

2013 CSRMA Best Recommended Sewer Collection System Risk Management Practices

Asset Mapping

1. Has your agency identified and mapped all the gravity sewer line segments, pipeline access points (manholes, lamp holes, rod holes, etc.), pumping facilities, pressure pipes and valves, and stormwater-related facilities?
2. Does your agency currently have sewer system assets mapped in a system that can be quickly updated with field locations that is accessible to administrative and field staff levels?
3. Has your agency mapped stormwater-related facilities and overlaid them on your sanitary system mapping?
4. Does your agency have a formal review process in place to ensure that any mapping issues noted by field staff or others are addressed in the official agency maps?
5. Has your agency put in place a systematic confirmation of assets to ensure existing mapping accurately reflects assets in the field?
6. Does your agency periodically check in with cooperating agencies to update mapping they provide, i.e. stormwater system mapping from the area stormwater agency?

Pumping Facility Assets

1. Has your agency conducted a risk assessment for each asset?
2. Do pumping facilities have dedicated emergency stand-by power generators located onsite OR do you own and maintain appropriately sized portable generators within a reasonable response time for each facility's operation?
3. Has your agency developed station-specific emergency operating procedures for each asset in the event of a power and/or pumping failure?
4. Has your agency determined the lowest hydraulic overflow point(s) and calculated the longest possible holding time(s) for each asset?
5. Has your agency identified critical spare parts for each asset?
6. Does your agency maintain the spare parts identified for each asset or is it able to obtain them 24/7?
7. How many pump stations are equipped with an alarm system(s) for detecting pump failure and/or high wet well levels?
8. Has each remote asset capable of being remotely operated undergone a software security review to determine vulnerability to hacking?
9. Do all pump stations display emergency notification signage, including agency contact information in public view to expedite notification to your agency in the event of a sanitary sewer overflow (SSO)?

Force Main Sewer Assets

1. Has a risk assessment been conducted for each force main?
2. Do all ferrous force mains have a dedicated corrosion protection system(s) installed?
3. Do all ferrous force mains have periodic integrity tests performed?

4. If you have force mains that cannot be taken out of service, have you identified and scheduled implementation of an appropriate condition assessment tool?
5. Does your agency maintain standard operating procedures (SOPs) for at least annual performance tests of lift station pressure/flow, corrosion test station resistance, and pressure transients in force mains?

Local Sewer Use Ordinance

1. Do your agency's ordinances specify where the sewer service lateral is owned and maintained by the property owner?
2. Do your agency's ordinances require testing and/or inspection of the sewer service lateral upon remodeling, renovations and/or transfer of property/residence?
3. Do your agency's ordinances require that property owners provide proper maintenance, inspection and repairs of laterals?
5. Do your agency's ordinances require the installation of an agency-approved backflow prevention device on a lateral when the property has been damaged as a result of a failure in the agency-owned sewer?
6. Do your agency's ordinances require the installation of an agency-approved backflow prevention device on a lateral when the elevation of the lowest interior drain is less than 12" above the elevation of the nearest upstream manhole rim?
7. Do your agency's ordinances absolve the agency of responsibility for private property damages resulting from inadequate maintenance of backflow prevention devices on laterals?

Inspections, Operations and Management Activities

1. Does your agency check pipeline routes at least annually, or after major storms, earthquakes or other events that could damage these assets, to check for sink holes or leaks along force main(s)?
2. Does your agency have a process to identify areas subject to excess hydrogen sulfide corrosion?
3. If collection system cleaning activities are performed by outside contractors, does your agency require video (CCTV) inspections before and after cleaning to measure the effectiveness of these activities?
4. Does your agency video (CCTV) inspect pipes after all SSO(s)? Does someone in your agency have the responsibility to correlate results of these inspections with SSOs and circulate the results to interested people in the agency?
5. Does your agency have formal agreements in place to increase resources through established mutual assistance agreements with other agencies/contractors for wet weather episodes or for SSO response activities?

SSO Emergency Response Program

1. Does your agency's SSO Emergency Response Plan incorporate procedures for pump stations/force main sewers that are site-specific and correlate with available storm drainage?
2. Does your agency have standard operating procedures (SOPs) in place to test and document, at least once per year, the performance of its after-hours emergency notification system(s)?
3. Does your agency provide and document any scenario-based SSO emergency response simulation training for collections staff at least on an annual basis to ensure staff are properly trained and prepared in the event of an SSO?

4. Does your agency's SSO/Backup Response training include practical exercises that include researching SSO start times and calculating the SSO volume spilled and recovered?
5. Do your emergency operating procedures (EOPs) include requirements to determine the impact of an SSO, including accelerated or additional environmental monitoring?
6. Does your agency have a written Sewer Overflow Emergency Response Plan that addresses the elements of the CSRMA Sewer Backup Response and Claims Handling Policy (answer each item below):
 - a. Has a person been identified in the written Plan to serve as CSRMA's "Claims Management Coordinator"? The employee filling this position will serve as the key contact on sewer back-up incidents between your agency and Carl Warren and Co. The employee will also serve to coordinate any communication between any third party vendors and the affected individuals of any residence.
 - b. Does the Plan grant the "Claims Management Coordinator" the authority to act on your agency's behalf to deliver necessary emergency services to mitigate any damage, or resultant cost, of any incident?
 - c. Have employees that respond to sewer backup incidents attended a CSRMA sponsored or approved "Sewer Backup Response & Claims Handling" training seminar within the last three years?
 - d. Does your agency's Plan identify multiple local emergency restoration firms qualified to respond to sewer backup incidents?
 - e. Does your agency's Plan identify multiple local hotels, motels, or alternative housing for the provision of emergency alternate living arrangements for affected individuals?
 - f. Does your agency's Plan require staff to notify Carl Warren & Company within four hours of any backup incident that may be the responsibility of your agency?
 - g. Does your agency's Plan include a written procedure governing the distribution and processing of Claim Forms?
 - h. Does your agency's Plan require your agency to direct all claimant concerns and questions regarding the *adjustment* of their claim to the Carl Warren & Company Claims Adjustor, or to the CSRMA Program Administrator?

Collections Staffing And Training

1. Does your agency have a program in place to identify and document the core competencies/capabilities of collections staff at least on an annual basis (examples include sewer line cleaning, point repairs, video (CCTV) inspection, pump station maintenance, excavation, utility line locating, etc.)?
2. Does your agency have written SOPs for each identified core competency?
2. Does this training program identify gap(s) in competencies/capabilities of collections staff?
3. Does your agency use a workforce planning/retention program to ensure adequate future collections staff?
4. Does your agency provide initial and annual recurrent training to appropriate staff [including outside contractor(s)] regarding your agency's SSO Emergency Response Plan and Pump Station Emergency

Response Plans?

5. For contracted sewer services, do your contracting specifications contain specific language requiring initial and recurrent training of contractor staff regarding your agency's SSO Emergency Response Plan and O&M programs?

SSO Prevention And Mitigation

1. Does your agency generate SSO reduction performance metric(s) for its collection system for use in future planning?
2. Does your agency hold post-SSO briefings with collections staff, management and others involved, to evaluate root cause of SSOs and document service changes necessary to be prepared in responding to SSOs in the future?
3. Does your agency own equipment designed to block the storm drain system, in an emergency, to prevent untreated or partially treated wastewater from reaching surface waters?
4. Does your agency require crews to take photos of all SSOs and backups?
5. Does your agency use written SOPs to estimate SSO volume spilled, recovered and not recovered, including estimation of cleanup water used?