RESOLUTION NO. 2023-022

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CORONA, CALIFORNIA, APPROVING THE SEWER SYSTEM MANAGEMENT PLAN AND REPEALING RESOLUTION NO. 2017-010

WHEREAS, the State Water Resources Control Board has adopted Order No. 2006-0003-DWQ, requiring all public wastewater collection system agencies in California that own or operate a collection system comprised of more than one mile of pipe or sewer line, which convey untreated wastewater to a publicly owned treatment facility, to prepare a sewer system management plan; and

WHEREAS, the City of Corona, as the owner and operator of a collection system comprised of more than one mile of pipe or sewer line, is subject to the requirements of Order No. 2006-0003-DWQ; and

WHEREAS, on February 18, 2009, the City Council adopted Resolution No. 2009-018 approving a Sewer System Management Plan for the City of Corona in accordance with the requirements of Order No. 2006-0003-DWQ; and

WHEREAS, Order No. 2006-0003-DWQ requires the Sewer System Management Plan be updated every 5 years and it be recertified by the City Council if significant updates are made; and

WHEREAS, the Utilities Department staff has reviewed and updated the Sewer System Management Plan and now presents the Sewer System Management Plan to the City Council for recertification as required by Order No. 2006-0003-DWQ.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF CORONA, CALIFORNIA, AS FOLLOWS:

SECTION 1. Approval of SSMP. The Sewer System Management Plan attached hereto as Exhibit "A" is hereby adopted and certified, and the Director of Utilities of the City of Corona Utilities Department is authorized and directed to amend the Sewer System Management Plan as necessary to reflect current regulatory requirements and best practices.

SECTION 2. Repeal of Conflicting Resolution. Resolution No. 2017-010 is hereby repealed.

SECTION 3. Effective Date. This Resolution shall become effective immediately upon its adoption.

PASSED, APPROVED AND ADOPTED this 3rd day of May, 2023.

_____

Mayor of the City of Corona, California

ATTEST:

_____

City Clerk of the City of Corona, California

CERTIFICATION

I, Sylvia Edwards, City Clerk of the City of Corona, California, do hereby certify that the foregoing Resolution was regularly passed and adopted by the City Council of the City of Corona, California, at a regular meeting thereof held on the 3rd day of May, 2023 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAINED:

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the City of Corona, California, this 3rd day of May, 2023.

_____

City Clerk of the City of Corona, California

[SEAL]

EXHIBIT "A"

City of Corona
Utilities Department
Sewer System Management Plan (SSMP)
Updated 03-02-2023

[SEE ATTACHED FIFTY (50) PAGES]

City of Corona
Utilities Department

Sewer System Management Plan (SSMP)

Updated 03-02-2023

Table of Contents

SECTION 1.0

GOALS

1.0 GOALS

The Sewer System Management Plan (SSMP) identifies goals the City of Corona Utilities Department has established for the management, operation, and maintenance of the sewer system, and discusses the role of the SSMP in supporting these goals. These goals provide focus for City staff to continue high-quality work and to implement improvements in the management of the City's sewer system.

1.1 REGULATORY REQUIREMENTS

D.13.(i) **Goals**: The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that do occur.

1.2 GOALS DISCUSSION

- Be available and responsive to the needs of the public, and work cooperatively with local, state and federal agencies to reduce, mitigate the impacts of, and properly report sewer system overflows (SSOs).
- Protect public health and safety, and the environment.
- Provide adequate capacity to convey peak wastewater flows.
- Conduct a regularly scheduled maintenance program that will minimize the risk and occurrence of SSOs.
- Identify areas in the sewer system prone to blockages or SSOs and implement scheduled maintenance to remove roots, debris, fats, oils, and grease.
- Identify, prioritize, and continuously renew and replace sewer system facilities to maintain reliability.
- Periodically review and update the SSMP.
- Educate the public on the impacts of fats, oils, and grease to gravity sewer mains to prevent their actions from causing SSOs.
- Uphold the City's standards and specifications on newly constructed public sewers.

SECTION 2.0

ORGANIZATION

2.0 ORGANIZATION

The intent of this section of the SSMP is to identify staff responsible for the implementation of this SSMP, responding to SSO events, and meeting the SSO reporting requirements. This section also includes the designation of the authorized representative responsible for certifying reports in the California Integrated Water Quality System (CIWQS) Online Database.

2.1 REGULATORY REQUIREMENTS

D.13.(ii) **Organization**: The SSMP must identify:

a) The name of the responsible or authorized representative
b) The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and
c) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable.

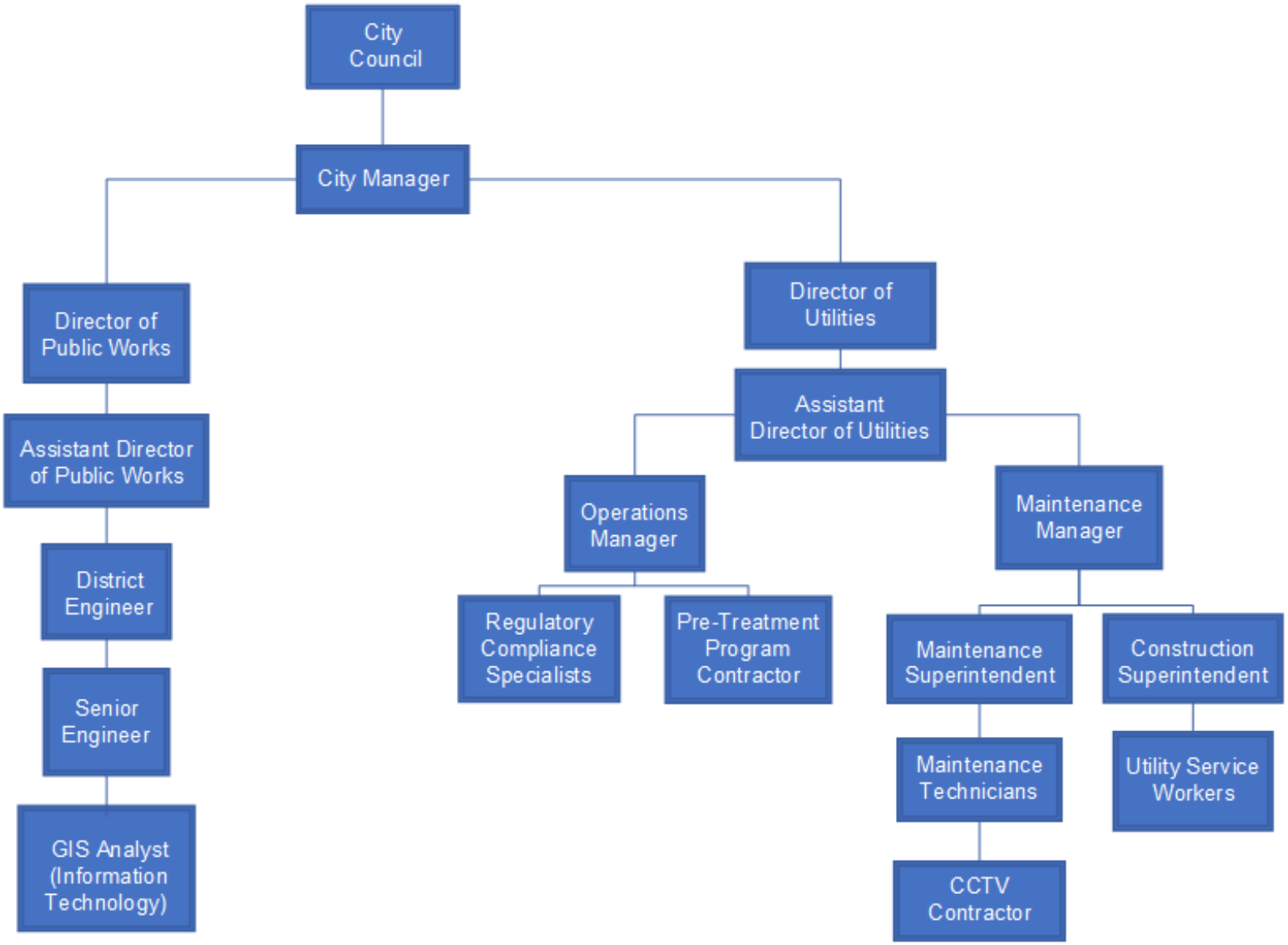
2.3 ORGANIZATION DISCUSSION

The following sections outline the City's organization, general and SSMP responsibilities of personnel, authorized representatives, and chain of communication for responding to and reporting SSOs. Names and contact information for current staff are included in Appendix A. A standby schedule is included in Appendix B.

2.4 ORGANIZATION CHART

City of Corona Utilities Department (UD) is governed by the City Council. Daily management is carried out by the Director of Utilities who oversees the Department.

Sewer System Management Plan
Organization Structure



2.5 DESCRIPTION OF GENERAL AND SSMP RESPONSIBILITIES

Director of Utilities
Under general direction, plans, directs, and integrates the operations of the electric water and wastewater utilities of the City; directs and controls departmental budgets, staffing, and policies; directs intergovernmental relations and participates as member of the City's executive team; and performs related duties as assigned. Is also designated as the Legally Responsible Official (LRO) and can certify reports in CIWQS if needed.

Assistant Director of Utilities
Under administrative direction, plans, manages, and coordinates all related Water, Wastewater and Electric activities. The Assistant Director of Utilities takes on a larger responsibility for all division operations, budgets and staffing, and has a greater level of interfaces with staff, other departments, committees, agencies, the development community, and public officials. Is also designated as the Legally Responsible Official (LRO) and can certify reports in CIWQS if needed.

Operations Manager
Under administrative direction, plans, organizes and manages the operations and maintenance of the City's water and wastewater systems; to include water reclamation facilities, sewer systems, lift stations and facilities; ensures that these operations are in compliance with state and federal requirements; directs budgetary and fiscal operations; formulates programs and projects; oversees field and supervisory staff in wastewater, regulatory compliance, and pretreatment.

Maintenance Manager
The Maintenance Manager position manages and oversees the City's infrastructure and maintenance activities; manages all maintenance and construction capital improvement projects for sewer collection and facility maintenance systems. Controls, implements and manages budgetary and administrative duties of this operation. Oversees the construction superintendent, maintenance supervisor, utility service workers, and CCTV contractors.

Senior Engineer
Approves and coordinates changes needed to the GIS database. Provides QA/QC for changes needed to utility pipeline maps and records changes. Supplies annual quantification updates for the sewer system inventory.

GIS Analyst
Updates, manages, and maintains the GIS database. Coordinates with other City departments.

Construction Superintendent
Under general supervision, plans, schedules, lays out, supervises and participates in the work of skilled, journey-level personnel engaged in the construction, maintenance, repair and servicing of the water distribution/sewer system and recycled water mains, service lines, valves, water meters and related appurtenances; plans, schedules, lays out the work of construction pipeline and special projects; oversees and manages work of outside

contractors involved in the fire hydrant, air vac, blow-offs, and sewer inspection, cleaning and videoing services; leads emergency response, investigates and reports SSOs, trains field crews, notifies Regulatory Compliance Division or regulatory agencies of SSO events when applicable and after normal business hours, and performs other related duties as assigned.

Maintenance Superintendent
Under general supervision, schedules and oversees maintenance of the City's lift stations, water reclamation collection system, water distribution, reclaimed water infrastructure, generators, and related equipment; oversees field staff and performs related duties as assigned.

Regulatory Compliance Specialists
Under general supervision, reviews data and creates reports to display the information; updates plans and procedures to meet new regulations including the SSMP and related documents; compiles and submits SSO reports in CIWQS and verifies that information populated is correct; reviews the SSMP and conducts internal audits; notifies regulatory agencies when applicable during normal business hours, reviews applicable permits, laws, and regulations; provides regulatory support to all parts of the Department; prepares letters for notification to agencies regarding changes occurring at facilities; performs related duties as assigned.

Utility Service Workers
Under general supervision, performs a wide variety of skilled journey level duties involved in the installation, servicing, repair, and maintenance of the City's domestic, commercial, and industrial water distribution and sewer system facilities, systems, and equipment; responds to reports of SSOs and blockages, assists in clean up, spill containment and mitigation during SSO events, mobilizes sewer cleaning equipment, by-pass pumping equipment, and portable generators, provides information on SSOs to the Regulatory Compliance Division when appropriate, and performs related duties as assigned.

Closed-circuit Television (CCTV) Contractor
Inspects, cleans, and videos the sewer system at the enrollee's direction.

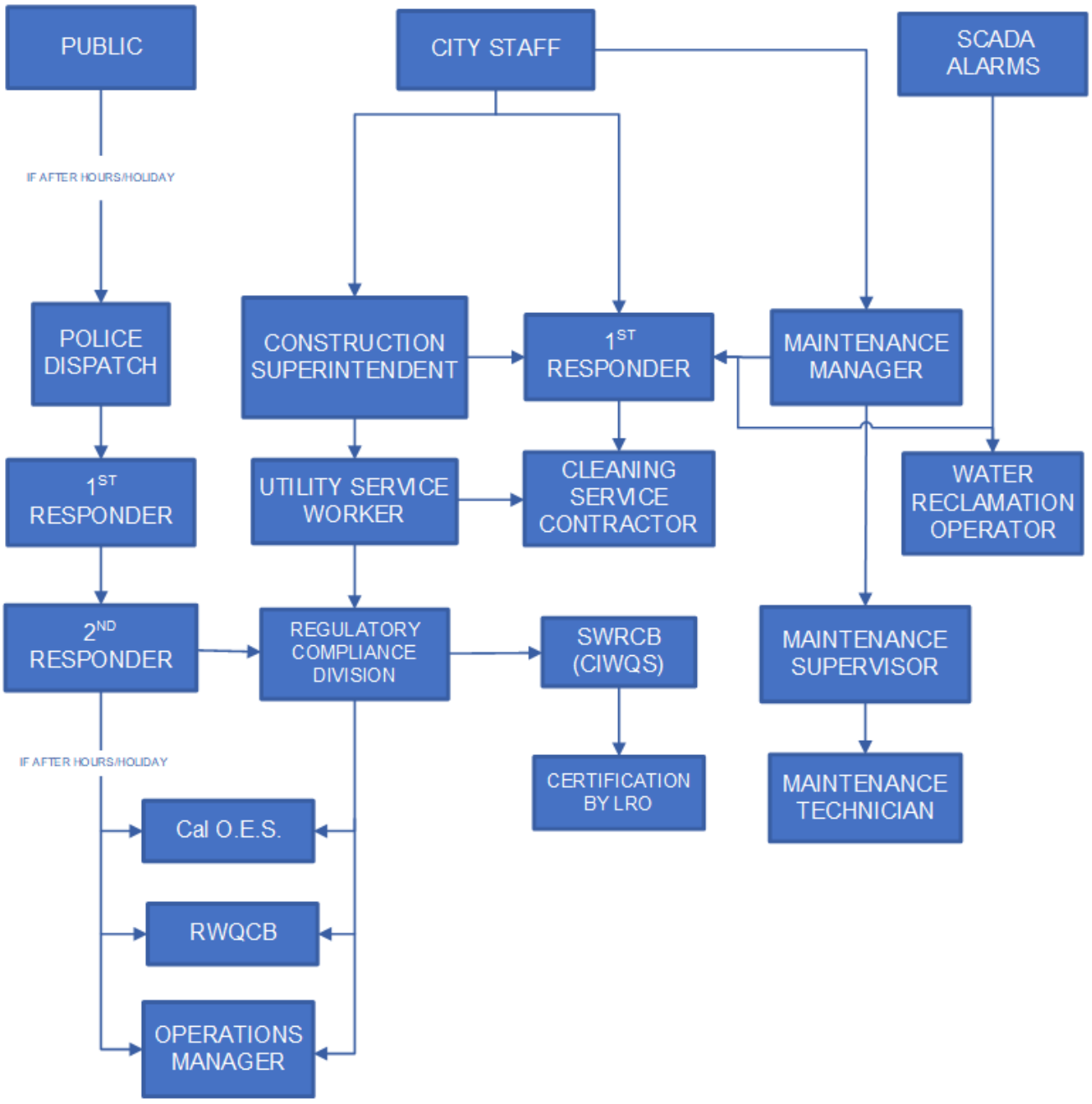
Pre-Treatment Program Contractor
Regulates industrial users for the City, reviews industrial permit applications; conducts wastewater sampling, industry inspections, and issues industrial permits; compiles monthly, quarterly, and annual status reports; regulates and inspects interceptors at restaurants, auto repair shops and car washes; issues verbal warnings and written violations to bring industries into compliance; conducts public education on proper disposal of FOG and BMPs for restaurants, monitoring the addition/removal of interceptors, clarifiers, and traps; Uses the Aquatic Informatics database to store data and manage industrial users and the FOG program; provides assistance with building plan checks, the storm water program, odor complaints, and SSO response/follow up as needed.

Maintenance Technicians
Under general supervision, performs a wide variety of duties involved in the installation, modification, design, maintenance, and repair of mechanical equipment and machinery used in the operation of large surface water treatment facilities, water reclamation facilities, reverse osmosis desalination facilities, sewer lift stations, and reclaimed water pump stations, and potable booster stations; operation/maintenance, including: production, storage and distribution facilities, and chemical system; and performs related duties as assigned.

2.6 SSO CHAIN OF COMMUNICATION

In the event of an SSO, there is a chain of communication from the initial reporting of the SSO to the regulatory agency notifications. The chart below demonstrates the City's chain of communication.

City of Corona
Utilities Department
SSO Chain of Communication



SECTION 3.0

LEGAL AUTHORITY

3.0 LEGAL AUTHORITY

The intent of this section of the Sewer System Management Plan is to establish that the City of Corona Utilities Department has the legal authority to protect public health and the environment while maintaining compliance with waste discharge requirements for sanitary sewer systems.

3.1 REGULATORY REQUIREMENTS

D.13.(iii) **Legal Authority**: Each Enrollee must demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:

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

The City of Corona Utilities Department has the necessary authority to protect its sewer system through Chapter 13.08 and 13.12 of the Corona Municipal Code and Resolution No. 2012-019. The City also runs an EPA approved pretreatment program that administers discharge permits to industrial users who discharge wastewater into the City's water reclamation collection system.

3.2 PREVENTION OF ILLICIT DISCHARGES

The public sewerage ordinance gives the City the authority to prevent illicit discharges.

§ 13.08.210 describes all prohibited waste discharges into the City's sewer system, or any opening, sump, tank, clarifier, piping, or waste treatment system that will drain or flow to the City's sewer system.

§ 13.08.220 gives the City the necessary authority to also prevent discharges and unauthorized debris from entering the City's sewer system and storm drain system.

3.3 SEWER DESIGN AND CONSTRUCTION

The City's public sewerage ordinance, as well as Chapter 13.12 Sewer Connections of the Municipal Code, gives the City authority to regulate the proper design and construction of sewers and connections.

§ 13.08.170 describes the City's authority to establish design requirements for standard interceptor designs and installation.

§ 13.12.070 requires anyone who wishes to connect to the City's collection system to obtain a permit and receive approval from the City before construction.

§ 13.12.180 describes the requirement to comply with sewer construction standards developed by the City.

3.4 MAINTENANCE AND INSPECTION

The City's public sewerage ordinance as well as Chapter 13.12 Sewer Connections of the Municipal Code, ensures the City will have access for maintenance, inspection and repair of publicly owned portions of the City's lateral.

§ 13.12.190 states that any part of the sewer system constructed in a public street, alley, way or right-of-way, will be owned by the City.

3.5 DISCHARGE OF FOG AND DEBRIS

The public sewerage ordinance gives the City the authority to prevent the discharge of FOG and other debris. Additionally, the ordinance (in § 13.08.110 and § 13.08.150) gives the City the authority to require applicable businesses to have oil and grease interceptors.

3.6 ENFORCEMENT

The City has the authority to enforce all violations of its ordinance with specific wording in the ordinance as well as by Resolution No. 2012-019, Pretreatment Program Enforcement Response Plan (ERP), included in Appendix C. The ERP describes the City's approved pretreatment program of investigation and response to incidents where industrial users violate regulation relating to the discharge of wastes into the City's sewer system.

Additionally, the ordinance (in § 13.08.410 and § 13.12.210) gives the City enforcement mechanisms and authority.

SECTION 4.0

OPERATION AND MAINTENANCE PROGRAM

4.0 OPERATION AND MAINTENANCE PROGRAM

The Maintenance Manager leads the Sewer Operations and Maintenance Program and is directly responsible for all day-to-day operations of the sewer system section and oversight control of sewage lift stations, as related to Sanitary Sewer Overflows (SSOs). Responsibilities include construction, installation, pipeline repair projects, inspection, maintenance and support programs, sewer stoppages, and preventive and predictive maintenance. The Construction Superintendent is responsible for supervising and coordinating all work assigned to the utility service workers.

4.1 REGULATORY REQUIREMENTS

D.13.(iv) **Operation and Maintenance Program**. The SSMP must include those elements listed below that are appropriate and applicable to the enrollee's system:

a) Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping-facilities, pressure pipes and valves, and applicable storm water conveyance facilities;

b) Describe routine preventative operation and maintenance activities by staff and contractors; including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders;

c) Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short and long term plans plus a schedule for developing the funds needed for the capital improvement plan;

d) Provide training on a regular basis for staff in sanitary sewer system operation, maintenance, and require contractors to be appropriately trained; and

e) Provide equipment and replacement part inventories, including identification of critical replacement parts.

4.2 SEWER SYSTEM MAPPING

The City of Corona Utilities Department has maps of the existing sewer system. These maps are continually updated and available in the City's Sewer Atlases, which are hard copies of the sewer system map. These maps show all gravity line segments, manholes and their associated identification number, pumping facilities, and pressure pipes and valves. The hard copies of the atlas are derived from a digital atlas that can be accessed through the City's employee website, atwork.coronaca.gov - Geographic Information Services (GIS). All utility service worker crews have their own Sewer Atlas and access to GIS sewer maps on the City's intranet to be able to locate and find specific information about the sewer system. The digital GIS system can generate a *Sewer Features Report* that includes such information as status of facility, installation date, length, diameter, upstream and downstream invert, slope of line, material type, manhole depth and lid size among other things.

The City has a Senior Engineer who coordinates mapping and GIS changes in the City's water and sewer system. Any sewer system addition, replacement, or errors found by City staff in the Sewer Atlas is given to this designated person for correction and proper dissemination with the creation or revision date marked on each page. Additionally, all storm water facilities are mapped in the same fashion as the sewer facilities. In the event of an SSO, the Construction Superintendent and crews can locate storm drains quickly for sand bagging purposes, or can locate where a storm drain is flowing/discharging to (i.e. channel, wetlands, creek, etc.).

4.3 PREVENTATIVE OPERATION AND MAINTENANCE

SSOs occur from time to time for a number of reasons. Utility service workers are responsible for responding to SSOs during regular work hours (Monday thru Thursday). After hour requests for service are received by 911 dispatch and then routed to the on-call first responder. This person responds to and assesses the situation, and if further action is required, the second responder (staff classified as a Supervisor) is called. For further detail please see Section 2.0 and Section 6.0 of the SSMP.

Once the cause of an SSO has been determined, the Maintenance Manager and/or Construction Superintendent will determine if the pipeline and/or facility needs to be placed on a schedule for increased cleaning and inspection and/or if repairs are needed. All SSOs are tracked on a centralized spreadsheet and reported in CIWQS by the Regulatory Compliance Division. Additionally, SSOs are mapped for internal reference and reporting.

Currently all sewer system cleaning and closed-circuit television (CCTV) inspections are contracted out. The contractor(s) utilize state of the art equipment, including CCTV and GIS systems to analyze the entire City sewer and sewage pump station service area. The contractor(s) are hired annually, with the option to renew for up to five years, to video and clean the City's sewer system. The City plans to have the entire sewer and transmission system videoed and cleaned at a minimum of every four years. The City also contracts a company to perform smoke testing of the sewer mainline to find leaks and illegal hook

ups in the sewer system on an as needed basis.

Twenty-one high maintenance areas around the City have been identified and been placed on a monthly or quarterly cleaning schedule. Each manhole cover shall have a green S painted on top to denote that they have been cleaned. High maintenance areas are also mapped for internal reference and reporting purposes.

4.4 Monthly High Maintenance Area Cleaning

1. 1111 W. Sixth Street (Wells Fargo Bank)
   Manhole 3337, 3338, 3277

2. 600 Block Vicentia (East/West Alley)
   Manhole 4005 to 3970 – 450 ft. W. 4000-3970 - 239 ft. E.

3. 220 Kendall (in alley)
   Manhole 4118 to 4098 – 461 ft. W.

4. Rincon East of Main Street (Old Marie Callender's)
   Manhole 4434 to 4433, Reverse clean 4434-4435

5. Main Street at River Road (southbound left turn lane)
   Manhole 4442-8282 – Double Barrell Siphon – 104 ft. x 2

6. 230 W. River Road (at wash)
   Manhole 4398 to 4441 – 344 ft. E.

7. 230 W. River Road (alongside wash)
   Manhole 4397 to 4398 – 107 ft. E.

8. River Road at Kalus (intersection)
   Manhole 3789 to 3796 – 387 ft. N.

9. Third Street between Main and Washburn
   Manhole 4539 - 4535 – 50 ft. S.

10. Taylor at Crestview (intersection)
    Manhole 4174 to 4160 – 288 ft. W.

11. Mount Humphries East of McKinley
    Manhole 7288, 7287, 7286, 7271 South.

12. Corporate Yard Lines
    Manhole 11019-11021, 10475-10478, 3864-3862

13. Grand Blvd. Manhole 4578-4579 185ft.

14. Joy & Parkridge (Intersection) Manhole 4456-4454-4453/ 4452-4451-4453-4424
    Require T.C.

15. E 3rd St. to Quarry (alley behind)
    Manhole 5069 – 5046/ 9296 – 5071

16. Alley between Joy St. and E. Grand
    Blvd Manhole 4621-4620

4.5 Quarterly High Maintenance Area Cleaning

17. 1012 Serene Drive
    Manhole 3782 to 3770 – 209 ft.

18. Green River Rd.
    Manhole 1080-1079-1070-1077-1060-1061-1062

19. 1217 E. Grand Blvd. (in alley)
    Manhole 4605 and 4607

20. Dos Logos Shopping Center
    Manhole 10514-10725, 11044-10719, 11042-10520

21. Corona Ave at the 15 Freeway Overpass
    Manhole 10737

If an SSO occurs, the City has the contractor(s) video and clean approximately 1,000 feet around the affected area and depending on the cause or severity of the SSO, may place the area on a monthly or quarterly cleaning schedule. The City also contracts with a root control company to treat areas identified by CCTV. The contractor foams about 15,000 to 17,000 linear feet of sewer main per year. Additionally, the City contracts with a company to perform insect control by spraying the manholes. The insect control is completed for the entire system at a minimum of every three years.

The latest in Supervisory Control and Data Acquisition (SCADA) technology is employed throughout the City of Corona's various facilities. There are 13 active sewage pump stations throughout the City. SCADA enables continuous monitoring of the flows, levels, pressure, and overall condition of the sewage pumping stations from the City's operations center and all three Water Reclamation Facilities. Additionally, there are set points within the SCADA system that will create an alarm that can be received by water reclamation operators and utility service workers for the purpose of immediate response to the site.

Per the City's Sewer Master Plan dated September 2005, there are several guidelines, as a minimum, for routine and preventative maintenance activities for the sewage pump stations and sewer system that are outlined in Table 1 and 2 below and that have been implemented as described in the paragraphs above.

Table 1

ROUTINE MAINTENANCE
Sewage Pump Station – Weekly:
• Visit pump stations.
• Inspect control panel and verify pump operation.
• Check for signs of vandalism.
• Amp reads on the motors.
• Log all meter readings.
• Inspect wet well and dry well for abnormal conditions.
• Note findings.
Sewer System:
• Continue to video and inspect all sewers within 5 years.

Table 1. From *City of Corona Sewer Master Plan*, AKM Consulting Engineers, September 2005, p. 5-20.

Table 2

PREVENTATIVE MAINTENANCE
Sewage Pump Station - Weekly:
• Test alarms, transducer (LVL), sump pump, and flood alarm.
• Replace and clean filters and filter bowl assembly that supplies water to mechanical seal.
• Check meter for heat and pump for vibration.
Sewage Pump Station:
• De-rag the check valves and pump volute-impeller as needed.
• Pull pumps bi-annually. Inspect impeller and bowls for wear. Change seals or packing as required.
• Exercise valves monthly.
• Check and exercise back-up generator monthly
• Exercise mechanical equipment which normally does not operate weekly.
• Clean wet wells every six months, more frequently in areas with grease, sand or where solids accumulate quickly.
• Check electrical connections annually.
• IR scanning annually.
Sewer System:
• Clean sewers with root intrusion as necessary.
• Clean sewers with grease deposits every 60 - 90 days (this may include siphons and identified “Frequent Maintenance Requiring Facilities”)[1].
• Clean sewers with debris deposits (for low velocity reaches of pipe) every six months.

Table 2. From *City of Corona Sewer Master Plan*, AKM Consulting Engineers, September 2005, p. 5-20 – 5-21.

[1] “Frequent Maintenance Requiring Facilities” are areas of the system that require frequent maintenance and cleaning as reported by City staff and identified in Table 5-7 of the *City of Corona Sewer Master Plan, September 2005*.

Recordkeeping of regular/routine maintenance and preventative maintenance is crucial for maintaining the reliability of the City's sewer system and facilities. The City utilizes an electronic tracking system, NexGen, for all work orders . Additionally, the City utilizes an electronic Maintenance Management System (MMS) that can also allow the City to look at history and has reminders of PM work. The City is continually upgrading to allow these systems to track the work more efficiently.

4.6 REHABILITATION AND REPLACEMENT PLAN

The City has developed a rehabilitation and replacement plan via the *City of Corona Sewer Master Plan, September 2005*. The objective of the Master Plan is essentially, "to evaluate the City's existing sewer collection system and provide a framework for the construction of new and replacement facilities using new modeling tools and the City's most recent 2003 General Plan update." (p. 2-3). The Master Plan identifies several considerations used in determining the useful life of the City's gravity sewers, force mains, and sewage pump stations. These considerations are: type of materials used and recorded performance of similar installations, velocities and flow rates expected in the system, chemical and biological conditions of the wastewater, construction methods and installation quality, frequency, thoroughness, and types of maintenance (p. 4-11).

In order to assess the condition and to be able to recommend rehabilitation and replacement of City facilities, a hydraulic model of the City's sewer system was created with H2OMap Sewer software. The model was based on the City's GIS data that included information on land use, sewer pipe diameters, lengths and invert elevations. The hydraulic model results were able to identify existing sewers in the City that exceeded the capacity criterion and are discussed in Section 5 and listed in Table 5-4 of the Master Plan. Additionally, results of the CCTV inspections were used to identify problem areas around the City and generate a CCTV pipeline assessment summary of 120 locations listed in Table 5-5 of Section 5 of the Master Plan. All sewage pump stations were assessed, graded, and given a priority ranking in regard to rehabilitation and replacement. This summary can be found in Table 7-5 of Section 7 of the Master Plan as well. All assessments were made based on the useful life consideration and performance design criteria, visual inspections, and modeling results that are discussed in further detail in Sections 4, 5 and 7 of the Master Plan.

Based upon the assessments in the Master Plan, a list of Capital Improvement Projects (CIP) was identified and generated. Currently, Managers are working from this 2005 list, however, every year it is reviewed and revised based on the changing needs of the City and regulation. The latest CIP list can be found in the City of Corona Capital Improvement Program for the current Fiscal Year.

4.7 TRAINING

The City is committed to ensuring its field staff has the proper technical skills and safety training programs available to them. Besides specialty conferences offered through

various organizations like the California Water Environment Association (CWEA), the City has several in-house training courses and programs available for its utility service workers. Depending on job description and duties, the City holds several mandatory training programs for City field staff like confined space entry, electrical safety, fall protection equipment, forklift, gas detector, ladder safety, respiratory protection and roadway flagger training, that are tracked through the City's Human Resources Department, Safety Division. Additionally, all crews participate in bi-weekly safety meetings with their supervisors as well as whenever new equipment is issued. These safety meetings require staff to sign in and the sign in sheets are kept to document the safety topic and meetings that individual staff has participated in. The City has also created and provided an online training module entitled, *SSO Response and Reporting*, for all utility service workers and stand-by staff who may respond to an SSO. This training is required annually; however, the City will continually evaluate the need for additional training. The City supports its staff in receiving the necessary training and testing to receive specialized certifications for collection systems.

While the City does not have specified formal training for contractors, City staff does make them aware of the hazards within the system before the start of a job or contract so that contracted staff can be properly trained. The City specifies in its contracts that contractors must be properly trained and that they will be held liable for the consequences of their actions.

4.8 CONTINGENCY EQUIPMENT AND REPLACEMENT INVENTORIES

The City has invested in onsite generators for all lift stations to provide emergency back-up power generation. The City also has the capability to have by-pass pumping in case of lift station failure or blockage/failure of mains. The City's operations division has two portable bypass pumps with hoses and the maintenance division has two Godwin portable bypass pumps and two hose trailers outfitted with hoses, valves, and fittings. The City is capable of completing multiple pipeline repairs and has spare items available at the warehouse such as: spare motors, seals, and valves. This inventory is tracked and maintained through an asset works management program. Additionally, the City has several local suppliers that can supply materials around the clock.

SECTION 5.0

DESIGN AND PERFORMANCE PROVISIONS

5.0 DESIGN AND PERFORMANCE PROVISIONS

5.1 REGULATORY REQUIREMENTS

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

a) Design and construction standards and specifications for the installation of new sanitary sewer systems, pumps stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and

b) Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for the rehabilitation and repair projects.

5.2 STANDARDS FOR INSTALLATION, REHABILITATION, AND REPAIR

The City of Corona Utilities Department has an updated standard plans and specifications and Design Policy. The purpose of the specifications is to achieve uniformity and consistency in materials, equipment and methods of construction for projects in the City. The information is updated on an as needed basis, but not less than every 5 years.

The Design Policy outlines general information and requirements by contractors for plan submittal and construction cost estimates.

The specifications and design criteria include materials, pipe alignment, easements, manholes, minimum sizes, minimum cover, strength, minimum slope, trenching and backfill, lift station design criteria, and structure standards.

5.3 STANDARDS FOR INSPECTION AND TESTING OF NEW AND REHABILITATED FACILITIES

The City of Corona has a full-time staff of qualified inspectors or uses qualified 3rd party inspectors for new installations and repairs. The City utilizes the Standard Specifications for Public Works Construction (Greenbook), latest edition, and the City of Corona Utilities Department Modifications to the Greenbook Specifications or Construction Specifications Institute standard specifications for inspection and testing of new and rehabilitated facilities. The information is updated on an as needed basis, but not less than every 5 years.

SECTION 6.0

SANITARY SEWER OVERFLOW

EMERGENCY RESPONSE PLAN

6.0 SANITARY SEWER OVERFLOW EMERGENCY RESPONSE PLAN

6.1 REGULATORY REQUIREMENTS

D.13. (vi) **Overflow Emergency Response Plan** – Each Enrollee shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:

a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;
b) A program to ensure appropriate response to all overflows;
c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, Regional Water Boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;
d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;
e) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and
f) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

6.2 GENERAL

The Sanitary Sewer Overflow Emergency Response Plan (SSOERP) is designed to ensure that every report of a confirmed sewage overflow is immediately dispatched to the appropriate crews. This way the effects of the overflow can be minimized with respect to impacts to public health and adverse effects on beneficial uses and water quality of surface waters. The SSOERP further includes provisions to ensure safety pursuant to the directions provided by the Utilities Department. Notification and reporting are made to the appropriate local and state authorities. For purposes of this SSOERP, “confirmed sewage spill” is also sometimes referred to as “sewer overflow,” “overflow,” or “SSO.”

6.3 ORGANIZATION OF PLAN

The key elements of the SSOERP are addressed individually as follows:

- Notification and Reporting Procedures
- Response Activities
- Emergency Response, Containment, Clean-Up, and Monitoring
- Training

6.4 NOTIFICATION AND REPORTING PROCEDURES

The City of Corona has developed SSO Notification Procedures to ensure notifications are made in a timely manner to first responders and regulatory agencies. These procedures provide the appropriate agency name, contact person, and phone number for each type of spill category including private spills. Immediate notification to the Office of Emergency Services (OES) and Regional Water Quality Control Board (RWQCB) is required within two hours for all Category 1 spills. A copy of the SSO Notification Procedure is included in Appendix D.

Using data supplied, starting from the initial notification to complete clean-up, the first or second responder prepares initial and final internal SSO Reports. The designated responder will utilize the SSO Incident Response Form (Appendix E) and the SSO Reporting Form (Appendix F) to record all pertinent information on the spill. Within two (2) working days these forms are submitted to the Regulatory Compliance Division for reporting in CIWQS.

During regular work hours the Regulatory Compliance Division is responsible for making notifications to the regulatory agency according to the reporting requirements in the permit. The Regulatory Compliance Division will contact other agencies, if necessary, as well as other interested and possibly impacted parties. After hours, the second responder is responsible for completing the notifications. The Regulatory Compliance Division is responsible for reporting the spill in CIWQS within the specified timeframes. All information supplied to the Regulatory Compliance Division is reviewed for completeness; any missing data is confirmed, and all forms and photos are saved in an electronic file for future reference. The documentation provided is then used to complete an SSO report in CIWQS.

Media Notifications

When an overflow has been confirmed and is a threat to public health, the following actions will be taken, if necessary, to notify the media:

1. First responder or response crew verifies overflow and reports back to the Director of Utilities.
2. The City of Corona Utilities Department Director of Utilities shall be the "first-line" of response to the media for any overflow.
3. Calls received by the dispatcher from the media at any time are referred to the Utilities Department Director of Utilities.

Other Public Notifications
Should the surface water bodies or ground surfaces subjected to a sewer overflow be deemed hazardous and there is a need for further public notification, it can be made through the use of pre-scripted notices. These notices are made available through printed or electronic news media for immediate publication or airing, or by other measures (e.g., front door hangers).

Temporary Signage
The City of Corona has primary responsibility for determining when to post notices of polluted surface water bodies or ground surfaces that result from uncontrolled wastewater discharges from its facilities or service area. If posting is deemed necessary, the County Department of Environmental Health shall be notified. During work hours, the Regulatory Compliance Division should make the notification. The City of Corona shall work with the RWQCB and any other local, state, or federal agencies necessary to ensure effects to the public and environment are minimized.

6.5 RESPONSE ACTIVITIES

The SSO Response SOPs present a strategy for the City of Corona to mobilize labor, materials, tools, and equipment to correct or repair any condition, which may cause or contribute to an un-permitted discharge. The plan considers a wide range of potential system failures that could create an overflow to surface waters, land, or buildings. SSO Response SOPs are included in the appendices.

Receipt of Information Regarding a Sewer Overflow
An overflow may be detected by system employees or by others. The Utilities Department is primarily responsible for receiving phone calls from the public of possible sewer overflows, and for issuing work orders. Generally, telephone calls from the public reporting possible sewer overflows are received during the day by telephone at the Utilities Department. The after-hours emergency phone line is staffed 24 hours per day by the first responder at (951) 830-2391.

The telephone operator or first responder obtains all relevant information available regarding the overflow including:

- Time and date call was received;
- Specific location;
- Description of problem;
- Time possible overflow was noticed by the caller;
- Caller's name and phone number;
- Observations of the caller (e.g., odor, duration, back or front of property); and
- Other relevant information that will enable the responding investigator and crews, to quickly locate, assess, and stop the overflow.

The receiver then records the overflow information in the SSO Incident Response Form.

Lift station failure alarms are monitored and received by Water Reclamation Operators. The operator on duty immediately conveys all information regarding alarms to the Chief Reclamation Operator to initiate the investigation.

Sewer overflows detected by any personnel in the course of their normal duties are reported immediately to the Utilities Department. Dispatching personnel record all relevant overflow information and dispatch responders to investigate and can send additional first responders as needed.

Dispatch of Appropriate Crews to Site of Sewer Overflow
Failure of any element within the sewer system that threatens to cause or causes an SSO triggers an immediate response to isolate and correct the problem. Crews and equipment are available to respond to any SSO location. Crews will be dispatched immediately to any site of a reported SSO. Also, additional maintenance personnel can be placed "on call" in the event extra crews are needed.

1. Dispatching Crews
    - Dispatchers receive notification of sewer overflows as outlined in "Receipt of Information Regarding a Sewer Overflow" and dispatch first responders to investigate and/or the appropriate crews and resources as required.
    - Dispatchers notify the appropriate manager or supervisor, with the quickest communication tool available, regarding sewer overflows and field crew locations.

2. Crew Instructions and Work Orders
    - Utilities Department employees receive instructions from their supervisors regarding appropriate crews, materials, supplies, and equipment needed.
    - Dispatchers verify that the entire message has been received and acknowledged by the crews that were dispatched. All employees being dispatched to the site of a SSO should proceed immediately to the overflow. Report any delays or conflicts in assignments immediately to the supervisor for resolution.
    - In all cases, response crews report their findings, including possible damage to private and public property, to the Maintenance Manager immediately upon making their investigation.
    - If necessary, the site supervisor refers all pertinent information to the next shift, including any details of the problems described by customers.

3. Additional Resources
    - Spill volume is estimated and reported to second responder and Regulatory Compliance Division.
    - Second responder receives and conveys to appropriate parties requests for additional personnel, material, supplies, and equipment from crews working at the site of a sewer overflow.

4. Preliminary Assessment of Damage to Private and Public Property
    - The focus is to resolve the problem. The response crews use discretion in assisting the property owner/occupant as reasonably as they can. Be aware that the Utilities Department could face increased liability for any further damages inflicted to private property during such assistance. The response crew shall not enter private property for purposes of assessing damage. Take appropriate still photographs and video footage, if possible. This should include the outdoor area of the sewer overflow and impacted area in order to thoroughly document the nature and extent of impacts. Forward available photographs to the Utilities Department Regulatory Compliance Division for filing with the SSO Report.

5. Field Supervision and Inspection
    - The supervisor of the first responder, who confirmed the sewer overflow, visits the site of the overflow, to ensure that provisions of this overflow response plan and other directives are met.
    - The supervisor is responsible for confirming that the SSO Report is provided to the Regulatory Compliance Division within two (2) days.

6. Coordination with Hazardous Material Response
    - Upon arrival at the scene of a sewer overflow, if a suspicious substance (e.g., oil sheen, foamy residue) is found on the ground surface, or a suspicious odor (e.g., gasoline) not common to the sewer system is detected, the first responder or response crew should immediately contact the supervisor for guidance before taking further action.
    - Should the supervisor determine the need to alert the hazardous material response team, contact the City of Corona Fire Department at dispatch (951) 736-2221. The first responder or crew awaits the arrival of the appropriate response team to take over the scene. **Remember that any vehicle engine, portable pump, or open flame (e.g., cigarette lighter) can provide the ignition for an explosion or fire if flammable fluids or vapors are present. Keep a safe distance and observe caution until assistance arrives.**
    - Upon arrival of the response team, the first responder or crew takes direction from the lead authority of that team. Only when that authority determines it is safe and appropriate for the first responder and crew to proceed, they can proceed under the SSOERP with the containment, clean-up activities, and correction.

6.6 EMERGENCY RESPONSE, CONTAINMENT, CLEAN-UP, AND MONITORING

Sanitary Sewer Overflows (SSOs) of various volumes occur from time to time in spite of concerted prevention efforts. Spills may result from blocked sewers, pipe failures, or mechanical malfunctions among other natural or man-made causes. The City of Corona

is on alert and prepared to respond upon notification of an overflow. The objectives of these actions are:

- To protect public health, environment, and property from sewage overflows and restore surrounding area back to normal as soon as possible;
- To establish perimeters and control zones with appropriate traffic cones and barricades, vehicles, or use of natural topography (e.g., hills, berms).
- To promptly notify the Regulatory Compliance Division during work hours, or if after hours, the regulatory agencies of the preliminary overflow information and potential impacts;
- To contain the sewer overflow to the maximum extent possible including preventing the discharge of sewage into surface waters; and
- To minimize the City of Corona's exposure to any regulatory agency penalties and fines. Under most circumstances, the City of Corona handles a majority of response actions with its own maintenance division. They have the skills and experience to respond rapidly and in the most appropriate manner. An important issue with respect to an emergency response is to ensure that the temporary actions necessary to divert flows and repair the problem do not produce additional problems elsewhere in the system. For example, repair of a force main could require the temporary shutdown of a pump station and diversion of the flow at an upstream location. If the closure is not handled properly, sewage system backups may create other overflows.

The City contracts a company to clean and CCTV the sewer system throughout the year and to aid the City during SSO events. If additional vactor trucks are needed, this contractor can be called to assist with an SSO and is usually already within City limits, which provides quick response, containment, and clean-up. The City also maintains contracts with restoration companies for emergency services. The Four C’s - containment, control, call, and clean-up - are used during any SSO event and included in Appendix K.

Circumstances may arise when the City of Corona could benefit from the support of private-sector construction assistance. This may be true in the case of large diameter pipes buried to depths requiring sheet piling and dewatering should excavation be required. The City of Corona may also choose to use private contractors for open excavation operations that might exceed one day to complete.

First Responder Responsibilities

It is the responsibility of the first personnel who arrive at the site of a sewer overflow to protect the health and safety of the public by mitigating the impact of the overflow to the best extent possible. Should the overflow not be the responsibility of the City of Corona but there is imminent danger to public health, public or private property, or to the quality of waters of the U. S., the City of Corona takes prudent emergency action until the responsible party assumes responsibility and provides actions. Upon arrival at an SSO, the response crew:

- Determines the cause of the overflow, e.g. sewer line blockage, pump station

mechanical or electrical failure, sewer line break, etc.;
- Take immediate steps to contain the overflow - e.g., block or bag storm drains, recover through vacuum truck, divert into downstream manhole, etc.
- Determines the immediate destination of the overflow - e.g. storm drain, street curb gutter, body of water, creek bed, etc.
- Recover where possible sewage which has already been discharged. This can aid in minimizing impacts to public health or the environment.
- Estimates the volume and the flow and reports to second responder and Regulatory Compliance Division.
- Determines if private property is impacted. If yes, inform the Construction Superintendent.
- Takes immediate steps to stop the overflow, e.g. relieves pipeline blockage, manually operates pump station controls, repairs pipe, etc. Extraordinary steps may be considered where overflows from private property threaten public health and safety (e.g., an overflow running off of private property into the public right- of-way);
- Takes appropriate measures to protect the health and safety of affected public and/or property.

The second responder has the responsibility of identifying and requesting, if necessary, assistance or additional resources to correct, contain, or isolate the overflow or to assist in the determination of its cause. Sewer overflow rates to aid in volume estimation are included in Appendix K along with the Four C's.

Additional Measures under Potentially Prolonged Overflow Conditions
In the event of a prolonged sewer line blockage or a sewer line collapse, set up a portable by-pass pumping operation around the obstruction.

- Take appropriate measures to determine the proper size and number of pumps required to effectively handle the sewage flow.
- Implement continuous or periodic monitoring of the by-pass pumping operation as required.
- Address regulatory agency issues in conjunction with emergency repairs.

Clean-up
Clean sewer overflow sites thoroughly after an overflow. No readily identified residue (e.g., sewage solids, papers, rags, plastics, and rubber products) is to remain.

- Where practical, thoroughly flush the area and clean off any sewage or wash- down water. Solids and debris are to be flushed, swept, raked, picked-up, and transported for proper disposal.
- Secure the overflow to prevent contact by members of the public until the site has been thoroughly cleaned.
- Where appropriate, disinfect and deodorize the overflow site.
- Where sewage has resulted in ponding, pump the area dry and dispose of the residue in accordance with applicable regulations and policies.

- If a ponded area contains sewage which cannot be pumped dry, it may be treated with bleach. If sewage has discharged into a body of water that may contain fish or other aquatic life, do not use bleach or other disinfectants.

Monitoring
If more than 50,000 gallons of untreated or partially treated sewage is spilled to surface water, then water quality monitoring is required within 18 hours after initial notification. The SSO Water Quality Monitoring SOP is included in Appendix L. Results of the water quality monitoring along with an SSO Technical Report will be uploaded to CIWQS by the Regulatory Compliance Division staff.

6.7 TRAINING

All first and second responders are appropriately trained to respond to SSOs and are required to review training materials annually. Each responder is provided a field guide which includes all SOPs, notification procedures, reporting forms, and reference material. Internal staff are trained on appropriate response actions should they receive notification by phone or email of a possible SSO. All contractors are instructed to immediately notify Corona Utilities Department in the event of an SSO.

SECTION 7.0

FATS, OILS, AND GREASE (FOG) CONTROL PROGRAM

7.0 FATS, OILS, AND GREASE (FOG) CONTROL PROGRAM

7.1 REGULATORY REQUIREMENTS

D.13.(vii) **Fats, Oils, and Grease (FOG) Control Program**: Each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed, the Enrollee must provide justification for why it is not needed. If FOG is found to be a problem, the Enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. This plan shall include the following as appropriate:

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

The City of Corona Utilities Department (UD) established an ongoing FOG control program with the proper authority to regulate and run the program effectively. The City retains the services of G&G Environmental Compliance, Inc. to maintain and implement the City's EPA approved Source Control/Pretreatment Program.

7.2 PUBLIC EDUCATION OUTREACH

The City has a comprehensive public outreach program for residential and commercial customers that consist of: utility bill inserts, door hangers, Facebook and Twitter,

newsletters, LED signs, and community events. All information is available in English and Spanish.

The City's public outreach program includes information on proper disposal of FOG for residential, commercial, and industrial dischargers. An educational FOG bill insert is mailed out to all customers and is available on our website (see Appendix M). This bill insert informs customers why it is not appropriate to dispose of fats, oils, and grease down the drain and the consequences for dumping these products down the drain. Additionally, staff in the Source Control Division created two flyers; one on Best Management Practices (BMPs) for restaurants (Appendix N) and the other for automotive repair (Appendix O). These BMPs educate commercial and industrial dischargers on limiting pollutants discharged into the sewer system which includes oil and grease. The BMP flyers are provided to customers during interceptor inspections and are included with the restaurant questionnaire (Appendix P).

The City also has an ongoing public awareness campaign to encourage proper disposal of unused medications. The "No Drugs Down the Drain" program includes bill inserts, banners, LED signs within the community, letters, magnets, and brochures to pharmacies and doctor's offices in Corona.

Educational outreach material is posted on the City of Corona Utilities Department's website under the learn more tab. In addition, the fliers and brochures are handed out at numerous events throughout the year reaching thousands of households.

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A variety of other public outreach materials and programs are made available to residential customers through Western Riverside Council of Governments (WRCOG).

7.3 LEGAL AUTHORITY

The City has the legal authority to prohibit the discharge of FOG into the sanitary sewer system. FOG is explicitly prohibited in Municipal Code Chapter Chapter 13.08 - Public Sewerage System Waste Regulations. The City has the authority per § 13.08.160 to inspect and sample all users' interceptors and requires customers to make their interceptors immediately accessible at all times for inspection by the City. The City has the legal right to enforce this ordinance by way of its Enforcement Response Plan (ERP) (*Appendix C*).

7.4 FOG DISPOSAL

The City requires all businesses with a gravity separation interceptor to properly maintain the interceptor at all times. The interceptor shall be cleaned as often as necessary to ensure that sediment and floating materials do not accumulate to impair the efficiency of the interceptor. An interceptor is not considered to be properly maintained if for any reason the interceptor is not in good working condition or if the operational fluid capacity has been reduced by more than 25% by the accumulation of sediment and floating oils and greases.

The City does not accept FOG at any of its facilities but can provide a list of local waste haulers upon request. When an interceptor is cleaned, the removed sediment and floating material shall be legally disposed of and shall not be placed or discharged into the sewer system. Records of the interceptor cleaning are required to be available on- site for review for three years.

The City utilizes an outside contractor to clean and video the City's sewer system. The waste collected during the cleaning is disposed of at Water Reclamation Facility No. 1 in a designated refuse area. No grease is allowed to be disposed of in the City's sewer system or at the City's Publicly Owned Treatment Works (POTW).

7.5 GRAVITY SEPARATION INTERCEPTORS (GREASE REMOVAL DEVICES)

The City requires applicable businesses to have an appropriate grease removal device. Section 13.08.110(C) of the Municipal Code states that, "All restaurant wastewater and wastes from floor drains, floor sinks, sinks, waste container wash racks, dishwashers and garbage grinders to be directed through a minimum 750-gallon gravity separation interceptor." Additionally, § 13.08.150 states that, "Any person that operates or maintains a facility for the servicing or repair of roadway machinery, industrial transportation equipment, motor vehicles or any other facility as required by the Director of Utilities shall install and maintain a gravity separation interceptor."

The City references the 2019 California Plumbing Code Section 1014.0 for grease interceptor design standards and the Municipal Code interceptor design requirements in § 13.08.170. Interceptor maintenance requirements are included in § 13.08.180. All businesses with interceptors are scheduled to be inspected on a quarterly basis, but at a minimum frequency of at least once a year. All businesses must fill out business use questionnaires or if new, an industrial wastewater questionnaire, which is then passed on to the Source Control Division who evaluates the need for a grease removal device.

The City's Source Control/Pretreatment Program is self-supporting; § 13.08.390 of the Municipal Code states that, "The City is authorized to recover costs from users for the implementation of the City's pretreatment program. These fees relate exclusively to matters covered by this chapter and are separate from all other fees chargeable by the City."

While developing the original SSMP, the City became aware of the importance in holding all FOG dischargers accountable for all aspects of their interceptor maintenance. Thus, the City determined that FOG dischargers needed to be charged to cover staff inspection time, ability to keep the source control program self-sufficient, and to maintain consistency with the rules and regulations as outlined in 40 CFR 403, Protection of the Environment. The inspection fees, as approved by the City Council, are based on the time the source control inspector spends on a typical FOG discharger's interceptor over a one-year period.

7.6 MAINTENANCE AND CLEANING SCHEDULES

Areas that have a sanitary sewer overflow as a result of FOG or that are known to have frequent build up of FOG in the sewer system are placed on a maintenance and cleaning schedule. The frequency varies depending on the severity of FOG buildups in the area. See *Section 4.0, Operation and Maintenance Program,* for further details regarding maintenance and cleaning determination and schedules.

If a particular area is experiencing frequent sanitary sewer overflows or a problem is observed in the sewer line, the City has developed a door hanger which would be distributed in the immediate area. The door hanger (Appendix Q) indicates the problem observed and what can be done to solve the problem, along with ways residents can prevent sanitary sewer overflows.

7.7 FOG PROGRAM IMPLEMENTATION

The City maintains sufficient staff to enforce and implement the source control program. There is always at least one inspector that is actively monitoring the source control program on a daily basis. All FOG generating facilities that have an interceptor device are inspected on a quarterly basis, or annually at a minimum, to ensure the interceptors are being maintained properly. All of these inspections are recorded into the Aquatic Informatics database which tracks nearly 485 active devices throughout the City. In 2015, all monitored facilities were divided into 6 zones to improve the efficiency of the FOG inspections. Approximately 1,800 FOG inspections are conducted per year.

SECTION 8.0

SYSTEM EVALUATION

AND

CAPACITY ASSURANCE

PLAN

8.0 SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

This information is contained with the Utilities Department's Sewer Master Plan.

8.1 REGULATORY REQUIREMENTS

D.13.(viii) **System Evaluation and Capacity Assurance Plan**: The enrollee shall prepare and implement a capital improvement plan (CIP) that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. At a minimum, the plan must include:

a) Evaluation: Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events;

b) Design Criteria: Where design criteria do not exist or are deficient, undertake the evaluation identified in "a" above to establish appropriate design criteria; and

c) Capacity Enhancement Measures: The steps needed to establish a short- and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.

d) Schedule: The enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in "a"-"c" above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D-14.

Flow monitoring programs, hydraulic condition assessments, master plans, and capital improvement programs are essential elements of the City's System Evaluation and Capacity Assurance Plan. The City's efforts to evaluate the hydraulic capacity of the system to prevent capacity related SSOs are summarized in the City's Sewer Master Plan adopted by Council Action in 2005.

The City's sewer system has sufficient capacity to handle peak dry weather flows and has not experienced any wet weather overflows. In addition, through proactive efforts, dry weather overflows have decreased. However, some dry weather overflows continue to occur due to tree roots, grease blockages, and vandalism. The City has eliminated dry weather overflows resulting from power outages or equipment failures.

The City has an on-going dry and wet weather flow monitoring program. The City owns and operates thirteen (13) sewage lift stations located throughout the City. All of the lift stations are maintained and operate reliably.

8.2 SYSTEM WIDE ADVANCED PLANNING

The City Sewer Master Plan was completed in September 2005. It is a long-term, forward-looking planning tool. It evaluates the existing and future system conditions and provides a footprint and planning guidance for the wastewater collection and conveyance system. The analysis of the City's ultimate gravity sewer system was based upon general plan land uses (year 2020).

8.3 CAPITAL IMPROVEMENT PROGRAM

The ultimate goal of the capital improvement program is to provide the City with a long-range planning tool, to orchestrate construction of infrastructure improvements in an orderly manner, and to keep pace with the City's growth. Capital improvement projects have been developed based upon the results of the hydraulic analyses, physical inspection of the lift station facilities, CCTV inspections, and review and City's CIP projects.

Projects recommended in the City's Sewer Master Plan are prioritized according to their importance. Project schedules outlined in the Sewer Master Plan are recommendations and are routinely reviewed and prioritized based on variety of reasons. Some of those reasons are as follows:

- Technical analysis
- Financial considerations
- New or changing needs

8.4 SCHEDULE OF SEWER MASTER PLAN UP-DATES

The City's Sewer Master Plan is a living document and is updated on an on-going basis or at least every five (5) years.

SECTION 9.0

MONITORING, MEASUREMENT, AND PROGRAM MODIFICATIONS

9.0 MONITORING, MEASUREMENT, AND PROGRAM MODIFICATIONS

9.1 REGULATORY REQUIREMENTS

D.13. (ix) **Monitoring, Measurement, and Program Modifications**: The enrollee shall:

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

The City of Corona Utilities Department has multiple ongoing programs that support the collection and management of data and information essential to successful implementation of its SSMP.

The City's information management systems are an integral and essential element of the operation and maintenance program. Information regarding sewer conditions and overflows are reported to the City's GIS system. The City's contractor continuously flushes and televises the City's sewer system. All closed-circuit television (CCTV) records are submitted to our GIS staff. The information is updated into the system regularly.

Every area where a sanitary sewer overflow occurs is televised and evaluated for possible causes. The video is also evaluated for future problems that may occur due to some type of activity that may be occurring, such as roots, grease, fractures in pipes, etc. The appropriate repairs are made when any deficiencies are discovered. The City's GIS system includes the ability to watch CCTV activity in areas of concern, including seeing video. The majority of the film is taken at least 1000 ft. upstream of the overflow. The contractor submits a video of the sewer line to the City which includes voice records of identified items and distances within the pipe segment. All SSOs are reported to the SWRCB through CIWQS.

The City uses performance indicators by tracking the following;

- Number of SSOs
- Volume distribution of SSOs (e.g. number of SSOs <100 gallons, 100 to 999 gallons, <1,000 gallons, etc.)
- Number of SSOs over a 12-month period
- Number of private SSOs compared to actual City SSOs and gallons spilled
- Cause of blockages
- Volume recovered compared to volume unrecovered

The SSMP is reviewed and updated as needed, and at a minimum every five years. Any changes are noted in the SSMP Change Log, which is included in Appendix R of the SSMP. Internal audits are conducted every two years to assess the effectiveness of each element of the SSMP and identify and illustrate SSO trends.

SECTION 10.0

SSMP PROGRAM AUDITS

10.0 SSMP PROGRAM AUDITS

10.1 REGULATORY REQUIREMENTS

> D.13.(x) **SSMP Program Audits**. As part of the SSMP, the Enrollee shall conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the Enrollee's compliance with the SSMP requirements identified in this subsection (D.13.), including identification of any deficiencies in the SSMP and steps to correct them.

This section requires the Utilities Department to develop an audit program on the effectiveness of the Sanitary Sewer Management Plan.

The responsible individuals who conduct the internal audit are the Regulatory Compliance Division staff in conjunction with the Maintenance Manager and/or the Construction Superintendent. Internal audits are conducted at a minimum frequency of every two years using the audit form included in Appendix S.

SECTION 11.0

COMMUNICATION PROGRAM

11.0 COMMUNICATION PROGRAM

11.1 REGULATORY REQUIREMENTS

D.13. (xi) **Communication Program**. The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.

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

The City of Corona Utilities Department maintains a website with information about the Department, the various programs and services, contact information, newsletters, public outreach materials, latest news, events, and the current SSMP. The City of Corona's primary "customers" are the residential, industrial, and commercial users. Customers can contact the Department by phone or email with questions or feedback on various Department programs. Additionally, the SSMP is brought to a public City Council meeting for adoption when significant updates are made and at a minimum frequency of every five years. The City also has a plan for communication with systems that are tributary and/or satellite to the sanitary sewer system.

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The City of Corona conducts public outreach and education to residents and businesses related to sanitary sewer overflows, preventing grease blockages, and Best Management Practices for handling grease waste. Customer outreach includes bill inserts, newsletters, public events and an annual consumer confidence report. In addition, the City's Source Control Program inspects food service facilities quarterly for compliance with Best Management Practices and grease removal device maintenance and distributes educational materials during these inspections. The City also conducts plan checks for all new and remodeling restaurants and other food service facilities.

Internally, the City will communicate within various Departments, such as Regulatory, Public Works, Building and Code Enforcement regarding the overall Sewer System Management Plan, program audits, emergency response plan, FOG program, and design standards.

Plumbers and sewer contractors have access to all available City of Corona plans, specifications, and standard details.

SSMP APPENDICES