



# **Statewide Sanitary Sewer Overflow Reduction Program Compliance and Enforcement Plan**

**State Water Resources Control Board  
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## 1. PURPOSE AND GOALS

The purpose of the statewide Sanitary Sewer Overflow Reduction Program (SSO Reduction Program) Compliance and Enforcement Plan (Plan) is to facilitate consistent statewide compliance of the General Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems, [Water Quality Order No. 2006-0003-DWQ](#) (Sanitary Sewer System WDR).

The Plan's strategy is directed at increasing program participation to accelerate program effectiveness at reducing the overall volume of sanitary sewer overflows (SSOs) statewide. Consistent with the [State Water Board's Water Quality Enforcement Policy](#) and [Strategic Plan Update](#), enforcement will be used where necessary to improve compliance.

This Plan supplements the [May 2009 SSO Reduction Program Annual Compliance Report](#) and also serves to educate and inform the discharger community, consultants, the general public and other interested parties of statewide compliance status. Included is a discussion of planned collection system field audits (targeted and random) and informal and formal enforcement activities to be undertaken by staff over the next year to address noncompliance.

Additional information on the Sanitary Sewer System WDR is available online at the State Water Resources Control Board (State Water Board) [SSO Reduction Program website](#).

## 2. BACKGROUND

The State Water Board is responsible for implementing the statewide SSO Reduction Program. The Sanitary Sewer System WDR requirements are the primary regulatory tools for prevention of SSOs in California. The objective of the SSO Reduction Program is to reduce the number of SSOs and the volume of sewage spilled from collection systems statewide.

The Sanitary Sewer System WDR was adopted by the State Water Board on May 2, 2006 and is the first regulation of its kind in the United States for sanitary sewer collection systems (collection systems). The Sanitary Sewer System WDR requires notification and reporting of SSOs, and comprehensive collection system management. The Sanitary Sewer System WDR specifically requires any public agency that owns more than one mile of sewer lines connected to a wastewater treatment facility to enroll for coverage; to develop and implement a Sewer System Management Plan (SSMP); and to report all SSOs to the California Integrated Water Quality System (CIWQS), an online database maintained by the State Water Board.

Agencies enrolled under the Sanitary Sewer System WDR are required to report monthly to CIWQS all SSOs for which their agency has responsibility; or, if no spills occur during the month, they are required to submit a "no-spill" certification to CIWQS. Enrollees are also encouraged to report, on a voluntary basis, discharges from privately owned laterals and privately owned collection systems for which the enrollee has knowledge of the spill but is not responsible for it. These discharges are known as private lateral sewage discharges (PLSDs) and are distinct from SSOs in that SSOs refer only to spills from the publicly owned portion of a collection system. Only enrollees are allowed to submit and modify information associated with their collection system, including SSOs and PLSDs, into CIWQS.

Two different categories of SSOs and PLSDs have been defined based on the level of threat to public health and the environment. The categories are as follows:

### **Category 1 SSOs or PLSDs**

A discharge of sewage that:

- 1) Equals or exceeds 1000 gallons; or
- 2) A discharge of sewage to a surface water and/or drainage channel; or
- 3) A discharge of sewage to a storm drain that was not fully captured and returned to the collection system.

Category 1 SSOs and PLSDs represent the greatest threat to public health.

### **Category 2 SSOs or PLSDs**

Any discharge of sewage that:

- 1) Does not meet the criteria for a Category 1 SSO or PLSD.

Category 2 SSOs and PLSDs are a lesser threat to public health.

The [SSO Reduction Program web site](#) has additional information on SSO reporting, a [Glossary of Terms](#) used in the program, and more information about the State Water Board's efforts to reduce SSOs statewide.

### **A. Implementation Efforts**

Since adoption of the Sanitary Sewer System WDR, staff has focused its resources on program implementation in the following areas:

- a. Conducting statewide outreach, including speaking engagements, to increase program participation and explain SSO Reduction Program requirements.
- b. Maintaining and improving the CIWQS SSO online database functions, features, and operations.
- c. Providing assistance to non-profit and trade associations to develop training and resource materials.
- d. Conducting SSO prevention training classes to assist Regional Water Quality Control Board (Regional Water Board) permitting, compliance, and enforcement staff.
- e. Deploying SSO and PLSD incident mapping tools to allow the public to view reported events.
- f. Supporting Regional Water Board SSO enforcement activities.

The State Water Board's Division of Water Quality, in coordination with the Office of Enforcement, is responsible for the implementation of the Sanitary Sewer System WDR including overseeing statewide compliance and enforcement activities. Regional Water Boards are primarily responsible for taking enforcement actions for specific SSO events.

### 3. COMPLIANCE AND ENFORCEMENT DISCUSSION

This section provides a status of statewide compliance with the Sanitary Sewer System WDR and information on planned Sanitary Sewer System WDR enforcement activities.

To date, most of the State Water Board staff activities have focused on public outreach and compliance assistance. Areas of public outreach and compliance assistance have included giving presentations to public works associations on the Sanitary Sewer System WDR requirements and the CIWQS SSO module online reporting system; working with individual enrollees to correct compliance issues and educate them on the Sanitary Sewer System WDR requirements and use the CIWQS SSO module reporting tools; developing guidance documents to clarify the Sanitary Sewer System WDR requirements and use of the online reporting tools; and working with the California Water Environment Association (CWEA) via a memorandum of agreement to develop and implement a series of training classes for enrollees on the Sanitary Sewer System WDR and development of SSMPs.

In addition, State Water Board staff has conducted regular outreach meetings with users of the CIWQS SSO module online reporting system to resolve issues with the system and develop enhancements to it that will facilitate ease of use. Along with this activity, State Water Board staff continues to address external user group and internally identified system bugs and enhancements to the CIWQS SSO module data access and reporting tools (e.g., Sewage Spill GIS Maps).

A wide variety of informal and formal enforcement actions are available to State and Regional Water Board (Water Board) staff. An informal enforcement action can be as simple as a phone call or email while the most formal actions involve referral of a matter to the Attorney General for prosecution. Enforcement tools used in moving from informal to formal enforcement actions are Notices of Violation, Investigatory Orders, Cleanup and Abatement Orders, Cease and Desist Orders, and orders imposing Administrative Civil Liability (ACL). For more information on enforcement actions taken to date, see the [online CIWQS reports website](#).

Ideally, serious violations will result in fair and appropriate consequences for the violators and consistent application of penalties and other sanctions. Moreover, penalties must be calculated to eliminate the economic advantage achieved through noncompliance with water quality laws. Consistent use of formal enforcement actions to address the most serious violations is a fundamental goal of the Water Boards.

Ideally, all enforcement actions taken:

- Are timely;
- Are similar for similar violations;
- Informs the violator;
- Results in return to compliance;
- Requires remediation of damage, as applicable;
- Serves as a deterrent; and
- Are progressive in enforcement implementation (i.e., start at the appropriate level).

**A. Statewide Compliance Evaluation**

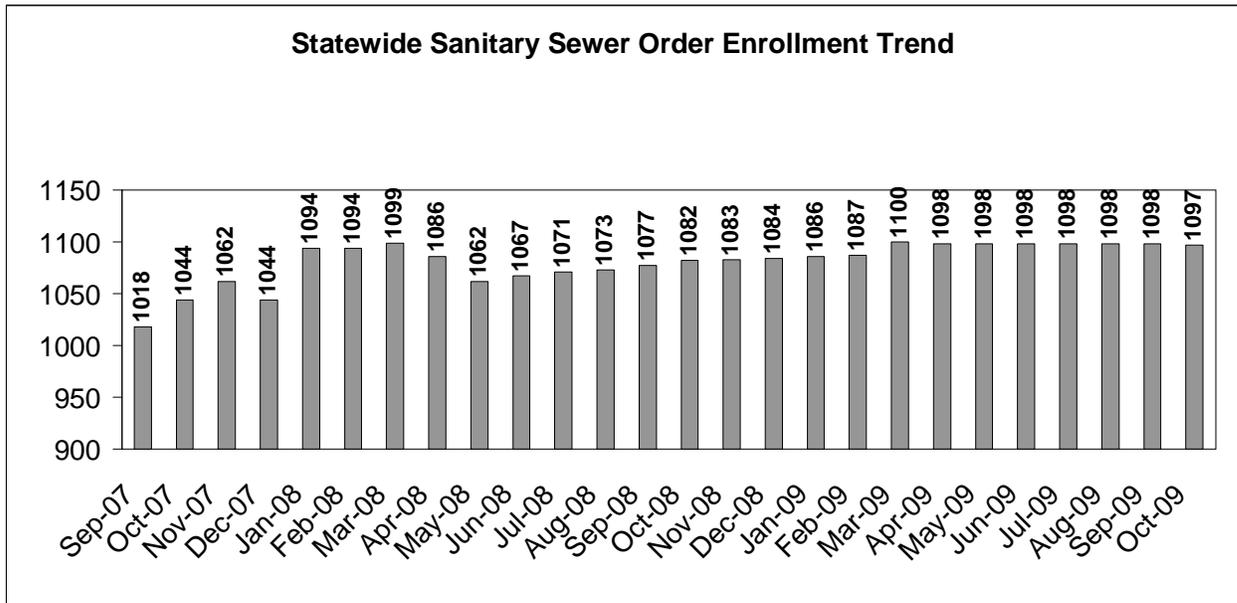
Baseline compliance information has been obtained over the past three years and additional data collection, research and analyses will be conducted over the next year to more accurately identify noncompliance. In addition, program staff is ensuring data quality by implementing routine data checks and working with dischargers to clean up redundant and incomplete data entries.

The following section describes the current status of compliance for each of the SSO Reduction Program requirements.

**i. Enrollment for Coverage**

The Sanitary Sewer System WDR requires any public entity that owns or operates a collection system in California over one mile in length that conveys wastewater to a publicly owned treatment facility to be enrolled under the Sanitary Sewer System WDR.

The overall enrollment trend for the Sanitary Sewer System WDR is shown in Figure 1 below. Currently, 1,097 collection systems are enrolled under the Sanitary Sewer System WDR. Although the figure does not show this, the total number of enrollees decreases and increases regularly due to cancellation of enrollment and new enrollees coming into the SSO Reduction Program. Reasons for cancellations of enrollment include: 1) agency does not meet the application criteria (i.e., public collection system greater than one mile in length); 2) duplicative enrollment due to submittal of multiple applications; or 3) errors in data entry.



**Figure 1 – Enrollment Trend**

To initiate enrollment in the SSO Reduction Program, 1,334 potential enrollees were identified and contacted. A total of 257 of the 1,097 current enrollees were not notified in the initial enrollment mailing. A number of enrollees missed the registration deadline. Staff has identified and continues to identify and pursue collection systems subject to the Sanitary Sewer System WDR that have not enrolled for coverage.

**ii. SSO Reporting**

The Sanitary Sewer System WDR requires all enrollees to submit individual reports for their

SSOs or to submit a “no-spill” certification at the end of each month. The monthly reporting compliance rate was established by determining how many individual enrollees submitted either an SSO report or “no-spill” certification for a given calendar month.

Monthly reporting compliance rates are shown in Figure 2 below for the months of September 2007, when statewide reporting became mandatory for all enrollees, through October 2009.

The monthly reporting compliance rate during this period fluctuated from month to month and averaged 77%. The average monthly reporting compliance rate over the past year from November 2008 to October 2009, which is more representative of the fully implemented SSO Reduction Program, is also 77%. This compliance rate is less than the target level of 100%.

To assist in increasing the reporting compliance rate, State Water Board staff sent out emails to enrollees in the summer of 2009 notifying them that they must report SSOs or submit “no-spill” certifications. This was effective in increasing compliance in the short term, but the reporting rate dropped to 58% in January 2009. Subsequent CIWQS updates by enrollees made after the January reporting deadline brought this reporting rate up to 80%.

Staff is developing a comprehensive strategy for dealing with this noncompliance. To help increase reporting compliance, staff is implementing the use of a new “self compliance” email notification tool that will notify enrollees via a CIWQS SSO module email when certain monthly reporting requirements are not fulfilled (e.g., when they miss monthly “no-spill” certifications if no SSOs occurred). Staff expects that this new tool will increase statewide reporting compliance. This tool is scheduled to be implemented in 2010. A sample of the compliance email is presented in Attachment 1.

In addition, staff has developed a Sanitary Sewer System WDR Compliance Checklist for use by enrollees for internal compliance checks. This checklist will be posted to the SSO Reduction Program website and provided as an attachment to the compliance email noted above. A copy of the compliance email is presented in Attachment 2.

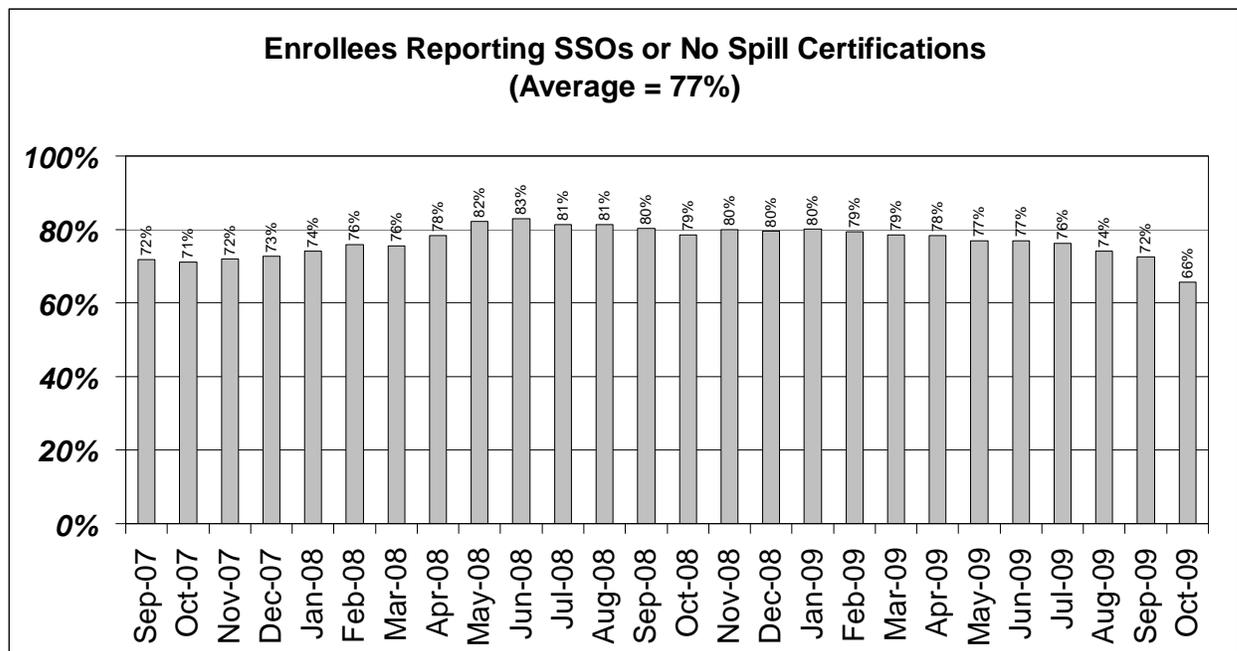


Figure 2 – Monthly SSO Reporting/“No-Spill” Certification Compliance

There are three categories of SSO reporting performance. These include those enrollees that are not reporting, those that have perfect reporting, and those that have missed some reporting elements or are misreporting.

The most prevalent and egregious are those facilities doing no reporting. Based on a review of reporting data from January 2007 to October 2009, 140 enrolled collection systems have never filed a monthly “no-spill” certification or reported an SSO.

A total of 311 of the 1097 enrolled collection systems have consistently complied with all “no-spill” reporting requirements from January 2007 to October 2009.

There are three conditions of misreporting: (1) the collection system had an SSO during the month and filed a “no-spill” certification, (2) the collection system had a PLSD but no SSO and did not file a “no-spill” certification, and (3) the collection system had no SSO and did not file a “no-spill” certification for the month.

The easiest to correct of the three conditions of misreporting noted above are collection systems with no SSOs during a month but failing to file a “no-spill” certification because they had a PLSD. This misreporting is a result of misunderstanding by enrollees that a “no-spill” certification is still required if a PLSD was logged but no SSO occurred. This misreporting can be corrected by additional educational outreach to those individual enrollees failing to report “no-spill” certifications properly. Collection systems not reporting SSOs or filing “no-spill” certifications (Item #3 above) are not fulfilling the Sanitary Sewer System WDR reporting requirements.

### **iii. SSMP CIWQS Certification**

The Sanitary Sewer System WDR gives enrollees a reasonable amount of time to develop their SSMPs with smaller communities having more time to complete their online CIWQS certification of the required SSMP elements than larger communities. Enrollees are required to certify that the final SSMPs are in compliance with the Sanitary Sewer System WDR within the specified time frames. This certification is done electronically in the CIWQS SSO database. Enrollees are required to obtain their governing board’s approval for the plan for developing the SSMP and for the final SSMP. Enrollees do not send their SSMP to the State or Regional Water Boards for review or approval. They must make them available, however, for review upon request.

The SSMP elements and required due dates are presented below in Table 1. Current compliance with SSMP certification is as follows: 1) For enrollees with population less than 10,000 (643 enrollees), 68% have SSMP elements for which certification is not due yet, 57% have certified some SSMP elements, 8% have met all SSMP element certification deadlines, 22% have not certified any SSMP elements, and 21% of responding enrollees have not met certification deadlines for one or more SSMP elements; 2) For enrollees with population equal to or greater than 10,000 (454 enrollees), all SSMP elements are due for certification, 64% have certified some SSMP elements, 42% have met all SSMP element certification deadlines, 11% have not certified any SSMP elements, and 30% have not met certification deadlines for one or more SSMP elements.

Overall, 40% of enrollees in the State have SSMP elements not due yet, 60% have certified some SSMP elements, 22% have met all SSMP element certification deadlines, 18% have not certified any SSMP elements, and 25% have not met certification deadlines for one or more SSMP elements. In all, 191 enrollees have failed to certify any of their SSMP elements.

Staff is developing a more comprehensive strategy for dealing with this noncompliance by implementing the use of a new “self compliance” email notification tool that will notify enrollees via a CIWQS SSO module email when SSMP element certification timelines are missed. Staff expects this new tool will increase statewide SSMP certification compliance. This tool is scheduled to be implemented in 2010.

Sewer System Management Plan (SSMP) Time Schedule				
Task and Associated WDR Section	Completion Date			
	Population > 100,000	Population Between 100,000 and 10,000	Population Between 10,000 and 2,500	Population < 2,500
<b>SSMP Development Plan and Schedule</b> <i>No Specific Section</i>	August 2, 2007	November 2, 2007	February 2, 2008	May 2, 2008
<b>Goal</b> <i>Section D 13 (i)</i>	November 2, 2007	November 2, 2007	May 2, 2008	May 2, 2008
<b>Organization</b> <i>Section D 13 (ii)</i>				
<b>Legal Authority</b> <i>Section D 13 (iii)</i>	November 2, 2008	May 2, 2009	November 2, 2009	February 2, 2010
<b>Operation and Maintenance Program</b> <i>Section D 13 (iv)</i>				
<b>Overflow Emergency Response Program</b> <i>Section D 13 (vi)</i>				
<b>FOG Control Program</b> <i>Section D 13 (iv)</i>				
<b>Design and Performance Provisions</b> <i>Section D 13 (v)</i>	May 2, 2009	August 2, 2009	May 2, 2010	August 2, 2010
<b>System Evaluation and Capacity Assurance Plan</b> <i>Section D 13 (viii)</i>				
<b>Monitoring and Program Modifications</b> <i>Section D 13 (ix)</i>				
<b>Program Audits</b> <i>Section D 13 (x)</i>				
<b>Communication Program</b> <i>Section D 13 (xi)</i>				
<b>Final SSMP</b>				

Table 1 – SSMP Elements and Certification Deadlines

#### **iv. Collection System Questionnaire**

The Sanitary Sewer System WDR requires enrollees to complete a collection system questionnaire and update it every 12 months. The collection system questionnaire is a survey of an enrollee's organization and facilities and includes such information as operating and capital expenditure budgets, miles of pipe, number of employees, and population served by the enrollee. The purpose of this survey is to put the enrollee's SSMP and reported SSOs into context with organizational and collection system characteristics. This is important because these characteristics have a significant impact on how an enrollee operates and maintains its collection system. For example, population served represents the size of the rate paying base an enrollee has available from which to collect fees to operate and maintain the collection system.

The number of enrollees that have completed the collection system questionnaire currently totals 963 as shown in Figure 3 below. The number of enrollees failing to complete the collection system questionnaire is 134. The resulting collection system questionnaire compliance rate is 88%.

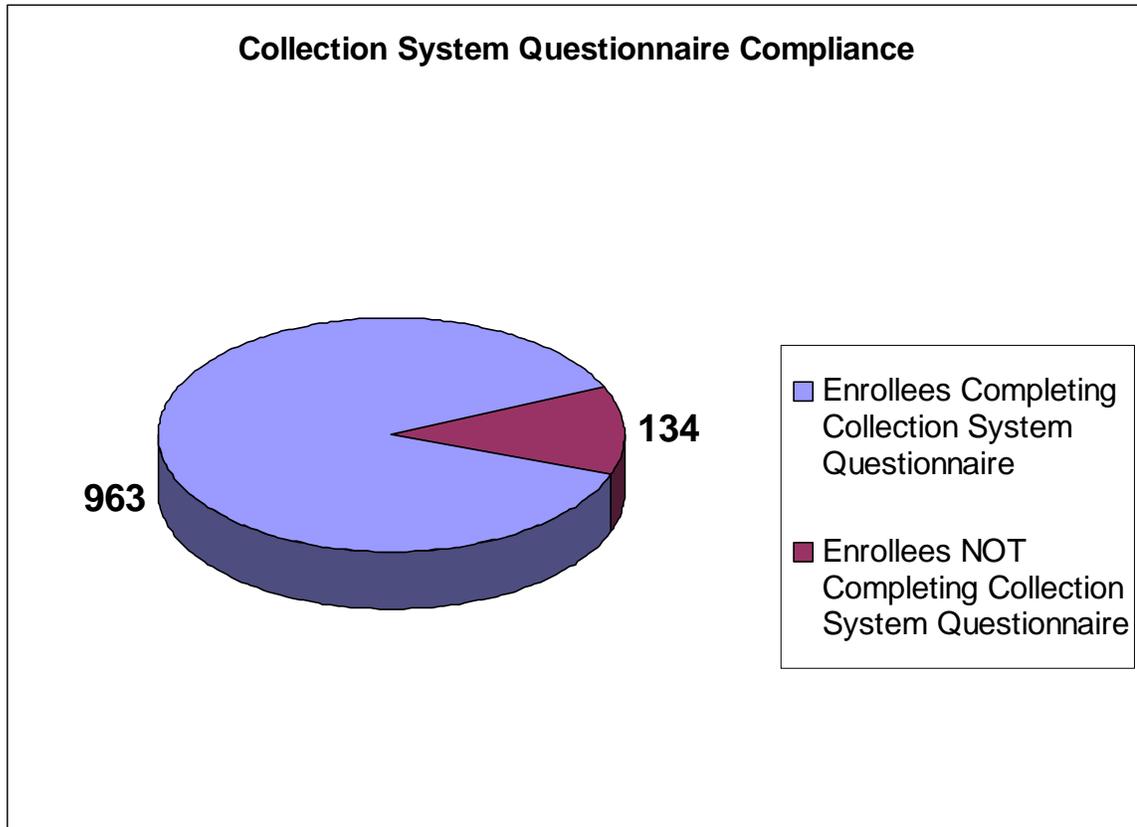
The number of enrollees that have failed to annually update their questionnaire is 106. This represents a 78% questionnaire annual update compliance rate. The high annual update compliance rate is likely the result of locks implemented in the online reporting tool that is described below.

The total number of enrollees that have not submitted a questionnaire or have failed to annually update it is 240.

To assist in questionnaire completion and annual update compliance, staff has implemented a CIWQS SSO module feature that prevents enrollees from reporting data into core fields (e.g., certifying SSOs, conducting "no-spill" certifications, certification of SSMP elements) until the collection questionnaire has been completed or has been updated within the past 12 calendar months (rolling).

In addition, staff is developing a more comprehensive strategy for dealing with this noncompliance by implementing the use of a new "self compliance" email notification tool that will notify enrollees via a CIWQS SSO module email when the questionnaire annual update deadline has passed or if the enrollee has not completed a questionnaire. Staff expects this new tool will help further increase statewide compliance with the Sanitary Sewer System WDR collection system questionnaire requirement. This tool is scheduled to be implemented in 2010.

Many of the enrollees failing to maintain compliance with the collection system questionnaire requirement are not meeting other Sanitary Sewer System WDR reporting requirements. Because of the locks implemented in the online reporting tool noted above, they would have been required to complete the questionnaire before reporting any SSO or "no-spill" certifications.



**Figure 3 – Collection System Questionnaire Compliance**

#### **v. Statewide Reported Spill Data**

A summary of statewide spill data (includes SSOs and PLSDs unless otherwise noted) reported by participating enrollees since reporting requirements became effective on January 2, 2007 is presented in Table 2 below. The Sanitary Sewer System WDR does not prohibit all SSOs. The Sanitary Sewer System WDR prohibits those that reach surface water or that cause a nuisance. As defined in the California Water Code section 13050, to be considered a nuisance an SSO would have to affect an entire community or neighborhood.

State Water Board staff are actively conducting checks and taking necessary actions to ensure the accuracy of the approximately 14,000 reported SSO data records. Steps taken for quality assurance and control include analyses of reported SSOs to identify erroneous data. When erroneous data are identified, the enrollee responsible for the data entry error is contacted and requested to correct it.

An Enrollee must certify a reported SSO within 15 days of the completion of SSO response and remediation for Category 1 SSOs and within 30 days after the end of the calendar month in which the SSO occurred for Category 2 SSOs. Compliance with SSO certification requirements (i.e., spill report certified within the certification deadlines) based on the most current SSO data is 88%. . In addition, there are 1304 additional spill reports that were certified after the certification deadlines (i.e., certified late).

	Number of SSO locations	Total Volume of SSOs (gal)	Total Volume Recovered (gal)	Total Volume Reached Surface Water (gal)	Percent Recovered	Percent Reached Surface Water	Total Miles of Pressure Sewer	Total Miles of Gravity Sewer	Total miles of Laterals Enrollee Responsible for	# of SSO locations per 100 miles of Sewer	Volume Reaching Surface Water per 100 miles of Sewer (gal/100 mi)
<b>SSO</b>	<b>13,895</b>	<b>43,647,392</b>	<b>14,617,284</b>	<b>32,898,558</b>	<b>33</b>	<b>75</b>	<b>17,898</b>	<b>177,024</b>	<b>17,823</b>	<b>6.5</b>	<b>15,464</b>

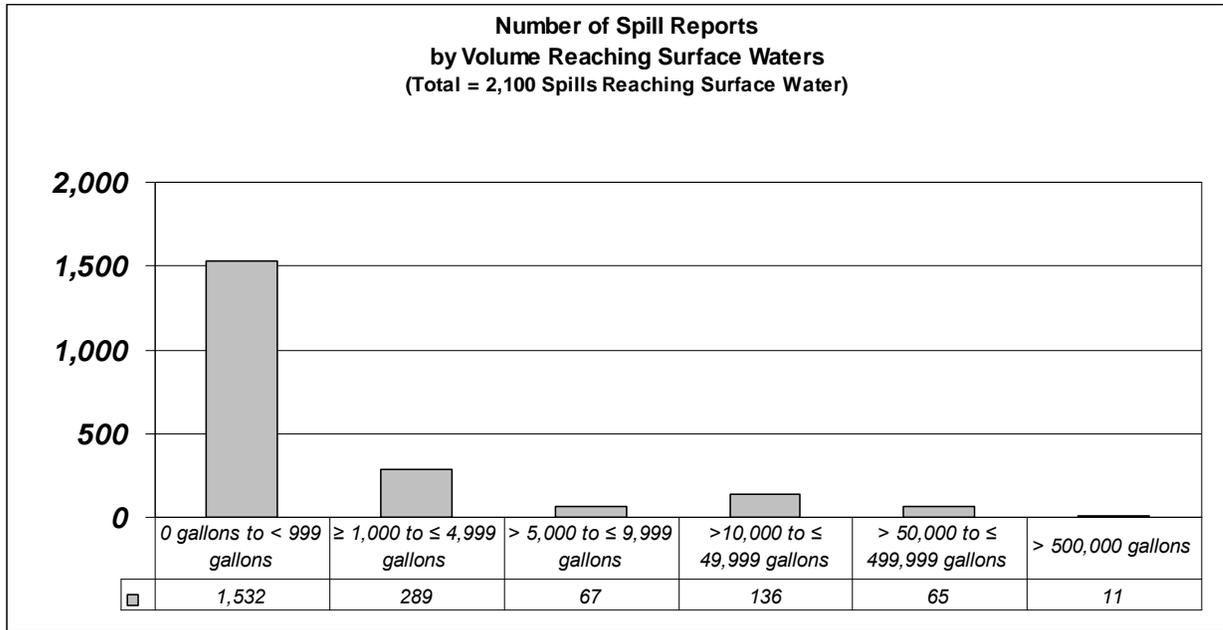
	Number of PLSD Locations	Total Volume of PLSD (gal)	Total Volume Recovered (gal)	Total Volume Reached Surface Water (gal)	Percent Recovered	Percent Reached Surface Water	Total Miles of Private Laterals	# PLSD locations per 100 miles of Private Laterals	Volume Reaching Surface Water per 100 miles of Private Laterals (gal/100 mi)
<b>PLSD</b>	<b>1,994</b>	<b>1,405,298</b>	<b>422,002</b>	<b>783,271</b>	<b>30</b>	<b>56</b>	<b>4,477,862</b>	<b>0.04</b>	<b>17</b>

**Table 2 – Overall Statewide SSO and PLSD Reports (from 1/2/07 to 11/2/09)**

The SSO and PLSD data summaries presented below are from analyses of data that staff has checked and has a high degree of confidence in. Staff will examine additional metrics when ongoing data cleanup by enrollees is completed, efforts to increase reporting become effective, and additional data is collected.

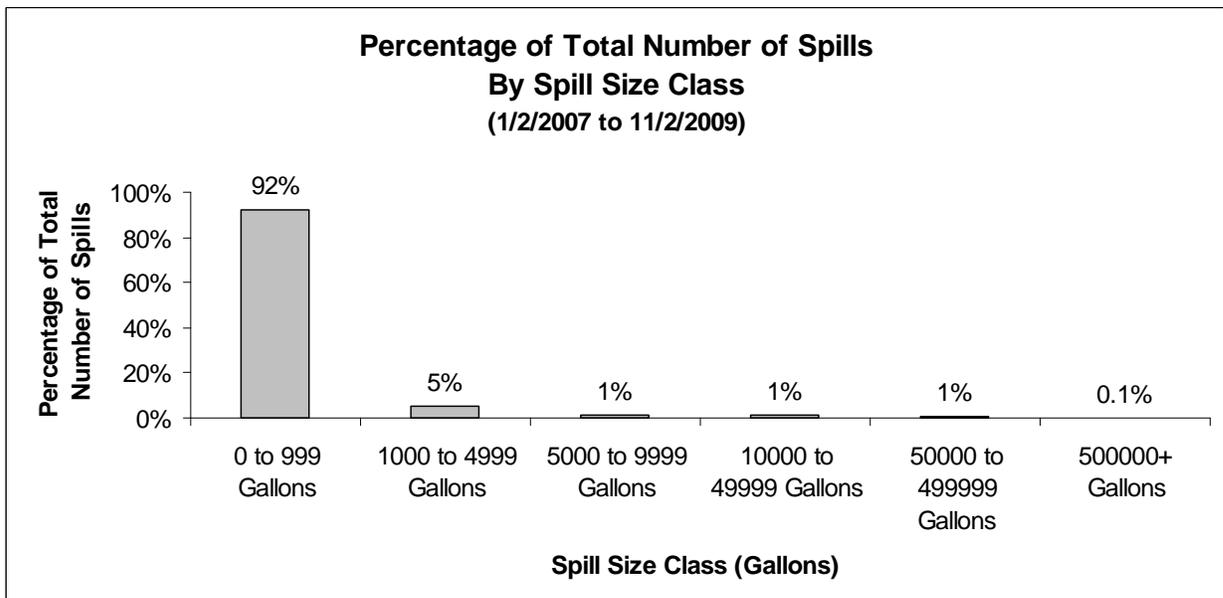
**1. SSO and Private Lateral Sewage Discharge Trends**

The reported number of SSOs and PLSDs that reached surface water is presented in Figure 4 below. Of 15,889 reported SSOs and PLSDs, 2,100 reached surface water. Of these, 1532 or 73% were less than 1,000 gallons.



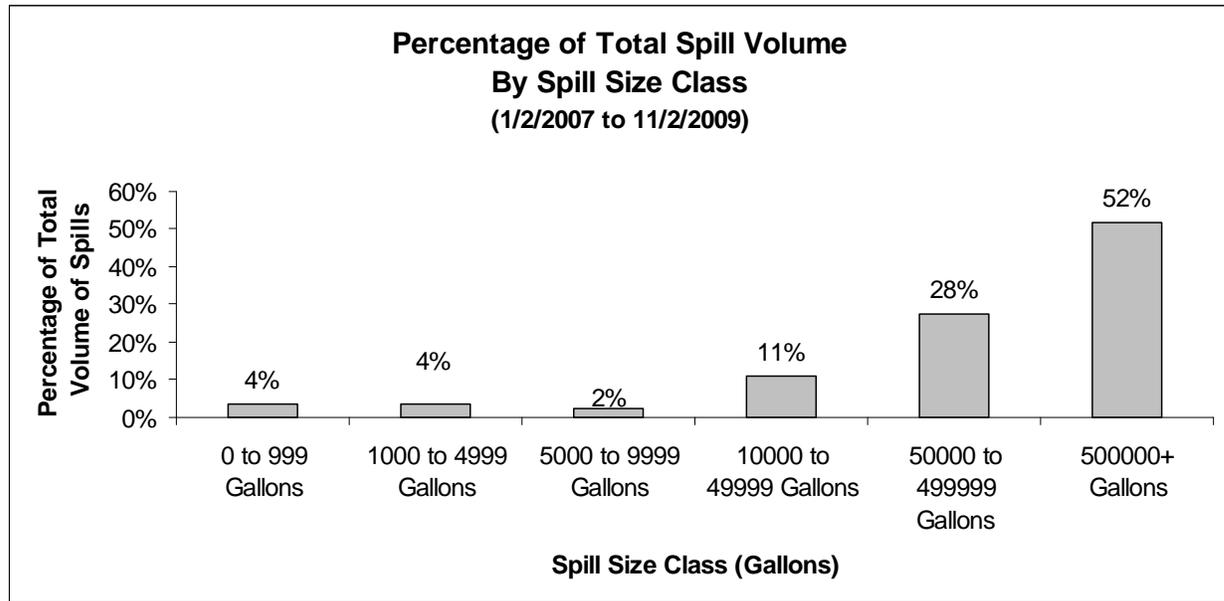
**Figure 4 – Reported Number of Spills that Reached Surface Water**

Examining the total number and volume of reported SSOs and PLSDs in the State by size class further illustrates the trends shown in Figure 4 for the SSOs and PLSDs reaching surface water. Ninety two percent of all SSOs and PLSDs in the State are less than 1,000 gallons as illustrated in Figure 5 below.



**Figure 5 – Percentage of Total Number of Spills by Spill Size Class**

Of the reported volume of SSO and PLSD spills in the State, 52% results from 0.1% of the SSO and PLSD events as illustrated in Figure 6 below. Further examination of Figures 5 and 6 shows that only 4% of the reported volume of SSOs and PLSDs in the State results from 92% of SSO and PLSD spill events.



**Figure 6 – Percentage of Total Volume of SSOs and PLSDs By Spill Size Class**

## 2. Spill Causes

The percentage of all SSO and PLSD reports by actual cause is presented in Figures 7 and 8 below. The data indicates that common and manageable causes (root intrusion, grease deposition, debris) are responsible for 78% of all SSOs and 59% of all PLSDs.

The “misc.” category noted in the charts includes the following causes for SSOs and PLSDs:

- Vandalism
- Rainfall exceeded design
- Pump station failure
- Operator error
- Flow exceeded capacity
- Other

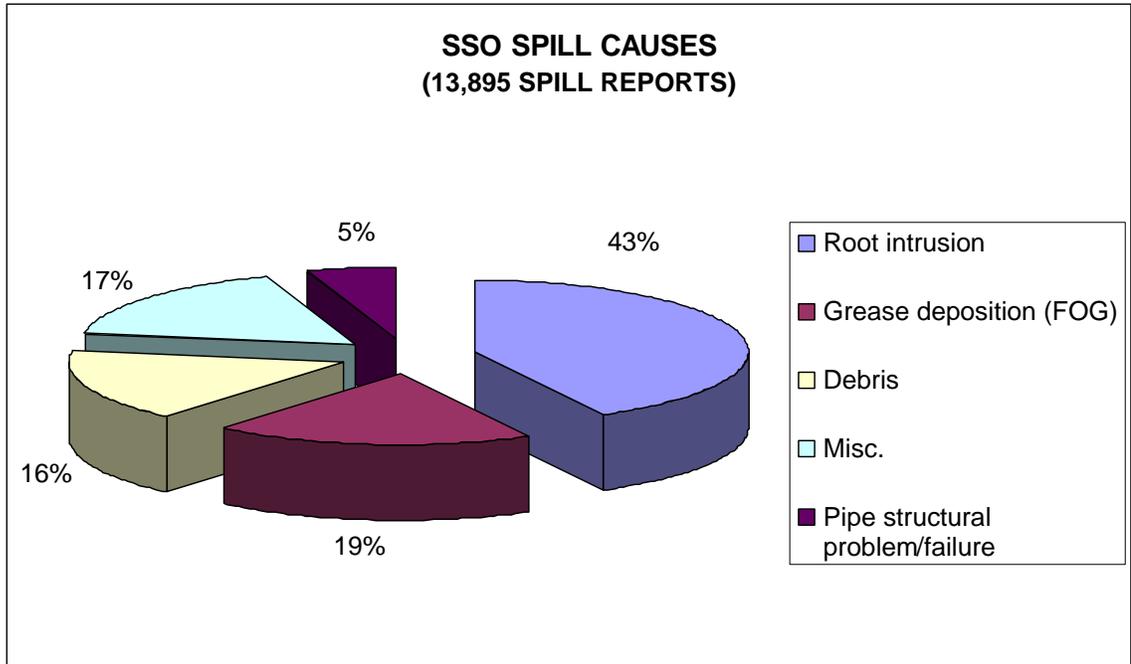


Figure 7 – Percentage of Reported SSOs by Cause

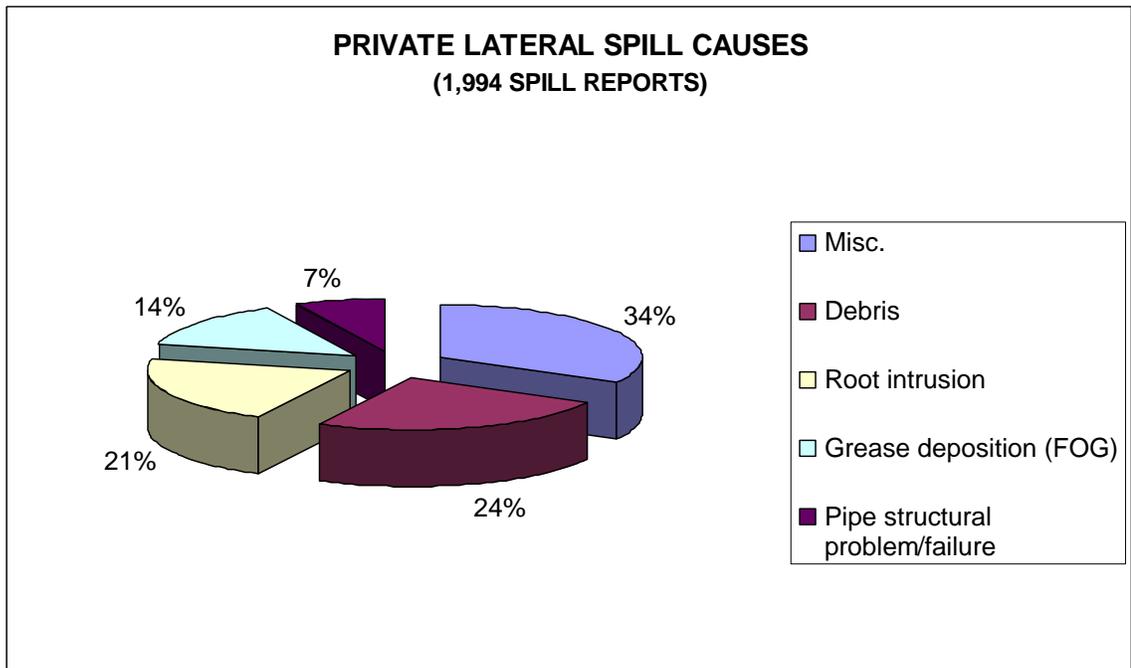


Figure 8 – Percentage of Reported PLSDs by Cause

Examining spills in size classes of less than 10,000 gallons and greater than 10,000 gallons results in finer differentiation regarding spill causes. The leading causes for spills greater than 10,000 gallons are: Pipe structural problem/failure, Rainfall exceeded design, Flow exceeded capacity, and Pump station failure. For spills less than 10,000 gallons, the leading causes of spills are more consistent with the overall spill cause analyses results: Grease deposition, Root intrusion, Debris-general, and Pipe structural problem/failure.

### 3. Spills by Pipe Characteristics

**Sewer Pipe Diameter:** The Sanitary Sewer System WDR does not require submittal of pipe characteristics. The SSO and PLSD spill report data indicates that: 1) because it is not required, many enrollees are not reporting the sewer diameter in their SSO and PLSD reports (68% for SSOs and 72% for PLSDs), and 2) that at least 29% of SSOs and 28% of PLSDs occur in pipe sizes of 1-8". In light of the common causes of SSOs and PLSDs noted above (i.e., root intrusion, grease deposition, and debris), it is expected that smaller diameter pipes would be affected by these factors to a higher degree.

**Sewer Pipe Age:** The percentage of the total volume of reported SSOs and PLSDs by sewer age is presented in Figure 9 below. The Sanitary Sewer System WDR does not require submittal of sewer age. The data indicates that: 1) because it is not required, many enrollees are not reporting the sewer age in their SSO and PLSD reports and 2) at least 35% of the volume SSOs and PLSDs occur in pipes 11-45 years of age.

Increased thoroughness in reporting will help to clarify any spill trends related to pipe age.

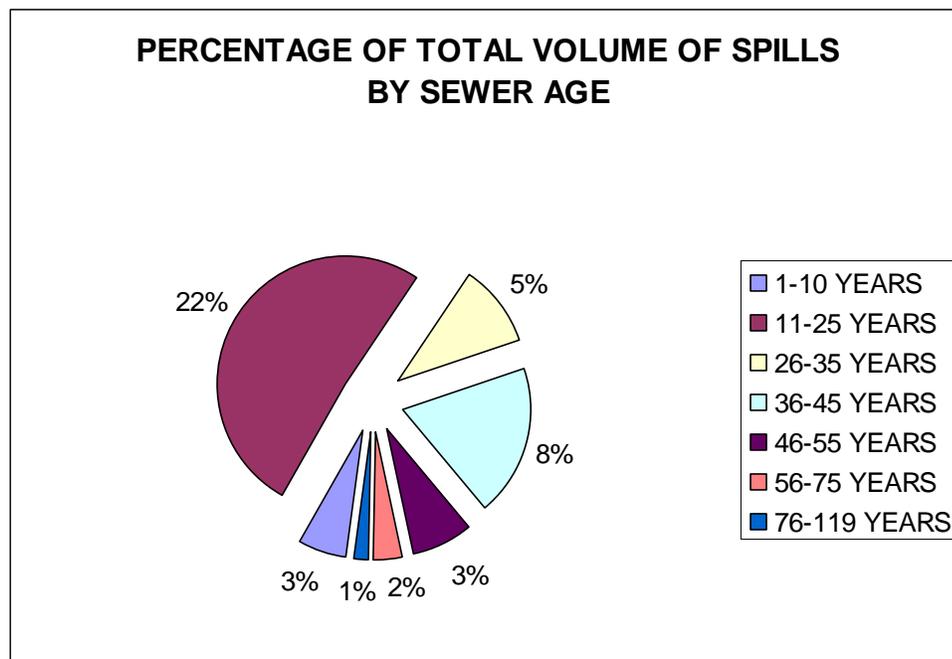


Figure 9 – Percentage of Total Reported Volume of SSOs and PLSDs by Sewer Age

**Sewer Pipe Material:** The Sanitary Sewer System WDR does not require submittal of pipe material. The reported SSO and PLSD data indicates that: 1) because it is not required, many enrollees are not reporting the pipe material in their SSO and PLSD reports and 2) that at least 20% of the reported spills occur in vitrified clay pipes (VCP). This result is likely due to the prevalence of VCP that has been utilized for sanitary sewer system piping in the State. Increased thoroughness in reporting will help to clarify any spill trends related to pipe material.

#### 4. Regional Spill Trends

To make regional comparisons of SSOs and PLSDs, the variations in population served, miles of pipe, age of pipe, and other factors should be considered. At this time, the population served and number of SSOs reported by region can be assessed. When data cleanup efforts are completed, staff will examine other regional SSO and PLSD trends.

The reported population served by collection systems in each region is presented in Figure 10 below. The data indicates that highest populations served by collection systems are in Regions 2, 4, 5S, 8, and 9.

The percentage of reported SSOs and PLSDs by Regional Water Board is presented in Figure 11. The data indicates that: 1) Regions 2 and 5S account for 68% of reported spills in the state (R2=33% and R5S = 35%), and 2) ~90% of the reported spills occur in Regions 2, 4, 5S, 8, and 9. This result is consistent with the population served by sanitary sewer systems in these regions.

The percentage of the total volume of SSOs and PLSDs in the State by Region is presented in Figure 12 below. The data indicates that Regions 2 and 5S account for approximately 71% of the reported volume of SSOs and PLSDs in the state.

Accordingly, increased compliance efforts in Water Board Regions 2, 4, 5S, 8, and 9 may yield the best results for reduction of the volume and number of sewage spills.

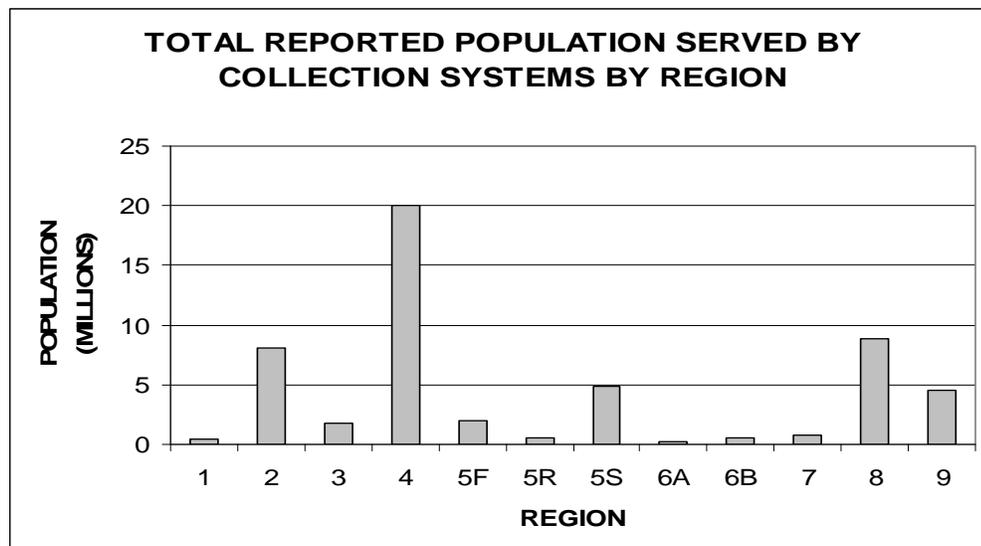


Figure 10 – Reported Population Served by Collection Systems by Region

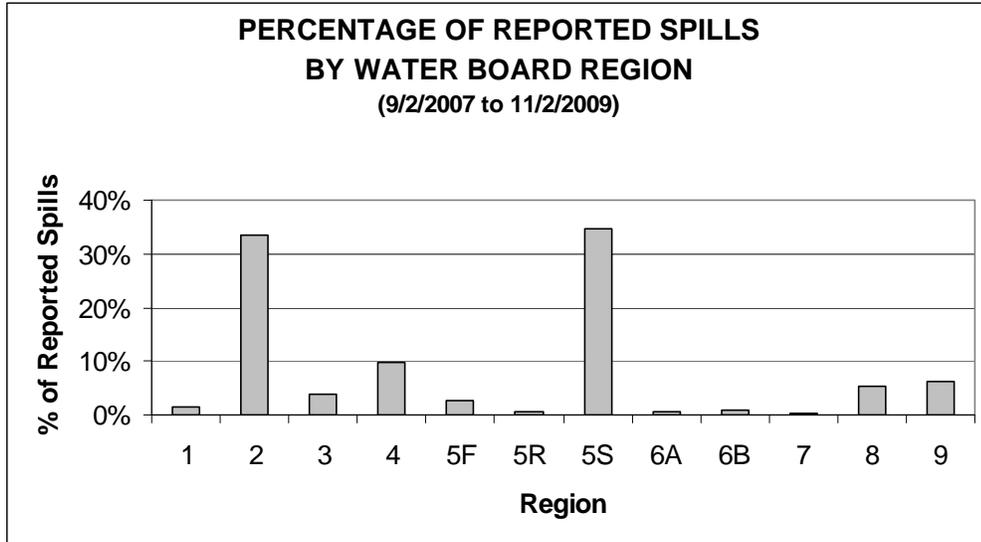


Figure 11 – Percentage of Reported SSOs and PLSDs by Region

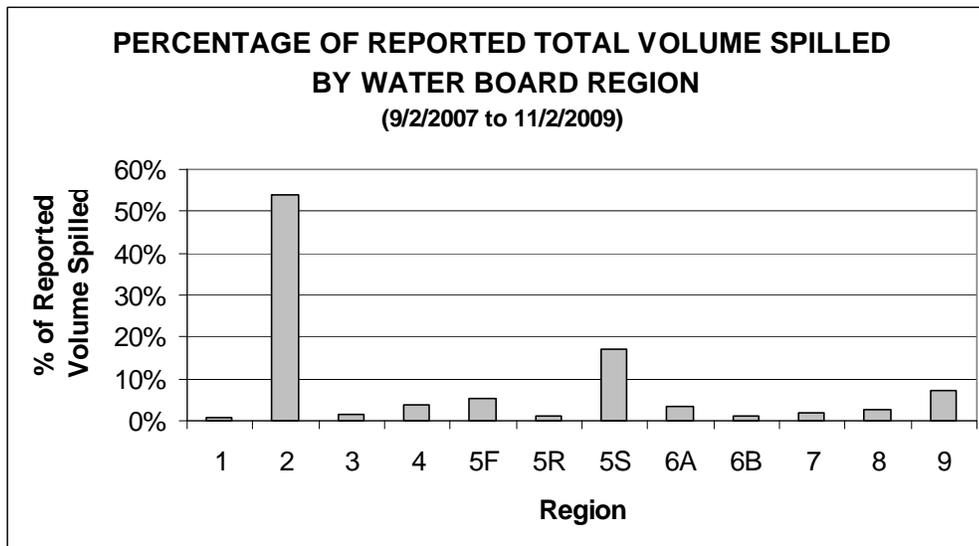


Figure 12 – Percentage of Total Volume of SSOs and PLSDs by Region

**5. Summary of Reported Spill Data**

Spill data collected to date indicates that 80% of the volume of SSOs and PLSDs in the State has occurred from only 59 out of 1,097 collection systems enrolled in the Sanitary Sewer System WDR. In addition, 111 spill events are responsible for 80% of the volume of spills in the State since reporting was required indicating that many of the 59 responsible enrolled collection systems have had multiple spill locations.

Some collection systems have performed better; 121 systems have complied with the monthly spill/no-spill reporting requirements and had no SSOs since inception of the SSO Reduction Program.

## B. Compliance and Enforcement Resources

- **State Water Resources Control Board, Division of Water Quality (DWQ), Waste Discharge Requirements (WDR) Unit (Sacramento, CA):** This office is responsible for SSO Reduction Program implementation. Although subject to future review and possible revision, current staffing is as follows. One position is dedicated to Information Technology (IT) support services for maintenance and enhancements of the SSO database. Two additional positions are within the Division of Water Quality (DWQ) and are tasked to perform Sanitary Sewer System WDR implementation activities, including review and analysis of statewide spill data, compliance and enforcement coordination, and the Sanitary Sewer System WDR Review and Update process. Additional tasks include: development of SSO training and inspection materials to support the Regional Water Quality Control Boards (Regional Water Boards); assisting Regional Water Boards with participating in collection system field audits and investigation of SSOs; and directing the development and improvement of the SSO Reduction Program website. Regional Water Boards, through the State Board's Office of Enforcement, are responsible for enforcement related to specific SSO events. Collection system field audit responsibilities are divided between the two DWQ positions.
- **State Water Resources Control Board, Office of Enforcement (Sacramento, CA):** The Office of Enforcement (OE) provides primary investigation, coordination, and prosecution for State Water Board initiated enforcement matters consistent with the adopted [State Water Board Enforcement Policy](#). This office acts as consultants, conducting audits and investigations as necessary to support State and Regional Water Board staff enforcement activities including responding to individual sewage spill events and taking enforcement actions for failure to comply with the Sanitary Sewer System WDR requirements.
- **Regional Water Quality Control Boards:** The Regional Water Boards are responsible for investigating SSO events and provide primary enforcement for them. The Regional Water Boards' response to SSO events is variable depending upon a number of factors which can include the circumstances, volume, and consequences of the discharge; history of similar problems from the responsible party; and availability of Regional Water Board staff resources.

## C. Focus Areas for Enforcement

The following seven areas will be the focus of enforcement in the program over the next year to address noncompliance. In general, staff plans to focus enforcement attention to the most egregious violators discovered as a result of the statewide compliance analyses (i.e., agencies not enrolled or participating in monthly reporting). While some baseline information has been obtained, additional data collection, analyses and research will be conducted on an ongoing basis to further identify non-complying agencies subject to enforcement action.

- **Enroll for Coverage:** Applicable agencies failing to enroll for coverage under the Sanitary Sewer System WDR.
- **Report SSOs:** Enrollees failing to report monthly SSOs or submit required monthly "no-spill" certifications.

- **Certify SSMP Elements:** Enrollees failing to comply with the CIWQS certification timelines for Sewer System Management Plan (SSMP) elements.
- **Complete Collection System Questionnaire:** Enrollees failing to complete and annually update their Collection System Questionnaire.
- **Develop a SSMP:** Enrollees failing to complete individual SSMP elements.
- **Report Accurately:** Enrollees failing to report spills accurately.

#### **4. COMPLIANCE AND ENFORCEMENT ACTIVITIES (2009-2010)**

This section presents details on the proposed compliance and enforcement activities to be undertaken by staff over the next year to improve compliance with the Sanitary Sewer System WDR requirements. Specific compliance goals and tasks to be undertaken by State Water Board staff, including recommended steps for participating Regional Water Boards, are presented. The overall goal is to achieve compliance by leveraging both State and Regional Water Board resources in the most efficient manner to achieve desired results as quickly as possible.

Sanitary Sewer System WDR compliance and enforcement activities are addressed in three distinct areas:

1. Participation in the SSO Reduction Program and required reporting elements,
2. Accuracy and Completeness of required reporting elements,
3. Response, investigation and formal enforcement actions for individual SSO events.

The first activity area will be handled solely by State Water Board staff; the second area will be handled jointly with State Water Board and participating Regional Water Board staff working together where possible with scheduled collection system field audits; and the third activity area will be headed by Regional Water Board staff with technical guidance, input and assistance from State Water Board staff.

Due to limited staff resources, a phased approach will be used in implementing the proposed enforcement tasks.

##### **PHASE I**

During this phase, enrollees not meeting the basic program participation requirements (e.g., enrollment, reporting, SSMP development) will be identified and enforcement actions will be conducted to bring them into compliance. Collection system agencies and enrollees not participating in the SSO Reduction Program at all will be addressed first.

##### **PHASE II**

The second phase includes addressing enrollees participating in the SSO Reduction Program but having some violations of the SSO Reduction Program reporting or implementation requirements.

### PHASE III

The third phase includes evaluation of all enrollees for completeness and accuracy of their SSMPs and spill reporting via targeted and random collection system audits.

State Water Board staff will post regular compliance status updates on the SSO Reduction Program website as part of this Plan. For noncompliant enrollees, staff will continue working with them where necessary to address the underlying causes of repeated and ongoing violations. Staff's outreach and education efforts mentioned previously in Section 4 of this Plan, including targeted outreach and speaking engagements, will also continue throughout implementation of compliance and enforcement activities

#### A. PROPOSED COMPLIANCE TARGETS

An outline of the proposed compliance targets over the next year in the seven areas of enforcement activity focus noted above are presented in Table 3 below.

Phase	Requirements	Targets (2009-2010)	Details
I	<b>Enroll for Coverage</b>	100%	To be achieved by notifying 100% of "known potential enrollees" not included in original enrollment mailings sent in 2006; enroll any "known potential agencies" for coverage; obtain Notices of Non-Applicability for remaining non-applicable collection systems. Work with Regional Board staff to identify additional systems not enrolled that should be.
I & II	<b>Report SSOs</b>	85% (+28%)	To be achieved by implementation of additional external outreach, issuance of informal enforcement emails and letters and formal enforcement Orders.
I & II	<b>Certify SSMP Elements</b>	75% (+33%)	To be achieved by implementation of additional external outreach, issuance of informal enforcement emails and letters and formal enforcement Orders.
I & II	<b>Complete Collection Systems Questionnaire</b>	100% (+15%)	To be achieved by implementation of additional external outreach, issuance of informal enforcement emails and letters and formal enforcement Orders.
III	<b>Develop a Complete SSMP</b>	Review up to 24 collection systems per year (2 per month)	To be achieved by conducting <u>up to 24</u> joint onsite audits (State/Regional Water Board staff, targeted and random); tasks include verifying SSMP completeness and identifying significant deficiencies entered into CIWQS; additional benefits include providing SSO Reduction Program and auditing experience along with CIWQS system training for participating Regional Water Board staff.
III	<b>Report Accurately</b>	Review up to 24 collection systems per year (2 per month)	To be achieved by conducting <u>up to 24</u> joint onsite audits (State/Regional Water Board staff, targeted and random); tasks include verifying SSMP completeness and identifying significant deficiencies entered into CIWQS; additional benefits include providing SSO Reduction Program and auditing experience along with CIWQS system training for participating Regional Water Board staff.

**Table 3 – Proposed Compliance Targets for 2010**

## **B. INFORMAL ENFORCEMENT TASKS**

Initial SSO Reduction Program compliance and enforcement activities will consist of implementing informal enforcement actions to: 1) bring un-enrolled, applicable collection systems under coverage of the Sanitary Sewer System WDR, 2) bring enrolled systems that are not participating in the SSO Reduction Program requirements into compliance, and 3) provide all enrollees an opportunity to correct any incomplete or erroneous CIWQS SSO module online reporting data for their collection system(s) that can be corrected.

The informal enforcement actions to be implemented will be: 1) Issuing notices of violation (NOVs) to non-participants (to address items 1 & 2 above), and 2) Sending a compliance email to all enrollees detailing errors or deficiencies in their required CIWQS SSO module online reporting data (to address item 3 above). Collection system agencies and enrollees not participating in the SSO Reduction Program at all will be addressed first followed by collection system agencies and enrollees that have deficiencies in the Sanitary Sewer System WDR requirements.

During the first stage of this plan, collection systems that should be enrolled in the Sanitary Sewer System WDR but are not and enrollees not reporting spills, "no-spill certifications", SSMP element certifications, or Questionnaire data will be identified and issued NOVs. Based on current estimates, the first phase will result in approximately 150 facilities to be notified and tracked.

The NOVs will require non-enrollees to enroll for coverage under the Sanitary Sewer System WDR. It will also require that all spill, "No-Spill", SSMP, and Questionnaire data for the collection system be submitted online to the CIWQS SSO module from the effective date of when the collection system should have been covered under the Sanitary Sewer System WDR to the current date. In addition, the NOVs will emphasize that the enrollee is required to maintain compliance with the Sanitary Sewer System WDR.

Non-respondents to the NOVs will be referred to the Office of Enforcement for formal enforcement action.

For the second stage of this plan, enrollees that have correctable deficiencies in their CIWQS reporting data will be identified and will be issued an email notification detailing their compliance deficiencies and requesting that they be corrected. Based on current estimates, this second stage effort will result in notification of approximately 600 facilities.

The email notification reminders will be sent to the SSO Reduction Program Legally Responsible Official (LRO) and Data Submitters when reporting requirements for their collection system have not been fulfilled. The email will include a summary of deficiencies identified from audits of the enrollee's online CIWQS reporting information. Attachment "A" provides an example of the automated email notification.

Non-respondents to the compliance email (i.e., enrollees failing to correct their missing, incomplete, or erroneous reporting data) will be issued NOVs requiring submittal of the required reporting data to the CIWQS SSO module. Non-respondents to the NOVs will be referred to the Office of Enforcement for formal enforcement action.

The NOVs will identify all uncorrected reporting violations associated with the enrollees collection system and require them to correct any past violations that may be correctable (e.g., systems missing any monthly "no-spill" certifications since mandatory reporting began may correct these problems).

Per the State Water Board Enforcement Policy, additional informal compliance efforts will be granted to “Disadvantaged Community” enrollees. These informal compliance activities will include follow-up emails and calls to non-responding enrollees in this category. If after this additional outreach and additional grace period from NOV issuance, the “Disadvantaged Community” enrollee does not respond, they will be referred to the Office of Enforcement for formal enforcement action.

Non-correctable violations (i.e., missed SSMP timeline) will not be pursued by staff at this time. However, the CIWQS system has been programmed to preserve all historical transactions which may be reviewed and analyzed and can be considered for subsequent enforcement actions if necessary.

### **C. FORMAL ENFORCEMENT TASKS**

If an enrollee fails to respond to informal enforcement actions, including issuance of an NOV, the enrollee will be referred to the State Water Board, Office of Enforcement, for formal enforcement action. The California Water Code grants the Water Boards significant enforcement authorities which may include one or more of the following sections to address SSOs or failure to comply with the Sanitary Sewer System WDR:

- Issuance of a “Notice to Comply”,
- Issuance of a “13267” or “13383” letter,
- Issuance of a “13300 Time Schedule Order (TSO)” or “13308 TSO” with stipulated penalties,
- Issuance of a “Cleanup and Abatement Order”,
- Issuance of a “Cease and Desist Order”,
- Issuance of an “Administrative Civil Liability”, and/or
- Referral to the District Attorney or Attorney General for criminal prosecution.

The formal enforcement action procedures used to bring an enrollee into compliance with reporting and SSMP preparation requirements of the Sanitary Sewer System WDR will vary depending on the type of violation. Specifically, enforcement actions to encourage future compliance may include issuance of a “Notice to Comply”, a “13267 letter”, a “Cease and Desist Order”, or a “Time Schedule Order”. Enforcement actions that address past violations may include issuance of an “Administrative Civil Liability” or, in the case of fraudulent reporting, referral to the District Attorney or Attorney General for criminal prosecution.

Enforcement actions considered in response to spill events may include issuance of a 13267 letter, issuance of penalties, informal enforcement actions as listed in Section B above, issuance of an ACL, and/or referral to the District Attorney or Attorney General for criminal prosecution.

### **D. SCHEDULE**

Compliance and enforcement tasks to be undertaken over the next year by State Water Board staff, with input and assistance from Regional Water Boards, in the seven areas of enforcement

activity noted above are listed below. Staff will use a phased approach in implementing these enforcement tasks.

**PHASE I – January through December 2010**

Pursue known collection systems that should be enrolled and collection systems not fulfilling reporting requirements (~ 150 Collection Systems).

**PHASE II – January through December 2010**

Pursue collection systems participating in the Sanitary Sewer System WDR that have incomplete, delinquent, or erroneous reporting (~ 600 collection systems).

**PHASE III – August through December 2010**

Conduct collection system audits with Regional Board staff .

**E. COLLECTION SYSTEM FIELD AUDITS**

Staff will use scheduled and random collection system field audits to ascertain compliance with the Sanitary Sewer System WDR and implementation of the SSMP. Field audits also often play a crucial role in determining SSO penalties.

To date, the State and Regional Water Boards have conducted a total of eleven collection system field audits and have coordinated on northern California audits with US EPA Region IX. A list of the collection systems audited to date is presented in Table 4 below.

<b>Informal Collection System Audits Conducted to Date</b>	
<b>YEAR</b>	<b>COLLECTION SYSTEM AGENCY</b>
<b>2008</b>	Town of Discovery Bay
<b>2008</b>	City of San Bruno
<b>2008</b>	City of Roseville
<b>2008</b>	Sacramento Area Sewer Agency
<b>2009</b>	City of San Diego
<b>2009</b>	City of Red Bluff
<b>2009</b>	City of South San Francisco
<b>2009</b>	City of Sacramento (combined sewer system)
<b>2009</b>	City of Alameda (in conjunction with US EPA IX)
<b>2009</b>	City of Emeryville (in conjunction with US EPA IX)
<b>2009</b>	California State Prisons, Folsom

**Table 4 – Informal Collection System Audits Conducted by State Water Board Staff**

The DWQ/WDR Unit in coordination with the State Water Board Office of Enforcement and participating Regional Water Boards are coordinating to conduct joint scheduled and random

collection system audits. Current planned activity for 2010 includes assisting Regional Water Board staff with an average of 2 audits per month per Region, beginning in August 2010.

The primary goals of State Water Board participation in collection system audits will be to 1) gather necessary information for compliance and enforcement purposes; 2) gather information to support any proposed changes to the Sanitary Sewer System WDR as part of the public review and update process; and 3) help train participating Regional Water Board staff in inspection procedures, as necessary; and 4) provide State Water Board staff with additional knowledge of actual collection system operations and management as practiced in the field. This insight will also help State Water Board staff in drafting collection system inspection and enforcement guidance.

#### **F. STATE AND REGIONAL WATER BOARD STAFF RESOURCES**

The preceding outline of proposed Sanitary Sewer System WDR compliance and enforcement activities was developed with existing Water Board staff resources and SSO Reduction Program workload in mind. Participating Regional Water Board staff will need to evaluate their resources and resulting staff needs required to conduct their desired level of collection system audits and SSO enforcement actions.

#### **G. COMPLIANCE AND ENFORCEMENT PROGRESS**

Staff will provide the State Water Board a summary of SSO Reduction Program compliance and enforcement progress in the SSO Reduction Program Annual Compliance Updates presented to the Board in May of each year. Also, in May of each year, staff will present general program findings to the State Water Board including the progress towards reducing the number of SSOs and volume of sewage spilled.

## ATTACHMENT 1

**EXAMPLE OF CIWQS Automated Email Notification**

TO: INDIVIDUAL LEGALLY RESPONSIBLE OFFICIALS (LROs) & DATA SUBMITTERS (DSs) ENROLLED UNDER THE STATEWIDE SANITARY SEWER ORDER (2006-0003-DWQ)

This email reminder is to alert you that the State Water Board CIWQS records show that your collection system, enrolled under the Statewide Sanitary Sewer Order, has one or more non-compliant issue(s). The non-compliant issue(s) are noted below with an \*.

Please correct the noted issues and report your changes into your CIWQS SSO module account as soon as possible. Failure to correct these issue(s) may constitute a violation of the Statewide Sanitary Sewer Order #2006-0003-DWQ. If you fail to provide the required information/reports, an enforcement action may be taken against you under California Water Code section 13268.

\* You are required to fill out a questionnaire form for your collection system. If you do not fill out a questionnaire form, you will be unable to report spills and no-spill certifications in CIWQS, as required by the Statewide Sanitary Sewer Order.

\* The last update of your collection system questionnaire was on 05-MAY-08. This update is older than 1 year. As a result you are required to update the questionnaire form as soon as possible. If you do not update the questionnaire form, you will be unable to report spills and no-spill certifications in CIWQS, as required by the Statewide Sanitary Sewer Order.

\* You have not filled out and submitted a questionnaire form. Therefore, our system does not have the population information for your collection system, and we cannot determine whether your collection system is in compliance with its Sewer System Management Plan (SSMP). You are required to fill out a questionnaire form for your collection system as soon as possible. For further details, please refer to [http://www.waterboards.ca.gov/water\\_issues/programs/sso/index.shtml](http://www.waterboards.ca.gov/water_issues/programs/sso/index.shtml).

\* Your collection system has failed to report the spill(s) or no-spill certification(s) for the following dates: May-08, Jun-08, Jul-08, Aug-08, Sep-08, Oct-08, Nov-08, Dec-08, Jan-09, and Feb-09. Note: Your collection system has also failed to report one or more no-spill certifications for months where all reported spills for the month were Private Lateral spills.

\* Your Collection System is required to certify the following spill(s): XXXXX, YYYYY. If you contend that a spill entry is erroneous or a duplicate and should be deleted, send an email to the CIWQS Help Center (CIWQS@waterboards.ca.gov) with an explanation for each spill of why the spill entry is erroneous and should be deleted or provide the number of the duplicate spill. Once corrected, you may also need to file a no-spill certification for the month where the erroneous spill occurred.

\* You are required to update your collection system Sewer System Management Plan (SSMP). For further details, please refer to [http://www.waterboards.ca.gov/water\\_issues/programs/sso/index.shtml#plan](http://www.waterboards.ca.gov/water_issues/programs/sso/index.shtml#plan).

\* You have certified spills: XXXXXX, YYYYYY, ZZZZZZ, however, the certification date does not meet the deadline requirements of 15 days (Category 1) or 30 days (Category 2) from the spill completion date or start date, respectively.

For more information about the Statewide Sanitary Sewer Order, please visit: [http://www.waterboards.ca.gov/water\\_issues/programs/sso/index.shtml#plan](http://www.waterboards.ca.gov/water_issues/programs/sso/index.shtml#plan).

To assist you with learning more about SSO electronic reporting, please view the SSO Discharger Work Book at: [http://www.waterboards.ca.gov/water\\_issues/programs/sso/docs/discharger\\_workbook.pdf](http://www.waterboards.ca.gov/water_issues/programs/sso/docs/discharger_workbook.pdf) or visit California Water Environment Association at: <http://www.cwea.org/et-ssowdr.shtml> for other training resources.

If you are not the Statewide Sanitary Sewer Order Contact for your agency and do not need to receive this type of email in the future, or for questions or help regarding email, enrollment, or technical database help, contact our CIWQS Help Line staff at: 866-79-CIWQS (24977), M - F (8am-5pm), Email: CIWQS@waterboards.ca.gov

For technical program and other questions related to the Statewide Sanitary Sewer Order, please contact:  
Russell. Norman, P.E.  
Division of Water Quality / Statewide SSO Reduction Program  
rnorman@waterboards.ca.gov (916) 323-5598

## ATTACHMENT 2

## Sanitary Sewer Order COMPLIANCE CHECKLIST

**COMPLIANCE CHECKLIST**

This checklist serves as a basic outline to assist sanitary sewer collection system managers and operators in verifying some of the compliance provisions of the [Sanitary Sewer Order](#). Although the Sanitary Sewer Order is the primary regulatory mechanism for sanitary sewer systems statewide, Regional Water Quality Control Boards may impose more stringent or prescriptive requirements, as necessary, and in these cases, their requirements supersede the requirements contained in the Sanitary Sewer Order.

- Has my agency applied for permit coverage for each sanitary sewer collection system(s) (upstream of wastewater treatment facility headworks) owned or operated by my agency with more than 1 mile of sewer lines in length?
- Is all required documentation for my agency up-to-date, including assigned Legally Responsible Official(s) and Data Submitter(s) in the California Integrated Water Quality System (CIWQS)?
- Is my agency complying with the requirements contained in the Sanitary Sewer Order, including monthly reporting requirements for any SSOs or submit a "No Spill Certification" in CIWQS for months when no SSOs occurred? Is all of my agency's data up-to-date?
- Has my agency completed the Sewer System Management Plan (SSMP) tasks in accordance with the required time schedule and have all completed elements been certified in CIWQS?
- Has my agency completed the Collection System Questionnaire in CIWQS and updated it within the past 12 months for each sanitary sewer system(s) enrolled for coverage?
- Is my agency complying with the associated Sanitary Sewer Order Monitoring and Reporting Program (MRP) requirements, including notification, reporting and record keeping provisions?
- Is my agency taking all feasible steps to eliminate SSOs? Is my agency implementing measures to contain and mitigate impacts from any SSOs should they occur in the future?