SEWER SYSTEM MANAGEMENT PLAN

San Bernardino County Regional Parks Department

Glen Helen Regional Park



Prepared by:

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August 2021

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ACRONYMS

BWV	Backwater Valve
BAT	Best Available Technology
BMP	Best Management Practice
CASA	California Association of Sanitation Agencies
CCTV	Closed-Circuit Television
CFR	Code of Federal Regulations
CIP	Capital Improvement Project
CIWQS	California Integrated Water Quality System
СМ	Corrective Maintenance
CMMS	Computerized Maintenance Management System
CRWQCB	Colorado River Regional Water Quality Control Board
CWEA	California Water Environment Association
CSA	County Service Area
d/D:	The depth of flow (d) diameter (D) of the pipe
EPA	Environmental Protection Agency
ERP	Emergency Response Plan
ERSP	Emergency Sewer Response Provider (On-Call)
FOG	Fats, Oils, and Grease
FM	Force Main (Pressure Main)
FROG	Fats, Roots, Oils, and Grease
FSE	Food Service Establishments
GHRP	Glen Helen Regional Park
GIS	Geographical Information System
GPS	Global Positioning System
GRD	Grease Removal Device
GWI	Groundwater Induced Infiltration
GWDR	General Waste Discharge Requirements (or Waste Discharge Requirements)
I/I	Inflow and Infiltration
IERP	Integrated Emergency Response Plan
LRWQCB	Lahontan Regional Water Quality Control Board
LRO	Legally Responsible Official
MOU	Memorandum of Understanding
MSDS	Material Safety Data Sheets
NOI	Notice of Intent
NPDES	National Pollution Discharge Elimination System
O&M	Operation and Maintenance
OERP	Overflow Emergency Response Plan
OES	Office of Emergency Services
PM	Preventive Maintenance
PMP	Preventative Maintenance Program
POTWs	Publicly Owned Treatment Works
R&R	Rehabilitation and Replacement

SCADA	Supervisory Control and Data Acquisition
SCAP	Southern California Alliance of Publicly Owned Treatment Works
SOP	Standard Operating Procedure
SLS	Sewer Lift Station
SPS	Sewer Pump Station
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow
SSS	Sanitary Sewer System
SARWQCB	Santa Ana Regional Water Quality Control Board
SWRCB	State Water Resources Control Board
USA	Underground Service Alert of Southern California
WDID	Waste Discharge Identification Number
WDP	Waste Discharge Permit
WDR	Waste Discharge Requirements
WWCS	Wastewater Collection System
WWTP	Wastewater Treatment Plant





TERMS

<u>Authorized Representative</u>: The person designated, for a municipality, state, federal or other public agency, as either a principal executive officer of ranking elected official, or a duly authorized representative of that person.

<u>Best Management Practices</u>: The Best Management Practices [BMP] is a developed industry standard related to the operation and maintenance of grease interceptors/grease-trap and housekeeping operations associated with food preparation and cleanup at restaurants and other food service facilities. BMPs are not just guidelines for FSEs; they are enforceable when a FSE fails to implement one or more of the listed BMPs.

<u>Blockage</u>: Partially or fully blocked wastewater, preventing flow through a sewer pipeline. The blockage can be caused by debris in the sewer, grease buildup, root intrusion, or a partial or full collapse of the pipeline. If not caught in time, the blockage may cause an overflow. This is also called a stoppage.

<u>California Water Environment Association (CWEA)</u>: CWEA is an association of 8,000-plus professionals in the wastewater industry. CWEA is committed to keeping California's water clean. CWEA trains and certifies wastewater professionals, disseminates technical information, and promotes sound policies to benefit society through protection and enhancement of the water environment. CWEA offers services at the state level and locally through 17 geographical local sections. Through their on-line bookstore, CWEA offers technical references for sewer system operation and maintenance. Website: http://www.cwea.org/.

<u>Computerized Maintenance Management System (CMMS)</u>: is also known as Enterprise Asset Management and Computerized Maintenance Management Information System (CMMIS). A CMMS software package maintains a computer database of information about an organization's maintenance operations, i.e. CMMIS - computerized maintenance management information system. This information is intended to help maintenance workers do their jobs more effectively and to help management make informed decisions. CMMS data may also be used to verify regulatory compliance.

<u>Collection System</u>: Generic term for any system of pipes or sewer lines used to convey wastewater to a treatment facility.

<u>Colorado River Regional Water Quality Control Board</u>: Also known as the Regional Water Board or RWQCB. The mission of this state regulatory agency is to: preserve, enhance and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations.

http://www.waterboards.ca.gov/coloradoriver/

<u>Drainage Channel</u>: For the purposes of complying with the Statewide Sanitary Sewer Order, (1) a man-made canal used to transport storm water as part of a municipal separate storm sewer system, or (2) an intermittent or perennial stream bed.

<u>Enrollee</u>: The legal public entity that owns a sanitary sewer system, as defined by the GWDR, which has submitted a complete and approved application for coverage under the GWDR. This is also called a sewer system agency or wastewater collection system agency.

<u>Evaporation Pond</u>: Artificial ponds with very large surface areas that are designed to efficiently evaporate water by sunlight and exposure to ambient temperatures.

<u>Event ID</u>: A unique identifier assigned by the SSO database to each reported SSO or private lateral sewage discharge.

<u>Facultative Lagoon</u>: A type of stabilization pond used for biological treatment of industrial and domestic wastewater. Sewage or organic waste from food or fiber processing may be catabolized in a system of constructed ponds where adequate space is available to provide an average waste retention time exceeding a month. A series of ponds prevents mixing of untreated waste with treated wastewater and allows better control of waste residence time for uniform treatment efficiency.

<u>Fats, Oils and Grease (FOG)</u>: Fats, oils, and grease that are discharged into the sanitary sewer collection system by Food Service Establishments (FSE), homes, apartments and other sources. FOG is a major cause of blockages leading to increased maintenance and sometimes SSOs. Grease can harden and cause floating "turtles" inside manholes and wet-wells that are hard to break down. These can easily clog pipe openings and cause serious problems if they make their way through the system.

<u>Fats, Roots, Oils and Grease (FROG)</u>: Fats, oils, and grease that are discharged into the sanitary sewer collection system by FSEs attach to downstream roots that are protruding from lateral connections, pipe joints, manholes, etc., creating a more rock-solid blockage due to the combination of FOG and Roots that will lead to increased maintenance and sometimes SSOs.

<u>FOG Control Program</u>: To be implemented at the Enrollee's discretion. May include public education program; plan and schedule for the disposal of FOG; legal authority to prohibit FOG related discharges; requirement to install grease removal devices; authority to inspect grease producing facilities; identification of sanitary sewer system sections subject to FOG blockages and the establishment of a cleaning schedule for each section; development and implementation of source control measures for all sources of FOG.

<u>Geographical Information System (GIS)</u>: A database linked with mapping, which includes various layers of information used by government officials. Examples of information found on a GIS can include a sewer map; sewer features such as pipe location, diameter, material, condition, last date cleaned or repaired. The GIS also typically contains base information such as streets and parcels.

<u>Governing Board</u>: This is the governing board of the sewer entity developing the SSMP. Examples would be the Board of Directors, the City Council, or the County Board of Supervisors.

<u>GWDR – General Waste Discharge Requirements</u>: A GWDR is an authorization to discharge waste with certain conditions, which can be issued on an individual basis or to a group of dischargers. The Statewide General WDR for Sanitary Sewer Systems was adopted by the SWCRB and will be implemented by the Regional Water Boards and SWRCB.

<u>Infiltration</u>: The entry of groundwater into a sewer system, including service connections. Infiltration occurs through defects in the piping network including defective or cracked pipes,

pipe joints, and through defects in manhole walls and joints.

<u>Inflow</u>: Stormwater runoff entry into a sewer system from such sources as roof leaders, cellars, yard and area drains, foundation drains, cooling water discharges, drains from springs and swampy areas, around manhole covers that are not properly sealed to the top of manholes or through holes in the covers, and cross connections from storm sewer systems and catch basins.

Inflow differs from infiltration in that it is a direct discharge into the sewer rather than seepage of groundwater into the sewer.

Lahontan Regional Water Quality Control Board: Also known as the Regional Water Board or RWQCB. The mission of this state regulatory agency is to: preserve, enhance and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations. Website: http://www.waterboards.ca.gov/lahontan/.

<u>Lateral</u>: The portion of sewer that connects the waste plumbing from a home or business with the sewer main pipeline in the street. Some sewer system agencies own or maintain a portion of the lateral.

<u>a) Upper Lateral</u>: Portion of lateral from building to property line (or easement line), usually privately owned and maintained.

b) Lower Lateral: Portion of lateral from property line (or easement line) to sewer mainline in the street or easement. This portion of the lateral is sometimes privately owned and maintained and sometimes publicly owned and maintained.

<u>Miles of Gravity Sewer</u>: Amount of gravity sewer lines/pipes in an Enrollee's sanitary sewer system, expressed in miles.

<u>Miles of Laterals</u>: Amount of laterals in an Enrollee's sanitary sewer system, which the Enrollee is responsible for maintaining, expressed in miles.

<u>Miles of Pressure Sewer</u>: Amount of pressurized sewer lines/pipes in an Enrollee's sanitary sewer system, expressed in miles, also referred to as <u>Force Mains</u>.

<u>Monitoring and Reporting Program</u>: The Monitoring and Reporting Program established in the WDR that establishes monitoring, record keeping, reporting and public notification requirements for the GWDR.

<u>Overflow Emergency Response Plan</u>: Identifies measures to protect public health and the environment. A plan must include the following: notification procedure, appropriate response plan, regulatory notification procedures, employee training plan, procedures to address emergency operations, a program that ensures all reasonable steps are taken to contain and prevent discharges.

<u>Percolation Pond</u>: Refers to a pond (usually man-made) designed to allow treated wastewater effluent to percolate slowly into the ground. The pond acts as a holding facility while gravity allows the water to percolate or seep through the soil or other unconsolidated medium into the local water table (usually the surficial aquifer). "surficial" - pertaining to or occurring on or near the earth's surface; "a surficial geologic deposit".

<u>Percent Reached Surface Water</u>: Volume of sewage discharged from a sanitary sewer system or private lateral or collection system that reached surface water divided by the total volume of sewage discharged.

<u>Percent Recovered</u>: Volume of sewage discharged that was captured and returned to the sanitary sewer system or private lateral or collection system divided by the total volume of

sewage discharged.

<u>Private Lateral</u>: That portion of the lateral that is owned and maintained by the private property owner that it serves. Based on an individual agency's ordinance, this may just be the upper lateral or can include the lower lateral.

<u>Private Lateral Sewage Discharge (PLSD)</u>: Sewage discharges that are caused by blockages or other problems within privately owned laterals or collection systems which are tributary to the reporting Enrollee's sanitary sewer system. Reports of these events are submitted by Enrollees on a voluntary basis but are not their responsibility. This type of sewage discharge is the responsibility of the private lateral or collection system owner.

<u>Preventative Maintenance (PM)</u>: Regularly scheduled servicing of machinery, infrastructure or other equipment using appropriate tools, tests, and lubricants. This type of maintenance can prolong the useful life of equipment, infrastructure, and machinery and increase its efficiency by detecting and correcting problems before they cause a breakdown of the equipment, or failure of the infrastructure.

<u>Rehabilitation and Replacement Plan (also referred to as a Capital Improvement Plan)</u>: Identifies and prioritizes system deficiencies and implements short-term and long-term rehabilitation actions to address each deficiency.

Sanitary Sewer Overflow (SSO):

The Statewide GWDR defines an SSO as any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system, including overflows or releases that reach waters of the United States, overflows or releases that *do not* reach water of the United States, and backups into buildings and/or private property caused by conditions within the publicly owned portion of the sewer system.

Sanitary Sewer Overflow Categories:

- *Category 1*: All discharges of sewage resulting from a failure in an Enrollee's sanitary sewer system that resulted in a discharge to a drainage channel and/or surface water.
- *Category 2*: All discharges of sewage resulting from a failure in an Enrollee's sanitary sewer system of a volume equal to or greater than 1,000 gallons that did not reach surface water.
- **Category 3**: All discharges of sewage resulting from a failure in an Enrollee's sanitary sewer system of a volume less than 1,000 gallons that did not reach surface water.

<u>Santa Ana Regional Water Quality Control Board</u>: Also known as the Regional Water Board or RWQCB. The mission of this state regulatory agency is to: preserve, enhance and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations. Website: http://www.waterboards.ca.gov/santaana/.

<u>Sanitary Sewer System</u>: Any system of gravity sewer pipelines, pump stations, force mains, or other facilities upstream of the headwork's of a wastewater treatment plant. The sanitary sewer system is used to collect and convey wastewater to the publicly owned treatment facility. Temporary storage and conveyance facilities are considered to be part of the sanitary sewer system and discharges into these temporary storage facilities are not to be considered SSOs.

<u>Satellite Collection System</u>: 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.

<u>Sewage Lift Station</u>: Lift stations are facilities designed to move raw sewage from a lower elevation to a higher elevation through pipes or pumps. Key elements of sewer lift stations

include a receiving well (wet-well), often equipped with a bar screen or grinding pump to remove coarse materials; pumps and piping with associated valves; motors; a power supply system; an equipment control and alarm system; and an odor control system and ventilation system. The lift stations are equipped with redundant alarms and backup equipment to eliminate the potential for failures of mechanical and/or electrical equipment and appurtenances. Prime use of a lift station is inside a WWTP (screw pumps) or when two different elevations of a collection system join and sewage needs to be lifted and deposited back into a gravity pipe line simply feet away.

<u>Sewage Pump Station:</u> Pump stations are facilities designed to move raw sewage from a lower elevation to a higher elevation through the use of pipes a greater distance than that design of a sewer lift station. Key elements on a pump station are basically identical to a lift station. The main difference between the two types of stations is the distance the flow must be conveyed. The term Pump Station and/or Lift Station are widely used interchangeably, but technically are two separate types of conveyance moving systems.

<u>Spill</u>: Generic term referring to any sewage discharge (i.e., SSO or private lateral sewage discharge) resulting from a failure in a sanitary sewer system or privately owned lateral or collection system.

<u>SSO Database</u>: Online reporting system developed, hosted, and maintained by the State Water Resources Control Board for compliance with the Monitoring and Reporting Program contained in Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WQO No. 2006-0003-DWQ and Amended Monitoring and Reporting Program WQ 2013-0058-Exec).

<u>Storm Drainpipe</u>: For the purposes of complying with the Statewide Sanitary Sewer Order, any pipe that is part of a municipal separate storm sewer system used for collecting or conveying storm water.

<u>System Evaluation and Capacity Assurance Plan</u>: A required component of an agency's SSMP and is an important part of any agency's overall Capital Improvement Plan that provides 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.

<u>Total Volume Reached Surface Water</u>: Amount of sewage discharged from a sanitary sewer system or private lateral or collection system that reaches a surface water.

<u>Total Volume Recovered</u>: Amount of sewage discharged that was captured and returned to the sanitary sewer system or private lateral or collection system.

<u>WDID</u>: Waste Discharge Identification number which is a unique identifier assigned by the State Water Board to each Enrollee for regulatory record and data management purposes



INTRODUCTION

This introductory section provides background information on the purpose and organization of the Sewer System Management Plan (SSMP) and provides a brief overview of the Glen Helen Regional Park (GHRP) sanitary sewer system.

GHRP, operated and maintained by the San Bernardino County Regional Parks Department, is located at 2555 Glen Helen Parkway in San Bernardino, California 92407 (APN: 0348-1616-01 and 0349-1919-18). GHRP is located at the base of the Cajon Pass, near the I-15 and I-215 interchange the City of San Bernardino. Glen Helen, site of the historic US Concerts, is now home to Glen Helen Amphitheater, a 65,000 seat concert and entertainment venue operated under lease by Live Nation and Glen Helen Raceway Park. Glen Helen offers two lakes for fishing, 46 RV campsites, 20 with full or partial hook-ups, a swim complex with a half-acre swim lagoon, two waterslides and a zero-depth water play park, and group and family picnic shelters. Refer (Park Map), **Plate 4**.

The San Bernardino County Department of Public Works, Special Districts Water and Sanitation Division (Division) has entered into a Memorandum of Understanding (MOU) agreement with the Regional Parks Department on June 25, 2019, agreement number 19-449 (see Appendix M). The MOU agreement establishes the basis for the Division to provide services to GHRP in the operation, maintenance, and management of the sanitary sewer system.

SSMP REQUIREMENT BACKGROUND

Glen Helen Regional Park has been mandated to comply with the State Water Resources Control Board's (SWRCB) Order No. 2006-0003-DWQ and Amended Monitoring and Reporting Program WQ 2013-0058-Exec (see **Appendix A**). The SWRCB and the local Regional Water Quality Control Boards (RWQCB) oversee the water quality in the State of California within their respective jurisdictions. GHRP lies within a portion of the State that is under the jurisdiction of the Santa Ana Regional Water Quality Control Board.

On May 2, 2006, the SWRCB adopted General Waste Discharge Requirements (GWDR), applicable to all publicly owned sanitary sewer systems in California with more than one mile of sewer pipeline. The goal of this requirement is to have a consistent statewide approach for reducing sanitary sewer overflows (SSOs) or sewage spills; therefore, these regulations apply directly to GHRP. The Division has initiated, completed, and submitted all required documentation and application forms to the SWRCB for the registration of this facility's GWDR for the sanitary sewer system, including the Notice of Intent (NOI) to comply with the terms of the Statewide General Waste Discharge Requirements for sanitary sewer systems. A legally responsible official (LRO) is any individual authorized to enter and certify data into the online sanitary sewer overflow database on behalf of an agency enrolled under Statewide General Waste Discharge Requirements for sanitary sewer overflow database on behalf of an agency enrolled under Statewide General Waste Discharge Requirements for sanitary sewer overflow database on behalf of an agency enrolled under Statewide General Waste Discharge Requirements for sanitary sewer systems. A data submitter is any individual authorized by a legally responsible official to enter data into the online sanitary sewer overflow database on behalf of an agency enrolled under Statewide General Waste Discharge Requirements for sanitary sewer systems.

The purpose of the Board Order is to prevent SSOs from occurring by creating and establishing a Statewide Monitoring and Reporting Program (MRP) that requires each local or regional

sewerage agency to create and implement its own SSMP based on the mandatory requirements of the Board Order (see Appendix A).

The Monitoring and Reporting Program established in the GWDR requires monitoring, record keeping, reporting, and public notification. The California Integrated Water Quality System (CIWQS) is a website that was created and implemented for this purpose. This program requires that an LRO be appointed to establish a monitoring and reporting program in-house to report all SSOs in accordance with the requirements of the Board Order. Furthermore, the LRO is required to report and certify, through the website, all SSOs that occurred within a specific timeframe as assigned by the SWRCB. The LRO is also required to certify a "No Spill Certification," documenting that no SSOs occurred during each particular month. For detailed information on the Monitoring and Reporting Program please refer to **Appendix J**.

This SSMP for GHRP is described herein.

DOCUMENT ORGANIZATION

This SSMP includes eleven mandatory elements, as listed below. Each of these elements forms a section of this document.

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

Each element section is organized into sub-sections, as follows:

- 1. Description of the SWRCB requirement for that element.
- 2. Discussion of the specific element. The discussion may be split into multiple subsections depending on length and complexity.

DISTRICT SERVICE AREA AND SEWER SYSTEM

The Division currently operates, maintains, and manages GHRP's sanitary sewer system. The elevation of GHRP is approximately 1,991 feet above sea level, with the coordinates of: 34° 12'28.74"N-117°21'3.59"W. GHRP is located on approximately 1340 acres of land (**Plates 1-3**). GHRP has on average 85,600 park entries and 2,700 camping reservations a year. GHRP is also the location of the 65,000 seat Glen Helen Amphitheater as well as the Glen Helen Raceway.

The sanitary sewer system consists of approximately 11,400 linear feet of pipeline ranging in size from 2" to 8" in diameter (Appendix B). Sewage is transported to the Glen Helen Amphitheater Wastewater Treatment Plant (WWTP) for the majority of the Park. The Division is responsible for the operation, maintenance and management of the Glen Helen Amphitheater WWTP. The remaining wastewater not treated at the Glen Helen Amphitheater WWTP comes from the campgrounds and a few restroom facilities. Ten (10) septic tanks collect wastewater from the campgrounds, RV hook-ups, and the few restrooms that do not go to the WWTP for treatment.

PLATE 1 – GLEN HELEN REGIONAL PARK STATE LOCATION MAP

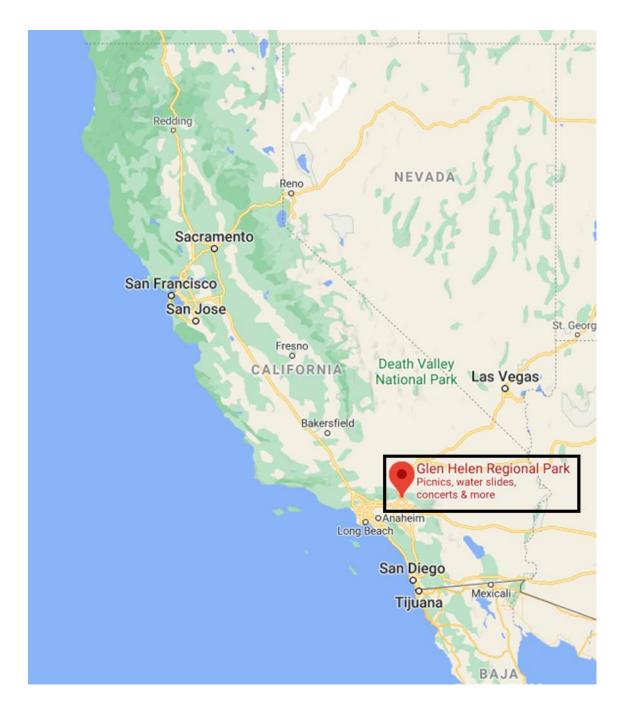


PLATE 2 GLEN HELEN REGIONAL PARK REGIONAL LOCATION MAP

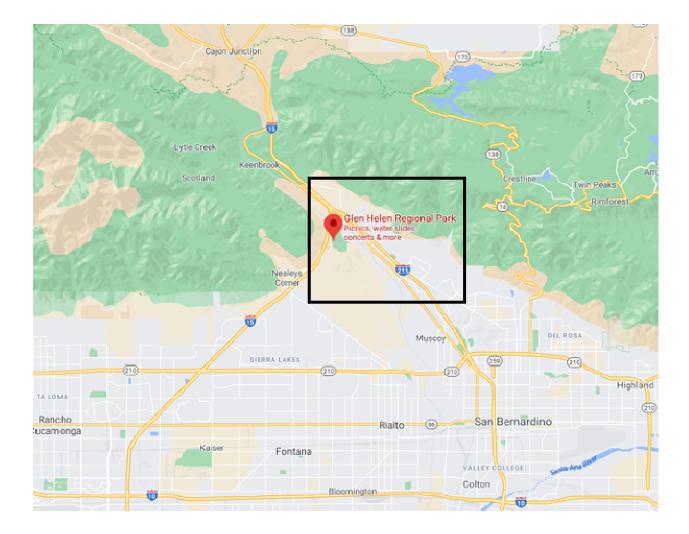


PLATE 3 – GLEN HELEN REGIONAL PARK LOCAL LOCATION MAP



PLATE 4 – GLEN HELEN REGIONAL PARK CIWQS REPORT

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/9/5/1	Glen Helen Regi	onal Park CS	Collection_System	, CA, 92393	San Bernardino
3			2.8.8		
arty Party Type F	Party Name	Re	Related Parties Classification	n Relationship Start Date	Relationship End Date
	Lisa Green		Onsite Manager For	05/30/2018	
	Chris Bishoo Randy Bon		Onsite Manager For Onsite Manager For	05/29/2018 11/17/2016	
	James Baldwin		Onsite Manager For	03/19/2015	
00000000000000000000000000000000000000	isa Green		A Data Submitter For	08/12/2013	05/30/2018
	Robert Eland		A Data Submitter For	08/12/2013	11/20/2015
	Greg Snydal		Onsite Manager For	08/12/2013	07/08/004/0
	Jay Baldwin Steve Samaras		A Data Submitter For Onsite Manager For	08/12/2013 08/06/2013	07/28/2016
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SECTION 1 – GOALS

REGULATORY REQUIREMENTS FOR GOALS ELEMENT

The SWRCB requirements for the Goals element of the SSMP are as follows:

Each collection system agency in the State of California must develop goals to properly manage, operate, and maintain all aspects of its wastewater collection system in order to reduce and prevent SSOs, as well as to mitigate any SSOs that may occur.

GOALS DISCUSSION

The goal of this SSMP is to provide a living document, a written plan and schedule to properly operate, maintain, and manage all elements of GHRP's sanitary sewer system in order to diminish and prevent SSOs, as well as to mitigate any potential SSOs that may occur.

A copy of the Board Order and certified SSMP shall be made available to the public. The Division and the GHRP recognizes the importance of protecting the water quality in the State of California and takes the necessary precautions to mitigate, minimize, and prevent raw sewage overflows/spills from occurring, and is supplementing its existing Sewer System Management Program with the requirements set forth in the new state regulations.

The primary objectives of these regulations are:

- To properly operate, maintain, and manage all portions of GHRP's wastewater collection systems
- To provide adequate capacity for conveying peak wastewater flows
- To minimize the frequency and magnitude of SSOs
- To prevent public health hazards
- To mitigate the impacts associated with any SSO that may occur
- To comply with all applicable regulatory notification and reporting requirements

SECTION 2 – ORGANIZATIONAL STRUCTURE

REGULATORY REQUIREMENTS FOR ORGANIZATION ELEMENT

The SWRCB's requirements for the Organization element of the SSMP are as follows:

The collection system agency's SSMP must identify the following:

- A. The names of the responsible or authorized representatives.
- B. The names and telephone numbers for management, administration, and maintenance positions responsible for implementing specific measures of the SSMP, including the lines of authority in the organizational chart with a narrative explanation for similar documents.
- C. The chain of communication for reporting SSOs, including the receipt of a complaint or other information, and 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 Services Agency, Regional Water Board, and/or State Emergency Management Agency).

ORGANIZATION DISCUSSION

This section describes the Department's organization and chain of communication. The Department maintains a sustainable staffing level to sufficiently operate and maintain the sanitary sewer system and to provide for mitigating all impacts associated with any SSO that may occur.

Organizational Chart

The names of the responsible and authorized representatives are outlined in the Department's Organizational Chart (Appendix C).

Description of General Responsibilities

Director of the Public Works Department, Special Districts Water and Sanitation Division (Division)

The Director of the Department reports directly to the County Administrative Officer and is responsible for administering and managing all functions of the County of San Bernardino Board Governed Special Districts. The major duties of the Director include, but are not limited to the following:

- Directs and coordinates all the activities of the Department to ensure that staff, engineers, legal and financial consultants, and district commissioners understand and work toward the same objectives as approved by the Board.
- Provides assistance and direction to staff regarding all Board-governed districts in technical, administrative, and financial matters involving district operations.

- Maintains liaisons with county, state, and regional entities to ensure the understanding of new laws, regulations, and rules. Prepares and delivers oral and written presentations to these entities clearly stating the Department's position.
- Directs, monitors, and controls the financial operation of all Board-governed districts, county service areas, and zones. Establishes procedures to assure positive financial controls over the Department, Board-governed districts, federal grants, and state subventions.
- Analyzes and/or directs studies to analyze new projects, considering the immediate and long range impact and cost. Recommends project adoption, and modification or cancellation.
- Reviews all Board-governed district, CSA (and their zones), and contract budgets to define plans, projects, tax rates, possible problems, and solutions.
- Obtains formal approval from the Board on new policies, contracts, annexations, budgets, and other policy changes affecting the Board-governed districts.
- Directs management/performance audits to evaluate district effectiveness. Reviews results with district executives and makes appropriate changes and/or recommendations.
- Works effectively with advisory commissions and community groups. Meets with citizens regarding complaints, problems, and suggestions; and explains district actions and policies.

Deputy Director of Special Districts

Under general direction from the Department Director, plans, organizes and directs the administrative and financial operations of the Department's Divisions. The Deputy Director is responsible, through subordinate management and supervisory staff, for directing Department administrative, fiscal, regional, and water and sanitation operations.

- Reviews and evaluates the effectiveness of all administrative, financial, and informational systems within the Department and establishes procedures to ensure reporting compliance with local, State, and federal laws, rules, and regulations; advises the Director on the consequences of both proposed and implemented policy decisions.
- As a member of the management team, participates in the development and implementation of policies regarding operation, management, and administration; potential new programs; administrative and financial plan objectives including major financial plans such as capital expenditures; recommends fees and policies for various services based on cost experience, projected trends and objectives; plans, organizes and administers the Department's annual budget.
- Reviews all board-governed districts' budgets to define district plans, projects, tax rates, possible problems, and solutions.
- Prepares necessary reports as required.
- Provides vacation and temporary relief for the Director as required.

Division Manager of Water and Sanitation (WAS)

Under the direction of the Department's Deputy Director, administers and supervises sanitation operations for sanitation districts and ensures district systems are operating properly.

• Supervises and administers field operations for sanitation districts.

- Supervises operations and maintenance personnel; determines daily work schedules; evaluates performance; participates in hiring of personnel and determining disciplinary actions.
- Assists in researching and preparing contracts as needed for required services, recommends changes to contracts as required.
- Manages emergency situations pertaining to wastewater; coordinates all repairs and reporting.
- Attends advisory commission meetings and other public meetings as necessary.
- Prepares and coordinates programs for operational control and systems monitoring.
- Conducts and prepares a variety of studies and technical reports; maintains records and logs; composes correspondences to the general public.
- Coordinates the development of various fiscal procedures; facilitates district purchases; recommends changes and monitors the districts' budgets.
- Coordinates construction projects associated with sanitation systems; inspects and assists as required. Coordinates with engineers and outside consultants on district activities and projects.
- Develops written procedures to implement adopted policies; and designs or improves operational forms.
- Provides vacation and temporary relief for the Deputy Director as required.

Water and Sanitation Supervisor

Under the direction of the Operations Manager, plans, organizes, directs, and supervises maintenance, construction, and repair of wastewater sewer pipelines, manholes, cleanouts, sewer pump and/or lift stations and related equipment, and assists in the operation and maintenance of wastewater treatment plants for various sanitation districts.

- Directly responsible for personnel safety in compliance with safety regulations; supervises and maintains strict safety standards; routinely inspects wastewater collection systems and wastewater treatment plant facilities for safety hazards and violations. Participates on the Safety Committee.
- Plans, assigns, schedules, supervises and evaluates employees in the operation and maintenance of wastewater collection systems and wastewater treatment plants including the construction and repair of wastewater apparatuses such as sewer lines, man holes, cleanouts and pump and/or lift stations; provides adequate staff training and expert instruction in general operations and maintenance.
- Maintains operating efficiencies for solids handling, primary treatment, oxidation processes, and secondary and tertiary treatment processes. Develops and implements methods for improving plant efficiency.
- Directs all emergency sanitary sewer overflow (SSO) notification and procedural activities, logistics and procurement preparation tasks, and emergency evaluation for mitigation of all SSO events. Follows up with all regulatory agencies and is the direct California Integrated Water Quality System (CIWQS) Data Submitter.

- Supervises all general routine preventive maintenance activities such as, but not limited to: sewer cleaning, televising, inspection, and smoke testing. Supervises the activities of sewer safety inspections on all pumps and/or lift stations and supervises other relevant and routine wastewater collection system duties as required.
- Supervises employees in the performance of chemical, bacteriological, and biological tests as related to the standards of water quality monitoring and analysis of unusual or complex water quality control problems.
- Maintains records, reports, and correspondence regarding the operation and maintenance of wastewater collection systems and treatment plants, and is responsible for insuring that the quality of effluent satisfies discharge requirements established by regulatory agencies.
- Supervises and assists in the routine maintenance and repair of equipment, tools, and vehicles necessary to insure efficient and effective operations.
- Maintains effective public relations through contacts with the general public and others who desire to observe wastewater collection systems and plant operations. Maintains contacts with vendors, engineers, suppliers and maintenance personnel of other organizations.
- Ensures that the wastewater collection system's sewer pumps and/or lift stations and treatment plants are maintained in a clean and orderly manner through constant inspection.
- Participates in meetings with engineers to discuss design criteria for wastewater collection systems and treatment plant facilities and/or equipment.
- Responsible for ensuring that all sewage collection sampling procedures are adhered to. Provides up-dates on all procedural requirements and chain-of-custody operation.
- Analyzes treatment plant operations, processes and maintenance, making modifications or recommendations on procedures, techniques or treatment processes when necessary.
- Inspects and locates existing and newly constructed wastewater lines and takes water samples as required by the State of California.
- Assists the Operations Manager with establishing priorities for current and future projects; provides on-going budget input.
- Orders supplies and equipment; prepares estimates of equipment and materials needed to perform work in the construction, maintenance, and repair of wastewater facilities; compiles budget information.
- Inventories fixed assets, tools, and equipment.
- Maintains a current safety and emergency on-call/call-back program and performs on-call/call-back duty as required.
- Provides temporary and vacation relief for the Operations Manager as required.

Operator Grade IV

Under the direction of the Water and Sanitation Supervisor, plans, organizes, directs, and supervises the maintenance, construction, and repair of wastewater sewer pipelines, manholes, cleanouts, sewer pumps and/or lift stations and related equipment, and assists in the operation

and maintenance of wastewater treatment plants for various sanitation districts.

- Directly responsible for personnel safety in compliance with safety regulations; supervises and maintains strict safety standards; routinely inspects wastewater collection systems and wastewater treatment plant facilities for safety hazards and violations.
- Assigns, schedules, supervises and evaluates employees in the operation and maintenance of wastewater collection systems and wastewater treatment plants including the construction and repair of wastewater apparatuses such as sewer lines, man holes, cleanouts and pumps/lift stations; provides adequate staff training and instruction on specific operations and maintenance.
- Responsible for solids handling, primary treatment, oxidation processes, secondary and tertiary treatment.
- Performs notification and response on all SSO emergencies.
- Supervises all general routine preventive maintenance activities such as, but not limited to: sewer cleaning, televising, and sewer inspection, smoke testing. Supervises safety inspections on pumps/lift stations and all other relevant and routine wastewater collection system duties as required.
- Supervises employees in the performance of chemical, bacteriological, and biological tests as related to the standards of water quality monitoring and analysis of unusual water quality control problems.
- Maintains records, reports, and correspondence regarding the operation and maintenance of wastewater collection systems and treatment plants. Directly responsible for ensuring that the quality of effluent satisfies discharge requirements established by regulatory agencies.
- Supervises and/or provides the necessary training of staff in the routine maintenance and repair of equipment, tools, and vehicles necessary to insure efficient and effective operation.
- Directly supervises and provides the necessary training of staff in the collection of sewage sampling procedures, up-dates all procedural requirements, and supervises chain-of-custody procedures.
- Maintains effective public relations through contacts with the general public and others who desire to observe wastewater collection system operations and plant operations. Maintains contacts with vendors, engineers, suppliers, and maintenance personnel of various other organizations.
- Ensures that wastewater collection system sewer pumps/lift stations and treatment plants are maintained in a clean and orderly manner through constant inspection.
- Participates in meetings with engineers to discuss wastewater collection systems and treatment plant facilities and/or equipment.
- Analyzes treatment plant operations, processes, and maintenance; making modifications or recommendations on procedures, techniques or treatment processes when necessary.
- Inspects and locates existing and newly constructed wastewater lines; takes water samples as required by the State of California.

- Assists the Water and Sanitation Supervisor with establishing priorities for current and future projects; provides budget input when required.
- Orders supplies and equipment; prepares estimates of equipment and materials needed to perform work in the construction, maintenance, and repair of wastewater facilities.
- Conducts the inventory counts of fixed assets, tools, and equipment.
- Participates in emergency on-call procedures in accordance with established district policies.
- Provides temporary vacation relief for the Water and Sanitation Supervisor as required.

Maintenance Worker III/Operator Grade III

Under the direction of the Water and Sanitation Supervisor, supervises and provides assistance to subordinates in the operation and maintenance of a wastewater collection systems and wastewater treatment plants; and performs related duties as required.

- Responsible for personnel safety and compliance with all current safety regulations.
- Operates or acts as lead operator in the operation and maintenance of one or more wastewater collection systems and/or wastewater treatment plants.
- Evaluates operations to ensure optimum efficiency and makes adjustments or recommendations to processes when required.
- May inspect or assign others to inspect wastewater collection systems including all wastewater pumps/lift stations to assure proper operation.
- Prepares technical operating procedures and instructions for efficient operations including sampling and testing procedures.
- Performs the necessary training of staff for the collection of sewage sampling, adheres to procedural requirements and chain-of-custody requirements.
- Prepares records and reports on operations such as the type of treatment, volume of wastewater treated, data on the amount of disinfectant used per day, and meteorological data such as temperature, rainfall, and wind direction.
- Participates in meetings with engineers relative to the design of equipment necessary to the operation of wastewater collection systems and wastewater treatment plants.
- Keeps data/information on each piece of equipment with emphasis on unusual incidents and faulty operation procedures.
- Supervises and/or assists with emergency SSO notifications and procedures. Supervises general routine preventive maintenance such as, but not limited to: sewer cleaning, televising, sewer inspection, smoke testing, safety inspections on all pumps/lift stations, and performs all other relevant and routine wastewater collection system duties as required.
- Assures that all wastewater collection systems, wastewater treatment plants, and related facilities are maintained in a clean, neat, and orderly manner.
- Participates in emergency on-call in accordance with established Department policies.

- Provides vacation and temporary relief duty when required.
- Assists in preparing and assigning work performance evaluations and training.
- Provides input into routine work schedules.

Electrical Specialist/Technician

Under the general direction of the Water and Sanitation Supervisor, supervises and provides assistance to staff in the operation and maintenance of wastewater collection systems and wastewater treatment plants as required.

- Responsible for personnel safety and compliance with all current safety regulations.
- Performs skilled electrical installation/repairs/trouble shooting on tasks/activities related to high voltage, low voltage, SCADA, telemetry, phone installation, alarms, and site monitoring.
- Maintains data on each piece of electrical equipment. Monitors mechanical equipment with emphasis on preventive maintenance and all unusual incidents related to faulty operation.
- Maintains the fleet of portable generators for utilization at sewer facilities as required.
- May act as a lead operator during the operation and maintenance of one or more wastewater collection systems and/or wastewater treatment plants.
- Participates in meetings with engineers relative to the design/installation of electrical systems, monitoring systems, and mechanical equipment systems as necessary for the safe and reliable operations of all wastewater collection systems and wastewater treatment plants.
- May evaluate the operation of electrical assets to ensure optimum efficiency and to make adjustments or recommendations when required.
- May inspect or assign others to inspect wastewater collection systems, including all wastewater pumps/lift stations to assure proper operation.
- May prepare technical operating procedures and instructions for efficient operation, including sampling and testing procedures.
- May perform activities related to the collection of sewage sampling, adhering to procedural requirements and chain-of-custody requirements.
- May supervise/assist with emergency SSO notification and procedures.
- Participates in emergency on-call procedures in accordance with established district policies.
- Provides vacation and temporary relief duty when required.
- Assists with preparing and assigning work performance evaluations and training.
- Provides input into routine work schedules.

Maintenance Worker II/Operator Grade II

Under general supervision of a Maintenance Worker III/Operator Grade III, assists in the operation and maintenance of wastewater collection systems and wastewater treatment plants; and performs related duties as required.

- Responsible for personnel safety and compliance with all current safety regulations.
- In the absence of a Maintenance Worker III/Operator Grade III, operator acts as lead worker in the operation and maintenance of one or more wastewater collection systems and/or wastewater treatment plants.
- Makes repairs or adjustments to operating equipment at wastewater collection systems and/or wastewater treatment plants
- Prepares and maintains necessary data, records, and reports.
- Performs activities related to the collection of sewage sampling and adheres to procedural requirements and chain-of-custody requirements.
- Operates and checks the operation of all equipment/unit process equipment such as sewer pumps/lift stations, pumps, motors, blowers, odor scrubbers, manholes, cleanouts, drywells/wet-wells, vaults, and other related equipment, including: headworks, primary and secondary clarification, biological units, chlorination, and solids processing equipment.
- Performs assigned skilled labor and clerical work incidental to wastewater collection systems and wastewater treatment plants.
- Compiles the necessary information for the purchase of spare parts, preventive maintenance replacement parts/accessories, chemicals, vendor services, repairs, adjustments and supplies.
- Read's meters and gauges; regulates flow of raw and treated wastewater between various units of the treatment process.
- Supervises or assists in the cleaning of odor scrubbers, manholes, cleanouts, drywells/wet-wells, vaults, tanks, and other equipment as required to maintain wastewater collection systems, wastewater treatment plants, and facility grounds in clean and sanitary condition.
- Participates in emergency on-call procedures in accordance with established district policies.
- Maintains effective public relations.
- Performs vacation and temporary relief duty when required.
- Assists during emergency SSO notification procedures. Performs general routine preventive maintenance such as, but not limited to: sewer cleaning, televising, smoke testing, and performing safety inspections on all pumps/lift stations and all other routine wastewater collection system duties as required.
- Assists Department staff in various work assignments.

Maintenance Worker I / Operator Grade I

Under direct supervision of a Maintenance Worker II/Operator Grade II, assists in the operation and maintenance of wastewater collection systems and/or wastewater treatment plants, and performs related duties as required.

- Responsible for personnel safety and compliance with all current safety regulations.
- May be responsible for the operation and maintenance duties of one or more wastewater collection systems and/or wastewater treatment plants.
- Makes minor repairs or adjustments to operating equipment on wastewater collection systems and/or wastewater treatment plants.
- Prepares and maintains necessary data, records, logs and reports.
- Operates and checks the operation of all equipment/unit process equipment such as sewer pumps/lift stations, pumps, motors, blowers, odor scrubbers, manholes, cleanouts, drywells/wet-wells, vaults and other related equipment, including: headworks, primary and secondary clarification, biological units, chlorination and solids processing equipment.
- Performs semi-skilled labor and clerical work incidental to wastewater collection systems and/or wastewater treatment plants.
- Compiles the necessary information for the purchase of spare parts, preventive maintenance replacement parts/accessories, chemicals, vendor services, repairs, adjustments, and supplies.
- Read's meters and gauges; regulates flow of raw and treated wastewater between various units of the treatment process.
- Performs cleaning of odor scrubbers, manholes, cleanouts, drywells/wet-wells, vaults, tanks and other equipment as required to maintain wastewater collection systems and/or wastewater treatment plants and grounds in a clean and sanitary condition.
- Participates in emergency on-call procedures in accordance with established Department policies.
- Maintains effective public relations.
- Assists during emergency SSO procedures and tasks. Performs general routine preventive maintenance such as, but not limited to: sewer cleaning and televising, sewer inspection, smoke testing, and safety inspections on all pumps/lift stations.
- Assists Department staff in various work assignments.

Maintenance Worker I (trainee)/Operator in Training (OIT)/Public Service Employee (PSE)

Under the direct supervision of a Maintenance Worker III or II/Operator Grade III or II, assists in the operation and maintenance of wastewater collection systems and/or wastewater treatment plants, and performs related duties as required.

- Responsible for personnel safety and compliance with all current safety regulations.
- Assists in the operation and maintenance duties of one or more wastewater collection

systems and/or wastewater treatment plants.

- Makes minor repairs or minor adjustments to operating equipment at wastewater collection systems and/or wastewater treatment plants with the permission and oversight of lead personnel.
- Prepares and maintains necessary data, records, logs and reports.
- Operates and checks the operation of all equipment/unit process equipment such as sewer pumps/lift stations, pumps, motors, blowers, odor scrubbers, manholes, cleanouts, drywells/wet-wells, vaults, and other related equipment, including: headworks, primary and secondary clarification, biological units, chlorination, and solids processing equipment.
- Performs assigned labor and clerical work incidental to wastewater collection systems and/or wastewater treatment plants.
- Read's meters and gauges; regulates flow of raw and treated wastewater between various units of the treatment process.
- Performs cleaning of odor scrubbers, manholes, cleanouts, drywells/wet-wells, vaults, tanks and other equipment as required to maintain wastewater collection systems and/or wastewater treatment plants and grounds in a clean and sanitary condition.
- May participate in emergency on-call procedures in accordance with established Department policies.
- Maintains effective public relations.
- Assists during emergency SSO procedures and tasks. Performs general routine preventive maintenance such as, but not limited to: sewer cleaning and televising, sewer inspection, smoke testing, and safety inspections on all pumps/lift stations, and all other routine wastewater collection system duties as required.
- Assists Department staff in various work assignments.

Regulatory Compliance Specialist

Under administrative direction, the Regulatory Compliance Specialist: reviews, prepares, submits and evaluates regulatory permits and provides supervision over environmental management and compliance programs in conformance with intergovernmental regulations; reviews, analyzes and evaluates local, state, federal and regulatory requirements as related to wastewater facilities; assists in governmental reporting activities; performs related duties as assigned. Duties include but are not limited to the following:

- Supervises, assists, reviews, evaluates and submits all regulatory permits required for all wastewater collection systems and/or wastewater treatment plants.
- Delegates, trains, assign's, supervises, and evaluates the work of professional and administrative staff involved in environmental quality.
- Performs field inspections at facilities and project sites; and conducts special studies and surveys.
- Plans, organizes, assists, and oversees future programs and projects to ensure permitting and compliance issues are addressed.

- Acts as the agency liaison with local, regional, and state regulatory officials in environmental matters; lobbies on behalf of the District's interests and participates in meetings and fact-finding processes; tracks, reviews and analyzes environmental quality requirements and pending legislation.
- Prepares technical reports, correspondence and other written materials; may develop, design and produce charts, graphs, map spreadsheets, including analysis and interpretation.
- Maintains, organizes and manages all correspondence, reports, and related material for permits.
- Oversees program budget expenditures.
- Reviews, comments, and notifies appropriate personnel of new proposed regulations and legislation affecting wastewater collection systems, wastewater treatment plants, and electric operations.
- Meets with staff and outside agencies to coordinate permitting and regulatory compliance issues.
- Ensures that the safety program and goals are carried out.

Authorized Representative

The Authorized Representative in all wastewater collection system matters is Mr. Steve Samaras, Division Manager charged with immediate oversight of the GHRP sanitary sewer system. Mr. Samaras is authorized to, or delegate authorized staff to, submit the certification of electronic spill reports submitted to the SWRCB. Mr. Samaras is also authorized to, or delegates authorized staff to, submit raw data into the CIWQS data base program.

Mr. Samaras, Division Manager is authorized, and has the responsibility, to execute certification of all electronic spill reports that are submitted to the SWRCB.

The Division has the authority to submit all SSO reports to the appropriate governmental agencies.

The Division's Water and Sanitation supervisors, Ms. Lisa Green and Mr. Chris Bishop are authorized as the Data Submitter for all SSO reports submitted to the SWRCB.

Regional Parks Department reporting responsibilities to the Division reside with Ms. Beahta Davis, Director and Mr. Ryan Isom, Interim Operations Chief.

Responsibility for SSMP Implementation

The Division, in cooperation with the Regional Parks Department, is responsible for implementing and maintaining all elements of this SSMP. The Division shall operate, maintain, and manage GHRP's sanitary sewer system according to the elements contained within this SSMP.

Chain of Communication

The Division has developed a flowchart depicting the chain of communication for responding to and reporting SSOs, from observation of an SSO to the reporting a SSO to the appropriate regulatory agencies. In addition, the Division has provided contact information for the responsible parties.

Receipt of Complaint

The Division has developed a program for the receipt of complaints. The Division records the following:

- Date and Time of the Complaint
- Full name, home and/or cell phone number, and physical address of the complainant
- Location of incident/emergency, all cross streets, nearest highway
- Description of incident/emergency (e.g. SSO, M/H cover off, sewer backup, odor)
- Document the time that the caller observed/noticed the incident/emergency
- Courtesy return call to review the final statement (as requested)
- Complete the required service order fields
- Enter data into the Receipt of Sanitary Sewer System's Complaint Log

Dispatching of Complaint Protocol:

Please refer to the Customer Complaint - deposition protocol for the handling of all sewer related complaints during normal business hours, and after normal business hours including holidays and weekends.

SECTION 3 - LEGAL AUTHORITY

REGULATORY REQUIREMENTS FOR LEGAL AUTHORITY ELEMENT

The SWRCB requirements for Legal Authority element of the SSMP are as follows:

The collection system agency must demonstrate through Collection System Use Ordinances, Service Agreements, or other legally binding procedures that it possesses the necessary legal authority to:

- A. Prevent illicit discharges into its wastewater collection systems. (Examples may include but are not limited to infiltration and inflow (I/I), storm water, chemical dumping, unauthorized debris, etc.)
- B. Require that sewers and connections be properly designed and constructed.
- C. Ensure access for maintenance, inspection or repairs for portions of the laterals owned or maintained by the public agency.
- D. Limit the discharge of fats, oils, grease, and other debris that may cause blockages.
- E. Enforce any violations of its sewer ordinances.

SUMMARY OF LEGAL AUTHORITY DOCUMENT

Through the San Bernardino County Board of Supervisor's September 12, 1983 resolution establishing "Rules and Regulations for Sewer Services" (Rules and Regulations), and the December 31, 1980 "Wastewater Ordinance Regulating the Use and Construction of Public Wastewater Facilities" (Wastewater Ordinance), the Division possesses the legal authority to furnish wastewater collection, treatment, and the disposal of sanitary waste at GHRP as required by the SWRCB.

Illicit Discharges into the Wastewater Collection System

As established and approved by the San Bernardino County Board of Supervisors, the County Service Area's Rules and Regulations for Sewer Service shall: govern the quality and quantity of permissible discharges into the Division's sewer system from the GHRP; provide limitations and prohibitions as to specified wastes such as fats, oils, grease, and sand; require grease and sand interceptors and separators; regulate swimming pool discharges; and prescribe all required testing.

Sewer System Design and Construction Criteria

Criteria for the design and construction of sewer lines and connections have been established in the June 1, 1982 San Bernardino County, Special Districts' "Standards for Sanitary Sewers" (Appendix E). Additionally, building sewer requirements and sewer connection requirements must adhere to Section 1.8 and 1.9 of the CSA Wastewater Ordinance.

Access of Facilities Owned by Agency

Per the CSA Wastewater Ordinance, Division representatives maintain access to all sanitary sewer facilities within the public right-of-way for maintenance and construction purposes, with required permits. Where it becomes necessary to cross private property for maintenance and construction purposes, or to provide access for future sewers serving adjacent or upstream tributary land, the Division obtains all necessary or required public easement documentation. Rules for conformance to these procedures are outlined in Section 1.9 of the Wastewater Ordinance.

Limit Discharges of Fats, Oils and Greases (FOG)

All FOG discharges are regulated in accordance with the Division's FOG program.

<u>Note:</u> GHRP's wastewater facilities do not have the point source potential to generate FOG; GHRP maintains a source control program to eliminate the potential for FOG to enter the sanitary sewer system.

Enforcement of any Violations of Sewer Ordinances

Any person found to be in violation of any of the provisions of the Wastewater Ordinance, and failing to correct such violation within the specified timeframe, is to be penalized per Sections 1.12 and 1.13 of the CSA Wastewater Ordinance.

SECTION 4 – OPERATION AND MAINTENANCE PROGRAM

REGULATORY REQUIREMENTS FOR OPERATIONS AND MAINTENANCE PROGRAM ELEMENT

The SWRCB requirements for the Operations and Maintenance Program element of the SSMP are as follows:

Each Sewer System Management Plan must include those elements that are appropriate and applicable to its collection system, as described below:

- A. Maintain an up-to-date map of the sanitary sewer system, showing all gravity pipeline segments, manholes, lift station, pressure pipes, and valves; including applicable storm water conveyance facilities.
- B. Maintain a description of routine preventive operation and maintenance activities by staff and contractors. This must include 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 such deficiencies. The program should include, but is not limited to, regular visual and CCTV inspection of manholes and sewer pipelines. The rehabilitation and replacement program should include a capital improvement plan and schedule.
- D. Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require that contractors be appropriately trained.
- E. Provide equipment and replacement part inventories, including identification of critical replacement parts. Describe what replacement parts the agency keeps, where and how they are tracked and replaced, what outside contractors are on-call, etc., including the documentation of response times.

SUMMARY OF OPERATIONS AND MAINTENANCE PROGRAM DOCUMENT

Existing Sewer Collection System

The Division has conducted detailed audits of the GHRP's sanitary sewer system and has documented the system, including the location of all gravity sewer mains, manholes, lift station, pressure pipes, valves and laterals, etc. Refer to **Appendix B** for an overview of the GHRP Sanitary Sewer System.

Between 2014 and the time of this report, no repairs or upgrades to the existing system were reported.

Operations and Maintenance Program

The Division, utilizing sewer cleaning equipment, has cleaned 100% of GHRP's gravity sewer pipelines to-date. Current operations and maintenance of the wastewater facilities are scheduled according to established priority levels, but typically the wastewater facilities are cleaned/CCTV 100% each year.

The Division maintains a computerized maintenance management system (CMMS) data base that contains a history of prior cleaning, closed circuit televising (CCTV), and corrective maintenance activity, including: the date work was performed; the time that work was performed; the employee's name that provided maintenance; the distance/footage cleaned; the total time that each specific task was completed; the street location, line segment number, manhole number(s), size of pipeline, and location of pipeline cleaned; the justification for the specified maintenance; the condition of the specified pipeline; the amount of debris/roots/grease/other removed; the specific type of equipment used; and whether or not follow-up is required. The Division's maintenance program includes proactive, preventive, corrective, and emergency maintenance entries, as well as the quality control measures used.

The CMMS guides the frequency and type of required tasks for future sewer cleaning, CCTV, and maintenance of all pumps/lift stations and related equipment. The frequency and type of assigned tasks are determined based on staff's operational and maintenance expertise, past equipment performance, manufacturer's recommendations and requirements, and all site-specific conditions and environmental factors. Scheduled and completed tasks are cataloged and tracked through a work order system.

Problem sewer locations are identified, prioritized, and scheduled for maintenance based on a comprehensive review of the maintenance history and system characteristics, including: past SSOs, partial stoppages, disproportionate maintenance frequencies, logistics and location, age, types of pipe, soil conditions, ground water tables, elevation (and inclement weather factors), etc. Preventive maintenance activities are also scheduled on pipeline segments with no prior cleaning history and/or no past required excessive maintenance and/or cleaning issues. Preventive maintenance activity is conducted on a less frequent basis for "non-problem" branch and trunk sewer pipelines, at a minimum interval of one cleaning or televising event every five years.

A sample of the Division's cleaning record is attached as Appendix F.

The Division has a proactive preventive maintenance program for its sanitary sewer systems and is focused on critical and/or problematic areas. Preventive maintenance is performed by inhouse staff and includes, but is not limited to: high velocity sewer cleaning, root control, inspection of sewer manholes and facilities, sewer smoke testing, sewer pump/lift station maintenance and inspection, valve exercising, and customer complaint investigation. The Division's sewer main pipelines are divided into three (3) groups: trunk sewers (greater than 16 inches in diameter), branch sewers (16 inches or smaller in diameter), and outfall sewers (varying diameters from a WWTP to disposal site). In general, most sanitary sewer systems maintained by the Division are branch sewers. GRHP sanitary sewer system consists of various sized sewer pipelines. The majority of the wastewater is collected and treated at the Glen Helen Pavilion WWTP. The remaining wastewater comes from some of the campgrounds, RV hook ups and a few restrooms, is collected at 10 septic tanks. For sewer pipeline cleaning, the Division utilizes an evacuator type cleaning truck for removal of debris, roots, grease, and objects from sewer manholes, wet-wells, vaults, and other sewer facilities. Mechanical rodding machines and straight high-velocity cleaners are also utilized in the cleaning process.

Overflows caused by blockages from FOG are monitored by location and by required cleaning frequency. The Division has increased the rotation of cleaning in sewers with repeated FOG related blockages or overflows.

New collection systems are televised through closed circuit television (CCTV) as a preacceptance requirement for the system.

The Division televises 5% of recently cleaned sewer pipelines as a quality assurance procedure to ensure that the cleaning process was effective. This general "Rule" is a set parameter and assumes that the sewer pipeline diameter is a minimum of 95% of the pipe's designed capacity. Any pipeline that falls below the Rule parameter will be re-cleaned and re-televised. If it is determined that the initial cleaning procedures were not conducted properly, the crew responsible for the initial cleaning will be re-trained and tested on equipment operations. Proficiency is the key to every successful program.

When sewer pipelines are cleaned and/or televised, a determination/observation is made on each future cleaning frequency for each line segment. In addition to the Division's routine maintenance activities, including mechanical root removal, the Division has on occasion used environmentally safe chemicals to control the growth of roots in sewer pipelines. The effectiveness of chemical root control treatment is carefully monitored and the frequency of treatment and application rates are adjusted as required, eliminating blockages caused by detached roots. Root intrusion issues are identified and addressed during routine cleaning and/or televising activities. The Division also identifies root intrusion issues during routine visual manhole inspections and during customer complaint investigations. Aggressive root control problems are mitigated through various methods. When mechanically addressed, a hydraulic root cutting tool is operated by way of a high velocity cleaner or a mechanical rodding machine. Other methods may call for pipeline replacement and/or pipe re-lining to prevent re-growth. Chemical root control can be a viable alternative.

Customer complaints are generally handled through the Division office. When a complaint is received the following minimum information is asked of the caller:

• Caller's name, call back number(s), nature of the problem, location of the problem, cross street, whether the problem is still occurring, the best time to call back, and the call time and date when the complaint was received.

Note: If field staff is contacted directly while working in the field, the same information is asked and documented, and the information is forwarded to the office.

• A service order is automatically created, documenting all relevant data for each customer complaint. Customer complaints include: possible sewer stoppages, manhole covers missing or defective, odor issues, and occasionally a report of an SSO.

- Division staff is trained to appropriately and methodically respond to all service orders. The following service order procedures are conducted: time of contact is recorded; location of response; time of arrival; scene assessment; nature of the complaint recorded; actions/solutions recorded; and customer follow-up (if appropriate).
- Service orders issued for known problem sewer locations are typically inspected through CCTV within forty-eight (48) hours. Sewer pipeline capacity is restored and all necessary repairs and/or replacements must be scheduled.

The Division is typically not responsible for sewage stoppages and/or SSOs within customer sewer building laterals.

Rehabilitation and Replacement Program

Division staff assessed the GHRP sanitary sewer system with regard to sewer system capacity. In order to properly maintain and ensure that GHRP's sewer facilities are in working order, the Division plans to have regular visual and CCTV inspection of manholes and sewer pipelines annually. A sample CCTV field data log is attached in this report for reference (see Appendix F).

Training Program

Wastewater spill response and reporting procedure training is required annually for all Division staff assigned to collection systems operations and maintenance.

Mock SSO drills and emergency by-pass pumping drills are scheduled periodically to keep SSO drill-procedures fresh. These drills are performed on an annual basis.

The Division employs and maintains staff that are technically certified under the California Water Environment Association's (CWEA) Program. Certified staff are assigned to collection system operations and maintenance, and available to meet Division needs as they arise. CWEA grade certification equal to or above their position, including: Maintenance Worker I, Maintenance Worker II and Maintenance Worker III.

A California Commercial Drivers License (CDL) is required to be maintained in good standing by Division field staff at all times. The CDL must be a non-restricted Class "A" with tank endorsements (currently, hiring criteria dictates that all open field positions are required to possess a Class "A" non-restricted CDL with tank endorsements within 18 months).

First-Aid/CPR training is required for all Division field staff. This is a requirement per CAL-OSHA; a competent person must be onsite and trained in First-Aid/CPR and able-bodied in order to respond to an emergency when crews are performing a permitted Confined Space Entry that has the potential to become a Confined Space Rescue.

Additional Staff Training Programs

The Division pays/reimburses for the following training:

• Bi-Weekly Tail Gate Training

- California Water Environment Association (CWEA) Training
- Desert and Mountain Section (DAMS) Training
- Internal Weekly Technical Training CEUs Provided
- Monthly Safety Training
- Southern California Alliance of Publicly Owned Treatment Works (SCAP) Training
- Specialty Courses Offered by Vendors
- SSO Emergency Response Drills Semi-annual
- SSO-WDR Compliance Workshop: Electronic Reporting Requirements

The Division pays/reimburses for the following Memberships:

- American Water Works Association (AWWA)
- California Rural Water Association (CRWA)
- California Water Environment Association (CWEA)

Equipment and Part Inventory

The Division maintains an up-to-date inventory list of Emergency Vehicles and Equipment (see Appendix G).

SECTION 5 – DESIGN AND PERFORMANCE PROVISIONS

REGULATORY REQUIREMENTS FOR PERFORMANCE PROVISIONS ELEMENT

The SWRCB requirements for Design and Performance Provisions element of the SSMP are as follows:

The SSMP must identify those items below that are appropriate and applicable to the collection system:

- A. Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances, including the rehabilitation and repair of existing sanitary sewer systems.
- B. Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances, including rehabilitation and repair projects.

DESIGN, CONSTRUCTION AND SPECIFICATION STANDARDS

The District requires that all new sanitary sewer systems, as well as the rehabilitation and repair of existing facilities, be designed and constructed in accordance with the June 1, 1982 San Bernardino County, Special Districts' Standards for Sanitary Sewers (**Appendix E**).

INSPECTION AND TESTING STANDARDS

The Division's inspection and testing standards for new sewers, including rehabilitation and repair projects, are outlined in the June 1, 1982 San Bernardino County, Special Districts' Standards for Sanitary Sewers, Division D, Section 6, entitled "Cleaning and Testing" (**Appendix E**).

SECTION 6 – OVERFLOW EMERGENCY RESPONSE PLAN

REGULATORY REQUIREMENTS FOR OVERFLOW EMERGENCY RESPONSE PLAN ELEMENT

The SWRCB requirements for Overflow Emergency Response Plan element of the SSMP are as follows:

The collection system agency shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment at a minimum. The plan should also include the following:

- A. Proper notification procedures to inform primary responders and regulatory agencies of all SSOs in a timely manner.
- B. A program to ensure appropriate responses to all overflows.
- C. Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities. All SSOs shall be reported in accordance with the monitoring and reporting program (MRP), the California Water Code, Regional Board waste discharge requirements (WDR), and other state/local laws. The SSMP should identify those officials that will receive immediate notifications.
- D. Procedures to ensure that appropriate staff and contractor personnel are trained and adhere to the Emergency Response Plan.
- E. Procedures to address emergency operations, including traffic, pedestrian control, and other necessary emergency response activities.
- F. A program to ensure responsibility for steps taken to contain untreated wastewater and prevent the discharge of untreated wastewater to the waters of the state. The program needs to mitigate any adverse impacts on the environment that may result from SSOs, including the potential need for accelerated or additional monitoring to determine the nature and impact of the discharge.

SUMMARY OF WASTEWATER SPILL RESPONSE AND REPORTING PROCEDURES PLAN

Notification

Should an SSO occur, the Division can be notified through a direct emergency phone number: (800) 554-0565 (**Appendix D**). If a spill occurs after regular working hours, and weekends or holidays, the notification procedure is implemented according to the Emergency Reporting Procedure (**Appendix D**).

Procedure

The Division's policy regarding SSOs includes the following: respond to all SSOs according to

procedure, whether on public property or within easements on private property; and take all necessary steps to prevent and mitigate SSOs from reaching storm drains, flood control channels or waters of the State. SSO response procedures shall be in accordance with the GWDR. On February 2, 2002, the Division developed and implemented a written procedure to respond to all SSOs, titled "Wastewater Spill Response and Reporting Procedure" (Appendix D). These procedures are regularly updated and annually reviewed by the Division. The Wastewater Spill Response and Reporting Procedure 1, 2018.

One Category 1 spill occurred between 2014 and now. SSO 09-07-2019 had a reported spill volume of 7,500 gallons.

Notification to Regulatory Agencies

The Division is required to provide spill documentation and notification of all SSOs to public agencies and officials, refer to the "Sanitary Sewer Overflows Reporting Procedures" (Appendix D). For reference, a sample spill report form is provided in Appendix H of this report.

Staff Training

Refer to SECTION 4 of this report titled "Training Program" for staff training requirements.

Emergency Operations

The Division has an active Wastewater Spill Response and Reporting Procedure for GHRP, addressing emergencies and SSOs. All reports of SSOs are immediately addressed including after-hours, weekends, and holidays. Appropriately trained on-call staff respond to and mitigate such emergencies. A portion of the service contract dollar amount is dedicated for operations activities, including emergency spill response. The Division utilizes evacuator type cleaning trucks, high velocity jetters, portable pumps, CCTV camera equipment, mechanical rodders, and other specialized sewer maintenance equipment. The Division carries inventory to replace parts and materials as needed. The Division maintains a computerized maintenance management information system (CMMIS) to track distribution, re-order parts and inventory, materials, and to track and control part/material inventory as it's distributed and/or used.

Impact Mitigation

In addition to the Spill Response Procedure previously discussed, the Division utilizes containment, control, and clean-up techniques to mitigate adverse impacts on the environment that may result from an SSO. Refer to page 9-10 of the "Wastewater Spill Response and Reporting Procedure" document as detailed in **Appendix D** of this report.

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

REGULATORY REQUIREMENTS FOR FATS, OILS AND GREASE CONTROL PROGRAM ELEMENT

The SWRCB requirements for the FOG Control Program element of the SSMP are as follows:

The collection system agency shall evaluate its service area to determine whether a FOG Control Program is needed. If the agency determines that a FOG Control Program is not needed, then the agency must provide justification. However, if FOG is found to be a problem then the agency must prepare and implement a FOG Source Control Program to reduce the amount of discharged substances into the sanitary sewer system. The FOG Control Program shall include the following, as deemed appropriate:

- A. Implementation of a plan and schedule for public educational outreach programs to promote proper disposal of FOG substances.
- B. Implementation of a disposal method and program for FOG generated within the service area.
- C. Legal Authority to prohibit discharges into the system, identifying measures to prevent SSOs and blockages caused by FOG.
- D. Implementation of requirements for the installation of grease removal devices.
- E. Legal Authority to inspect grease producing facilities.
- F. Implementation of a cleaning maintenance schedule for all identified sewer pipelines known to have FOG blockages.
- G. Development of a source control program for all sources of grease and fats discharged into the sewer system.

SUMMARY OF FOG CONTROL PROGRAM

7.0 Fats, Oils, and Grease Control Program

The Department's Water and Sanitation Division directs the operational functions, construction, and capital improvement programs for ten (10) County Service Areas. Additionally, the Division provides contract service operation, maintenance, and management for multiple public agencies, including GHRP, for their sanitary sewer system facilities and collection systems. The Division's FOG Source Control Program addresses all mandatory SSMP provisions as outlined in Section D, 13 (vii) FOG Control Program of SWRCB Order No. 2006-0003. Further information on the Division's FOG Control Program is provided in **Appendix L**.

The Division's FOG Source Control Program helps reduce the amount of fats, oils and grease discharged into the sanitary sewer system, by including:

- A. The Legal Authority (An Ordinance for Regulating the Use and Construction of Public Wastewater Facilities, Ordinance No. SD-80-9), adopted on December 31, 1980 by ordinance of the Board of Supervisors for San Bernardino County.
- B. Enforcement of compliance is provided through the San Bernardino County, Land Use Services Department, Building and Safety Division with regard to Source Control. Building and Safety utilizes "Appendix H" of the Uniform Plumbing Code titled "Recommended Procedures for Design, Construction, and Installation of Commercial Kitchen Grease Interceptors." Building and Safety's inspector ensures compliance with all FOG related design standards for grease removal devices/structures and ensures that all operation and maintenance requirements are implemented and practiced.
- C. Best Management Practices (BMP) requirements: provided to all businesses that can, or have the potential to, produce FOG; includes record keeping and reporting requirements.
- D. Authority of Division inspectors to inspect grease producing facilities and have the authority to inspect and enforce the FOG Source Control Program.
- E. Identification of all sanitary sewer system pipeline sections subject to the accumulation of FOG that can produce blockages, establishing a cleaning and maintenance schedule for each sewer pipeline section.
- F. Development and implementation of source control measures for all sources of FOG discharged into the sanitary sewer system for each sewer pipeline section identified.
- G. Implementation of a plan and schedule for a public education outreach program that promotes proper disposal of FOG.

SECTION 8 – SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

REGULATORY REQUIREMENTS FOR SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN ELEMENT

The SWRCB requirements for System Evaluation and Capacity Assurance Plan element of the SSMP are as follows:

The Collection System Agency 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, storm or wet weather conditions, and design standards. At a minimum, the plan must include:

- A. Evaluation: Action needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to SSO discharges caused by hydraulic deficiency.
- B. Design Criteria: Where design criteria does not exist or is deficient, undertake the evaluation identified in Item A. above to establish appropriate design criteria.
- C. Capacity Enhancement Measures: The steps needed to establish a short and long term CIP to address the identified hydraulic deficiencies, including: prioritization, alternatives analysis, and completion schedule.
- D. Schedule: The agency shall develop a schedule of completion dates for all portions of the CIP as discussed in Items A thru C above.

SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN DISCUSSION

The Division has determined that GHRP's sewage facilities are designed for build-out capacity. The Division has a proactive program to replace the facilities appurtenances (pipes, pumps, fittings, motors, electrical, etc.) as required. The Division shall routinely and systematically clean the sanitary sewer pipelines according to a schedule to maintain optimum system capacity. San Bernardino County budgets a portion of their annual operating budget for rehabilitation and/or replacement of sewer lines located at GHRP.

The GHRP expects a peak attendance of approximately 3,570 visitors and 74 campers for a total of 3,644 attendees on the busiest weekend. The peak attendance period is during the summer time. The expected peak flow rates from the visitors and campers are 14,263 gallons per day (gpd) and 2,520 gpd respectively. Peak flow rate calculations are provided in Appendix N. The existing sewer system largely consists of sewer laterals and 2" to 8" distribution sewers to the on-site GHRP wastewater treatment facility or the septic tanks. Based on the expected flow rates as well as historical system performance, the system's capacity is expected to be sufficient for the current attendance.

SECTION 9 – MONITORING, MEASUREMENT, AND PLAN MODIFICATIONS

REGULATORY REQUIREMENTS FOR MONITORING, MEASUREMENT, AND PLAN MODIFICATIONS ELEMENT

The SWRCB requirements for Monitoring, Measurement, and Plan Modifications element of the SSMP are as follows:

The Agency is required to:

- 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 deemed appropriate, utilizing and monitoring performance evaluations.
- E. Modify and/or update the SSMP as appropriate in order to keep it current and available for auditing purposes at all times.

MONITORING, MEASUREMENTS, AND PLAN MODIFICATIONS DISCUSSION

The Division proposes to use the following monitoring and performance goals to gauge the effectiveness of the program:

- A. On an annual basis, compare the number of sanitary sewer overflows for each County Service Area and contracted service entity.
- B. Compare the frequency and magnitude of sewer pump/lift station failures and SSOs in each County Service Area and contracted service entity.
- C. On an annual basis, monitor, document and evaluate SSOs for any potential impacts to human health or impacts to the immediate environment in each County Service Area and contracted service entity.
- D. On an annual basis, track the miles of sewer pipeline cleaned in each County Service Area and contracted service entity.
- E. The Division shall maintain a permanent log of complaints regarding collection system overflows and associated odors.

- F. The Division shall maintain a comprehensive cost accounting for all funds related to outside forces or contractors employed for activities required by the SSMP.
- G. The Division shall maintain annual records of Inflow and Infiltration (I/I) to evaluate, per the Environmental Protection Agency (EPA), whether certain portions of the collection system exceed allowable I/I flows per mile.
- H. On an annual basis, the Division shall maintain a separate and comprehensive record of the number of miles of rehabilitated and/or replaced sewer pipeline.

The Division's final performance measure is the overall reduction of SSOs in each County Service Area and contracted service entity, including the reduction of SSO volume and magnitude and the impacts to water quality and the environment.

The Division is dedicated to mitigating and reducing SSOs at each County Service Area and contracted service entity, including the GHRP's sanitary sewer system. The Division tracks and evaluates budgetary requirements that may be needed to accomplish this goal. The San Bernardino County Board of Supervisors approves appropriate budgetary funding to assure that items required by the State of California comply with the regulations for implementation of the SSMP program.

SECTION 10 – SSMP PROGRAM AUDITS

REGULATORY REQUIREMENTS FOR SSMP PROGRAM AUDITS ELEMENT

The SWRCB requirements for SSMP Program Audits element of the SSMP are as follows:

The agency shall conduct periodic audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur once every two years and a report must be prepared and kept on file. Any deficiencies identified by these audits must be corrected and a schedule of corrective measures identified.

SSMP PROGRAM AUDITS DISCUSSION

The Division plans to take a proactive approach to auditing and updating the SSMP. The Division has established an internal policy to perform a comprehensive internal audit once every two years to evaluate the effectiveness of the SSMP elements and its compliance with the SWRCB's Waste Discharge Requirements. The audit will also include a report containing the results of the audits along with recommendations and suggested improvements to the State Water Resources Control Board. The SSMP document will be continuously updated and brought before the San Bernardino County Board of Supervisors for approval as needed or required.

SECTION 11 – COMMUNICATIONS PROGRAM

REGULATORY REQUIREMENTS FOR COMMUNICATIONS PROGRAM ELEMENT

The SWRCB requirements for Communications Program element of the SSMP are as follows:

The agency shall communicate on a regular basis with the public on the development, implementation, and performance of the SSMP. The communication system shall provide the opportunity for public input on the Collection System Agency's program as it's updated and implemented.

COMMUNICATIONS PROGRAM DISCUSSION

The Department's Division Manager will provide interested parties with status updates on SSMP component implementation and will consider comments from sewer system users and other interested parties.

Any action taken on future updates of the SSMP will be communicated to the Division and they will be given the opportunity to provide written and/or oral comments.