haya estado en uso cuando esto sucedió, esta agua no es diferente a la que se encuentra cuando limpia el inodoro.

2. ¿Qué realiza la Ciudad en la calle?

A fin de asegurar un servicio de alcantarillado confiable, la Ciudad inspecciona, limpia y repara el sistema de alcantarillado de manera continua.

3. ¿De qué manera la limpieza del alcantarillado provoca que mi inodoro burbujee?

El equipo industrial típico de limpieza utiliza agua a alta presión para limpiar el alcantarillado. El primer paso es utilizar el chorro de agua a alta presión para impulsar la manguera y la boquilla de limpieza contracorriente con un alcance de hasta 243,8 m (800 pies). Durante este proceso, el aire dentro de la tubería principal se desplaza y algunas veces sube por la tubería lateral privada y se libera a través del inodoro. Esto también puede ocurrir durante la fase de limpieza, cuando el agua a alta presión se arrastra aguas abajo hasta el camión de limpieza.

4. ¿Qué provoca que el aire se libere por mi inodoro?

A través de los años, los equipos de la Ciudad descubrieron que el burbujeo de los inodoros ocurre debido a varias causas, entre las cuales encontramos las siguientes:

- tubos de ventilación obstruidos;
- tubos de ventilación que se colocan demasiado lejos del inodoro;
- tuberías laterales que pueden estar en uso mientras el equipo realiza la limpieza (por ejemplo, el drenaje de la lavadora, el drenaje de la bañera, etc.);
- tuberías laterales que pueden tener obstrucciones que hacen contener el agua (por ejemplo, raíces, grasa, etc.).

5. ¿Qué hace el personal de la Ciudad una vez que se le informa de un inodoro que burbujea?

Una vez que se notifica un inodoro que burbujea, el líder del equipo le explica al cliente lo que ha sucedido y comprueba si hay un registro de alcantarillado en el patio del cliente que podría abrirse en limpiezas futuras. Luego, el líder del equipo toma notas y completa documentación para incluir la dirección en la lista automatizada de notificaciones de la Ciudad. En el futuro, los equipos notarán que en esta dirección hubo "burbujeos" en un momento y, antes de comenzar la limpieza, notificará al ocupante acerca de la posibilidad de que burbujeen los inodoros. En caso de que el ocupante no esté presente cuando la limpieza se inicia, los equipos intentarán abrir los registros de alcantarillado y bajar la presión del agua para evitar el burbujeo.

6. ¿Qué puedo hacer para evitar que mi inodoro burbujee?

Cuando un alcantarillado comienza a drenar lentamente, puede ser un signo de que es necesario limpiarlo o repararlo. Los árboles y arbustos pueden tener estructuras de raíz que entren en la tubería lateral. El propietario debe asegurarse de tener un registro de alcantarillado para acceder a la línea. Es responsabilidad del dueño de casa mantener la tubería lateral de la alcantarilla en buen funcionamiento.

Siempre es una buena idea mantener la tapa del inodoro baja cuando no está en uso y no instalar alfombras en el baño a menos que puedan quitarse y limpiarse con facilidad. Para obtener más información, comuníquese con el Supervisor de la División de Aguas Residuales al (530) 527-4300.

Atentamente,

Ciudad de Red Bluff

**Sanitary Sewer Overflow/Backup Response Packet
Declination of Cleaning Services**

Customer Information

NAME:	ADDRESS:	TELEPHONE:
-------	----------	------------

ON (date)	AT (time)	Approximately (quantity)	GALLONS OF: <input type="checkbox"/> Sewage <input type="checkbox"/> Grey Water <input type="checkbox"/> Toilet Bowl Water <input type="checkbox"/> Odor <input type="checkbox"/> Other (describe):
---------------------	---------------------	------------------------------------	--

Overflowed from (or odor emanating from) <input type="checkbox"/> Toilet <input type="checkbox"/> Shower/Tub <input type="checkbox"/> Washer <input type="checkbox"/> Other (describe):	The overflow affected the following areas (check one): <input type="checkbox"/> Bathroom <input type="checkbox"/> Bedroom <input type="checkbox"/> Hallway <input type="checkbox"/> Garage <input type="checkbox"/> Kitchen <input type="checkbox"/> Crawlspace <input type="checkbox"/> Other (specify):
--	--

The overflow affected the following flooring: <input type="checkbox"/> Tile <input type="checkbox"/> Wood Flooring <input type="checkbox"/> Linoleum <input type="checkbox"/> Carpet <input type="checkbox"/> Other (specify):	and/or additional materials: <input type="checkbox"/> Area Rugs <input type="checkbox"/> Towels <input type="checkbox"/> Clothing <input type="checkbox"/> Other (specify):
--	--

Photos: Were Not Taken Were Taken, number of photos: _____

This Form Completed By: _____ **Date:** _____
Time: _____

CUSTOMER, please read the following and sign below:
 I/We acknowledge that City of Red Bluff, 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.

Customer Signature*:	Date:
The information above was explained to the customer by the following employee:	Name:
	Signature:
	Title:
	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
 - 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 services have been restored.
 - Seek immediate attention if you become injured or ill.

Distribution Instructions: Top Copy to City records; Middle Copy to Wastewater Division Supervisor; Bottom Copy to Customer

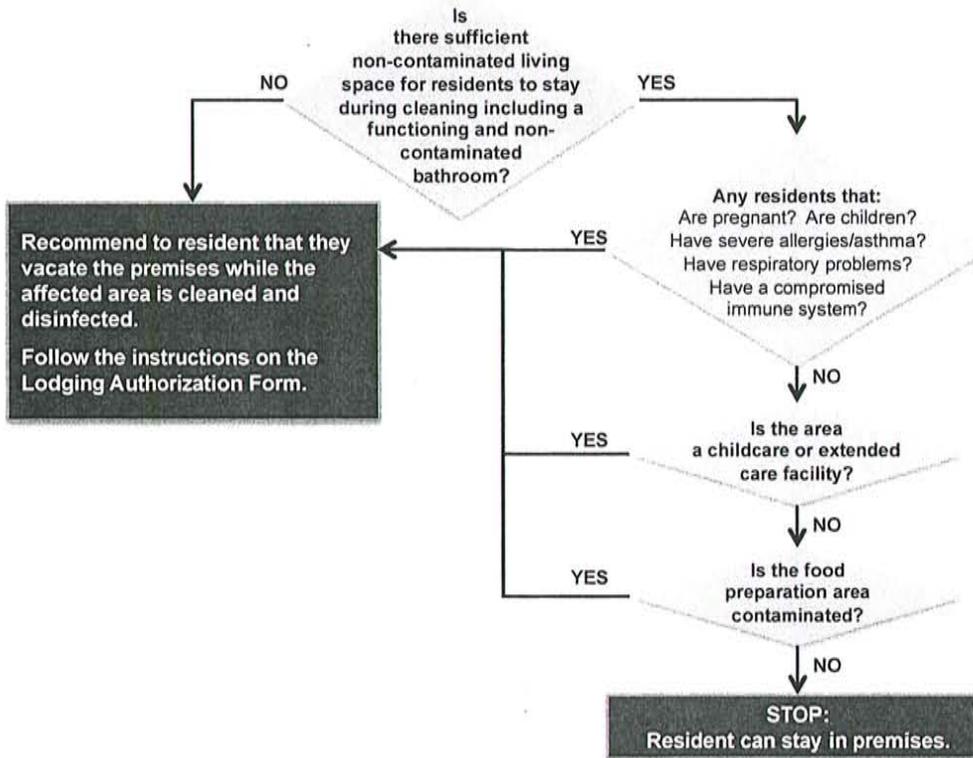
Sanitary Sewer Overflow/Backup Response Packet
First Responder Form

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.

PERSON COMPLETING THIS FORM:		PHONE:
Name: _____		DATE:
Title: _____		TIME:
TIME STAFF ARRIVED ON-SITE:		
DOES THE CUSTOMER WANT THE CITY TO CALL A CLEANING CONTRACTOR? <input type="checkbox"/> Yes <input type="checkbox"/> No IF NO, complete the Declination of Sewage Cleaning Services form.		
DID CUSTOMER CALL CLEANING CONTRACTOR? <input type="checkbox"/> Yes <input type="checkbox"/> No If YES, name of contractor:		
RESIDENT NAME: <input type="checkbox"/> Owner <input type="checkbox"/> Renter	IF RENT, PROPERTY MANAGER(S): OWNER:	
STREET ADDRESS: CITY, STATE AND ZIP: PHONE:	STREET ADDRESS: CITY, STATE AND ZIP: PHONE:	
Is nearest upstream manhole visibly higher than the drain/fixture that overflowed? <input type="checkbox"/> Yes <input type="checkbox"/> No		
# OF PEOPLE LIVING AT RESIDENCE:		
Approximate Age of Home:	# of Bathrooms:	# of Rooms Affected:
Approximate Amount of Spill (gallons):	Approximate Time Sewage Has Been Sitting (hrs/days):	
Numbers of Photographs or Videos Taken: <input type="checkbox"/> Photographs <input type="checkbox"/> Video	Where are photos/video stored?	
Does property have a Property Line Cleanout or BPD?		<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> Unknown
If yes, was the Property Line Cleanout/BPD operational at the time of the overflow?		<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> Unknown
Have there ever been any previous spills at this location?		<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> Unknown
Has the resident had any plumbing work done recently? <i>If YES, please describe:</i>		<input type="checkbox"/> YES <input type="checkbox"/> NO

GO TO PAGE 2

LIVABILITY ASSESSMENT



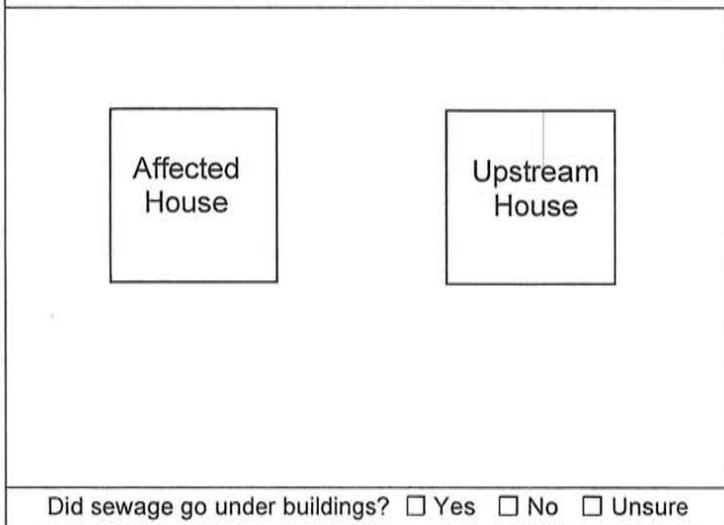
SANITARY SEWER LINE BLOCKAGE LOCATION

PLEASE CHECK THE BOXES THAT DESCRIBE YOUR OBSERVATIONS:

- | | |
|---------------------------------------|---------------------------------------|
| Customer Cleanout Was: | Public Cleanout was: |
| <input type="checkbox"/> Non-Existent | <input type="checkbox"/> Non-Existent |
| <input type="checkbox"/> Full | <input type="checkbox"/> Full |
| <input type="checkbox"/> Empty | <input type="checkbox"/> Empty |

Recommended Follow-Up Action(s):

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



Place completed form in Sanitary Sewer Overflow/Backup Response Envelope and follow routing instructions.

**Sanitary Sewer Overflow/Backup Response Packet
Lodging Authorization Form**

B-5

INSTRUCTIONS TO PUBLIC WORKS CREW:

1. Explain the circumstances of the backup. If the Livability Assessment indicates that a hotel is needed, offer alternate lodging to the customer. If they agree, ask the customer which hotel identified below they prefer. Contact the Wastewater Division Supervisor who will make the necessary arrangements.
2. Review this form with the customer and instruct them to read the Instructions to Resident section below.
3. Instruct the customer that this emergency authorization is for **LODGING ONLY – NO FOOD, MINIBAR, MOVIE, PHONE or Other Charges**.
4. Explain to customer that if circumstances require additional nights' lodging and other incidentals, the City Manager will address them.
5. Have the customer sign the Acknowledgement section of this form.
6. Complete this Authorization Form and sign.
7. Give the bottom copy of this form to the customer.

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

1. This authorization provides for one (1) nights' lodging at the hotel selected below.
2. The authorization is good for **room and tax ONLY**.
3. Additional nights, other allowances, and special circumstances may be discussed by contacting the City Manager at (530) 527-2605.

CUSTOMER ACKNOWLEDGEMENT:

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

Customer Name (please print): _____

Customer Address: _____

Phone # where customer may be reached: _____

Customer Signature: _____ Date: _____

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

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

City of Red Bluff Representative's Name: _____ Phone Number: _____

This voucher is valid at the following hotels:

- **Holiday Inn Express and Suites**
2810 Main Street, Red Bluff CA 96080
(530) 528-1600
- **Comfort Inn**
90 Sale Lane, Red Bluff CA 96080
(530) 529-7060

**Sanitary Sewer Overflow/Backup Response Packet
Start Time Determination Form**

B-6

SSO Start Date: _____ Location: _____

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

What time was the 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:

Name	Contact Information	Statement

Describe in detail how you determined the start time for this particular SSO: _____

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

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

SSO Duration: _____ **minutes**

This form completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

**Sanitary Sewer Overflow/Backup Response Packet
Volume Estimation: Eyeball Estimation Method**

B-7a

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

SSO Date: _____ Location: _____

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

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

STEP 5: Is rainfall a factor in the SSO? Yes No
 If yes, what volume of the observed spill volume do you estimate is rainfall? _____ gallons
 If yes, describe how you determined the amount of rainfall in the observed spill?

STEP 6: Calculate the estimated SSO volume by subtracting the rainfall from the SSO volume:
 _____ gallons - _____ gallons = _____ gallons
 Estimated SSO Volume Rainfall **Total Estimated SSO Volume**

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

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

Sanitary Sewer Overflow/Backup Response Packet
Volume Estimation: Area/Volume Estimation Method

Note: Refer to form B-4b Page 3 for computation formulas and guides

SSO Date: _____ Location: _____

STEP 1: Describe spill area surface: Asphalt Concrete Dirt Landscape Inside Building
Other: _____

STEP 2: Draw/sketch the outline (footprint) of the spill. Then break the footprint down into recognizable shapes. Refer to the example on form B-7b Page 3.

STEP 3: Calculate the area of the footprint by completing the table below for each shape in Step 2. If two shapes overlap, select one of the two shapes and estimate the percentage of that shape that does not overlap. Enter that percentage in the % Not Overlapping column. This will ensure that the overlap area is only counted once. Refer to the example on form B-4b Page 3.

Rectangles	Length	X	Width	X	% Not Overlapping*	=	Area
	ft	X	ft	X	%	=	ft ²
	ft	X	ft	X	%	=	ft ²
	ft	X	ft	X	%	=	ft ²

Triangles	Base	X	Height	Multiplier	X	% Not Overlapping*	=	Area
	ft	X	ft	÷ 2	X	%	=	ft ²
	ft	X	ft	÷ 2	X	%	=	ft ²
	ft	X	ft	÷ 2	X	%	=	ft ²

Circles	π	X	Radius	X	Radius	X	% Not Overlapping*	=	Area
	3.14	X	ft	X	ft	X	%	=	ft ²
	3.14	X	ft	X	ft	X	%	=	ft ²
	3.14	X	ft	X	ft	X	%	=	ft ²

Total Spill Area (sum of all three tables above): _____ ft²

Sanitary Sewer Overflow/Backup Response Packet
Volume Estimation: Area Volume Estimation Method

STEP 4: Calculate the volume of the spill that **was NOT absorbed** into the ground. If the entire spill was absorbed, skip to Step 5.

a. If spill is of varying depths, take several measurements at different depths and find the average.

$$\frac{\text{inches}}{\text{sum of measurements}} + \frac{\text{inches}}{\text{\# of measurements}} = \frac{\text{inches}}{\text{average depth in inches}} + 12 = \frac{\text{feet}}{\text{average depth in feet of ponded sewage}}$$

b. Calculate spill volume of ponded sewage in cubic feet by multiplying the Total Spill Area in Step 3 by the average depth calculated in Step 4a. Convert from cubic feet to gallons by multiplying by 7.48.

$$\frac{\text{ft}^2}{\text{spill area (Step 3)}} \times \frac{\text{ft}}{\text{average depth (Step 4a)}} = \frac{\text{ft}^3}{\text{spill volume in cubic feet}} \times 7.48 \text{ gal} = \frac{\text{gallons}}{\text{estimated volume of ponded sewage}}$$

STEP 5: Calculate the volume of the spill that **was absorbed** into the ground. If only a wet stain is observed, use the guidelines on B-7b Page 3 for the average depth. When estimating the volume that was absorbed, take into consideration:

- How long the sewage has been sitting
- The air temperature on the day of the SSO
- Soil type for the area (e.g., hard-packed clay vs. loose or gravelly soil)

When estimating the volume of the spill that was absorbed into the ground, it is also advisable to dig down far enough to reach dry soil and take the depth of the wet soil into consideration.

Estimated volume that was absorbed into the soil: _____ gallons

Explain how this estimation was determined: _____

STEP 6: Add the volume not absorbed (Step 4) plus the volume absorbed (Step 5) to get the total estimated volume:

$$\frac{\text{gallons}}{\text{volume not absorbed}} + \frac{\text{gallons}}{\text{volume absorbed}} = \frac{\text{gallons}}{\text{Total Estimated Spill Volume}}$$

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:

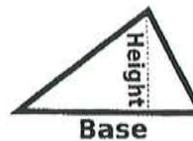
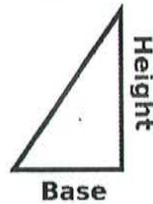
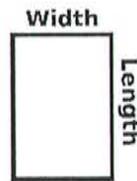
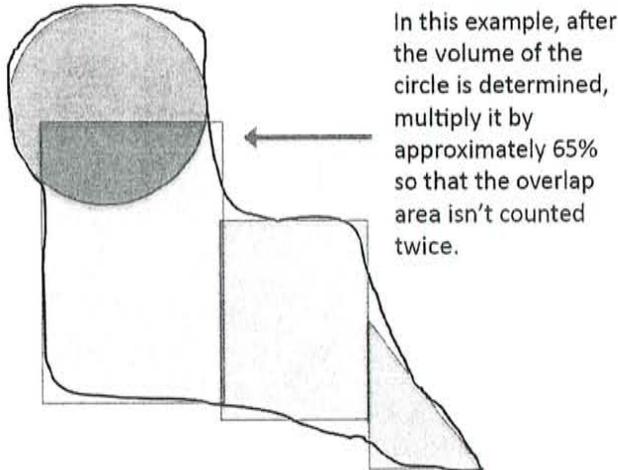
Name: _____ Signature: _____
Job Title: _____ Date: _____

Miscellaneous Computations

To convert inches to feet	Divide the inches by 12 or use the chart on the bottom right of this page.
Volume of one cubic foot	7.48 gallons of water
Area: Two-dimensional measurement represented in square feet	Square/rectangle: Area = Length x Width Circle: Area = πr^2 (where $\pi \approx 3.14$ and $r = \text{radius} = \frac{1}{2} \text{ diameter}$) Triangle: Area = $\frac{1}{2}$ (Base x Height)
Volume: Three-dimensional measurement represented in cubic feet	Rectangle/square footprint: Volume = Length x Width x Depth Circle footprint (cylinder): Volume = $\pi r^2 \times \text{Depth}$ (where $\pi \approx 3.14$ and $r = \text{radius} = \frac{1}{2} \text{ diameter}$) Triangle footprint: Volume = $\frac{1}{2}$ (Base x Height) x Depth
Depth: Contained or "Ponded" sewage	Measure actual depth of standing sewage whenever possible. When depth varies, measure several representative sample points and determine the average. Add the depth of the sample points and then divide that total by the number of sample points. If the depth is not measurable because it is only a wet stain, consider using the following estimated depths: <ul style="list-style-type: none"> • Depth of a wet stain on concrete surface: 0.0026' (1/32") • Depth of a wet stain on asphalt surface: 0.0013' (1/64")

Example of how to draw/sketch the outline (footprint) of the spill for Step 2:

1. Sketch the outline of the spill (black line).
2. Break the sketch down into recognizable shapes (circles, squares, etc.) as well as you can.



Convert Inches to Feet	
Inches	Feet
1/8"	0.01'
1/4"	0.02'
3/8"	0.01'
1/2"	0.04'
5/8"	0.05'
3/4"	0.06'
7/8"	0.07'
1"	0.08'
2"	0.17'
3"	0.25'
4"	0.33'
5"	0.42'
6"	0.50'
7"	0.58'
8"	0.67'
9"	0.75'
10"	0.83'
11"	0.92'
12"	1.00'

**Sanitary Sewer Overflow/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.

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

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

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

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

Estimated SSO Volume: _____ gallons

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

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

This worksheet completed by:

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

Sanitary Sewer Overflow/Backup 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:

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

A. SSO LOCATION

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

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

SSO Appearance Point (check one or more): <input type="checkbox"/> Force Main <input type="checkbox"/> Gravity Mainline <input type="checkbox"/> Lateral Cleanout (Private)		
<input type="checkbox"/> Lateral Cleanout (Public)	<input type="checkbox"/> Inside Building or Structure	<input type="checkbox"/> Manhole <input type="checkbox"/> Pump Station
<input type="checkbox"/> Lateral (Private)	<input type="checkbox"/> Service Lateral or Lower Lateral	
<input type="checkbox"/> Other Sewer System Structure (specify):		
Were there multiple appearance points? <input type="checkbox"/> No <input type="checkbox"/> Yes, number of appearance points:		
Did the SSO reach a drainage channel and/or surface water? <input type="checkbox"/> Yes (Category 1) <input type="checkbox"/> No		
If the SSO reached a storm sewer, was it fully captured and returned to the Sanitary Sewer? <input type="checkbox"/> Yes <input type="checkbox"/> No (Category 1)		
Was this spill from a private lateral? <input type="checkbox"/> Yes <input type="checkbox"/> No If YES, name of responsible party:		
Final Spill Destination: <input type="checkbox"/> Surface waters other than ocean	<input type="checkbox"/> Drainage channel	<input type="checkbox"/> Building/structure
<input type="checkbox"/> Separate Storm drain <input type="checkbox"/> Combined storm drain <input type="checkbox"/> Paved surface	<input type="checkbox"/> Unpaved surface	<input type="checkbox"/> Street/curb/gutter
<input type="checkbox"/> Other:		
*Provide name(s) of affected drainage channels, beach, etc.:		
Total Estimated SSO volume (in gallons – 1,000gal or more = Category 1):		gallons
Est. volume that reached a separate storm drain that flows to a surface water body:	gal	Recovered: gal
Est. volume that reached a drainage channel that flows to a surface water body:	gal	Recovered: gal
Est. volume discharged directly to a surface water body:	gal	Recovered: gal
Est. volume discharged to land:	gal	Recovered: gal
Calc. Methods: <input type="checkbox"/> Eyeball <input type="checkbox"/> Photo Comparison <input type="checkbox"/> Upstream Lat. Connections <input type="checkbox"/> Area/Volume (include sketch/photo with dimensions)		
<input type="checkbox"/> Other (describe):		

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

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

* If multiple appearance points, use the GPS coordinates for the location of the SSO appearance point closest to the failure point/blockage.
© 2004-2016 DKF Solutions Group All rights reserved.

Sanitary Sewer Overflow/Backup Response Packet
Sanitary Sewer Overflow Report

D. CAUSE OF SSO

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

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

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

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

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

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

E. SSO RESPONSE

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

SSO response completed (date & time):

Visual inspection result of impacted waters (if applicable):

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

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

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

Were samples of impacted waters collected? Yes No

If YES, select the analyses: DO Ammonia Bacteria pH Temperature Other:

Recommended corrective actions: (check all that apply and provide detail)

Add sewer to preventive maintenance program Adjust schedule/method of preventive maintenance
 Enforcement action against FOG source Inspect sewer using CCTV to determine cause
 Plan rehabilitation or replacement of sewer Repair facilities or replace defect
 Remove roots Spot repair
 Other (specify):

What major equipment was used in the response?

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

F. NOTES

G. NOTIFICATION DETAILS: Enter details if applicable

CalOES contacted on (Date and Time):

Spoke to:

CalOES Control Number:

This form prepared by: NAME:

TITLE:

DATE:

This form reviewed by: NAME:

TITLE:

DATE:

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

**Sanitary Sewer Overflow/Backup Response Packet
Lateral CCTV Report**

B-9

PLEASE COMPLETE AS THOROUGHLY AS POSSIBLE

PERSON COMPLETING THIS FORM:		DATE:
		PHONE:
CAMERA TYPE:	LOCATION OF CAMERA ENTRY:	
AFFECTED PROPERTY STREET ADDRESS:	LOCATION OF CAMERA STOP:	
CITY, STATE AND ZIP:	DESCRIBE AREA TV'd:	
PHONE	UPSTREAM MANHOLE #:	
WEATHER AT TIME OF CCTV WORK:		
PLEASE CHECK ALL THAT WERE DISCOVERED – <i>Describe Extent & Location Using Camera Entry Point As Reference:</i>		TIME OF OVERFLOW:
<input type="checkbox"/> Broken Lateral – Describe: Depth:		TIME BLOCKAGE RELIEVED:
<input type="checkbox"/> Roots – Severity: <input type="checkbox"/> Light <input type="checkbox"/> Moderate <input type="checkbox"/> Heavy		TIME LATERAL TV'd:
<input type="checkbox"/> Grease – Severity: <input type="checkbox"/> Light <input type="checkbox"/> Moderate <input type="checkbox"/> Heavy		DEPTH OF LATERAL:
<input type="checkbox"/> Sag – Describe: Depth:		RECOMMENDED FOLLOW UP WORK ACTIONS:
<input type="checkbox"/> BPD – Describe: Location:		
<input type="checkbox"/> Cleanout – Describe: Location:		
<input type="checkbox"/> Joint/Junction – Describe: Depth		
<input type="checkbox"/> Grade – Describe:		
<input type="checkbox"/> Grit – Severity: <input type="checkbox"/> Light <input type="checkbox"/> Moderate <input type="checkbox"/> Heavy		
<input type="checkbox"/> Other – Describe:		
Mark for USA location? <input type="checkbox"/> Yes <input type="checkbox"/> No	Lateral Locations Marked in Green Paint? <input type="checkbox"/> Yes <input type="checkbox"/> No	
SIGNATURE OF EMPLOYEE PERFORMING TV WORK:		DATE

If applicable, place completed form in Sanitary Sewer Overflow/Backup Response Packet and follow routing instructions.

**Sanitary Sewer Overflow/Backup Response Packet
Claims Submittal Checklist**

B-10

Complete this form if there is a Sanitary Sewer Backup into/onto Private Property

Wastewater Division Supervisor

1. Complete the following information:

Title: _____
Name: _____
Phone: _____
Today's Date: _____

2. Copy the items listed below and retain originals for internal archiving purposes.
3. Place the copies in the Backup Response Envelope and forward to the City Manager:

- Form B-3: Declination of Cleaning Services
- Form B-4: First Responder Form
- Form B-5: Lodging Authorization Form
- Form B-6: Start Time Determination Form
- Form B-7: Volume Estimation Forms (a, b and/or c)
- Form B-8: Sanitary Sewer Overflow Report
- Form B-9: Lateral CCTV Report
- 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

4. Go to Regulatory Notifications Packet and make all appropriate notifications.
5. Complete Form BP-11: Collection System Failure Analysis

City Manager

1. Review incident reports, claim form and other incident information and forward, as appropriate to:

NCCSIF c/o York Risk Services Group
Cameron Dewey, Unit Manager
P.O. Box 619079
Roseville, CA 95661
Telephone: (530) 243-3249
Fax: (530) 255-9095
Email: cameron.dewey@yorkrsg.com

2. Communicate with claimant as appropriate.
3. Monitor administration of claim to closure.

**Sanitary Sewer Overflow/Backup Response Packet
Collection System Failure Analysis**

**B-11
Page 1**

To be completed by the Wastewater Division Supervisor

NOTE: The information contained on this form may be confidential.

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

Go to Page 2

**Sanitary Sewer Overflow/Backup Response Packet
Collection System Failure Analysis**

Recommendations

✓	Type	Specific Actions	Who is Responsible?	Completion Deadline	Who Will Verify Completion?
	No Changes or Repairs Required	n/a	n/a	n/a	n/a
	Repair(s)				
	Construction				
	Capital Improvement(s)				
	Change(s) to Maintenance Procedures				
	Change(s) to Overflow Response Procedures				
	Training				
	Misc.				

Comments/Notes:

Review Date:

City of Red Bluff CA
Overflow Emergency Response Plan

Customer Service Packet

<u>Form</u>	<u>Form Number</u>
Customer Information Letter	CS-1
Claim Form	-2
Sewer Spill Reference Guide.....	pamphlet

Instructions:

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

If you have any questions contact:

- Regarding sewer issues: Wastewater Division Supervisor (530) 527-4300
- Regarding claim issues: City Manager (530) 527-2605

This packet provided by: _____

Phone: _____

Paquete de servicio al cliente

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

Instrucciones:

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

Si tiene alguna consulta, comuníquese con las siguientes entidades:

- Para los problemas relacionados con el alcantarillado, comuníquese con el Supervisor de la División de Aguas Residuales al (530) 527-4300
- Para los problemas relacionados con las reclamaciones, comuníquese con el Gerente de la Ciudad (530) 527-2605.

Este paquete lo proporciona: _____

Teléfono: _____

**Sanitary Sewer Overflow/Backup Response Packet
Customer Information Regarding Sewer Backup Claims**

CS-1
ENGLISH

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.

If you wish to discuss this matter, please contact the Wastewater Division Supervisor at (530) 527-4300. If you wish to submit a claim for damages, please complete the claim form in this packet. Completed Claim Forms are to be submitted to the City Manager at 555 Washington Street, Red Bluff, CA 96080 (530) 527-2605.

Claims against the City must comply with the California Government Code Sec. 910-913.2.

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.
- 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.

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

Noticia Legal Importante: Para su proteccion lea usted con cuidado debe de obtener una translacion que sea puntual y de confianza o consulte con su abogado.

Estimado vecino:

Reconocemos que los incidentes provocados por el reflujo de aguas cloacales pueden ser estresantes y exigen una respuesta inmediata cuando se desconocen los hechos relacionados con la causa del incidente. Tenga la seguridad de que hacemos todo lo posible para evitar que sucedan este tipo de incidentes. Sin embargo, las raíces de los árboles u otros desechos que se encuentran en las cañerías principales del sistema cloacal provocan, de vez en cuando, un desborde en el interior de las viviendas justo arriba de la obstrucción. En este momento, la Ciudad está investigando la causa de este incidente.

Si se determina que la Ciudad es responsable del incidente, nos comprometemos a limpiar y restaurar su propiedad, así como a proteger la salud de aquellas personas que hayan sido afectadas durante el proceso de reparación.

La empresa de servicios de limpieza que provee la Ciudad fue seleccionada debido a su cumplimiento con los protocolos establecidos, los que se diseñaron para garantizar servicios de limpieza cuidadosos, expeditivos y de bajo costo a todas las partes. También tiene derecho a elegir su propia empresa de servicios de limpieza; sin embargo, la Ciudad no garantiza el pago de cargos y/o gastos que incurra y se reserva el derecho a objetar los cargos y/o gastos que considere que no son habituales.

Si desea conversar sobre este tema, comuníquese con el Supervisor de la División de Aguas Residuales al (530) 527-4300. Si desea presentar un reclamo por daños, completar el formulario de reclamación en este paquete. Los Formularios de reclamo que estén completos deben presentarse ante el Gerente de la Ciudad, que se encuentra ubicado en 555 Washington Street, Red Bluff, CA 96080 (530) 527-2605.

Los reclamos presentados contra la Ciudad deben cumplir con las disposiciones de los artículos 910-913.2 del Código del Gobierno de California (*California Government Code Sec. 910-913.2*).

Lo que necesita saber en este momento:

La Ciudad redactó esta breve serie de instrucciones para ayudarlo a minimizar el impacto de la pérdida respondiendo de manera inmediata ante la situación.

- No intente limpiar la zona usted mismo; permita que la empresa de limpieza y restauración se encargue de esto.
- Mantenga a las personas y a las mascotas alejadas de la(s) zona(s) afectada(s).
- Apague todos los aparatos que utilicen agua.
- Apague los sistemas de calefacción y/o aire acondicionado.
- No quite los elementos que se encuentran en la zona; la empresa de limpieza y restauración se encargará de esto.
- Si recientemente se realizaron obras de plomería, comuníquese con su plomero o servicio de plomería e infórmele sobre este incidente.
- Si tiene pensado presentar un reclamo, hágalo lo antes posible para que éste sea tenido en cuenta.

Aviso legal importante: Para su protección, lea atentamente el material, obtenga una traducción confiable y/o hable con su abogado.

CITY OF RED BLUFF - CLAIM FORM

◆◆◆ PLEASE READ INSTRUCTIONS ON OTHER SIDE FIRST ◆◆◆

For Official Use Only

Name of Claimant _____
(First Name) (Middle Initial) (Last Name)
Home Address _____ Date of Birth _____
City, State, Zip _____ Soc. Security # _____
Daytime () _____ Evening () _____ Cell/pager () _____ CA Driver's Lic# _____

Type of Loss: F Personal Injury Other _____ Police Report # _____
F Property Damage F Indemnity-Date complaint served _____

When did injury or damage occur? _____ AM/PM
(Month/Day/Year) (Day of Week) (Time)

Where did injury or damage occur? (Street address, intersecting streets, or other location)

How did injury or damage occur? (Describe accident or occurrence)

What action or inaction of City employee(s) caused your injury or damage?

What injury or damage did you suffer?

Name of any witnesses

(Name) (Address) (Phone Number)

(Name) (Address) (Phone Number)

Name of City employee(s) involved? _____

Total Amount of Claim: Greater than \$10,000 ___ Less than \$10,000 ___ (If less the \$10,000 indicate amount below)

Personal Injury \$ _____ Property Damage \$ _____

NOTE: Please attach copies of supporting documentation for the amounts claimed.

If claim relates to an automobile accident, please answer the following and ATTACH PROOF OF INSURANCE:

Please check here if there was no insurance coverage in effect at time of incident

Insurance policy # _____ Insurance Company _____

Insurance Broker/Agent _____

Address _____ Phone () _____

ALL NOTICES AND/OR COMMUNICATIONS SHOULD BE SENT TO:

Name (Mr./ Mrs./ Ms.) _____ Daytime Phone () _____

Address (Street, City, State, Zip) _____

Warning: California State Law generally requires that most claims against a public entity, such as the City of Red Bluff, be presented within **SIX (6) MONTHS** from the date of the action or incident giving rise to the claim. Certain other claims must be filed within **ONE YEAR** from the action or incident. You should check the Government Code to determine what presentation period applies in your case.

Signature

Relationship (self, attorney, guardian, etc.)

Date

CLAIM AGAINST THE CITY OF RED BLUFF

INSTRUCTIONS

On the reverse side of the sheet is a claim form CCFORM 6: Claim against the City of Red Bluff. The original and one identical copy of this form, together with one copy of all attachments, are to be filed with the Office of the City Manager/Deputy City Clerk. Retain one copy for your records. Please send to this address:

City of Red Bluff
Attention: City Manager/Deputy City Clerk
555 Washington St.
Red Bluff, CA 96080

NOTICE: The City Manager/Deputy City Clerk of the City of Red Bluff is the **ONLY** office to which claims may be submitted. Claims are **NOT** to be sent to the City Attorney or any other City Department.

Please fill out claim form completely. Missing information may delay the processing of your claim. Please print.

PROCEDURES

Claims received by the City Manager/Deputy City Clerk are forwarded to the City of Red Bluff's Claims Administrator. All claimants are then notified that action will be taken within 45 days, or otherwise notified as to the claim itself.

If recommended for denial by the Administrator, your claim will then be submitted to the City Manager/Deputy City Clerk for final, official rejection. You will be sent a letter from the City Manager/Deputy City Clerk or her designee, notifying you of the action taken and of any further action necessary or available to you.

**** All claims are public record ****

CITY OF RED BLUFF
CLAIM PROCEDURES

City Staff provides and accepts the completed claim forms at City Hall.

They are then forwarded to the City's outside Risk Management Claims Adjustors for investigation and processing. City staff has no input into their decisions and/or determinations of whether or not the claim is approved or denied.

Someone from York Risk Services Group will make contact with you and will make the final determination on the claim.

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. 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 "Plumbing Contractors."
- Always notify your sewer/public works department or public sewer district of sewage spills.

Spill cleanup inside the home:

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

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

Other Tips:

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

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

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

Spill cleanup outside the home:

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

Overflow Emergency Response Plan
Public Posting

DANGER

RAW SEWAGE • AVOID CONTACT



PELIGRO

AGUA CONTAMINADA • EVITE TODO CONTACTO

For more information

Para más información

City of Red Bluff

(530) 527-2605

City of Red Bluff

On (date) _____, at (location) _____

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

We discovered a blockage in:

- o The City sanitary sewer and cleared the line
- o 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 "Plumbing Contractors" or "Plumbing Drains & Sewer Cleaning". If you plan to hire a contractor we recommend getting estimates from more than one company.

City of Red Bluff representative notes:

City of Red Bluff Representative:

For questions or comments, please call

**City of Red Bluff
(530) 527-2605**

City of Red Bluff

On (date) _____, at (location) _____

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

We discovered a blockage in:

- o The City sanitary sewer and cleared the line
- o 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 "Plumbing Contractors" or "Plumbing Drains & Sewer Cleaning". If you plan to hire a contractor we recommend getting estimates from more than one company.

City of Red Bluff representative notes:

City of Red Bluff Representative:

For questions or comments, please call

**City of Red Bluff
(530) 527-2605**

Appendix C
FIELD SAMPLING KIT

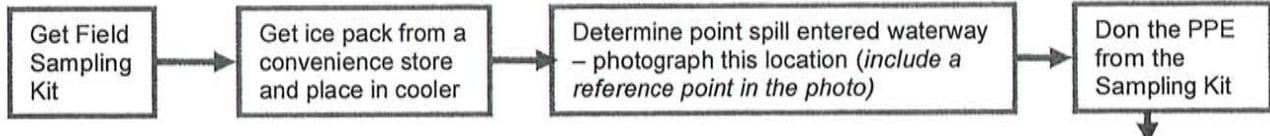
**Field Sampling Kit
Table of Contents**

<u>Form</u>	<u>Form Number</u>
Procedures for Sampling Receiving Waters and Posting Warnings after a Sewage Spill	C-1
Sample Collection Chain of Custody Record	-2

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

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

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



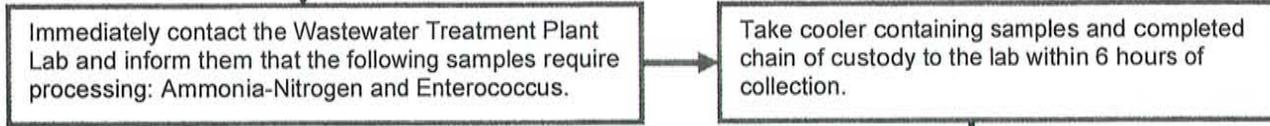
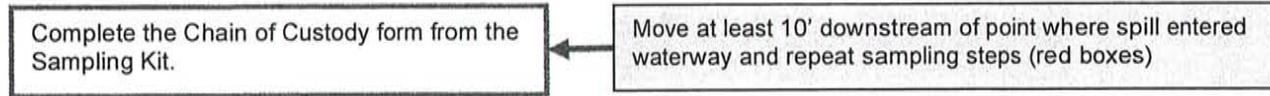
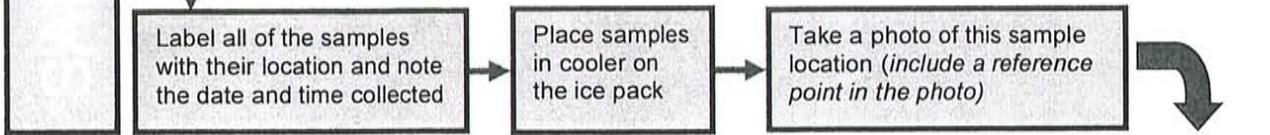
- Collect all samples against the direction of the water flow! (face upstream)
- Collect upstream sample first!
- Collect samples well away from the bank (preferably where water is visibly flowing) and 6" below the surface
- Avoid sampling debris or scum layer from the surface.
- Photograph evidence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

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

Take out the temp/pH meter. Calibrate it. Take temperature and pH of the water at that sample location. Record those results on the chain of custody form.
 Remove the seal from the enterococcus sample container (100ml) just prior to collecting your sample. A chemical has been added to the sample container. Leave the chemical in the bottle and do not rinse.

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

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



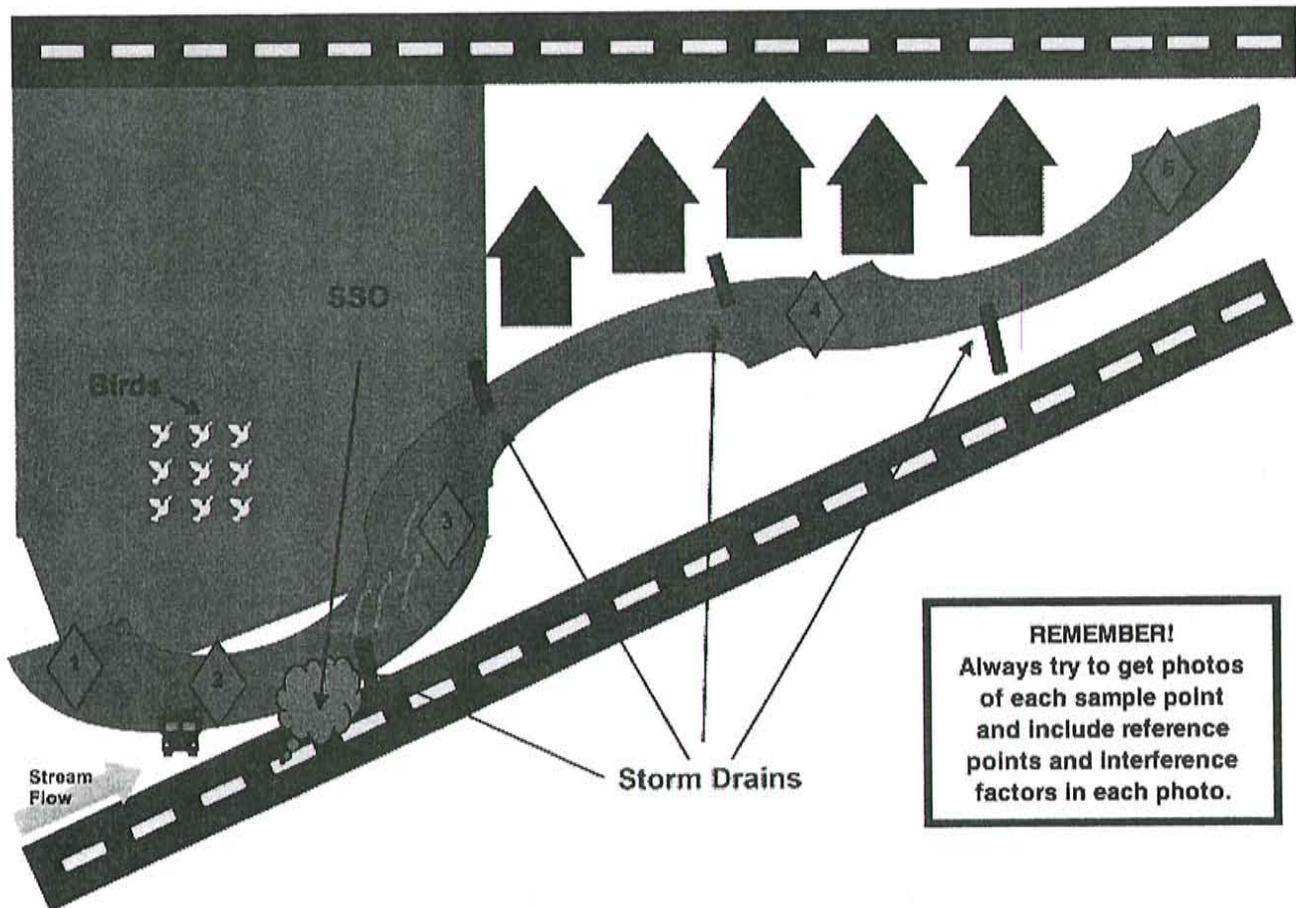
Post warning signs as directed by the County Environmental Health Department, and remove warning signs and lift restrictions when authorized by County Environmental Health.

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

Field Sampling Kit

Procedures for Sampling Receiving Waters after a Sewage Spill

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



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

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

Field Sampling Kit
Sample Collection Chain of Custody Record

Customer Name	<input type="checkbox"/> Hazardous Waste	PO#
Customer Address	<input type="checkbox"/> Unknown Material	WO#
Customer Telephone	CONTRACT LAB INFORMATION	
Program Name	Mail Code	Turnaround Requirement
Lab Program Coordinator	Phone #	<input type="checkbox"/> Normal (21 days)
Sampled By	Ship to:	<input type="checkbox"/> Rush:
	Ship Date:	<input type="checkbox"/> Other:
	Courier:	

SAMPLE COLLECTION INFORMATION				Analysis Requested		QA/QC Requirements					
LIMS# (Issued by Lab)	Date	Time	Sample Location	Field pH	Field Temp	# Containers	Matrix*	Enterococcus	Ammonia	Lab Standard	Remarks/Notes
								Composite	Grab	<input checked="" type="checkbox"/>	
			Upstream			2	A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
			Entry Point			2	A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
			Downstream			2	A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
						2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
						2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
						2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
						2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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

Relinquished	Date	Time	Relinquished to	Date	Time

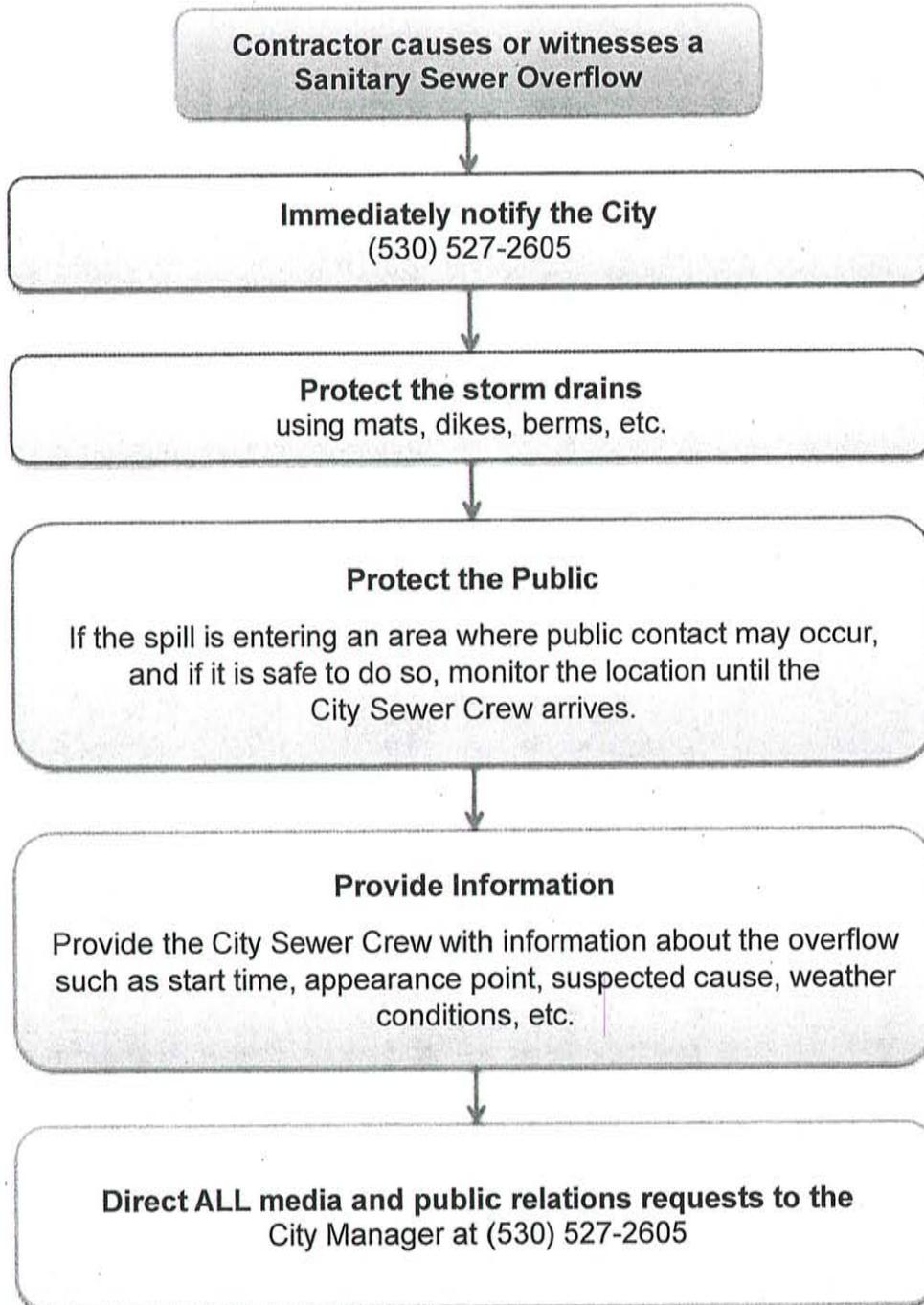
Sample Receiving Documentation

Container intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	Correct container? <input type="checkbox"/> Yes <input type="checkbox"/> No	Field preserved? <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody tape intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Cooled? <input type="checkbox"/> Yes <input type="checkbox"/> No	Temp. Blank? <input type="checkbox"/> Yes <input type="checkbox"/> No (°C)	Comments:	
Sample distribution: <input type="checkbox"/> Lab bench <input type="checkbox"/> Ice chest <input type="checkbox"/> Walk-in cooler shelf #	Disposal Date:	Disposed by:	(inits.)
C-O-C Distribution Date: _____ By: _____	<input type="checkbox"/> Lab Admin File	<input type="checkbox"/> Prog/proj Mgr.	<input type="checkbox"/> Lab Prog. Coord. <input type="checkbox"/> Delivery courier <input type="checkbox"/> Pick-up courier

Appendix D
CONTRACTOR ORIENTATION

CONTRACTOR ORIENTATION

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



Sanitary Sewer Overflows

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

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

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

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

How to prevent SSOs:

...when clearing plugged sewer laterals:

- Remove root balls, grease blockages and any other debris from the sewer
- If you can't prevent root balls, grease or debris from entering the sewer main, call us at (530) 527-2605, 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:

- For information about building permit and lateral specification, contact the Building Department at (530) 527-2605.
- 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.
- The City will perform tapping operations.

If you cause or witness
an SSO, immediately contact:



City of Red Bluff

(530) 527-2605

City of Red Bluff

555 Washington Street
Red Bluff, CA 96080

www.cityofredbluff.org