



City of Morro Bay  
Sewer System Management Plan

**AUDIT REPORT**  
**2021**

**Table of Contents**

Summary .....3

Introduction .....4

Audit of the SSMP .....6

1. Audit of Goals - WDR D.13.i .....7

2. Audit of Organization - WDR D.13.ii .....11

3. Audit of Legal Authority - WDR D.13.iii .....12

4. Audit of Operation and Maintenance Program - WDR D.13.iv .....13

5. Audit of Design and Performance Provisions - WDR D.13.v .....15

6. Audit of Overflow Emergency Response Plan - WDR D.13.vi .....16

7. Audit of FOG (Fats, Oils and Grease) Control Plan- WDR D.13.vii .....18

8. Audit of the System Evaluation and Capacity Assurance Plan- WDR D.13.viii .....20

9. Audit of the Monitoring, Measurement, and Program Modification - WDR D.13.ix .....22

10. Audit of the SSMP Program Audits - WDR D.13.x .....24

11. Audit of the Communication Program - WDR D.13.xi .....25

## Summary

The California State Water Resources Control Board's (SWRCB) Waste Discharge Requirements (WDRs) adopted on May 2, 2006, require owners of a wastewater collection system with more than a mile of pipeline have a Sewer System Management Program (SSMP) in order to reduce the number and severity of Sanitary Sewer Overflows (SSO). In 2013, the SWRCB modified the WDRs with Order Number WQ 2013-0058: Amending Monitoring and Reporting Program for Statewide General Discharge Requirements for Sanitary Sewer Systems. Together these documents constitute the Statewide General WDR for Sanitary Sewer Systems.

The WDR requires the agency to perform an internal audit of the SSMP every two years. This is the fourth audit since the City of Morro Bay adopted the SSMP in June 2009. The first audit occurred in June 2011, the second in June 2013 before City Council re-certified the SSMP in 2014 (2014 SSMP), and the third in June 2018, before City council re-certified the SSMP in 2019 (2019 SSMP). This is the first Audit of the 2019 SSMP. This audit, SSMP audit 2021, is intended to keep the SSMP in compliance with the WDR biennial audit requirements.

This biennial audit of the City of Morro Bay's SSMP consisted of applying compliance rankings to all 11 sections of the SSMP requirements. The compliance rankings are based on whether the City meets the WDR requirements for each element of the SSMP. Morro Bay City Staff reviewed all 11 sections of the SSMP, and all 11 sections were found to be in *compliance*. The findings of this audit will lead the performance of the Utility Division until the re-certification of the City's SSMP in 2024.

## **Introduction**

The California State Water Resources Control Board (“SWRCB”) put into effect a waste discharge requirement (“WDR”) permit on May 2, 2006 to regulate sanitary sewer systems. This permit is known as SWRCB Order No. 2006-0003, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems. On July 30, 2013, Attachment A to the WDR was put into effect on September 9, 2013 and is known as Attachment A, SWRCB Order No. WQ 2013- 0058-EXEC, amending the Monitoring and Reporting Program for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (together these documents constitute the “WDR”).

The WDR, among other things, requires local public sewer collection system agencies, referred to as “Enrollees,” to develop a Sewer System Management Plan (SSMP). SSMPs must be self-audited at least every two (2) years and updated and recertified every five (5) years from the original adoption date by the Enrollee’s governing board. The SSMP must be approved by the governing board of the Enrollee at a public meeting.

The five-year SSMP update must also be approved and certified as do all significant updates to the SSMP. The SSMP, all references in the document, and the adoption documents by the governing board must be available on the agency website or submitted to the SWRCB upon adoption or recertification. Enrollees do not send their SSMP to the State or Regional Water Boards for review or approval, but must make it publicly available, and upload an electronic copy to the California Integrated Water Quality System SSO database or provide a link to the Enrollees’ website where the SSMP is posted.

A principal element of the WDR is the requirement that collection agencies adopt and maintain a management plan for the system, referred to as a Sewer System Management Plan (SSMP).

The City of Morro Bay Waste Water Collections Division, after conducting a public hearing, adopted the City of Morro Bay SSMP on June 8, 2009, in accordance with the WDR. In 2019 at a public hearing, the Morro Bay City Council approved and re-certified the updated Sewer System Management Plan. This is the first audit of the re-certified 2019 SSMP. The next SSMP must be re-certified and approved on or before June 8, 2024.

The WDR establishes the following goals:

- The SSMP documents the organization’s legal authority to achieve the goals of the SSMP as demonstrated through the City of Morro Bay’s ordinances, agreements, and other legally binding instruments.
- The SSMP identifies the City of Morro Bay’s organization and staff responsible for implementing and maintaining the SSMP.
- The SSMP provides a plan and schedule to properly manage, operate, and maintain the City of Morro Bay’s wastewater conveyance system.

Additionally, the WDR requires the City of Morro Bay staff to perform periodic internal audits of the SSMP focusing on evaluating the effectiveness of the SSMP and staff compliance with its requirements, as shown in Section D-13 of the WDR. The internal audit must be performed at

least every two (2) years, with the audit report posted on the City of Morro Bay website and kept on file at the Public Works Department.

The City has a single Utility Division that includes water treatment and distribution, wastewater collection, and wastewater treatment. The Utility Division, part of the Public Works Department, oversees the operations and maintenance of the collection system. The Division operates under the general supervision of the Utility Division Manager. The Division includes a Utility Supervisor and two levels of Utility System Operators. Division staff respond to sewage spills and other calls 24 hours a day, 7 days a week, 365 days a year. To expedite cleaning and emergency response, the City owns and operates a combination cleaner (Hydro- Vac), a trailer-mounted jetter, Closed-Circuit Television (CCTV) truck, three emergency generators, a diesel-powered hydraulic pump, a portable trash pump, stocks an inventory of spare pumps and parts, confined space entry and safety equipment, and other tools and equipment. The Division does have a scheduled preventive maintenance and enhanced maintenance program to maintain the system. These programs satisfy the WDR.

Several agencies discharge to the City wastewater collection system that the City considers satellite agencies. They are:

- Morro Bay High School (San Luis Coastal Unified School District)
- Morro Bay State Park (2 sources California State Parks)
- Bayshore Village Home Owners Association

These systems are owned and operated by other agencies and may have more than a mile of sewer lines. The City does not maintain those systems but does have the right to regulate the discharger's flows and influent quality into the City sewer system.

The Cayucos Sanitary District (CSD) also discharges to the Wastewater Treatment Plant through both a separate main trunk line and a shared main trunk line. A Joint Powers Agreement (JPA) specifies their discharge must be such that it does not cause harm to the treatment process, however, since the CSD has an ownership interest in the WWTP and maintains their own SSMP, the City of Morro Bay does not consider them a satellite agency. The JPA agreement specifies the ownership and operational terms that define legal standing and relationship.

The first two audits of the 2009 SSMP were completed in 2011 and June 2013. The 2014 SSMP was audited in 2016 and 2018. This will be the first internal audit of the re-certified 2019 SSMP. After auditing the 2019 SSMP, staff will develop steps to correct deficiencies discovered during the audit, add any corrective steps to the SSMP, record these changes in the SSMP change log, and continue working to achieve or exceed the goals of the Utility Division.

As required by the WDR, this internal audit evaluates the SSMPs effectiveness on each of the following eleven categories.

## **Audit of the SSMP**

As specified in the WDR, the SSMP is comprised of eleven (11) sections or subsets of Section D. 13, as follows:

The Eleven Elements of the SSMP:

1. Goals- The stated goals for the SSMP
2. Agency Organizational Structure and SSO reporting chain of communications
3. Document Legal Authority
4. Operation and Maintenance
  - a. Collection System Mapping
  - b. Preventative Operations and Maintenance Program
  - c. Rehabilitation and Replacement Program
  - d. Staff training
  - e. Contingency, Equipment, and Parts Inventory
5. Design and Performance
  - a. Design Standards
  - b. Inspection and Testing Standards
6. Overflow Emergency Response Plan
7. Fats, Oils and Grease (FOG) Control Program
  - a. Fog Ordinance
  - b. A program to reduce or eliminate FOG SSO
8. System Evaluation and Capacity Assurance Plan
9. Monitoring, Measurements and Program Modifications
10. SSMP Audits
11. Communication Program
  - a. Communications with the public
  - b. Communications with satellite agencies

The format for audit reporting is as follows:

- WDR Section/Subsection
- Findings
- Reference Information
- Sufficiency Ranking
  - Complies
  - Substantial Compliance
  - Partial Compliance
  - Marginal Compliance
  - Not in Compliance
- Recommendation, when appropriate.

## **Section 1. Audit of Goals - WDR D.13.i**

Review the SSMP to determine if it complies with the WDR by having a goal to provide a plan to manage, operate, and maintain all parts of the City of Morro Bay Collection System. This will help reduce and prevent SSO's, as well as mitigate any SSOs that do occur.

### Findings:

The City of Morro Bay has established a list of goals in its SSMP that complies with the goals established in the WDR.

The City of Morro Bay's Goals for the SSMP together with progress to date are as follows:

**Goal 1:** Manage, maintain and improve the City's collection system infrastructure within the City in a manner consistent with the adopted SSMP and OneWater Plan now and into the future.

**Compliance:** Complies. The City of Morro Bay's staff manage numerous programs including CCTV inspections, line cleaning, manhole assessments, root control programs, and source control programs. Utility and Engineering staff gather information from these programs to develop a CIP projects and minimize SSO's per SSMP objectives.

**Improvements:** The following projects were completed during this audit cycle:

- Continue and develop a CCTV inspections program. Replaced approximately 9 conventional manhole ring and lids in drainage channels with Pamrex sealing manhole rings and lids. This is part of the City's ongoing I/I reduction measures.
- Flow metering to further identify inflow and infiltration.
- Continue an in-house main line point repair program.
- Continue Manhole Rehabilitation Program as part of the CIP.
- Continue with implementation of CityWorks for better management and record keeping of the sewer system.
- Point repair at Main Street & Atascadero Road Intersection

**Future projects:**

- At the time of this Audit, the new WRF and conveyance project is under construction and estimated to be complete in early 2023. The re-alignment of the sewer system will be reflected in the 2024 SSMP.
- Through a phased approach recommended in the OneWater Morro Bay Plan, repair, improve, or replace gravity mains, end caps, and lift stations. See Figure ES-4 and pages ES-15 and ES-16 in the OneWater Morro Bay Plan for details.

**Goal 2:** Reduce the number and impact of sanitary sewer overflows (SSO) that may occur throughout the City of Morro Bay.

**Compliance:** Complies. City staff's proactive maintenance effort, as outlined in the SSMP, attempts to minimize the number and impacts of SSOs. Utility staff maintains an SSO and Private Lateral Sewer Discharge (PLSD) log as part of the SSMP and City of Morro Bay's reporting requirements.

- From June 2019 to June 2021, there were 6 SSOs reported.
- Increased tracking of PLSDs.

**Future Activities:**

- Sewer line and manhole rehabilitations on an as needed basis.
- Maintain a proactive source control program.
- See Goals 1 and 3 for projects that help achieve this goal.

**Goal 3:** Cost-effectively minimize inflow/infiltration (I/I) and provide adequate sewer capacity to accommodate design peak wet weather flow.

**Compliance:** Partial Compliance. There has been no wet weather related SSOs during this audit cycle, June 2019 to June 2021. Staff will continue to install Pamrex sealing manhole rings, covers, rain dishes, smoke test, flow metering, and main line spot repairs to reduce rain dependent inflow.

**Improvements:**

- Replaced approximately 9 conventional manhole ring and lids with Pamrex sealing manhole rings and lids.
- Ongoing flow metering.

**Future Activities:**

- Continue the manhole rehabilitation program.
- Evaluate sewer mains using new and conventional technology.
- Continue system wide flow monitoring.
- Continue to work with the Engineering Division to budget for near term and long-term CIP outlined in OneWater Plan.

**Goal 4:** Controlling source discharges from entering and affecting the collection system and the Wastewater Treatment Plant in accordance with Local, State and Federal regulations.

**Compliance:** Complies. Annual communications and source control inspections at local business and commercial establishments regarding acceptable Best Management Practices (BMPs) for discharges to the sewer collection system.

**Future Actions:**

- Provide training to new and existing employees.
- Educate business owners on source control of discharges.
- Provide/continue public outreach to both residential and commercial business owners on proper source control discharges.
- Distribute education material as part of the public outreach program, such as newsletters, City website, personal interactions, and handouts.

**Goal 5:** Continue to monitor the State and Federal mandates, rules, and regulations as necessary.

**Compliance:** Complies. The City of Morro Bay’s Utility staff performs CCTV inspections, system evaluations, and prepares reports necessary to ensure continued compliance with regulatory requirements. As necessary, staff continue applying new regulations and requirements to programs and procedures.

**Future Activities:**

- Utility Staff training through California Water Environment Association (CWEA), California Joint Powers Insurance Authority (CJPIA), local training companies, California Rural Water Association (CRWA), Cal State Sacramento Office of Water Programs, and learning new and upcoming regulations through conversations with state agency personnel.

**Goal 6:** Proactively train Utility staff on emerging technologies, new equipment technologies and industrial systems required by State and Federal mandates, rules and regulations.

**Compliance:** Complies. Staff attends required training and supplemental training classes and workshops. Topics include SSO volume estimating, Lock Out Tag Out training, California Water Environment Annual Conference workshops, Confined Space Training, Trench Safety Competent Person training, collection system maintenance specialty training, traffic control training, USA dig alert training and more. Additionally, journey-level staff train new staff on equipment and safe work practices. Field staff maintain at least 12 hours of contact hours required for retaining CWEA collection system maintenance certification.

**Future Activities:**

- Continue training on safety programs and improve staff knowledge, skills and abilities to better serve customers and operate the collection system.
- Provide training to retain collection system maintenance certification for employees.

Reference: City of Morro Bay SSMP

Sufficiency: **Complies.** The City of Morro Bay’s SSMP Element I complies with the *Goals*

requirement of the WDR.

Recommendation:

- Continue to develop and revise programs to effectively manage and operate the City's collection system. In addition, improve staff knowledge, skills, and abilities through training.

## **2. Audit of Organization - WDR D.13.ii**

*Review the SSMP to determine if it complies with the WDR by having the names of authorized representatives published and updated in the SSMP.*

### Findings:

The City of Morro Bay staff updates its organization chart with the annual budget. Utility Staff review and update the SSO reporting chain of communication chart as needed and the SSO notification checklist annually. These Charts identify authorized representatives, management, administration, and maintenance personnel.

The City of Morro Bay has posted the Organization Chart on its website.

Reference: City of Morro Bay Organizational Chart, City of Morro Bay SSMP, Element II

City of Morro Bay Chain of Communication for Reporting SSO, City of Morro Bay SSMP, Element II

City of Morro Bay Sanitary Sewer Overflow Notification Checklist, Appendix B

Sufficiency: Complies. The City of Morro Bay's SSMP Element II complies with the *Organization* requirements of the WDR.

### Recommendation:

- Update the City of Morro Bay's Organization and Chain of Communication as needed. The chart is updated annually in the Agency's annual budget.
- Review the Morro Bay SSO Notification Checklist annually. This assures affected businesses and agencies are added to the SSO Reporting Chain of Communications and all contact information is current. The updated Notification checklist is in the attachments section for reference.
- Publish the most current SSMP Audit on the City of Morro Bay website.

### **3. Audit of Legal Authority - WDR D.13.iii**

*Review the SSMP to determine if it complies with the WDR by having ordinances and agreements in place and updated to prevent illicit discharges, provide for proper design of upstream facilities, provide right of way and access to the Sewer Systems, and enforce the City of Morro Bay regulations.*

Findings:

The City of Morro Bay, Chapter 13.12 of the Municipal Code and Title 8 of the Standard Specifications, which provides the legal authority and design standards for the City's sewer system and prevention of illicit discharges and protecting public health and safety.

Additionally, the City of Morro Bay maintains files that document the City of Morro Bay's right to access easements.

Reference: Chapter 13.12 of the Municipal Code, City of Morro Bay SSMP, Appendix A, Attachment A

Title 8 of the Standard Specifications, City of Morro Bay SSMP, Appendix A, Attachment B

City of Morro Bay Standard Drawings: Sewer Section, Appendix A, Attachment C

Sufficiency: Complies. The City of Morro Bay's legal structure complies with the *Legal Authority* requirements of the WDR.

Recommendation:

- Update and revise the City sewer standards/construction drawings to stay up to date with current construction trends.
- Review City Municipal Code, recommend, if any, changes, and/or updates to stay current with the changing definitions in State law (i.e. definition of a private lateral and private lateral spill.)

#### **4. Audit of Operation and Maintenance Program - WDR D.13.iv**

*Review the SSMP and activities of staff, consultants and contractors to determine compliance with the WDR by having (a) an up to date map of the sewer systems that shows all pipe reaches, manholes, siphons, diversion structures, and pump stations, if any, (b) a routine preventative maintenance and operations program, (c) rehabilitation and replacement program, (d) operations and maintenance training program, and (e) part inventory program including identification of critical replacement parts.*

##### Findings:

- (a) *An up to date map of the sewer system that shows all pipe reaches, manholes, siphons, diversion structures, and pump stations, if any*
  - The City of Morro Bay maintains and updates GIS mapping and data tables for the collection system assets. This information is accessed through the City of Morro Bay's server and asset maps are updated and published as needed.
  
- (b) *A routine preventative maintenance and operations program*
  - Engineering and Utility system staff respond to field Underground Service Alerts (USAs), customer inquiries, and staff records responses for these activities.
  - The City of Morro Bay's Utility Staff perform CCTV inspection of the collection system.
  - O&M staff completes routine sewer main cleaning and lift station maintenance, including enhanced line cleaning for problematic sewer mains. Line cleaning is recorded into the CityWorks asset management program.
  - The City continues a chemical root control program. A contractor chemically treats mains with known root problems and newly discovered mains with roots.
  - The City uses an asset management software system, (CityWorks).
  
- (c) *Rehabilitation and replacement program*
  - Utility system staff relays pipeline condition and other asset information to the engineering department. With this information Capital Improvement Projects (CIPs) are developed. The Engineering and Utility staff provide continuing support for the three lift stations and the collection system.
  - All three of the City's lift stations have been replaced or rehabilitated: Replacement of lift-station 2 in 2012, replacement of Lift Station 3 in 2013 and rehabilitation of Lift Station 1 in 2016. Lift Station 1 rehabilitation was part of previous audits recommendations.
  - In addition, the City conducted sewer line rehabilitation, point-repair projects, and manhole rehabilitation throughout the collection system.

- (d) *Operations and maintenance training program*
  - Utility staff maintained required trainings and certifications, per California Water Environment Association, Cal OSHA and City job requirements.
  - Continue to use Activity Hazard Analysis, Pre-Task Plans and Standard Operating Procedures as part of work- activity planning.
  - Continue QA/QC program for line cleaning--CCTV before and after line cleaning to assess effectiveness of cleaning strategy and use this information as a training tool
  
- (e) *Part inventory program including the identification of critical replacement parts*
  - Critical parts are in stock and inventoried. These parts are at the ready in the event of emergency and planned repairs at lift stations, on maintenance equipment and for the collection system. Staff operate and maintain a combination cleaner (VacAll), three emergency generators, a by-pass pump, three trucks, a trailer-mounted jetter, and other equipment.

Reference: City of Morro Bay SSMP, Element IV

Sufficiency: Complies. The City of Morro Bay's Element IV complies with the *Operations and Maintenance* section of the WDR.

Recommendation:

- Continue proactive CIP development and implementation.
- Purchase additional CCTV software that can be incorporated and used with the CityWorks asset management program.
- Develop and establish criteria and a program for removing main lines off enhanced maintenance (CCTV QA/QC).
- Continue collaboration between O&M and Engineering staff to ensure maps are updated when discrepancies or errors are noted.
- Continue chemical root applications in problem lines.
- Continue proactive staff training.
- Coordinate sewer CIP repairs with the Pavement Management Program

## **5. Audit of Design and Performance Provisions - WDR D.13.v**

*Review the SSMP to determine if it complies with the WDR by having design and construction standards and specifications for installation of new facilities including coverage for testing of new facilities prior to acceptance.*

### Findings:

#### *5a. Standards for Installation, Rehabilitation and Repair*

The SSMP references the City of Morro Bay's Standards and Specifications in addition to the City's Municipal Code. In addition, reference is made to other approved testing methods, such as ASTM (formerly known as American Society for Testing and Materials), to ensure infrastructure meets design and performance provisions. The Engineering Standards are being revised and in draft form.

#### *5b. Preventive Operations and Maintenance*

Before acceptance of a facility, Morro Bay receives O&M manuals, records and as-built drawings, permanent keys, final cleanup, final repairs, etc. The testing and startup are deemed complete when test results are approved, and the reliability test has demonstrated that the system functions as designed.

Legal requirements for construction and major repair projects are documented in the specifications and are made a part of all construction contracts, however, the legal section of the specifications have not been made a part of the SSMP due to their project specific nature.

Reference: Standard for manholes, City of Morro Bay SSMP, Appendix A, Attachment C

Standard for connections, City of Morro Bay SSMP, Appendix A, Attachment C

Standard for bedding and backfill, City of Morro Bay SSMP, Appendix A, Attachment C

Sufficiency: **Complies.** The City of Morro Bay's Element V complies with the *Design and Performance Provisions* of the WDR.

### Recommendation:

- Complete revision and review of Engineering Standard Drawings
- Implement training as discussed in the recommendations under Element I Goals and train on new Engineering Standards when necessary.

## **6. Audit of Overflow Emergency Response Plan - WDR D.13.vi**

*Review the SSMP to determine if it complies with the WDR by having an overflow emergency response plan that includes (a) proper notification procedures, (b) a program that assures proper response to all overflows, (c) procedures that ensure prompt notification of regulatory agencies and other affected entities, (d) proper training for staff and contractors named in the response plan, (e) procedures to address traffic control and crowd control, and, (f) implementation of steps to prevent SSO from reaching waters of the United States.*

### Findings:

SSO's have been classified, logged, reported, and treated per the requirements outlined in the Overflow Emergency Response Plan contained in the SSMP.

From June 2019 to June 2021, there were four (6) SSO's within the City of Morro Bay service area.

Per the requirements in the WDR the City is not required to report PLSD's to CWIQS. The Utility Staff does follow standard operating procedures and document when, where, and volume spilled (if applicable) of all PLSD's reported to the City. The Utility Division started tracking PLSDs as of September 2013.

City staff's proactive maintenance efforts, as outlined in the SSMP, attempt to minimize the frequency and impacts of SSOs. Utility staff maintains an SSO log as part of the SSMP and the City of Morro Bay's reporting requirements.

The Utility Staff satisfies the Overflow Emergency Response Plan (OERP) requirements by having an OERP that includes the following elements:

- a) *Proper notification procedures:* Utility Staff maintains a current notification checklist with both agency contact information and notification time schedules. The checklist is updated annually. Notification will be made to the required agency(s) within the established time limit contained within the WDR. The notification checklist was updated for this audit period and is in the attachments of this report.
- b) *A program that assures proper response to all overflows:* The Utility Staff has a series of standard operating procedures, checklists, and forms outlining procedures to be followed during an SSO. Utility Staff debrief following SSO events.
- c) *Procedures that ensure prompt notification of regulatory agencies and other affected entities:* Utility Staff maintains a current notification checklist with both agency contact information and notification time schedules. The checklist is updated annually. Notifications are made to the required agency(s) within the established time limit contained within the WDR.
- d) *Proper training for staff—on the response plan and procedures:* Staff train on the OERP and necessary response equipment. Training includes

debriefing following an SSO event or cleanup, and training by various outside agencies such as CWEA and California Rural Water Association.

- e) *Procedures to address traffic control and crowd control:* Traffic and crowd control procedures include standard operating procedures for SSO's, and site-specific traffic control plans as needed. The use of the Morro Bay Police Department for additional traffic or crowd control if required. Utility Staff and new hires attend traffic control training.
- f) *Implementation of steps to prevent SSO from reaching waters of the United States:* The Utility Staff has a series of standard operating procedures, checklists, and forms to be followed during an SSO. The standard operating procedures outline and prioritize the containment of an SSO to limit or prevent SSO's from reaching waters of the United States.

Reference: *Overflow Emergency Response Plan*, City of Morro Bay SSMP, Appendix B

State Waste Discharge Requirements, City of Morro Bay SSMP, Appendix B, Attachment A

Notification Checklist, City of Morro Bay SSMP, Appendix B, Attachment B

SSO Field Report, City of Morro Bay SSMP, Appendix B, Attachment C

Collection Systems Stoppages are logged in Microsoft Excel and CityWorks.

Sufficiency: **Complies.** The City of Morro Bay's Element VI complies with the *Overflow Emergency Response Plan* requirements of the WDR.

Recommendation:

- Continue training following responding to PLSD/SSO events. Post PLSD/SSO debriefing will evaluate protocols to ensure requirements are met per the WDR and SSMP.
- Continue training on SSO volume estimation calculations.
- Continue to educate the public on the benefit and need for private/residential sewer backflow preventers requiring them where appropriate.
- Continue to educate local plumbers to notify the Utility Staff when "unclogging" drains/private sewer lateral. Un-captured deposits of debris into the sewer mains by plumbers when clearing laterals has the potential of causing downstream SSOs.
- Complete an SSO Technical Report and response package.
- Continue public education efforts regarding FOG and other household items that have the potential to be disposed via sewer laterals to minimize the potential of any SSO.

## **7. Audit of FOG (Fats, Oils and Grease) Control Plan- WDR D.13.vii**

*Review the SSMP to determine if it complies with the WDR by having a FOG Control plan with (a) a public education element, (b) FOG disposal facilities identified, (c) ordinances, rules and regulations to prevent FOG, (d) requirements to install FOG traps together with standard drawings for traps, owner maintenance requirements, owner record keeping requirements and owner reporting requirements, (e) inspection authority and staffing, (f) FOG mapping for pipe reaches impacted by FOG, and (g) a source control plan for reaches currently impacted by FOG.*

### Findings:

The Utility Staff satisfies the FOG (Fats, Oils, and Grease) Control Plan requirements by having a FOG control program that includes the following elements:

- a) *A public education element:* The City conducts a proactive public outreach program utilizing newsletters, the City website, personal interactions and handouts to provide residents and business owners with information and BMPs on source control and FOG.
- b) *FOG disposal facilities identified:* The City staff maintain a list of FOG disposal companies and provide this list to businesses within the City.
- c) *Ordinances, rules and regulations to prevent FOG:* The City of Morro Bay Municipal Code ordinance 13.12.120 prohibiting discharges to the sewer system.
- d) *Requirements to install FOG traps together with standard drawings for traps, owner maintenance requirements, owner record keeping requirements and owner reporting requirements:* The City of Morro Bay Municipal Code ordinance 13.12.130 requiring food serving establishments to install grease interceptors. The City of Morro Bay Municipal Code ordinance 13.12.140 requiring the owner to maintain the interceptor in continuously efficient operation at their expense. During the inspection process, Utility staff provide a copy of the inspection form for the owners' records. The California Plumbing Code regulates design and installation of grease/sand interceptors. Grease/sand interceptors on private property are permitted, reviewed, and approved through the City, and installed by plumbing contractors. Plumbing contractors must follow the California Plumbing Code.
- e) *Inspection authority and staffing:* The City of Morro Bay Municipal Code, 13.12.185, provides the legal authority for City staff to enter, sample, and inspect interceptors and other pretreatment devices.
- f) *Identifying pipe reaches impacted by FOG:* The Utility Staff identifies pipeline sections that are impacted by fats, oils and greases and adds them to an established enhanced maintenance program. The Utility Division maintains a list of pipeline sections on an enhanced maintenance program for areas prone to FOG build-up such as siphons and pipeline sections with minimal slope.
- g) *Address source control measures to minimize FOG discharge:* The Utility Staff performs inspections on a routine schedule. Staff uses CityWorks to track and schedule visits at the various establishments. Staff completes a digital inspection form for source and FOG control inspections. Staff records the date, name of the business, owner/contact

information, inspector, and condition of trap purpose of visit, and related comments. Utility staff records FOG inspections in CityWorks.

Reference: City of Morro Bay SSMP, Appendix C, FOG Control Program

Chapter 13.12 of the Municipal Code, City of Morro Bay SSMP, Appendix A, Attachment A.

Title 8 of the Standard Specifications, City of Morro Bay SSMP, Appendix A, Attachment B.

Sufficiency: **Complies.** The City of Morro Bay's Element VII complies with the *FOG control plan* of the WDR.

Recommendation:

- Continue a partnering/educational relationship with the businesses/restaurants within the City. Maintain inspections and recommendations for grease interceptor and traps.
- Continue dialog between Utility Staff and Engineering Division to ensure FOG deficiencies are addressed through the Development Review process and City Standard Drawings are regularly updated.
- Continue with the newsletter on annual basis.
- Incorporate FOG inspections into CityWorks asset management software system.

## **8. Audit of the System Evaluation and Capacity Assurance Plan- WDR**

### **D.13.viii**

*Review the SSMP to determine if it complies with the WDR by having a Capital Improvement Plan (CIP) that considers (a) Evaluation of those portions of the sewer systems that are experiencing SSO discharges due to hydraulic deficiency, (b) Design Criteria commensurate with the sewer systems, (c) Capacity Enhancement Measures and steps to address short term and long term CIP goals and an implementation schedule, and (d) Schedule for completion of the necessary things-to-do that were developed in items D.13.viii (a) - (c) above.*

#### Findings:

The City of Morro Bay complies with the requirements of WDR D.13. viii. The City contracted Carollo Engineers, Inc. to evaluate the City's sewer system. The OneWater Plan includes hydraulic models of the sewer collection system and recommended Capital Improvement Projects for future improvements.

The City of Morro Bay's Public Works Department operates ArcView GIS. ArcView GIS models the collection system and includes approximately 60 miles of gravity sewer line, 2.5 miles of force main, 1100 manholes, lamp holes and clean-outs, and three lift stations. The GIS model incorporates data such as pipe material and diameter, and measurements between manholes/clean-out. ArcView GIS is regularly updated.

The City's GIS maps and asset management program, CityWorks, is integrated.

Engineering Division tracks CIP projects, their financial costs, and the distribution of those costs throughout the duration of projects. Refer to the OneWater Plan for details.

- a) *Evaluation of those portions of the sewer systems that are experiencing SSO discharges due to hydraulic deficiency:*
  - The city did not experience any SSO associated with hydraulic deficiency during this audit cycle.
  - The 2018 OneWater Plan identifies portions of the sewer system that may have hydraulic deficiencies.
- b) *Design Criteria*
  - The 2018 OneWater Plan includes a prioritized CIP program based on hydraulic capacity at both peak flows as well as build-out scenarios.
  - City maintains Engineering Standards for the repair, rehabilitation, and construction of sewer lines, laterals, cleanouts, and manholes.
  - City Municipal Code contains ordinances related to the design, operation, and maintenance of the sewer system.
- c) *Capacity Enhancement Measures and steps to address short-term and long-term CIP goals and an implementation schedule*
  - The 2018 OneWater Plan establishes Near and Long-term CIP to address

identified hydraulic deficiencies. The CIP includes increases in pipe size, I/I reduction and CIP schedules.

d) *Schedule for completion of the necessary things-to-do that were developed in items a-c above*

- The 2018 OneWater Plan sets near and long-term CIP to address collection system deficiencies and includes Near- and Long-term CIP schedules.

Reference: City of Morro Bay, ArcView GIS.

Sufficiency: **Complies.** The City of Morro Bay's Element VIII complies with the *System Evaluation and Capacity Assurance Plan* requirements of the WDR.

Recommendation:

- Use the OneWater Plan and its CIP program as a collection system improvement guide.
- Review and update the OneWater Plan on a five-year cycle and incorporate changes.

## **9. Audit of the Monitoring, Measurement, and Program Modification - WDR**

### **D.13.ix.**

*Review the SSMP to determine if it complies with the WDR by (a) maintaining relevant information that can be used to establish and prioritize appropriate SSMP activities, (b) monitoring the implementation and, where appropriate, measure the effectiveness of each element of the SSMP, (c) assessing the success of the preventative maintenance program, (d) updating program elements, as appropriate, based on monitoring or performance evaluations, and (e) identifying and illustrating SSO trends, including frequency, location and volume.*

#### Findings:

The City of Morro Bay Utility staff maintains a spreadsheet that generates statistical data to determine the effectiveness of its SSMP by tracking SSO data such as:

- number of SSO
- response time
- volume of SSO
- Cause of SSO (structural failure, FOG, roots, debris, etc.)

From June 2019 to June 2021, there were 6 mainline SSOs.

#### *a) maintaining relevant information that can be used to establish and prioritize appropriate SSMP activities:*

- Utility staff uses the SSMP as a guidance document.
- Utility Staff track SSO's and modify maintenance schedules or procedures to minimize SSOs and avoid repeating SSOs at/near the same location.
- The audit process assists staff by providing a review of programs and practices to ensure the requirements contained within the eleven elements of the SSMP are relevant and reflect field practices.

#### *b) monitoring the implementation and, where appropriate, measure the effectiveness of each element of the SSMP:*

- The Utility staff follows the goals outlined in element 1.
- Staff inspects food service establishments and industrial sources as part of the city's pretreatment program.
- No significant changes occurred to our Overflow Emergency Response Plan. It has proven to be effective for both responding to SSO events as well as reporting to appropriate regulatory in the prescribed time frame after an SSO event.
- The City purchased a CCTV vehicle in 2017 and has implemented a mainline inspection program.
- The CCTV equipment is used to evaluate line cleaning processes and effectiveness of maintenance.

#### *c) assessing the success of the preventative maintenance program:*

- SSO frequency and volume over this audit period shows a well-balanced maintenance program
- Preventative biennial line cleaning is on schedule to clean the entire collection system in stated goal of two years.

d) *updating the program elements, as appropriate, based on monitoring or performance evaluations:*

- The audit contains recommendations to assist in refining the SSMP and its associated programs
- City Design Standards are updated and in the review process at the time of this audit.
- The City is continuing to budget to update the 2018 OneWater Plan.

e) *identifying and illustrating SSO trends, including frequency, location and volume:*

- Utility Staff maintain a multi-year SSO tracking spreadsheet and look for SSO trends
- Utility staff respond to PLSDs, record PLSD locations. Estimate spill volumes, and complete PLSD spill reports.

Reference: City of Morro Bay SSMP

City of Morro Bay, Collection System Stoppages spreadsheet

CityWorks asset management software.

Sufficiency: **Complies.** The City of Morro Bay's Element IX complies with the *Monitoring, Measurement, and Program Modification* requirements of the WDR.

Recommendation:

- Maintain regularly scheduled sewer main cleaning and rehabilitation improvements program generated from the CIP.
- Conduct regular planning sessions to discuss implementation of the SSMP, One Water Plan, and overall Division maintenance efforts.
- Continue to respond to and track PLSDs throughout the City.
- Evaluate CityWorks workorder/inspection templates and modify/create new templates to effectively record program data.

## **10. Audit of the SSMP Program Audits - WDR D.13.x.**

*As a part of the SSMP, City of Morro Bay shall conduct periodic audits. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. These audits shall focus on the effectiveness of the SSMP, compliance with WDR requirements, identification of any deficiencies and steps to correct them.*

### Findings:

The City of Morro Bay has embarked on this audit of the SSMP which was originally approved in 2009, re-certified in 2014, and re-certified again in 2019. This is the first audit of the re-certified 2019 SSMP. The SSMP must be re-certified by June 2024 after updating the SSMP with elements recommended by the 2021 and 2023 audit with any program changes implemented by City of Morro Bay.

Reference: This is the first audit of the City of Morro Bay 2019 SSMP. This audit will become a reference for the 2024 re-certification of the SSMP.

Sufficiency: **Complies.** This document will be available on the City website and be on file at the Public Works Department and will comply with the *SSMP Program Audits* requirements of the WDR.

### Recommendation:

- Include recommendations identified during the audit in the SSMP.
- Train Staff on revisions to the SSMP and associated program changes.

## **11. Audit of the Communication Program - WDR D.13.xi.**

*Review the activities of staff to determine if they have complied with the WDR by (a) communicating the performance of the SSMP with the public and with City of Morro Bay member agencies, and (b) providing the public and the member agencies the opportunity to provide input.*

### Findings:

- a) *communicating the performance of the SSMP with the public and with City of Morro Bay member agencies:*
- The process of developing, auditing, and re-certifying the SSMP involves a public process that allows staff to communicate to the public and member agencies how staff performs or complies with the required elements of the SSMP. The process also allows the opportunity for community input. Bringing the audit to the Public Works Advisory Board allows further opportunity to communicate about the performance of the SSMP. In addition, it allows for public input.
- (b) *providing the public and the member agencies the opportunity to provide input:*
- With the completion of each audit, City of Morro Bay staff make the report available to the public by posting it on the City of Morro Bay website. As noted previously, the five-year recertification process requires the SSMP be approved by the City Council providing further opportunity for public input. The Council meetings are public meetings governed by the Brown Act and the City televises these meetings and streams them online to provide multiple channels of communication.

Reference: SSMP, City of Morro Bay Web Page

Sufficiency: **Complies.** The City of Morro Bay's Element XI complies with the *Communications Program* requirements of the WDR.

### Recommendation:

- Following completion of the audit, the audit will be posted to the City of Morro Bay website for public access.
- Continue with proactive public outreach using utility newsletters, community outreach, the City's website and source control visits.
- Ensure PWAB is involved in future SSMP re-certification processes to further enhance public awareness, review, and input.

# Attachments

# MORRO BAY SANITARY SEWER OVERFLOW NOTIFICATION CHECKLIST

SSO Appearance Point(s): \_\_\_\_\_ SSO Date: \_\_\_\_\_

Contact Organization and timeframe requirements for SSO Category					PHONE NUMBER	FAX NUMBER	DATE	TIME	NAME OF CONTACT	CONTACTED BY	COMMENTS					
Any volume that reaches SSO to Ocean	CAT 1*	S= 1000 gallons and doesn't reach a drainage channel or surface water, unless the entire SSO discharged to storm drains is fully intercepted.	CAT 2**	CAT 3	FLSD	Reportable when 1000 gallons that result in discharge to surface water.	All other discharges from erodible systems.	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	1. CIWQS Website <small>(www.ciwqs.waterboards.ca.gov/whp/whp.asp)</small>	(916) 845-9910					
										Cal OES main office	(800) 852-7550					
submit draft report within 3 business days and then certified within 15 days	Notify <2 hrs	Submit draft report within 3 business days and then certified within 15 days	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	Reportable when 1000 gallons that result in discharge to surface water.	All other discharges from erodible systems.	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	2. Cal OES, OSPR "Office of Spill Prevention and Response"	(805) 694-6165						
									OSPR SLO field office	(805) 781-5544						
submit draft report within 3 business days and then certified within 15 days	Notify <2 hrs	Submit draft report within 3 business days and then certified within 15 days	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	Reportable when 1000 gallons that result in discharge to surface water.	All other discharges from erodible systems.	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	3. SLO County Department of Environmental Health	(805) 781-4211						
									Central Coast RWQCB	(825) 548-3147						
submit draft report within 3 business days and then certified within 15 days	Notify <2 hrs	Submit draft report within 3 business days and then certified within 15 days	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	Reportable when 1000 gallons that result in discharge to surface water.	All other discharges from erodible systems.	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	(Regional Water Quality Control Board)	(805) 542-0397						
									General- A. Sheila Soderberg B. Katie D'Simone	(510) 412-4638						
submit draft report within 3 business days and then certified within 15 days	Notify <2 hrs	Submit draft report within 3 business days and then certified within 15 days	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	Reportable when 1000 gallons that result in discharge to surface water.	All other discharges from erodible systems.	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	California Department of Public Health (CDPH)	(510) 412-4635						
									A. Joe Christian (Morro Bay Contact)	(510) 412-4638						
submit draft report within 3 business days and then certified within 15 days	Notify <2 hrs	Submit draft report within 3 business days and then certified within 15 days	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	Reportable when 1000 gallons that result in discharge to surface water.	All other discharges from erodible systems.	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	B. Vanessa Zlobodsky	(510) 412-4631						
									C. Steve Elter	(510) 412-4633						
submit draft report within 3 business days and then certified within 15 days	Notify <2 hrs	Submit draft report within 3 business days and then certified within 15 days	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	Reportable when 1000 gallons that result in discharge to surface water.	All other discharges from erodible systems.	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	D. Sam Rainin	(510) 412-4641						
									E. Matt Stanton	(951) 443-2942						
submit draft report within 3 business days and then certified within 15 days	Notify <2 hrs	Submit draft report within 3 business days and then certified within 15 days	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	Reportable when 1000 gallons that result in discharge to surface water.	All other discharges from erodible systems.	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	California Fish and Wildlife (Dispatch, Riverside)	Cell: 610-3916						
									Ten Hickey, Warden	(805) 234-7102						
submit draft report within 3 business days and then certified within 15 days	Notify <2 hrs	Submit draft report within 3 business days and then certified within 15 days	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	Reportable when 1000 gallons that result in discharge to surface water.	All other discharges from erodible systems.	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	Morro Bay Oyster Company	(925) 980-3008						
									A. Neal Maloney (owner)	(805) 471-9883						
submit draft report within 3 business days and then certified within 15 days	Notify <2 hrs	Submit draft report within 3 business days and then certified within 15 days	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	Reportable when 1000 gallons that result in discharge to surface water.	All other discharges from erodible systems.	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	B. Dwight Maloney	(805) 471-9883						
									Grassy Bar Oyster Company	(805) 772-2123						
submit draft report within 3 business days and then certified within 15 days	Notify <2 hrs	Submit draft report within 3 business days and then certified within 15 days	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	Reportable when 1000 gallons that result in discharge to surface water.	All other discharges from erodible systems.	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	George Trevelyan (Abalone Farm, Cayucos)	(805) 772-6258						
									Govanni's Fish Market (Govanni or Manager)	(805) 772-6254						
submit draft report within 3 business days and then certified within 15 days	Notify <2 hrs	Submit draft report within 3 business days and then certified within 15 days	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	Reportable when 1000 gallons that result in discharge to surface water.	All other discharges from erodible systems.	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	Harbor Patrol	(805) 772-2167						
									Coast Guard	(805) 234-7466						
submit draft report within 3 business days and then certified within 15 days	Notify <2 hrs	Submit draft report within 3 business days and then certified within 15 days	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	Reportable when 1000 gallons that result in discharge to surface water.	All other discharges from erodible systems.	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	Morro Bay Commercial Fisherman's Organization	(805) 441-1451						
									Pam Daniels (Manager)	(805) 772-8100						
submit draft report within 3 business days and then certified within 15 days	Notify <2 hrs	Submit draft report within 3 business days and then certified within 15 days	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	Reportable when 1000 gallons that result in discharge to surface water.	All other discharges from erodible systems.	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	Tognazzini's Dockside	(805) 835-2736						
									A. Mark Tognazzini (cell)	(310) 868-2848						
submit draft report within 3 business days and then certified within 15 days	Notify <2 hrs	Submit draft report within 3 business days and then certified within 15 days	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	Reportable when 1000 gallons that result in discharge to surface water.	All other discharges from erodible systems.	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	B. Buiness	(805) 802-8389						
									Morro Bay Fish Company	(805) 802-8389						
submit draft report within 3 business days and then certified within 15 days	Notify <2 hrs	Submit draft report within 3 business days and then certified within 15 days	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	Reportable when 1000 gallons that result in discharge to surface water.	All other discharges from erodible systems.	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	David Schumacher							
									ocean star trading (old Bayshore Seafood)							
submit draft report within 3 business days and then certified within 15 days	Notify <2 hrs	Submit draft report within 3 business days and then certified within 15 days	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	Reportable when 1000 gallons that result in discharge to surface water.	All other discharges from erodible systems.	Submit certified report within 30 Calendar days	Report CAT 1 SSO's	Henry Dock Manager, Etc							

\* Notify City Council if Cat 1 SSO to ocean or bay

\* **Cat-1 Notify:** Rob Livick (805) 772-4569 / Joe Mueller (916) 826-3912 / John Gunderlock (805) 395-1995 / Richard Fernandez (805) 206-8523 / Robert Victor 805-440-4854

Important: Once Staff starts making phone calls do not stop until all parties are contacted

\* Per MIP amendment WQ 2015-0058 EXEC, effective 9/9/2013, Cal OES to notify following agencies, SLO county department of environmental health, Central Coast RWQCB

Category 1 SSO:  
 All discharges of sewage resulting from a failure in the sewer system that:  
 A) result in a discharge to a drainage channel and/or surface water; or  
 B) discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.

Category 2 SSO:  
 A) = 1000 gallons that do not reach surface water, a drainage channel, or a fish pond or SSO discharged to the fish is fully intercepted.

Category 3 SSO:  
 All other discharges of sewage resulting from a failure of the sanitary sewer system.

FLSD:  
 Discharges of wastewater resulting from blockages or other problems. Within a potentially caused sewer blockage, Enrollee may voluntarily report to CIWQS, and is encouraged to notify Cal OES and CIWQS of discharge of >=1000 gallons or discharge to surface water.