

# 2013 SASD SSMP AUDIT INTERVIEW QUESTIONS

### **Section I Goals Questions**

What are the stated goals of SASD's SSMP, and are they consistent with those of the WDR? Generally, does the SSMP provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system?

### **Section II Organization Questions**

Is an organizational document available that names the responsible authorized representative as described in Section J of the order?

Is an organizational document available that shows the overall personnel structure for SASD, including lines of authority? This would include names and telephone numbers for management positions responsible for implementing specific measures in the SSMP program. Does the document contain a narrative explanation?

Does the organizational structure clearly show the chain of communication for reporting SSOs from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State Regional Water Quality Control Board (SRWQCB), State Water Resources Control Board (SWRCB), Environmental Management Department, State Office of Emergency Services (OES), and other applicable agencies?

Are there organizational charts that show functional groups and classifications?

What criteria are used in developing a staffing plan?

### **Section III Legal Authority Questions**

Describe any SASD sanitary sewer use ordinances, service agreements, or other legally binding document or procedure that prevents illegal discharges into the sanitary sewer system. Examples of illegal discharges include inflow/infiltration, storm water, chemical dumping, unauthorized debris, and cut roots.

Describe how access for maintenance, inspection, or repairs of sewer lines owned or maintained by SASD is ensured.

Describe how the documents and procedures listed above provide enforcement actions for the following:

1. Fats, oils and grease (FOG) and other debris that may cause blockages
2. Violation of the sewer ordinances
3. Building structures over the sewer lines
4. Storm water connections to sanitary lines
5. Defects in service laterals located on private property
6. Sump pumps

### **Section IV Operation and Maintenance Program Questions**

Is there an up-to-date map of the sanitary sewer system showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable storm water conveyance facilities? Are the sizes of the lines identified?

<p>Describe the procedure and responsible person(s) who maintains and updates the sewer map.</p>
<p>Are critical areas/locations identified on the sewer map such as would be effected by floods, power outages, and emergencies or prone to problems such as blockages and collapse failures?</p>
<p>How is the sewer map information utilized by field persons doing their daily work?</p>
<p>Describe the routine preventative operation and maintenance activities performed by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sewer system.</p>
<p>Describe how known problem areas are operated and maintained. How is their schedule for maintenance and cleaning determined?</p>
<p>Describe the preventative maintenance (PM) program that provides a system to document scheduled and conducted activities, such as work orders. How are preventative activities prioritized and tracked?</p>
<p>Describe the rehabilitation and replacement program that prioritizes system deficiencies and implements short-term rehabilitation actions to address each deficiency. Describe the proactive/preventative maintenance that is implemented to preclude the conditions that cause SSOs. This would include establishing a cleaning frequency based upon maintenance histories, nature of the stoppages, and age of the system. Include the effectiveness of equipment or methodology (hydraulic cleaning, mechanical cleaning, hydro-mechanical cleaning, chemical treatment, bio-filters and barriers, tree species collection, de-greasers, etc.) used to reduce SSOs.</p>
<p>Describe the rehabilitation and replacement program that prioritizes system deficiencies and implements long-term rehabilitation actions to address each deficiency. This would include describing the corrective maintenance that is used to provide the long-term solutions towards eliminating the causes of SSOs. Include the effectiveness of equipment or methodology (hydraulic cleaning, mechanical cleaning, hydro-mechanical cleaning, chemical treatment, bio-filters and barriers, tree species collection, de-greasers, etc.) used to reduce SSOs</p>
<p>Describe the program that provides regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation.</p>
<p>Describe the program that provides rehabilitation and replacement efforts that focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects.</p>
<p>Describe the rehabilitation and replacement plan that includes a Capital Improvement Plan (CIP) that addresses proper management and protection of the infrastructure assets.</p>
<p>Describe the rehabilitation and replacement plan that includes a time schedule for implementing short-term and long-term plans plus a schedule for developing the funds needed for the CIP.</p>
<p>Describe the training (format, content, instructor, frequency) on a regular basis for M&amp;O staff. How are staff trained and monitored to know, do, and execute proper SSO response activities? How often is the training updated and how is it determined to be adequate?</p>

Describe training for the contractors and how it is determined that they are appropriately trained. How are contractors trained and monitored to know, do, and execute proper SSO response activities? How often is the training updated and how is it determined to be adequate?

Describe how equipment and replacement parts are adequately stocked and inventoried, including identification of critical replacement parts.

Describe the operational and maintenance performance indicators or benchmarks used to monitor SASD's success in dealing with SSOs.

### **Section V Design and Performance Provision Question**

Describe the design and construction standards and specification for the installation of new sanitary sewer systems, pump stations and other appurtenances. Include how design and construction standards for the systems are established and how construction is managed to ensure compliance.

Describe the design and construction standards and specification for the rehabilitation and repair of existing sanitary sewer systems, pump stations and other appurtenances. Include how design and construction standards for the systems are established and how construction is managed to ensure compliance.

Describe how design and construction standards are kept up to date. What would prompt a review or change?

How are the proper inspection and testing for the installation, rehabilitation, or repairs of sewer projects achieved?

### **Section VI Overflow Emergency Response Plan Questions**

Describe how procedures are developed and used so that primary responders and regulatory agencies are properly notified of all SSOs in a timely manner.

Describe how procedures are developed and used to address emergency operations, such as traffic and crowd control, and other necessary response activities.

Describe the program developed and used by SASD to ensure an appropriate response to all overflows.

Describe the SASD procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities of all SSOs that potentially affect public health or reach the water of the State in accordance with the State Monitoring and Reporting Program (MRP).

Describe how SASD reports all SSOs in accordance with the MRP, the California Water Code, other State Laws, and other applicable Regional Water Board WDRs, or NPDES permit requirements.

Does the SSMP identify the officials who will receive notification?

Describe any performance indicators or benchmarks used in tracking SSO emergency responses. Are the elapsed times from notification of SSOs to response documented? Are responses adequate and appropriate? What follow-up is done after a SSO response?

Describe any after action reports written about SSO responses. How are lessons learned captured and implemented?

Describe how procedures are developed and used to ensure that staff and contractors are aware of and follow the SSO emergency response plan.

Describe how staff and contractors are trained to ensure that they are aware of and follow the SSO emergency response plan.

Describe the program developed and used by the SASD to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

### **Section VII Fats, Oil and Grease Control (FOG) Questions**

Describe the SASD implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG.

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

Describe the SASD legal authority to prohibit discharges into the system and measures to prevent SSOs caused by FOG.

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

Describe the SASD authority to inspect grease producing facilities and provide enforcement of the FOG ordinance.

Describe how SASD determines that it has sufficient staff to inspect and enforce the FOG ordinance. Describe the present staffing levels.

Describe how SASD identifies sections of the sewer systems subject to FOG blockages. How is the cleaning maintenance schedule for each section established?

Was FOG found to be a problem when the system was evaluated?

Describe how SASD develops and implements source control measures for all sources of FOG discharges to the sewer systems.

### **Section VIII System Evaluation and Capacity Assurance Plan Questions**

SASD shall prepare and implement a Capital Improvement Plan (CIP) that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. The plan must address the following:

Does SASD have a System Evaluation and Capacity Assurance Plan?

Describe the SASD action steps to evaluate portions of the sewer system that are experiencing or contributing to SSOs caused by hydraulic deficiencies.

Describe the procedure used by SASD to estimate peak flows (including flows from SSOs that escape from the system) associated with conditions similar to those causing overflow events. Describe the peak flow values, how often they are reviewed, and what conditions would trigger an adjustment to them.

Describe the procedure used by SASD to estimate the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to peak flows associated with overflow events. Describe the hydraulic capacity values, how often they are reviewed, and what conditions would trigger an adjustment to them.

Where design criteria do not exist or are deficient, explain how the evaluations described above are undertaken to provide appropriate design criteria.

Describe the short and long term CIP that addresses identified hydraulic deficiencies. Include how the CIP is prioritized, scheduled, and funded. What, if any, alternative analysis is performed?

Describe the CIP as it relates to increases in pipe size, infiltration/inflow reduction programs, increases and redundancy in pumping capacity, and emergency storage facilities and upgrading of pumping systems for redundancy, reliability, and emergency storage.

Describe the CIP as it relates to upgrading of pumping systems for redundancy, reliability, and emergency storage.

Describe the CIP as it relates to implementing schedules and identifying sources of funding. Include how rate increases and economic conditions impact the CIP. Is a sensitivity analysis included?

Describe the schedule including the completion dates for all portions of the CIP described in the items above.

How are the schedule and updates consistent with the SSMP requirements described in SWRCB Order No. 2006-0003 section D.14.

### **Section IX Monitoring, Measurement, and Program Modifications Questions**

Describe appropriate SSMP activities undertaken by SASD that relate to monitoring and measurement. Show examples of how monitoring and measurement is used to support the goal of reducing SSOs.

Describe the program or procedure that SASD has developed to maintain relevant information that can be used to establish and prioritize appropriate SSMP activities.

Describe the program or procedure that SASD has developed to monitor the implementation and where appropriate, measure the effectiveness of each element of the SSMP. Show examples if available.

Describe the program or procedure that SASD has developed to assess the success of the preventive maintenance program. Show examples if available.

Present information that SASD has developed to identify and illustrate SSO trends, including: frequency, location and volume.

- Describe any identified patterns over time or conditions that are likely to produce SSOs?
- Describe how trends and patterns are used by the organization
- Describe the changes that have been undertaken over the last two years to respond to the identified trends

Describe the program or procedure that SASD has developed to update program elements as appropriate, based on monitoring or performance evaluations.

- How often are programs/procedures reviewed for improvements?
- Describe a typical program modification cycle from identification that a modification is needed through the implementation and monitoring of the improvement.

### **Section X Audit Program – SSMP Effectiveness Questions**

Describe how SASD's SSMP maintains or improves the condition of the collection system infrastructure in order to provide reliable service into the future.

Describe how SASD's SSMP cost-effectively provides adequate sewer capacity to accommodate flows.

Describe how SASD's SSMP minimizes the number and impact of sanitary sewer overflows that occur.

Describe the process SASD uses to decide what is done and where funding is expended relative to reducing the number of SSOs

- Include any differences between the handling of categories of SSOs (such as from main lines versus laterals, from grease versus roots, etc.)
- Include information about how the magnitude of programs is determined.

Describe the process SASD uses to decide what is done and where funding is expended relative to reducing the size of SSOs

- Include any differences between the handling of categories of SSOs (such as from main lines versus laterals, from grease versus roots, etc.)
- Include information about how the magnitude of programs is determined.

Describe the process SASD uses to decide what is done and where funding is expended relative to reducing the impact of SSOs (i.e. are spills into more environmentally sensitive areas handled differently than others)?

### **Section XI Communications Program Questions**

Describe how SASD effectively communicates to the public and stakeholders about the development, implementation and performance of the SSMP.

Describe how communication is open to the public and stakeholders. Describe the frequency of their input in the development and implementation of the SSMP.

What outreach and education is done to instruct public and stakeholders on how to know, do, and execute proper SSO response activities?

Are there benchmarks or performance levels that evaluate the effectiveness of the communication?

Describe communication with systems that are tributary and/or satellite to SASD's sanitary sewer system. This could be with SMUD, SRCSD, State Office of Emergency Services and other relevant government agencies. This could also include the FOG and industry pretreatment programs.

Describe how the communication is specific, targeted and comprehensive.

Describe how SSO problems including cost impacts and level of effort within SASD are communicated to the public and other stakeholders