

City of Victorville

2019 SSMP


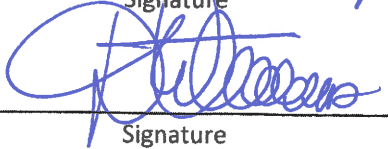
Sewer System Management Plan Update



May 20, 2019

SIGNATURE PAGE

Approved by:

Brian W. Gengler City Engineer, LRO Public Works & Water	 Signature	<u>6-19-19</u> Date
Doug Mathews Director, LRO Public Works & Water	 Signature	<u>6-19-19</u> Date

Approval recommended by:

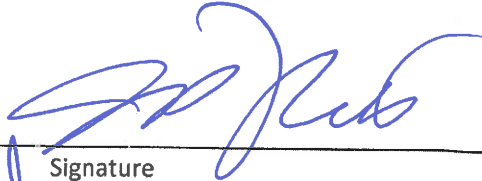

Joe Flores Manager, Public Works Sanitary & RW Division	 Signature	<u>6/19/19</u> Date
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LIST OF ACRONYMS

APWA	American Public Works Association
ASCE	American Society of Civil Engineers
BACWA	Bay Area Clean Water Agencies
BMP	Best Management Practice
Cal OES	California Office of Emergency Services (formerly the California Emergency Management Agency, or Cal EMA)
Cal/OSHA	California Division of Occupational Safety and Health
CASA	California Association of Sanitation Agencies
CCTV	Closed-Circuit Television
CIP	Capital Improvement Program
CIWQS	California Integrated Water Quality System
CMMS	Computerized Maintenance Management System
CMOM	Capacity, Management, Operations, and Maintenance
CPC	California Plumbing Code
CSUS	California State University Sacramento
CVCWA	Central Valley Clean Water Association
CWC	California Water Code
CWEA	California Water Environment Association
EMA	Enhanced Maintenance Area
FOG	Fats, Oils, and Grease
FPS	Feet per Second
FSE	Food Service Establishments
GIS	Geographic Information Systems
GRD	Grease Removal Device
I/I	Infiltration and Inflow
KPI	Key Performance Indicator
LRO	Legally Responsible Official
MMRP	Measurement, Monitoring and Reporting Procedures
MOP	Manual of Practice
MRP	Monitoring and Reporting Program (effective 9/9/13)
MS4	Municipal Separate Storm Sewer System
NACWA	National Association of Clean Water Agencies
NASSCO	National Association of Sewer Service Companies
NGO	Non-Government Organization
NOI	Notice of Intent
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
O&M	Operations & Maintenance
OERP	Overflow Emergency Response Plan
OES	Office of Emergency Services, State of California
PACP	Pipeline Assessment & Certification Program
PDWF	Peak Dry Weather Flow
PLSD	Private Sewer Lateral Discharge
PM	Preventive Maintenance
POTW	Publicly Owned Treatment Works

PWD	Public Works Director
QA/QC	Quality Assurance/Quality Control
R/R	Rehabilitation or Repair/Replacement
RWQCB	Regional Water Quality Control Board
SECAP	Sewer System Evaluation and Capacity Assurance Plan
SO&M	Sewer Operations and Maintenance
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow
SSS WDR	Statewide General WDR for Sanitary Sewer Systems
SWRCB	State Water Resources Control Board
UPC	Uniform Plumbing Code
USEPA	United States Environmental Protection Agency
VCP	Vitrified Clay Pipe
VRWQB	Victorville Regional Water Quality Control Board "Lahontan"
VVWRA	Victor Valley Wastewater Reclamation Authority
VWRP	Victorville Water Reclamation Plant
WDR	Waste Discharge Requirements
WWTP	Waste Water Treatment Plant

INTRODUCTION

Purpose and Background

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

This permit, among other things, requires local public sewer collection system agencies, referred to as “Enrollees,” to develop a Sewer System Management Plan (“SSMP”). SSMPs must be self-audited at least every two (2) years and updated every five (5) years from the original adoption date by the Enrollee’s governing board. The original SSMP must be approved by the governing board of the Enrollee at a public meeting and adopted. The five-year SSMP update must also be approved and certified as do all significant updates to the SSMP. Paragraph D.14 of WDR states that:

“... The SSMP must be updated every five (5) years, and must include any significant program changes. Re-certification by the governing board of the Enrollee is required in accordance with D.14 when significant updates to the SSMP are made. ...”

Pursuant to WDR Paragraph D.13, the City prepared a SSMP for each of the City’s Sanitary Sewer System, which was approved by the Victorville City Council on May 2009. The Victorville City Council then adopted a five-year update of the SSMP in May 2016 and therefore, the next five-year update which this document is prepared for will be due in May 2019. The SSMP along w/ all references in the document, self-audits, and the adoption documents approved by the City Council are kept on file at the City, the City’s website and an entry is made in the California Integrated Water Quality System (CIWQS) database that the audit is complete.

This revision of the Victorville SSMP for 2019 was prepared by the City in accordance with the requirements of Paragraph D.13 (x) of the California State General Waste Discharge Requirements (WDR). This document was designed to meet the requirements of State Water Resources Control Board Order No. 2006-0003-DWQ as revised by Order No. WQ 2013-0058-EXEC.

City of Victorville Sanitary Sewer System

The City of Victorville is located in southwestern San Bernardino County, California. The City is located within the Victor Valley which is a sub region of the Mojave Desert and is bordered by Apple Valley on the east, Hesperia on the south, and Adelanto on the west. Situated at an elevation of approximately 2,900 feet, Victorville experiences hot, dry summers and occasional snow in the winter. Temperatures range from below freezing up to 110°F in the summer.

As of 2019, the City owns approximately 437 miles of gravity sewers and 1.1 miles of forced mains. There are two treatment plants that the City discharges its wastewater to and they are Victor Valley Wastewater Reclamation Authority (VWVRA) regional wastewater treatment plant and the City of Victorville’s Industrial Wastewater Treatment Plant (IWWTP). Approximately 80% of the flow conveys to a 21-to-36-inch VWVRA interceptor sewer at six permanent metering stations along Mojave River on the

east side of the City and get discharged to the VVWRA regional wastewater treatment plant. The remaining 20% of the City wastewater flows are discharged to the City-owned IWWTP.

Elements of SSMP

Per SSS WDR, there are 11 elements that must be addressed in SSMP and they are as follows:

- | | |
|---|---|
| 1. Goals | Collection system management goals |
| 2. Organization | Organization of personnel, including the chain of command and communications |
| 3. Legal authorities | Legal authority for permitting flows into the system, inflow/infiltration control as well as enforcement of proper design installation, and testing standards, and inspection requirements for new and rehabilitated sewers |
| 4. Operation and Maintenance Program | Operations and maintenance activities to maintain the wastewater collection system |
| 5. Design and performance provisions | |
| 6. Overflow emergency response plan | |
| 7. Fats, Oils, and Grease (FOG) control program | |
| 8. System evaluation and capacity assurance program | |
| 9. Monitoring, measurement, and modifications plan for SSMP program effectiveness | |
| 10. SSMP Program Audits | |
| 11. SSMP communication program | |

Each of the sections listed above will be divided into three sub-sections, as follows:

1. Description of the SWRCB requirement for the element.
2. Identification of associated appendix and list of supporting documentation and information included in the appendix. This is because information included in appendices often requires relatively frequent updates of new information.
3. Discussion of the element including the City of Victorville's plan of response. Each section may be divided into sub sections depending on the complexity of the element.

All Parts and Sub-parts of this SSMP have been evaluated with respect to compliance with WDR and their effectiveness in helping meet the SSMP Goals. The SSMP elements, which have been determined to be WDR-compliant and effective, will continue to be implemented. Pursuant to the requirements of WDR Paragraph D.14, the recommendations of the 2018 Audit Report will be addressed and/or incorporated into this SSMP.

SECTION 1 - GOALS

This element describes the City's stated goals of the SSMP and is intended to clarify the City's desired level of service that it is providing to its customers (D. 13(i)).

D.13 (i) - GOAL

The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that do occur.

The City is required to comply with the "State Water Resources Control Board (SWRCB), Order No. 2006-0030 DWQ" (Order) on General Waste Discharge Requirements for publicly owned sewage collection agencies having more than one mile of collection pipelines. The goals of the SSMP are to provide a documented plan that describes all collection system activities and programs employed by an agency to ensure proper management of all collection system assets. Implementing the SSMP will ultimately help to reduce and prevent SSOs, as well as mitigate any SSOs that do occur including meeting all applicable regulatory notification and reporting requirements.

The City has committed to the following general goals, which are identified in the Statewide General WDR for Sanitary Sewer Systems (SSS WDR):

- Create/develop a management, operation and maintenance plan and schedule to reduce preventable SSOs.
- Respond to and mitigate all SSOs discharging from the City's collection system.
- Ensure adequate system capacity for the current and future needs of the City's service area.
- Establish measurable performance indicators and manage assets at lowest life cycle costs.
- Provide accurate reporting of all SSOs as described by the Order.
- Properly fund, manage, operate, and maintain, with adequately trained staff and/or contractors.
- All parties involved, shall possess adequate knowledge skills and abilities necessary to ensure the proper management, operation, and maintenance of all parts of the sewage collection system owned and/or operated by the City of Victorville.

City Goals

The City has identified and established several internal, more precise goals to assist with instituting comprehensive plans and procedures to properly manage, operate, and maintain the wastewater collection system and to meet all applicable regulatory notification and reporting requirements.

Establishing internal core objectives allows City staff to focus on complying with the WDRs, and develop strategies and procedures to achieve successful overall management and maintenance of the wastewater collection system.

1. Collection system facilities are properly managed, operated, and maintained to diminish preventable sanitary system overflows (SSOs);
2. Response measures are in place and that all feasible steps are taken to mitigate the impacts of SSOs to public health and the environment when they occur;
3. Reporting procedures are in place to notify the appropriate regulatory and health authorities of SSOs within the required time frames; and
4. SSO events, mitigation measures, and corrective actions are documented; and

5. City sewer system operators, employees, contractors, responders, or other agents are adequately trained and equipped to address an SSO event; and,
6. City sewer system is properly designed, constructed and funded to provide sufficient capacity to convey base flows and peak flows while meeting or exceeding applicable regulations, laws and generally acceptable practices relative to sanitary sewer system operations and maintenance.
7. Provide outreach to the public and business owners related to FOG and enforcement measures.

The actions to be taken by the City under the SSMP are:

1. Conduct planned and scheduled maintenance and training programs to minimize risk and the occurrence of SSO events, in support of the SSMP goals. (ongoing)
2. Rehabilitate the Sewer mains with structural defects (Structural Rehab Project) (ongoing)
3. Replace existing pipes that are projected to be insufficient for the demands of Year 2040 with larger diameter pipes as planned in Sewer Master Plan 2016. (Sewer Projects C1, C2 and C3) (ongoing)
4. Proceed with five (5) year cleaning schedule and five (5) year CCTV inspection of the entire collection system, and (ongoing)
5. Respond to the reported site of potential SSOs in a timely manner and undertake feasible remedial actions to contain overflow impacts, including stopping the flow from reaching the storm drain or water course, if possible; and, (ongoing)
6. Stop the overflow as soon as possible and limit public access into the overflow area to prevent public contact with any wastewater contamination; and, (ongoing)
7. Recover/capture as much of the overflow as possible and return it to the sewer system, and clean up the contaminated area; and, (ongoing)
8. Gather and compile all pertinent information regarding the overflow event, investigate as necessary to determine probable cause, document findings, report to the appropriate regulatory agencies in a timely manner, and file the completed report; and, (ongoing)
9. Condition all development and capital projects to evaluate, design and construct sewer facilities to the city approved standards and criteria, and (CIP)
10. Abide by the Sanitary Sewer Overflow Emergency Response Plan. Review and update the plan as needed; and, (ongoing)
11. Effectively employ the City's Municipal Code to address FOG in the City's collection system. Review and update the Municipal Code, as needed, to ensure an effective FOG control program is in place; and, (ongoing)
12. Perform needed rehabilitation of the sanitary sewer system to address capacity deficiencies as well as structural deficiencies, as identified in the new Sanitary Sewer Master Plan Update; and, (ongoing)
13. Develop an effective public information and education communication plan.

SECTION 2 - ORGANIZATION

D.13 (ii) - ORGANIZATION

The SSMP must identify:

- a) The name of the responsible or authorized representative as described in Section J of this Order.
- b) The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and
- c) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (OES)).

Overview

This element of the WDR describes both the organizational structure of the City as well as activities, duties, and responsibilities for individuals and positions associated with the City's sanitary sewer collection system. This section includes positions and their associated activities, duties, and responsibilities.

Authorized Representatives

The *City Engineer* and *Public Works/Water Director* are the City's Legally Responsible Officials (LRO) in all wastewater collection system matters and are responsible for the execution of the compliance actions required under the Waste Discharge Requirements (WDRs). This includes, but is not limited to, the signing and certification of all reports and correspondence as required under this order.

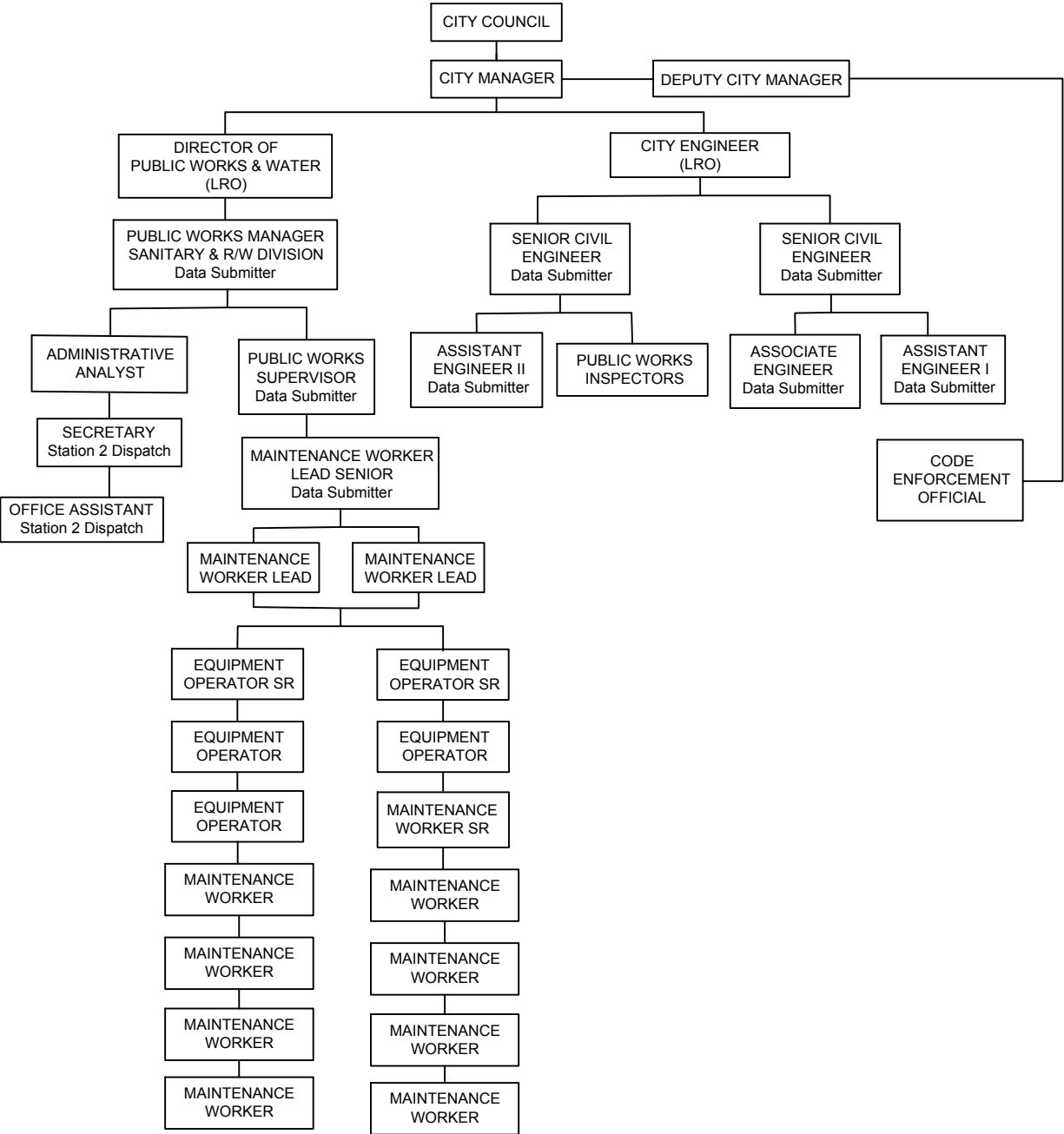
City's Responsibilities

The City Public Works Department (PWD) plays significant roles, jointly and separately, towards attaining the goals of the WDR. The degree of these collaborative efforts vary from department to department depending on the degree of SSO related services the PWD is providing under various agreements.

Organization Chart and Responsibilities

The City of Victorville's positions and associated responsibilities are shown on Figure 2-1 *Organization Chart of Responsible Sewer Collection Staff*. These personnel provide engineering evaluation of existing and proposed sewer facilities, administer the City's sewer service charge ordinance, review and permit new service connections or development projects, maintain facility record plans and administer preventive maintenance and sewer construction programs.

FIGURE 2-1.
Organization Chart of Responsible
Sewer Collection Staff (Current)



Description of Responsibilities

The description of responsibilities or roles of each position especially as related to SSOs are as follows:

<p>City Council</p>	<p>Establishes policies, reviews and accepts formal plans, sets overall City direction, authorizes funds for projects/plans/programs, general overview of upper management (Mayor, City Manager, and City Attorney), conducts public meetings, and hearings, approves SSMP.</p>
<p>City Manager</p>	<p>Responsible for the day-to-day management and operation of the City under the direction of the City Council. Specifically the City Manager establishes procedures, plans strategy, leads staff, allocates resources defined in the City budget, delegates responsibility, authorizes outside contractor to perform services.</p>
<p>Director of Public Works/Water</p>	<p>Works under the broad policy guidance and direction of the Assistant City Manager. Works to improve efficiency and effectiveness of operations and maintenance. Oversees the development of department plans and programs, budgets, and capital purchases. Implements policy and evaluates work accomplished. Prepares and controls department budget. Oversees and coordinates City Rights of Way issues and sewer and drainage maintenance and repair operations. Currently, Director of Public Works is also Co-LRO for the City.</p>
<p>City Engineer</p>	<p>Acts as project manager on public works projects, including sewer collection system projects. Supervises the review of private project development plans for compliance with codes, regulations, and standards, adequacy of applications for permits, and compliance with approved plans. Prepares plans, specifications, and preliminary cost estimates. Coordinates and confers with maintenance department on sanitary sewer system issues. Confers with contractors, consultants, and the public on engineering and construction matters. Prepares reports on sewer and other public works projects. Manages the activities of the Public Works Inspector. Currently, City Engineer is also Co-LRO for the City.</p>
<p>Senior Civil Engineer</p>	<p>Reports to the City Engineer and acts on his behalf as project manager on public works projects, including sewer collection system projects. Reviews and recommends private project development plans for compliance with codes, regulations, and standards, adequacy of applications for permits, and compliance with approved plans. Prepares plans, specifications, and preliminary costs estimates. Coordinates and confers with maintenance department on sanitary sewer system issues. Confers with contractors, consultants, and the public on engineering and construction matters. Prepares and reviews reports on sewer and other public works projects. Manages the activities of the Public Works Inspectors. The Associate Civil Engineer is a Data Submitter for the City.</p>

<p>Associate Engineer, Assistant Engineer I & II</p>	<p>Reports to the Senior Civil Engineer. Acts as project manager on public works projects, including sewer collection system projects. Reviews and recommends private project development plans for compliance with codes, regulations, and standards, adequacy of applications for permits, and compliance with approved plans. Prepares plans, specifications, and preliminary cost estimates. Coordinates and confers with maintenance department on sanitary sewer system issues. Confers with contractors, consultant, and the public on engineering and construction matters. Prepares reports on sewer and other public works projects. The Associate Engineer and Assistant Engineer I & II is a Data Submitter for the City.</p>
<p>Public Works Inspector</p>	<p>Reports to the Senior Civil Engineer. Acts as the field inspector for public works projects, including sewer collection system projects. Inspects private project development plans for compliance with codes, regulations, and standards, and compliance with approved plans. Coordinates and confers with maintenance department on sanitary sewer system issues. Confers with contractors, consultants, and the public on engineering and construction matters.</p>
<p>Public Works Manager</p>	<p>California Integrated Water Quality System (CIWQS) Data Submitter. Works under the broad policy guidance and direction of the Director of Public Works. Manages budgets, prioritizes projects, and ensures Public Works personnel have the proper tools and equipment to perform their duties safely. Communicates with various City personnel to ensure the maintenance and repair of City public works infrastructure is properly maintained; including sewer and drainage collection systems. Reviews plans and specifications for sewer and other projects, and makes recommendations regarding maintenance, construction, and operations aspects. Controls budget expenditures within the Maintenance Division. Confers with contractors, engineers, and members of the general public on construction, maintenance and repair issue and procedures. Responds to SSO events.</p>
<p>Administrative Analyst</p>	<p>Works under the direction of the Director of Public Works. Analyzes City policies, procedures and programs; provides administrative support through research, analysis, report writing and recommendations; drafts and recommends administrative policies and procedures. Works closely with Public Information Officer (PIO) and IT Department to communicate on a regular basis with the public on the development, implementation, and performance of various Public Works projects and programs.</p>
<p>Public Works Station 2 Dispatcher</p>	<p>Receive Service Requests for Rights of Way issues within City limits. Formats Service Requests, assigns work orders to Supervisors and Maintenance Leads, electronically files all completed Service Requests.</p>

	<p>Prioritizes and personally communicates (orally and/or electronically) <i>all reports of “water”</i> leaks and/or flowing from manholes, cleanouts, laterals, catch basins, vaults, etc. to the Public Works Supervisor, Maintenance Leads, Maintenance crew members and/or Manager.</p>
<p>PW Supervisor, Sanitary Division</p>	<p>CIWQS Data Submitter. Supervises Public Works Sanitary Division and Rights of Way maintenance workers. Meets with the general public to resolve Service Request issues. Investigates complaints to ensure City maintenance obligations are properly serviced. Plans and schedules work assignments. Trains Sanitary Division maintenance workers. Inspects and evaluates completed projects for proper completion, and ensures that proper documentation of daily activities is accurate. Occasionally assists with the inspection, cleaning and repair of city sewer and drainage collection systems. Oversees USA ticket markings are properly serviced. Maintains records of projects assigned and completed, supplies and equipment used, and costs incurred. Estimates needed equipment and equipment maintenance. Assists with annual budget preparations. Responds to SSO events.</p>
<p>Maintenance Lead Senior</p>	<p>CIWQS Data Submitter. Assists the supervisor with crew assignments. Performs Service Request investigations, communicates findings to customers, coordinates with contractors, vendors, and provides maintenance and repair project oversight. Supervises and personally assists in the inspection, cleaning and repair of sewer mains and lines and the location and rising of manholes covers to grade. Researches and attains estimates for equipment purchases and rentals, supplies and personal protective equipment. Ensures safe practices and policies are followed. Lays out and schedules work for crew. Trains crew members in specific tasks, as needed, including sewer collection system preventive maintenance and SSO response. Verifies work of assigned crew members and checks for accuracy of documented daily activity reports. Assists with evaluating vehicle and equipment specifications. Responds to SSO events.</p>
<p>Maintenance Lead</p>	<p>Works closely with the Maintenance Lead Senior. Plans, schedules, and trains maintenance crews with sewer, drainage, and Rights of Way activities. Responds to and researches customer service request concerns. Checks work of assigned crew members and verifies accuracy of documented Daily Activity Reports. Responds to SSO events.</p>
<p>Equipment Operator Senior</p>	<p>Operates construction and maintenance equipment such as backhoes, front-end loaders, skip loaders, graders, dozer, street sweepers, etc. Performs related maintenance and repair activities on City Rights of Way and sewer and easements as required. Acts as lead of a construction and street maintenance crew when needed. May participate with the Public Works Emergency Standby Board. Responds to SSO events.</p>

<p>Equipment Operator</p>	<p>Operates combination cleaning trucks, CCTV pipeline inspection equipment, dump and water trucks. Assists the Equipment Operator Senior with performing maintenance and repairs on the City's Rights of Way, and sewer and drainage collection systems. May participate with the Public Works Emergency Standby Board. Responds to SSO events.</p>
<p>Maintenance Worker Senior</p>	<p>Work as a crew leader of a field maintenance crew. Cleans, unplugs, and repairs City sewer and drainage collection systems. Locates and raises manholes. Operates power and hand tools, dump and water tank trucks, including hydraulic sewer combination cleaning trucks and sewer rodding, and assists with the CCTV pipeline/manhole inspection equipment. Trains crew members on sewer collection system maintenance requirements. May participate with the Public Works Emergency Standby Board. Responds to SSO events.</p>
<p>Maintenance Worker</p>	<p>Performs sewer and drainage maintenance and repairs on the City's sewer and drainage collections systems. Operates pick-up trucks, hand and power tools. Provides traffic control for work zones when needed. Researches and marks for Underground Service Alert tickets. Responds to SSO events.</p>

Chain of Communication for SSO Reporting

Once the City of Victorville staff receives a complaint or report regarding a potential SSO event during working hours, that employee will immediately notify the Public Works staff to respond to the SSO event. During non-duty hours the San Bernardino Fire Dispatch will communicate with the Public Works Standby person on duty. Upon notification of the potential SSO event, the Public Works staff will respond to the location and immediately implement the Sanitary Sewer Overflow Response Plan. The Response Plan provides goals and guidance for response measures necessary to minimize impacts to public health and environment in the event of an SSO.

The chain of communication for reporting SSOs, from receipt of a complaint or other information to reporting to appropriate regulatory agencies, is presented in the flow chart shown below, *SSO Response Chain of Communication*.

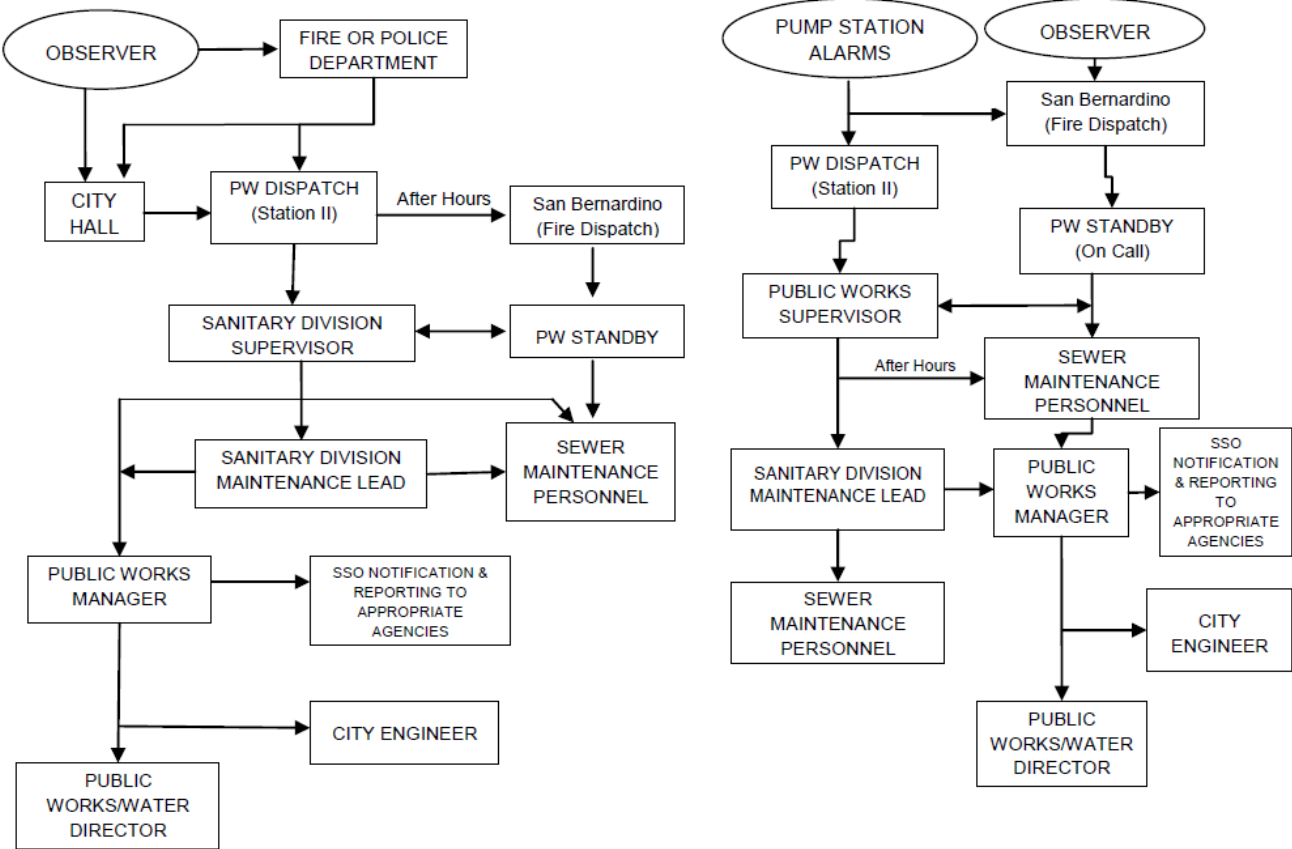


Table 2-1 City's Contact Phone Numbers for SSO Chain of Communication

Contact	Telephone Number
City Hall	760-955-5000
Fire Department-Comm. Fire Dispatch	760-955-5233
Police Station	760-245-4211
Public Works Dispatch (Station II)	760-241-6365
Public Works/Water Director	760-243-6332
City Engineer	760-955-5156
Public Works Manager	760-243-6380
Public Works Supervisor	760-955-5218
Public Works Maintenance Lead Senior	760-243-6386
Public Works Maintenance Lead	760-241-6365

Table 2-2 City's Names and Phone Numbers of Sanitary Division Contacts

Position	Name	Telephone Number
Public Works/Water Director	Doug Mathews	760-243-6332
City Engineer	Brian Gengler	760-955-5156
Public Works Manager	Joe Flores	760-243-6380
Public Works Supervisor	Sam Arvizu	760-955-5218
Public Works Maintenance Lead Senior	Mitch Tucker	760-243-6386
Public Works Lead	Sparky Kale	760-243-1942
Public Works Maintenance Workers	All Crew Members	760-241-6365

SECTION 3 - LEGAL AUTHORITY

This section of the SSMP presents the District's legal authority to comply with the SSMP requirements. These Regulatory mechanisms include City Ordinances, Codes, and Resolutions, State and Federal Laws, Licensing and Permitting Processes, Memorandum of Agreements, Contractual Agreements, as well as other programmatic mechanisms necessary to carry out asset management activities.

D.13 (iii) - Legal Authority

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

- a) Prevent illicit discharges into its sanitary sewer system (examples may include I/I, stormwater, chemical dumping, unauthorized debris and cut roots, etc.);
- b) Require that sewers and connections be properly designed and constructed;
- c) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;
- d) Limit the discharge of fats, oils, and grease and other debris that may cause blockages, and
- e) Enforce any violation of its sewer ordinances

Statutory Authority

Pursuant to the California Government Code, Sections 37100 and 54350, the City Council, as the local legislative body, may by ordinances and resolutions make and enforce all rules and regulations necessary for the administration of the city's SO&M plan. Such actions include, but are not limited to, the design, construction, cleaning, repair, reconstruction, rehabilitation, replacement, operation, maintenance, discharges into, blockage of, access to, and violation enforcement pertaining to the sanitary sewers within the City's System. Consistent with the law, several ordinances have been established by the City Council to govern all aspects of the SO&M plan. The legal authorities for the specific areas stipulated in the WDR are discussed below.

Victorville Municipal Code (VMC), Section 16-5.06.020 adopted the California Plumbing Code, edition 2013, as the Plumbing Code of the City of Victorville.

Authority to Prohibit Illicit Discharges into the Sewer System

VMC, Section 10-02.640: General Sewer discharge prohibitions, provides language to prohibit illicit discharge of general waste such as garbage, fish, fruit or vegetable waste, dead animals and all that sort of things; and liquid waste of any kind containing chemicals, greases, oils, fats and tars; and storm water to the City Sewer System.

VMC, Section 10.03.210~270 provides language to prohibit illicit discharge of variety types of FOG (fats, oils and grease) to the public Sewer System.

VMC, Section 10-08.020-(1): Prohibited discharge standards, provides language to prohibit illicit discharge of chemicals, flammables, corrosive substances, medical wastes, sludge and all that sort of things to the public sewer system of the City.

VMC, Section 17.64.020 - Public utility and sanitary sewer service stipulates minimizing or eliminating infiltration of flood waters into the systems and discharges from the systems into flood waters.

Authority to Require Sewers and Connections Be Properly Designed and Constructed

VMC, Section 10.02.480 – Sanitary sewer system design standards, requires all sanitary sewer system facilities and infrastructures to be designed according to the latest edition of the City of Victorville Standard Specifications for Public Improvements, adopted by the City.

VMC, Section 10.02.110~135, provides language to require all sort of buildings situated within the city and abutting on any street in which there is now located, or may in the future be located, a public sewer which will serve the building, is required at his/her expense to connect the building directly with the proper public sewer in accordance with the provisions stated in VMC.

Authority to Ensure Access for Maintenance, Inspection, or Repairs

VMC, Sec. 10.02.080 - Right of entry of inspectors, secure the right of city inspectors to access any parts of any premises connected with the city sewer system for the purpose of checking facilities.

VMC, Sec. 10.02.170 – Compliance inspection; access required; acceptance of permit conditions, grants the city engineer to enter any facilities that are part of or equipped w/ the city sewer system if for maintenance or inspection purposes.

VMC, Sec. 10.03.110 – Right of entry; inspection and sampling conditions, provides language to ensure access for purposes of sampling and inspecting wastewater discharge, devices, and manifest related to the FOG permit.

Authority Limiting Discharge of Fog and Other Debris that May Cause Blockage

Chapter 10 of the Plumbing Code provides the Building Official (or other Authorized Authority) with legal authority to require installation of interceptors (clarifiers) where waste flow conditions necessitate the proper handling of the liquid waste stream flow to protect the sewer system and the public (commonly at food service establishments, processing facilities, industrial facilities, etc., that generate grease, oil, grit, acids, alkaline or flammable wastes). This authority would apply at any facility that generates FOG in an amount that will damage or otherwise increase the maintenance costs of the wastewater collection system.

Also VMC, Sec. 10.03.050 – FOG permit required, requires food establishments engaged in preparing food for consumption by the public discharging grease or wastewater which might contain grease, into a private or public sewer shall obtain a permit to discharge from the Building Official. This section further requires the food establishment grease interceptor/trap permit to be subjected to all provisions and all other regulations, user charges, and fees which may be established by resolution of the City Council.

Legal Authority to Enforce Any Violation of Sewer Ordinances

There are several sections in VMC entitled “Enforcement” which define the authority to both issue notifications to correct, as well as enforce provisions of the City Code.

VMC Section 10 Article VIII: Violations and Penalties; Appeals; and Sections 10.03.290~350 ensure authority for assessing fines for misdemeanors or infractions including FOG and other non-FOG related illicit discharges to the public sewer system.

As such, specific violations will be delineated to facilitate establishing the authorization necessary to issue violation notices and fines specific to the wastewater collection system, including passing on to the culpable parties, fines, and penalties that the City may incur for the negligent and intentional acts of others.

Legal Authority to Fund the Operations & Maintenance of the Sewer System

VMC, Section 10.01.010 - Establishment of rates, fees, charges, and services, relative to connection charges, charges for sewer maintenance, basis for levy of charge, and levy of annual service charge amount establishes the basis for a financial plan to ensure operations and maintenance or the capital replacement or rehabilitation of the community sewer system.

SECTION 4 - OPERATION AND MAINTENANCE PROGRAM

D.13 (iv) - OPERATION AND MAINTENANCE PROGRAM

The SSMP must include those elements listed below that are appropriate and applicable to the Enrollee's system:

- a) Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance facilities;
- b) Describe routine preventative operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders;
- c) Develop 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 manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus 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 should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan;
- d) Provide training on a regular basis for staff in sanitary sewer system operations and maintenance and require contractors to be appropriately trained; and
- e) Provide equipment and replacement part inventories, including identification of critical replacement parts

Overview

The City of Victorville Public Works Department is responsible for the operation and maintenance of the sanitary sewer collection system. Victorville's system consists of gravity fed, pump stations, and force mains and flows to the Victor Valley Wastewater Reclamation Authority (VWVRA) at six connection points, and a City owned and operated Industrial Wastewater Treatment Plant. This sewer collection system sends an average of 11.23 million gallons per day (MGD) to the VWVRA Wastewater Treatment Plant and 1.79 MGD to the City owned wastewater treatment facility. Victorville is a partner in the VWVRA Joint Powers Authority (Appendix B contains the VWVRA Joint Powers Agreement) along with three other agencies including, Apple Valley, Hesperia, and San Bernardino County.

Although no MOU is currently in place, City staff work with other agencies crews, if needed, from surrounding communities. This cooperation allows us (and them) the ability to have the quickest response time to SSOs or other sewer system issues as is possible.

A draft MOU, titled, Emergency Response Assistance Agreement, is currently under review by City Staff. Once it is finalized by City Staff, it will be submitted to the City attorney for review. Upon completion of the City attorney's review, it will be submitted to VWVRA's Board of Commissioners for

consideration of adoption by the member agencies to govern cross-jurisdictional events.

Purpose

Thorough assessment of the present condition of the sanitary sewer system, deficiencies, and defects within the system can be identified so that these issues can be targeted and prioritized for rehabilitation. This program of preventative maintenance will help to ensure that costly catastrophic system failures are preempted and will serve to reduce the amount of SSOs to be reported within the City.

Minimum Requirements

At a minimum, each enrollee must:

1. Create and maintain an up-to-date map of the sanitary sewer system within an Enrollee's jurisdiction;
2. Develop and implement a Preventative Maintenance program that describes preventative operation and maintenance activities and a system to document scheduled and conducted activities;
3. Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and rehabilitation actions, including regular inspections of the conditions within the system.
4. Provide regular training for staff and contractors
5. Provide equipment and replacement part inventories.

Personnel

City of Victorville has nineteen (19) full time employees who are responsible for maintaining the sewer collection system. Their responsibilities include responding to SSO events, cleaning the collection system on a regular basis, cleaning sewer high maintenance locations, and responding and investigating calls for service from residents.

Emergency Response Plan Procedures

The purpose of this response plan is to:

1. protect personnel and public health, the environment, and property from sewage spill events and restore the area back to normal as soon as possible after a spill;
2. safely and competently respond with available resources and capabilities within the City of Victorville;
3. establish perimeters and control zones using appropriate measures and directing traffic as needed;
4. promptly notify the San Bernardino County Public Works Environmental Management Division, the San Bernardino County Flood Control Operations Division, the SWRCB, the Lahontan Regional Water Quality Control Board, and any other agencies as may be required relevant to the location of the spill; and,
5. Contain the sewage discharge as quickly and efficiently as possible – with every effort being made to prevent the discharge of sewage into the surface waters of the U.S.
6. Cleanup debris, sanitize, restore affected areas to safe and habitable conditions.

First Responders' Duties

1. Identify and assess the area and extent of the discharge. Determine if there is a need for additional support from City maintenance personnel or other jurisdictions.
2. Identify the need for traffic or crowd control and notify the appropriate personnel.
3. Notify supervisor of the location and condition of the discharge. Off-duty hour phone numbers are identified on the standby list for additional personnel to be contacted.
4. Divert spill by building a small berm to change direction of flow away from any storm drain system. If possible, retain spill by letting it collect in a natural low area and recover sewage when time permits. Use all available means to prevent discharge from entering storm drain system or flowing into waterways.
5. Notify Sanitary Division personnel. Contact phone numbers are listed in Table 2-1 and 2-2 in Section 2 of this document. Area shall be flushed and disinfected as required with all wash water being captured and returned to the sewer system.

Duties of Supervisory Personnel

Assess discharge rate and duration of discharge.

1. Contact RWQCB and the San Bernardino County Health Department and provide them with the required information regarding the spill. State OES must be notified if the discharge has the potential to be a Category 1 spill.
2. Take photos of the discharge. Photos need to show the spill, the area affected and the area after the cleanup. Copies of these photos are to accompany the report to the RWQCB.
3. Ensure expedient arrival of sewer cleaning equipment. Supervise containment methods used by the first responder.
4. Document all actions taken during the spill: location of spill; flow rate; time of flow; when flow was stopped; type of containment; cause of discharge; time clean-up was completed; method used to clean area; and agencies contacted with names of personnel contacted.
5. Fill out appropriate form for RWQCB and send the information to the RWQCB Reporting Section. File copies of the information in the Department file system for sewer discharges.
6. Submit a SSO spill report to the California Integrated Water Quality System (CIWQS) web site when criteria are met.

Storm Drain System

Every effort must be made to keep an SSO out of the storm drain system. The storm drain system includes catch basins, drainage ditches, flood control channels, waterways or any other conveyance utilized for storm water drainage. Earthen berms or sand bags can be constructed to divert and contain the sewage flow. Rubber sheeting can be used to prevent sewage from entering the storm drain system. Even if sewage has already entered the storm drain system the above methods should be utilized to prevent additional sewage from continuing to enter the storm drain system.

If the SSO has entered the storm drain system, first take steps to prevent additional sewage from entering the storm drain. Determine the direction of flow and where the closest location is where the

storm drain system can be inspected to determine the extent of sewage contamination within the storm drain system. If the SSO has entered the County's flood control system, notify the San Bernardino County Flood Control District for assistance or access to their facilities. Cleanup of the storm drain system is to begin as soon as equipment and personnel are available. To the extent that access permits, a vacuum truck should be utilized to remove the sewage from the storm drain and return it to the sanitary collection system. If this is not possible, whatever means are available should be used to clean up the storm drain and prevent the SSO from reaching the waters of the U.S.

Vehicles and Equipment

City of Victorville's Public Works staff perform day-to-day operations and maintenance activities using assigned vehicles and equipment. The equipment includes, but is not limited to the items shown in the table below:

Table below updated 3/28/19

Table 4-1 Public Works Department/Sanitary Division's Vehicle and Equipment List

PUBLIC WORKS - SANITARY DIVISION					
Unit	Div.	Year	Make	Model	Serial Number
00161	SD15	2015	PARTNER	K700 SAW	50200161
00195	SD15	2010	TITAN	8900XLT SPRAYER	GCHAT1570423
00224	SD15	1995	CAT	GENERATOR	4PM00224
01257	SD15	2003	MAGNUM	FLOODLIGHT	5AJLS761X3B001257
02599	SD15	2000	INGERSOLL	341 AIR TAMPER	SLM02599
03767	SD15	2006	MULTIQUIP	QP3TH TRSH PUMP	3727
05877	SD16	2001	DODGE	RAM 2500	1B7KC23Z11J589304
05878	SD16	2001	DODGE	RAM 2500	1B7KF23Z41J591409
10893	SD16	2006	DODGE	RAM 2500	3D7KR28D46G189621
10989	SD15	2017	TROYBILT	020678-00 WASHR	1023710989
12474	SD15	2016	BOBCAT	3400 UTILITY	4XAB3FKAXG8012474
15653	SD15	2009	VACTOR	AUTOCAR WX64	5VDCD6LE79H209207
17410	SD15	2018	STIHL	FS70R LINE TRIM	514217410
20391	SD15	2017	FORD	E-450 CAM VAN	1FDXE4FS2HDC62408
23296	SD16	2017	FORD	F-350	1FT8X3B67HER92825
24195	SD15	2017	FORD 4WD	F-450 UTILITY	1FD9W4HY2HED59495
25677	SD15	1990	BIG TEX	TRAILER	16VDB1022L1E39788
26928	SD15	2018	JOHN DEERE	410L	1T0410LXEJF326928
27214	SD16	2005	FORD	TAURUS	1FAFP53U25A276205
33198	SD15	2017	CUMMINS/ONAN	GENSET 5.5K	H170233198
34844	SD16	1999	GMC	G3500 CAM VAN	1GTHG39R2X1130531
35620	SD15	2018	TOWMASTER	T40 TRAILER	4KNBF3525JL162085
41918	SD15	1991	LOMBARDINI	WACKER PT6	PT6LT675801021
45859	SD15	2015	HIWAY SAFETY	ARROWBOARD	1M9BA0914FC570666
00161	SD15	2015	PARTNER	K700 SAW	50200161

00195	SD15	2010	TITAN	8900XLT SPRAYER	GCHAT1570423
00224	SD15	1995	CAT	GENERATOR	4PM00224
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03767	SD15	2006	MULTIQUIP	QP3TH TRSH PUMP	3727
05877	SD16	2001	DODGE	RAM 2500	1B7KC23Z11J589304
05878	SD16	2001	DODGE	RAM 2500	1B7KF23Z41J591409
10893	SD16	2006	DODGE	RAM 2500	3D7KR28D46G189621
10989	SD15	2017	TROYBILT	020678-00 WASHR	1023710989
12474	SD15	2016	BOBCAT	3400 UTILITY	4XAB3FKAXG8012474
15653	SD15	2009	VACTOR	AUTOCAR WX64	5VDC6LE79H209207
17410	SD15	2018	STIHL	FS70R LINE TRIM	514217410
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41918	SD15	1991	LOMBARDINI	WACKER PT6	PT6LT675801021
45859	SD15	2015	HIWAY SAFETY	ARROWBOARD	1M9BA0914FC570666

Mapping and Geographic Information Systems

The City of Victorville utilizes a map of its wastewater collection system stored in Geographic Information System (GIS) format. GIS is a computer system capable of assembling, storing, manipulating, and displaying geographically referenced information (i.e. data) according to their location. The City purchased and implemented a maintenance management system (MMS). The MMS system (SEDARU) will be used to access available sewer infrastructure and maintenance information in the office and in the field. This system is a powerful tool when used to quickly access critical information during an emergency response. Additional areas of the City's development were recently digitized and uploaded into the City's GIS system as part of an updated Sewer Master Plan. Sewer Master Plan is completed.

Preventative Maintenance (PM) Program

The City of Victorville is responsible for the ongoing maintenance and repair of the sewer main line. This includes routine and emergency cleaning. The City has developed an O&M program with cleaning and CCTV inspection of all sewer segments within a 5-year cycle, to begin after an initial CCTV Inspection program of the City's entire sewer collection system, completed July 2018. Preventative maintenance is performed on "High Maintenance Locations" sewer segments every 1 and 6, or 8 month cycles,

depending on the severity of the problem. Additionally, the High Maintenance List is a detailed table of specific sewer segments and their maintenance schedule.

The City owns three sewer combination cleaning trucks and one van equipped with CCTV inspection equipment for on-going cleaning and inspection of the sewer lines. As such, the City has been addressing the sewer system improvement based upon the criticality of the deficiencies detected.

Sanitary Division personnel receive training both in-house and through CWEA. The City maintains sewer equipment and replacement parts; however an inventory of critical (redundancy) parts for pump stations has been increased during fiscal year 2019 to reduce delivery lag times, as part of the implementation of this SSMP.

Rehabilitation and Replacement Program

The City of Victorville maintains a proactive Rehabilitation and Replacement Program to 1) ensure the timely repair of sewer pipes in imminent danger of failure or blockage; 2) ensure the long range sustainable replacement of obsolete assets; and 3) improve system performance and reduce spills caused by pipe defects or mechanical failures.

The list below identifies all sewer CIP projects completed by the City since 2008. This program will continue and intensify upon completion of the current Sanitary Sewer Master Plan which will identify a comprehensive list of CIP for both structurally deficient as well as hydraulically deficient pipes.

Sewer CIP Projects from 2008 to Present

Structural Capacity Improvement Project I, II and III - A total of three capacity improvement projects comprised of 44 sewer segments consisting of 11,320 linear feet (2.1 miles) of replacement sewers were recommended for upsizing along the same alignments with existing sewers to alleviate the projected capacity deficiencies. The City of Victorville currently has completed 90% of the plans and specifications for the project.

Structural Rehabilitation Project – The City of Victorville is currently advertising the project to hire a contractor to replace the sewer segments that were determined to have significant structural defects by CCTV investigation in 2017 but has no need of upsizing.

Sewer Lining Project 2017 – In compliance with Sewer Master Plan 2016, the City of Victorville lined a total of 8016 linear feet of existing sewer mains throughout the City (8"=6446LF, 10"=580LF, 12"=990LF) using Cured-In-Place-Pipe lining method that were determined to be defective by CCTV investigation in 2017. The City also fixed 82 sewer laterals that were found to be defective while lining using Top-Hats method.

Sewer CCTV Investigations 2017 – The CCTV inspection was performed to evaluate the conditions of the existing sewer segments within the City and the City identified and rated the defects based on severity and has incorporated the resulting data into determination of future Capital Improvement Projects. Approximately 35,000 linear feet (6.6 miles) of City sewers were videotaped using closed CCTV.

Sewer Master Plan 2016 – Through this master plan, the City of Victorville evaluated the sewer facilities within the City limits; under the flow conditions of both existing and projected Year 2040's, and has determined the hydraulic capacities of both existing and of Year 2040's. Using this analysis, the City drew up various capital improvement projects required to meet the needs of Year 2040's.

SCLA SEWER TRUNKLINES – This project constructed 15 Miles of trunkline sewer around the Industrial Waste Water Treatment Plant. The installed the industrial trunkline coming from DPSG (Dr. Pepper Snapple Group) to the treatment plant. The project also installed a east trunkline and a west trunkline.

The system was all 27" and 21" in size and built in 2009-2010. It included casings under runways and taxiways. The sewer connected from the treatment plant to an existing trunkline near Brucite Road and Mojave Drive. The total project cost was \$8.5 Million.

MOJAVE SEWER EMERGENCY (BETWEEN BRUCITE RD AND COBALT RD) - During storms in 2010 and in 2011, two sections of the same trunkline surfaced and were repaired with concrete encasements and new line between manholes. The project cost was \$300,000.

LA MESA / NISQUALLI INTERCHANGE – This project relocated existing trunklines and extended sewer surrounding the new La Mesa / Nisqualli Freeway Interchange. The total of 7,500 lf of 8" PVC and 1,350 lf of 24" PVC of sewer was utilized in this project at a cost of approximately \$1.4 Million.

CENTER STREET SEWER– This was a high maintenance area of 10" unreinforced concrete pipe that was backing up. We replaced approximately 2,000 lf of 10" and replaced it with 12" PVC. There were unknown fittings that were causing hydraulic issues upstream, such as a buried 90 degree fitting outside of the manhole. The cost was approximately \$300,000.

AMETHYST ROAD DIVERSION– This project intercepted sewer normally flowing west to east and tied into a north flowing trunkline in Amethyst Road through drop manholes. The existing system was surcharging and causing issues with residential laterals backing up into residences. The approximate cost was \$120,000.

PLUTO DRIVE– Extended sewer across Bear Valley Road for possible future connection. This was done strictly to prevent future trenching across Bear Valley Road. This was done in conjunction with a new 60" RCP storm drain line. The approximate cost was \$20,000.

DEL REY SEWER REPAIR– approximately 2,000 lf of unreinforced concrete sewer pipe within Mojave Drive was failing with vertical displacements and severe cracking throughout. The sewer was abandoned between Del Rey Drive and 6th Street. A new line approximately 600 lf was installed on Del Rey Drive to alleviate the problem. The approximate cost was \$200,000.

SECTION 5 - DESIGN AND PERFORMANCE PROVISIONS

D. 13 (v) - Design and Performance Provisions:

- (a) Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and
- (b) Procedures and standards for inspecting and testing the installation of new sewers, pumps and other appurtenances and for rehabilitation and repair projects.

Overview

Development of standards for the design, construction, inspection, testing and acceptance of new, rehabilitated, or repaired portions for the collection system is key in ensuring a safe, and reliable collection system. Even if the City has existing standards in place, a comprehensive review of these is required to establish meeting the SSMP criterion.

Purpose

This requirement will create continuity within the system, preventing inconsistencies from leading to hydraulic deficiencies which can result in a sanitary sewer overflow.

Minimum Requirements

At a minimum, each enrollee must:

1. Develop and implement consistent design and construction standards for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and
2. Develop and implement procedures and standards for inspecting and testing the installation of new sewers, pumps and other appurtenances and for rehabilitation and repair projects.

Design and Construction Standards and Specifications

The City of Victorville has established standards and guidelines to ensure that its wastewater collection systems facilities are properly designed and constructed. These facilities include, but are not limited to, gravity sewers and other related items and are included in the Victorville Standard Specifications for Public Improvements, which also includes the City's standard plans.

For each design project, the City of Victorville develops Contract Documents that are specifically tailored for that facility. For sewer projects, the City relies upon the Standard Specifications for Public Works construction (Greenbook) and the American Public Works Association Standards. The City will evaluate and specify techniques and methods to rehabilitate manhole lids and frames to mitigate inflow defects. Inflow can enter manholes through openings in manhole lids and through defects in the frame. Additionally, the City will evaluate and specify the appropriate sewer line rehabilitation methods for a project.

To further assure that wastewater collection facilities are properly designed and constructed, design of all project drawings, by both in-house Engineering staff and outside engineering consultants, follow an

established review procedure. Licensed engineers oversee and/or perform all facility design. Project drawings are checked and reviewed by licensed engineers prior to approval for construction.

Inspection and Testing Procedures and Standards

Installation of all new sewer pipelines, and point repairs, are inspected in accordance with American Public Works Association Standards and City Standards in regards to backfill requirements. Additionally, all "New Sewer Construction" require CCTV inspection as well as Air Test and Backfill/Compaction tests.

SECTION 6 - OVERFLOW EMERGENCY RESPONSE PLAN

D.13 (vi) - OVERFLOW EMERGENCY RESPONSE PLAN

Each Enrollee shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:

- a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;
- b) A program to ensure an appropriate response to all overflows;
- c) Procedures to 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 MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;
- d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;
- e) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and
- f) 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.

Overview

This element of the SSMP consists of both the contingency plan and the procedures for responding to an overflow (SSO) event.

Purpose

Proper procedures must be established and put into practice in order to minimize the negative effects of an SSO. This section requires the implementation of a concise set of procedures that will seek to ensure that all negative effects of an SSO on public health and the environment are minimized. Proper overflow response procedures are one of the main reasons for the development of the WDRs for SSOs.

Minimum Requirements

At a minimum, each enrollee must include in its overflow emergency response plan:

1. Proper notification procedures for primary responders and regulatory agencies;
2. A program to ensure appropriate response to all overflows;

3. Procedures to ensure prompt notification of appropriate officials or other potentially affected agencies for reporting purposes;
4. Procedures to ensure that all appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are properly trained;
5. Procedures to address emergency operations
6. A program to ensure all steps are taken to contain untreated wastewater and prevent discharge of untreated wastewater to waters of the United States.

Sanitary Sewer Overflow Response Plan Goals

The City of Victorville's goals regarding overflow response are:

- Respond to the scene within one hour of notification of an overflow and assess the situation. Promptly notify the responsible agency if the overflow was not caused by a problem within the City of Victorville's system.
- Prevent the overflow from reaching the storm drain, if possible.
- Notify the San Bernardino County Flood Control District (FCD) if the overflow enters the FCD storm drain system.
- Limit public access to the overflow area to prevent public contact with wastewater and any areas contaminated by wastewater.
- Stop the overflow as soon as possible, preferably within one hour of arriving on-site.
- Completely contain the overflow as close as practical to the overflow location to prevent or minimize any environmental impact.
- Recover as much of the overflow as possible and return it to the sewer system.
- Clean up the area contaminated by the overflow.
- Sanitize areas affected by the spill event.
- Gather and compile pertinent information pertaining to the overflow, simultaneous with response efforts, and notify appropriate regulatory agencies of the overflow and response status as soon as practical.
- Conduct investigations to determine the probable cause of the overflow, document the events during the overflow and response activities, identify and implement measures to prevent recurrence.

Sanitary Sewer Overflow Response Plan

Once a City of Victorville employee receives a complaint or information regarding a potential Sanitary Sewer Overflow (SSO) event, during business hours; the employee shall immediately notify the station 2 dispatcher for the Public Works Department. Upon notification of a potential SSO event, the station 2 dispatcher will notify the Sanitary Division personnel as they are the primary responder to the site. The Sanitary Division personnel immediately implements its *Sanitary Sewer Overflow Response Plan (Response Plan)*.

The *Response Plan* provides goals and guidance for the response measure necessary to minimize impacts to public health and the environment in the event of a SSO. The crew responding to an SSO is required to stop the overflow, contain it as much as possible, limit access to the contaminated area, and ensure that the facility or area is cleaned up and returned to normal operation. Residents or businesses in the immediate vicinity of the overflow are to be informed of the SSO event, the cause if known, and the remedial action taken.

The County Health Department will be notified of overflows which may affect public health. If the overflow reaches the storm drain system, the Regional Water Quality Control Board and the State Office of Emergency Services are notified. The Flood Control District (FCD) is notified of all overflows that discharge into the Flood Control District's storm drain system. The role of FCD is to assist in tracing and capturing the spill as much as possible before it reaches the Waters of the United States. The relevant data about the overflow, such as location, volume, agencies notified, etc. is recorded in field report forms and later stored in the computer. All field personnel are trained to be conversant with these procedures and to accurately report of SSO incidents.

The City will also take steps to address 15-day certification requirement for individual Category 1 SSO. All Public Works personnel with CIWQS reporting responsibilities are aware of this very important element and this issue has also been documented in the update of the City's SSMP.

This along with other procedural and field training issues have been addressed and emphasized during the implementation phase of the updated SSMP. Finally, the City has developed written Standard Operating Procedures related to SSO response activities. Classroom training of the SSO Standard Operating Procedures has been performed and will be revisited as needed

Overflow Detection and Reporting

Detection and reporting of an SSO may occur in numerous ways:

- 1) In the event that an outside party reports a "possible SSO event" through the Public Works Department during business hours; Public Works station 2 dispatch will personally contact the Sanitary Division supervisor, maintenance leads, manager, and/or Public Works and Water Director to advise of the report. Sanitary Division maintenance personnel will be dispatched immediately to investigate the report. The Station 2 dispatcher will complete a departmental Service Request to record the nature of the event.
- 2) If the report is provided during non-business hours to the Public Works telephone line; a message directing the reporting party to contact San Bernardino County Fire Dispatch is provided. San Bernardino County Fire Dispatch will immediately contact the Public Works Emergency Standby crew member on duty to advise him/her of the report. The Emergency Standby crew member will respond to investigate the report. The Emergency Standby crew member will contact Sanitary Division Supervisor and/or Manager, Senior Maintenance Lead, and/or Maintenance Lead and maintenance personnel immediately, if the report is verified as an SSO event.

Reporting Procedures

To remain in compliance with the California Regional Water Quality Control Board, **ALL** public property SSOs must be reported through California Integrated Water Quality System (CIWQS). The method for

reporting varies depending upon the circumstances surrounding the SSO. Depending upon the type and location of the SSO, up to three basic reports are required. These reports are an initial telephone report, and a written draft SSO report to be submitted within three business days of the SSO event for a Category 1 & 2 type spills. A Category 1 SSO event; greater than or equal to 1,000 gallons that results in a discharge to a surface water or spilled in a location where it probably will be discharged to surface water, either directly or by way of a drainage channel or MS4, a report shall, as soon as possible, but not later than two (2) hours after (A) knowledge of the discharge (B) notification is possible, and (C) *notification can be provided without substantially impeding cleanup or other emergency measures*, notify California Office of Emergency Services (Cal OES) and obtain a notification control number. Cal OES phone number 1-800-852-7550. The fax number for follow up is 1-916-845-8910.

Photographs must be taken of each SSO within the City's jurisdiction. An initial telephone report to Lahontan Regional Water Quality Control Board, 760-241-6583, is required for all SSOs that occur in the City's collection system and requires specific information. The telephone report is not required for the State Water Quality Control Board (SWQCB) if the SSO is totally contained, totally cleaned up and returned to the sewer system, has not caused a nuisance and/or has not entered the storm drain system, and is not a Category 1 or 2 event.

A written report of an SSO must be submitted to the RWQCB within fifteen days of the event. The written report contains the information required on the initial telephone report, plus additional information. Like the initial telephone report, the written report is required for all SSOs except those that are totally contained, totally cleaned up and returned to the sewer system, has not caused a nuisance and/or has not entered the storm drain system. The written report is required even if the sewage can be recaptured in an enclosed storm drain. In this situation, the discharger is required to demonstrate that no sewage was discharged to surface waters.

All reports submitted to the Regional Board must be signed by a Legally Responsible Official (LRO) and include the following statement:

I certify under penalty of law that this document and all attachments were prepared under my direct supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

All SSOs which may affect public health, within the City's collection system must be reported to the San Bernardino County Health Department at 1-800-442-2283, and to the Lahontan Regional Water Quality Control Board 760-241-6583.

Summary of how SSOs are to be reported

Type of SSO	Type of Report
Private property SSO that is not contained and flows to public property and/or enters the storm drain system.	Reports are contingent upon the City being made aware of the overflow. Initial telephone report. Written report. San Bernardino County Health Department. Office of Emergency Services if over 1,000 gallons.
Public property within the City’s collection system, totally contained, does not enter the storm drain system.	Initial telephone report and written report to Lahontan Regional Water Quality Control Board.
Public property within the City’s collection system, is not totally contained, and/or enters the storm drain system.	Initial telephone report. Written report. San Bernardino County Health Department. Office of Emergency Services if over 1,000 gallons.
No SSOs occurred nor does the City have any knowledge of SSOs occurring.	Monthly CIWQS online report.

Reporting Contacts:

1. Lahontan Regional Water Quality Control Board : (760) 241-6583
15428 Civic Drive
Victorville, CA 92392
Website: swrcb.ca.gov/rwqcb6
Fax: (760) 241-7308
2. San Bernardino County Health Department : (800) 442-2283
351 N. Mt. View Ave
San Bernardino, CA 92415
Website: sbcounty.gov/pubhlth
(909) 387-6280
3. State of California Office of Emergency Services: (800) 852-7550
3650 Schriever Avenue
Mather, CA 95655
Website: oes.ca.gov
Fax: (916) 845-8910
NOTE: You must record the case number given to you for future use.
4. San Bernardino County Flood Control District : (909) 387-7918
385 East Third Street
San Bernardino, CA 92415
website: sbcounty.gov/dpw
Fax: (909) 387-8130

SSO Flow Estimation

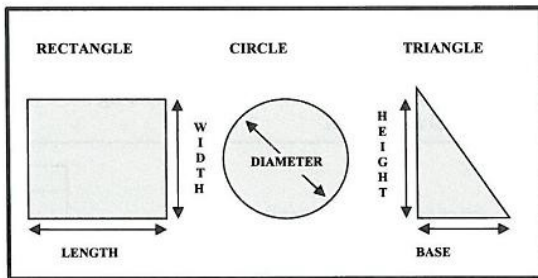
Accurate flow estimation is essential to determine the size and impact of an SSO. Additionally, accurate flow estimation is important to determine the extent of the cleanup and its effectiveness. Flow estimation is basically the flow rate multiplied by the amount of time the flow has occurred.

Public Works personnel use several methods to arrive at the SSO flow estimation: measured volume, counting sewer lateral connections, metered flow, vent and pick hole measurements, and the California Water Environment Association's (CWEA) Southern Section Collection Systems Committee (SSCSC) Manhole Overflow Gauge.

Measured Volume

The volume of most small spills that have been contained can be estimated using this method. The Shape, dimensions, and the depth of the contained wastewater are needed. The shape and dimensions are used to calculate the area of the spills and the depth is used to calculate the volume.

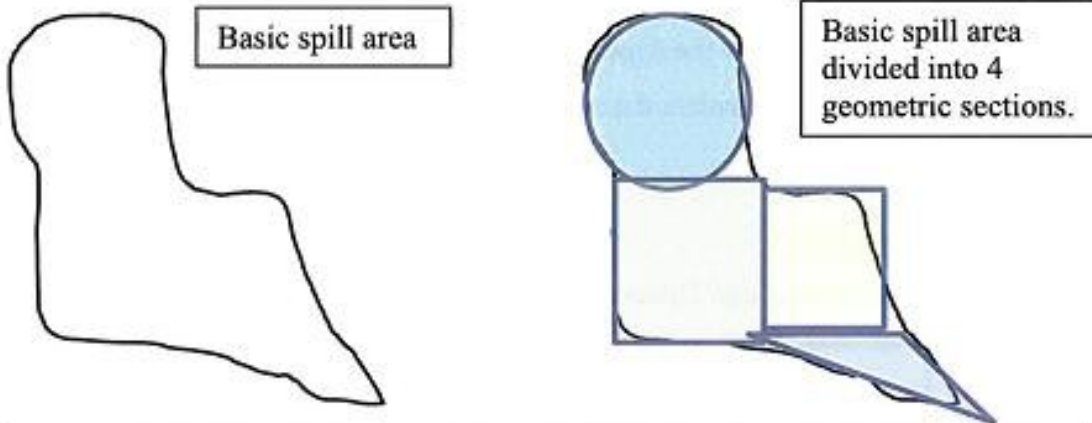
Common Shapes and Dimensions



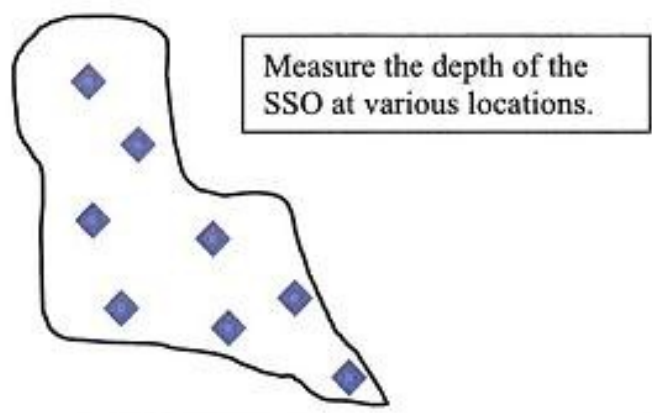
1. Sketch the shape of the contained wastewater.
2. Measure or pace off the dimensions.
3. Measure the depth at several locations and select an average.
4. Convert the dimensions, including depth, to feet.
5. Calculate the area.
 - Rectangle: length (feet) x width (feet)
 - Circle: [diameter (feet) x diameter (feet) x 3.14] divided by 4
 - Triangle: base (feet) x height (feet) x 0.5
6. Multiply the area (square feet) times the depth (in feet) to obtain the volume in cubic feet.
7. Multiply the volume in cubic feet by 7.48 to convert to gallons.

Not all SSOs will conform to a specific shape. When this occurs, break up the area of the SSO into various shapes or segments, then calculate the amount of wastewater spilled in each segment, adding them together to arrive at the total spill volume.

Example:



Determine the area of each of the geometric sections adding them all together to determine the total area of the spill.



Where it is difficult to measure wet spots on asphalt, use a depth of 0.0026' or 1/32". For wet spots on concrete use depths of 0.0013' or 1/64" for reasonable estimates.

Inch to Feet Conversion:		
Inches	to	Feet
1/8"	=	0.01'
1/4"	=	0.02'
3/8"	=	0.03'
1/2"	=	0.04'
5/8"	=	0.05'
3/4"	=	0.06'
7/8"	=	0.07'
1"	=	0.08'
2"	=	0.17'
3"	=	0.25'
4"	=	0.33'
5"	=	0.42'
6"	=	0.50'
7"	=	0.58'
8"	=	0.67'
9"	=	0.75'
10"	=	0.83'
11"	=	0.92'
12"	=	1.00'

Sample Calculation:
A 20 ft x 20 ft square wet spot on concrete equals 3.9 gal and for asphalt is 7.8 gal.

Counting Connections

Once the location of the blockage has been established, the amount of the SSO could be estimated by counting the number of upstream connections. On the sewer atlas maps or GIS system, locate the pipeline where the SSO occurred. Count all of the developed parcels that are connected to the pipeline upstream of the blockage. The typical single family residential parcel may discharge 8 to 10 gallons of wastewater per hour during active times of the day. For a multi-family residential development such as an apartment or condo complex, count each apartment as a single family residential unit. Use the higher flow number (10 gallons per hour) during typical peak flow hours and the lower flow number (8 gallons per hour) during low flow periods. Multiply the number of connections times the average flow (8 to 10 gallons per hour) times the time period (duration) that the SSO occurred.

One EDU SSO flow Sample formula: (12hrs x 10gals/hr = 120gals/12hrs), (12hrs x 8gals/hr = 96 gals/12hrs), 120gals/12hrs + 96gals/12hrs = **216gals/24 hrs**

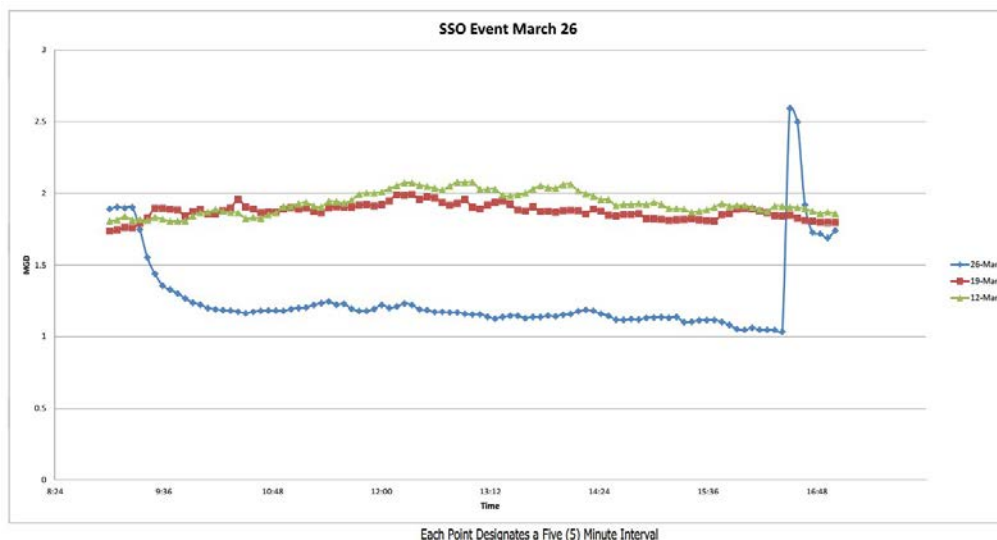
Example for an SSO occurring on weekday at 8:00 am (peak flow period)

Number of upstream connections	22
Estimated flow per parcel	10 gallons per hour
Duration of SSO event	45 minutes
Total spill estimation:	(22 connections x 10 gallons per hour x 45 minutes (0.75) = 165 gallons

Note: The City of Victorville uses 216 gallons of wastewater usage per 24 hours, per Equivalent Dwelling Unit (EDU) as determined by the City Engineer.

Metered Flow

Estimates of the amount of wastewater spilled from a continuously metered system. Estimates can be achieved utilizing flow meters located close to the point where the wastewater escaped. Flow meters located at strategic locations in the wastewater collection system may provide an accurate account of length of time the SSO occurred and the volume of wastewater spilled by evaluating the diurnal chart of a specific outfall. If a spill is suspected on a metered upstream wastewater line, check the flow meter readings for abnormalities and note the time started. If the meter readings are lower than usual, the difference may be the amount of wastewater being lost to a spill. Compare average readings to the abnormal readings; length of time multiplied by difference in flow from average readings to abnormal readings.



SSO flow estimation tables and photographs

Table 6-1, *Low Flow Rates*, assists in determining the estimated flow from the vent and pick holes in manhole covers. To use the chart, determine the diameter of the vent or pick hole(s) and the height of the water column coming out of the hole(s). For any given size hole and water column the chart will provide the flow rates in cubic foot seconds (CFS), gallons per minute (GPM) or gallons per hour (GPH). The flow rate times the number of holes generating flow times the elapsed time of the SSO will determine the estimated volume of the SSO.

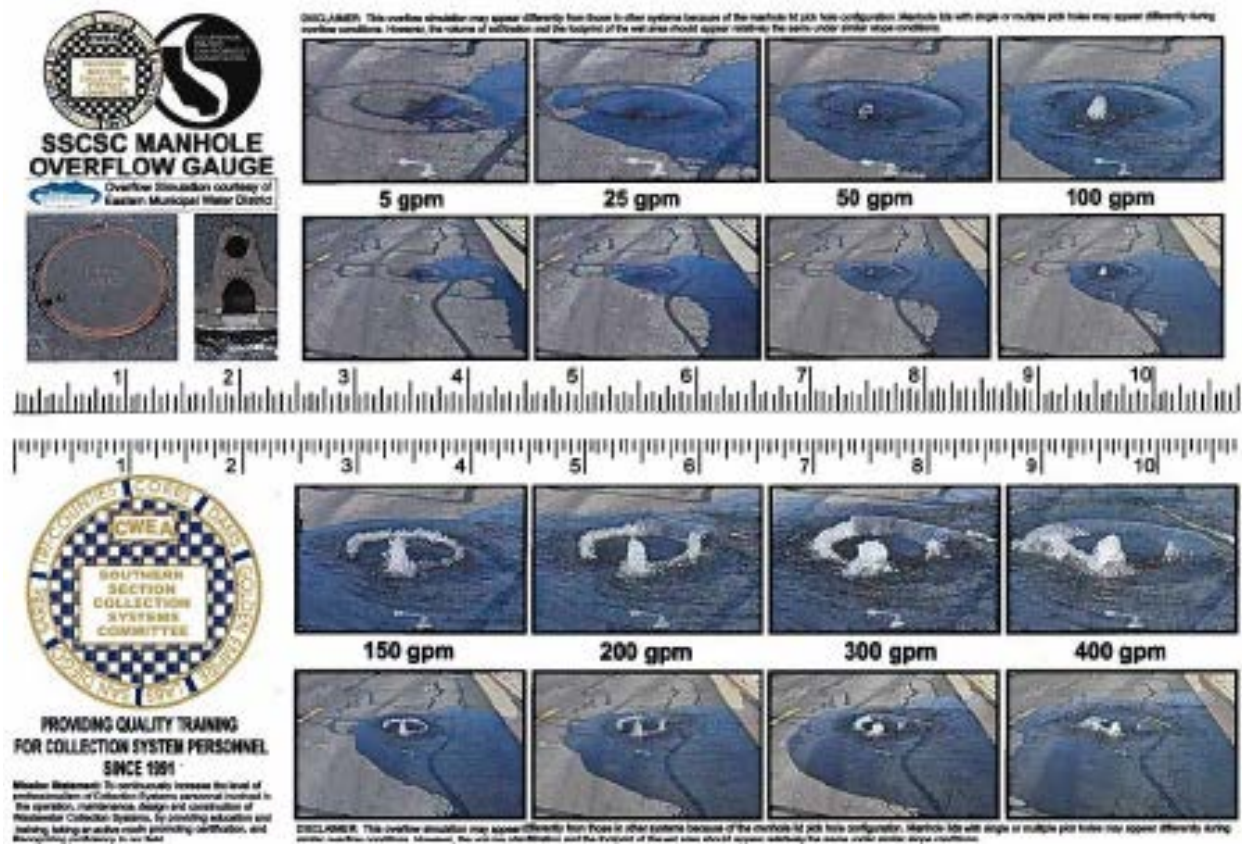
Table 6.1 Low Flow Rates

Hole Diameter in Inches	Water Height in Inches	Q Cubic Foot Seconds	Q Gallons per Minute	Q Gallons per Hour
Vent Hole				
0.50	1/16	0.0005	0.23	14
0.50	1/8	0.0007	0.33	20
0.50	1/4	0.0010	0.47	28
0.50	1/2	0.0015	0.66	40
0.50	3/4	0.0018	0.81	49
0.50	1-inch	0.0021	0.94	56
Vent Hole				
0.75	1/16	0.0011	0.51	31
0.75	1/8	0.0016	0.72	43
0.75	1/4	0.0023	1.02	61
0.75	1/2	0.0032	1.44	87
0.75	3/4	0.0039	1.77	106
0.75	1-inch	0.0045	2.04	122
Vent Hole				
1.00	1/16	0.0020	0.88	53
1.00	1/8	0.0028	1.25	75
1.00	1/4	0.0039	1.77	106
1.00	1/2	0.0056	2.50	150
1.00	3/4	0.0068	3.06	184
1.00	1-inch	0.0079	3.54	212
Pick Hole Semi-Circular Area				
1.00	1/16	0.0010	0.44	27
1.00	1/8	0.0014	0.63	38
1.00	1/4	0.0020	0.89	53

1.00	½	0.0028	1.25	75
1.00	¾	0.0034	1.53	92
1.00	1-inch	0.0039	1.77	106
1.00	1½- inch	0.0048	2.17	130
1.00	2-inch	0.0056	2.51	150

Table 6.2, *SSCSC Manhole Overflow Gauge*, depicts a series of illustrations from the California Water Environment Association (CWEA) Southern Section Collection Systems Committee (SSCSC) showing an overflowing manhole, located on asphalt pavement, at various flow rates. Table 6.2 can be used to give an approximate determination of the flow rate for manholes that are overflowing at a rate substantially higher than through only the vent and pick holes. To use Table 6.2, pick the illustration that most closely matches the actual overflow. Use the GPM rate multiplied by the elapsed time the manhole has been overflowing to determine the estimated SSO volume.

Table 6.2 SSCSC Manhole Overflow Gauge – Various Flow Rates for Manholes



Public Works crews have been provided with flow estimation pictures and tables that help in estimating sewer overflows. The City has developed and implemented a Sanitary Sewer Overflow Emergency Response Plan (SSOERP) which identifies measures to protect public health and the environment.

The SSOERP identifies the duties of the first responders to an SSO event and the duties of supervisors. Element 2 contains the list of Public Works Sanitary Division personnel and contact information. This

Element also provides reporting procedures and timing of reports along with a list of responsible agencies.

The first responders assess the area and extent of the discharge and determine if there is a need for additional support from City maintenance personnel and/or other jurisdictions, or for traffic or crowd control, and notify the appropriate personnel and/or agencies.

Procedure to ensure that staff and contractors are aware of and are appropriately trained to follow Emergency Response Plan

The SSOERP will be available to key personnel who are responsible for managing or responding to SSO's. Copies of this plan are available to field crews and engineers at the office who manage or have the role of preparing SSO reports to regulatory agencies.

Procedures to address emergency operations such as traffic and crowd control and other necessary response activities

The Public Works personnel and employees of the emergency response contractors who are retained for SSO responses are well trained in traffic and crowd control. The City's vehicles are well equipped with traffic and crowd control tools, including orange traffic control cones, yellow tape, flashing lights, first-aid supplies, etc.

Program to eliminate or minimize discharge of SSO into Waters of the United States

The Public Works personnel are properly trained on methods and procedures to prevent or limit the amount of SSO into Waters of the United States and how to mitigate their impacts. Some of the methods include the use of sand bags to contain SSO's, absorbent tube socks to prevent SSO discharge into storm drain catch basins, and the use of vacuum trucks to suck up contained spills and dump effluent back into the collection system at other safe locations. Public Works personnel have the reduction of response time for SSO as one of the major goals. Reducing response time significantly limits the amount of SSO that reaches the Waters of the United States.

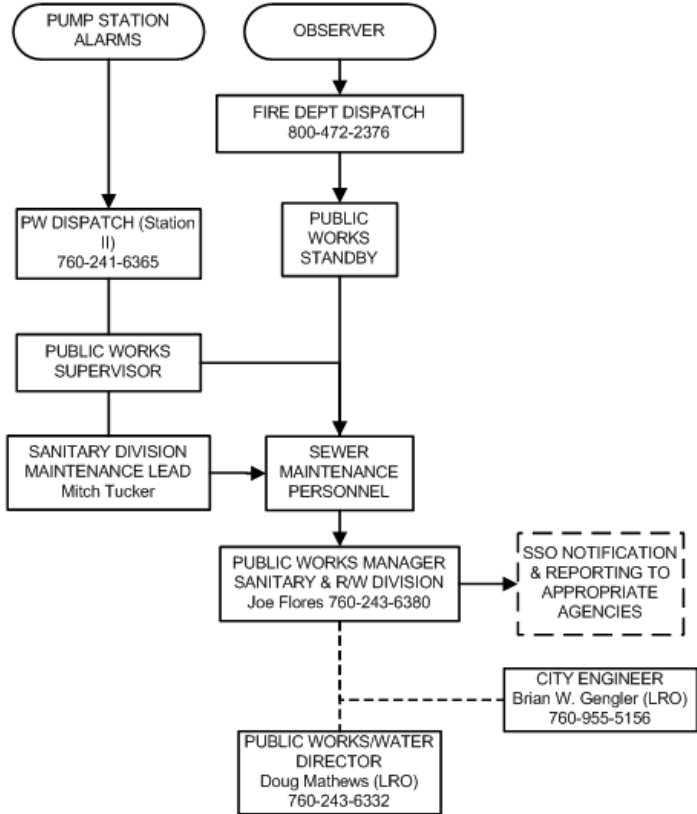
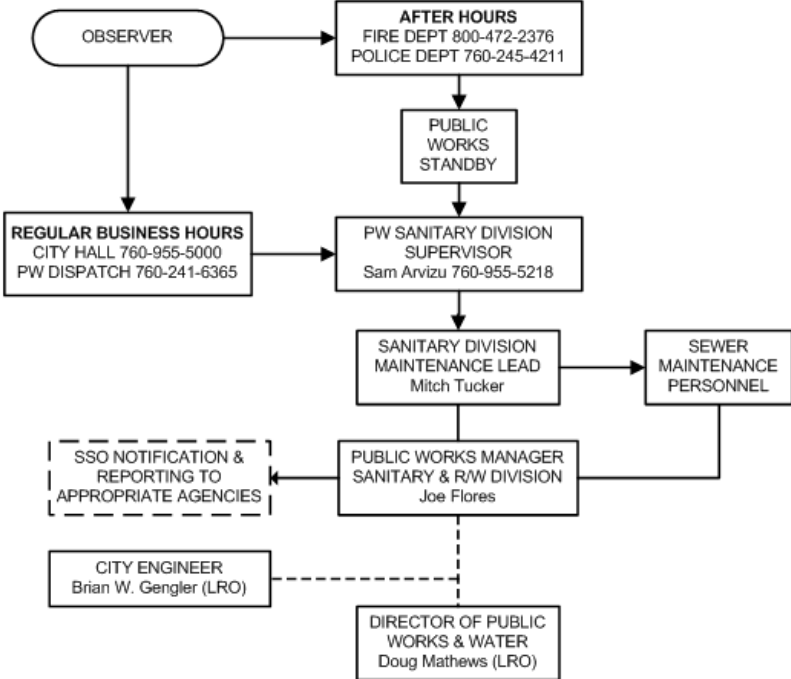
Sanitary Sewer Overflow Emergency Response Plan

The following chart (Figure 6-1) shows the City's current Sanitary Sewer Overflow Chain of Communication for an SSO response as stated in Table 2-1. The City updated this response plan to ensure its adequacy, in April 2019.

Victorville is a partner in the VVWRA Joint Powers Authority (JPA) along with three other agencies including, Apple Valley, Hesperia, and San Bernardino County, Although no MOU is currently in place, City staff frequently work with other agencies crews, if needed, from surrounding communities. This cooperation allows us (and them) the ability to have the quickest response time to SSOs or other sewer system issues as is possible. The quick response time facilitates the timely removal of a blockage which, in turn, reduces or eliminates the amount of sewage that could otherwise enter the storm drain system.

A draft MOU, titled, *Emergency Response Assistance Agreement*, is currently under review by City staff. Once it is finalized by City staff, it will be submitted to the City attorney for review. Upon completion of the City attorney's review, it will be submitted to VVWRA's board for consideration for adoption by the member agencies to govern cross-jurisdictional events.

Figure 6-1 SSO Response Chain of Communication



SECTION 7 - FATS, OILS, AND GREASE (FOG) CONTROL PROGRAM

D.13 (vii) - FOG CONTROL PROGRAM

Each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed, the Enrollee must provide justification for why it is not needed. If FOG is found to be a problem, the enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. The plan shall include the following as appropriate:

- a) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;
- b) A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;
- c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;
- d) Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;
- e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;
- f) An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and
- g) Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (f) above.

Overview

Under the Order, the City is required to evaluate its service area to determine whether a Fats, Oils, and Grease (FOG) control program is needed. If the City determines that a FOG program is not needed, it must provide justification for why it is not needed. If FOG is found to be a problem, the City must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system.

Purpose

FOG is generated in most types of restaurants and food service establishments during food preparation, food service, and kitchen clean up. If flushed down the drain, FOG can build up in pipes, pumps, and equipment causing significant problems in the sanitary sewer system, including line blockages. Blockages can lead to sewer overflows, posing environmental and public health hazards. Understanding and controlling discharges of FOG will greatly reduce potential liability of SSOs and efforts required to keep lines clean.

The key to reducing FOG in the sanitary sewer system includes both a good source control program, as well as preventative maintenance to ensure FOG build up within the system is cleaned before significant buildup can occur. Additionally, understanding your collection system and the type of discharges within the service area is paramount to the strategic implementation of a FOG program.

Minimum Requirements

At a minimum, each enrollee must:

1. Determine if FOG is (or could be) an issue within the service area. (If FOG is found not to be an issue, then justification must be provided).
2. Create a plan and schedule for a public education outreach program that promotes proper disposal of FOG;
3. Develop a plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;
4. Ensure that the appropriate legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;
5. Require the installation of grease removal devices (such as traps or interceptors), including design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;
6. Make sure that the agency has the authority to inspect grease producing facilities, enforcement authorities, and whether the agency has sufficient staff to inspect and enforce the FOG ordinance;
7. Identify sections of the sanitary sewer system that are subject to FOG blockages and establish a cleaning maintenance schedule for each section; and
8. Develop and implement a source control and/or cleaning program for all sources of FOG discharged to the sanitary sewer system.

Public education and outreach program

City will proactively reach out to users of its sewer system regarding the community's FOG source control program. Information on proper disposal of FOG and other SSO prevention measures, including installation of grease traps, backwater valves, sewer lateral maintenance, etc. is disseminated through publication of notices. These notifications provide descriptions of grease control efforts that can be undertaken by businesses.

Additionally, other effective ways to communicate with the public have been developed. These include expanded use of the City's home web page, use of announcements over radio. City's web page has been reviewed and updated to include language regarding public outreach/education, FOG program.

FOG in the local sewer system can be a prime contributor to an SSO and its corresponding health and safety impacts. Related health and safety issues can also result from the discharge of pharmaceuticals and pesticides into the sanitary sewer system. Although not usually a causative factor in sewer overflows, these chemicals can be toxic and have disruptive environmental and biological effects. Discharges of such chemical compounds into the sewers should also be avoided and will be addressed in the education and outreach program.

Disposal method and schedule for FOG generated within the system service area

Solidified FOG, found in the public sewer system during regular scheduled cleaning operations or clearing of a blockage, is trapped, collected and taken to VVWRA for proper disposal. All solid debris (FOG, roots, grit, etc.) collected from the system are also taken to VVWRA. FOG in liquid form is flushed

down by hydro jetting to designated treatment facilities for disposal. VVWRA accepts all debris collected during regular cleaning or clearing of a blockage.

The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG

The legal authority to prohibit illicit discharges (e.g. FOG, etc.) into the sewer system is discussed in Section 3 of this document. Requiring grease interceptors at FSE to prevent the discharge of grease to the public sewer system and educating the public on proper disposal methods for FOG are also discussed in this chapter. Discharges from industrial classification facilities are usually controlled under the terms of an industrial wastewater discharge permit, which is issued and monitored by the local wastewater agency.

Requirements to install grease removal devices, design standards, maintenance, BMP's, record keeping and reporting requirements

The City Building Official and/or County Health Officer is authorized to monitor and enforce the terms of the Plumbing Code and the Public Health Code, respectively. This includes domestic waste disposal from residential and commercial facilities. The City Code prohibits the discharge of "any material which may create a public nuisance, or menace to the public health or safety, or which may pollute underground or surface waters, or which may cause damage to any storm-drain channel or public or private property." Domestic waste containing FOG can lead to SSO which are public nuisances, and California Health and Safety Code Division 5, Part 3, Chapter 6, Article 2 can also be used to impose appropriate domestic sewage discharge requirements. The effectiveness of any grease removal devices are dependent upon their routine maintenance and monitoring and inspection for conformance with its intended purpose. Regular inspection and maintenance activity logging with quarterly reporting are required and are verified by City staff as part of the Industrial/Non-Domestic Waste Permit inspections.

Authority to inspect grease producing facilities, to enforcement, and evidence of adequate staffing to inspect and enforce the FOG ordinance

As discussed in Section 3 of this document, and per VMC Section 10.03.110 and 120, the City has legal authority to inspect and enforce the local FOG ordinances. City will be reviewing its resources to determine adequacy of its resources for inspection purposes as part of the implementation of the SSMP.

Cleaning schedule for identified FOG prone sewer segments

Experience has shown that FOG contributes to about 50% of the total SSO events that occur in a community sewer system. The remaining 50% is usually attributable to root intrusion into the system, other structural causes, and/or vandalism. "Sewer High Maintenance Locations," are identified during routine maintenance operations and during investigation of stoppages resulting in a SSO event. These "Sewer High Maintenance Locations" are typically cleaned by hydro jetting or cutting when roots are encountered.

The best way to combat roots in sewer lines is to utilize an integrated root control program. The City has an on-going root treatment program. The City will utilize its GIS system to document location of system defects including roots to address this problem systematically. Additionally, the City will employ BMPs, including root cutting and the use of chemicals to control this problem. Finally, utilizing the

aforementioned GIS mapping, the City will also incorporate the worst segments for incorporation into its CIP and eventual rehabilitation/replacement.

Those portions of the system found to have persistent FOG problems are inspected and cleaned more frequently, depending on the magnitude of the problem. Furthermore, segments of the collection system with persistent FOG problems are referred to the Public Works and Engineering Departments for additional evaluation and corrective actions.

Source control measures developed and implemented for “Sewer High Maintenance Locations”

Each “Sewer High Maintenance Location” cause and condition is not the same. For each identified problem location, the means of effective maintenance is noted on the respective “Sewer High Maintenance Location” list for review and regular follow-up action by the sewer maintenance crews. The maintenance activities are amended as needed.

Action Items

The City has implemented a targeted program to address this issue proactively, as described below:

- a) A FOG source control program plan has been developed with targeted field visits by the City’s Code Enforcement inspectors to document and issue citations to FSE’s that do not have grease interceptors.
- b) Bi-lingual (English and Spanish) public outreach brochures are being developed that will also include a list of City approved FOG disposal sites.

City inspectors and Public Works’ engineering staff will continue to monitor the items listed above and to develop KPIs to track the success of abovementioned activities and to adjust them as necessary.

SECTION 8 - SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

D.13 (viii) - SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

The Enrollee shall prepare and implement a capital improvement plan (CIP) that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event.

At a minimum, the plan must include:

- a) **Evaluation:** Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide 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;
- b) **Design Criteria:** Where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria; and
- c) **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 may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.
- d) **Schedule:** The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a)-(c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D. 14

Overview

This element of the SSMP includes several major programs and activities regarding development of a capital improvement plan and hydraulic analysis.

Purpose

An important step in attempting to minimize the amount of SSOs in a given system, one must determine how the system will react to different conditions and stresses. Once this is achieved, City officials can identify areas in need of improvement and prioritize projects for a capital improvement program.

Minimum Requirements

At a minimum, each enrollee must:

- 1) Describe the methods used to identify areas of the sanitary sewer system that lack the sufficient capacity to convey an appropriate peak flow;
- 2) Establish consistent design criteria;
- 3) The identification of capacity needs and the approach used to take the results of the capacity evaluation to produce a prioritized list of capacity improvement projects; and

- 4) The development of a project schedule that addresses both condition-related and capacity- related projects.

System Evaluation

Per the requirements listed herein, the City has developed the Sewer Master Plan 2016 containing system assessment of existing facilities along with hydraulic analysis of both existing and future waste water flows and anticipated capacity requirements of the future; and has developed various capital improvement plans correspondingly. In addition, the City is currently at 95% completion of the newer version of the Sewer Master Plan 2018 which will include an updated hydraulic evaluation of the entire sewer system as well as updated CIP addressing the City sewer system's structural as well as hydraulic deficiencies.

SECTION 9 - MONITORING, MEASUREMENTS, AND PROGRAM MODIFICATIONS

D.13 (ix) - Monitoring, Measurement, and Program Modifications

The Enrollee shall:

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

Overview

It is critical that the City monitors implementation of the SSMP elements, and measures the effectiveness of SSMP elements in reducing SSOs. Effectiveness should be measured by developing and tracking performance indicators on a regular basis. Performance indicators should be selected to meet the goals of the wastewater collection system agency.

Purpose

In order to effectively manage programs, performance measures that gauge success should be developed and data to support the findings must be collected. Accurate and consistent data keeping is important for successful sewer system management. Data captured, in a format that is easily extractable, is relevant for operations personnel. Based upon data collected, decisions can be made as to changes that may be warranted and needed in order to maximize program efficiencies. Establishing a Monitoring, Measurement, and Program Modification program will allow the City to better manage and implement SSMP programs.

Minimum Requirements

At a minimum, the enrollee must:

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

Monitoring

Relevant data on all work completed in the implementation and execution of the SSMP program will be documented and maintained in the DPW filing system. These data files will be used in the evaluation of the effectiveness of the overall program.

Program Effectiveness Evaluation

The effectiveness of the program shall be monitored and tracked through the City's *Key Performance Indicators* (KPI).

Key Performance Indicators (KPIs) A measurable value that demonstrates how effectively an organization is achieving key objectives.

The City's key performance indicators are:

- Total number of SSOs
- Number of SSOs per 100 LF per year
- Total Volume of SSOs
- Number of SSOs caused by
 - Roots*
 - FOG*
 - Debris*
 - Pipe Failure of Structural Defect*
 - Capacity Limitation*
- Average response time during business hours
- Average response time after business hours

Mapping of SSO Frequencies

The monthly numbers of SSO's will be identified in charts and graphs. The charts may be used to identify SSO trends and as an indicator of infiltration/inflow problems that need to be corrected. The graphs will be used to identify SSO trends and to evaluate overall SSMP program success especially by comparing the information of varying years.

SECTION 10 - SSMP PROGRAM AUDITS

D. 13 (x): SSMP Program Audits

As part of the SSMP, the Enrollee shall 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 shall focus on evaluating the effectiveness of the SSMP and the Enrollee's compliance with the SSMP requirements identified in this subsection (D.13), including identification of any deficiencies in the SSMP and steps to correct them

Overview

Audit programs are intended to provide controls for ensuring that all programs associated with the SSMP are being implemented as planned and managed appropriately. Audit outcomes should provide information about challenges and successes in implementing the SSMP by evaluating work practices and operations, documentation, procedures records and staff for implementation effectiveness and consistency. The audit will identify any program or policy changes that may be needed to continually improve effective implementation. Information collected as part of an audit should be used in to plan program or procedure revisions necessary to improve program performance.

Purpose

SSMP audit program should be developed specifically for the sanitary sewer system, but agency-wide procedures should be incorporated to ensure program sustainability. The audit can contain information about successes in implementing the most recent version of the SSMP, and identify revisions that may be needed for a more effective program. Information collected as part of the Monitoring, Measurement, and Program Modifications program should be used in preparing the audit. Quite often, performance measures and other management indicators are developed, providing a baseline that performance can be measured against. Tables, figures, and charts can be used to summarize information about these indicators. An explanation of the SSMP development and accomplishments in improving the sewer system should be included in the audit, including:

- Progress made on development of SSMP elements, and if the sewer system agency is on schedule in developing all elements of the SSMP;
- SSMP implementation efforts over the timeframe in question;
- The effectiveness of implementing SSMP elements;
- A description of the additions and improvements made to the sanitary sewer collection system in the past reporting year; and

A description of the additions and improvements planned for the upcoming reporting two year audit cycle with an estimated schedule for implementation.

Minimum Requirements

The WDR requires that all agencies develop appropriate audit procedures necessary to evaluate the effectiveness of the SSMP, as well as the agency's compliance with all requirements identified in the WDR. The audit must identify any deficiencies in an agency's SSMP programs and include steps to

correct these issues. At a minimum, audits must be conducted every two years and a report of the findings must be prepared and kept on file.

SSMP Program Audit

The City will conduct periodic internal audits and prepare a report, at a minimum of every two years. The audit will focus on evaluating the operational and cost effectiveness of the SSMP as well as the City's compliance with all elements of the SSMP. This will include:

- Identification of any deficiencies in the SSMP
- Steps taken to correct any identified deficiencies
- Notes of interviews with key responding personnel and any contractors utilized
- Notes of operational observations, especially of each SSO event
- Notes on related equipment inspections
- Findings of all reviews of related records

All audits and gap analysis are kept on file in the Office of the City Clerk, the DPW office and at the field maintenance, McArt Corporate Yard.

SSMP Certification

The City's original SSMP has been presented to and acted upon by the Victorville City Council at a public meeting. Subsequent SSMP approval, including the current version, must also be considered and acted upon at a public meeting. Once it is approved, the Director of Public Works must certify its approval in compliance with the WDR requirements, including completion of the certification portion in the Online SSO Database Questionnaire by checking the appropriate milestone box, printing and signing the automated form and sending the signed form to:

State Water Resources Control Board

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

SSMP Modification and Re-certification

The SSMP must be updated every five years to keep it current. When significant amendments are made to any portion or portions of the SSMP, it must be resubmitted to the City Council for approval and re-certification. The re-certification shall be in accordance with the certification process described above.

- ✓ Include and track changes with Change Log Form (Appendix E)

SECTION 11 - COMMUNICATION PROGRAM (OUTREACH)

D.13 (xi) - Communication Program

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

Overview

Communication programs are often underrated and overlooked. However, an effective communication program may end up being the key element that keeps your organization from missing critical SSMP deadlines. Involving the public early and at appropriate times will help your organization avoid last minute comments that delay approval of your SSMP by your governing body. A quality communication program with satellite agencies will help to minimize negative operational impacts on your plant or collection system.

It is important to identify an individual who will be responsible for development of your communication program. Larger agencies will typically have Communications and Media Officers or Public Information Officers who are appropriate to lead the development of the communication program. Smaller agencies who don't have these staff in-house should look to those within the agency who have exhibited strong writing skills, public speaking skills, experience with customer interface, or have successfully completed controversial projects. A self-assessment and rough timeline follow to help you on your way to a successful communication program.

Purpose

Identifying key stakeholders and key issues, and thinking about how various stakeholders might react is the first step to developing a communication plan. Understanding what elements of an SSMP they will be most concerned with, is one of the many potential considerations that an agency may identify. Involving the right stakeholders on potentially controversial issues as early as possible is important to the success of any new program. Emphasizing collaboration and shared goals to reach a workable solution will not always ensure buy off, but will promote ownership and understanding. Avoiding proper outreach efforts for controversial issues in the hope that interested parties won't catch on usually backfires. These issues should be considered when developing a communication program.

Minimum Requirements

- a) The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.
- b) The City does not serve a satellite sewer collection system; however, a plan of communication with systems that are tributary to the City's sanitary sewer system will be developed.

Communication

The City will provide all stakeholders and interested parties, the general public and other agencies, with status updates on the development and implementation of the SSMP and consider comments received from them. The City will utilize media such as quarterly newsletter, billing insert, special brochures, annual reports, notices in newspapers, and the City's home web page for conveying this information. Additionally, the City will:

- The City's Public Works Director and manager, along with assistance from the PWD Administrative Analyst, is responsible for development, implementation, and interface for the communication program.
- Identify resources necessary to solicit and incorporate input on each phase of your SSMP (development, implementation, and performance), as well as document your outreach efforts.
- Identify key community stakeholders and key issues that various stakeholders may be interested in and/or concerned with.
- Make sure to involve the right stakeholders on potentially controversial issues as early as possible. Emphasize collaboration and shared goals to reach a workable solution.
- Create a list of key milestones in each phase of your SSMP when stakeholder input would be most useful and effective.
- Create a convenient mechanism for stakeholder input.
- Consider the development of a variety of communication methods, including newsletters, public meetings, web pages, and public service announcements. Different agencies will find that different communication methods are effective. Look for a method that reaches the desired audience at a reasonable cost.

SSMP Availability

Copies of the SSMP will be maintained in the City offices of the City Clerk, the City Engineer and the Director of Public Works and at the McArt Corporate yard site, with applicable summaries, reports and notices posted on the City's home web page. The adopted document shall also be made readily available to the Regional Water Quality Control Board (Region No. 8) representatives upon request and to the operators of any collection system or treatment facility downstream of the City's sanitary sewer system.

Appendixes

Appendix - A Contact information for related agencies..... 57

Appendix - B JPA Agreement – VVWRA 58

Appendix - C SWRCB revised WDR No. WQ2013-0058, MRP document..... 99

Appendix - D SWRCB order No. 2006-003 – DWQ 112

Appendix - E SSMP Change Log..... 132

CONTACT INFORMATION FOR RELATED AGENCIES

Responsible Party	Name	Telephone #	After Hours
San Bernardino County DPW	Kevin Blakeslee <i>Director</i> (909) 387-7906	To report problems : (909) 387-8063	(909) 356-3805
San Bernardino County Health Department	Trudy Raymundo <i>Director</i> (909) 387-9146	Main Office (800) 782-4264	(800) 472-2376
San Bernardino County Flood Control District	David Doublet <i>Deputy Director</i> (909) 387-7918	Main Office (909) 387-8063	(909) 356-3805
VVWRA	-	Main Office (760) 246-8638	-
Lahontan (RWQCB)	-	Victorville Main Office (760) 241-6583	-
California Office of Emergency Services (OES)	-	Main Office (916) 845-8510 To report problems: (916) 845-8759	-

AMENDED AND RESTATED
JOINT EXERCISE OF POWERS AGREEMENT
VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY

THIS AMENDED AND RESTATED JOINT EXERCISE OF POWERS AGREEMENT (the "Agreement") is made and entered into by and between the public agencies herein designated as "eligible public agencies" to amend and restate the Joint Exercise of Powers Agreement dated December 13, 1977, and any and all amendments thereto which created the Victor Valley Wastewater Reclamation Authority.

RECITALS

WHEREAS, each of the parties hereto is a public agency authorized and empowered to contract for the joint exercise of powers under Article I, Chapter 5, Division 7, Title 1 (Sections 6500, et seq.) of the Government Code of the State of California; and

WHEREAS, each of said parties has the authority and power to protect and preserve the quality of the surface and subsurface water supplies within their respective boundaries; and

WHEREAS, the parties hereto recognize the immediate and continuing necessity for planning, construction, operation, and maintenance of works and facilities for the collection, transmission, treatment, disposal, and/or reclamation of sewage, wastes, and waste waters to meet the requirements of the National Pollution Discharge Elimination System within the boundaries of the Agency; and

WHEREAS, the parties hereto and their predecessors in interest formed the Victor Valley Wastewater Reclamation Authority, a Joint Powers Authority, which assumed responsibility for the construction, ownership, operation and maintenance, financing and every other phase and

aspect of the Victor Valley Regional Wastewater Reclamation Project, all as more particularly described in the Mojave Water Agency Service Agreement dated November 23, 1976, and in Mojave Water Agency Resolution No. 282-75, dated April 22, 1975, utilizing Mojave Water Agency ID No. 1 bond and tax funds and grants received from the Federal and State government to pay for these regional wastewater facilities; and,

WHEREAS, these regional wastewater facilities are now in existence and are owned and operated by the Victor Valley Wastewater Reclamation Authority and the terms of the said Mojave Water Agency Service Agreement and Resolution No. 282-75 have been performed and have been superseded by the governing documents of the Joint Powers Authority, and by the Joint Powers Agreement between the parties; and,

WHEREAS, the parties hereto wish to amend and restate the terms of the Joint Powers Agreement to update its provisions and to reflect the current status of the structure and operations of the Joint Powers Authority;

COVENANTS

NOW, THEREFORE, IN CONSIDERATION of the mutual promises and covenants herein contained, the parties hereto agree as follows:

A. GENERAL

1. Creation of Agency. On December 13, 1977, a public agency known as the VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY, herein called "Agency" was created. The Agency was formed by Agreement pursuant to the provisions of Article 1, Chapter 5, Division 7, Title 1 (Sections 6500, et seq.) of the Government Code of the State of California relating to the joint exercise of powers common to public agencies (hereinafter referred to as the "Act"). For the purposes of this Agreement, and from its inception, the Agency is and has been a public agency separate from the parties hereto.

2. Territorial Boundaries. The geographical area originally encompassed within the territorial boundaries of the Agency was coextensive with the boundaries of Mojave Water Agency Improvement District No. 1, plus all the real property owned or utilized for the construction and operation of the Victor Valley Regional Wastewater Reclamation Project. Additional land has been added by annexation. The current boundaries are more particularly described in Exhibit "A", attached hereto and incorporated herein by this reference. The territorial boundaries may be changed from time to time by the annexation of land not already within Agency boundaries to the boundaries of a member entity, followed by compliance, by the member entity and by the owners of such property, with this Agency's annexation requirements.

2.1 Annexation. Annexations to the territorial boundaries of this Agency shall be subject to the condition that the taxable property, excluding personal property, within the annexation shall be liable for payment of all costs incident to annexation as determined by this Agency. Regional Connection Fees shall be paid in annexed and newly served areas in compliance with the Connection Fee Ordinance.

2.2 Contract Service. Provided that excess capacity is determined to exist in the treatment plant and/or conveyance system, and upon the approval of three-fifths (3/5) of the members of this Agency, temporary or limited contractual service from the Regional Wastewater System may be made available to areas within or without the boundaries of this Agency, upon such terms and conditions including provision for payment of fees and charges, as this Agency may establish.

3. Purpose. The purpose of this Agreement is to continue the existence and activities of this public agency to undertake and implement the common power of undertaking projects to meet the requirements of the National Pollution Discharge Elimination System within the boundaries of the Agency, including development of waste treatment management plans for the Victor Valley area within the Mojave Watershed, and construction, operation, and maintenance of works and facilities for collection, transmission, treatment, disposal, and/or reclamation of sewage, wastes, and waste waters by utilizing funds derived from connection fees, user fees, grants and/or loans received from Federal, State, or local government, funds obtained by issuing bonds, notes, warrants, and other

evidences of indebtedness to finance costs and expenses incidental to said projects, and funds derived from any other source

4. Powers. The Agency shall have the power, in its own name, to do any and all of the following:

- (a) To make and enter contracts;
- (b) To employ agents and employees;
- (c) To acquire, construct, manage, maintain, and operate any buildings, works, or improvements;
- (d) To acquire, hold, or dispose of property;
- (e) To incur debts, liabilities, or obligations;
- (f) To issue bonds, notes, warrants, and other evidence of indebtedness to finance costs and expenses incidental to the projects of the Agency;
- (g) To apply for, receive, and utilize grants and loans from the Federal, State or local government or from any other available source;
- (h) To sue and be sued in its own name;
- (i) To exercise those powers common to the parties identified in Section 5 of this Agreement;
- (j) To own and operate the Victor Valley Regional Wastewater Reclamation Project;
- (k) To enter an agreement with the United States of America, or any agency or department or successor thereof, for the purpose of including the former George Air Force Base Military Reservation as a participant in the Victor Valley Regional Wastewater Reclamation Project and providing for payment of their proportionate share of the capital and operation and maintenance costs thereof;
- (l) To have such other powers as are now, or may hereafter be, conferred by law upon Joint Powers Authorities, in general;
- (m) To exercise all powers necessary and proper to carry out the terms and provisions of this Agreement.

The powers enumerated herein shall be exercised, to the extent not herein specifically provided for, in the manner and according to the methods provided under the laws and/or charters under which the parties hereto have been created and are governed, except to the extent of any conflict therein, and in case of any such conflict, then in accordance with applicable provisions of California Law relating to Joint Powers Authorities, in general.

5. Eligible Public Agencies. The public agencies who are eligible to be and are parties to this Agreement and members of the Agency are specified as follows:

- (a) The City of Victorville, California (successor to Victorville Sanitary District);
- (b) The Town of Apple Valley, California (successor to Apple Valley County Water District);
- (c) Hesperia Water District (formerly known as Hesperia County Water District);
- (d) The City of Adelanto, California;
- (e) County Service Area #42 (Oro Grande), and County Service Area #64 (Spring Valley Lake);
- (f) Such other public agencies as may hereafter be declared eligible by unanimous vote of existing members.

Any new eligible public agencies shall become parties and members of the Agency upon execution of this Agreement and any addendum, amendment, or supplement hereto, and upon execution and compliance with the memorandum referred to in Section 6 of this Agreement.

6. Effective Date. This Amendment and Restatement of the Joint Powers Agreement shall become effective when the governing bodies of all of the eligible public agencies shall have authorized execution of this Agreement and the same has been executed by all parties.

In connection with the admission of any additional eligible public agency after formation of the Agency, each of the existing members and the prospective member or members shall execute a memorandum specifying the obligations of the prospective member for contributions toward past and present agency and project expenditures.

7. Governing Body. This Agreement and this Agency shall be administered by the governing body of the Agency which shall be known as the "Commission for the Victor Valley Wastewater Reclamation Authority" (the "Commission"). Subject to the reserved powers of the parties hereto, the powers and functions of the Agency shall be exercised by and through the Commission. Each Commissioner and alternate Commissioner must reside within the territorial boundaries of this Agency to be eligible to serve in this capacity, except if the Commissioner representing County Service Area #42 and County Service Area #64 is a Supervisor for San Bernardino.

B. MEMBERSHIP

8. Reserve Power of Members. Except as provided hereinafter in the provisions concerning the general budget, each member of the Agency expressly possesses and reserves to itself final and absolute discretion to approve or disapprove prior to commitment, any and all expenditures or other financial obligation by the Agency which are proposed to be directly and individually chargeable against such member for a special purpose.

9. Withdrawal of Membership. Any member of the Agency shall have the right to withdraw its membership upon serving written notice of intention thereof on all other members at least one hundred and twenty (120) days before the close of any fiscal year; provided, however, that no such withdrawal shall relieve the withdrawing public agency from any financial obligations theretofore incurred by it under this Agreement.

10. Vote or Assent of Members. The vote, assent, or approval of members in any matter requiring such vote, assent, or approval hereunder shall be evidenced by a certified copy of the resolution or minute order of the governing body of such member, filed with the Agency.

11. Designation of Commissioners. Upon the effective date of this Agreement, each party who has not already done so shall designate and appoint, by resolution or minute order of its governing body, one member of its governing body, or its General Manager or his or her designee,

or in the case of County Service Area #42 and County Service Area #64, which will share a single representative between them, a designated representative to act as its Commissioner on the Commission, and one such individual to act as its alternate Commissioner. During any absence of the Commissioner, the alternate Commissioner shall act in the Commissioner's place. Commissioners and alternate Commissioners shall serve at the pleasure of the governing body of the appointing member and may be removed at any time, with or without cause, at the sole discretion of said member's governing body.

C. COMMISSION

12. Meetings. Regular meetings of the Commission shall be held monthly. The Commission shall provide for the time and place of its regular meetings. Special meetings may be called at the request of the Chairperson or of a majority of the Commission. Notice of all meetings shall be given as required by California law then in effect.

13. Quorum. A majority of the Commissioners shall constitute a quorum for purposes of transacting business, except that less than a quorum may adjourn from time to time.

14. Majority Vote. Except as otherwise provided herein, all actions of the Commission shall be approved upon the affirmative vote of a majority of the members of the Commission. Each member of the Agency shall have one (1) equal vote, to be exercised by its designated Commissioner (or alternate as the case may be); provided, however, that, should any member merge with or assume responsibility for the services provided by another member, the votes shall also merge and shall thereafter be exercised as one vote; and, provided further, that County Service Area #42 and County Service Area #64, which share a single representative between them, shall likewise have only one (1) vote between them, to be exercised as a single unit by their designated Commissioner (or alternate, as the case may be).

15. Minutes. The Secretary of the Agency shall cause to be kept minutes of the regular, adjourned regular, special, and adjourned special meetings of the Commission and shall cause a copy

of said minutes to be kept on file for access by each member of the Agency, the Commission, and the public.

16. Compensation. Each Commissioner or alternate Commissioner shall receive compensation for each commission meeting attended in which they served as the designated representative of a member entity. The amount of compensation shall be fixed from time to time by the Commission. No Commissioner or alternate Commissioner shall receive compensation for more than two (2) meetings in any calendar month. If allowed by the Commission, a Commissioner or alternate Commissioner shall also receive travel and other expenses incurred on Agency business at the request of the Commission.

17. Public Meetings. All meetings of the Commission shall be open to the public and shall be called, noticed, held, and conducted in accordance with the provisions of the Ralph M. Brown Act as set forth in Sections 54950, et seq., of the Government Code.

18. Rules. The Commission may adopt from time to time such rules and regulations for the conduct of its affairs as may be required.

19. Committees. Committees may be formed for any purpose by majority vote of all Commission members.

20. Technical Advisory Committee. There shall be a Technical Advisory Committee which shall serve at the pleasure of the Commission (the "TAC"). Each public agency member shall appoint one person possessing an appropriate knowledge and expertise to the TAC. The time, place, and location of all meetings of the TAC shall be established by resolution of the Commission. The TAC shall meet regularly with the staff of the Agency to discuss and recommend to the Commission items coming before the Commission for consideration, as well as other issues or projects the Commission from time to time may request of TAC.

21. Powers and Limitations. All of the power and authority of the Agency shall be exercised by the Commission, subject to any expenditures or other financial obligations by the Agency which are proposed to be directly and individually chargeable against such member for a special purpose, as described in Section 8 of this Agreement.

D. OFFICERS

22. Officers. There shall be selected from the membership of the Commission a Chairperson and a Vice-Chairperson who shall stand for election annually at the first regular meeting of each new fiscal year.

A Treasurer and an Auditor/Controller shall be appointed by the Commission on behalf of the Agency, from those persons eligible under California Government Code sections 6505.5 and 6505.6, to be the depository and have custody of all money of the Agency from whatever source and who shall draw all warrants to pay demands against the Agency approved by the Commission. Such offices may be held by separate officers or employees, or combined and held by one officer or employee, as the Commission may elect. They shall serve at the pleasure of the Commission.

A Secretary shall be appointed by the Commission on behalf of the Agency from those persons eligible under California law. The Secretary shall serve at the pleasure of the Commission.

23. Additional Officers and Employees. The Commission shall have the power to appoint such additional officers and to employ such additional employees and assistants as may be appropriate.

24. Duties of Officers and Employees. Each and all of said officers, employees and assistants shall serve under rules established by the Commission and shall perform such duties and shall have such powers as the Commission may determine.

25. Bonds. Pursuant to Government Code section 6505.1, the public officer, officers or persons who have charge of, handle or have access to any property of the Agency shall file an official bond in an amount to be fixed by the parties to this Agreement

E. BUDGET PROCEDURES

26. General Budget. Annually at the May meeting of the Commission, or as soon thereafter as possible, a general budget shall be adopted for the ensuing fiscal year. The budget shall be prepared in sufficient detail to constitute an operating outline for the source and amount of funds available to the Agency and expenditures to be made during the ensuing year for those administrative and study matters and for the general project involving all members of the Agency. Said budget shall be adopted by a majority of the Commissioners in attendance, subject to the approval of a majority of the members of the Commission.

27. Approval of General Budget. Each general budget adopted by the Commission must be approved and shall be deemed effective upon the affirmative vote of a majority of the members of the Commission. Until such time as said formal approval has been received from a majority of the members of the Commission, said budget shall constitute merely a proposed budget, subject to consideration or revisions.

28. Failure to Approve General Budget. If a majority of the members of the Commission fail or refuse to approve any general budget of the Agency, said budget shall be returned to the Commission for restudy and revision. In the event a budget acceptable to a majority of the members of the Commission is not obtained prior to the start of the fiscal year, the Agency may continue to operate at the level of expenditure authorized by the last approved general budget.

29. Expenditures Within Approved Budgets. All expenditures within the designations and limitations of approved general budgets shall be made on the authorization of a majority of the Commission. No expenditures in excess of those budgeted shall be made without approval of a revised or amended budget which may from time to time be submitted.

F. AGENCY FUNDS

30. Sources of Funds. The sources of funds available to the Agency include but are not limited to each of the following:

- (a) Funds collected as user charges or user fees for the operation and maintenance of the entire wastewater reclamation system;
- (b) Funds collected as connection fees from individuals, businesses, government organizations, and others connecting to the regional wastewater system;
- (c) Grants and loans received by the Agency from local, State, or Federal government agencies;
- (d) Funds received from State and Federal disaster relief agencies;
- (e) Funds obtained by issuing bonds, notes, warrants, and other evidences of indebtedness to finance costs and expenses incidental to the activities of the Agency;
- (f) Funds from any other source derived.

The Agency shall arrange for the receipt of such funds from the above sources as are available to the Agency and as are necessary for the conduct of Agency activities.

31. Use of Funds. All funds or revenues received or made available to the Agency shall be utilized by the Agency in accordance with the terms of the budget procedures contained in this Agreement:

- (a) Connection Fees. Connection fees assessed and collected pursuant to Victor Valley Wastewater Reclamation Authority Ordinance No. 002, and any interest earned thereon, shall be deposited in a separate account designated as the "Capital Expansion Fund," and used exclusively for capital improvements which are designed and constructed for the purpose of increasing the capacity of the sewerage system or improving the sewerage system to comply with applicable laws and regulations. "Sewerage system" means the network of wastewater collection, conveyance,

treatment, and disposal facilities which are interconnected by means of sewers either owned in whole or in part by the Agency, or as to which the Agency has a contractual right of use.

(b) All Other Funds. Any other revenues or funds received or made available to the Agency from any source whatsoever, shall be deposited into accounts that may be established by the Agency, and may be expended by the Agency in any legal manner subject to such restrictions as may be imposed by the Agency from time to time.

G. ACCOUNTING AND AUDITS

32. Fiscal Year. The fiscal year of the Agency shall be from July 1, to and including June 30, of the following year.

33. Accounting Procedures. Full books and accounts shall be maintained by the Agency in accordance with practices established by or consistent with those utilized by the Controller of the State of California for like public agencies. In particular, the Controller and Treasurer of the Agency shall comply strictly with the requirements of the statutes governing joint powers agencies, Chapter 5, Division 7, Title 1, of the Government Code, commencing with Section 6500.

34. Audit. The records and accounts of the Agency shall be audited annually by an independent certified public accountant and copies of such audit report shall be filed with the County Auditor, State Controller, and each member of the Agency no later than fifteen (15) days after receipt of said audit by the Commission.

H. BOND FINANCING

35. Revenue Bonds. The Agency shall have the power and authority to issue revenue bonds in accordance with the procedures and requirements specified as follows:

(a) Article 2, Chapter 5, Title 1, Division 7, of the Government Code, commencing with Sections 6540 and 6584;

(b) Chapter 6, Title 5, Division 2, of the Government Code, commencing with Section 54300;

(c) Chapter 6.5, Title 5, Division 2, of the Government Code, commencing with Section 54725.

The foregoing revenue bonds may be issued for any project which serves the purposes specified in Section 3 of this Agreement; provided, that two (2) or more members of the Agency shall participate in such project. Issuance of any such revenue bonds shall be subject to the approval of all members of the Agency and to any other approval required by law.

I. PROPERTY RIGHTS AND LIABILITIES

36. Property Rights. Except as provided herein, the assets acquired by the Agency during the course of its operations under the terms of this Agreement shall be the assets of the Agency alone, and not of the parties to this Agreement.

37. Liabilities. Except as provided herein, the debts, liabilities, and obligations of the Agency shall be the debts, liabilities, and obligations of the Agency alone, and not of the parties to this Agreement.

J. RESCISSION OR TERMINATION

38. Term. The Agency shall continue until this Agreement is rescinded or terminated as herein provided.

39. Rescission or Termination. This Agreement may be rescinded and the Agency terminated by written consent of a majority of the members evidenced by a certified copy of a resolution of their governing bodies. No such termination, however, shall relieve the Agency from any financial obligations theretofore incurred by it while operating under this Agreement

40. Disposition of Assets on Termination. Upon termination, all assets of the Agency, including any charges then due, shall be transferred, subject to any outstanding Agency obligations, to whatever entity shall have been formed and is ready to perform the services of wastewater treatment disposal and wastewater reclamation for the constituent members and users of the system.

K. MISCELLANEOUS

41. Arbitration. If a dispute arises as to the construction, interpretation, or implementation of any provision of this Agreement, the issues in dispute or matter requiring action may be submitted to binding arbitration, if all of the parties agree to do so. For such purpose, an agreed arbitrator shall be selected by all members of the Commission, or in the absence of agreement, the Commission by majority vote shall select an arbitrator and the member or members in dissent shall select an arbitrator and the arbitrators shall select a third arbitrator. The arbitrator, or three (3) arbitrators acting as a panel, shall proceed to arbitrate the matter in accordance with the provisions of Title 9 of Part 3 (Sections 1280, et seq.) of the Code of Civil Procedure.

42. Notices. All notices, statements, demands, requests, consents, approvals, authorizations, agreements, appointments, or designations hereunder shall be given in writing and addressed to the principal place of business of each member of the Agency.

43. Validity. If any one or more of the terms, provisions, promises, covenants, or conditions of this Agreement shall to any extent be adjudged invalid, unenforceable, void, or voidable for any reason whatsoever by a court of competent jurisdiction, each and all of the remaining terms, provisions, promises, covenants, and conditions of this Agreement shall not be affected thereby and shall be valid and enforceable to the fullest extent permitted by law.

44. Amendment. This Agreement shall contain all of the terms and conditions made between the parties hereto and shall not be amended except by an agreement in writing signed by all parties.

45. Successors. This Agreement shall be binding upon and shall inure to the benefit of the successors of the parties hereto.

46. Assignment. The parties hereto shall not assign any rights or obligations under this Agreement without the prior written consent of all other parties.

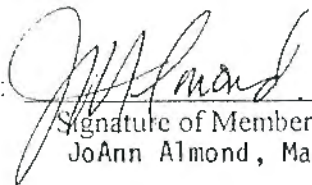
49. Additional Documents. The parties hereto agree upon request to execute, acknowledge, and deliver all additional papers and documents necessary or desirable to carry out the intent of this Agreement.

50. Law Governing. This Agreement is made in the State of California under the Constitution and Laws of such State and is to be so construed.

IN WITNESS WHEREOF, the parties hereto have executed this AMENDED AND RESTATED JOINT POWERS AGREEMENT on the day and year hereinafter indicated making the same effective upon the date signed by the last of all parties hereto.

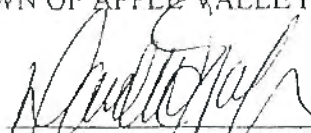
THE CITY OF VICTORVILLE

DATED: October 12, 1998

By: 
Signature of Member
JoAnn Almond, Mayor Pro Tem

TOWN OF APPLE VALLEY

DATED: OCTOBER 8, 1998

By: 
Signature of Member
DAVID HOLMAN, MAYOR

HESPERIA WATER DISTRICT

DATED: DEC 15 1998

By: *[Signature]*
Signature of Member

COUNTY SERVICE AREA #42 (ORO GRANDE)
COUNTY SERVICE AREA #64
(SPRING VALLEY LAKE)

DATED: DEC 15 1998
#77-844-A-4

By: *[Signature]*
Signature of Member

SIGNED AND CERTIFIED THAT A COPY OF THIS DOCUMENT HAS BEEN DELIVERED TO THE CHAIRMAN OF THE BOARD.

By: *[Signature]*
CLERK OF SUPERVISORS
of the County of San Bernardino, CA
SAN BERNARDINO COUNTY, CA

EXHIBIT "A"

LEGAL DESCRIPTION OF BOUNDARIES

FOR

VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY

The territory of the Victor Valley Wastewater Reclamation Authority shall be the following area:

Beginning at the Northwest corner of Section 1, Township 6N, Range 6W, San Bernardino Base & Meridian, and continuing Easterly along the North section lines of said Section 13, T6N, R6W, SBB&M, and Sections 18, 17, 16, 15, 14 and 13 of T6N, R5W, SBB&M and Section 18 of T6N, R4W, SBB&M, to the Northeast corner of said Section 18;

Thence Southerly along the East line of Section 18 & 19 of T6N, R4W, SBB&M, to the Southeast corner of said Section 19;

Thence Easterly along the North line of Sections 29, 28, 27 & 26, T6N, R4W, SBB&M, to the Northeast corner of said Section 26;

Thence Southerly along the East line of Sections 26 & 35, T6N, R4W, SBB&M, to the Southeast corner of said Section 35;

Thence Easterly along the North line of Section 1, T5N, R4W, SBB&M, and Section 6, T5N, R3W, SBB&M, to the Northeast corner of said Section 6.

Thence Southerly along the East line of Section 6, T5N, R3W, SBB&M, to the Southeast corner of said Section 6;

Thence Easterly along the North line of Section 8, T5N, R3W, SBB&M, to the Northeast corner of said Section 8;

Thence Southerly along the East line of Section 8, T5N, R3W, SBB&M, to the halfsection line of said Section 8;

Thence Easterly along the half-section line of Section 9; T5N, R3W, SBB&M, to the East section line of said Section 9;

Thence Southerly along the East line of Section 9, T5N, R3W, SBB&M, to the Southeast corner of said Section 9;

Thence Easterly along the North line of Section 15, T5N, R3W, SBB&M, to the Northeast corner of said Section 15;

Thence Southerly along the East line of Sections 15, 22, 27 & 34, T5N, R3W, SBB&M, to the Southeast corner of said Section 34;

Thence Westerly along the South line of Sections 34, 33, 32 & 31, T5N, R3W, SBB&M, and continuing along the South line of Section 36, T5N, R4W, SBB&M, to a point where it intersects with the center line of the Mojave River;

Thence South-southeasterly along the center line of the Mojave River to a point where said center line of the Mojave River meets with South line of Section 36, T4N, R4W, SBB&M

Thence Westerly along the South line of Section 36 & 35, T4N, R4W, SBB&M, to the Southwest corner of said Section 35;

Thence Southerly along the East line of Section 3, T3N, R4W, SBB&M, to the Southeast corner of said Section 3;

Thence Westerly along the South line of Sections 3, 4, 5 & 6 of T3N, R4W, SBB&M, to the Southwest corner of said Section 6;

Thence Northerly along the West line of Section 6, T3N, R4W, SBB&M, to the Northwest corner of said Section 6;

Thence Westerly along the South line of Sections 36, 35, 34 & 33, T4N, R5W, SBB&M, to the point where the South line of said Section 33 meets the center line of Interstate Highway 15;

Thence North-northeasterly along the center line of Interstate Highway 15 to a point where said center line meets the South line of Section 31, T5N, R4W, SBB&M;

Thence Westerly along the South line of Section 31, T5N, R4W, SBB&M, and continuing Westerly along the South line of Section 36, T5N, R5W, SBB&M, to the Southwest corner of said Section 36;

Thence Northerly along the West line of Section 36, T5N, R5W, SBB&M, to the Northwest corner of said Section 36;

Thence Westerly along the South line of Section 26, T5N, R5W, SBB&M, to the Southwest corner of said Section 26;

Thence Northerly along the West line of Section 26, T5N, R5W, SBB&M, to the halfsection line of said Section 26;

Thence Westerly along the half-section line of Section 27, T5N, R5W, SBB&M, to the West line of said Section 27;

Thence Northerly along the West line of Sections 27, 22, 15 & 10, T5N, R5W, SBB&M, to the Northwest corner of said Section 10;

Thence Westerly along the South line of Sections 4, 5 & 6, T5N, R5W, SBB&M, and Section 1, T5N, R6W, SBB&M, to the Southwest corner of said Section 1;

Thence Northerly along the West line of Section 1, T5N, R6W, SBB&M, to the Northwest corner of said Section 1;

Thence Westerly along the South line of Section 36, T6N, R6W, SBB&M, to the Southwest corner of said Section 36;

Thence Northerly along the West line of Section 36, 25, 24 & 13, T6N, R6W, SBB&M, to the Northwest corner of said Section 13, said point being the point of beginning.

VFWRA Annexation No. 1

In the County of San Bernardino, State of California, described as follows:

That portion of Section 35, T5N-R5W, SBB&M described as the S 1/2 of the SE 1/4 of the NE 1/4 and the E 1/2 of the SE 1/4 and the E 1/2 of the SW 1/4 of the SE 1/4.
120 acres more or less.

VVRA Annexation No. 2

In the County of San Bernardino, State of California described as follows:

Parcel Map 8567 (All parcels)
Being a portion of the NE $\frac{1}{4}$ of
Section 1, T4N, R4W. In the County
of San Bernardino.

(84-171680 BK 88-Pg-70 & 71)
July 20, 1984

Parcel Map 8633, Parcel 2 & 3 only
of said parcel map. Being a sub-
division of portions of Sections
1 and 12, T4N, R4W, SBM, in the
County of San Bernardino.

(84-178402 BK 88-Pg 92-97)
July 27, 1984

FWRA Annexation No. 3

REORGANIZATION: CITY OF VICTORVILLE ANNEXATION #1985-3

The south 1/2 of Section 26; T5N, R5W; SBB&M, and that portion of the east 1/2 of Section 35; T5N, R5W; SBB&M described as follows: Commencing at the south 1/4 point of said Section 35, said point being true point-of-beginning; thence northerly along north-south center section line of said Section 35 to a point of intersection with the south line of said Section 26; thence westerly along said south line to the southwest corner of said Section 26; thence northerly along west line of said Section 26 to a point of intersection with the east-west center section line of said Section 26; thence easterly along said center section line to the east line of said Section 26; thence southerly along the east lines of said Sections 26 and 35, said east lines also being the existing City of Victorville boundary, to a point of intersection with the east-west center line of the southeast 1/4 of the northeast 1/4 of said Section 35; said center line also being the existing City of Victorville boundary; thence westerly along said center line, to a point of intersection with the east 1/16 line of Section 35; said east 1/16 line also being a portion of the existing City of Victorville boundary; thence southerly along said east 1/16 line to the northwest corner of the southeast 1/4 of the southeast 1/4 of Section 35; thence westerly along the south 1/16 line of Section 35, said south 1/16 line also being a portion of the existing City of Victorville boundary; to a point of intersection with the north-south centerline of the southwest 1/4 of the southeast 1/4 of Section 35; said north-south center line also being the existing City of Victorville boundary; thence southerly along said north-south center line to a point of intersection with the south line of said Section 35; thence westerly along said south line to the true point of beginning; 520 acres more or less.

VVRA Annexation No. 3

REORGANIZATION: CITY OF VICTORVILLE ANNEXATION #1986-1

That portion of land located in the north 1/2 of Section 1; T4N, R5W; SBB&M and the northwest 1/4 of Section 6; T4N, R4W; SBB&M; described as follows: commencing at a point of intersection of the center line of State Highway 15 with the north line of said Section 6, said point being north 89 degrees 18 minutes 34 seconds east 156 feet more or less from the northwest corner of said Section 6; thence south 32 degrees 54 minutes 00 seconds west 3,158 feet more or less along the center line of said Highway as it presently exists, to a point of intersection with the east-west center section line of said Section 1; thence westerly along said center section line 1,110 feet more or less to the point of intersection with the north-south center section line of said Section 1; thence northerly along said north-south center section line 1,320 feet more or less to a point of intersection with the east-west, north 1/16 center section line of said Section 1; thence westerly along said 1/16 center section line 1,320 feet more or less to the west line of the east half of the west half of Section 1; thence north along said west line to the existing City limits of Victorville; thence easterly along said City limits to the true point-of-beginning; 159.55 acres more or less.

Appendix B

VVWRA Annexation No. 4

In the County of San Bernardino, State of California described as follows:

Parcel Map 9827, Parcel 1, 2, 3, & 4
as per map recorded in Book 108, Pages
23 and 24 of Parcel Map. Being a division
of a portion of the West 1/2 of Government
Lot 2 in the Northwest 1/4 of Section 6, T4N,
R3W, SBM, in the County of San Bernardino

VVWRA Annexation No. 5

The South 1/2 of Section 27; T5N, R5W, S8B&M, Section 34; T5N, R5W, S8B&M and the West 1/2 of Section 35; T5N, R5W, S8B&M described as follows:

Commencing at the South 1/4 point of said Section 35, said point being the True Point of Beginning; thence Northerly along the North-South center section line of said Section 35, said center line also being the existing City of Victorville boundary, to a point of intersection with the North line of said Section 35; thence Westerly along said North line, said North line also being the existing City of Victorville boundary, to the Southeast corner of said Section 27; thence Northerly along the East line of said Section 27, said East line also being the existing City of Victorville boundary, to a point of intersection with the East-West center section line of said Section 27; thence Westerly along said center line to the West 1/4 point of said Section 27; thence Southerly along the West lines of said Sections 27 and 34 to the Southwest corner of said Section 34; thence Easterly along the South lines of said Sections 34 and 35 to the True Point of Beginning; 1,280 acres more or less.

Appendix B

FWRA Annexation No. 6

Those portions of Townships 5 and 6 North, Ranges 5 and 6 West, San Bernardino Meridian, in the County of San Bernardino, State of California, described as follows:

Section 2 and Section 11 of Township 5 North, Range 6, West, and Section 35, Township 6 North, Range 6 West; and

Section 7 and the South 1/2 of Sections 8, 9, and the West 1/2 of Section 10, Township 6 North, Range 5 West and Section 12 and the East 1/2 of Section 11, Township 6 North, Range 6 West.

WVRA Annexation No. 7

The NE 1/4 of Section 5, Township 4 North, Range 3 West, San Bernardino Meridian, in the County of San Bernardino, State of California described as follows:

East 1/2 of Gov Lot 2 of the NE 1/4 Section 5, Township 4 North, Range 3 West, except South 638 ft and except County Road, and except additional street per document recorded 11-6-81 #245910, offer of dedication per document recorded 11-6-81 #245911.

North 270 ft, South 638 ft, East 645 ft, East 38.78 ft of Gov Lot 2 of the NE 1/4 of Section 5, Township 4 North, Range 3 West, San Bernardino Meridian, in the County of San Bernardino, State of California.

Parcel Nos. 2 and 3 of Parcel Map No. 1437, being a portion of the NE 1/4 of Section 5, Township 4 North, Range 3 West, San Bernardino Meridian, in the County of San Bernardino, State of California.

Appendix B

UWRA Annexation No. 8

Those properties of Township 4 North, Ranges 3 and 4 West, San Bernardino Meridian, in the County of San Bernardino, State of California, described as follows:

PARCEL J:

THE WEST 1/2 OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 6, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL K:

THE WEST 1/2 OF THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 6, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL L:

THE SOUTH 1/2 OF GOVERNMENT LOTS 1 AND 2 OF THE SOUTHWEST 1/4 AND THE EAST 1/2 OF THE NORTH 1/2 OF GOVERNMENT LOT 1 OF THE SOUTHWEST 1/4 AND THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE WEST 1/2 OF THE NORTH 1/2 OF GOVERNMENT LOT 1 OF THE SOUTHWEST 1/4 AND THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE NORTH 1/2 OF GOVERNMENT LOT 2 OF THE SOUTHWEST 1/4 OF SECTION 7, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL M:

THE SOUTH 1/2 OF GOVERNMENT LOT 2 OF THE NORTHWEST 1/4 AND THE NORTH 3/4 OF THE NORTH 1/2 OF GOVERNMENT LOT 2 OF THE SOUTHWEST 1/4 AND THE NORTH 3/4 OF THE WEST 1/2 OF THE NORTH 1/2 OF GOVERNMENT LOT 1 OF THE SOUTHWEST 1/4 OF SECTION 7, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL M-1:

THE NORTH 1/2 OF GOVERNMENT LOT 2 OF THE NORTHWEST 1/4 OF SECTION 7, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL N:

VVWRA Annexation No. 8

THE WEST 1/2 OF THE NORTH 1/2 OF GOVERNMENT LOT 1 OF THE NORTHWEST 1/4 OF SECTION 7, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL O:

THE EAST 1/2 OF THE NORTH 1/2 OF GOVERNMENT LOT 1 OF THE NORTHWEST 1/4 OF SECTION 7, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL P:

THE EAST 1/2 OF THE SOUTH 1/2 OF GOVERNMENT LOT 1 OF THE NORTHWEST 1/4 OF SECTION 7, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND, APPROVED BY THE SURVEYOR GENERAL.

PARCEL Q:

THE WEST 1/2 OF THE SOUTH 1/2 OF GOVERNMENT LOT 1 OF THE NORTHWEST 1/4 OF SECTION 7, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL R:

THE NORTHWEST 1/4 OF THE SOUTHEAST 1/4 AND THE NORTH 16 FEET OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 7, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL S:

THE WEST 1/2 OF THE NORTHEAST 1/4 OF SECTION 7, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL T:

THE NORTH 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 18, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL U:

GOVERNMENT LOTS 1 AND 2 OF THE NORTHWEST 1/4 OF SECTION 18, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

VVWRA Annexation No. 8

PARCEL V:

THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 AND THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 12, TOWNSHIP 4 NORTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL W:

GOVERNMENT LOTS 1 AND 2 OF THE SOUTHWEST 1/4 OF SECTION 6, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL X:

PARCELS 2 AND 3 OF PARCEL MAP 10215, AS PER MAP ON FILE IN BOOK 119, PAGES 76 AND 77 OF PARCEL MAPS, SAN BERNARDINO COUNTY RECORDS.

PARCEL X-1:

THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 6, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL Y:

THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 18, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND APPROVED BY THE SURVEYOR GENERAL.

PARCEL Z:

THE EAST 1/2 OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 18, TOWNSHIP 4 NORTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO GOVERNMENT SURVEY.

PARCEL AA:

PARCELS 1 THROUGH 8, INCLUSIVE OF PARCEL MAP NO. 8567, IN THE COUNTY OF SAN BERNARDINO, AS PER PLAT RECORDED IN BOOK 88 OF PARCEL MAPS, PAGES 70 AND 71, RECORDS OF SAID COUNTY.

PARCEL A:

PARCELS 1, 4, 5 AND 6 OF PARCEL MAP NO. 8633, AS PER PLAT RECORDED IN BOOK 88 OF PARCEL MAPS, PAGES 92 TO 97, INCLUSIVE, RECORDS OF SAID COUNTY.

VVWRA Annexation No. 9

Those portions of Sections 14, 15, 21, 22, 23, 27 and 28 of Township 4 North, Range 5 West, San Bernardino Meridian, in the County of San Bernardino, State of California, described as follows:

Commencing at the North East corner of Section 14 Township 4 North, Range 5 West, San Bernardino Meridian, said point being in the Centerline of Mojave Road as shown on Caltrans right-of-way Map No. 984554.

THENCE, South $01^{\circ} 56' 47''$ East 1370.66 per said right-of-way map along the East line of said Section 14 to the South line of the North 1/2 of the North 1/2 of said Section 14;

THENCE, South $89^{\circ} 22' 49''$ West 2460.99 feet per said Caltrans' right-of-way map along the South line of the North 1/2 of the North 1/2 of said Section 14 to a point in the Northwest right-of-way line of Interstate 15. Said point also being TRUE POINT OF BEGINNING;

THENCE, continuing West along the South line of the North 1/2 of the North 1/2 of Section 14 and Section 15 to the West line of the East 1/2 of the East 1/2 of Section 15 Township 4 North, Range 5 West, San Bernardino Meridian;

THENCE, South along said West line of the East 1/2 of the East 1/2 of said Section 15 to the South line of said Section. Said point also shown as East 1/16 corner of Sections 15 and 22 on Parcel Map 9325 filed in Book 97 at Page 41 of Parcel Maps, Records of San Bernardino County;

THENCE, West along said South line of Section 15 to the Southwest corner of said Section 15, Township 4 North, Range 5 West. Said point also being the Northeast corner of Section 21, Township 4 North, Range 5 West, as shown on Parcel Map 6934 filed in Book 68 at Pages 48 through 49 inclusive of Parcel Maps, Records of San Bernardino County;

THENCE, Continuing West along the North line of said Section 21 to the North 1/4 corner of said Section 21 as shown on said Parcel Map 6934;

VWRA Annexation No. 9

- THENCE, South along the West line of the East 1/2 of Section 21, Township 4 North, Range 5 West, to the South line of said Section 21. Said point also being the North 1/4 corner of Section 28, Township 4 North, Range 5 West as shown on Parcel Map 8098 filed in Book 84 at Pages 11 through 12 inclusive of Parcel Maps, records of San Bernardino County;
- THENCE, Continuing South along the West line of the East 1/2 of said Section 28 to the center North 1/16 corner of said Section 28 as shown on said Parcel Map 8098;
- THENCE, East along the South line of the North 1/2 of the North East 1/4 of said Section 28, Township 4 North, Range 5 West to the centerline of the West Frontage Road of Highway 395 as shown on Caltrans right-of-way Map No 987595;
- THENCE, South $0^{\circ} 48' 37''$ East 389.56 feet more or less along the centerline of said West Frontage Road to its intersection with the centerline of Joshua Street (formerly Palm Avenue) as shown on said Caltrans right-of-way map;
- THENCE, Easterly along the centerline of said Joshua Street as per Caltrans right-of-way Maps No. 987595 and 987601 the following four (4) courses:
- North $89^{\circ} 11' 23''$ East 1205.03 feet to the beginning of a curve concave to the South having a radius of 800 feet;
- Southeasterly 470.68 feet along said curve through a central angle of $33^{\circ} 42' 37''$;
- South $57^{\circ} 06' 00''$ East 1414.84 feet to the centerline of the East Frontage Road of Interstate 15 as shown on said Caltrans right-of-way Map No. 987601.
- South $34^{\circ} 53' 27''$ West 60 feet more or less along the centerline of said East Frontage Road to its intersection with the South line of the North 1/2 of Section 27, Township 4 North, Range 5 West;
- THENCE, East along said South line of the North 1/2 of Section 27 to the East line of the West 1/2 of the West 1/2 of the Northeast 1/4 of said Section 27;
- THENCE, North along said East line of the West 1/2 of the West 1/2 of the Northeast 1/4 of Section 27 to the North line of said Section 27. Said point also being in the existing City limits line of Hesperia;

VVWRA Annexation No. 9

- THENCE, East along the North line of Section 27 to the Westerly line of Section 23, Township 4 North, Range 5 West;
- THENCE, North along the Westerly line of Section 23, to the Southwesterly corner of that parcel described per Instrument #86-265217, as recorded on September 15, 1986, Records of San Bernardino County;
- THENCE, Easterly, Northerly and Westerly along the boundary of said parcel to the Northwest corner of said parcel, also being the West quarter corner of Section 23;
- THENCE, North along the Westerly line of Section 23, Township 4, Range 5 West, to the Westerly Caltrans right-of-way of Interstate 15.
- THENCE, Northeasterly along the Westerly Caltrans right-of-way to the TRUE POINT OF BEGINNING.

CVWRA Annexation No. 10

In the County of San Bernardino, State of California, more specifically described as follows:

Sections 1 and 2, Township 6 North, Range 6 West, San Bernardino Meridian; and,

Section 6, Township 6 North, Range 5 West, Section 31, Township 7 North Range 5 West, and Sections 35 and 36, Township 7 North Range 6 West, San Bernardino Meridian; and,

The West 1/2 of the Southwest 1/4 and the Northwest 1/4 of Section 12, Township 5 North, Range 6 West, San Bernardino Meridian; and,

The North 1/2 of Section 19; the North 1/2 of Section 20; the North 1/2 of Section 21; the South 1/2 of the South 1/2 of Section 18; Sections 16 and 17; the East 1/2 and the East 1/2 of the Northwest 1/4 of Section 9, all in Township 5 North, Range 5 West, San Bernardino Meridian; and,

The North 1/2 of Sections 23 and 24, the South 1/2 of the Southeast 1/4 and the Southwest 1/4 of Section 13, the South 1/2 of the South 1/2 and the Northeast 1/4 of the Southeast 1/4 and the East 1/2 of the Northwest 1/4 of the Southeast 1/4 of Section 14, Township 5 North, Range 6 West, San Bernardino Meridian.

VVRA Annexation No. 11

In the County of San Bernardino, State of California, more specifically described as follows:

Sections 28, 29, 32, 33 and the South halves of Section 20 and 21, Township 5 North, Range 5 West, San Bernardino Base and Meridian.

Also the North halves of Sections 4 and 5 and the Southeast quarter of said Section 4, Township 4 North, Range 5 West, San Bernardino Base and Meridian.

The North 1/2 of Fractional Section 31, Township 5 North, Range 5 West and the North 1/2 of Section 36, Township 5 North, Range 6 West, San Bernardino Base and Meridian.

Fractional Section 30 and the South one-half of Fractional Section 19, Township 5 North, Range 5 West, San Bernardino Base and Meridian.

FWRA Annexation No. 12

In the County of San Bernardino, State of California, more specifically described as follows:

Beginning at a point along the south boundary of Section 18 (T4N, R3W) and also being the easterly limit of Mojave River, thence;

Easterly along the south boundary to the southeast corner of said Section 18 (T4N, R3W), thence;

Northerly along the east boundary of Section 18 to the northeast corner of Section 18, (T4N, R3W), thence;

Easterly along the south boundary of Section 8 to the southeast corner of Section 8 (T4N, R3W), thence;

Southerly along the west boundary of Section 16 to the southwest corner of Section 16 (T4N, R3W), thence;

Easterly along the south boundary of Section 16 to the southeast corner of Section 16 (T4N, R3W), thence;

Northerly along the west boundary of Section 15 to the west 1/4 corner of Section 15 (T4N, R3W), thence;

Easterly along the quarter section line of Section 15 to the east 1/4 corner of Section 15 (T4N, R3W), thence;

Northerly along the east boundaries of Section 15, Section 10, and Section 3 to the east 1/4 corner of Section 3 (all within T4N, R3W), thence;

Easterly along the quarter section line of Section 2 to the east 1/4 corner of Section 2 (T4N, R3W), thence;

Northerly along the east boundary of Section 2 to the northeast corner of Section 2 (T4N, R3W), thence;

Northerly along the east boundaries of Section 35, Section 26, Section 23, Section 14, Section 11, and Section 2 to the northeast corner of Section 2 (all within T5N, R3W) thence;

Continuing at the southeast corner of Section 35, and northerly along the east boundaries of Section 35, Section 26, Section 23, Section 14, Section 11, and Section 2 to the northeast corner of Section 2 (all within T6N, R3W), thence;

Westerly along the north boundaries of Section 2, Section 3, Section 4, and Section 5 to the easterly right of way limit of the Interstate 15 Freeway, thence;

VVWRA Annexation No. 12

Southwesterly along the easterly right of way limit of Interstate 15 to the current most northerly limit of the Apple Valley Water District that are within the VVWRA service area (being north boundary of Section 26, T6N, R4W), thence along the current boundary limit as follows;

Easterly along the north boundary of Section 26 to the northeast corner of Section 26 (T6N, R4W), thence;

Southerly along the east boundaries of Section 26 and Section 35 (all within T6N, R4W), to the southeast corner of Section 35, thence;

Easterly along the south boundaries of Section 36 (T6N, R4W) and Section 31 (T6N, R3W), to the southeast corner of Section 31, thence;

Southerly along the west boundary of Section 5 to the southwest corner of Section 5 (T5N, R3W), thence;

Easterly along the south boundary of Section 5 to the southeast corner of Section 5 (T5N, R3W), thence;

Southerly along the west boundary of Section 9 to the west 1/4 corner of Section 9 (T5N, R3W), thence;

Easterly along the quarter section line of Section 9 to the east 1/4 corner of Section 9 (T5N, R3W), thence;

Southerly along the west section line of Section 10 to the southwest corner of Section 10 (T5N, R3W), thence;

Easterly along the south boundary of Section 10 to the southeast corner of Section 10 (T5N, R3W), thence;

Southerly along the east boundaries of Section 15, Section 22, Section 27, and Section 34 to the southeast corner of Section 34 (all within T5N, R3W), thence;

Westerly along the south boundaries of Section 34 and Section 33 to the southwest corner of Section 33 (also being the northeast corner of Section 5, all within T5N, R3W), thence;

Southerly along the easterly boundary of Parcel Map No. 11552 (also being the easterly boundary of Section 5, T5N, R3W) and continued along the centerline of Kiowa Road to the true northeast corner of Parcel No. 4 of Parcel Map 1437, thence;

Westerly along northerly boundary of Parcel No. 4 of Parcel Map 1437 to the northwest corner of said parcel, thence;

Southerly along the westerly boundary of Parcel No. 4 of Parcel Map 1437 to the southwest corner of said parcel, thence;

Westerly along the southerly boundary of Parcel No. 3 of Parcel Map 1437 to the southwest corner of said parcel, thence;

Appendix B

VVWRA Annexation No. 12

Northerly along the westerly boundaries of Parcels No. 3 and No. 2 of Parcel Map 1437 to the northwest corner of Parcel No. 2 (also being the southerly boundary of Parcel Map 11552 and centerline of Sequoia Road), thence;

Westerly along the southerly boundary of Parcel Map 11552 to the southwest corner of Parcel Map 11552, thence;

Northerly along the westerly boundary of Parcel Map 11552 to the northwest corner of said Parcel Map 11552 (also being the East 1/16 corner along the north boundary of Section 5, T4N, R3W), thence;

Westerly along the north boundaries of Section 5 and Section 6 (all within T4N, R3W) to the northwest corner of Section 6 (also being the intersection of Apple Valley Road and Bear Valley Road), thence;

Southerly along the easterly boundary of Parcel Map 3567 to the northwest corner of Parcel Map 9627 (VVWRA Annexations No. 2 and No. 4), thence;

Southerly along the easterly limits of VVWRA Annexations No. 4 and No. 8 (The Entire Jess Ranch Project Area) and along the easterly limit of the Mojave River to the point of Beginning of this Annexation.

The estimated areas annexed into the Victor Valley Wastewater Reclamation Authority boundary is approximately 51.3 square miles.

VVWRA Annexation No. 13

Those portions of Sections 27 and 28 of Township 4 North, Range 5 West, San Bernardino Meridian, in the County of San Bernardino, State of California described as follows:

Beginning at the Center North 1/16 corner of Section 28, Township 4 North, Range 5 West, San Bernardino Meridian, as shown on parcel Map 8098 filed in Book 84 at Pages 11 through 12 inclusive of Parcel Maps, records of San Bernardino County, said point also being located on the existing City limits line;

THENCE, South along the West line of the East 1/2 of said Section 28 a distance of 3,819 feet, more or less, to a point 141 feet from the South 1/4 corner of said Section 28, said point being the Northwest corner of that certain parcel of and conveyed, to Terragrande Inc., by deed recorded in book 6629, page 965, Official Records, in the office of the County Recorder of said County. Said point also being the Southwest corner of that certain parcel of land conveyed to William B. and Betty L. Schoen by deed recorded as Instrument No. 88-453820, Official Records, in the office of the County Recorder of said County;

THENCE, East parallel with the South line of said Southeast 1/4 of said Section 28, 636 feet, more or less, along the South line of said land per said Instrument No. 88-453820, to the West line of that certain parcel of land conveyed to Robert M. and Vivian V. Stroup by deed recorded in book 8616, page 841, Official Records in the office of the Recorder of said County;

THENCE, North parallel with the West line of said Southeast 1/4 50 feet, more or less, along said West line of said land per said book 8618, page 841, to the North line of said land per said book 8618, page 841;

THENCE, East parallel to the South line of said Southeast 1/4 of said Section 28, along said North line per said book 8618, page 841, to the intersection of the centerline of Interstate No. 15;

VVWRA Annexation No. 13

THENCE, Northeasterly along said centerline to the intersection with the centerline of Joshua Street (formerly Palm Avenue) as shown on Cal-trans right-of-way Map No. 987601. Said point also being located in the Northwest 1/4 of Section 27, T4N, R5W and on the existing city limits line;

THENCE, Westerly along the Southerly city limits boundary and the centerline of said Joshua Street as per Cal-trans right-of-way Maps No. 987601 and 987595, the following three (3) courses:

N 57 06' 00" W 614.84' to the beginning of a curve concave to the South having a radius of 800':

Northwesterly 470.68 feet along said curve through a central angle of 33 42' 87":

S 89 11' 23" W 1205.03 feet to its intersection with the centerline of the West Frontage Road of Highway 395;

THENCE, N 0 48' 37" W 399.56 feet more or less along the centerline of said Frontage Road to the South line of the North 1/2 of the Northeast 1/4 of said section 28;

THENCE, West along said South line of the North 1/2 of the Northeast 1/4 of Section 28 to the POINT OF BEGINNING.

VVWRA Annexation No. 14

THOSE PORTIONS OF SECTIONS 1,2,3,9,10,11,14, AND 15, TOWNSHIP 4 NORTH, RANGE 5 WEST, SAN BERNARDINO BASE AND MERIDIAN, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 3; THENCE EASTERLY ALONG THE NORTH LINE OF SAID SECTION 3 TO THE NORTHWEST CORNER OF SAID SECTION 2; THENCE EASTERLY ALONG THE NORTH LINE OF SAID SECTION 2 AND SAID SECTION 1 TO THE EAST LINE OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 1; THENCE SOUTHERLY ALONG SAID EAST LINE TO THE NORTHWEST 1/16 CORNER OF SAID SECTION 1; THENCE EASTERLY ALONG THE NORTH 1/16 LINE OF SAID SECTION 1 TO THE CENTER NORTH 1/16 CORNER THEREOF; THENCE SOUTHERLY ALONG THE NORTH - SOUTH CENTER SECTION LINE OF SAID SECTION 1 TO THE CENTER 1/4 CORNER THEREOF; THENCE EASTERLY ALONG THE EAST-WEST CENTER SECTION LINE OF SAID SECTION 1 TO A POINT OF INTERSECTION WITH THE CENTERLINE OF INTERSTATE 15; THENCE SOUTHWESTERLY ALONG SAID CENTERLINE TO ITS INTERSECTION WITH THE NORTH 1/16 LINE OF SAID SECTION 14; THENCE WESTERLY ALONG SAID NORTH 1/16 LINE AND THE NORTH 1/16 LINE OF SAID SECTION 15 TO THE NORTHEAST 1/16 CORNER OF SAID SECTION 15; THENCE SOUTHERLY ALONG THE EAST 1/16 LINE OF SAID SECTION 15 TO ITS INTERSECTION WITH THE CENTERLINE OF IMPROVEMENTS OF THE CALIFORNIA AQUEDUCT; THENCE NORTHWEST ALONG SAID CENTERLINE THROUGH ITS VARIOUS COURSES TO THE WEST LINE OF SAID SECTION 9; THENCE NORTHERLY ALONG SAID WEST LINE TO THE NORTHWEST CORNER OF SAID SECTION 9; THENCE EASTERLY ALONG THE NORTH LINE OF SAID SECTION 9 TO THE NORTHEAST CORNER THEREOF, ALSO BEING THE SOUTHWEST CORNER OF SAID SECTION 3; THENCE NORTHERLY ALONG THE WEST LINE OF SAID SECTION 3 TO THE NORTHWEST CORNER THEREOF, BEING THE POINT OF BEGINNING.

EXHIBIT "B"

DESCRIPTION OF REAL PROPERTY

OWNED BY

VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY

The East one-half of the South-West one-quarter; the South-east one-quarter of the North-west one-quarter; the West one-half of the South-east one-quarter; the West one-half of the North-east one-quarter; the West one-half of the East one-half of the North-east one-quarter; and the West one-half of the East one-half of the South-east one-quarter; all in Section 12, Township 6 North, Range 5 West, San Bernardino Meridian in the County of San Bernardino, State of California, according to the official plat thereof.

STATE OF CALIFORNIA
WATER RESOURCES CONTROL BOARD
ORDER NO. WQ 2013-0058-EXEC

AMENDING MONITORING AND REPORTING PROGRAM
FOR
STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR
SANITARY SEWER SYSTEMS

The State of California, Water Resources Control Board (hereafter State Water Board) finds:

1. The State Water Board is authorized to prescribe statewide general Waste Discharge Requirements (WDRs) for categories of discharges that involve the same or similar operations and the same or similar types of waste pursuant to Water Code section 13263(i).
2. Water Code section 13193 *et seq.* requires the Regional Water Quality Control Boards (Regional Water Boards) and the State Water Board (collectively, the Water Boards) to gather Sanitary Sewer Overflow (SSO) information and make this information available to the public, including but not limited to, SSO cause, estimated volume, location, date, time, duration, whether or not the SSO reached or may have reached waters of the state, response and corrective action taken, and an enrollee's contact information for each SSO event. An enrollee is defined as the public entity having legal authority over the operation and maintenance of, or capital improvements to, a sanitary sewer system greater than one mile in length.
3. Water Code section 13271, *et seq.* requires notification to the California Office of Emergency Services (Cal OES), formerly the California Emergency Management Agency, for certain unauthorized discharges, including SSOs.
4. On May 2, 2006, the State Water Board adopted Order 2006-0003-DWQ, "Statewide Waste Discharge Requirements for Sanitary Sewer Systems"¹ (hereafter SSS WDRs) to comply with Water Code section 13193 and to establish the framework for the statewide SSO Reduction Program.
5. Subsection G.2 of the SSS WDRs and the Monitoring and Reporting Program (MRP) provide that the Executive Director may modify the terms of the MRP at any time.
6. On February 20, 2008, the State Water Board Executive Director adopted a revised MRP for the SSS WDRs to rectify early notification deficiencies and ensure that first responders are notified in a timely manner of SSOs discharged into waters of the state.
7. When notified of an SSO that reaches a drainage channel or surface water of the state, Cal OES, pursuant to Water Code section 13271(a)(3), forwards the SSO notification information² to local government agencies and first responders including local public health officials and the applicable Regional Water Board. Receipt of notifications for a single SSO event from both the SSO reporter

¹ Available for download at:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2006/wqo/wqo2006_0003.pdf

² Cal OES Hazardous Materials Spill Reports available Online at:

[http://w3.calema.ca.gov/operational/mal haz.nsf/\\$defaultview](http://w3.calema.ca.gov/operational/mal haz.nsf/$defaultview) and <http://w3.calema.ca.gov/operational/mal haz.nsf>

and Cal OES is duplicative. To address this, the SSO notification requirements added by the February 20, 2008 MRP revision are being removed in this MRP revision.

8. In the February 28, 2008 Memorandum of Agreement between the State Water Board and the California Water and Environment Association (CWEA), the State Water Board committed to re-designing the CIWQS³ Online SSO Database to allow "event" based SSO reporting versus the original "location" based reporting. Revisions to this MRP and accompanying changes to the CIWQS Online SSO Database will implement this change by allowing for multiple SSO appearance points to be associated with each SSO event caused by a single asset failure.
9. Based on stakeholder input and Water Board staff experience implementing the SSO Reduction Program, SSO categories have been revised in this MRP. In the prior version of the MRP, SSOs have been categorized as Category 1 or Category 2. This MRP implements changes to SSO categories by adding a Category 3 SSO type. This change will improve data management to further assist Water Board staff with evaluation of high threat and low threat SSOs by placing them in unique categories (i.e., Category 1 and Category 3, respectively). This change will also assist enrollees in identifying SSOs that require Cal OES notification.
10. Based on over six years of implementation of the SSS WDRs, the State Water Board concludes that the February 20, 2008 MRP must be updated to better advance the SSO Reduction Program⁴ objectives, assess compliance, and enforce the requirements of the SSS WDRs.

IT IS HEREBY ORDERED THAT:

Pursuant to the authority delegated by Water Code section 13267(f), Resolution 2002-0104, and Order 2006-0003-DWQ, the MRP for the SSS WDRs (Order 2006-0003-DWQ) is hereby amended as shown in Attachment A and shall be effective on September 9, 2013.

8/6/13

Date


Thomas Howard
Executive Director

³ California Integrated Water Quality System (CIWQS) publicly available at <http://www.waterboards.ca.gov/ciwqs/publicreports.shtml>

⁴ Statewide Sanitary Sewer Overflow Reduction Program information is available at: http://www.waterboards.ca.gov/water_issues/programs/ssor/

ATTACHMENT ASTATE WATER RESOURCES CONTROL BOARD
ORDER NO. WQ 2013-0058-EXECAMENDING MONITORING AND REPORTING PROGRAM
FOR
STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR
SANITARY SEWER SYSTEMS

This Monitoring and Reporting Program (MRP) establishes monitoring, record keeping, reporting and public notification requirements for Order 2006-0003-DWQ, "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems" (SSS WDRs). This MRP shall be effective from September 9, 2013 until it is rescinded. The Executive Director may make revisions to this MRP at any time. These revisions may include a reduction or increase in the monitoring and reporting requirements. All site specific records and data developed pursuant to the SSS WDRs and this MRP shall be complete, accurate, and justified by evidence maintained by the enrollee. Failure to comply with this MRP may subject an enrollee to civil liabilities of up to \$5,000 a day per violation pursuant to Water Code section 13350; up to \$1,000 a day per violation pursuant to Water Code section 13268; or referral to the Attorney General for judicial civil enforcement. The State Water Resources Control Board (State Water Board) reserves the right to take any further enforcement action authorized by law.

A. SUMMARY OF MRP REQUIREMENTS**Table 1 – Spill Categories and Definitions**

CATEGORIES	DEFINITIONS [see Section A on page 5 of Order 2006-0003-DWQ, for Sanitary Sewer Overflow (SSO) definition]
CATEGORY 1	Discharges of untreated or partially treated wastewater of <u>any volume</u> resulting from an enrollee's sanitary sewer system failure or flow condition that: <ul style="list-style-type: none"> • Reach surface water and/or reach a drainage channel tributary to a surface water; or • Reach a Municipal Separate Storm Sewer System (MS4) and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or groundwater infiltration basin (e.g., infiltration pit, percolation pond).
CATEGORY 2	Discharges of untreated or partially treated wastewater of <u>1,000 gallons or greater</u> resulting from an enrollee's sanitary sewer system failure or flow condition that <u>do not</u> reach surface water, a drainage channel, or a MS4 unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.
CATEGORY 3	All other discharges of untreated or partially treated wastewater resulting from an enrollee's sanitary sewer system failure or flow condition.
PRIVATE LATERAL SEWAGE DISCHARGE (PLSD)	Discharges of untreated or partially treated wastewater resulting from blockages or other problems <u>within a privately owned sewer lateral</u> connected to the enrollee's sanitary sewer system or from other private sewer assets. PLSDs that the enrollee becomes aware of may be <u>voluntarily</u> reported to the California Integrated Water Quality System (CIWQS) Online SSO Database.

Table 2 – Notification, Reporting, Monitoring, and Record Keeping Requirements

ELEMENT	REQUIREMENT	METHOD
NOTIFICATION (see section B of MRP)	<ul style="list-style-type: none"> • Within two hours of becoming aware of any Category 1 SSO greater than or equal to 1,000 gallons discharged to surface water or spilled in a location where it probably will be discharged to surface water, notify the California Office of Emergency Services (Cal OES) and obtain a notification control number. 	Call Cal OES at: (800) 852-7550
REPORTING (see section C of MRP)	<ul style="list-style-type: none"> • Category 1 SSO: Submit draft report within three business days of becoming aware of the SSO and certify within 15 calendar days of SSO end date. • Category 2 SSO: Submit draft report within 3 business days of becoming aware of the SSO and certify within 15 calendar days of the SSO end date. • Category 3 SSO: Submit certified report within 30 calendar days of the end of month in which SSO the occurred. • SSO Technical Report: Submit within 45 calendar days after the end date of any Category 1 SSO in which 50,000 gallons or greater are spilled to surface waters. • “No Spill” Certification: Certify that no SSOs occurred within 30 calendar days of the end of the month or, if reporting quarterly, the quarter in which no SSOs occurred. • Collection System Questionnaire: Update and certify every 12 months. 	Enter data into the CIWQS Online SSO Database (http://ciwqs.waterboards.ca.gov/), certified by enrollee’s Legally Responsible Official(s).
WATER QUALITY MONITORING (see section D of MRP)	<ul style="list-style-type: none"> • Conduct water quality sampling within 48 hours after initial SSO notification for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters. 	Water quality results are required to be uploaded into CIWQS for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.
RECORD KEEPING (see section E of MRP)	<ul style="list-style-type: none"> • SSO event records. • Records documenting Sanitary Sewer Management Plan (SSMP) implementation and changes/updates to the SSMP. • Records to document Water Quality Monitoring for SSOs of 50,000 gallons or greater spilled to surface waters. • Collection system telemetry records if relied upon to document and/or estimate SSO Volume. 	Self-maintained records shall be available during inspections or upon request.

B. NOTIFICATION REQUIREMENTS

Although Regional Water Quality Control Boards (Regional Water Boards) and the State Water Board (collectively, the Water Boards) staff do not have duties as first responders, this MRP is an appropriate mechanism to ensure that the agencies that have first responder duties are notified in a timely manner in order to protect public health and beneficial uses.

1. For any Category 1 SSO greater than or equal to 1,000 gallons that results in a discharge to a surface water or spilled in a location where it probably will be discharged to surface water, either directly or by way of a drainage channel or MS4, the enrollee shall, as soon as possible, but not later than two (2) hours after (A) the enrollee has knowledge of the discharge, (B) notification is possible, and (C) notification can be provided without substantially impeding cleanup or other emergency measures, notify the Cal OES and obtain a notification control number.
2. To satisfy notification requirements for each applicable SSO, the enrollee shall provide the information requested by Cal OES before receiving a control number. Spill information requested by Cal OES may include:
 - i. Name of person notifying Cal OES and direct return phone number.
 - ii. Estimated SSO volume discharged (gallons).
 - iii. If ongoing, estimated SSO discharge rate (gallons per minute).
 - iv. SSO Incident Description:
 - a. Brief narrative.
 - b. On-scene point of contact for additional information (name and cell phone number).
 - c. Date and time enrollee became aware of the SSO.
 - d. Name of sanitary sewer system agency causing the SSO.
 - e. SSO cause (if known).
 - v. Indication of whether the SSO has been contained.
 - vi. Indication of whether surface water is impacted.
 - vii. Name of surface water impacted by the SSO, if applicable.
 - viii. Indication of whether a drinking water supply is or may be impacted by the SSO.
 - ix. Any other known SSO impacts.
 - x. SSO incident location (address, city, state, and zip code).
3. Following the initial notification to Cal OES and until such time that an enrollee certifies the SSO report in the CIWQS Online SSO Database, the enrollee shall provide updates to Cal OES regarding substantial changes to the estimated volume of untreated or partially treated sewage discharged and any substantial change(s) to known impact(s).
4. PLSDs: The enrollee is strongly encouraged to notify Cal OES of discharges greater than or equal to 1,000 gallons of untreated or partially treated wastewater that result or may result in a discharge to surface water resulting from failures or flow conditions within a privately owned sewer lateral or from other private sewer asset(s) if the enrollee becomes aware of the PLSD.

C. REPORTING REQUIREMENTS

1. **CIWQS Online SSO Database Account:** All enrollees shall obtain a CIWQS Online SSO Database account and receive a “Username” and “Password” by registering through CIWQS. These accounts allow controlled and secure entry into the CIWQS Online SSO Database.
2. **SSO Mandatory Reporting Information:** For reporting purposes, if one SSO event results in multiple appearance points in a sewer system asset, the enrollee shall complete one SSO report in the CIWQS Online SSO Database which includes the GPS coordinates for the location of the SSO appearance point closest to the failure point, blockage or location of the flow condition that caused the SSO, and provide descriptions of the locations of all other discharge points associated with the SSO event.
3. **SSO Categories**
 - i. **Category 1** – Discharges of untreated or partially treated wastewater of any volume resulting from an enrollee’s sanitary sewer system failure or flow condition that:
 - a. Reach surface water and/or reach a drainage channel tributary to a surface water; or
 - b. Reach a MS4 and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or groundwater infiltration basin (e.g., infiltration pit, percolation pond).
 - ii. **Category 2** – Discharges of untreated or partially treated wastewater greater than or equal to 1,000 gallons resulting from an enrollee’s sanitary sewer system failure or flow condition that does not reach a surface water, a drainage channel, or the MS4 unless the entire SSO volume discharged to the storm drain system is fully recovered and disposed of properly.
 - iii. **Category 3** – All other discharges of untreated or partially treated wastewater resulting from an enrollee’s sanitary sewer system failure or flow condition.
4. **Sanitary Sewer Overflow Reporting to CIWQS - Timeframes**
 - i. **Category 1 and Category 2 SSOs** – All SSOs that meet the above criteria for Category 1 or Category 2 SSOs shall be reported to the CIWQS Online SSO Database:
 - a. Draft reports for Category 1 and Category 2 SSOs shall be submitted to the CIWQS Online SSO Database within three (3) business days of the enrollee becoming aware of the SSO. Minimum information that shall be reported in a draft Category 1 SSO report shall include all information identified in section 8.i.a. below. Minimum information that shall be reported in a Category 2 SSO draft report shall include all information identified in section 8.i.c below.
 - b. A final Category 1 or Category 2 SSO report shall be certified through the CIWQS Online SSO Database within 15 calendar days of the end date of the SSO. Minimum information that shall be certified in the final Category 1 SSO report shall include all information identified in section 8.i.b below. Minimum information that shall be certified in a final Category 2 SSO report shall include all information identified in section 8.i.d below.

- ii. **Category 3 SSOs** – All SSOs that meet the above criteria for Category 3 SSOs shall be reported to the CIWQS Online SSO Database and certified within 30 calendar days after the end of the calendar month in which the SSO occurs (e.g., all Category 3 SSOs occurring in the month of February shall be entered into the database and certified by March 30). Minimum information that shall be certified in a final Category 3 SSO report shall include all information identified in section 8.i.e below.
- iii. **“No Spill” Certification** – If there are no SSOs during the calendar month, the enrollee shall either 1) certify, within 30 calendar days after the end of each calendar month, a “No Spill” certification statement in the CIWQS Online SSO Database certifying that there were no SSOs for the designated month, or 2) certify, quarterly within 30 calendar days after the end of each quarter, “No Spill” certification statements in the CIWQS Online SSO Database certifying that there were no SSOs for each month in the quarter being reported on. For quarterly reporting, the quarters are Q1 - January/ February/ March, Q2 - April/May/June, Q3 - July/August/September, and Q4 - October/November/December.
If there are no SSOs during a calendar month but the enrollee reported a PLSD, the enrollee shall still certify a “No Spill” certification statement for that month.
- iv. **Amended SSO Reports** – The enrollee may update or add additional information to a certified SSO report within 120 calendar days after the SSO end date by amending the report or by adding an attachment to the SSO report in the CIWQS Online SSO Database. SSO reports certified in the CIWQS Online SSO Database prior to the adoption date of this MRP may only be amended up to 120 days after the effective date of this MRP. After 120 days, the enrollee may contact the SSO Program Manager to request to amend an SSO report if the enrollee also submits justification for why the additional information was not available prior to the end of the 120 days.

5. **SSO Technical Report**

The enrollee shall submit an SSO Technical Report in the CIWQS Online SSO Database within 45 calendar days of the SSO end date for any SSO in which 50,000 gallons or greater are spilled to surface waters. This report, which does not preclude the Water Boards from requiring more detailed analyses if requested, shall include at a minimum, the following:

- i. **Causes and Circumstances of the SSO:**
 - a. Complete and detailed explanation of how and when the SSO was discovered.
 - b. Diagram showing the SSO failure point, appearance point(s), and final destination(s).
 - c. Detailed description of the methodology employed and available data used to calculate the volume of the SSO and, if applicable, the SSO volume recovered.
 - d. Detailed description of the cause(s) of the SSO.
 - e. Copies of original field crew records used to document the SSO.
 - f. Historical maintenance records for the failure location.
- ii. **Enrollee’s Response to SSO:**
 - a. Chronological narrative description of all actions taken by enrollee to terminate the spill.
 - b. Explanation of how the SSMP Overflow Emergency Response plan was implemented to respond to and mitigate the SSO.

- c. Final corrective action(s) completed and/or planned to be completed, including a schedule for actions not yet completed.

iii. **Water Quality Monitoring:**

- a. Description of all water quality sampling activities conducted including analytical results and evaluation of the results.
- b. Detailed location map illustrating all water quality sampling points.

6. **PLSDs**

Discharges of untreated or partially treated wastewater resulting from blockages or other problems within a privately owned sewer lateral connected to the enrollee's sanitary sewer system or from other private sanitary sewer system assets may be voluntarily reported to the CIWQS Online SSO Database.

- i. The enrollee is also encouraged to provide notification to Cal OES per section B above when a PLSD greater than or equal to 1,000 gallons has or may result in a discharge to surface water. For any PLSD greater than or equal to 1,000 gallons regardless of the spill destination, the enrollee is also encouraged to file a spill report as required by Health and Safety Code section 5410 et. seq. and Water Code section 13271, or notify the responsible party that notification and reporting should be completed as specified above and required by State law.
- ii. If a PLSD is recorded in the CIWQS Online SSO Database, the enrollee must identify the sewage discharge as occurring and caused by a private sanitary sewer system asset and should identify a responsible party (other than the enrollee), if known. Certification of PLSD reports by enrollees is not required.

7. **CIWQS Online SSO Database Unavailability**

In the event that the CIWQS Online SSO Database is not available, the enrollee must fax or e-mail all required information to the appropriate Regional Water Board office in accordance with the time schedules identified herein. In such event, the enrollee must also enter all required information into the CIWQS Online SSO Database when the database becomes available.

8. **Mandatory Information to be Included in CIWQS Online SSO Reporting**

All enrollees shall obtain a CIWQS Online SSO Database account and receive a "Username" and "Password" by registering through CIWQS which can be reached at CIWQS@waterboards.ca.gov or by calling (866) 792-4977, M-F, 8 A.M. to 5 P.M. These accounts will allow controlled and secure entry into the CIWQS Online SSO Database. Additionally, within thirty (30) days of initial enrollment and prior to recording SSOs into the CIWQS Online SSO Database, all enrollees must complete a Collection System Questionnaire (Questionnaire). The Questionnaire shall be updated at least once every 12 months.

i. **SSO Reports**

At a minimum, the following mandatory information shall be reported prior to finalizing and certifying an SSO report for each category of SSO:

- a. **Draft Category 1 SSOs**: At a minimum, the following mandatory information shall be reported for a draft Category 1 SSO report:
1. SSO Contact Information: Name and telephone number of enrollee contact person who can answer specific questions about the SSO being reported.
 2. SSO Location Name.
 3. Location of the overflow event (SSO) by entering GPS coordinates. If a single overflow event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the SSO appearance point explanation field.
 4. Whether or not the SSO reached surface water, a drainage channel, or entered and was discharged from a drainage structure.
 5. Whether or not the SSO reached a municipal separate storm drain system.
 6. Whether or not the total SSO volume that reached a municipal separate storm drain system was fully recovered.
 7. Estimate of the SSO volume, inclusive of all discharge point(s).
 8. Estimate of the SSO volume that reached surface water, a drainage channel, or was not recovered from a storm drain.
 9. Estimate of the SSO volume recovered (if applicable).
 10. Number of SSO appearance point(s).
 11. Description and location of SSO appearance point(s). If a single sanitary sewer system failure results in multiple SSO appearance points, each appearance point must be described.
 12. SSO start date and time.
 13. Date and time the enrollee was notified of, or self-discovered, the SSO.
 14. Estimated operator arrival time.
 15. For spills greater than or equal to 1,000 gallons, the date and time Cal OES was called.
 16. For spills greater than or equal to 1,000 gallons, the Cal OES control number.
- b. **Certified Category 1 SSOs**: At a minimum, the following mandatory information shall be reported for a certified Category 1 SSO report, in addition to all fields in section 8.i.a :
1. Description of SSO destination(s).
 2. SSO end date and time.
 3. SSO causes (mainline blockage, roots, etc.).
 4. SSO failure point (main, lateral, etc.).
 5. Whether or not the spill was associated with a storm event.
 6. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the overflow; and a schedule of major milestones for those steps.
 7. Description of spill response activities.
 8. Spill response completion date.
 9. Whether or not there is an ongoing investigation, the reasons for the investigation and the expected date of completion.

10. Whether or not a beach closure occurred or may have occurred as a result of the SSO.
 11. Whether or not health warnings were posted as a result of the SSO.
 12. Name of beach(es) closed and/or impacted. If no beach was impacted, NA shall be selected.
 13. Name of surface water(s) impacted.
 14. If water quality samples were collected, identify parameters the water quality samples were analyzed for. If no samples were taken, NA shall be selected.
 15. If water quality samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken, NA shall be selected.
 16. Description of methodology(ies) and type of data relied upon for estimations of the SSO volume discharged and recovered.
 17. SSO Certification: Upon SSO Certification, the CIWQS Online SSO Database will issue a final SSO identification (ID) number.
- c. **Draft Category 2 SSOs:** At a minimum, the following mandatory information shall be reported for a draft Category 2 SSO report:
1. Items 1-14 in section 8.i.a above for Draft Category 1 SSO.
- d. **Certified Category 2 SSOs:** At a minimum, the following mandatory information shall be reported for a certified Category 2 SSO report:
1. Items 1-14 in section 8.i.a above for Draft Category 1 SSO and Items 1-9, and 17 in section 8.i.b above for Certified Category 1 SSO.
- e. **Certified Category 3 SSOs:** At a minimum, the following mandatory information shall be reported for a certified Category 3 SSO report:
1. Items 1-14 in section 8.i.a above for Draft Category 1 SSO and Items 1-5, and 17 in section 8.i.b above for Certified Category 1 SSO.

ii. **Reporting SSOs to Other Regulatory Agencies**

These reporting requirements do not preclude an enrollee from reporting SSOs to other regulatory agencies pursuant to state law. In addition, these reporting requirements do not replace other Regional Water Board notification and reporting requirements for SSOs.

iii. **Collection System Questionnaire**

The required Questionnaire (see subsection G of the SSS WDRs) provides the Water Boards with site-specific information related to the enrollee's sanitary sewer system. The enrollee shall complete and certify the Questionnaire at least every 12 months to facilitate program implementation, compliance assessment, and enforcement response.

iv. **SSMP Availability**

The enrollee shall provide the publicly available internet web site address to the CIWQS Online SSO Database where a downloadable copy of the enrollee's approved SSMP, critical supporting documents referenced in the SSMP, and proof of local governing board approval of the SSMP is posted. If all of the SSMP documentation listed in this subsection is not publicly available on the Internet, the enrollee shall comply with the following procedure:

- a. Submit an **electronic** copy of the enrollee's approved SSMP, critical supporting documents referenced in the SSMP, and proof of local governing board approval of the SSMP to the State Water Board, within 30 days of that approval and within 30 days of any subsequent SSMP re-certifications, to the following mailing address:

State Water Resources Control Board
Division of Water Quality
Attn: SSO Program Manager
1001 I Street, 15th Floor, Sacramento, CA 95814

D. WATER QUALITY MONITORING REQUIREMENTS:

To comply with subsection D.7(v) of the SSS WDRs, the enrollee shall develop and implement an SSO Water Quality Monitoring Program to assess impacts from SSOs to surface waters in which 50,000 gallons or greater are spilled to surface waters. The SSO Water Quality Monitoring Program, shall, at a minimum:

1. Contain protocols for water quality monitoring.
2. Account for spill travel time in the surface water and scenarios where monitoring may not be possible (e.g. safety, access restrictions, etc.).
3. Require water quality analyses for ammonia and bacterial indicators to be performed by an accredited or certified laboratory.
4. Require monitoring instruments and devices used to implement the SSO Water Quality Monitoring Program to be properly maintained and calibrated, including any records to document maintenance and calibration, as necessary, to ensure their continued accuracy.
5. Within 48 hours of the enrollee becoming aware of the SSO, require water quality sampling for, at a minimum, the following constituents:
 - i. Ammonia
 - ii. Appropriate Bacterial indicator(s) per the applicable Basin Plan water quality objective or Regional Board direction which may include total and fecal coliform, enterococcus, and e-coli.

E. RECORD KEEPING REQUIREMENTS:

The following records shall be maintained by the enrollee for a minimum of five (5) years and shall be made available for review by the Water Boards during an onsite inspection or through an information request:

1. General Records: The enrollee shall maintain records to document compliance with all provisions of the SSS WDRs and this MRP for each sanitary sewer system owned including any required records generated by an enrollee's sanitary sewer system contractor(s).
2. SSO Records: The enrollee shall maintain records for each SSO event, including but not limited to:
 - i. Complaint records documenting how the enrollee responded to all notifications of possible or actual SSOs, both during and after business hours, including complaints that do not

result in SSOs. Each complaint record shall, at a minimum, include the following information:

- a. Date, time, and method of notification.
 - b. Date and time the complainant or informant first noticed the SSO.
 - c. Narrative description of the complaint, including any information the caller can provide regarding whether or not the complainant or informant reporting the potential SSO knows if the SSO has reached surface waters, drainage channels or storm drains.
 - d. Follow-up return contact information for complainant or informant for each complaint received, if not reported anonymously.
 - e. Final resolution of the complaint.
- ii. Records documenting steps and/or remedial actions undertaken by enrollee, using all available information, to comply with section D.7 of the SSS WDRs.
 - iii. Records documenting how all estimate(s) of volume(s) discharged and, if applicable, volume(s) recovered were calculated.
3. Records documenting all changes made to the SSMP since its last certification indicating when a subsection(s) of the SSMP was changed and/or updated and who authorized the change or update. These records shall be attached to the SSMP.
 4. Electronic monitoring records relied upon for documenting SSO events and/or estimating the SSO volume discharged, including, but not limited to records from:
 - i. Supervisory Control and Data Acquisition (SCADA) systems
 - ii. Alarm system(s)
 - iii. Flow monitoring device(s) or other instrument(s) used to estimate wastewater levels, flow rates and/or volumes.

F. CERTIFICATION

1. All information required to be reported into the CIWQS Online SSO Database shall be certified by a person designated as described in subsection J of the SSS WDRs. This designated person is also known as a Legally Responsible Official (LRO). An enrollee may have more than one LRO.
2. Any designated person (i.e. an LRO) shall be registered with the State Water Board to certify reports in accordance with the CIWQS protocols for reporting.
3. Data Submitter (DS): Any enrollee employee or contractor may enter draft data into the CIWQS Online SSO Database on behalf of the enrollee if authorized by the LRO and registered with the State Water Board. However, only LROs may certify reports in CIWQS.
4. The enrollee shall maintain continuous coverage by an LRO. Any change of a registered LRO or DS (e.g., retired staff), including deactivation or a change to the LRO's or DS's contact information, shall be submitted by the enrollee to the State Water Board within 30 days of the change by calling (866) 792-4977 or e-mailing help@ciwqs.waterboards.ca.gov.

5. A registered designated person (i.e., an LRO) shall certify all required reports under penalty of perjury laws of the state as stated in the CIWQS Online SSO Database at the time of certification.

CERTIFICATION

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of an order amended by the Executive Director of the State Water Resources Control Board.

7/30/13

Date



Jeanine Townsend
Clerk to the Board

**STATE WATER RESOURCES CONTROL BOARD
ORDER NO. 2006-0003-DWQ**

**STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS
FOR
SANITARY SEWER SYSTEMS**

The State Water Resources Control Board, hereinafter referred to as “State Water Board”, finds that:

1. All federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California are required to comply with the terms of this Order. Such entities are hereinafter referred to as “Enrollees”.
2. Sanitary sewer overflows (SSOs) are overflows from sanitary sewer systems of domestic wastewater, as well as industrial and commercial wastewater, depending on the pattern of land uses in the area served by the sanitary sewer system. SSOs often contain high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oxygen-demanding organic compounds, oil and grease and other pollutants. SSOs may cause a public nuisance, particularly when raw untreated wastewater is discharged to areas with high public exposure, such as streets or surface waters used for drinking, fishing, or body contact recreation. SSOs may pollute surface or ground waters, threaten public health, adversely affect aquatic life, and impair the recreational use and aesthetic enjoyment of surface waters.
3. Sanitary sewer systems experience periodic failures resulting in discharges that may affect waters of the state. There are many factors (including factors related to geology, design, construction methods and materials, age of the system, population growth, and system operation and maintenance), which affect the likelihood of an SSO. A proactive approach that requires Enrollees to ensure a system-wide operation, maintenance, and management plan is in place will reduce the number and frequency of SSOs within the state. This approach will in turn decrease the risk to human health and the environment caused by SSOs.
4. Major causes of SSOs include: grease blockages, root blockages, sewer line flood damage, manhole structure failures, vandalism, pump station mechanical failures, power outages, excessive storm or ground water inflow/infiltration, debris blockages, sanitary sewer system age and construction material failures, lack of proper operation and maintenance, insufficient capacity and contractor-caused damages. Many SSOs are preventable with adequate and appropriate facilities, source control measures and operation and maintenance of the sanitary sewer system.

SEWER SYSTEM MANAGEMENT PLANS

5. To facilitate proper funding and management of sanitary sewer systems, each Enrollee must develop and implement a system-specific Sewer System Management Plan (SSMP). To be effective, SSMPs must include provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis. Additionally, an SSMP must contain a spill response plan that establishes standard procedures for immediate response to an SSO in a manner designed to minimize water quality impacts and potential nuisance conditions.
6. Many local public agencies in California have already developed SSMPs and implemented measures to reduce SSOs. These entities can build upon their existing efforts to establish a comprehensive SSMP consistent with this Order. Others, however, still require technical assistance and, in some cases, funding to improve sanitary sewer system operation and maintenance in order to reduce SSOs.
7. SSMP certification by technically qualified and experienced persons can provide a useful and cost-effective means for ensuring that SSMPs are developed and implemented appropriately.
8. It is the State Water Board's intent to gather additional information on the causes and sources of SSOs to augment existing information and to determine the full extent of SSOs and consequent public health and/or environmental impacts occurring in the State.
9. Both uniform SSO reporting and a centralized statewide electronic database are needed to collect information to allow the State Water Board and Regional Water Quality Control Boards (Regional Water Boards) to effectively analyze the extent of SSOs statewide and their potential impacts on beneficial uses and public health. The monitoring and reporting program required by this Order and the attached Monitoring and Reporting Program No. 2006-0003-DWQ, are necessary to assure compliance with these waste discharge requirements (WDRs).
10. Information regarding SSOs must be provided to Regional Water Boards and other regulatory agencies in a timely manner and be made available to the public in a complete, concise, and timely fashion.
11. Some Regional Water Boards have issued WDRs or WDRs that serve as National Pollution Discharge Elimination System (NPDES) permits to sanitary sewer system owners/operators within their jurisdictions. This Order establishes minimum requirements to prevent SSOs. Although it is the State Water Board's intent that this Order be the primary regulatory mechanism for sanitary sewer systems statewide, Regional Water Boards may issue more stringent or more

prescriptive WDRs for sanitary sewer systems. Upon issuance or reissuance of a Regional Water Board's WDRs for a system subject to this Order, the Regional Water Board shall coordinate its requirements with stated requirements within this Order, to identify requirements that are more stringent, to remove requirements that are less stringent than this Order, and to provide consistency in reporting.

REGULATORY CONSIDERATIONS

12. California Water Code section 13263 provides that the State Water Board may prescribe general WDRs for a category of discharges if the State Water Board finds or determines that:

- The discharges are produced by the same or similar operations;
- The discharges involve the same or similar types of waste;
- The discharges require the same or similar treatment standards; and
- The discharges are more appropriately regulated under general discharge requirements than individual discharge requirements.

This Order establishes requirements for a class of operations, facilities, and discharges that are similar throughout the state.

13. The issuance of general WDRs to the Enrollees will:

- a) Reduce the administrative burden of issuing individual WDRs to each Enrollee;
- b) Provide for a unified statewide approach for the reporting and database tracking of SSOs;
- c) Establish consistent and uniform requirements for SSMP development and implementation;
- d) Provide statewide consistency in reporting; and
- e) Facilitate consistent enforcement for violations.

14. The beneficial uses of surface waters that can be impaired by SSOs include, but are not limited to, aquatic life, drinking water supply, body contact and non-contact recreation, and aesthetics. The beneficial uses of ground water that can be impaired include, but are not limited to, drinking water and agricultural supply. Surface and ground waters throughout the state support these uses to varying degrees.

15. The implementation of requirements set forth in this Order will ensure the reasonable protection of past, present, and probable future beneficial uses of water and the prevention of nuisance. The requirements implement the water quality control plans (Basin Plans) for each region and take into account the environmental characteristics of hydrographic units within the state. Additionally, the State Water Board has considered water quality conditions that could reasonably be achieved through the coordinated control of all factors that affect

water quality in the area, costs associated with compliance with these requirements, the need for developing housing within California, and the need to develop and use recycled water.

16. The Federal Clean Water Act largely prohibits any discharge of pollutants from a point source to waters of the United States except as authorized under an NPDES permit. In general, any point source discharge of sewage effluent to waters of the United States must comply with technology-based, secondary treatment standards, at a minimum, and any more stringent requirements necessary to meet applicable water quality standards and other requirements. Hence, the unpermitted discharge of wastewater from a sanitary sewer system to waters of the United States is illegal under the Clean Water Act. In addition, many Basin Plans adopted by the Regional Water Boards contain discharge prohibitions that apply to the discharge of untreated or partially treated wastewater. Finally, the California Water Code generally prohibits the discharge of waste to land prior to the filing of any required report of waste discharge and the subsequent issuance of either WDRs or a waiver of WDRs.
17. California Water Code section 13263 requires a water board to, after any necessary hearing, prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge. The requirements shall, among other things, take into consideration the need to prevent nuisance.
18. California Water Code section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:
 - a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
 - b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
 - c. Occurs during, or as a result of, the treatment or disposal of wastes.
19. This Order is consistent with State Water Board Resolution No. 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California) in that the Order imposes conditions to prevent impacts to water quality, does not allow the degradation of water quality, will not unreasonably affect beneficial uses of water, and will not result in water quality less than prescribed in State Water Board or Regional Water Board plans and policies.
20. The action to adopt this General Order is exempt from the California Environmental Quality Act (Public Resources Code §21000 et seq.) because it is an action taken by a regulatory agency to assure the protection of the environment and the regulatory process involves procedures for protection of the environment. (Cal. Code Regs., tit. 14, §15308). In addition, the action to adopt

this Order is exempt from CEQA pursuant to Cal.Code Regs., title 14, §15301 to the extent that it applies to existing sanitary sewer collection systems that constitute “existing facilities” as that term is used in Section 15301, and §15302, to the extent that it results in the repair or replacement of existing systems involving negligible or no expansion of capacity.

21. The Fact Sheet, which is incorporated by reference in the Order, contains supplemental information that was also considered in establishing these requirements.
22. The State Water Board has notified all affected public agencies and all known interested persons of the intent to prescribe general WDRs that require Enrollees to develop SSMPs and to report all SSOs.
23. The State Water Board conducted a public hearing on February 8, 2006, to receive oral and written comments on the draft order. The State Water Board received and considered, at its May 2, 2006, meeting, additional public comments on substantial changes made to the proposed general WDRs following the February 8, 2006, public hearing. The State Water Board has considered all comments pertaining to the proposed general WDRs.

IT IS HEREBY ORDERED, that pursuant to California Water Code section 13263, the Enrollees, their agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted hereunder, shall comply with the following:

A. DEFINITIONS

1. **Sanitary sewer overflow (SSO)** - Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:
 - (i) Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;
 - (ii) Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and
 - (iii) Wastewater backups into buildings and on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.
2. **Sanitary sewer system** – Any system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant headworks used to collect and convey wastewater to the publicly owned treatment facility. Temporary storage and conveyance facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.

For purposes of this Order, sanitary sewer systems include only those systems owned by public agencies that are comprised of more than one mile of pipes or sewer lines.

3. **Enrollee** - A federal or state agency, municipality, county, district, and other public entity that owns or operates a sanitary sewer system, as defined in the general WDRs, and that has submitted a complete and approved application for coverage under this Order.
4. **SSO Reporting System** – Online spill reporting system that is hosted, controlled, and maintained by the State Water Board. The web address for this site is <http://ciwqs.waterboards.ca.gov>. This online database is maintained on a secure site and is controlled by unique usernames and passwords.
5. **Untreated or partially treated wastewater** – Any volume of waste discharged from the sanitary sewer system upstream of a wastewater treatment plant headworks.
6. **Satellite collection system** – The portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility to which the sanitary sewer system is tributary.
7. **Nuisance** - California Water Code section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:
 - a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
 - b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
 - c. Occurs during, or as a result of, the treatment or disposal of wastes.

B. APPLICATION REQUIREMENTS

1. **Deadlines for Application** – All public agencies that currently own or operate sanitary sewer systems within the State of California must apply for coverage under the general WDRs within six (6) months of the date of adoption of the general WDRs. Additionally, public agencies that acquire or assume responsibility for operating sanitary sewer systems after the date of adoption of this Order must apply for coverage under the general WDRs at least three (3) months prior to operation of those facilities.
2. **Applications under the general WDRs** – In order to apply for coverage pursuant to the general WDRs, a legally authorized representative for each agency must submit a complete application package. Within sixty (60) days of adoption of the general WDRs, State Water Board staff will send specific instructions on how to

apply for coverage under the general WDRs to all known public agencies that own sanitary sewer systems. Agencies that do not receive notice may obtain applications and instructions online on the Water Board's website.

3. Coverage under the general WDRs – Permit coverage will be in effect once a complete application package has been submitted and approved by the State Water Board's Division of Water Quality.

C. PROHIBITIONS

1. Any SSO that results in a discharge of untreated or partially treated wastewater to waters of the United States is prohibited.
2. 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.

D. PROVISIONS

1. The Enrollee must comply with all conditions of this Order. Any noncompliance with this Order 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 shall be:
 - (i) 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;
 - (ii) 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;
 - (iii) 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
 - (iv) Interpreted or applied to supersede any more specific or more stringent WDRs or enforcement order issued by a Regional Water Board.
3. The Enrollee shall take all feasible steps to eliminate SSOs. In the event that an SSO does occur, the Enrollee shall take all feasible steps to contain and mitigate the impacts of an SSO.
4. In the event of an SSO, the Enrollee shall 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 the Enrollee'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:
 - (i) The Enrollee has complied with the requirements of this Order, including requirements for reporting and developing and implementing a SSMP;
 - (ii) The Enrollee can identify the cause or likely cause of the discharge event;
 - (iii) 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 the Enrollee does not implement a periodic or continuing process to identify and correct problems.
 - (iv) The discharge was exceptional, unintentional, temporary, and caused by factors beyond the reasonable control of the Enrollee;
 - (v) The discharge could have been prevented by the exercise of reasonable control described in a certified SSMP for:
 - Proper management, operation and maintenance;
 - 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.);
 - Preventive maintenance (including cleaning and fats, oils, and grease (FOG) control);
 - Installation of adequate backup equipment; and
 - Inflow and infiltration prevention and control to the extent practicable.
 - (vi) The sanitary sewer system design capacity is appropriate to reasonably prevent SSOs.

- (vii) The Enrollee took all reasonable steps to stop and mitigate the impact of the discharge as soon as possible.
7. When a sanitary sewer overflow occurs, the Enrollee shall 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.

The Enrollee shall 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:

- (i) Interception and rerouting of untreated or partially treated wastewater flows around the wastewater line failure;
 - (ii) Vacuum truck recovery of sanitary sewer overflows and wash down water;
 - (iii) Cleanup of debris at the overflow site;
 - (iv) System modifications to prevent another SSO at the same location;
 - (v) Adequate sampling to determine the nature and impact of the release; and
 - (vi) Adequate public notification to protect the public from exposure to the SSO.
8. The Enrollee shall properly, manage, operate, and maintain all parts of the sanitary sewer system owned or operated by the Enrollee, and shall ensure that the system operators (including employees, contractors, or other agents) are adequately trained and possess adequate knowledge, skills, and abilities.
9. The Enrollee shall 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. The Enrollee shall provide adequate capacity to convey base flows and peak flows, including flows related to wet weather events. Capacity shall meet or exceed the design criteria as defined in the Enrollee's System Evaluation and Capacity Assurance Plan for all parts of the sanitary sewer system owned or operated by the Enrollee.
11. The Enrollee shall 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 the Enrollee's office and/or available on the Internet. This SSMP must be approved by the Enrollee's governing board 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 shall 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 shall be prepared by or under the direction of appropriately qualified professionals, and shall bear the professional(s)' signature and stamp.
13. The mandatory elements of the SSMP are specified below. However, if the Enrollee believes that any element of this section is not appropriate or applicable to the Enrollee's sanitary sewer system, the SSMP program does not need to address that element. The Enrollee must justify why that element is not applicable. The SSMP must be approved by the deadlines listed in the SSMP Time Schedule below.

Sewer System Management Plan (SSMP)

- (i) **Goal:** The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that do occur.
- (ii) **Organization:** The SSMP must identify:
- (a) The name of the responsible or authorized representative as described in Section J of this Order.
 - (b) The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and
 - (c) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (OES)).
- (iii) **Legal Authority:** Each Enrollee must demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:
- (a) Prevent illicit discharges into its sanitary sewer system (examples may include I/I, stormwater, chemical dumping, unauthorized debris and cut roots, etc.);

- (b) Require that sewers and connections be properly designed and constructed;
 - (c) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;
 - (d) Limit the discharge of fats, oils, and grease and other debris that may cause blockages, and
 - (e) Enforce any violation of its sewer ordinances.
- (iv) **Operation and Maintenance Program.** The SSMP must include those elements listed below that are appropriate and applicable to the Enrollee's system:
- (a) Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance facilities;
 - (b) Describe routine preventive operation and maintenance activities by staff and contractors, 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 should have a system to document scheduled and conducted activities, such as work orders;
 - (c) Develop 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 manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus 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 should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan;
 - (d) Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained; and

- (e) Provide equipment and replacement part inventories, including identification of critical replacement parts.
- (v) **Design and Performance Provisions:**
 - (a) Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and
 - (b) Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.
- (vi) **Overflow Emergency Response Plan** - Each Enrollee shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:
 - (a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;
 - (b) A program to ensure an appropriate response to all overflows;
 - (c) Procedures to 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 MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;
 - (d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;
 - (e) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and
 - (f) 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.

- (vii) **FOG Control Program:** Each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed, the Enrollee must provide justification for why it is not needed. If FOG is found to be a problem, the Enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. This plan shall include the following as appropriate:
- (a) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;
 - (b) A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;
 - (c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;
 - (d) Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;
 - (e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;
 - (f) An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and
 - (g) Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (f) above.
- (viii) **System Evaluation and Capacity Assurance Plan:** The Enrollee shall prepare and implement a capital improvement plan (CIP) that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. At a minimum, the plan must include:
- (a) **Evaluation:** Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide 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;

- (b) **Design Criteria:** Where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria; and
 - (c) **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 may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.
 - (d) **Schedule:** The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a)-(c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D. 14.
- (ix) **Monitoring, Measurement, and Program Modifications:** The Enrollee shall:
- (a) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;
 - (b) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;
 - (c) Assess the success of the preventative maintenance program;
 - (d) Update program elements, as appropriate, based on monitoring or performance evaluations; and
 - (e) Identify and illustrate SSO trends, including: frequency, location, and volume.
- (x) **SSMP Program Audits** - As part of the SSMP, the Enrollee shall 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 shall focus on evaluating the effectiveness of the SSMP and the

Enrollee's compliance with the SSMP requirements identified in this subsection (D.13), including identification of any deficiencies in the SSMP and steps to correct them.

- (xi) **Communication Program** – The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.

The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system.

14. Both the SSMP and the Enrollee's program to implement the SSMP must be certified by the Enrollee to be in compliance with the requirements set forth above and must be presented to the Enrollee's governing board for approval at a public meeting. The Enrollee shall 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, the Enrollee'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 governing board of the Enrollee is required in accordance with D.14 when significant updates to the SSMP are made. To complete the re-certification process, the Enrollee shall enter the data in the Online SSO Database and mail the form to the State Water Board, as described above.

15. The Enrollee shall comply with these requirements according to the following schedule. This time schedule does not supersede existing requirements or time schedules associated with other permits or regulatory requirements.

Sewer System Management Plan Time Schedule

<u>Task and Associated Section</u>	Completion Date			
	Population > 100,000	Population between 100,000 and 10,000	Population between 10,000 and 2,500	Population < 2,500
Application for Permit Coverage Section C	6 months after WDRs Adoption			
Reporting Program Section G	6 months after WDRs Adoption ¹			
SSMP Development Plan and Schedule No specific Section	9 months after WDRs Adoption ²	12 months after WDRs Adoption ²	15 months after WDRs Adoption ²	18 months after WDRs Adoption ²
Goals and Organization Structure Section D 13 (i) & (ii)	12 months after WDRs Adoption ²		18 months after WDRs Adoption ²	
Overflow Emergency Response Program Section D 13 (vi)	24 months after WDRs Adoption ²	30 months after WDRs Adoption ²	36 months after WDRs Adoption ²	39 months after WDRs Adoption ²
Legal Authority Section D 13 (iii)				
Operation and Maintenance Program Section D 13 (iv)				
Grease Control Program Section D 13 (vii)	36 months after WDRs Adoption	39 months after WDRs Adoption	48 months after WDRs Adoption	51 months after WDRs Adoption
Design and Performance Section D 13 (v)				
System Evaluation and Capacity Assurance Plan Section D 13 (viii)				
Final SSMP, incorporating all of the SSMP requirements Section D 13				

1. In the event that by July 1, 2006 the Executive Director is able to execute a memorandum of agreement (MOA) with the California Water Environment Association (CWEA) or discharger representatives outlining a strategy and time schedule for CWEA or another entity to provide statewide training on the adopted monitoring program, SSO database electronic reporting, and SSMP development, consistent with this Order, then the schedule of Reporting Program Section G shall be replaced with the following schedule:

Reporting Program Section G	
Regional Boards 4, 8, and 9	8 months after WDRs Adoption
Regional Boards 1, 2, and 3	12 months after WDRs Adoption
Regional Boards 5, 6, and 7	16 months after WDRs Adoption

If this MOU is not executed by July 1, 2006, the reporting program time schedule will remain six (6) months for all regions and agency size categories.

2. In the event that the Executive Director executes the MOA identified in note 1 by July 1, 2006, then the deadline for this task shall be extended by six (6) months. The time schedule identified in the MOA must be consistent with the extended time schedule provided by this note. If the MOA is not executed by July 1, 2006, the six (6) month time extension will not be granted.

E. WDRs and SSMP AVAILABILITY

1. A copy of the general WDRs and the certified SSMP shall be maintained at appropriate locations (such as the Enrollee's offices, facilities, and/or Internet homepage) and shall be available to sanitary sewer system operating and maintenance personnel at all times.

F. ENTRY AND INSPECTION

1. The Enrollee shall allow the State or Regional Water Boards or their authorized representative, upon presentation of credentials and other documents as may be required by law, to:
 - a. Enter upon the Enrollee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;

- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
- d. Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order or as otherwise authorized by the California Water Code, any substances or parameters at any location.

G. GENERAL MONITORING AND REPORTING REQUIREMENTS

1. The Enrollee shall furnish to the State or Regional Water Board, within a reasonable time, any information that the State or Regional Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Enrollee shall also furnish to the Executive Director of the State Water Board or Executive Officer of the applicable Regional Water Board, upon request, copies of records required to be kept by this Order.
2. The Enrollee shall comply with the attached Monitoring and Reporting Program No. 2006-0003 and future revisions thereto, as specified by the Executive Director. Monitoring results shall be reported at the intervals specified in Monitoring and Reporting Program No. 2006-0003. Unless superseded by a specific enforcement Order for a specific Enrollee, these reporting requirements are intended to replace other mandatory routine written reports associated with SSOs.
3. All Enrollees must obtain SSO Database accounts and receive a "Username" and "Password" by registering through the California Integrated Water Quality System (CIWQS). These accounts will allow controlled and secure entry into the SSO Database. Additionally, within 30 days of receiving an account and prior to recording spills into the SSO Database, all Enrollees must complete the "Collection System Questionnaire", which collects pertinent information regarding a Enrollee's collection system. The "Collection System Questionnaire" must be updated at least every 12 months.
4. Pursuant to Health and Safety Code section 5411.5, any person who, without regard to intent or negligence, causes or permits any untreated wastewater or other waste to be discharged in or on any waters of the State, or discharged in or deposited where it is, or probably will be, discharged in or on any surface waters of the State, as soon as that person has knowledge of the discharge, shall immediately notify the local health officer of the discharge. Discharges of untreated or partially treated wastewater to storm drains and drainage channels, whether man-made or natural or concrete-lined, shall be reported as required above.

Any SSO greater than 1,000 gallons discharged in or on any waters of the State, or discharged in or deposited where it is, or probably will be, discharged in or on any surface waters of the State shall also be reported to the Office of Emergency Services pursuant to California Water Code section 13271.

H. CHANGE IN OWNERSHIP

1. This Order is not transferable to any person or party, except after notice to the Executive Director. The Enrollee shall submit this notice in writing at least 30 days in advance of any proposed transfer. The notice must include a written agreement between the existing and new Enrollee containing a specific date for the transfer of this Order's responsibility and coverage between the existing Enrollee and the new Enrollee. This agreement shall include an acknowledgement that the existing Enrollee is liable for violations up to the transfer date and that the new Enrollee is liable from the transfer date forward.

I. INCOMPLETE REPORTS

1. If an Enrollee becomes aware that it failed to submit any relevant facts in any report required under this Order, the Enrollee shall promptly submit such facts or information by formally amending the report in the Online SSO Database.

J. REPORT DECLARATION

1. All applications, reports, or information shall be signed and certified as follows:
 - (i) All reports required by this Order and other information required by the State or Regional Water Board shall be signed and certified by a person designated, for a municipality, state, federal or other public agency, as either a principal executive officer or ranking elected official, or by a duly authorized representative of that person, as described in paragraph (ii) of this provision. (For purposes of electronic reporting, an electronic signature and accompanying certification, which is in compliance with the Online SSO database procedures, meet this certification requirement.)
 - (ii) An individual is a duly authorized representative only if:
 - (a) The authorization is made in writing by a person described in paragraph (i) of this provision; and
 - (b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.

K. CIVIL MONETARY REMEDIES FOR DISCHARGE VIOLATIONS

1. The California Water Code provides various enforcement options, including civil monetary remedies, for violations of this Order.
2. The California Water Code also provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this Order, or

falsifying any information provided in the technical or monitoring reports is subject to civil monetary penalties.

L. SEVERABILITY

1. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.
2. This order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the Enrollee from liability under federal, state or local laws, nor create a vested right for the Enrollee to continue the waste discharge.

CERTIFICATION

The undersigned Clerk to the State Water Board does hereby certify that the foregoing is a full, true, and correct copy of general WDRs duly and regularly adopted at a meeting of the State Water Resources Control Board held on May 2, 2006.

AYE: Tam M. Doduc
Gerald D. Secundy

NO: Arthur G. Baggett

ABSENT: None

ABSTAIN: None



Song Her
Clerk to the Board

APPENDIX E
Sewer System Management Plan Change Log

Section Changed	Subsection Changed	Page Changed	Change Made	Date of Change	Author of Change	Who Authorized Change