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## **ABBREVIATIONS/ACRONYMS**

<b>Abbreviation</b>	<b>Definition</b>
BMP	Best Management Practices
CCTV	Closed Circuit Television
CM	Corrective Maintenance
CRC	California Rehabilitation Center
CWEA	California Water Environment Association
EMWD	Eastern Municipal Water District
FOG	Fats, Oils and Grease
FRP	Fiberglass Reinforced Thermosetting Plastic
FSE	Food Service Establishment
GIS	Geographic Information System
HDPE	High Density Poly Ethylene
I/I	Inflow and Infiltration
ID	Identification
IEC	Infrastructure Engineering Corporation
IEUA	Inland Empire Utilities Agency
JCSD	Jurupa Community Service District
LRO	Legally Responsible Official
MRP	Monitoring and Reporting Program
NPDES	National Pollution Discharge Elimination System
NWLUO	Non-reclaimable Waste Line Use Ordinance
O&M	Operation and Maintenance
OCSD	Orange County Sanitation District
OCWD	Orange County Water District
OERP	Overflow Emergency Response Plan
PD	Predictive Maintenance
PM	Preventative Maintenance
PVC	Polyvinyl Chloride
RCP	Reinforced Concrete Pipe
SARI	Santa Ana Regional Interceptor (now known as Inland Empire Brine Line)
SAWPA	Santa Ana Watershed Project Authority
SBVMWD	San Bernardino Valley Municipal Water District
SOP	Standard Operating Procedures



SSMP	Sewer System Management Plan
SSO	Sewer System Overflow
SWRCB	State Water Resource Control Board
USEPA	United States Environmental Protection Agency
VCP	Vitrified Clay Pipe
WDR	Waste Discharge Requirement
WMWD	Western Municipal Water District



## **EXECUTIVE SUMMARY**

On May 2, 2006, the State Water Resources Control Board (SWRCB) adopted Order No. 2006-0003, a General Waste Discharge Requirement (WDR) for all publicly owned sanitary sewer collection systems in California with more than one (1) mile of sewer pipe. The goal of Order No. 2006-0003 is to provide a consistent statewide approach for reducing Sanitary Sewer Overflows (SSOs) by requiring that:

1. In the event of an SSO, all feasible steps be taken to control the released volume and prevent untreated wastewater from entering storm drains, creeks, etc.
2. If an SSO occurs, it must be reported to the SWRCB using an online reporting system developed by the SWRCB.
3. All publicly owned collection system agencies with more than 1 mile of sewer pipe in the State must develop a Sewer System Management Plan (SSMP).

This critical component of Order No. 2006-0003 is the development of a Sewer System Management Plan (SSMP). As described in the WDR, an SSMP must contain eleven specific elements that encompass the planning, operations, maintenance, and engineering efforts that an agency undertakes in order to limit SSOs in its sanitary sewer system. In addition, the SSMP provides a mechanism for measuring the effectiveness of existing and future efforts so that an agency's efforts to prevent SSOs can be continuously improved. The eleven elements required in the SSMP include the following:

1. SSMP Development Plan and Schedule
2. Goals and Organization Structure
3. Legal Authority
4. Operation and Maintenance Program
5. Design and Performance Standards
6. Overflow Emergency Response Program
7. Fats, Oils and Grease Control Program
8. System Evaluation and Capacity Assurance Plan
9. Monitoring, Measurement, and Program Modifications
10. SSMP Program Audits
11. Communication Program

SAWPA has developed an SSMP for the Inland Empire Brine Line (formerly known as SARI) that meets the requirements of the WDR. Just as importantly, this SSMP has been developed to be a valuable reference tool for SAWPA staff and its operators and contractors. The SSMP



is designed to allow staff to update and access, as reference, any of the sections contained therein.

SAWPA has been proactive in its management of the Brine Line, and over the years has developed and implemented a series of ordinances, specifications, and programs to protect the capacity of the Brine Line, serve customers and member agencies, and minimize SSOs and accidents. In addition, SAWPA staff recognized that the development of the SSMP was an opportunity to update and revise these programs while adding new ones as required. As a result, the SSMP for the Brine Line documents and centralizes existing and ongoing management programs in addition to delivering new programs for the management of the Brine Line. SAWPA has been developing Geographic Information System tools to assist in managing the SSMP. The specific GIS tools include modules to manage USA DigAlert tickets, status of air release and blow off valves, status of sealed maintenance access structures, maintenance access structure inspections, as well as a work order tracking tool.

A description of the elements found in the Brine Line SSMP follows below.

#### *SSMP Development Plan and Schedule*

SAWPA's Development Plan and Schedule for the Brine Line SSMP was submitted to the SAWPA Commission, as required by the WDR, on November 13, 2007 under Commission Memorandum No. 6069. The General Manager and the Executive Manager for Engineering and Operations were named as the Legally Responsible Officials (LROs) per Section J of the WDR. The LROs are responsible for completing the monthly on-line spill reports as well as for certifying that all elements of the SSMP have been completed.

The SAWPA Commission adopted the SSMP at a Public Hearing on April 21, 2009. Since its adoption, SAWPA has been making updates to the SSMP as required. This version of the SSMP incorporates all changes made to date.

#### *Goals and Organization Structure*

The primary goal of this SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the Brine Line system, in order to reduce and prevent Sanitary Sewer Overflows (SSO's), as well as mitigate any SSO's that do occur. Accordingly, the SSMP satisfies the requirements of SWRCB Order No. 2006-0003 (WDR), Order No. 2008-0002-EXEC, and Order No. 2013-0058-EXEC.

In addition, the Brine Line SSMP has been developed to implement and support SAWPA's strategic goals. SAWPA maintains the following strategic goals as the owner and operator of the Brine Line:

1. Facilitate water supply through groundwater desalting and protecting watershed resources
2. Manage and operate the Brine Line system in an environmentally and sustainable way
3. Provide adequate capacity for existing and projected future customers



#### 4. Continue to improve Brine Line system planning and operations

In order to implement and support these strategic goals, the Brine Line SSMP lists several short-term SSMP-specific goals to be implemented and monitored over the next five years.

#### *Legal Authority*

The Brine Line SSMP demonstrates that SAWPA has the necessary legal authority to:

1. Prevent illicit discharges into its sanitary sewer system.
2. Require that sewers and connections be properly designed and constructed.
3. Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by SAWPA.
4. Limit the discharge of Fats, Oils, and Grease (FOG) and other debris that may cause blockages.
5. Enforce any violation of its sewer ordinances.

SAWPA's legal authority to effectively own and operate the Brine Line and comply with the WDR derives from the following documents. Primary legal authority is derived from *Ordinance No. 7*, with the other documents implementing that legal authority and passing it through to member agencies and customers:

- *Ordinance No. 7, An Ordinance Establishing Regulations for the Use of the Inland Empire Brine Line*
- Sewer System Standard Drawings and Specifications
- Member Agency Agreements
- Discharge Permits
- SAWPA Easement Summary

#### *Operation and Maintenance Program*

SAWPA's Operation and Maintenance Program satisfies the following requirements:

1. An up-to-date map of the sanitary sewer system, showing all gravity line segments and maintenance access structures, pressure pipes and valves.
2. Routine preventive operation and maintenance activities by staff.
3. A rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency.
4. Training on a regular basis for staff in sanitary sewer system operations and maintenance.





5. Equipment and replacement part inventories, including identification of critical replacement parts.

During the SSMP development process, SAWPA, Western Municipal Water District (WMWD), Inland Empire Utilities Agency (IEUA), and Eastern Municipal Water District (EMWD) staff recognized the need to systematically document the preventative maintenance activities already being performed, to add some activities to the list being performed, and to better document the training required for these activities. The result of this recognition was the development of:

- Standard Operating Procedures (SOPs) for preventative maintenance
- Brine Line-specific training for staff performing maintenance on the Brine Line
- Standardized log and record sheets for preventative maintenance
- GIS tools to assist in tracking Brine Line assets

The SOPs and training guidelines needed for the Brine Line have been identified, and are currently under development. In addition, the Brine Line Geographic Information System (GIS) has been updated into a utility-based system that will allow the GIS to serve as the primary data location for preventative maintenance and future asset management functions.

#### *Design and Performance Standards*

SAWPA's Design and Performance Provisions provide that the Brine Line has

1. Design and construction standards and specifications for the installation of new sanitary sewer systems; and for the rehabilitation and repair of existing sanitary sewer systems.
2. Procedures and standards for inspecting and testing the installation of new sewers, and for rehabilitation and repair projects.

The standards and procedures required by the WDR are contained in the Standard Drawings developed previously by SAWPA, and in the Standard Technical Provisions developed as part of the SSMP development process.

#### *Overflow Emergency Response Program*

SAWPA has developed and implemented an overflow emergency response plan that provides:

1. Proper notification procedures so that primary responders and regulatory agencies are informed of all Sanitary Sewer Overflows (SSOs) in a timely manner
2. A program to ensure an appropriate response to all overflows
3. Procedures which ensure prompt notification to appropriate regulatory agencies and other potentially affected entities
4. Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities



5. A program 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

SAWPA developed the Brine Line Overflow Emergency Response Program previously, and provides desktop training once per year. The program was updated to account for the notification procedures of Order No. 2008-0002-EXEC as part of the SSMP development process and the recently adopted Order No. 2013-0058-EXEC regarding monitoring and reporting requirements.

#### *Fats, Oils and Grease Control Program*

SAWPA's FOG Control Program helps reduce the amount of Fats, Oils and Grease discharged to the Brine Line by including:

1. A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area, and a list of acceptable disposal facilities.
2. Legal authority to prohibit discharges to the system and identify measures to prevent SSO's and blockages caused by FOG.
3. Requirements to install grease removal devices, design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements.
4. Authority to inspect grease producing facilities, enforcement authorities, and sufficient staff to inspect and enforce the FOG ordinance.
5. Identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section.
6. Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified.
7. Implementation of a plan and schedule for a public education outreach program that promotes proper disposal of FOG.

*Ordinance No. 7* and the Member Agency Agreements provide the legal authority that SAWPA requires to limit discharge of FOG into the Brine Line. Discharge permits and agreements with domestic dischargers to the Brine Line pass this authority on to customers. WMWD and IEUA staff have identified FOG-susceptible areas of the Brine Line for increased maintenance and monitoring.

#### *System Evaluation and Capacity Assurance Plan*

SAWPA has prepared and implemented a System Evaluation and Capacity Assurance Plan to ensure that there is adequate 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. SAWPA's System Evaluation and Capacity Assurance Plan encompasses the following components:

1. Evaluation of Brine Line hydraulics.
2. Establishment of design criteria.



3. Quantification of existing and future predicted discharges into the Brine Line.
4. Development of possible capacity enhancement measures.

The primary component of SAWPA's capacity assurance plan is the hydraulic model of the Brine Line. Since its development in 2006, the model has been updated by SAWPA staff to include the latest flow and infrastructure information. The model is regularly updated as required to serve as a capacity evaluation tool.

#### *Monitoring, Measurement, and Program Modifications*

SAWPA's Monitoring, Measurement, and Program Modifications are designed to:

- (1) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities
- (2) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP
- (3) Assess the success of the preventative maintenance program
- (4) Update program elements, as appropriate, based on monitoring or performance evaluations
- (5) Identify and illustrate SSO trends, including: frequency, location, and volume.

This program is accomplished through a spreadsheet that lists all of the SSMP specific goals established by SAWPA for the Brine Line. The spreadsheet maintains the person responsible for each goal as well as the data required for measurement of each goal. The data is to be compiled once per year for analysis of success and modification of goals and programs where necessary.

#### *SSMP Program Audits*

SAWPA is required to conduct periodic internal audits, appropriate to the size of the Brine Line and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit will focus on evaluating the effectiveness of the SSMP and SAWPA's compliance with the SSMP requirements identified in Section D, 13 of SWRCB Order No. 2006-0003, including the identification of any deficiencies in the SSMP and steps to correct them.

A spreadsheet has been developed to track the trends displayed in the monitoring data compiled every year. This spreadsheet will form the quantitative basis of the audit report required of SAWPA.

Audits were conducted in 2010 and 2013.

#### *Communication Program*

SAWPA has communicated on a regular basis with interested parties, including member agencies, on the implementation and performance of this SSMP. Where necessary, member



agencies and Brine Line customers were contacted for input and data during the development of the SSMP. Member agencies have reviewed the SSMP and provided input.

SAWPA made a Draft version of the SSMP available to the public, allowed time for review, and invited public comments at a General Managers meeting on April 14, 2009, thereby allowing for public input.

The SSMP will undergo review and revision through internal audits every two (2) years and external audits every five (5) years. The results of these audits will be provided to member agencies and will be available to the public on SAWPA's website ([www.sawpa.org](http://www.sawpa.org)). Additionally, SAWPA's website presents information about on-going efforts to manage and maintain the Brine Line.



## **CHAPTER 1. PROHIBITIONS AND PROVISIONS**

The State Water Resources Control Board (SWRCB) Order No. 2006-0003 mandates that the Santa Ana Watershed Project Authority (SAWPA) comply with the following discharge prohibitions and provisions.

### *1.1 PROHIBITIONS*

To meet the provisions contained in Division 7 of the California Water Code and regulations adopted there under, SAWPA is required to comply with the following prohibitions:

- Any SSO that results in a discharge of untreated or partially treated wastewater to waters of the United States is prohibited; and,
- Any SSO that results in a discharge of untreated or partially treated wastewater that creates a nuisance as defined in California Water Code Section 13050(m) is prohibited.

In any enforcement action, the Regional Board will consider the efforts of SAWPA to contain, control, and clean up sewage spills from its collection system in accordance with Section 13327 of the California Water Code. SAWPA will make every effort to contain sewage spilled from its collection systems and to prevent the sewage from entering storm drains and surface water bodies. SAWPA will also make every effort to prevent sewage from discharging from storm drains into flood control channels and open ditches by blocking the storm drainage system and by removing the sewage from the storm drains. The use of the storm drain pipe system to contain the sewage by blocking the drain pipes, and recovering and cleaning up the spilled sewage, in order to prevent the sewage from being discharged to a surface water body is not a violation of the prohibitions listed above.

### *1.2 PROVISIONS*

As stated in Order No. 2006-0003, SAWPA must meet the following fifteen (15) provisions:

1. SAWPA must comply with all conditions of Order No. 2006-0003. Any noncompliance with Order No. 2006-0003 constitutes a violation of the California Water Code and is grounds for enforcement action.
2. It is the intent of the State Water Board that sanitary sewer systems be regulated in a manner consistent with the general WDRs. Nothing in the general WDRs will be:
  - a. Interpreted or applied in a manner inconsistent with the Federal Clean Water Act, or supersede a more specific or more stringent state or federal requirement in an existing permit, regulation, or administrative/judicial order or Consent Decree;
  - b. Interpreted or applied to authorize an SSO that is illegal under either the Clean Water Act, an applicable Basin Plan prohibition or water quality standard, or the California Water Code;



- c. Interpreted or applied to prohibit a Regional Water Board from issuing an individual NPDES permit or WDR, superseding this general WDR, for a sanitary sewer system, authorized under the Clean Water Act or California Water Code; or
    - d. Interpreted or applied to supersede any more specific or more stringent WDRs or enforcement order issues by a Regional Water Board.
3. SAWPA will take all feasible steps to eliminate SSOs. In the event that an SSO does occur, SAWPA will take all feasible steps to contain and mitigate the impacts of an SSO.
4. In the event of an SSO, SAWPA will take all feasible steps to prevent untreated or partially treated wastewater from discharging from storm drains into flood control channels or waters of the United States by blocking the storm drainage system and by removing the wastewater from the storm drains.
5. All SSOs must be reported in accordance with Section G of the general WDRs.
6. In any enforcement action, the State and/or Regional Water Boards will consider the appropriate factors under the duly adopted State Water Board Enforcement Policy. And, consistent with the Enforcement Policy, the State and/or Regional Water Boards must consider SAWPA's efforts to contain, control, and mitigate SSOs when considering the California Water Code Section 13327 factors. In assessing these factors, the State and/or Regional Water Boards will also consider whether:
  - a. SAWPA has complied with the requirements of Order No. 2006-0003, including requirements for reporting, developing and implementing a SSMP;
  - b. SAWPA can identify the cause or likely cause of the discharge event;
  - c. There were no feasible alternatives to the discharge, such as temporary storage or retention of untreated wastewater, reduction of inflow and infiltration, use of adequate backup equipment, collecting and hauling of untreated wastewater to a treatment facility, or an increase in the capacity of the system as necessary to contain the design storm event identified in the SSMP. It is inappropriate to consider the lack of feasible alternatives if SAWPA does not implement a periodic or continuing process to identify and correct problems.
  - d. The discharge was exceptional, unintentional, temporary, and caused by factors beyond the reasonable control of SAWPA;
  - e. The discharge could have been prevented by the exercise of reasonable control described in a certified SSMP for:
    - i. Proper management, operation and maintenance;
    - ii. Adequate treatment facilities, sanitary sewer system facilities, and/or components with an appropriate design capacity, to reasonably prevent SSOs (e.g., adequately enlarging treatment or collection facilities to accommodate growth, infiltration and inflow (I/I), etc.);



- iii. Preventative maintenance (including cleaning and fats, oils, and grease (FOG) control);
    - iv. Installation of adequate backup equipment; and
    - v. Inflow and infiltration prevention and control to the extent practicable.
  - f. The sanitary sewer system design capacity is appropriate to reasonably prevent SSOs.
  - g. SAWPA took all reasonable steps to stop and mitigate the impact of the discharge as soon as possible.
7. When a sanitary sewer overflow occurs, SAWPA will take all feasible steps and necessary remedial actions to 1) control or limit the volume of untreated or partially treated wastewater discharged, 2) terminate the discharge, and 3) recover as much of the wastewater discharged as possible for proper disposal, including any wash down water.  
SAWPA will implement all remedial actions to the extent they may be applicable to the discharge and not inconsistent with an emergency response plan, including the following:
  - a. Interception and rerouting of untreated or partially treated wastewater flows around the wastewater line failure;
  - b. Vacuum truck recovery of sanitary sewer overflows and wash down water;
  - c. Cleanup of debris at the overflow site;
  - d. System modifications to prevent another SSO at the same location;
  - e. Adequate sampling to determine the nature and impact of the release; and
  - f. Adequate public notification to protect the public from exposure to the SSO.
8. SAWPA will properly manage, operate, and maintain all parts of the sanitary sewer system owned or operated by SAWPA, and will ensure that the system operators (including employees, contractors, or other agents) are adequately trained and possess adequate knowledge, skills, and abilities.
9. SAWPA will allocate adequate resources for the operation, maintenance, and repair of its sanitary sewer system, by establishing a proper rate structure, accounting mechanisms, and auditing procedures to ensure an adequate measure of revenues and expenditures. These procedures must be in compliance with applicable laws and regulations and comply with generally acceptable accounting practices.
10. SAWPA will provide adequate capacity to convey base flows and peak flows, including flows related to wet weather events. Capacity will meet or exceed the design criteria as defined in SAWPA's System Evaluation and Capacity Assurance Plan for all parts of the sanitary sewer system owned or operated by SAWPA.



11. SAWPA will develop and implement a written Sewer System Management Plan (SSMP) and make it available to the State and/or Regional Water Board upon request. A copy of this document must be publicly available at SAWPA's office and/or available on the internet. This SSMP must be approved by SAWPA's Board of Directors at a public meeting.
12. In accordance with the California Business and Professions Code sections 6735, 7835, and 7835.1, all engineering and geologic evaluations and judgments will be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. Specific elements of the SSMP that require professional evaluation and judgments will be prepared by or under the direction of appropriately qualified professionals, and will bear the professional(s)' signature and stamp.
13. The mandatory elements of the SSMP are specified below. However, if SAWPA believes that any element of this section is not appropriate or applicable to SAWPA's sanitary sewer system, the SSMP was approved by the deadlines listed in Order No. 2006-0003.

Sewer System Management Plan (SSMP)

- a. Goal
  - b. Organization
  - c. Legal Authority
  - d. Operation and Maintenance Program
  - e. Design and Performance Provisions
  - f. Overflow Emergency Response Plan
  - g. FOG Control Program
  - h. System Evaluation and Capacity Assurance Plan
  - i. Monitoring, Measurement, and Program Modifications
  - j. SSMP Program Audits
  - k. Communication Program
14. Both the SSMP and SAWPA's program to implement the SSMP must be certified by SAWPA to be in compliance with the requirements set forth above and must be presented to SAWPA's Board of Directors for approval at a public meeting. SAWPA will certify that the SSMP, and subparts thereof, are in compliance with the general WDRs within the time frames identified in the time schedule provided in subsection D.15, below.

In order to complete this certification, SAWPA's authorized representative must complete the certification portion in the Online SSO Database Questionnaire by





checking the appropriate milestone box, printing and signing the automated form, and sending the form to:

State Water Resources Control Board  
Division of Water Quality  
Attn: SSO Program Manager  
P.O. Box 100  
Sacramento, CA 95812

The SSMP must be updated every five (5) years, and must include any significant program changes. Re-certification by the Board of Directors of SAWPA is required in accordance with D.14 when significant updates to the SSMP are made. To complete the re-certification process, SAWPA will enter the data in the Online SSO Database and mail the form to the State Water Board, as described above.

15. SAWPA will comply with these requirements according to the legislated schedule. This time schedule does not supersede existing requirements or time schedules associated with other permits or regulatory requirements.



## CHAPTER 2. SSMP DEVELOPMENT PLAN AND SCHEDULE

SAWPA's Development Plan and Schedule for the Brine Line SSMP was submitted to the SAWPA Commission, as required by the WDR, on November 13, 2007 under Commission Memorandum No. 6069. The General Manager and the Executive Manager for Engineering and Operations were named as the Legally Responsible Officials (LROs) per Section J of the WDR. The LROs are responsible for completing the monthly on-line spill reports as well as for certifying that all elements of the SSMP have been completed.

### 2.1 COMPLIANCE DOCUMENTS

The following documents allow SAWPA to comply with the development plan and schedule requirements of the WDR, and are attached as appendices.

- State of California Water Resources Control Board Order No. 2006-0003, Appendix A-1
- State of California Water Resources Control Board Order No. 2008-0002-EXEC, Appendix A-2
- SSMP Schedule, Appendix A-3
- Gap Analysis (CDM, 2007), Appendix A-4
- State of California Water Resources Control Board Order No. 2013-0058-EXEC, Appendix F-1.

### 2.2 DOCUMENT DESCRIPTIONS

A description for each compliance document listed above is described below:

#### 2.2.1 *State of California Water Resources Control Board Order No. 2006-0003 (Appendix A-1)*

On May 2, 2006, the State Water Resources Control Board (SWRCB) adopted Order No. 2006-0003, a General Waste Discharge Requirement (WDR) for all publicly owned sanitary sewer collection systems in California with more than one (1) mile of sewer pipe. The goal of Order No. 2006-0003 is to provide a consistent statewide approach for reducing Sanitary Sewer Overflows (SSOs) by requiring that:

1. In the event of an SSO, all feasible steps be taken to control the released volume and prevent untreated wastewater from entering storm drains, creeks, etc.
2. If an SSO occurs, it must be reported to the SWRCB using an online reporting system developed by the SWRCB.

All publicly owned collection system agencies with more than 1 mile of sewer pipe in the State must develop a Sewer System Management Plan (SSMP).



### *2.2.2 State of California Water Resources Control Board Order No. 2008-0002-EXEC (Appendix A-2)*

On February 20, 2008, an Executive Order was signed and immediately put into effect by State Water Resources Control Board. The order requires that "For any discharges of sewage that results in a discharge into a drainage channel or a surface water, the Discharger shall, as soon as possible, but not later than two (2) hours after becoming aware of the discharge, notify the State Office of Emergency Services, the local health officer or directors of environmental health with jurisdiction over affected water bodies, and the appropriate Regional Water Quality Control Board."

It also requires that "As soon as possible, but no later than twenty-four (24) hours after becoming aware of a discharge to a drainage channel or surface water, the Discharger shall submit to the appropriate Regional Water Quality Board a certification that the State Office or Emergency Services and the local health officer or director of environmental health with jurisdiction over the affected water bodies have been notified of the discharge."

### *2.2.3 SSMP Schedule (Appendix A-3)*

The SSMP Schedule was developed by SAWPA to meet the requirements of the WDR.

### *2.2.4 Gap Analysis (CDM, 2007) (Appendix A-4)*

This gap analysis describes the steps necessary as of 2007 for SAWPA to reach compliance with the WDR.

### *2.2.5 State of California Water Resources Control Board Order No. 2013-0058-EXEC (Appendix F-1)*

On August 6, 2013, the SWRCB signed an Executive Order amending monitoring and reporting programs for General State Waste Discharge Requirements for Sanitary Sewer Systems. This Executive Order also redefined SSO categories.



## **CHAPTER 3. GOALS AND ORGANIZATIONAL STRUCTURE**

The over-riding goal of this SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the Brine Line system, in order to reduce and prevent Sanitary Sewer Overflows (SSO's), as well as mitigate any SSO's that do occur. Accordingly, the SSMP will satisfy the requirements of SWRCB Order No. 2006-0003 (WDR) and subsequent addenda and updates. The incremental goals that will deliver success for the SSMP are listed below, along with the SAWPA organization structure that will implement these goals.

### *3.1 SAWPA'S STRATEGIC GOALS FOR THE BRINE LINE*

SAWPA maintains the following strategic goals as the owner and operator of the Brine Line:

1. Facilitate water supply through groundwater desalting and protecting watershed resources
2. Manage and operate the Brine Line system in an environmentally and sustainable way
3. Provide adequate capacity for existing and projected future customers
4. Continue to improve Brine Line system planning and operations

### *3.2 SAWPA'S IMMEDIATE GOALS FOR THE SSMP*

In order to meet the strategic goals for the Brine Line over the long term, SAWPA has developed the following immediate goals for the SSMP. These goals, which are designed to be implemented over the first five years of the SSMP, are specific, realistic, and trackable. As programs are implemented and these goals are met, each will contribute to SAWPA's strategic goals, the long-term health of the Brine Line system, and the success of SAWPA's core mission in the watershed.

1. Track all SSO's by size, cause, and location in GIS.
2. Reduce number and volume of SSO's in the Brine Line.
3. Update and train on the Overflow Emergency Response Plan yearly.
4. Review Ordinance No. 7 and successors yearly for compliance with WDR updates.
5. Legally secure all of the easements required for the operation and maintenance of the Brine Line.
6. Clean 100% of known Fats, Oils, and Grease (FOG) problem areas according to a schedule that maintains Brine Line capacity.
7. Identify new dischargers that may contribute FOG and ensure implementation of FOG control devices and/or measures.
8. Place new FOG problem areas created by new dischargers or discovered by system reconnaissance on the known problem areas list.



9. Utilize standard drawings and specifications for all improvements on the Brine Line, and create new standards where necessary.
10. Complete development Operations and Maintenance (O&M) Standard Operating Procedures (SOP's) that have been identified.
11. Clean Problem Areas list as specified in SAWPA's line cleaning program.
12. Clean laterals as specified in SAWPA's line cleaning program.
13. Clean siphons as specified in SAWPA's line cleaning program.
14. Perform Brine Line Reconnaissance at specified locations in order to determine system cleaning requirements.
15. Perform cleaning as required.
16. Update Capital Replacement Program yearly as projects are completed.
17. Complete Brine Line-Specific Training Protocols that have been identified.
18. Have all Brine Line O&M staff complete Brine Line-Specific Training Protocols yearly.
19. Update hydraulic model with existing and potential future users yearly.
20. Measure compliance with stated goals and make necessary modifications and adjustments on a yearly basis.
21. Focus on preventive maintenance, including but not limited to, regular inspection of blow-off valves, air release valves, and maintenance access structures.
22. Establish a GIS-based system to keep track of all inspections (GIS asset management).
23. Establish priority indices for structures inspected (based on NASSCO guidelines for sewer lines)
24. Create a Brine Line file and photograph database.
25. Establish procedures to follow-up with DigAlert requests.

### *3.3 ORGANIZATIONAL STRUCTURE*

The organizational structure that will implement both the strategic and immediate goals for SAWPA can be seen in Appendix B-1.



## CHAPTER 4. LEGAL AUTHORITY

SAWPA's Legal Authority addresses those mandatory SSMP provisions outlined in Section D, 13 (iii) Legal Authority of SWRCB Order No. 2006-0003.

SAWPA will demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:

- (1) Prevent illicit discharges into its sanitary sewer system (examples may include I/I, stormwater, chemical dumping, unauthorized debris and cut roots, etc.).
- (2) Require that sewers and connections be properly designed and constructed.
- (3) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by SAWPA.
- (4) Limit the discharge of Fats, Oils, and Grease (FOG) and other debris that may cause blockages.
- (5) Enforce any violation of its sewer ordinances.

### 4.1 COMPLIANCE SUMMARY

SAWPA is regulated by several agencies of the United States Government and the State of California, pursuant to the provisions of Federal and State Law. Federal and State Laws (including, but not limited to: 1) Federal Water Pollution Control Act, commonly known as the Clean Water Act (33 U.S.C. Section 1251 et seq); 2) California Porter Cologne Water Quality Act (California Water Code section 13000 et seq.); 3) California Health & Safety Code sections 25100 to 25250; 4) Resource Conservation and Recovery Act of 1976 (42 U.S.C. Section 6901 et seq.); and 5) California Government Code, Sections 54739-54740) grant to SAWPA the authority to regulate and/or prohibit, by the adoption of an ordinance, and by issuance of control mechanisms, the discharge of any waste, directly or indirectly, to SAWPA sewerage facilities. Said authority includes the right to establish limits, conditions, and prohibitions; to establish flow rates or prohibit flows discharged to SAWPA sewerage facilities; to require the development of compliance schedules for the installation of equipment systems and materials by all users; and to take all actions necessary to enforce its authority, whether within or outside SAWPA boundaries, including those users that are tributary to Brine Line or within areas for which SAWPA has contracted to provide sewerage services.

Through *Ordinance No. 7* adopted by the Commission and Member Agency Agreements, SAWPA possesses the necessary legal authority required by Section D, 13 (iii) Legal Authority of SWRCB Order No. 2006-0003:

- (1) SAWPA prevents illicit discharges into its sanitary sewer system (including, but not limited to, I/I, stormwater, chemical dumping, and unauthorized debris) through *Ordinance No.5, Article 2* and requires that all direct and indirect dischargers to the system



obtain Wastewater Discharge Permits through *Ordinance No. 7, Article 4*, as well as *Section 2 of Multijurisdictional Pretreatment Agreements* with Western Municipal Water District (WMWD), Eastern Municipal Water District (EMWD), Inland Empire Utilities Agency (IEUA) and San Bernardino Valley Municipal Water District (SBVMWD), and the *Operation and Maintenance Agreement for Reach IV, IV-A, IV-B, IV-D, and IV-E between Western Municipal Water District (WMWD) and Santa Ana Watershed Project Authority (SAWPA)*.

- (2) SAWPA requires that sewers and connections be properly designed and constructed in their Sewer System Standard Drawings.
- (3) SAWPA ensures access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by SAWPA in *Ordinance No. 7, Article 5* as well as *Sections 3 and 4 of Multijurisdictional Pretreatment Agreements* with WMWD, EMWD, IEUA and SBVMWD, and the *Operation and Maintenance Agreement for Reach IV, IV-A, IV-B, IV-D, and IV-E between WMWD and SAWPA*. SAWPA also maintains a list of easements which assure access for maintenance, inspection, or repairs of facilities.
- (4) SAWPA limits the discharge of Fats, Oils, and Grease (FOG) and other debris that may cause blockages through *Ordinance No. 7, Article 2*, specifically Section 201.0(P).
- (5) SAWPA enforces any violation of its sewer ordinances in accordance with *Ordinance No. 7, Article 6* and their *Enforcement Response Plan*, as well as *Sections 6 and 7 of Multijurisdictional Pretreatment Agreements* with WMWD, EMWD, IEUA and SBVMWD.

#### 4.2 COMPLIANCE DOCUMENTS

The following documents allow SAWPA to comply with the Legal Authority requirements of the WDR, and are attached as appendices:

- *Ordinance No. 7, An Ordinance Establishing Regulations for the Use of the Inland Empire Brine Line*, Adopted by the Commission of the Santa Ana Watershed Project Authority, August 21, 2007, Appendix C-1.
- Sewer System Standard Drawings, Santa Ana Watershed Project Authority, Appendix C-2.
- Member Agency Agreements, Appendix C-3.
  - *Multijurisdictional Pretreatment Agreements between Western Municipal Water District and Santa Ana Watershed Project Authority*, January 17, 2012.
  - *Multijurisdictional Pretreatment Agreements between Eastern Municipal Water District and Santa Ana Watershed Project Authority*, September 20, 2011.
  - *Multijurisdictional Pretreatment Agreements between Inland Empire Utilities Agency and Santa Ana Watershed Project Authority*, January 17, 2012.
  - *Multijurisdictional Pretreatment Agreements between San Bernardino Valley Municipal Water District and Santa Ana Watershed Project Authority*, January 17, 2012.



- *Operation and Maintenance Agreement for Reach IV, IV-A, IV-B, IV-D, and IV-E, Between Western Municipal Water District and Santa Ana Watershed Project Authority, August 6, 2013.*
- List and Samples of Discharge Permits, Appendix C-4.
- *SAWPA Easement Summary*, RBF Consulting, January 2008, Appendix C-5.
- Brine Line Fees, Appendix C-6
- Sample Brine Line Connection Application, Appendix C-7
- Brine Line Discharge Permits, Appendix C-8

#### 4.3 DOCUMENT DESCRIPTIONS

Each of the following documents provides a portion of SAWPA's Legal Authority, as required in Section D, 13 (iii) Legal Authority of SWRCB Order No. 2006-0003.

##### 4.3.1 *Ordinance No. 8, Establish Regulations for Use of the Inland Empire Brine Line (Appendix C-1)*

This ordinance, adopted by the Commission on September 19, 2017, regulates the use of the Inland Empire Brine Line (formerly known as SARI) sewer system and tributaries thereto and the wastewater discharged to this sewer system, by providing for the distribution of the cost of construction, administration, operation and maintenance of the system, and by providing procedures that will allow SAWPA to comply with all regulatory requirements imposed upon SAWPA by contract requirements and by federal, state, and local agencies. The provisions of this Ordinance apply to sewer use, maintenance, discharge, deposit, or disposal of wastewater, both directly and indirectly, into and through all SAWPA collection systems and to the issuance of control mechanisms and assessment/imposition of fees, fines and penalties thereof. This Ordinance applies to all users of SAWPA's sewer system and specifies herein that all users of SAWPA's sewer system are subject to regulation and enforcement.

As adopted by the Commission, *Article 2* prohibits illicit discharges, including FOG, to the Brine Line system. *Articles 3* and *4* outline requirements, charges and fees, and conditions of Wastewater Discharge Contracts and Wastewater Discharge Permits respectively. *Article 5* details SAWPA's monitoring, reporting, inspection and facilities requirements and *Article 6* explains enforcement of the Ordinance.

##### 4.3.2 *Sewer System Standard Drawings (Appendix C-2)*

These drawings include the SAWPA's Sewer System Standard Drawings for:

- S-01 60" Diameter Precast Maintenance Access Structure Installation
- S-02 Maintenance Access Structure Base for New or Existing Pipe
- S-03 Maintenance Access Structure Pipe Connectors
- S-04 Maintenance Access Structure Miscellaneous Details





- S-05 36” Maintenance Access Structure Frame and Two Concentric Covers
- S-06 Maintenance Access Structure Lining System
- S-07 Locking Maintenance Access Structure Cover
- S-08 Pipe Bedding and Trench Backfill for Sewer Facilities
- S-09 Permissible Depth of Cover for PVC Pipe
- S-10 Water, Recycled Water and Sewer Main Parallel Separations
- S-11 Water, Recycled Water and Sewer Main Perpendicular Separations
- S-12 Water, Recycled Water and Sewer Main Parallel and Perpendicular Separations Notes
- S-13 Sealed HDPE Gravity Sewer Access Maintenance access structure
- S-14 Sealed FRP Gravity Sewer Access Maintenance access structure
- S-15 Pipe Support for Undercut Sewer Mains

#### 4.3.3 Member Agency Agreements (*Appendix C-3*)

Each of the Member Agency Agreements, or successive Addendums, between SAWPA its member agencies contains detailed obligations for the appropriate member agency in order to comply with Orange County Sanitation District’s (OCSD) Ordinance, SAWPA’s *Ordinance No. 7*, and federal and state laws and regulations. These obligations may include: the responsibility to issue Waste Discharge Permits (Permits) and to enforce violations of Permit requirements; the responsibility to monitor wastewater flows and perform inspections at the member agency’s expense; the responsibility to collect any noncompliance fines, fees, user charges, taxes, capital recovery fees, and other lawful charges as levied by the member agency; the responsibility to monitor discharge of trucked wastewater; and the responsibility to prepare and submit appropriate Quarterly and Annual Reports about the administration of the member agency’s Nonreclaimable Waste Line Use Ordinance (NWLUEO), as well as the agreement to the US Environmental Protection Agency (USEPA), the Santa Ana Regional Water Quality Control Board, and SAWPA.

- *Multijurisdictional Pretreatment Agreements Between Western Municipal Water District and Santa Ana Watershed Project Authority, January 17, 2012.*
- *Multijurisdictional Pretreatment Agreement Between Eastern Municipal Water District and Santa Ana Watershed Project Authority, September 20, 2013.*
- *Multijurisdictional Pretreatment Agreement Between Inland Empire Utilities Agency and Santa Ana Watershed Project Authority, January 17, 2012.*
- *Multijurisdictional Pretreatment Agreement Between San Bernardino Valley Municipal Water District and Santa Ana Watershed Project Authority, January 17, 2012.*



- *Operation and Maintenance Agreement for Reach IV, IV-A, IV-B, IV-D, and IV-E between Western Municipal Water District and Santa Ana Watershed Project Authority, August 6, 2013.*

#### 4.3.4 *List and Samples of Discharge Permits (Appendix C-4)*

- A list of all vendors with Discharge Permits.
- A sample of a Discharge Permit between member agency and SAWPA.
- A sample of a Discharge Permit between vendor and member agency.

#### 4.3.5 *SAWPA Easement Summary (Appendix C-5)*

This list summarizes the easements and agreements which grant SAWPA access to the Brine Line facilities owned and maintained by SAWPA.

#### 4.3.6 *Brine Line Fees (Appendix C-6)*

The adopted fees for discharge into the Brine Line are updated on a yearly basis.

#### 4.3.7 *Sample Brine Line Application (Appendix C-7)*

The application is provided to potential dischargers into the Brine Line.

#### 4.3.8 *Brine Line Discharge Permits (Appendix C-8)*

Copies of all current connection permits for the Brine Line.



## **CHAPTER 5. OPERATION AND MAINTENANCE PROGRAM**

SAWPA's Operating and Maintenance Program addresses those mandatory SSMP provisions outlined in Section D, 13 (iv) Operation and Maintenance Program of SWRCB Order No. 2006-0003.

SAWPA's Operation and Maintenance Program encompasses the following components:

- (1) An up-to-date map of the sanitary sewer system, showing all gravity line segments and maintenance access structures, pressure pipes and valves.
- (2) Routine preventive operation and maintenance activities by staff, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program includes a system to document scheduled and conducted activities, such as work orders.
- (3) A rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of maintenance access structures and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement focuses on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan includes a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan includes a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan.
- (4) Training on a regular basis for staff in sanitary sewer system operations and maintenance.
- (5) Equipment and replacement part inventories, including identification of critical replacement parts.

### *5.1 SYSTEM MAPS*

#### *5.1.1 Compliance Summary*

SAWPA has developed and maintains a Geographic Information System (GIS) that stores data on the Brine Line system. As shown in Appendix D-1, a series of system maps were produced using the GIS data as a basis. Also in Appendix D-1 is a table that shows system map requirements taken from California Water Environment Association (CWEA) guidelines.

Data tables suitable for compliance CWEA guidelines are included in Appendix D-1. The combination of maps and data tables satisfies the mapping requirements of the SSMP, and allows Operations and Maintenance staff to perform required field activities.

### *5.2 PREVENTATIVE OPERATIONS AND MAINTENANCE*

#### *5.2.1 Compliance Summary*



SAWPA's current preventative operations and maintenance activities are summarized in the *Operation and Maintenance Program Plan* included in Appendix D-2. This document summarizes in a general way the primary elements of the O&M activities as performed under contract by Western Municipal Water District (WMWD) and Inland Empire Utilities Agency (IEUA) for the Brine Line. The contracts under which these activities are performed can be seen in Appendix C-3. The current active maintenance activities performed by WMWD can be seen in tables and maps in Appendix D-3 for gravity mains and for laterals and connections.

The current Preventative Operations and Maintenance system as described above has been effective in dealing with known problem areas that require active maintenance. SAWPA has developed and is in the process of developing standard operating procedures and frequencies to bolster the O&M program. The development of standard operating procedures and the systematization of the preventative operations and maintenance program will increase the effectiveness of the program. The improved program is described below.

### **Preventive Maintenance (PM) Tasks:**

The following asset-specific maintenance tasks for the care of each Brine Line asset throughout its life cycle have been developed. The major PM task groupings are as follows:

- sewer inspection
- condition assessment
- sewer cleaning

### **PM Frequencies:**

Frequency for PM tasks are described below.

#### **Gravity Sewer Program**

Statistics show that smaller diameter gravity sewers are more prone to blockages than larger diameter interceptor and trunk sewers. The only lines in the Brine Line that fall in this category are lateral connections. Best Management Practices indicate that a 12 to 18-month schedule for production cleaning of smaller diameter sewers is appropriate. WMWD already cleans several laterals on a 12-month schedule, as described above. All laterals operated and maintained by SAWPA should be placed on an initial 12 month inspection and cleaning schedule. Those lines currently inspected and cleaned more frequently than every 12 months should continue on their current schedules. As data is gathered over time on the effectiveness and necessity of individual cleanings, adjustments can be made to individual schedules, either increasing or decreasing the frequency. No lateral should be inspected and cleaned less frequently than every 18 months.

A set of Standard Operating Procedures (SOP) will be utilized for not only the small diameter line cleaning but all other activities as well. SAWPA and member agencies are in the process of developing these SOPs. A set of SOPs to be developed have been included in Appendix D-4 of this document. The activities performed and the



equipment used for lateral cleaning should be performed in accordance with the procedures listed in these documents as they are developed.

A standardized method for gathering, maintaining, and analyzing cleaning data has been initiated. SAWPA already has a great tool for such tasks in the utility GIS system. Cleaning data will be stored in tabular format and linked to GIS for analysis and mapping. A Microsoft excel table that can be used for such purposes is included in Appendix D-5. Regular updates to this spreadsheet can be linked back to the GIS.

The Brine Line system's gravity sewer lines, not including laterals, are composed of what are typically considered large diameter gravity sewer lines. BMPs for such sewer lines that have given no indication of performance or capacity problems state that such lines should be regularly cleaned according to the results of regular inspections. Recently, SAWPA has implemented a large manual cleaning program to clean lines that had for many years been left to passive, or self-cleaning. The results show that a great deal of material has been removed from lines that were thought to be successfully self-cleaning.

Gravity mains without known trouble spots in the Brine Line system will be initially placed on a reconnaissance-based cleaning cycle. Inspection will be performed at five (5) locations around the Brine Line system on a yearly basis. These locations have been picked to provide representative coverage around system. The results of these inspections will determine the amount and location of cleaning to take place during that year.

The same SOPs recommended for small diameter line cleaning procedures and equipment are recommended for these activities as well. The SOPs can be found in Appendix D-4. Summary data should be collected for each reach for tracking and analysis purposes. A Microsoft Excel table as seen in Appendix D-5 can be used for such purposes.

### **Trouble Spot and Siphon PM Program**

In order to protect the operational capabilities of the Brine Line system, areas of known maintenance trouble must be prioritized in the PM program. WMWD is currently cleaning a list of known trouble spots in the Brine Line system as described above. To this list of known trouble spots, all siphons in the system should be added. Because of the hydraulic nature of the low velocity siphons in the Brine Line system, all siphons should be treated as trouble spots. They should be cleaned no less than once per year. The list of siphons and their location can be seen in Appendix D-3.

The same SOPs recommended for small diameter line cleaning procedures and equipment are recommended for these activities as well. The SOPs can be found in Appendix D-3. Summary data should be collected for each reach for tracking and analysis purposes. A Microsoft Excel table as seen in Appendix D-4 can be used for such purposes.



### **Pressure Sewers Maintenance Program:**

Isolation valves in the pressure sewers (gate valves in Reach V) should be exercised every three months to make sure they are in good working order. Air/vacuum release valves along Reach V should be checked every six months. After this six month schedule is applied and data is gathered, individual adjustments can be made. The Air/Vacuum release valves have been given a new identification system under the direction of SAWPA staff. The ID system and cleaning schedule can be seen in Appendix D-6. Reach V and its pressure sections are discussed in more detail below.

SOPs are in the process of being established for these activities. The SOPs can be found in Appendix D-3. Summary data should be collected for each reach for tracking and analysis purposes. A Microsoft Excel table as seen in Appendix D-4 can be used for such purposes.

### **Predictive Maintenance (PD) Tasks:**

Predictive Maintenance (PD) tasks are inspection and condition assessment-type tasks. These are performed to determine if the planned preventive maintenance task should be done as scheduled or rescheduled to a forward date if preventive maintenance, rehab or replacement is not needed. PM tasks are therefore performed based on asset condition and need rather than a strict time interval when maintenance may not be required. Tasks include:

- Closed Circuit TV (CCTV) video inspection of piping
- visual inspection of the maintenance access structure structures and their flow channels
- trending of flow monitoring data
- ground surface inspection of rights of way and easements over the gravity
- odor and corrosion assessment and monitoring programs

In the past few years, SAWPA has undertaken an extensive program to provide CCTV video inspection for the Brine Line system. The program is ongoing, and results of the program are being utilized to develop rehabilitation and repair program priorities. The yearly extent of the CCTV work can be found in Appendix D-3. A manual of CCTV policy and procedure is included in Appendix D-7. Also included in this appendix is a sample maintenance access structure inspection form that may be used to standardize this activity.

### **Corrective Maintenance (CM) Tasks:**

Corrective maintenance (CM) tasks are performed in response to a failure of an asset, component or part, or a critical utility outage. When managed assets critical to the process fail, they should be scheduled for CM on an urgent or routine basis on a priority schedule. Some of these repairs may be capitalized as a follow-up activity depending on asset cost and life expectancy. These types of CM repairs include:

- emergency cleaning to eliminate a pipe blockage



- spot repair or replacement of a failed pipe
- replacing a rattling or failed maintenance access structure cover
- respond to, investigate and mitigate customer complaints and sewer overflows
- repair of earthquake damage and vandalism

CM tasks should be documented at the time of the event and then input into records. Findings may lead to a spot repair of the pipe, root cutting, root foaming with an herbicide, re-cleaning for grease or debris removal on a periodic preventive basis, or scheduling a maintenance access structure-to-maintenance access structure pipe replacement or rehab in an urgent or lower priority planned manner.

#### *5.2.2 Reach V Preventative Operations and Maintenance*

Reach V is an essential and significant element of the Brine Line system. The same BMPs that apply to the other reaches must be applied to Reach V in order to protect the operational capabilities of the Brine Line system. The current configuration of Reach V and the resulting lack of access to the reach provide difficulty in maintaining these BMPs.

In order to maintain BMPs on Reach V of the Brine Line system, SAWPA is studying the implementation of pressure monitoring along Reach V to monitor the capacity of pipes that are not accessible. Preliminary hydraulic modeling results indicate that during high flow, or “flushing” scenarios, pressure deviations could be used to identify areas where capacity has been lost to sediment or debris. As this program is implemented, results and recommendations will be included in SSMP updates.

### *5.3 REHABILITATION AND REPAIR PROGRAM*

#### *5.3.1 Compliance Summary*

As part of the CCTV program that SAWPA has implemented as described above, SAWPA has identified and ranked the condition of pipes and maintenance access structures in much of the Brine Line system. The ranking system utilized identifies facilities in need of immediate repair or replacement, those in need of short-term repair and replacement, those in need of long-term repair and replacement, and those in need of more maintenance and/or monitoring. This identification was given as a ranking from 1-4 as shown in the figures above. SAWPA continues to identify and rank new rehabilitation and repair priorities as CCTV work is continued.

A preliminary CRP was developed from rankings provided by SAWPA. Priority defects were broken into short term (one year) and long term (five year) CRPs. Planning-level costs were assigned to the rehabilitation and repair activities. As each new CCTV project is completed, new defects that are identified should be added to the one year and five year CRPs as necessary.

Appendix D-8 shows the location of the one year and 5 year CRP projects along with corresponding data tables.

### *5.4 TRAINING*

#### *5.4.1 Compliance Summary*



Both WMWD and IEUA provide annual formal training in the following areas:

- Confined space entry
- Trench shoring
- First AID and CPR
- Spill Response
- WDR Spill Reporting

In addition to the training given above by member agencies, SAWPA is implementing Brine Line-Specific Training Protocols for all staff that perform Operations and Maintenance activities on the Brine Line. These protocols are being developed currently:

- Environmental Best Practices
- Easements
- Public Agency Coordination
- System Review

Place holders for the Brine Line-Specific Training Protocols can be seen in Appendix D-9. Full documentation will be updated into the SSMP as developed.

## *5.5 EQUIPMENT AND REPLACEMENT PART INVENTORIES*

### *5.5.1 Existing Compliance Summary*

WMWD maintenance trucks are equipped for minor repairs on smaller diameter pipelines. WMWD has a limited inventory of pipeline materials to conduct repairs to the Brine Line including small sections of PVC and Polyethylene pipe, repair clamps for 24 and 30 inch PVC pipe, and maintenance access structures and riser rings. WMWD typically relies on specialty contractors to conduct the repairs. Section 2.5.1 of the 2007 *Operation and Maintenance Program Plan* contains a short list of some proven contractors and suppliers. Similarly IEUA does not maintain a large replacement part inventory and relies primarily on pipeline supply houses for replacement pipeline, though replacement maintenance access structures are available.

Because there are no pump stations to be maintained in the Brine Line system, the number of critical replacement parts is minimal. SAWPA should maintain an updated list of replacement parts available at both WMWD and IEUA at all times.

## *5.6 COMPLIANCE DOCUMENTS*

The following documents, attached as appendices, support SAWPA's Operation and Maintenance Program, thereby allowing SAWPA to comply with the Operation and Maintenance Program requirements of the WDR:

- A Map of SAWPA's Existing Wastewater Facilities, including all gravity line segments and maintenance access structures, pressure pipes and valves, Appendix D-1
- *Inland Empire Brine Line Operation and Maintenance Program Plan*, Santa Ana Watershed Project Authority, August 2019 Update, Appendix D-2





- Brine Line Current Maintenance Tables and Figures, Appendix D-3
- *Sample Draft Standard Operating Procedures*, Appendix D-4
- Sample Draft O&M Data Collection Sheets, Appendix D-5
- Draft Valve Inspection Schedule Sheets, Appendix D-6
- CCTV Manual, Appendix D-7
- Preliminary Capital Replacement Program, November 2017, Appendix D-8
- Brine Line-Specific Training Protocols, Appendix D-9

### 5.7 DOCUMENT DESCRIPTIONS

A description for each compliance document listed above is described below:

#### 5.7.1 *Map of Existing Wastewater Facilities (Appendix D-1)*

SAWPA maintains an up-to-date Geographic Information System (GIS) database of their sanitary sewer system, including all gravity line segments and maintenance access structures, pressure pipes and valves. This database was utilized to create this map of SAWPA's wastewater facilities. Also included is a table of required system map data along with sample data tables to comply with this requirement.

#### 5.7.2 *Brine Line Operation and Maintenance Program Plan (Appendix D-2)*

SAWPA, WMWD, and IEUA each develop and maintain different types of system information, and perform various functions related to the overall Brine Line O&M program. This document summarizes the primary elements of the O&M program(s) currently in place for the Brine Line. *Section 2.2.2.1* describes WMWD's preventative operation and maintenance activities, which provides a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. For the sections of the Brine Line that are actively cleaned, WMWD's Preventative Maintenance program includes a system that documents and scheduled and conducted activities, such as work orders. Further, *Section 2.2.2.2* of SAWPA's *Operation and Maintenance Program*, describes the Inland Empire Utilities Agency's (IEUA) intent to identify potential problem areas along Reach IV-A of the Brine Line for inclusion in IEUA's regular pipeline cleaning program.

#### 5.7.3 *Brine Line Current Maintenance Tables and Figures (Appendix D-3)*

The cleaning activities described in the *Brine Line O&M Program Plan* have been organized in tables and linked to SAWPA's GIS for figural depiction. The gravity main maintenance activity can be seen in Figure 1. The lateral and connection maintenance activity can be seen in Figure 2 and Figure 3. Also included is a table of recommended lateral cleaning frequency. Figure 4 shows the yearly extent of SAWPA's CCTV work. Figure 5 shows the current known trouble spots and siphons.

#### 5.7.4 *Sample Draft Standard Operating Procedures (Appendix D-4)*

- Field logs and field record operator entries



- USA DigAlert
- Confined space entry
- Meter maintenance including calibration
- Brine Line pipeline maintenance
- Right-of-way maintenance
- Maintenance access structure maintenance
- Valve maintenance (air vac, blow-off, main line and sluice gates)

*5.7.5 Sample Draft O&M Data Collection Sheets (Appendix D-5)*

- SAWPA Sewer Cleaning Report
- Easement/Maintenance Access Structure Inspection Form
- Valve Maintenance/Inspection Form

*5.7.6 Draft Valve Inspection Schedule Sheets (Appendix D-6)*

Air/vacuum release valves along Reach V have been given a new identification system under the direction of SAWPA staff. The ID system and cleaning schedule can be seen in Appendix Q.

*5.7.7 CCTV Manual (Appendix D-7)*

This manual documents the general procedures and codes required to perform closed-circuit television inspection (CCTV) for SAWPA which owns and operates the Inland Empire Brine Line (formerly known as SARI) pipeline in conjunction with sub-authorities, Western Municipal Water District (WMWD) and the Inland Empire Utilities Agency (IEUA). The intent of this manual is to describe the collection and documentation of CCTV data procedures required to be followed by SAWPA employees, WMWD, IEUA, CCTV specialty contractors, CCTV operators, maintenance managers, engineers, construction inspectors, and construction contractors.

*5.7.8 Preliminary Capital Replacement Program (Appendix D-8)*

IEC developed preliminary one (1) year and five (5) year CRPs from rankings provided by SAWPA.

*5.7.9 Brine Line-Specific Training Protocols (Appendix D-9)*

The following training protocols have been identified for development:

- Environmental Best Practices
- Easements
- Public Agency Coordination
- System Review



## CHAPTER 6. DESIGN AND PERFORMANCE PROVISIONS

SAWPA's Design and Performance Provisions addresses those mandatory SSMP provisions outlined in Section D, 13 (v) Design and Performance Provisions of SWRCB Order No. 2006-0003.

SAWPA's Design and Performance Provisions encompass the following components:

- (1) Design and construction standards and specifications for the installation of new sanitary sewer systems; and for the rehabilitation and repair of existing sanitary sewer systems.
- (2) Procedures and standards for inspecting and testing the installation of new sewers, and for rehabilitation and repair projects.

### 6.1 COMPLIANCE SUMMARY

SAWPA requires that all new sanitary sewer systems and appurtenances, as well as the rehabilitation and repair of existing sewer facilities, be designed and constructed in accordance with the SAWPA's *Sewer System Standard Drawings and Technical Provisions of the Sewer System Specifications and Standard Drawings*. Procedures and standards for inspecting and testing the installation of new sewers and other appurtenances and for rehabilitation and repair projects are outlined in the SAWPA's *Technical Provisions of the Sewer System Specifications and Standard Drawings*.

SAWPA maintains Design and Performance Provisions which meet the requirements of Section D, 13 (v) Design and Performance Provisions of SWRCB Order No. 2006-0003:

- (1) SAWPA's *Sewer System Standard Drawings and Technical Provisions of the Sewer System Specifications and Standard Drawings* contain design and construction standards and specifications for the installation of new sanitary sewer systems and other appurtenances, and for the rehabilitation and repair of existing sanitary sewer infrastructure.
- (2) SAWPA's *Technical Provisions of the Sewer System Specifications and Standard Drawings* contains procedures and standards for inspecting and testing the installation of new sewers and other appurtenances and for rehabilitation and repair projects.

### 6.2 COMPLIANCE DOCUMENTS

The following documents, attached as appendices, support SAWPA's Design and Performance Provisions, thereby allowing SAWPA to comply with the Design and Performance Provisions requirements of the WDR:

- *Sewer System Standard Drawings*, Santa Ana Watershed Project Authority, Appendix C-2.
- *Technical Provisions of the Sewer System Specifications and Standard Drawings*, Santa Ana Watershed Project Authority, Appendix E-1.

### 6.3 DOCUMENT DESCRIPTIONS

A description for each compliance document listed above is described below:



### 6.3.1 *Sewer System Standard Drawings (Appendix C-2)*

These drawings include the SAWPA's Sewer System Standard Drawings for:

- S-01 60" Diameter Precast Maintenance Access Structure Installation
- S-02 Maintenance Access Structure Base for New or Existing Pipe
- S-03 Maintenance Access Structure Pipe Connectors
- S-04 Maintenance Access Structure Miscellaneous Details
- S-05 36" Maintenance Access Structure Frame and Two Concentric Covers
- S-06 Maintenance Access Structure Lining System
- S-07 Locking Maintenance Access Structure Cover
- S-08 Pipe Bedding and Trench Backfill for Sewer Facilities
- S-09 Permissible Depth of Cover for PVC Pipe
- S-10 Water, Recycled Water and Sewer Main Parallel Separations
- S-11 Water, Recycled Water and Sewer Main Perpendicular Separations
- S-12 Water, Recycled Water and Sewer Main Parallel and Perpendicular Separations Notes
- S-13 Sealed HDPE Gravity Sewer Maintenance Access Structure
- S-14 Sealed FRP Gravity Sewer Maintenance Access Structure
- S-15 Pipe Support for Undercut Sewer Mains

### 6.3.2 *Technical Provisions of the Sewer System Specifications and Standard Drawings (Appendix E-1)*

SAWPA's *Technical Provisions of the Sewer System Specifications and Standard Drawings* requires contractors to perform all operations necessary to construct sewer mains and appurtenances as specified within the provisions, and as shown on SAWPA's *Sewer System Standard Drawings*. Specific sewer specifications are outlined in the following sections:

- Scope
- Excavation
- Bedding
- Bedding and Backfill
- Vitrified Clay Pipe (VCP) Sewer Pipe
- Installation
- Maintenance access structures and Appurtenances
- Laterals



- Testing Sewer for Leakage and Visual Inspection
- Inspection and Pipeline Interior
- Pipe Repair and Replacement
- Conductor Casings and Carrier Pipes
- Polyvinyl Chloride (PVC) Sewer Pipe
- High Density Poly Ethelene (HDPE) Pipe
- Special Rules and Regulations Applicable for Certain Sewer Connections



## **CHAPTER 7. OVERFLOW EMERGENCY RESPONSE PLAN**

SAWPA's Overflow Emergency Response Plan addresses those mandatory SSMP provisions outlined in Section D, 13 (vi) Overflow Emergency Response Plan of SWRCB Order No. 2006-0003, as well as the Notification requirements in of SWRCB Order No. WQ 2008-0002-EXEC.

SAWPA has developed and implemented an overflow emergency response plan that identifies measures to protect public health and the environment, thereby satisfying Section D, 13 (vi) Overflow Emergency Response Plan of SWRCB Order No. 2006-0003 by including:

- (1) Proper notification procedures so that primary responders and regulatory agencies are informed of all Sanitary Sewer Overflows (SSOs) in a timely manner;
- (2) A program to ensure an appropriate response to all overflows;
- (3) Procedures which ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, regional water boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the Monitoring and Reporting Program (MRP). All SSOs will be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable regional water boards Waste Discharge Requirements (WDR's) or National Pollution Discharge Elimination System (NPDES) permit requirements. The SSMP should identify the officials who will receive immediate notification;
- (4) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;
- (5) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and
- (6) A program 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.

SAWPA's Overflow Emergency Response Plan also complies with the additional notification requirements outlined in SWRCB Order No. WQ 2008-0002-EXEC:

- (1) In the event of a sewage discharge that results in a discharge to a drainage channel or a surface water, SAWPA will, as soon as possible, but not later than two (2) hours after becoming aware of the discharge, notify the State Office of Emergency Services, the local health officer or directors of environmental health with jurisdiction over affected water bodies, and the Santa Ana Regional Water Quality Control Board.
- (2) As soon as possible, but no later than twenty-four (24) hours after becoming aware of a discharge to a drainage channel or a surface water, SAWPA will submit to the Santa Ana Regional Water Quality Control Board a certification that the State Office of Emergency Services and the local health officer or directors of environmental health



with jurisdiction over the affected water bodies have been notified of the discharge.

### 7.1 COMPLIANCE SUMMARY

SAWPA has outlined specific measures to protect public health and the environment in its *Overflow Emergency Response Plan* (Appendix B). These procedures contain a plan for responding and reporting to SSOs which includes, but is not limited to, the following:

- Descriptions, responsibilities and authorities for each management, administrative and maintenance position responsible for responding to and reporting an SSO.
- Procedures for receiving SSO notification and immediately notifying first responders of the SSO.
- Procedures to rapidly mobilize; contain any SSO; and diagnose, report on, and relieve its cause.
- Procedures to provide emergency operations, such as traffic control, in the event of an SSO.
- Procedures for reporting all SSOs to the On-Line SSO Reporting System.
- Procedures to post the proper signs to warn the public of potential contamination hazards.
- Procedures to restore the environment to the condition that existed before the SSO occurred.

SAWPA and appropriate member agency personnel conduct internal training sessions to ensure familiarity with these procedures and prepare staff for an SSO event, from initial notification to SSO report documentation, including any necessary emergency activities, such as traffic control.

Through these documents and programs, SAWPA has developed and implemented an Overflow Emergency Response Plan that identifies measures to protect public health and the environment, thereby satisfying Section D, 13 (vi) Overflow Emergency Response Plan of SWRCB Order No. 2006-0003:

- (1) Section 3 of SAWPA's *Overflow Emergency Response Plan* outlines the proper SSO response and notification procedures, thereby ensuring that primary responders and regulatory agencies are informed of all SSOs in a timely manner;
- (2) Section 3 of SAWPA's *Overflow Emergency Response Plan* contains a program to ensure an appropriate response to all overflows;
- (3) Section 3, specifically sections 3.3 and 3.4.3, of SAWPA's *Overflow Emergency Response Plan* outlines the procedures which ensure prompt notification to appropriate regulatory agencies and other potentially affected entities of all SSOs that potentially affect public health or reach the waters of the State in accordance with the Monitoring and Reporting Program (MRP). Additionally, Section 4 discusses the SWRCB On-Line Reporting. The Executive Manager of Engineering & Operations is the authorized representative for



SAWPA, as described in Section J of SWRCB Order No. 2006-2003. SAWPA will report the SSO to all other appropriate agencies as shown in Figure 3-2 with the appropriate contact information in Appendix B. This ensures that all regulatory agencies are informed of all SSOs in a timely manner;

- (4) As per Section 6 of SAWPA's *Overflow Emergency Response Plan*, SAWPA and its member agencies conducts internal training sessions to ensure familiarity with these procedures and prepare staff and contractor personnel for an SSO event, from initial notification to SSO report documentation, including any necessary emergency activities, such as traffic control;
- (5) Procedures to address emergency operations, such as traffic control and other necessary response activities, are addressed in Sections 3.4.4 and 3.5 of SAWPA's *Overflow Emergency Response Plan*; and
- (6) Section 3 of SAWPA's *Overflow Emergency Response Plan* 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.

The provisions of SAWPA's Overflow Emergency Response Plan that comply with SWRCB Order No. WQ 2008-0002-EXEC are contained in Section 4 of SAWPA's *Overflow Emergency Response Plan*:

- (1) In the event of a sewage discharge that results in a discharge to a drainage channel or a surface water, SAWPA will, as soon as possible, but not later than two (2) hours after becoming aware of the discharge, notify the Riverside County Department of Public Health, the San Bernardino County Department of Public Health and the Santa Ana Regional Water Quality Control Board.
- (2) Notification to the Santa Ana Regional Water Quality Control Board would be followed-up within 24 hours by phone, fax or email, and would also specify that the State Office of Emergency Services, the Riverside County Department of Public Health, and the San Bernardino County Department of Public Health have already been notified.

## 7.2 COMPLIANCE DOCUMENTS

The following documents allow SAWPA to comply with the overflow and emergency response plan requirements of the WDR, and are attached as appendices.

- *Overflow Emergency Response Plan*, Santa Ana Watershed Project Authority, Last Updated December 2018, Appendix F-1.
- *Brine Line ERP – OC to Brine Line Ranch (OCSD, 2004)*, Appendix F-2

## 7.3 DOCUMENT DESCRIPTION

A description for each compliance document listed above is described below:

### 7.3.1 *Overflow Emergency Response Plan (Appendix F-1)*





SAWPA maintains a plan for responding and reporting to SSOs in their *Overflow Emergency Response Plan*. The purpose of these procedures is to minimize the impact of SSO's to the public and the environment. This response plan is a guideline for the standard operating procedures in the event of a SSO, and is reviewed periodically to ensure that all corrective measures are being taken. The plan includes the following contents:

- Introduction
- System Description and Regulatory Environment
- Emergency Response Plan
  - Notification and Response Procedures
  - Impact Mitigation and Containment Procedures
  - Emergency Operations
  - Vendors, Suppliers, and Response Contractors
- Sanitary Sewer Overflow Reporting
- Record Keeping and Certification
- Training and Follow-up Plans

Specifically, the *Overflow Emergency Response Plan* addresses the following:

#### *7.3.1.1 Introduction*

Describes the background and purpose of the *Overflow Emergency Response Plan (OERP)*, the project scope, objective, and the OERP organization.

#### *7.3.1.2 System Description and Regulatory Environment*

Describes the project area and system, system hydraulics, and potential sanitary sewer overflow mechanisms. The Inland Empire Brine Line (formerly known as SARI) is owned by SAWPA and operated by the Western Municipal Water District (WMWD) and the Inland Empire Utilities Agency (IEUA). Other member agencies of SAWPA include the San Bernardino Valley Municipal Water District (SBVMWD), the Eastern Municipal Water District (EMWD), the Orange County Water District (OCWD), and Orange County Sanitation District (OCSD). Due to the influence of the desalting and industrial facilities, the Brine Line does not experience the typical diurnal flow pattern of a domestic wastewater system. The Brine Line generally operates in either a high or low flow mode. In addition to common SSO mechanisms, such as damages, blockages, and infiltration, SAWPA must also consider potential seismic activity of the Elsinore fault zone and Yorba Linda fault line, as well as increased loading conditions from the Prado Reservoir and Dam.

#### *7.3.1.3 Notification and Response Procedures*

Includes the procedures for receiving SSO notification and immediately notifying first responders of the SSO. Once an SSO report is received and verified, SAWPA will notify internal agencies such as SBVMWD, IEUA, WMWD, and EMWD. SAWPA may also contact



upstream dischargers to temporarily suspend industrial and desalter discharges to reduce the total flow in the Brine Line. Off hours, initial communications will be routed through WMWD Operations Center. Note that internal notification responsibilities may shift amongst SAWPA and its member agencies as communication will vary based upon which agency receives the initial report.

#### *7.3.1.4 Impact Mitigation and Containment Procedures*

Includes the procedures to contain the SSO and prevent impacts. Mitigation and containment activities may include: interception and rerouting of untreated or partially treated wastewater flows around the failure that produced the SSO; vacuum truck recovery of SSO and wash down water; cleanup of debris at the overflow site; system modifications to prevent future SSOs in the same location; public notification and traffic and crowd control to minimize public exposure to the SSO. In the event of a failure in a segment of the Brine Line, upstream permitted dischargers to the Brine Line will be required to stop flow while the pipeline is being repaired. Desalters are required by their discharge permit to cease discharge to the Brine Line if deemed necessary in an emergency situation by SAWPA.

#### *7.3.1.5 Emergency Operations*

Includes procedures for bypass pumping, pump and haul initial response, and additional emergency measures for flow reduction such as limitations on upstream desalter use, identification and implementation of alternate treatment facilities, a limitation on new discharge permits or increased discharge flows for an existing permit, and/or a temporary halt to the construction of new connection laterals to the Brine Line. Additionally, truck dumping stations upstream of the failure will be immediately instructed to cease operations during a catastrophic failure of the Brine Line.

#### *7.3.1.6 Vendors, Suppliers, and Response Contractors*

Includes information for utilizing external vendors, suppliers, and response contractors when SAWPA and member agency resources are insufficient.

#### *7.3.1.7 Sanitary Sewer Overflow Reporting*

Includes the procedures and timeframes for reporting SSOs. All SSO's will be reported as soon as the SAWPA has knowledge of the discharge and as soon as reporting is possible. Additionally, reporting can be provided without substantially impeding cleanup or other emergency measures. Initial reporting of SSO's must be reported to the Online SSO System as soon as possible but no later than 3 business days after SAWPA is made aware of the SSO. Reporting requirements include: the beginning and ending time of the SSO spill, location, and cause; whether the SSO reached surface waters or a storm drain; the total gallons of SSO spilled



and recovered; any damage that was caused and any repairs that were made because of the SSO; photos of the affected area; and all notifications.

#### *7.3.1.8 Record Keeping and Certification*

Includes SAWPA's SSO record keeping and certification requirements. The records of SSOs that must be retained include, but are not limited to: record of certified report, as submitted to the online SSO database; all original recordings for continuous monitoring instrumentation; service call records and complaint logs of calls received by SAWPA; SSO calls and records; and work orders. The Executive Manager of Engineering & Operations is the authorized representative for SAWPA, as described in Section J of SWRCB Order No. 2006-2003. Accordingly he must sign and certify all final reports.

#### *7.3.1.9 Training and Follow-up Plans*

SAWPA's OERP is updated on an annual basis to incorporate any changes to the emergency response personnel and/or procedures. SAWPA has been and continues to conduct internal training and/or a field practicum in order to prepare staff for an SSO event. Staff is notified of any changes to the OERP, particularly annual updates that may be made to the report, and are retrained if major response protocols are revised. Additionally, in November 2006, current SAWPA response staff completed a training course developed by the State Water Board and the California Water Environment Association (CWEA) about the terms of the WDR and use of the online SSO database, as well as development of an SSMP.

#### *7.3.2 Brine Line ERP – OC to Brine Line Ranch (OCSD, 2004) (Appendix F-2)*

This document is a reference document for emergency response in the lower Brine Line system in Orange County.



## **CHAPTER 8. FATS, OILS AND GREASE CONTROL PROGRAM (FOG)**

SAWPA's Fats, Oils and Grease Control Program addresses those mandatory SSMP provisions outlined in Section D, 13 (vii) FOG Control Program of SWRCB Order No. 2006-0003.

SAWPA's FOG Control Program helps reduce the amount of Fats, Oils and Grease discharged to the sanitary sewer system, by including:

- (1) A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area, and a list of acceptable disposal facilities.
- (2) Legal authority to prohibit discharges to the system and identify measures to prevent SSO's and blockages caused by FOG.
- (3) Requirements to install grease removal devices, design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements.
- (4) Authority to inspect grease producing facilities, enforcement authorities, and sufficient staff to inspect and enforce the FOG ordinance.
- (5) Identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section.
- (6) Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified.
- (7) Implementation of a plan and schedule for a public education outreach program that promotes proper disposal of FOG.

### *8.1 COMPLIANCE SUMMARY*

To reduce the amount of Fats, Oils and Grease discharged to SAWPA's sanitary sewer system, SAWPA has utilized the FOG programs and Operation and Maintenance Programs of its member agencies as a basis to developed its own FOG Control Program.

The Jurupa Community Service District (JCSD) disposes of waste into the Brine Line and maintains a FOG control program. JCSD identifies all Food Service Establishments (FSE) within their service area. Accordingly, each of these customers receives a *Food Service Establishment FOG Information Packet*. This packet includes a FSE Information and Preventative Maintenance Form, FSE Best Management Practices, two Managing FOG Posters to be posted in dishwashing and cooking areas, Grease Interceptor Operation, and Grease Interceptor Pumping Companies. Additionally, all dischargers to the Brine Line must complete a *Waste Discharge Application* in order to receive sewer service, as per SAWPA's *Ordinance No. 7, Article 4*. Currently there are no Significant Industrial Users, and only one Permitted FSE, Farmer Boys Restaurant, in the JCSD that discharge into the Brine Line. JCSD conducts unscheduled annual inspections of each FSE to ensure that the FOG Control System is being properly operated and maintained. During the inspection, the grease interceptor's condition is checked, the FSE's



compliance with the BMP's is evaluated, and the Information and Grease Interceptor Forms are updated. JCSD maintains standard drawings of grease interceptors.

Western Municipal Water District (WMWD) conducts preventative operation and maintenance activities and provides a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. For the sections of the Brine Line that are actively cleaned, WMWD's Preventative Maintenance program includes a system that documents scheduled and conducted activities, such as work orders. Inland Empire Utilities Agency's (IEUA) identifies potential problem areas along Reach IV-A of the Brine Line for inclusion in IEUA's regular pipeline cleaning program. These O&M practices are expected to encompass FOG problems as distinguished in documentation maintained by both agencies. Specific sections identified to have FOG problems include the Schliessman Siphon, which is cleaned every 2 to 3 weeks, and the CRC, though a grit removal system is currently being designed for this section.

In summary, SAWPA maintains a FOG Control which meets the requirements of Section D, 13 (vii) FOG Control Program of SWRCB Order No. 2006-0003:

- (1) SAWPA maintains a plan and schedule for the disposal of FOG generated within their sanitary sewer system service area in SAWPA's *Ordinance No. 7, Article 5*. Specifically, *Section 508.0* details interceptor maintenance and *Section 508.0(D)* requires that sediment, liquid and floating material will be legally disposed of when an interceptor is cleaned. Additionally, JCSD distributes a *Food Service Establishment FOG Information Package* which includes a list of grease interceptor pumping companies that can provide collection and disposal services within their service area.
- (2) SAWPA possesses the legal authority to prohibit discharges to the system and identify measures to prevent SSO's and blockages caused by FOG through *Ordinance No. 7*. Specifically, *Section 201.0(P)* of *Ordinance No. 7, Article 2* prohibits discharge of FOG into the Brine Line System. Additionally, *JCSD Ordinance 226, Section 2.15.28* prohibits discharge of any wastewater to the storm drain, service dock areas, or ground and requires that wastewater generated by restaurants will be disposed of to a sanitary sewer through an approved gravity separation interceptor, or a sample station connected to a sanitary sewer, or hauled off-site and disposed at a legal disposal site.
- (3) SAWPA's requirements to install grease removal devices, design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements are discussed in *Ordinance No. 7, Article 5*, and their *Waste Discharge Permit Application*. Additionally, JCSD distributes a *Food Service Establishment FOG Information Packet* to all FSEs within their service area. This packet includes a FSE Information and Preventative Maintenance Form, FSE Best Management Practices, and Grease Interceptor Operation. JCSD also maintains standard drawings for grease interceptors.



- (4) SAWPA has authority to inspect grease producing facilities through *Ordinance No. 7, Articles 5 and 6*, and enforces any violation of its sewer ordinances in accordance with their *Enforcement Response Plan*. SAWPA has sufficient staff to provide inspections of each removal device in their service area. According to *Section 502.0 of Ordinance No.5, Article 5*, the General Manager will inspect the facilities of any user using the Brine Line System or tributaries thereto to ascertain whether all requirements of the Ordinance are being met.
- (5) Western Municipal Water District (WMWD) conducts preventative operation and maintenance activities and provides a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. Inland Empire Utilities Agency's (IEUA) identifies potential problem areas along Reach IV-A of the Brine Line for inclusion in IEUA's regular pipeline cleaning program. Specific sections identified to have FOG problems include the Schliessmann Siphon, which is cleaned every 2 to 3 weeks, and possibly the CRC, though a grit removal system is currently being designed for this section.
- (6) SAWPA has developed and implemented source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified by adopting *Ordinance No. 7* and their Member Agency Agreements and by requiring Wastewater Discharge Permits.
- (7) As JCSD is the agency which disposes of FOG waste into the Brine Line, they distribute a *Food Service Establishment FOG Information Packet* to all FSEs within their service area. This packet includes a FSE Information and Preventative Maintenance Form, FSE Best Management Practices, two Managing FOG Posters to be posted in dishwashing and cooking areas, Grease Interceptor Operation, and Grease Interceptor Pumping Companies.

## 8.2 COMPLIANCE DOCUMENTS

The following documents, attached as appendices, support SAWPA's FOG Control Program, thereby allowing SAWPA to comply with the FOG Control Program requirements of the Statewide General Waste Discharge Requirements (WDR):

- *Ordinance No. 8, An Ordinance Establishing Regulations for the Use of the Inland Empire Brine Line*, Adopted by the Commission of the Santa Ana Watershed Project Authority, September 19, 2017, Appendix C-1.
- Member Agency Agreements, Appendix C-3.
  - *Multijurisdictional Pretreatment Agreements Between Western Municipal Water District and Santa Ana Watershed Project Authority*, July 01, 2007.
  - *Multijurisdictional Pretreatment Agreements Between Eastern Municipal Water District and Santa Ana Watershed Project Authority*, October 17, 2001.
  - *Multijurisdictional Pretreatment Agreements Between Inland Empire Utilities Agency and Santa Ana Watershed Project Authority*, May 20, 2003.



- *Multijurisdictional Pretreatment Agreements Between San Bernardino Valley Municipal Water District and Santa Ana Watershed Project Authority*, April 8, 2003.
- *Multijurisdictional Pretreatment Agreement Between Western Municipal Water District and Santa Ana Watershed Project Authority*, July 1, 2007.
- *Operation and Maintenance Agreement for Reach IV, IV-A, IV-B, IV-D, and IV-E, and The Buchanan Street Truck Dump Station Between Western Municipal Water District and Santa Ana Watershed Project Authority*, June 12<sup>th</sup>, 1995.
- *Inland Empire Brine Line Operation and Maintenance Program Plan*, Santa Ana Watershed Project Authority, August 2019 Update, Appendix D-2.
- *JCSD Ordinance 226, Sections Related to FOG*, Jurupa Community Service District, Appendix G-1.
- *JCSD Food Service Establishment FOG Information Package*, Jurupa Community Service District, November 16, 2006, Appendix G-2.
- *JCSD Interceptor Standard Drawings*, Jurupa Community Service District, August 1990, Appendix G-3.

### 8.3 DOCUMENT DESCRIPTIONS

A description for each compliance document listed above is described below:

#### 8.3.1 *Ordinance No. 8, Establish Regulations for Use of the Inland Empire Brine Line (Appendix C-1)*

This ordinance, adopted by the Commission on September 19, 2017, regulates the use of the Inland Empire Brine Line (formerly known as SARI) sewer system and tributaries thereto and the wastewater discharged to this sewer system, by providing for the distribution of the cost of construction, administration, operation and maintenance of the system, and by providing procedures that will allow SAWPA to comply with all regulatory requirements imposed upon SAWPA by contract requirements and by federal, state, and local agencies. The provisions of this Ordinance apply to sewer use, maintenance, discharge, deposit, or disposal of wastewater, both directly and indirectly, into and through all District collection systems and to the issuance of control mechanisms and assessment/imposition of fees, fines and penalties thereof. This Ordinance applies to all users of SAWPA's sewer system and specifies herein that all users of SAWPA's sewer system are subject to regulation and enforcement.

As adopted by the Commission, *Article 2* prohibits illicit discharges, including FOG, to the Brine Line system. *Articles 3* and *4* outline requirements, charges and fees, and conditions of Wastewater Discharge Contracts and Wastewater Discharge Permits respectively. *Article 5* details SAWPA's monitoring, reporting, inspection and facilities requirements including interceptor requirements and *Article 6* explains enforcement of the Ordinance.



### 8.3.2 *Member Agency Agreements (Appendix C-3)*

Each of the Member Agency Agreements, or successive Addendums, between SAWPA its member agencies contains detailed obligations for the appropriate member agency in order to comply with Orange County Sanitation District's (OCS D) Ordinance, SAWPA's Ordinance No. 7, and federal and state laws and regulations. These obligations may include: the responsibility to issue Waste Discharge Permits (Permits) and to enforce violations of Permit requirements; the responsibility to monitor wastewater flows and perform inspections at the member agency's expense; the responsibility to collect and noncompliance fines, fees, user charges, taxes, capital recovery fees, and other lawful charges as levied by the member agency; the responsibility to monitor discharge of trucked wastewater; and the responsibility to prepare and submit appropriate Quarterly and Annual Reports about the administration of the member agency's Nonreclaimable Waste Line Use Ordinance (NWL UO), and the agreement to the US Environmental Protection Agency (USEPA), the Santa Ana Regional Water Quality Control Board, and SAWPA.

- *Multijurisdictional Pretreatment Agreements between Eastern Municipal Water District and Santa Ana Watershed Project Authority, September 20, 2011.*
- *Multijurisdictional Pretreatment Agreements Between Inland Empire Utilities Agency and Santa Ana Watershed Project Authority, January 17, 2012.*
- *Multijurisdictional Pretreatment Agreements Between San Bernardino Valley Municipal Water District and Santa Ana Watershed Project Authority, January 17, 2012.*
- *Operation and Maintenance Agreement for Reach IV, IV-A, IV-B, IV-D, and IV-E between Western Municipal Water District and Santa Ana Watershed Project Authority, August 6, 2013.*
- *Multijurisdictional Pretreatment Agreement Between Western Municipal Water District and Santa Ana Watershed Project Authority, January 17, 2012.*

### 8.3.3 *Brine Line Operation and Maintenance Program Plan (Appendix D-2)*

SAWPA, WMWD, and IEUA each develop and maintain different types of system information, and perform various functions related to the overall Brine Line O&M program. This document summarizes the primary elements of the O&M program(s) currently in place for the Brine Line. *Section 2.2.2.1* describes WMWD's preventative operation and maintenance activities, which provides a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. For the sections of the Brine Line that are actively cleaned, WMWD's Preventative Maintenance program includes a system that documents and scheduled and conducted activities, such as work orders. Further, *Section 2.2.2.2* of SAWPA's *Operation and Maintenance Program*, describes the Inland Empire Utilities Agency's (IEUA) intent to identify potential problem areas along Reach





IV-A of the Brine Line for inclusion in IEUA's regular pipeline cleaning program. These O&M practices are expected to encompass FOG problems as distinguished in documentation maintained by both agencies.

#### *8.3.4 JCSD Ordinance 226, Sections Related to FOG (Appendix G-1)*

This Ordinance enforces JCSD's FOG Control Program in the following sections.

- Section 2.11.25 Interceptor Requirements
- Section 2.12.26 Standard Interceptor Designs
- Section 2.13.26 Interceptor Maintenance
- Section 2.14.27 Restaurants
- Section 2.15.28 Prohibited Restaurant Surface Discharges
- Section 2.16.28 Conditional Waivers

#### *8.3.5 JCSD Food Service Establishment FOG Information Package (Appendix G-2)*

JCSD distributes this information package to all Food Service Establishments within their service area. Each package details JCSD's FOG Control Program and BMPs and includes the following:

- FSE Information and Preventative Maintenance Form
- FSE Best Management Practices
- Managing Fats, Oil and Grease Posters (2)
- Grease Interceptor Operations
- Grease Interceptor Pumping Companies

#### *8.3.6 JCSD Interceptor Standard Drawings (Appendix G-3)*

These drawings include the standard drawings for devices used to intercept and separate FOG including:

- Gravity Separator (850 gal to 1500 gal)
- Gravity Separator (2000 gal to 3000 gal)



## CHAPTER 9. SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

SAWPA's System Evaluation and Capacity Assurance Plan addresses those mandatory SSMP provisions outlined in Section D, 13 (viii) System Evaluation and Capacity Assurance Plan of SWRCB Order No. 2006-0003.

SAWPA has prepared and implemented a System Evaluation and Capacity Assurance Plan to ensure that there is adequate 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. SAWPA's System Evaluation and Capacity Assurance Plan encompass the following components:

- (1) Evaluation - Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or have contributed to an SSO discharge caused by hydraulic deficiency. The evaluation provides estimates of peak flows (including flows from SSOs that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events.
- (2) Design Criteria - Where design criteria do not exist or are deficient, undertake the evaluation identified in (1) above to establish appropriate design criteria.
- (3) Capacity Enhancement Measures - The steps needed to establish a short- and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP includes increases in pipe size, I/I reduction programs, and storage facilities as necessary. The CIP will include an implementation schedule and will identify sources of funding.
- (4) Schedule – SAWPA has developed a schedule of completion dates for all portions of the CIP developed in (1)-(3) above. This schedule will be reviewed and updated consistent with the SSMP review and update requirements as described in Section D. 14.

### 9.1 COMPLIANCE SUMMARY

SAWPA maintains a System Evaluation and Capacity Assurance Plan which meet the requirements of Section D, 13 (viii) System Evaluation and Capacity Assurance Plan of SWRCB Order No. 2006-0003:

- (1) SAWPA developed and maintains a hydraulic model of the Brine Line system for evaluation of hydraulic capacity. The development of this model is described in *Santa Ana Regional Interceptor Hydraulic Model and Capacity Assessment, January 2006 (2006 Capacity Assessment)*. As described in this document, the hydraulic model of the Brine Line system is an all-pipes, fully dynamic model based upon the Storm Water Management Model (SWMM) engine, which is approved by both FEMA and the EPA. The model evaluates Average Dry Weather Flow (ADWF), Peak Dry Weather Flow (PDWF) and Peak Wet Weather Flow (PWFF) in the Brine Line system. These flows are evaluated for both existing and future conditions. The model is actively used by SAWPA staff



and is updated when Brine Line infrastructure or flow changes. The *2006 Capacity Assessment* can be found in Appendix A.

- (2) SAWPA maintains the appropriate design criteria necessary to ensure sufficient capacity, as well as preserve the estimated life-cycle of wastewater infrastructure. These design criteria were developed in the *2006 Capacity Assessment*. The hydraulic design criteria for the Brine Line system can be seen summarized in Appendix B.
- (3) Hydraulic modeling results show that SAWPA has sufficient capacity to convey the projected flows from the current dischargers and the current projected future dischargers. Existing discharge amounts and predicted future discharge amounts are updated regularly in the model by SAWPA staff. The most current discharge information can be seen in Appendix C.
- (4) Although a Capital Improvement Program (CIP) is not necessary for hydraulic improvements to the Brine Line system, a Capital Replacement Program (CRP) has been developed. The CRP was developed from rankings provided by SAWPA. Priority defects were broken into short term (one year) and long term (five year) CRPs. As projects are completed the schedule will be reviewed and updated consistent with the SSMP review and update requirements. Additionally, as new dischargers connect to the Brine Line, SAWPA will reevaluate the sewer system using the hydraulic model and a CIP will be developed if needed. The CIP will include projected cost estimates, alternatives analysis, project prioritization, and an identification of potential sources of funding.

## 9.2 COMPLIANCE DOCUMENTS

The following documents, attached as appendices, support SAWPA's System Evaluation and Capacity Assurance Plan, thereby allowing SAWPA to comply with the System Evaluation and Capacity Assurance Plan requirements of the WDR:

- Brine Line Dischargers, Santa Ana Watershed Project Authority, May 2014, Appendix H-1.
- *Santa Ana Regional Interceptor Hydraulic Model and Capacity Assessment*, September 2009 Update, Appendix H-2.
- *Brine Line Hydraulic Design Criteria*, Santa Ana Watershed Project Authority, Appendix H-3
- Current Flow Data (SAWPA, June 2019), Appendix H-4
- I&I Assessment (SAWPA, June 2010 Update), Appendix H-5.



### 9.3 DOCUMENT DESCRIPTIONS

A description for each compliance document listed above is described below:

#### 9.3.1 *Flow Projections (Appendix H-1)*

SAWPA's member agencies including Western Municipal Water District (WMWD), Inland Empire Utilities Agency (IEUA), San Bernardino Valley Municipal Water District (SBVMWD), and Eastern Municipal Water District (EMWD) provide SAWPA with flow projections for the Inland Empire Brine Line (formerly known as SARI). This document presents these flow projections for the existing, and ultimate time increments.

#### 9.3.2 *Inland Empire Brine Line Hydraulic Model and Capacity Study (Appendix H-2)*

The *2006 Capacity Assessment* describes in detail the development of the Brine Line hydraulic model. Infrastructure development, average flow development, peak flow development, wet weather flow development, and hydraulic scenario development are described. The hydraulically limiting infrastructure for each Brine Line reach is identified, along with the maximum flow through this infrastructure given the design criteria. Strategies for capacity improvement, including infrastructure replacement, I&I reduction, and peak mitigation are discussed. As the hydraulic model has been updated on a regular basis since the completion of this report, a model update log is included with this document to track changes to the model.

#### 9.3.3 *SAWPA Design Criteria (Appendix H-3)*

In analyzing a wastewater system, it is necessary to derive standards regarding the amount of flow that may be efficiently conveyed. A set of standards for the SAWPA's gravity mains was developed, based on the SAWPA's standard criteria and typical industry standards.

#### 9.3.4 *Current Flow Data (SAWPA, 2008) (Appendix H-4)*

This data is collected monthly by WMWD and will be updated regularly in the document.

#### 9.3.5 *I&I Assessment (Appendix H-5)*

In 2010, SAWPA performed the attached I&I analysis to investigate inflow and infiltration that is entering the Brine Line.



## **CHAPTER 10. MONITORING, MEASUREMENT, AND PROGRAM MODIFICATIONS**

SAWPA's Monitoring, Measurement, and Program Modifications addresses those mandatory SSMP provisions outlined in Section D, 13 (ix) Monitoring, Measurement, and Program Modifications of SWRCB Order No. 2006-0003.

SAWPA's Monitoring, Measurement, and Program Modifications encompass the following components:

- (1) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;
- (2) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;
- (3) Assess the success of the preventative maintenance program;
- (4) Update program elements, as appropriate, based on monitoring or performance evaluations; and
- (5) Identify and illustrate SSO trends, including: frequency, location, and volume.

### *10.1 COMPLIANCE SUMMARY*

SAWPA tracks the location and cause of all SSOs, blockages, gravity main hot-spots, and other problem areas. SAWPA's member agencies maintain record of all cleaning activities. Further, Appendix P contains recommended Operation and Maintenance Data Sheets which details the size, material and location of each pipe cleaned, as well as the equipment utilized, and any relevant remarks observed during the cleaning to keep all documentation organized.

SAWPA identifies food preparation and service locations that connect to the Brine Line by during the Wastewater Discharge Application process. These locations that directly or indirectly connect to the Brine Line are required by the governing agency to maintain interceptors. Routine inspections are performed and recorded by the governing agency for those interceptors tributary to sections of the sanitary sewer system subject to high levels of FOG.

In the past few years, SAWPA has undertaken an extensive program to provide CCTV video inspection for the Brine Line system. The program is ongoing, and results of the program are being utilized to develop rehabilitation and repair program priorities.

In order to monitor the implementation and measure the effectiveness of the SSMP, SAWPA tracks several performance indicators in their Monitoring, Measurement, and Program Modification Spreadsheets (Appendix I-1).

In order to keep the SSMP up to date, SAWPA has assigned a staff member to review the SSMP annually. In addition to tracking the above performance indicators, the staff member will review all sections of the SSMP for effectiveness and timeliness. Collection system personnel will also be



consulted annually to review the effectiveness of the SSMP, and help identify potential areas for improvement.

In summary, SAWPA maintains a Monitoring, Measurement, and Program Modifications which meets the requirements of Section D, 13 (ix) Monitoring, Measurement, and Program Modifications of SWRCB Order No. 2006-0003:

- (1) SAWPA tracks the location and cause of all SSOs, blockages, and gravity main hot-spots, and other problem areas. SAWPA's member agencies maintain record of all cleaning activities. Further, Appendix P contains recommended Operation and Maintenance Data Sheets which details the size, material and location of each pipe cleaned, as well as the equipment utilized, and any relevant remarks observed during the cleaning to keep all documentation organized. SAWPA identifies food preparation and service locations that connect to the Brine Line by during the Wastewater Discharge Application process. These locations that directly or indirectly connect to the Brine Line are required by the governing agency to maintain interceptors. Routine inspections are performed and recorded by the governing agency for those interceptors tributary to sections of the sanitary sewer system subject to high levels of FOG.
- (2) SAWPA monitors the implementation of the SSMP, and measures the effectiveness of each element by SSMP by developing and tracking performance indicators in their Monitoring, Measurement and Program Modification Spreadsheets (Appendix X) on an annual basis;
- (3) By tracking performance indicators, SAWPA is able to assess the success of their preventative maintenance program;
- (4) SAWPA has assigned a staff member to review the SSMP annually, in order to update all program elements as appropriate. In addition to tracking the above performance indicators, the staff member will review all sections of the SSMP for effectiveness and timeliness. Collection system personnel will also be consulted annually to review the effectiveness of the SSMP, and help identify potential areas for improvement;
- (5) SAWPA tracks the frequency, location and volume of all SSOs.

## 10.2 COMPLIANCE DOCUMENTS

The following documents allow SAWPA to comply with the Monitoring, Measurement, and Program Modifications requirements of the WDR, and are attached as appendices.

- o SSMP Monitoring, Measurement, and Program Modifications Spreadsheets, Santa Ana Watershed Project Authority, March 2009, Appendix I-1.



### *10.3 DOCUMENT DESCRIPTIONS*

A description for each compliance document listed above is described below:

#### *10.3.1 SSMP Monitoring, Measurement and Program Modification Spreadsheets (Appendix I-1)*

SAWPA annually updates spreadsheets for each chapter of the SSMP to monitor and measure the effectiveness of the SSMP elements and to keep a record of program updates.



## **CHAPTER 11. SSMP PROGRAM AUDITS**

SAWPA's SSMP Program Audits addresses those mandatory SSMP provisions outlined in Section D, 13 (x) SSMP Program Audits of SWRCB Order No. 2006-0003.

SAWPA is required to conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit will focus on evaluating the effectiveness of the SSMP and SAWPA's compliance with the SSMP requirements identified in Section D, 13 of SWRCB Order No. 2006-0003, including the identification of any deficiencies in the SSMP and steps to correct them.

An external audit was conducted in November 2010. An internal audit was last conducted in 2018. Audit findings, as well as the audit report are found in Appendix J-2.

### *11.1 COMPLIANCE SUMMARY*

SAWPA will conduct an internal audit of their SSMP every two years, and focus on the effectiveness of the SSMP and SAWPA's compliance with the SSMP requirements of Order No. 2006-0003. Appendix A contains a checklist of the elements of the audit. Each two-year internal audit should be stored with the SSMP.

### *11.2 COMPLIANCE DOCUMENTS*

*SSMP Audit Checklist*, Santa Ana Watershed Project Authority, March 09, Appendix J-1.

*EPA CMOM Guide for Collection Systems*, Appendix J-1

### *11.3 DOCUMENT DESCRIPTIONS*

#### *11.3.1 SSMP Audit Checklist (Appendix J-1)*

This checklist contains a list of questions to be answered and elements to be included in the two year internal audit of the SSMP.

#### *11.3.2 SSMP Audit Procedure (Appendix J-2)*

This document describes the steps required for an internal audit of SAWPA's SSMP.





## **CHAPTER 12. COMMUNICATION PROGRAM**

SAWPA's Communication Program addresses those mandatory SSMP provisions outlined in Section D, 13 (xi) Communication Program of SWRCB Order No. 2006-0003.

SAWPA should communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system will provide the public the opportunity to provide input to SAWPA as the program is developed and implemented. SAWPA will also create a plan of communication with systems that are tributary and/or satellite sanitary sewer system.

### *12.1 COMPLIANCE SUMMARY*

#### 12.1.1 Implementation

SAWPA has communicated on a regular basis with interested parties, including member agencies, on the implementation and performance of this SSMP. Where necessary, member agencies and Brine Line customers were contacted for input and data during the development of the SSMP. Member agencies have reviewed the SSMP and provided input.

SAWPA made a Draft version of the SSMP available to the public, allowed time for review, and invited public comments at a General Managers meeting on April 21, 2009, thereby allowing for public input..

#### 12.1.2 Ongoing

The SSMP will undergo review and revision through internal audits every two (2) years and external audits every five (5) years. The results of these audits will be provided to member agencies, will be available to the public on SAWPA's website ([www.sawpa.org](http://www.sawpa.org)). Additionally, SAWPA's website presents information about on-going efforts to manage and maintain the Brine Line, as well as meeting agendas and minutes.

### *12.2 COMPLIANCE DOCUMENTS*

- Notice of Availability of Completed SSMP in SAWPA Web Page, Appendix K-1
- Public Hearing Minutes (SAWPA Commission Meeting 2009), Appendix K-2
- Circulation for Public Comment, Appendix K-3

### *12.3 DOCUMENT DESCRIPTIONS*

#### *12.3.1 Notice of Availability of Completed SSMP in SAWPA Web Page (Appendix K-1)*

This notice describes the electronic location of the SSMP on the SAWPA web page.

#### *12.3.2 Public Hearing Minutes (SAWPA Commission Meeting August 2019) (Appendix K-2)*

The minutes describe the public adoption of the SSMP by the SAWPA Commission.



*12.3.3 Circulation for Public Comment (Appendix K-3)*

The SSMP was circulated for comment as described herein.



## **CHAPTER 13. SSMP CERTIFICATION**

As mandated by the WDR, SAWPA's SSMP for the Brine Line was certified electronically by the LRO after adoption of the SSMP by the SAWPA commission.

### *13.1 COMPLIANCE DOCUMENTS*

- Public Hearing Minutes (SAWPA Commission Meeting 2009), Appendix K-2
- Electronic SSMP Certification Form, Appendix L-1

### *13.2 DOCUMENT DESCRIPTIONS*

A description for each compliance document listed above is described below:

#### *13.2.1 Public Hearing Minutes (SAWPA Commission Meeting 2009) (Appendix K-2)*

The minutes describe the public adoption of the SSMP by the SAWPA Commission.

#### *13.2.2 Electronic SSMP Certification Form (Appendix L-1)*

The signed form was printed from the online certification program.



## CHAPTER 14. SSMP APPENDIX TABLE OF CONTENTS

Appendix	Document	Last Updated
A-1	State of California Water Resources Control Board Order No. 006-0003	June-06
A-2	State of California Water Resources Control Board Order No. 2008-0002-EXEC	January-08
A-3	SSMP Schedule	June-06
A-4	CDM Gap Analysis	September-07
B-1	SAWPA Organization Chart	
C-1	Ordinance No. 7, An Ordinance Establishing Regulations for the Use of the Inland Empire Brine Line	August-07
C-2	Sewer System Standard Drawings	-
	S-01 60" Diameter Precast Manhole Installation	July-08
	S-02 Manhole Base for New or Existing Pipe	May-08
	S-03 Manhole Pipe Connectors	May-08
	S-04 Manhole Miscellaneous Details	May-08
	S-05 36" Manhole Frame and Two Concentric Covers	May-08
	S-06 Manhole Lining System	May-08
	S-07 Locking Manhole Cover	May-08
	S-08 Pipe Bedding and Trench Backfill for Sewer Facilities	May-08
	S-09 Permissible Depth of Cover for PVC Pipe	May-08
	S-10 Water, Recycled Water and Sewer Main Parallel Separations	May-08
	S-11 Water, Recycled Water and Sewer Main Perpendicular Separations	July-08
	S-12 Water, Recycled Water and Sewer Main Parallel and Perpendicular Separations Notes	July-08
	S-13 Sealed HDPE Gravity Sewer Access Manhole	July-08
	S-14 Sealed FRP Gravity Sewer Access Manhole	July-08
S-15 Pipe Support for Undercut Sewer Mains	July-08	
C-3	Member Agency Agreements	-
	Multijurisdictional Pretreatment Agreement Between WMWD and SAWPA	July-07
	Multijurisdictional Pretreatment Agreement Between EMWD and SAWPA	October-01
	Multijurisdictional Pretreatment Agreement Between IEAU and SAWPA	May-03
	Multijurisdictional Pretreatment Agreement Between SBVWD and SAWPA	April-03
	Multijurisdictional Pretreatment Agreement Between WMWD and SAWPA	July-07
	Operation and Maintenance Agreement for Reach IV, IV-A, IV-B, IV-D, and IV-E, and The Buchanan Street Truck Dump Station Between WMWD and SAWPA	June-95
C-4	List and Samples of Discharge Permits	-
	List of Dischargers to the Brine Line	March-09
	Direct User Discharge Permit No. 4B-06-S60 for Western Municipal Water District	April-07



Appendix	Document	Last Updated
C-5	SAWPA Easement Summary, RBF Consulting	January-08
C-6	Brine Line Fees	April-09
C-7	Sample Brine Line Connection Application	April-09
C-8	Copies of all permits for Brine Line discharge	April-09
D-1	Maps of Existing Wastewater Facilities	
	System Maps	June-07
	Brine Line Data	April-09
	Maintenance Access Structure Data	April-09
	Available Brine Line GIS Data	April-09
D-2	<i>Inland Empire Brine Line Operatoin and Maintenance Program Plan</i>	May-07
D-3	Brine Line Current Maintenance Tables and Figures	-
	SAWPA: Current Brine Line Reach Cleaning Yearly Schedule	April-14
	SAWPA: Current Brine Line Lateral Sewer Cleaning Yearly Schedule	April-14
	Recommended Lateral Cleaning Frequency	April-14
	Figure 1 - Brine Line Reach Cleaning Yearly Schedule	April-14
	Fgiure 2 - Brine Line Lateral Sewer Cleaning Yearly Schedule	April-14
	Fgiure 3 - Brine Line Lateral Sewer Cleaning Yearly Schedule	April-14
	Figure 4 - Brine Line by Year of CCTV	April-14
	Figure 5 - Brine Line Trouble Spots/Siphon Areas	April-14
	Brine Line Cleaning Schedue	April-09
D-4	Draft Standard Operating Procedures for Prevenative Maintenance	April-14
D-5	Sample Draft Operation and Maintenance Data Collection Sheets	-
	SAWPA Sewer Cleaning Report	April-14
	Easement/Manhole Inspection Form	April-14
	Valve Maintenance	April-14
D-6	Draft Valve Inspection Schedule Sheets	April-14
D-7	CCTV Manual	April-14
D-8	Preliminary Capital Replacement Program	April-14
D-9	Brine Line-Specific Training Protocols	-
	Training Schedule	April-14
	Training Record Sheet	April-14
	CWEA Certification Handbook	June-05
E-1	Technical Provisions of the Sewer Specifications and Standard Drawings	April-14
F-1	<i>Overflow Emergency Response Plan, CDM</i>	March-07



Appendix	Document	Last Updated
F-2	Lower Brine Line ERP, OCSD	June-04
G-1	JCSD Ordinance 226, Sections Related to FOG	
G-2	JCSD Food Service Establishment FOG Information Package	November-06
G-3	JCSD Interceptor Standard Drawings	-
	S-19 Gravity Separator (750 gal to 1,500 gal)	August-90
	S-20 Gravity Separator (2,000 gal to 3,000 gal)	August-90
H-1	Brine Line Dischargers	October-08
H-2	<i>Inland Empire Brine Line Hydraulic Model and Capacity Assessment</i>	January-06
H-3	Brine Line Hydraulic Design Criteria	April-14
H-4	Current Brine Line Flow Data	April-14
H-5	I&I Assessment	April-09
I-1	SSMP Monitoring, Measurement, and Program Modification Spreadsheets	April-09
J-1	SAWPA SSMP Audit Checklist	March-09
J-2	SAWPA SSMP Audit Procedure	April-09
K-1	Notice of Availability of Completed SSMP on SAWPA Webpage	April-09
K-2	Public Hearing Minutes (SAWPA Commission Meeting April 2009)	April-09
K-3	Circulation for Public Comment	April-09
L-1	Electronic SSMP Certification Form	April-09