SEWER SYSTEM MANAGEMENT PLAN (SSMP)

for the

OTAY**WATER**DISTRICT

2554 SWEETWATER SPRINGS BOULEVARD
SPRING VALLEY, CALIFORNIA 91978-2004
www.otaywater.gov

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SECTION I - GOALS

The Requirement[1]

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 to reduce and prevent sanitary sewer overflows (SSOs), as well as mitigate any SSOs that do occur.

Goals

1. Properly manage, operate and maintain all parts of the wastewater collection system to provide reliable and uninterrupted service 99% of the time.

2. Provide adequate capacity for the Otay Water District (District) to convey peak flows and reduce annual inflow and infiltration in the collection system.

3. Take all feasible steps to eliminate or reduce SSOs to less than two (2) per year, declining over time to zero.

4. Mitigate the impact of SSOs utilizing safe, practical, proven and effective methods.

5. Set up Overflow Emergency Response Program and provide Operations and Maintenance (O & M) training for all personnel who are involved in responding to Sewer System Overflows.

DISTRICT BACKGROUND

Sanitary Sewage Collection, Treatment and Disposal

The District provides sewer service to approximately 15,200 customers through 4,630 accounts located in the northern section of the District. The District operates and maintains the sewage collection system serving Rancho San Diego, Singing Hills and portions of Mount Helix within the Upper Sweetwater River Basin, also known as the Jamacha Basin. Residential customers comprise 98.5% of the customer base. Commercial accounts, including restaurants comprise 1.5% of the sewer customer base.

[1] State Water Resources Control Board (SWRCB) Order No. 2006-0003-DWQ § D.13 (i)

Modest growth of 1.2% is anticipated in each Fiscal Year from FY 2012 through FY 2016. Wastewater collection within the Jamacha Basin is provided by two agencies: the Otay Water District and the Spring Valley Sanitation District. Customers in the basin, not served by either agency, dispose of their sewage through septic tanks.

After the sewage has been collected by the District, it is sent to the District's Ralph W. Chapman Water Recycling Facility (RWCWRF) treatment plant where the District produces recycled water. The solid by-product of this treatment process is called sludge and it is discharged by the District to the San Diego Metropolitan Wastewater (Metro) and the Spring Valley Sanitation District systems.

Sanitary Sewage Overflow Reduction

The District is fully committed to reducing SSOs in order to decrease the risk to both human health and the environment. The number and size of SSOs generally can be reduced, if not prevented, through the application of sound and appropriate operation, infrastructure maintenance, and management principles to wastewater collection systems.

In accordance with SWRCB, Order No. 2006-0003 of May 2006 entitled, and associated supplements and regional requirements to, "Statewide General Discharge Requirements for Sanitary Sewer Systems," all sanitary sewer systems over one mile in length are required to implement a Sanitary Sewer System Management Plan (SSMP).

The District took formal board action on November 7, 2007 to approve their Plan and Schedule to implement their District-wide Sewer System Management Plan (SSMP). The District's board-approved and certified Plan and Schedule is included as Appendix A-1.

In addition the District will follow the requirements of the San Diego Region's supplements to the "Statewide General Discharge Requirements" pursuant to their letter of March 2007. Both of these documents are included in Appendix B.

The District has developed and implemented this District-wide SSMP. It includes the applicable elements that provide for the proper and cost effective management, operation, and maintenance of its collection systems, while taking into consideration risk management and cost benefit analysis.

The District has already implemented measures to reduce SSOs to less than two per year with the ultimate goal of zero SSO's per year. The second goal of the District's implementation of the SSMP is to provide reliable and uninterrupted sanitary sewer service to our customers at least 99% of the time.

SECTION II - ORGANIZATION

Requirement[1]

The referenced State Order requires the following:

(a) The name of the responsible or authorized representatives as described in Section J of the May 2006 Order.

(b) The names and telephone numbers for management, administrative, and Maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and

(c) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (OES)).

Supporting Documents

A narrative of the organizational responsibilities, a list of the key staff members and an organizational chart is included in this section.

a. List of responsible staff members in the District and the Operations Department.	List of Management and Responsible District Staff District Organizational Chart of Operations Department
b. Phone list of responsible staff members.	Phone List of Responsible District Staff and Management
c. The chain of communication for reporting SSOs.	Otay Water District. Sanitary Sewer Overflow Response and Reporting Work Flow Plan.

[1] SWRCB Order No. 2006-0003-DWQ § D.13 (ii)

Otay Water District

Operations Department

List of Management and Responsible District Staff:

General Manager, responsible for the overall operation of the District and all of its employees, finances, functions and operations. Reports directs the District's Board of Directors**.**

Assistant General Manager, Oversees all aspects of the operations and engineering departments within the District, including water, sewer, recycled water, treatment, design, construction, inspection, development, inspection operations, engineering and capital projects.

Chief, Water Operations will ensure that new and rehabilitated assets meet required standards, will assure that staff is trained as required by SSMP standards, will prepare for working with District field crews to handle emergencies when contractors are involved and provide verbal reports to the Board and General Manager's office.

Utility Maintenance Supervisor and/or Reclamation Plant Supervisor manages field operations and maintenance activities, provides relevant information to agency management, prepares and implements contingency plans, leads emergency response, investigates and reports SSOs and trains field crews

Systems Operations Manager and/or Utility Services Manager oversees all work needed to complete the operations training required by the SSMP, compile and include the updated operations information into the SSMP and coordinate with the assigned Engineering Staff, oversee all field operations, responses, activities and report to the Chief, Water Operations**.**

Lead Reclamation Plant Operator. will staff preventive maintenance activities, mobilize and respond to notification of stoppages and SSOs (mobilize sewer cleaning equipment, bypass pumping equipment, and portable generators).

Reclamation Plant Operator. The Reclamation Plant Operator(s) responding to the spill is responsible for applying best management practices for spill containment until the Utility Workers arrive with collection system maintenance equipment. The Reclamation Plant Operator provides the Utility Workers with any additional information on the spill obtained after they arrive on site. The plant operator also operates/troubleshoots lift station equipment and/or uses blockage-removal hand tools to remove the cause or lessen the severity of the spill. Additionally, the plant operator captures all field data used for reporting and forwards it to the Lead Operator and/or Plant Supervisor

Utility Crew Workers. The Utility Workers assigned to the collection system on a long-term basis are responsible for responding to the spill when notified, removing blockages, and determining the cause of the spill

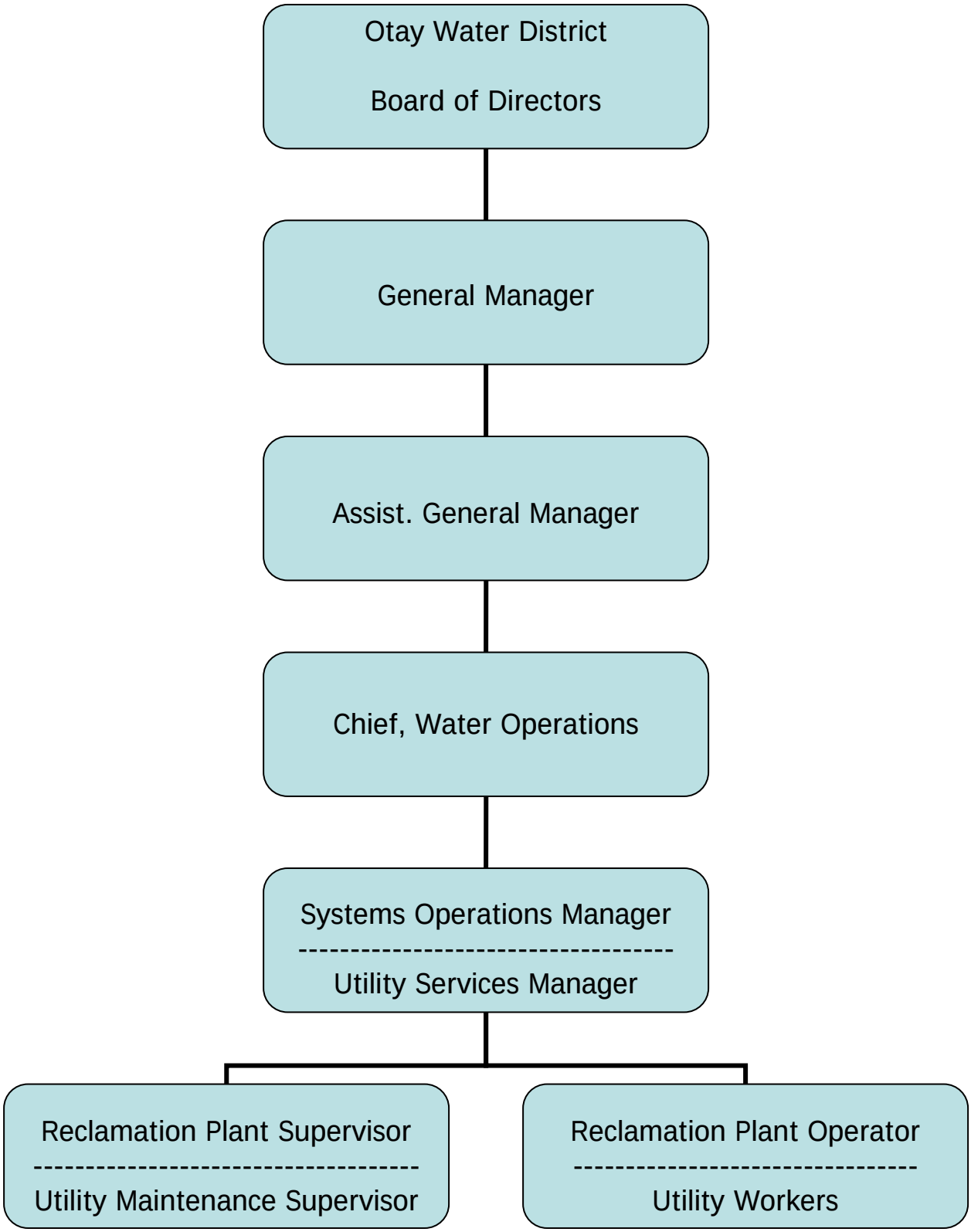
After normal working hours the standby Reclamation Plant Operator directly notifies the standby-duty Utility Crew Leader who will then call their standby Utility Worker crew to respond to the overflow site.

Operations Secretary. During normal working hours the Operations Secretary receives a call from an outside or inside source and creates an IMS work request to the Reclamation Plant Supervisor, then makes contact with the supervisor or Lead Reclamation Plant Operator, or any available Reclamation Plant Operator

After normal business hours the answering service receives a call from an outside source and notifies the standby duty Reclamation Plant Operator

The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program are listed below followed by an organization chart which identifies lines of authority.

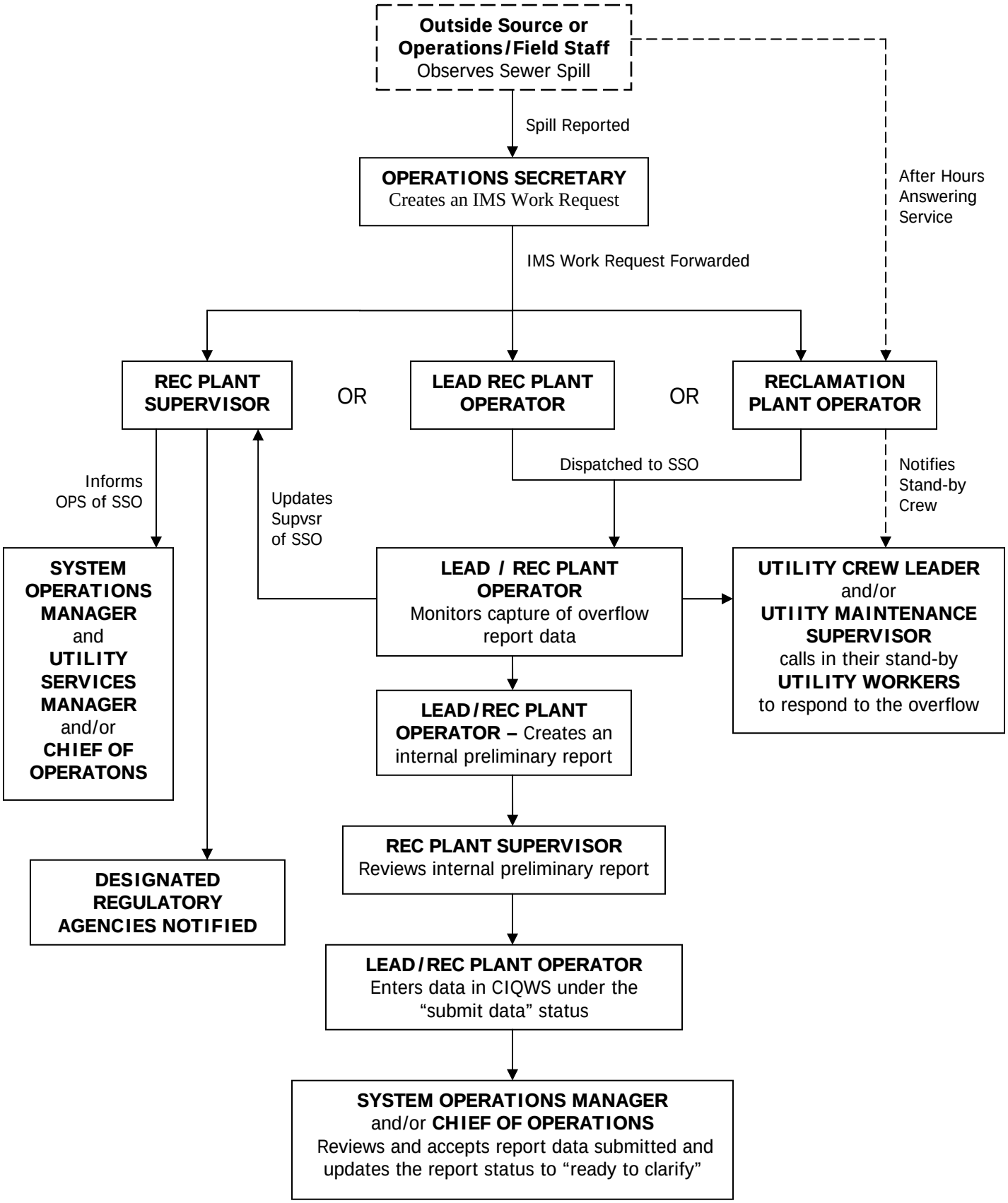
EXHIBIT II-A
District Organizational Chart of Operations Department



Phone List of Responsible District Staff and Management

General Manager -	Mark Watton	619-670-2210
Assistant General Manager -	German Alvarez	619-670-2286
Chief, Water Operations -	Pedro Porras	619-670-2224
Systems Operations Manager -	Gary Stalker	619-670-2228
Utility Services Manager -	Jose Martinez	619-670-2235
Utility Maintenance Supervisors	Tadeo Vasquez	619-670-2285
	Rick Acuna	619-670-2229
Reclamation Plant Supervisor –	Gene Palop	619-670-2271
Lead Reclamation Plant Operator –	Damon Newman	619-670-2272

EXHIBIT II-B
Sanitary Sewer Overflow Response and Reporting Work Flow Plan



SECTION III – LEGAL AUTHORITY

Requirement[1]

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

(a) Prevent illicit discharges into its sanitary sewer system;

(b) Require that sewers and connections be properly designed and constructed;

(c) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;

(d) Limit the discharge of fats, oils, and grease and other debris that may cause blockages, and

(e) Enforce any violation of its sewer ordinance.

Existing Legal Authority

The District possesses the necessary legal authority to prevent, require, ensure, limit and enforce specific features and operations required by the State Order. A summary of the relevant sections of the District Code of Ordinances and other adopted documents is shown in Table III-1.

A copy of each document follows the table.

[1] SWRCB Order No. 2006-0003-DWQ § D.13 (iii)

TABLE III-1 - SUMMARY OF LEGAL AUTHORITY

Legal Authority to:	Existing Authority:
a. Prevent illicit discharges into sanitary sewer system	CO[2]: § 52.04
b. Requires that sewers and connections be properly designed and constructed	CO: § 60.08
c. Ensures access for maintenance, inspection or repairs for all portions served by the District, and to determine if they are complying with the rules of the District concerning sewer services	CO: § 51.03
d. Limit the discharge of fats, oils and grease and other debris that may cause blockages	CO: § 52.06
e. Enforce any violation of District sewer policies	CO: § 52.03

[2] Otay Water District "Code of Ordinances" sections that regulate District operations.

52.04 PROHIBITIONS AGAINST DISCHARGE OF OBJECTIONABLE WASTES

It shall be unlawful for any person to discharge or permit the discharge of any substance into the District sewer system that could cause a public nuisance or hazard to life, or that could be harmful to the District sewer system or its wastewater reclamation facilities or processes. Discharge of the following into the District sewer system is expressly prohibited:

- gasoline, cleaning solvent, fuel, oil;
- ashes, sand, cinders, rocks;
- tar, plastics, other water insoluble viscous materials;
- mineral oils, lubricating oils;
- feathers, hair;
- rags, sanitary napkins, disposable diapers;
- broken glass, metal, wood and plastic shavings;
- unground garbage;
- swimming pool drainwater;
- wastes which contain or result in the production of toxic, corrosive and explosive gases;
- animal or dairy waste;
- cesspool and septic tank wastes;
- or any other substance, material or liquid that could be harmful to the District sewer system.

52.05 GUIDELINES TO DETERMINE ACCEPTABILITY OF WASTES

The following provisions and the values set forth herein are not to be regarded or construed as regulating or limiting the quantity or characteristics of any specific wastes which may be received into the sewer system, but such shall serve as a guide in implementing this Section for regulation of the use of the District sewer system and for determination of acceptability of waste into the sewer system. In considering the following sewage characteristics, the dilution effect of the sewage at the point of discharge or any affected part of the system, and whether or not unusual attention or expenses would be required to handle such material in the sewer system, shall be taken into consideration:

A. The discharge into the District sewer system of any water or waste having an average daily flow greater than one percent (1%) of the average daily flow at the sewage treatment plan shall be subject to review.

B. The temperature of industrial waste discharged into the sewer system should not exceed 140 degrees Fahrenheit.

60.08 REQUIREMENT FOR APPROVED PLANS AND CONSTRUCTION AGREEMENT

A. Developer shall prepare detailed engineering drawings for construction of the proposed system shown on the tentative map and submit such drawings to the District for review and approval. Each system shall provide for water service and/or sewer service, where applicable, to each lot in a subdivision and to each parcel in a

parcel map development. The utility system proposed shall not be detrimental in any way to operation of the District utility system and shall conform to the requirements of the approved SAMP.

B. The General Manager shall review the construction drawings and either accept, reject, or revise them for compliance with District standards and specifications. Upon approval of the drawings, the General Manager shall return them to the Developer with the following: (i) District estimates for construction costs and the amount of additional District deposit; (ii) the required standard District agreement for installation of water or sewer facilities; and (iii) the amount of security required to guarantee performance of the agreement.

C. Developer shall return to the District the revised drawings, if required, the executed subdivision construction agreement, together with the required deposits and security, either cash, surety bond, or letter of credit, acceptable to the General Manager, and the grant of easements or rights-of-way that may be required. If such are complete, and the proposed subdivision has been annexed into an Improvement District, the Construction Agreement for the project will be authorized by the General Manager.

D. Upon approval of the construction agreement by the General Manager, the Developer shall submit the mylar construction plans for signature by the General Manager.

51.03 INSPECTION OF CUSTOMER PREMISES

Authorized District personnel shall have unrestricted access at reasonable hours to all premises served by District sewers for inspection and testing purposes, and to determine whether the customer is complying with the rules, regulations and ordinances of the District concerning sewer services.

52.06 DISCHARGE OF INDUSTRIAL WASTE

Any person or governmental agency desiring to discharge industrial wastes into the District sewer system shall obtain a permit from the District for the discharge of said wastes. The District may require installation of on-site facilities by the discharger for purposes of pretreatment of sewage before industrial waste can be discharged into the District sewer system.

52.03 ENFORCEMENT OF DISTRICT RULES AND REGULATIONS

The General Manager shall enforce rules and regulations set forth in this Code relating to District sewer service. The General Manager shall be authorized to take such action as he deems necessary for preservation of public health or safety, or for the protection of public or private property. The General Manager may suspend sewer service to any customer using the District sewer system in a manner that would endanger the public health or safety, or public or private property. In suspending such

service, the Customer's connection to the District sewer system may be severed. If danger is imminent, the General Manager may act immediately to suspend sewer service coincident with giving notice or warning to the customer.

SECTION IV – OPERATIONS AND MAINTENANCE PROGRAM

Requirement[1]

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

(b) Describe routine preventative operation and maintenance activities by staff and contractors, including a system for regular maintenance and cleaning of sanitary sewer system with more frequent cleaning and maintenance targeted at know problem areas. The Preventative Maintenance 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 plans shall include a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan;

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

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

[1] SWRCB Order No. 2006-0003-DWQ § D.13 (iv)

Supporting Documents

A summary of the District's measures and activities related to this section and the supporting official documents are shown in Table IV.1.

Table IV.1 Operations & Maintenance Measures and Activities

Items Required	Activity / Supporting Documents
a. Maintain an up-to-date map of the sanitary sewer system	Water and Sanitary Sewer Facility Maps Created via GIS Maintained by In-House Engineering Department. Note: These documents are updated as necessary to reflect modifications and additions to the utility system.
b. Describe routine preventative operation and maintenance activities by staff and contractors	Otay Water District Operation and Maintenance Procedures—Preventative Maintenance Schedule set up to address wastewater conveyance facilities requiring more maintenance than normal based upon past District records.
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 District's yearly Capital Improvement Program includes planned short term and long term rehabilitation and replacement wastewater facilities improvements that reflect the prioritized needs of the District over the planning horizon.
d. Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be properly trained	Otay Water District Operation and Maintenance Procedures—Training per Collection System Procedures Manual. Conduct regular training of contractors/vendors.
e. Provide equipment and replacement part inventories, including identification of critical replacement parts.	Otay Water District Operation and Maintenance Procedures - Equipment and Parts Inventory.

a. Maintain an up-to-date map of the sanitary sewer system

The District's Sanitary Sewer System is maintained on a modern Geographic Information System (GIS), ESRI's ArcGIS. This system provides a wireless link from the District's computer server to operations crews located throughout the District's service area. This allows District crews to identify revisions and/or updates to the system as the perform operation and maintenance activities. In addition, each crew has the District's sewer system loaded on their laptop computers in the rare event that they are out of range of the wireless connections.

Additionally, as any changes are made to the sewer system through construction projects, the as-builts are forwarded to the District's GIS Department. GIS staff incorporate any updates and/or changes to the sewer system into the GIS system.

The District's Sanitary Sewer System is shown in Exhibit IV-A. This exhibit includes the District's primary collection mains, lift stations, force mains and its 1.3 mgd water reclamation plant.

Exhibit IV-B is a typical 400 scale Facility Map sheet that has been completed for the entire District Sewer System. These sheets provide a hard copy of the District's sewer system to assist Operations staff in servicing the wastewater collection system's and the District's customers' needs.

b. Describe routine preventative operation and maintenance activities by staff and contractors

In order to proactively reduce repairs and the chance for SSO events within the District's service area, the Operations Department staff has developed a detailed list of preventative maintenance procedures for each of the elements of the wastewater collection and treatment system.

The objective of the sewer main cleaning program is to clean the entire system once every two years using a Vactor brand high-velocity combination truck. Each appurtenance in the sewer collection system is assigned a unique asset number. All preventative and corrective maintenance of the collection system is captured at the asset level by utilizing Infrastructure Maintenance System (IMS) work orders.

Regular high-velocity cleaning of gravity sewer mains and inspections of manholes is scheduled by utilizing IMS work order templates that have been created for the entire system. These work order templates are organized into groups in the order in which cleaning should take place throughout the three sections of the system, Calavo Gardens, Hidden Mountain, and Rancho San Diego. All manholes are inspected as the sewer main is cleaned. Work orders are manually created by the operators as maintenance is completed.

Preventative maintenance and inspection of manholes in remote easements and environmentally sensitive areas as well as the five lift stations is scheduled with a higher frequency. Work orders are automatically generated for these assets by the IMS. Maintenance activities for lift stations include valve and pump component replacements, oil and belt changes, and wet well cleaning. Maintenance for manholes includes overall condition assessment, debris removal, herbicide application, and minor structural repairs.

A few examples of these work orders are listed below:

06-01303	SCCSEQPU	Pumps	SSMA062	Lift Station Maintenance
06-01942	SCCS--LS	Lift Station	SSMA062	Lift Station Maintenance
08-02053	SPCS--MH	Manholes	SSPM023	Manhole PM
08-01483	SCCS--P3	Pipes	SSPM023	Manhole PM

Regular cleaning of enhanced maintenance areas is scheduled and determined by conditions observed during past inspections and preventative and corrective maintenance conducted in the field. Work orders for these areas are automatically generated by the IMS on a weekly, monthly, semi-annual, and annual basis. A list of these sewer mains and manholes is continuously updated and evaluated by the operators as maintenance is performed throughout the system.

A few examples of these work orders are listed below:

CSPM006	6 Month Pipe - Root
CSPM005	6 Month MH - Root
CSPM013	6 Month MH - Shadow Ranch Outfall
CSPM007	12 Month MH - Root
CSPM015	12 Month Pipe - Root
CSPM016	12 Month Pipe - Grease
CSPM008	12 Month Pipe - Design
CSPM014	12 Month Pipe - General Inspection

Conditions of force mains are determined by routine lift station calibration on an annual basis to identify changes in capacity and discharge head pressure. Work orders for these activities are automatically generated by the IMS.

The preventative maintenance program for the Sewage Treatment (Reclamation) Plant is documented through automatically generated IMS work orders scheduled on a weekly, bi-weekly, monthly, semi-annual, and yearly basis. A few examples of these work orders are listed below:

Work Order Examples:

08-02453	RPT3EQT3	Tertiary Equipment	TPPM146	Tertiary Filter Weekly PM
08-00576	SPT2EQT2	Secondary Equipment	TPPM034	Aeration Tank Monthly PM
09-00792	SPT2EQT2	Secondary Equipment	TPPM040	Clarifier Quarterly PM

A Work Order Listing Report that details the preventative maintenance work done during the past year is included in Appendix D. This report will be updated on an annual basis in the SSMP.

c. Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short and long-term rehabilitation actions to address each deficiency

The District's yearly Capital Improvement Program (CIP) includes the planned short term and long term rehabilitation and replacement of wastewater facilities improvement projects that reflect the prioritized needs of the District over the planning horizon. The current six-year CIP budget for sewer related projects is included as Table IV-1 at the end of the section. Projects are described and funded each year so that they can be designed in-house or out-sourced for design and constructed prior to a sewer facility failure occurring that could result in a SSO event. CIP projects are prioritized upon immediate need and the consequences of failure, on a scale of 1 to 10, with a score of 10 reflecting the highest priority and the most immediate need of replacement.

Short term and long term rehabilitation and replacement plans are reflected in the CIP effort as a wide range of projects, ranging from immediate and high priority projects to low priority, long range projects. The process to determine whether to rehabilitate versus replace is included within each project's Preliminary Design Report phase (30% complete phase). The primary factor affecting the decision is the possibility of a facility failure and threat of a SSO event if the facility is not rehabilitated or replaced within a certain period of time.

Gravity sewer pipeline and manhole conditions are also observed and documented during the course of the District's outsourced CCTV inspection program. Televised sewer main and manhole inspection records provided by a consulting firm are downloaded into the District's GIS and IMS applications. The engineering department evaluates the consultant's rehabilitation and replacement recommendations and determines which appurtenances will be addressed in-house or entered into a replacement CIP program the following year and contracted out.

In 2011, the District purchased it's own CCTV Camera and monitor so that operations staff can regularly inspect portions of the system.

Manholes are inspected and cleaned along with the gravity sewer mains during regular day-to-day maintenance activities. Manholes identified as needing minor repairs such as grade elevation, cover/ring and exterior re-grouting, cover replacement, minor bench and channel repairs, and inflow issues are performed by the collection system and utility maintenance section staff. Manhole repair work with factors such as high traffic areas, deep manholes, and accessibility issues are considered for contracting to an outside service. Manholes with more critical conditions are identified and placed on a list for outsourced rehabilitation by a contracted service. Condition defects such as internal grouting needs, concrete degradation, infiltration, and manholes which need to be replaced fall into this category. All work is documented at the asset level in the IMS. Funds are budgeted on a yearly basis to cover the costs of both manhole rehabilitation options.

d. Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be properly trained

Collection System and Reclamation Plant section staff responsible for maintaining the sewer mains and lift stations are regularly trained in general safety policies and procedures such as the examples listed below. Training is provided by the District Safety and Risk Administrator, section supervisors and leads and other designated employees, and by outsourced training facilities. Additional training is also required through a District-contracted online training firm.

- Confined Space Entry General Safety (Initial before entry) [Refresher every 2 years]
- AC Pipe & Annual Refresher - (Annual refresher course)
- Trenching & Shoring - Competent Person - (Initial seminar before working in trenches < 4') [Refresher every 3 years + periodic on-line refresher]
- Vehicle Incident Reporting Procedure, Report Form, and Fleet-Vehicle Driving & Parking - (Annual Review - Supervisor's call)

Utility Worker II positions assigned to the collection system section on a long-term basis are required to maintain a Collection System Maintenance Grade I certification administered by the California Water Environment Association (CWEA), CWEA Certificates for District personnel are included in Appendix E. All collection system and reclamation plant section staff are trained in all written procedures related to the collection system as appropriate for their job responsibilities. Staff also utilizes industry standard training manuals, vendor and CWEA training events, and manufacturer equipment manuals. Routine safety training for maintenance-related activities is scheduled by the Safety and Risk Administrator and the Reclamation Plant and Utility Maintenance section supervisors according to regulatory and District requirements. Additional on-the-job maintenance and operation training is provided to a new section member by a more experienced operator. Additionally, details describing methods and

Vendors are required to adhere to all Cal-OSHA safety standards when contracted for work by the District. In some circumstances, such as confined space entries and working within the reclamation plant, District policy requires that vendors receive additional documented safety training prior beginning their work.

Additionally, staff is trained in collection system-specific activities using procedures located electronically on the Otay Information System (OIS) and as hardcopy in the Collection System Procedures Manual.

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

Materials used for emergency response and repairs are available at the Sewage Treatment (Reclamation) Plant, the Operations Warehouse, and the Operations Main Storage Yard. Materials are routinely inventoried to verify adequate supplies. Equipment used for emergency response is in use or stored at the District's Reclamation Plant and Operations Main Yard. Routine preventative maintenance is performed for all equipment and is documented in the Infrastructure Management System.

Other resources which can be used to respond to a sewage spill include contractors to provide repairs and services and suppliers to provide repair supplies. The District also has entered into a Shared Services Agreement with surrounding agencies to provide equipment and personnel in the event of an emergency. Agency and vendor contact information is included in approved response procedures where appropriate.
Below is a list of equipment, materials, and supplies, used for preventative and corrective maintenance in the collection system. The sewer pipeline and lift station inventory items are considered critical replacement parts.

<u>Equipment Inventory List</u>

- Vactor Truck
- ¾-Ton Utility Truck
- Televising Van
- Emergency Spill Response Trash Pump
- Emergency Spill Response Trailer
- 6-10 feet sections of lay flat hose
- 12-50 feet sections of lay flat hose
- 2 inch Trailer Trash pump
- CCTV Camera, Monitor and Generator
- Smoke Test Blower
- Four Clam Hand Grabbers

- Root Cutter, Sling Blade
- 1 Set Hand Rods
- Digital Camera
- Sand Bags
- Public Notification Signs
- Caution Tape
- PPE: Hard Hat, Safety Vest, Gloves, Rubber Boots, Wader, Tyvex Suit, Safety Glasses, 10-Minute Emergency Escape Air Pack, Gas Monitor

Traffic Equipment Inventory

- 3-Road Construction Signs
- 1- Narrow Lane Sign
- 2- Merge Signs
- 3- Bike Lane Signs
- 5- Safety Sign Stands
- 23- Traffic Cones
- Slow/Stop paddle
- Delineators
- Signboards
- Barricades/lighted

Vactor Truck Inventory List

- Vactor Tube Clamps
- Vactor Tubes
- Leader Hose
- Tiger Tail
- Fittings for High Pressure Water Gun
- Screens for Water Tank
- Hand Clam Grabber
- Hand Claw Grabber
- Hand Catch Basket
- Assorted Nozzles for Hydrojet Hose
- Wort Hog Nozzle
- Spinner Nozzle
- Hand-Held Spotlight
- Square Point Shovel
- Spade Shovel
- Digging Bar
- Metal Probe
- Spanner Wrench
- Manhole Hook
- Wash Down Gun

Sewer Plugs

- 2- 8 inch flow thru plugs
- 2- 10 inch flow thru plugs
- 1- 12 inch flow thru plug
- 2- 18 inch flow thru plugs
- 2- 6 to 12 inch flow thru plugs
- 2- 6 inch standard plugs
- 2- 8 inch standard plugs
- 6- 6 to 8 inch standard plugs
- 3- 8 to 12 inch J- plugs
- 1- Lateral Test plug
- 1- 12 inch wane ball
- 1- 6 inch mandrel
- 1- 11 inch mandrel
- 1- 13 inch mandrel
- 1- 15 inch mandrel
- 2- Wash balls

Manhole Lids and Grade Rings

- 4- 3 inch Grade Rings
- 2- 6 inch Grade Rings
- 2- 12 inch Grade Rings
- 6- 24 inch Grade Rings
- 8- 24 inch Manhole Lids
- 2- 24 inch Manhole Lids and Rings
- 1- 36 inch Manhole Lid and Ring
- 7- 24 inch Lockable Manhole Lids and rings

Sewer Main Materials: Critical Replacement Parts

- 4 Inch Dia Green Bell Pipe
- 4 Inch Dia Green Bell Pipe, Bend, 22 ½ and 45
- 4 Inch Dia Green Bell Pipe Coupling
- 4 Inch Dia Green Bell Plug
- 6 Inch Dia PVC Pipe
- 8 Inch Dia Green-Bell Pipe SDR35
- 6 and 8 Inch Couplers
- 8 x 4 Inch Dia Saddle Wye

Lift Station Replacement Equipment: Critical Replacement Parts

- Remote Alarm Dialer
- Modems
- Fuses
- Level Transducers

- Float Ball Level Sensors
- Drive Belts
- Flapper Valves
- Motor Temperature Sensors
- Pipe Couplings
- Sump Pumps
- 30 HP motor, Steele Canyon SLS
- 20 HP motor, Cottonwood SLS
- 7-1/2 HP motor, Hidden Mountain SLS
- 5 HP motor, Russell Square SLS
- 40 HP motor, Calavo Gardens SLS

Table IV - A. Otay Water District CIP Budget and Schedule - Sewer Projects

CIP Number	Project Title	Start	End	Cost
Capital				
S2012	**San Diego County Sanitation District Outfall and RSD Outfall Replacement**			
Planning		7/1/2003	6/1/2018	$3,550
S2027	**Rancho San Diego Pump Station Rehabilitation**			
Planning		7/1/2011	6/1/2012	$5
Design		7/1/2012	12/1/2012	$50
Construction		1/1/2013	9/1/2014	$2,745
S2039	**Hidden Mountain Lift Station Enclosure**			
Construction		7/1/2012	6/1/2013	$29
Capital				
S2042	**Sewer Vehicle Capital Purchases**			
Planning		7/1/2012	6/1/2013	$325
Replacement				
S2019	**Avocado Boulevard 8-Inch Sewer Main**			
Planning		7/1/2009	2/1/2010	$65
Design		3/1/2010	9/1/2010	$275
Construction		10/1/2010	12/1/2012	$1,935
S2020	**Calavo Drive 8-Inch Sewer Main Replacement**			
Planning		7/1/2009	2/1/2010	$14
Design		3/1/2010	9/1/2010	$60
Construction		10/1/2010	12/1/2012	$526
S2022	**Hidden Mesa Drive 8-Inch Sewer Main**			
Planning		7/1/2009	2/1/2010	$2
Design		3/1/2010	9/1/2010	$40
Construction		10/1/2010	12/1/2012	$138
S2023	**Calavo Drive Sewer Main Utility Relocation**			
Planning		7/1/2009	9/1/2009	$2
Design		10/1/2009	6/30/2012	$18
Construction		7/1/2012	2/28/2013	$60
S2024	**Campo Road Sewer Main Replacement**			
Planning		7/1/2010	12/1/2012	$175
Design		1/1/2012	1/1/2014	$725
Construction		2/1/2015	6/1/2017	$4,600
S2026	**Challenge Boulevard 8-Inch Sewer Main**			
Planning		7/1/2011	9/30/2011	$2
Design		10/1/2011	12/31/2011	$30
Construction		1/1/2012	5/1/2013	$248
S2028	**Explorer Way 8-Inch Sewer Main Replacement**			
Planning		7/1/2011	12/31/2014	$15
Design		1/1/2015	7/1/2015	$25
Construction		9/1/2015	9/1/2016	$85
S2033	**Sewer System Various Locations Rehabilitation**			
Planning		7/1/2011	6/1/2013	$50
Design		7/1/2012	7/1/2013	$225
Construction		9/1/2013	9/1/2015	$525
S2040	**Calavo Sewer Basin Improvements**			
Planning		7/1/2012	12/31/2012	$75
Design		1/1/2013	7/1/2013	$200
Construction		9/1/2013	9/1/2014	$975
S2041	**Rancho San Diego Sewer Basin Improvements**			
Planning		7/1/2012	12/31/2013	$100
Design		1/1/2014	7/1/2015	$250
Construction		9/1/2015	9/1/2016	$1,400

SECTION V - DESIGN AND CONSTRUCTION STANDARDS

Requirement[1]

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

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

Supporting Documents

The District has adopted the Water Agency Standards (WAS) and the Water Agency Standards Design Guidelines (WASD) as the District's design and construction standards. These standards and guidelines provide construction specification and drawing details for the installation, rehabilitation, repair, testing and inspection of new and existing sewers and pump stations within the District's service area.

The WAS and WASD were developed by eight water agencies, including the District, in the San Diego area. Representatives from the agencies meet on a quarterly basis to continually update and improve both sets of standards.

A copy of each design guideline document and a table of contents for the standard design drawings and standard specifications are included in Appendix C as follows:

Appendix C

C-1 Section 6.1 Gravity Sewer Pipeline Design Guidelines

C-2 Sewer Manholes and Cleanouts Design Guidelines

C-3 Sewer Laterals Design Guidelines

C-4 Pressure Systems (Force Mains) Design Guidelines

C-5 Standard Specifications for Potable Water, Recycled Water and Sewer Facilities

C-6 Standard Drawings for Potable Water, Recycled Water and Sewer Facilities.

[1] SWRCB Order No. 2006-0003-DWQ § D.13 (vi)

SECTION VI - EMERGENCY RESPONSE PLAN

Requirement[1]

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

(a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;

(b) A program to ensure an appropriate response to all overflows;

(c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, Regional Water Boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;

(d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;

(e) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and

(f) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

[1] SWRCB Order No. 2006-0003-DWQ § D.13 (vi)

Requirements (a), (b), and (c): Proper Notification Procedures and Response Program for Sanitary Sewer Overflows

The Otay Water District has developed the enclosed narrative entitled “Exhibit VI-A Sanitary Sewer Overflow Response and Reporting Work Flow Description” describing the roles and duties of each staff member during a SSO event.

In addition the District developed their own “Sanitary Sewer Overflow Response and Reporting Work Flow Plan”, included herewith as Exhibit VI-B. District Operations staff was instrumental in the development of the plan since its inception in 2004 and subsequent revisions up to the current up-to-date plan. The plan contains all the elements required by the SSMP.

The policy requires that District employees report all water overflows found and to take the appropriate action to secure the wastewater overflow area, relieve the cause of the overflow, and ensure that the affected area is cleaned as soon as possible to minimize health hazards to the public and protect the environment. The District’s goal is to respond to sewer system overflows during the regularly scheduled workday within 30 minutes.

After hours response time is dependant on the location of the assigned stand-by personnel and the typical response time is less than one hour.

Exhibit VI—A
Sanitary Sewer Overflow Response and Reporting
Work Flow Description

Operations Secretary: During normal working hours the Operations Secretary receives a call from an outside or inside source and creates an IMS work request to the Reclamation Plant Supervisor, then makes contact with the supervisor or Lead Reclamation Plant Operator, or any available Reclamation Plant Operator

After normal business hours the answering service receives a call from an outside source and notifies the standby duty Reclamation Plant Operator

Reclamation Plant Supervisor: The supervisor dispatches Lead/Reclamation Plant Operator to the site and informs the Utility Maintenance Supervisor(s), System Operations Manager and/or the Chief of Operations. The Lead/Reclamation Operators on site inform the Reclamation Plant Supervisor of the spill status for the assessment of additional District resources or outside services needed.

The Reclamation Plant Supervisor monitors the capture of overflow report data and supervises the compilation of a draft report. The Supervisor notifies the designated regulatory agencies as required by the waste discharge permit reporting program's classification of spills. The supervisor reviews the preliminary report data with the Lead Operator prior to online reporting via the State Water Resources Control Board's online California Integrated Water Quality System (CIWQS). The Reclamation Plant Supervisor and the Lead Reclamation Plant Operator are authorized CIWQS data-submitters

Lead Rec. Plant Operator: The Lead Reclamation Plant Operator monitors the capture of overflow report data in the field and updates the Reclamation Plant Supervisor with the status the spill to assess the need for additional District resources and/or outside services.

The Lead Reclamation Plant Operator creates an internal preliminary report and enters the data into the CIQWS under the "submit data" status after review with the Reclamation

Plant Supervisor and/or the Utility Maintenance Supervisor(s). Additionally the lead operator is responsible for performing all the spill response activities of the Reclamation Plant Supervisor in his/her absence or as directed.

Reclamation Plant Operator: The Reclamation Plant Operator(s) responding to the spill is responsible for applying best management practices for spill containment until the Utility Workers arrive with collection system maintenance equipment. The Reclamation Plant Operator provides the Utility Workers with any additional information on the spill obtained after they arrive on site. The plant operator also operates/troubleshoots lift station equipment and/or uses blockage-removal hand tools to remove the cause or lessen the severity of the spill. Additionally, the plant operator captures all field data used for reporting and forwards it to the Lead Operator and/or Plant Supervisor

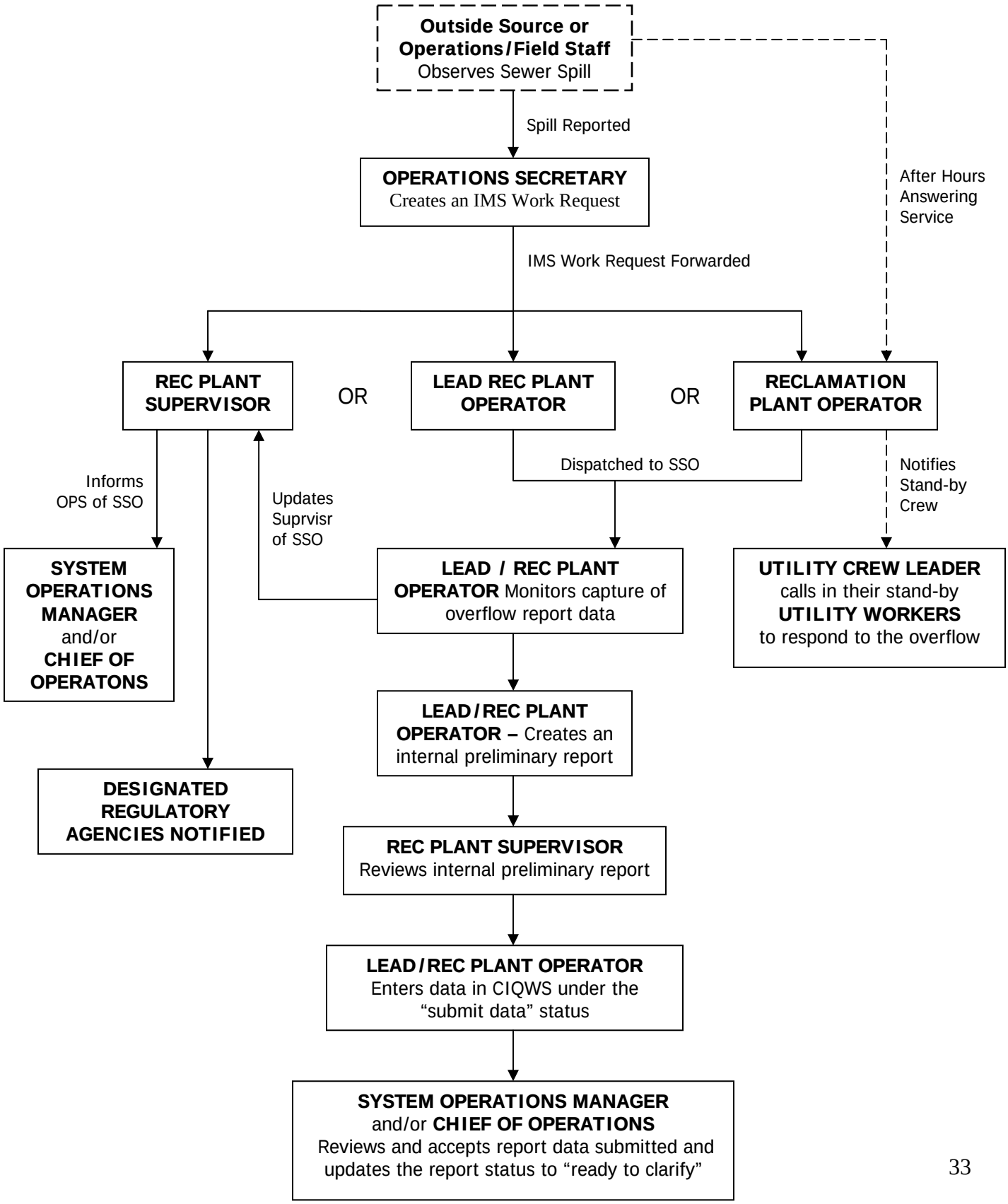
Utility Worker: The Utility Workers assigned to the collection system on a long-term basis are responsible for responding to the spill when notified, removing blockages, and determining the cause of the spill

After normal working hours the standby Reclamation Plant Operator directly notifies the standby-duty Utility Crew Leader who will then call their standby Utility Worker crew to respond to the overflow site

System Operations Manager: The System Operations Manager reviews report data submitted by the Lead Reclamation Plant Operator and/or the Reclamation Plant Supervisor prior to updating the report status to “ready to certify.” The System Operations Manager is a Legally Responsible Official for the District and certifies all sanitary sewer overflow reports in the CIWQS after the report has been submitted for certification by the Reclamation Plant Supervisor or the Lead Reclamation Plant Operator

Chief of Operations:	The Chief of Operations is also a Legally Responsible Official for the District and may certify final reports in the CIWQS in the absence of the System Operations Manager
General Manager:	The General Manager is a Legally Responsible Official. The Chief of Operations and System Operations Manager are duly authorized representatives of the General Manager.

Exhibit VI—B
Sanitary Sewer Overflow Response and Reporting
Work Flow Plan



(d) Emergency Response Plan Training for Staff:

Training for sanitary sewer overflow response is provided regularly to prepare participants for the conditions of an emergency, to visualize and practice response rolls and to address procedural conflict and difficulties. Ways to train include these two simulation techniques:

- Tabletop Exercise: After review and discussion of established spill response procedures, a sewage spill event is simulated without the use of equipment or deployment of resources. A facilitator verbally explains the steps taken. Exercise effectiveness is determined by feedback from participants and impact on revisions to plans, procedures, and systems.
- Emergency Response Drills: A sewage spill event is simulated with the use of equipment and deployment of resources. Controllers monitor and record actions. This type of exercise not only allows for the re-evaluation of response procedures, but it also tests equipment, response time, training, resource and staff capabilities. All drills have follow-up meetings to critique strength and weaknesses and to recommend improvements.

(e) Procedures to Address Traffic and Crowd Control During SSO Events:

Traffic control equipment will be employed whenever there is a need to divert traffic around a sewer spill. Traffic control equipment is stored at the reclamation plant and operations main yard. Equipment includes barricades, delineators, lighted sign-boards, traffic cones, lighted signs, flashers, and utility vehicles. Assistance with traffic control has been set up in advance with contracts with vendors to be used during responses to spills such as televised inspection contractors, pumping service vendors, and nearby agencies that participate in the District's Shared Services Agreement.

Crowd control can be handled similar to traffic control with the additional use of sewer spill notification signs, caution tape, and materials to rope-off an area affected by the spill until cleanup is completed.

(f) Program to Contain and Prevent the Discharge of Wastewater to Waters of the United States: The District's primary objective in sewer spill response is to protect the public health and the environment. Materials and equipment used for sewer spill response for the prevention of wastewater reaching Waters of the United States are stored at the reclamation plant in a designated area for sewer system maintenance and emergencies. Methods used to divert, contain and recover sewer flow from storm drains and bodies of water are listed in the Collection System Sewer Spill & Response procedure. Some of these methods and material include:

1. Use sandbags, fiber rolls and/or straw waddles to reduce spill volume to storm drains and bodies of water.

2. Dig diversion trenches and/or install silt fences to direct flow away from storm drains and bodies of water.
3. Build earth dams and detention ponds to contain wastewater flow until it can be recovered.
4. Use vactor truck to recover spill volume where possible.
5. Use pumps to transfer flow away from storm drains and bodies of water.

The operation and maintenance training program ensures that these best management practices are reviewed, rehearsed, and updated during table-top exercises and emergency drills, and any time there is a significant change in equipment or operation of the collection system. Additionally, an IMS-generated work order has been created for the annual review of spill-response procedures.

Documentation that Otay personnel responsible for handling sewer spills have participated in the training and understand the duties required when responding to and reporting of a sewer spill is included as Exhibit VI - C. This form will be updated annually or when new responsible employees are hired.

Exhibit VI-C

Acknowledgement Form for Training in SSO Work Flow, Response, and Reporting

I herby, read and reviewed the Sanitary Sewer Overflow Response and Reporting Work Flow Description, Sanitary Sewer Overflow Response and Reporting Work Flow Plan and understand the duties of all Otay personnel and my own duties regarding to sewer spill responses.

Name:_____Signature:_____

Title:_____Date:_____

Name:_____Signature:_____

Title:_____Date:_____

Name:_____Signature:_____

Title:_____Date:_____

Name:_____Signature:_____

Title:_____Date:_____

Name:_____Signature:_____

Title:_____Date:_____

Name:_____Signature:_____

Title:_____Date:_____

SECTION VII—FOG CONTROL PLAN

Requirement[1]

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.

[1]SWRCB Order No. 2006-0003-DWQ § D.13 (vii)

FOG Control Program

The Fats Oil and Grease (FOG) Program is normally a component of a SSMP for a wastewater collection agency with a large number of commercial customers and/or a history of FOG SSO events. The Otay Water District has carefully evaluated its service area and has determined that a FOG Control Program is not necessary for the District at this time based upon its SSO history and customer profile.

The Otay Water District will not include a FOG Program until there is evidence of SSO events and/or increased maintenance due to FOG being experienced by the District. In the event that these begin to occur, the District will draft, adopt and implement a FOG Program as part of their SSMP.

District Operations staff have reviewed its customer base and available resources and have increased its maintenance efforts at certain locations identified as being at risk for an SSO event. The following summarizes the identification of these locations and their maintenance schedules and frequencies.

Identification of "Warm Spots" and Schedule of Maintenance:

The following four (4) locations within the District service area have been identified as "warm spots" requiring once per one (1) month maintenance frequency intervals:

- One low manhole with a flat section of sewer pipe known as the Rancho San Diego Village Shopping Center is a recognized "warm spot" for the District and is a regularly scheduled maintenance visit.

- A long section of off road flat sewer in a District easement on private property referred to as Paseo Salamoner results in the need for frequent cleaning and has made this section of pipe a second "warm spot".

- "Warm spots" 3 and 4 are designated by the District as the Cottonwood Lift Station and the Hidden Mountain Lift Station, both receiving monthly vacuum maintenance.

The following three (3) locations within the District service area have been identified as "warm spots" requiring once per three (3) month maintenance frequency intervals:

- The Russell Square Lift Station receives a quarterly inspection and vacuum in order to minimize any problems from occurring at this lift station.

- A flat section of 8-inch sewer pipe in Fury lane between Carpenter and Calle Verde is inspected and cleaned every three months in order to avoid the chance of any flows being delayed in this flatter section of pipe.

- A light commercial area comprising 435 feet of sewer pipe north of Chase Avenue along Jamacha Road is cleaned every three months to assure that no problems develop.

Two other "special areas" that District Operations staff maintains are residential areas that experience grease build-ups due to suspected catering operations being operated out of residences. The sewer mains are cleaned every year to assure that no blockages occur. Turbulence in one manhole is suspected to increase the accumulation of grease buildup as well. These were added to the "warm spot" list and assigned a maintenance frequency of once per twelve (12) months.

Table VII-2 summarizes the nine (9) "warm spots' .

Table VII-2 - "Warm Spots"

Spot	Location	Description	Maintenance
1	Rancho San Diego Shopping	Manhole	12/Year
2	Paseo Salamoner Sewer	Off-Road	12/Year
3	Cottonwood Lift Station	Wet Well	12/Year
4	Hidden Mountain Lift Station	Wet Well	12/Year
5	Russell Square Lift Station	Wet Well	4/Year
6	Fury Lane: Carpenter-Calle Verde	8" Sewer	4/Year
7	Jamacha/Chase Sewer	435 LF	4/Year
8	Donahue & Muira Lane - 8" Sewer	Residential	2/Year
9	1429 Fuerte Heights – 8" Sewer	Residential	2/Year

Exhibit VII-A includes the 26 non-residential accounts that involve food and the 9 "warm spots" identified by the District.

The Legal Authority to Prohibit Discharges to the District System:

The District's existing ordinance 52.02 "Prohibitions Against Discharge of Objectionable Wastes" disallows a wide range of pollutants, including oils, grease, gasoline, cleaning solvent, fuel, viscous materials, animal or dairy wastes, septic wastes, and any other material that could be harmful to the District sewer system.

Requirements to Install Grease Removal Devices:

The County of San Diego's Ordinance 9275 regulates the building permits that private landowners seeking sewer service from the District obtain, and require the landowners to install the appropriate oil and grease traps and interceptors pursuant to the Uniform Plumbing Code.

Legal Authority to Inspect Grease Producing Facilities:

The District has determined that existing legal elements were adequate for the authority to inspect grease producing facilities and to prohibit discharges.
The District's existing ordinance 51.03 "allows District personnel unrestricted access at reasonable hours to all premises served by District sewers for inspection and testing purposes, and to determine whether the customer is complying with the rules, regulations and ordinances of the District concerning sewer services."

SECTION VIII—SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

Requirement[1]

Each 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.

[1]SWRCB Order No. 2006-0003-DWQ § D.13 (vii)

System Evaluation

The District completed a Sewer Model Calibration Capacity Analysis and System Assessment in 2006. This study involved open channel flow metering for H20MAP-Sewer model calibration and a capacity assessment for present as-built conditions as well as build-out conditions. The study determined capacity issues and prioritized areas for closed circuit television inspections. The sewer model is being updated as part of the work being done to prepare a Wastewater Master Plan (WWMP) for the District's sewer collection and treatment system. The results of the current modeling effort will be included in the SSMP as Appendix _ when complete. The WWMP is a comprehensive examination of all aspects of the District's wastewater system. It is scheduled to be complete in early 2013

The District has had engineering consulting firms under contract since 2007 for the inspection and condition assessment of the District's entire sewer system. The consultants have performed field evaluations of the District's existing system by performing Sanitary Sewer CCTV Inspection and Condition Assessment for pipelines identified as priorities (1) and (2) in the 2006 Sewer Model and System Assessment study. Televised inspection of sewer lines, investigation and analysis of the existing sewer system, rehabilitation recommendations for operational improvements, and rehabilitation prioritizing of the District's sewer pipelines and associated manholes has been performed. A rehabilitation priority list has been created and is being used by the District to develop an annual "Rehabilitation and Replacement Program".

Design Criteria

The system evaluation conducted in the 2006 Sewer Model Capacity Analysis and System Assessment and the results of the District's ongoing CCTV Inspection and Condition Assessment have provided the design criteria necessary to address any deficiencies in the District's sewer system that could result in or contribute to an SSO discharge. This information will be updated with the results of the sewer model update currently underway.

Capacity Enhancement Measures

Projects to address hydraulic deficiencies in the District's system have been identified based on the results of the two studies discussed above. These deficiencies have been incorporated into a table that prioritizes them on the basis of most critical to least. A number of the projects will be completed by Operations staff as maintenance projects. The larger and more complex projects are designated as CIP projects. The sewer projects have been included into the District's CIP program which covers a six-year time frame and is updated annually. The projects designated as most critical are either in construction or under development. All of the identified deficiencies will be corrected through either the Operations maintenance program or the District's CIP program.

Although this may take several years, the District is committed to making the changes necessary to increase the reliability of the system. The existing schedule for sewer project implementation is included as Exhibit VIII-A and will be updated on an annual basis. The WWMP being developed may have recommendations that will change the existing sewer project schedule. Any changes will be incorporated into the annual schedule update.

Schedule

The current schedule for completion of all sewer project components of the CIP program is included as Exhibit VIII-A.

Table VIII - A. Otay Water District CIP Budget and Schedule - Sewer Projects

CIP Number	Project Title	Start	End	Cost
Capital				
S2012	**San Diego County Sanitation District Outfall and RSD Outfall Replacement**			
Planning		7/1/2003	6/1/2018	$3,550
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S2039	**Hidden Mountain Lift Station Enclosure**			
Construction		7/1/2012	6/1/2013	$29
Capital				
S2042	**Sewer Vehicle Capital Purchases**			
Planning		7/1/2012	6/1/2013	$325
Replacement				
S2019	**Avocado Boulevard 8-Inch Sewer Main**			
Planning		7/1/2009	2/1/2010	$65
Design		3/1/2010	9/1/2010	$275
Construction		10/1/2010	12/1/2012	$1,935
S2020	**Calavo Drive 8-Inch Sewer Main Replacement**			
Planning		7/1/2009	2/1/2010	$14
Design		3/1/2010	9/1/2010	$60
Construction		10/1/2010	12/1/2012	$526
S2022	**Hidden Mesa Drive 8-Inch Sewer Main**			
Planning		7/1/2009	2/1/2010	$2
Design		3/1/2010	9/1/2010	$40
Construction		10/1/2010	12/1/2012	$138
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Design		10/1/2009	6/30/2012	$18
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Design		1/1/2015	7/1/2015	$25
Construction		9/1/2015	9/1/2016	$85
S2033	**Sewer System Various Locations Rehabilitation**			
Planning		7/1/2011	6/1/2013	$50
Design		7/1/2012	7/1/2013	$225
Construction		9/1/2013	9/1/2015	$525
S2040	**Calavo Sewer Basin Improvements**			
Planning		7/1/2012	12/31/2012	$75
Design		1/1/2013	7/1/2013	$200
Construction		9/1/2013	9/1/2014	$975
S2041	**Rancho San Diego Sewer Basin Improvements**			
Planning		7/1/2012	12/31/2013	$100
Design		1/1/2014	7/1/2015	$250
Construction		9/1/2015	9/1/2016	$1,400

SECTION IX—MONITORING, MEASUREMENT, AND PROGRAM MODIFICATIONS

Requirement[1]

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;

f. Assess the success of the preventative maintenance program;

g. Update program elements, as appropriate, based on monitoring or performance evaluations; and

h. Identify and illustrate SSO trends, including: frequency, location, and volume.

Process

The following describes the process and methods by which the District will monitor the effectiveness of the SSMP program and implement necessary modifications to the Plan.

Maintain, Monitor and Measure SSMP Elements

The District will track a number of performance indicators in order to evaluate the long-term effectiveness of SSMP elements and for reporting to the Water Board in the Annual SSO Report. These performance indicators are listed below in Table IX-A.
As the historic record grows, future annual reports to the Water Board will include trend plots for key measures. Performance measures related to maintenance activities will be tabulated and charted in the annual collection system report.

Table IX-A. SSMP Performance Indicators

Indicator	
Number of SSO's (by season)	Wet season
	Dry season
Number of SSO's (by volume)	<10 gal.
	10-99 gal.
	100-999 gal.
	>1000 gal.
SSO Volume	Total
	Recovered
Total volume conveyed to plant	
Total vol. SSO/ Total vol. conveyed to plant	
Cause of SSO	
#SSO's per mile of sewer per year	
Vol. SSO's per mile per year	
Avg. Emergency Response Time	
Number of SSO's (by volume)	
Business hours	
Non-business hours	
Maintenance Activities (lineal ft/yr)	Televised Inspection
	Top-down Cleaning
	Smoke Inspection

It should be noted that in measuring an outcome that is characterized by a relatively small number of events (e.g. number of annual wet weather SSOs), it is important to recognize that statistical variability may dominate short-term trends and that true causal relationships are likely to be evident only over the long term.

Assessment of Preventative Maintenance Program

Sewer system maintenance activities are tracked in the District's Information Management System (IMS). This data can be retrieved and assembled into report form to identify trends and help to evaluate effectiveness of the program. On an annual basis, the District shall evaluate the effectiveness of its preventative maintenance program and adjust the program as needed.

Update Program Elements

It is the District's intention that the SSMP remain a living document and that it be regularly updated to reflect program or organizational changes, new regulatory requirements, and other changing conditions. District staff will review the SSMP on a regular basis and update the document with any significant changes.

Identify and Illustrate SSO Trends

The District maintains information related to actual SSO's in its IMS system. When an actual SSO event occurs, a detailed report is completed and the information is entered into IMS. This enables District staff to analyze the information as necessary to identify any SSO trends.

SSMP Modifications

The District will update the SSMP periodically to ensure that the information maintained in the plan is current. In particular, routine updates will be made to the contact names and phone numbers for District Staff responsible for the implementation of specific SSMP programs. The SSMP will also be modified as necessary to maintain program effectiveness and continual compliance with the Waste Discharge Requirements.

The SSMP will be officially updated on an annual basis and a comprehensive update and re-certification will occur every five (5) years.

SECTION X—SSMP PROGRAM AUDITS

Requirement[1]

The Enrollee shall:

Conduct periodic internal audits, appropriate to the size of the system and the number of the SSO's. 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, including identification of any deficiencies in the SSMP and steps to correct them.

[1] SWRCB Order No. 2006-0003-DWQ § D.13 (vi)

SSMP Audit Program

The District's plan is to conduct bi-annual audits of its SSMP in conjunction with the bi-annual review and update of the SSMP.

The audit will include, but not be limited to the following:

1. Review of the progress made on the development of SSMP elements
2. Review of the status of any SSMP programs implemented
3. Identifying the success of any SSMP programs implemented
4. Description of system improvements made within the two-year audit period
5. Description of planned system improvements for the upcoming two years
6. Review of the data for any SSO occurrences.

The District has developed an audit checklist that will be used to evaluate the required elements of the SSMP. The completed checklist will be used to update the SSMP as necessary and to compile the audit report. A blank checklist is included as Exhibit X–A.

The completed checklist and audit report will be kept in a separate SSMP Audit Binder

Exhibit X-A SSMP Audit Checklist

SSMP Evaluation Checklist for FY 20_				
SSMP Section	**Yes**	**No**	**Update Needed in SSMP**	**Actions & Notes**
Section I - Goals				
Are the goals stated in the SSMP still appropriate and accurate?				
Was service reliable & uninterrupted 99% of the time over the period?				
Were SSO's less than two (2) per year?				
Section II - Organization				
Is the District's organizational chart current?				
Is the chain of communication for SSO response current?				
Is the SSMP phone list up-to-date and accurate?				
Section III – Legal Authority				
Does the SSMP contain up-to-date information about the District's legal authority?				
Does the District have sufficient legal authority to control sewer use and maintenance?				
Section IV – Operations and Maintenance Program				
Mapping				
Does the SSMP reference the current process and procedures for maintaining the District's sewer collection system maps?				
Are the District's sewer system maps up-to-date including all new construction and/or rehabilitation projects?				
Resources				
Does the District allocate sufficient funds for the effective operation, maintenance and repair of the wastewater collection system and is the current budget structure documented in the SSMP?				

SSMP Section	Yes	No	Update Needed in SSMP	Actions & Notes
Preventative Maintenance				
Does the SSMP describe the current preventative maintenance activities and the system for prioritizing the cleaning of sewer lines?				
Were all of the preventative maintenance activities generated by the District's IMS completed as scheduled?				
Are the District's preventative maintenance activities sufficient and effective in minimizing SSO's and blockages?				
Rehabilitation and Replacement				
Has the District's scheduled inspections and condition assessment system been effective in locating, identifying, and addressing any system deficiencies?				
Have the CIP sewer rehabilitation and replacement projects begun design and/or construction as scheduled?				
Maintenance Equipment				
Does the SSMP list the major equipment currently used in the operation and maintenance of the collection system and document the procedures of inventory management?				
Are contingency equipment and replacement parts sufficient to respond to emergencies and properly conduct regular maintenance?				
Training and Certification				
Is adequate training being provided to staff to maintain a knowledgeable and safe workplace?				

SSMP Section	Yes	No	Update Needed in SSMP	Actions & Notes
Training and Certification (cont.)				
Are the training procedures and logs for the staff up-to-date in the SSMP?				
Are Operations and Maintenance personnel properly certified by CWEA to perform their work and is this documented in the SSMP?				
Section V – Design and Construction Standards				
Does the SSMP contain up-to-date information about the District's design and construction standards and specifications?				
Are the design and construction standards and the testing and inspection standards for new and rehabilitated facilities sufficiently up-to-date and comprehensive?				
Section VI – Overflow Emergency Response Plan				
Is the District's SSO Emergency Response Plan, that establishes procedures for emergency response, notification, and reporting, effective and current?				
Has the District staff been properly trained on the procedures of the SSO Emergency Response Plan?				
Based on recent experience, has the Emergency Response Plan been effective in handling SSO's and safeguarding public health and the environment?				
Section VII – Fats, Oils, and Grease (FOG) Program				
Does the District SSMP identify sections of the collection system subject to FOG blockages, establish a cleaning schedule and address source control measures to minimize these blockages?				

SSMP Section	Yes	No	Update Needed in SSMP	Actions & Notes
Section VII – Fats, Oils, and Grease (FOG) Program (cont.)				
Does the District have sufficient legal authority to prohibit discharges to the collection system and to inspect grease-producing facilities?				
Section VIII – System Evaluation and Capacity Assurance Plan				
Has the District evaluated the hydraulic deficiencies in the system, established sufficient design criteria and recommended both short and long term capacity enhancement and improvement projects?				
Does the District's CIP establish a schedule of approximate completion dates for both short and long-term improvements and is the schedule reviewed and updated to reflect current budgetary capabilities and activity accomplishments?				
Section IX – Monitoring, Measurement, and Program Modifications				
Are the performance parameters shown for each of the SSMP elements adequate for monitoring the effectiveness of these elements?				
Are the methods for measuring each of the performance parameters sufficient to properly evaluate the success of each SSMP element?				
Does the description of the process for modifying the SSMP continue to be valid?				
Section X – SSMP Audits				
Will the SSMP audit be conducted every two years as required?				
Are the results of the audit compiled in a report and the information utilized to improve the performance of the SSMP?				

SSMP Section	Yes	No	Update Needed in SSMP	Actions & Notes
Section XI – Communication Program				
Does the SSMP contain up-to-date information about the District's public outreach activities?				
Has the District effectively communicated with the public and other agencies about the SSMP and addressed any feedback?				

Date Completed: _____

By: _____

Title: _____

SECTION XI—COMMUNICATION PROGRAM

Requirement[1]

The Enrollee shall:

(a) 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 District as the program is developed and implemented.

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

[1] SWRCB Order No. 2006-0003-DWQ § D.13 (vi)

Public Education and Outreach

Purpose

This section of the SSMP discusses the District's efforts to educate and inform the public regarding the proper use of the District's sanitary system. The goal of these communication efforts is to facilitate public awareness of sanitary sewer system issues and to provide the public with the opportunity to provide input to the District's SSMP as it is developed and implemented.

Communication System

The following is a summary of the District's efforts to educate, inform and engage the public's participation in the proper utilization of the District's sanitary sewer system and comply with the SSMP requirements.

Otay Water District Official Website

The District has a website (www.otaywater.gov) that is used to inform the public about District activities. The main page provides access to diverse information and includes a link to information about the sanitary sewer system. An example of the type of information available on the website is included as Exhibit XI-A. There is also a link on the website to access selected District publications where the public is able to view the SSMP document and another link for providing comments to the District. The main page has a section for announcements which will be utilized to notify the public of any important activities related to sewer system management.

Public Meetings

The District holds a Board of Directors meeting on the first Wednesday of each month. These meetings are held in the Board Room at the District's headquarters at 2554 Sweetwater Springs Boulevard, Spring Valley, California, 91978, and the public is invited and encouraged to attend. The Board meetings provide a forum for citizens to provide input on particular programs within the District during the Public Participation portion of the meeting. Copies of the Board Meeting Agenda are made readily available to the public from the District's website. Certification and subsequent re-certification of the completed SSMP is required by the Board of Directors during a public Board of Directors meeting.

Project specific meetings may also be convened with community leaders, community groups and other citizens to discuss sewer related projects and efforts. These meetings provide citizens with the opportunity to learn about the District's activities, voice any

concerns they may have, and receive clarification on a variety of issues. Project specific meetings are usually arranged by the District's specific Project Manager for each sewer project.

Other Outreach Media Efforts

The District also uses several additional forms of media to educate and inform the public regarding impacts to the District's sanitary sewer system. These include the following:

1. Press releases in local newspapers
2. Door Hangars
3. Brochures distributed at community events
4. Bill stuffers
5. District newsletter mailed quarterly to customers
6. Sewer project construction signs located near construction areas.

Examples of a bill stuffer, a newsletter article and a project construction sign are included in Exhibit XI-A.

Communication with Tributary and/or Satellite Collection Systems

The District communicates regularly with the agencies that operate the collection systems tributary to the District's collection system. The District is part of the

Exhibit XI-A

COMMUNICATION MEDIA EXAMPLES

Sewer Construction Project Sign

Customer Newsletter Article

Customer Bill Stuffer

SECTION XII — DOCUMENTS & PROCEDURES

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B. SPILL NOTIFICATION
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   10. Pump Station Level Set Points
   11. Refilling Bioxide Tanks

A. SAFETY

VACTOR TRUCK
Safety, Equipment, and Work Flow

Work Flow

Vactor Truck Driver

1. Engages PTO when at man hole
2. Turns on arrow board in front of truck if needed+-
3. Turns on hazard lights and beacon
4. Chalks truck tires
5. Sets up cones in back of truck
6. Helps with set up in front of truck
7. When setting up tubes for vacuum gets tubes and clamps while other worker adjusts boom

Vactor Truck Passenger

1. Passenger guides truck to man hole
2. Sets up cones in front of truck
3. Gets man hole hook and water gun
4. Turns on arrow board for back of truck if needed
5. Hooks up light for seeing into deep man holes
6. Gets the footage together for the length of run to be cleaned
7. Guides truck back to man hole to decant

Equipment and Tool Location

1. Ear plugs, gloves, hand sanitizer in cab of truck
2. Rags located under passenger seat
3. Light located under passenger seat
4. Arrow board for the front of the truck located on dash
5. Wrenches, clamps, nozzles, man hole hook, hydrant wrench etc. located in passenger side cabinet
6. Arrow board for back of truck in passenger side cabinet
7. Traffic control signs on passenger side of truck
8. Sign stands on driver's side of truck
9. Broom, shovels, dig bar, probe on passenger side of truck
10. Traffic Cones on both sides of truck
11. Grease fittings and controls for debris body on passenger side of truck
12. Water hose gun valve on passenger side of truck
13. Decant valve on back of truck
14. Basket on back of truck (driver's side)
15. Locater, measuring wheel, pruners located in cabinet on driver's side
16. Water jug driver's side.
17. 7.5' vacuum tubes and the tube holder are located in the Treatment Plant Warehouse

Water Operations Department Department and Division Procedures – Division 3244	Page 1 of 1	REV 1
RWCWRF *– Treatment Plant Entry and Exit*	**Approval Date:**	
	Latest Revision Date:	

APPROVED:

Author:_____ Date: _____
Reclamation Plant Supervisor Gene Palop

Approved:_____ Date:_____
Operations Manager Gary Stalker

Revision Record:

Revision	Date	Responsible person	Description of Change
0	3/30/2010	Staff	Initial Release
1	2/28/12	Damon Newman	Edit procedure steps

Water Operations Department Department and Division Procedures – Division 3240	Page 1 of 1	REV 1
RWCWRF – Treatment Plant Entry and Exit	**Original Date:** March 30, 2010	
	Latest Revision Date: February 28, 2012	

Purpose:

To provide efficient Treatment Plant access with a minimum of false alarms or delays.

Procedure:

Plant Entry

1. Open the brass combination padlock on the yellow gate at the Treatment Plant access road on Singer Lane using the current security number sequence.
2. Open the Treatment Plant main gate with your RFID or your FOB.
3. When entry to any of the buildings is required, FOB the access control reader located next to all entrance doors.
   - 3.a. The control reader status light will shift from red (armed) to green (disarmed).
   - 3.b. Staff will need a plant door key, to unlock the door to gain access to the lab Building.
   - 3.c Staff will then need to enter in the current security code for the alarm system within 30 seconds before the alarm is sounded
   - 3.d. When staff is ready to leave the Treatment Plant follow the Treatment Plant exit procedures shown below.

Plant Exit

1. If the access control reader was not utilized to disarm the security system and no entrance was made into any building, no further action is required before exiting through the Treatment Plant main gate.
2. If the access control reader was utilized to unarm the security system, staff will need to be inside the Laboratory entrance door to re-arm the system before leaving.
   - 2.a. Key the current security code into the security control panel.
   - 2.b. Within 1 minute, FOB the inside of the Laboratory Building before exiting the door.
   - 2.c. Once outside, lock the entrance door and ensure the control reader status is red.

Directions to Cottonwood Meadows Lift Station from RWCWRF

1. Leaving RWCWRF, 11901 Singer Lane, Spring Valley, 91978
2. Head East down the access road to Campo Road
3. Turn Left onto Campo Road for 0.4 miles
4. Turn Right onto Jamacha Road for 0.8 miles
5. Turn Right onto Willow Glen Drive for 0.8 miles
6. Turn Right onto Steele Canyon Road for 0.4 miles
7. Take the 2nd Right onto Par Four Drive for 0.2 miles
8. The Cottonwood Meadows Lift Station is at the end of Par Four Drive
9. Enter through the metal swing gate and take the easement road to the Lift Station
10. Cottonwood Meadows Lift Station, 3550 Par Four Drive, El Cajon, 92019

Directions to Hidden Mountain Lift Station from RWCWRF

1. Leaving RWCWRF, 11901 Singer Lane, Spring Valley, 91978
2. Head East down the access road to Campo Road
3. Turn Left onto Campo Road for 0.4 miles
4. Turn Right onto Jamacha Road for 2.7 miles
5. Turn Right onto Hidden Mesa Road for 0.6 miles
6. Turn Left onto Hidden Springs Drive for 0.1 miles
7. Take the 2nd Left onto Hidden Mountain Drive for 0.3 miles
8. The Hidden Mountain Lift Station will be on your left
9. Hidden Mountain Lift Station, 1256 Hidden Mountain Drive, El Cajon, 92019

Directions to Russell Square Lift Station from RWCWRF

1. Leaving RWCWRF, 11901 Singer Lane, Spring Valley, 91978
2. Head East down the access road to Campo Road
3. Turn Left onto Campo Road for 0.4 miles
4. Turn Left to stay on Campo Road for 1.3 miles
5. Take exit 12 for Calavo Drive toward Avocado Boulevard for 0.1 miles
6. Turn Right onto Avocado Boulevard for 1.4 miles
7. Turn Left onto Fuerte Drive for 0.9 miles
8. Turn Right onto Russell Road for 0.1 miles
9. Turn Left to stay on Russell Road for 0.2 miles
10. Take the first Right into the gated community of Russell Square
11. The Russell Square Lift Station will be on your left
12. Russell Square Lift Station, 5139 ½ Russell Square, La Mesa, 91941

Driving directions to Steele Canyon Pump Lift Station from RWCWRF

1. Leaving RWCWRF, 11901 Singer Lane, Spring Valley, 91978
2. Head east down the access road
3. Lift Station will be on your right
4. Steele Canyon Lift Station, 11977 Singer Lane, Spring Valley, 91978

Directions to Calavo Gardens Lift Station from RWCWRF

1. Leaving RWCWRF, 11901 Singer Lane, Spring Valley, 91978
2. Head East down the access road to Campo Road
3. Turn Left onto Campo Road for 0.4 miles
4. Turn Left to stay on Campo Road for 1.1 miles
5. Turn Right onto Via Mercado for 0.2 miles
6. Turn Left onto Calle Verde Drive for 0.2 miles
7. Turn Left onto Avocado Boulevard for 0.1 miles
8. The Calavo Gardens Lift Station drive way will be on your right
9. Calavo Gardens Lift Station, 3700 Avocado Boulevard, Spring Valley, 91977

B. SPILL NOTIFICATION

Water Operations Department Department and Division Procedures – Division 3244	Page 1 of 1	REV 1
RWCWRF *– Collection System Sewer Spill Response & Notification*	**Original Date:** August 29, 2006	
	Latest Revision Date: PENDING for Board Approval	

APPROVED:

Author:_____ Date: _____
Reclamation Plant Supervisor Gene Palop

Approved:_____ Date:_____
Operations Manager Gary Stalker

Revision Record:

Revision	Date	Responsible person	Description of Change
0	8/23/2001	Staff	Initial Release
1	2/29/2012	Frank Anderson	Add cover sheet and edit procedure steps

Water Operations Department Department Procedures – Section 3241	Page 1 of 9	REV 1
RWCWRF – *Collection System Sewer Spill Response & Notification*	**Approval Date:** August 23, 2001	
	Latest Revision Date: May 5, 2012	

Purpose:

In accordance with the "California Regional Water Quality Control Board, San Diego Region, Monitoring and Reporting Program No. 2006-0003-DWQ as revised by order No. WQ 2008-0002-EXEC, Sanitary Sewer Overflow Reporting Procedures for Sewage Collection Agencies," the District is required to report to certain agencies any spills that reach reportable quantities or fall within special circumstances through the California Integrated Water Quality System (CIWQS). Although reportable quantities and special circumstances are summarized herewith, it is important that the reader becomes well acquainted with the Monitoring and Reporting Program No. 2006-0003-DWQ.

Procedure:

1. Otay Water District reclamation staff will conduct initial response and evaluation of any report of a sanitary sewer discharge within its sewer jurisdiction.
2. District staff must utilize all appropriate PPE prior to any physical investigation.
3. If discharge is confirmed, staff will identify sewer overflow jurisdiction.
    - If spill is not within District jurisdiction, notify the responsible agency and document the time and contact information into the appropriate IMS work order.
    - If the spill is within District jurisdiction, note if the actual blockage is occurring from a District, County-owned or private appurtenance. Consider that a blockage in a nearby County-owned manhole could cause a backup in the District collection system.
4. Contact immediate Supervisor and:
    - If the overflow is caused by a blockage or lift station equipment failure, follow the standby duty notification protocol for the Utility Maintenance and/or Pump/Electrical sections.
    - The Utility Workers assigned to the collection system section may be called to respond in lieu of the Utility Maintenance standby personnel if available for immediate response.
    - If possible, use special tools such as a grabber or clam shell to open the channel and allow flow through blockage until the Vactor crew arrives.
5. Visually estimate the amount of spill utilizing the spill picture guide, or use pumping hours at pump station if appropriate.

6. The Reclamation Supervisor or Lead Reclamation Plant Operator will notify the appropriate agencies as described in the attached notification guide.
7. Contain spillage if possible. Use sand bags and/or dirt to dam up sewage until Vactor truck can vacuum it up.
8. If any amount of spill impacts the creek and/or storm drains, the Lead Reclamation Plant Operator or Supervisor will notify the environmental authorities per the attached notification guidelines.
9. Disinfection: If public contact is probable receive direction from the Department of Environmental Health (DEH) on how to proceed.

Sewer Overflow Notification Guidelines

Sanitary Sewer Overflow Reporting Categories

Category 1 – All discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system that:

A. Equal or exceed 1000 gallons, or
B. Result in a discharge to a drainage channel and/or surface water; or
C. Discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.

Category 2 – All other discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system.

Category 3 – Private Lateral Sewage discharges that are caused by blockages or other problems within a privately owned lateral.

Notify agencies according to the following schedule;

Category 1

1. For any discharges of sewages that results in a discharge to a drainage channel of a surface water or a storm drain that is tributary to surface waters or drainage channel and was not completely recovered from the storm drain, the Discharger shall, as soon as possible, but not later than two (2) hours after becoming aware of the discharge, notify by phone or electronically;
    - The State Office of Emergency Services.
    - The local health officer or directors of environmental health with jurisdiction over affected water bodies.
    - The appropriate Regional Water Quality Control Board.
    - Sweetwater Authority- Scott McClelland, Director of Water Quality

2. As soon as possible, but no later than twenty-four (24) hours after becoming aware of a discharge to a drainage channel or a surface water, the Discharger shall submit to the appropriate Regional Water Quality Control Board a certification that the following agencies have been notified of the discharge;
    - State Office of Emergency Services
    - Local health officer or directors of environmental health with jurisdiction of the affected water bodies.

3. Enter the draft report into CIWQS as soon as possible but no later than 3 business days after becoming aware of SSO and certify report within 15 calendar days.

Category 2

1. All other discharges of sewage resulting from a failure in the Enrolleee's sanitary sewer system must be reported to the Online SSO Database within 30 calendar days after the end of the calendar month in which the SSO occurs (example; all Category 2 SSO's occurring in the month of January must be entered into the database by March 1st)

Private Lateral Sewage Discharges

1. All other sewer discharges that are caused by blockages or other problems within a privately owned lateral may be reported to the Online SSO Database based upon the Enrollee's discretion.
2. If the Private Lateral sewage discharge is recorded in the SSO Database, the Enrollee must identify the sewage discharge as occurring and caused by a private lateral, and the responsible party (other than Enrollee) should be identified, if known.

Agency Contact Numbers in the Event of a Spill

- **Office of Emergency Services (OES)**
  Emergency Notification Controller: (800) 852-7550
  Fax: (916) 845-8910
  www.oes.ca.gov/Operational/OESHome.nsf/1?OpenForm

- **County of San Diego/Dept. of Environmental Health Services (DEH)**
  Clay Clifton, Proposition 65 Coordinator: (858) 495-5579
  Normal Working Hours (Monday - Friday 8:30 am to 5:00 pm)
  Emergency after hours: (858) 565-5255
  Fax: (858) 694-3670
  clay.clifton@sdcounty.ca.gov
  P.O. Box 129261
  San Diego, CA 92112-9261

- **California Regional Water Quality Control Board (CRWQCB)**
  Office: (858) 467-2952
  Fax: (858) 571-6972

- **CA Regional Water Quality Control Board (CRWQCB)**
  SSO-WDR Compliance Electronic Reporting on California Integrated Water Quality System (CIQWS) file path www.CIWQS
  1. CIWQS login
  2. Specify Sanitary System
  3. Reporting New SSO
  4. Enter Information
  5. Label as "work in progress", "draft", "ready to certify" or "certified".

  The CIQWS SSO database will automatically generate an e-mail notification with customized information about the SSO upon initial reporting of the SSO and final certification for all Category 1 SSO's E-mails will be sent to the appropriate Regional Water Board.

- **San Diego Regional Water Quality Control Board**
  Business Hours Contact is Christopher Means 858-637-5581
  After Hours Contact Number 858-822-8344

- **Sweetwater Authority**
  Scott McClelland, Water Quality Supervisor: (619) 409-6825
  Cell: (619) 929-9977
  smcmclelland@sweetwater.org
  Fax: (619) 479-6271
  After hours:
  Robert A. Perdue Water Treatment Plant
  Plant Operator
  (619) 409-6800
  100 Lakeview Ave.
  Spring Valley, CA 92077

- **California Dept. of Fish & Game/Environmental Services Division**
  Bill Paznokas, Staff Environmental Scientist: (858) 467-4218
  wpaznokas@dfg.ca.gov
  Marylyn Fluharty, Environmental Scientist: (858) 467-4231
  mfluharty@dfg.ca.gov
  4949 Viewridge Ave.
  San Diego, CA 92123

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

Otay Water District
Sanitary Sewer Overflow Report Form

ALL ITEMS ARE REQUIRED TO BE ADDRESSED:

1. THIS REPORT IS (CIRCLE/UNERLINE ONE):

PRELIMINARY FINAL REVISED FINAL

2. REPORTED TO:

3. REPORTED TO:
(ENTER FAX, VOICE MAIL, OR NAME OF REGIONAL BOARD STAFF)

4. DATE REPORTED: (MM/DD/YY)

TIME REPORTED: (MILITARY OR 24 HOUR TIME)

5. REPORTED BY:

6. PHONE: (619) 670-2271

7. REPORTING SEWER AGENCY: Otay Water District

8. RESPONSIBLE SEWER AGENCY: Otay Water District

9. OVERFLOW START: DATE: (MM/DD/YY)

TIME: (MILITARY OR 24 HOUR TIME)

10. OVERFLOW END: DATE: (MM/DD/YY)

TIME: (MILITARY OR 24 HOUR TIME)

11. ESTIMATED OVERFLOW FLOW RATE: (GALLONS PER MINUTE)

12. TOTAL OVERFLOW VOLUME: (GALLONS)

13. OVERFLOW VOLUME RECOVERED: (GALLONS)

14. OVERFLOW VOLUME RELEASED TO ENVIRONMENT: (GALLONS)

SANITARY SEWER OVERFLOW LOCATION AND DESCRIPTION:

15. STREET:

CITY: ZIP CODE:
16. COUNTY: (SD, RI, OR)

17. SANITARY SEWER OVERFLOW STRUCTURE ID:

18. NUMBER OF OVERFLOWS WITHIN 1000' FT. OF THIS LOCATION IN PAST 12 MONTHS:

19. DATES OF OVERFLOWS WITHIN 1000 FT. OF THIS LOCATION IN PAST 12 MONTHS:

20. OVERFLOW CAUSE SHORT DESCRIPTION – CIRCLE/UNDERLINE ONE

ROOTS	GREASE	LINE BREAK	INFILTRATION
ROCKS	BLOCKAGE	POWER FAILURE	PUMP STATION FAILURE
DEBRIS	VANDALISM	FLOOD DAMAGE	MANHOLE FAILURE
OTHER	UNKNOWN	CONSTRUCTION	PRIVATE PROPERTY

21. OVERFLOW CAUSE – DETAILED DESCRIPTION OF CAUSE:

22. SANITARY SEWER OVERFLOW CORRECTION – DESCRIPTION OF ALL PREVENTATIVE AND CORRECTIVE MEASURES TAKEN OR PLANNED:

23. WAS THERE MEASURABLE PRECIPITATION DURING 72-HOUR PERIOD PRIOR TO THE OVERFLOW? (Y OR N)

24. DID THE SANITARY SEWER OVERFLOW ENTER A STORM DRAIN?

25. DID THE SANITARY SEWER OVERFLOW REACH SURFACE WATERS OTHER THAN A STORM DRAIN?

26. NAME OR DESCRIPTION OF INITIAL RECEIVING WATERS* (IF NONE, TYPE NONE)

27. NAME OR DESCRIPTION OF SECONDARY RECEIVING WATERS* (IF NONE, TYPE NONE)

28. IF THE SANITARY SEWER OVERFLOW DID NOT REACH SURFACE WATERS* DESCRIBE THE FINAL DESTINATION OF SEWAGE.

NOTIFICATION:

29. WAS THE LOCAL HEALTH SERVICES AGENCY NOTIFIED?

30. IF THE OVERFLOW WAS OVER 1,000 GALLONS, WAS THE OFFICE OF EMERGENCY SERVICES (OES) NOTIFIED?

AFFECTED AREA POSTINGS:

31. WERE SIGNS POSTED TO WARN OF CONTAMINATION?

32. LOCATION OF POSTING (IF POSTED):

33. HOW MANY DAYS WERE THE WARNING SIGNS POSTED?

34. REMARKS:

NOTES:

1) FOR DESCRIPTIONS AND CLARIFICATIONS OF ALL ITEMS ON THIS FORM, REFER TO ORDER NO 96-04 AS AMENDED, INCLUDING THE DOCUMENT ENTITLED, "REQUIRED FIELDS FOR ORDER NO. 96-04 QUARTERLY SUMMARY REPORT."
2) IF THE SANITARY SEWER OVERFLOW EVENT RESULTS IN A DISCHARGE OF 1,000 GALLONS OR MORE OR IN A DISCHARGE TO SURFACE WATERS, THIS FORM MUST BE RECEIVED BY THE REGIONAL BOARD NO LATER THAN FIVE DAYS AFTER THE OVERFLOW START DATE.

The following certification must be completed with the five day notice:

I swear under penalty of perjury that the information submitted in this document is true and correct. I certify under penalty of perjury that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information; I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature Date

Name

Title

Water Operations Department Department and Division Procedures – Division 3244	Page 1 of 1	REV 1
RWCWRF *– Spills and Overflows*	**Original Date:** August 23, 2004	
	Latest Revision Date: February 29, 2012	

APPROVED:

Author:_____ Date: _____
Reclamation Plant Supervisor Gene Palop

Approved:_____ Date:_____
Operations Manager Gary Stalker

Revision Record:

Revision	Date	Responsible person	Description of Change
0	4/23/2004	Staff	Initial Release
1	2/29/2012	Damon	Add cover sheet and edit procedure steps

Water Operations Department Department Procedures – Division 3244	Page 1 of 1	REV 1
Sewer *– Spills and Overflows*	**Original Date:** April 23, 2004	
	Latest Revision Date: February 29, 2012	

Purpose:

It is critical that there is no discharge of sewage, disinfectant, recycled water and/or sewage treated with disinfectant into storm drains. It is critical to follow a procedure for the prevention of any contaminated discharges into the storm drain systems.

Procedure:

1. When a spill, leak and/or overflow occurs and when disinfecting a sewage contaminated area, take every effort to ensure that the sewage, disinfectant, recycled water and/or sewage treated with the disinfectant is not discharged into the storm drain system or receiving waters.
2. Methods to inhibit discharges into storm drains are as follows:
   2.a. Blocking storm drain inlets and catch basins.
   2.b. Containing and diverting sewage and disinfectant away from open channels and other storm drain fixtures (using sandbags, inflatable dams, etc.).
   2.c. Removing the material with vacuum equipment.
3. Record required information at the spill site.
4. Perform field tests as necessary to determine the source of the spill.
5. Activate notification procedures regarding spill.
6. Proceed with reporting as necessary.

Water Operations Department Department and Division Procedures – Division 3244	Page 1 of 1	REV 1
RWCWRF *– Sewer Spill Prevention Plan*	**Original Date:** August 14, 2006	
	Latest Revision Date: February 29, 2012	

APPROVED:

Author:_____ Date: _____
Reclamation Plant Supervisor Gene Palop

Approved:_____ Date:_____
Operations Manager Gary Stalker

Revision Record:

Revision	Date	Responsible person	Description of Change
0	8/14/2006	Staff	Initial Release
1	2/29/2012	Damon	Add cover sheet

Water Operations Department Department Procedures Division 3244	Page 1 of 1	REV 1
RWCWRF *– Sewer Spill Prevention Plan*	**Approval Date:** August 14, 2006	
	Latest Revision Date: February 29, 2012	

Purpose:

To define a system of preventive maintenance to minimize the possibility of a sewer spill.

Procedure:

Sewer Lift Stations

1. All sewer lift station general equipment conditions and operation will be monitored daily via the SCADA system. An on-site inspection of the stations will be performed at least three times per week under normal circumstances. All maintenance needs will be addressed and scheduled based on criticality. Both SCADA and remote alarm monitoring systems will be maintained at each station.
    a. The Silverado Estates emergency lift station will be inspected quarterly (January, April, July, and October).
    b. The Calavo Gardens emergency lift station will be inspected once a week.

Collection System

1. The sewer collection system will be cleaned in its entirety on a regular basis.
    a. All manholes in easements and backyards will be inspected in the course of the cleaning.
    b. IMS work order templates with manholes and pipeline section "hot spots" will be updated as needed in order to ensure they are identified, prioritized, inspected and/or cleaning with greater frequency than the rest of the system.
2. The sewer collection system will be inspected in its entirety by a contracted televised inspection service on a regular basis.
    a. All maintenance needs identified in the inspection reports which can be handled by the Collection System section will be addressed and scheduled based on criticality.
3. The Collection System maintenance section will perform root control as needed.
4. Areas of the collection system subject to flood damage such as the Shadow Ranch outfall will be walked and inspected before anticipated and after heavy rains.
5. Easement encroachments will be mitigated as they are encountered.
6. Minor manhole rehabilitation will be performed in-house while more extensive repairs will be contracted out.

C. COLLECTION SYSTEM & TREATMENT PLANT ALARM SYSTEMS

Water Operations Department Department and Division Procedures – Division 3244	Page 1 of 1	REV 1
RWCWRF *– Treatment Plant Alarm Systems Acknowledgment*	**Original Date:** January 13, 2004	
	Latest Revision Date: March 1, 2012	

APPROVED:

Author:_____ Date: _____
Reclamation Plant Supervisor Gene Palop

Approved:_____ Date:_____
Operations Manager Gary Stalker

Revision Record:

Revision	Date	Responsible person	Description of Change
0	1/13/2004	Staff	Initial Release
1	3/1/2012	Damon	Place procedure into procedure template form and added cover sheet

Water Operations Department Department and Division Procedures – Division 3244	Page 1 of 1	REV 1
RWCWRF *– Treatment Plant Alarm Systems Acknowledgment*	**Original Date:** January 13, 2004	
	Latest Revision Date: March 1, 2012	

Purpose:
To assist in Treatment Plant Staff or Otay Water District Employees the steps to convey to the Reclamation Plant Operators of alarms at the Treatment Plant when they are not present.

Procedure:

1. If an alarm condition occurs at the Treatment Plant when the only Reclamation Plant Operator has left the facility, the Treatment Plant Staff or Otay Water District personnel will follow these steps:

   1a) Do not disarm the Verbatim. It will continue to use the "Verbatim Call Out List" to call until a contact is made.
   1b) Immediately call any of the Reclamation Plant Operators on their cell phones. If no contact is made, call the two on call pagers.
   1c) In the event of a chlorine leak alarm, follow the Treatment Plant Emergency Evacuation Procedure.
2. If all staff members leave while the operator is out covering normal duties, the remote alarm monitor (Verbatim) will handle alarm notification as normal. The verbatim will call a sequence of our phone numbers to notify the operators of an alarm. Reclamation Plant Operators are to ensure the Verbatim is armed before exiting the plant.
3. All current phone numbers for operators, pagers, cell phones, utility maintenance crews, and emergency situations are listed on the laminated wallet-sized Plant Emergency Phone Numbers Cards posted on the operations bulletin board in the laboratory hallway.

Water Operations Department Department and Division Procedures – Division 3244	Page 1 of 1	REV 1
SCADA - Acknowledging SCADA Alarms	**Original Date:** July 1, 2002	
	Latest Revision Date: February 29, 2012	

APPROVED:

Author:_____ Date: _____
Reclamation Plant Supervisor Gene Palop

Approved:_____ Date:_____
Operations Manager Gary Stalker

Revision Record:

Revision	Date	Responsible person	Description of Change
0	7/1/2002	Staff	Initial Release
1	2/29/2012	Damon Newman	Edit procedure steps

Water Operations Department Department Procedures – Division 3244	Page 1 of 1	REV 1
***SCADA** - Acknowledging SCADA Alarms*	**Approval Date:** July 1, 2002	
	Latest Revision Date:	

Purpose:

To allow the Water Treatment Operators to receive and acknowledge lift station alarms received from the District's five sewer lift stations via SCADA. Those sewer lift stations are Cottonwood Meadows Lift Station, Hidden Mountain Lift Station, Russell Square Lift Station, Calavo Gardens Lift Station and Steele Canyon Lift Station.

Procedure:

1. Log on to the SCADA system and click on the "ALM" button.
2. Check alarms listed and click on "Acknowledge" button.
3. If an alarm is received via a pager you can call the system and acknowledge the alarm.
   - 3.a. Dial the number 660.9784 and follow the prompts.
   - 3.b. When prompted enter your access code and press the # key.
   - 3.c. After listening to what the alarm is you will be prompted to enter the acknowledgement code. The acknowledgement code is 9 and then the # key.
4. If an alarm is received via the telephone listen to the message and follow the prompts.
   - 4.a. When prompted enter your access code and the # key.
   - 4.b. After listening to the alarms you will be prompted to enter the acknowledgement code. The code is 9 and then the # key.

Water Operations Department Department and Division Procedures – Division 3244	Page 1 of 1	REV 1
RWCWRF *– Acknowledging Lift Station Dialer Alarms*	**Original Date** July 1, 2002	
	Latest Revision Date: February 29, 2012	

APPROVED:

Author:_____ Date: _____
Reclamation Plant Supervisor Gene Palop

Approved:_____ Date:_____
Operations Manager Gary Stalker

Revision Record:

Revision	Date	Responsible person	Description of Change
0	7/1/2002	Staff	Initial Release
1	2/29/2012	Staff	Edit procedure steps

Water Operations Department Department Procedures – Division 3244	Page 1 of 1	REV 1
RWCWRF *– Acknowledging Lift Station Dialer Alarms*	**Original Date:** July 1, 2002	
	Latest Revision Date: February 29, 2012	

Purpose:

To allow operators to receive and acknowledge dialer alarms received from the District's five sewer lift stations. Those sewer lift stations are Cottonwood Meadows Lift Station, Hidden Mountain Lift Station, Russell Square Lift Station, Calavo gardens Lift Station and Steele Canyon Lift Station. These alarms are from a RACO dialer. RACO is the manufacturer.

Procedure:

1. At the lift station the alarm can be acknowledged by moving the alarm switch to the "disabled" position.
2. While receiving a call from the RACO there will be a prompting beep at which point you should press 9. This will acknowledge the alarm.
3. Alarms can be acknowledged by simply calling the RACO. The RACO phone numbers are as follows:
   - Hidden Mountain – 579.3764
   - Cottonwood – 442.4974
   - Steele Canyon – 660.9247
   - Russell Square – 442-5672
   - Calavo Gardens – 660.1033
4. To re-arm the lift station dialer before leaving:
   a) Make sure all alarm conditions are clear by pressing all reset buttons
   b) Move the alarm switch on the dialer back to the "normal" position
   c) Ensure all alarm conditions are green
   d) If alarm conditions are still red after arming the dialer, place the alarm switch back to the "disabled" position and troubleshoot the alarm

Water Operations Department Department and Division Procedures – Division 3244	Page 1 of 1	REV 0
RWCWRF *– Lift Station Communications Failures*	**Original Date:** March 1, 2012	
	Latest Revision Date: March 1, 2012	

APPROVED:

Author:_____ Date: _____
Reclamation Plant Supervisor Gene Palop

Approved:_____ Date:_____
Operations Manager Gary Stalker

Revision Record:

Revision	Date	Responsible person	Description of Change
0	3/1/2012	Damon Newman	Initial Release

Water Operations Department Department and Division Procedures – Division 3244	Page 1 of 1	REV 0
RWCWRF *– Lift Station Communications Failures*	**Original Date:** March 1, 2012	
	Latest Revision Date: March 1, 2012	

Purpose:

To assist the Reclamation Plant Operator troubleshoot communication failures for the lift stations via SCADA during working hours and after hours

Procedure:

During working hours:

1. Contact the Sr. SCADA Instrumentation Technicians.

After hours:

1. If the Lift Station on SCADA is a modem site, call the modem to ensure the phone line and modem are working.
2. To find the Lift Station modem number, log onto SCADA, click onto the "Comm Statistics" button then click onto the "System Architecture button".
3. When calling the modem you should hear a "fax like" connection when a successful attempt is made to the lift station modem.
4. If no sound is present the issue might be with the phone company.
5. Call the phone company and set up a Help Desk Ticket through their tracking process.
6. With no SCADA communication, ensure the dialer at the station is working properly.
7. Notify the Reclamation Plant Supervisor of the SCADA communications out and the lift station dialer.
8. If approved by the Reclamation Plant Supervisor to leave the communications off via SCADA, log onto SCADA and remove the timed modem call by clicking onto the "Comm Statistics" button and disabling the green PLC button for that station

Water Operations Department Department and Division Procedures – Division 3244	Page 1 of 1	REV 1
SCADA *– Treatment Plant Apparent Computer Freeze*	**Original Date:** July 1, 2002	
	Latest Revision Date: March 1, 2012	

APPROVED:

Author:_____ Date: _____
Reclamation Plant Supervisor Gene Palop

Approved:_____ Date:_____
Operations Manager Gary Stalker

Revision Record:

Revision	Date	Responsible person	Description of Change
0	7/1/2002	Staff	Initial Release
1	3/1/2012	Damon	Add cover sheet and added the reboot steps

Water Operations Department Department Procedures – Division 3244	Page 1 of 1	REV 1
***SCADA** – Treatment Plant Apparent Computer Freeze*	**Approval Date:** July 1, 2002	
	Latest Revision Date: 3/1/2012	

Purpose:

Restore operability of SCADA computers.

Procedure:

During working hours:

1. Contact the Senior SCADA Instrumentation Technicians

After Hours:

1. If you cannot contact the SCADA Instrumentation Technicians, perform the SCADA Server reboot procedure shown below.

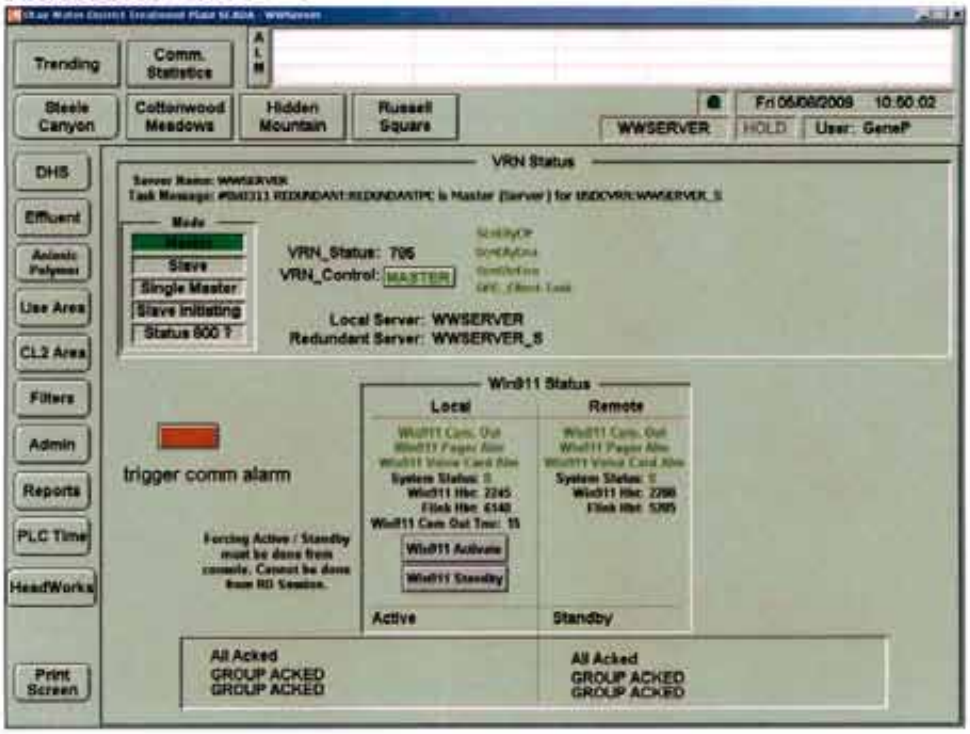
Shutdown procedures for WWServer & _S

- WWServer
- Press **CTRL** + **ALT** + **DELETE**
- Click **SHUTDOWN** button
- Follow direction.. reason for shutdown, type "Reboot"
- Wait for computer to completely turn off.

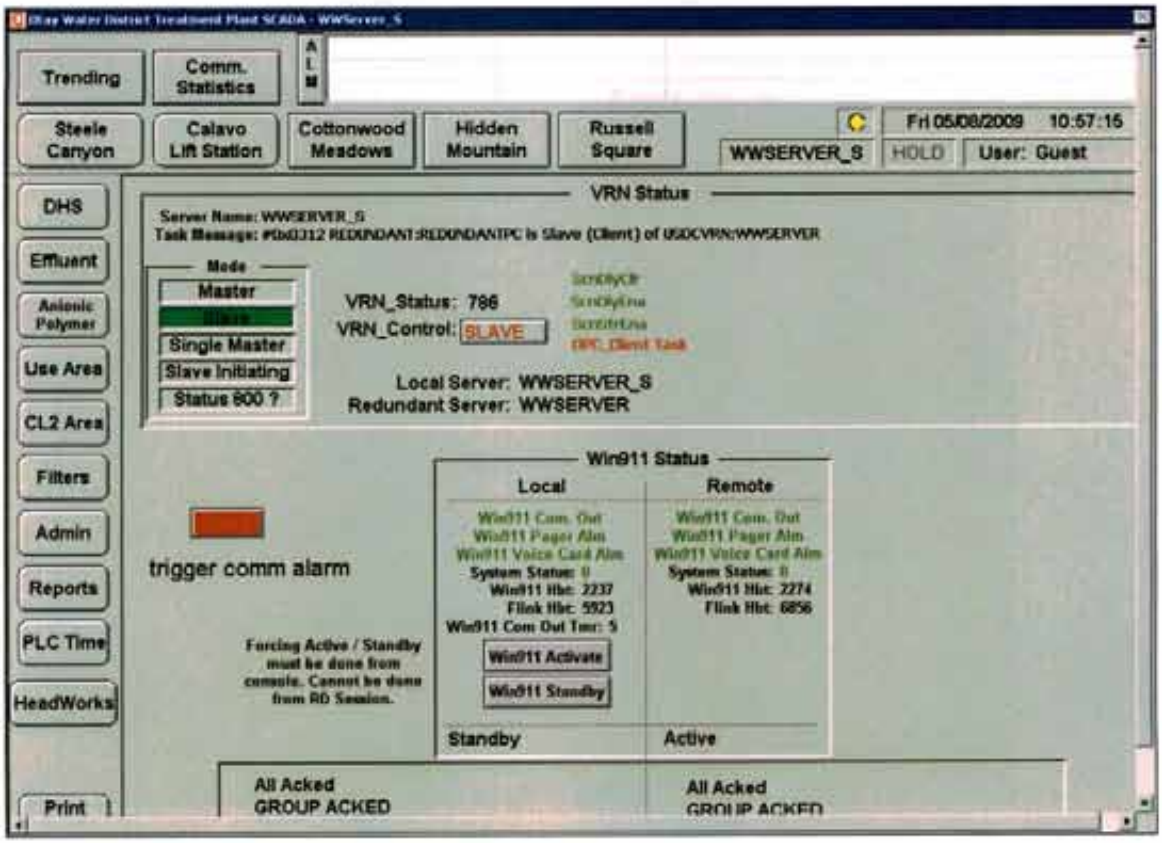
- Use the KVM Switch (press 2) for WWServer_S
- Press **CTRL** + **ALT** + **DELETE**
- Click **SHUTDOWN** button
- Follow direction.. reason for shutdown, type "Reboot"
- Wait for computer to completely turn off.

Wait about 1 minute…

- WWServer_S
- Press POWER ON Button on Computer

- Wait for computer, until it brings up the SCADA screens.
- Press CTRL + ALT + T
- 

- VRN Status Window
  - Node should be **Single Master**
  - VRN_Control should be **MASTER** (Green)
  - ScnDlyClr, ScnDlyEna, ScnStrEna, OPC_Client Task should all be Green
- WIN911 Status Window
  - Local
    - Win911 Com. Out, Win911 Pager Alm, Win911 Voice Card Alm should all be Green
    - Click **Win911 Activate** button
    - Display below button should read **Active**
  - Remote
    - Do not worry about this screen until the other computer is started.
- Wait 5 Minutes…
- Use the KVM Switch (press 1) for WWServer
- Press POWER ON Button on Computer.
- Wait for computer, until it brings up the SCADA screens.
- Press CTRL + ALT + T



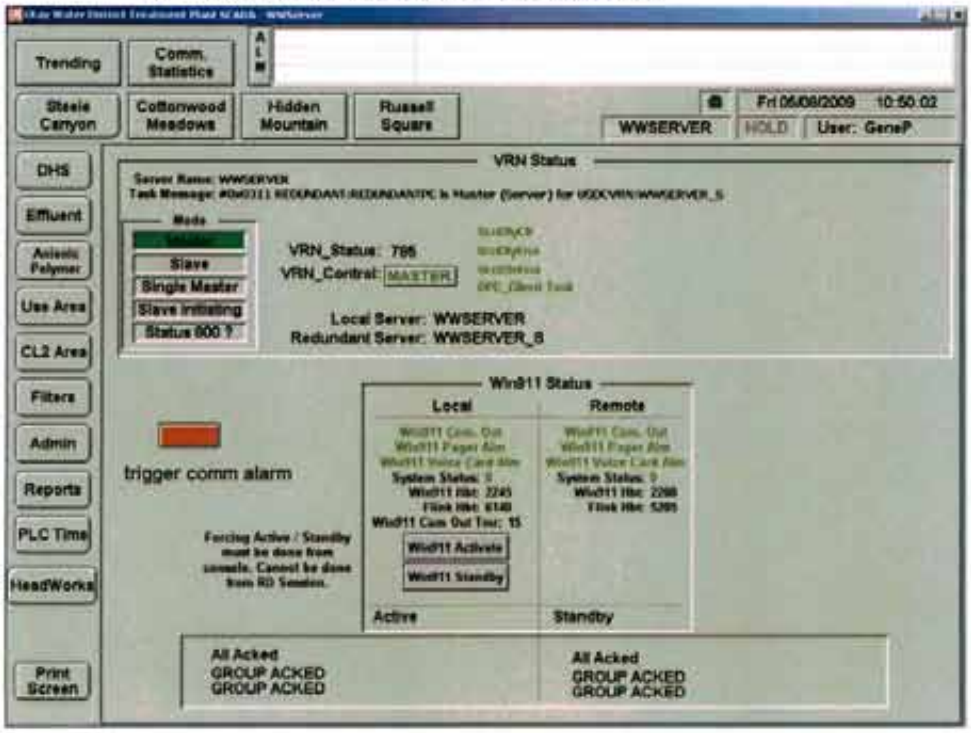
- VRN Status Window
  - Node should be **Slave**
  - VRN_Control should be **Slave** (Red)
  - ScnDlyClr, ScnDlyEna, ScnStrEna, should all be Green and OPC_Client Task (Red)

- WIN911 Status Window
  - Local
    - Win911 Com. Out, Win911 Pager Alm, Win911 Voice Card Alm should all be Green
    - Click **Win911 Standby** button
    - Display below button should read **Standby**
  - Remote
    - Win911 Com. Out, Win911 Pager Alm, Win911 Voice Card Alm should all be Green
    - Display below should read **Active**

*Ignore **Trigger Comm Alarm** button or status…*

- Use the KVM Switch (press 2) for WWServer_S

- You Should still be on this screen…



- Verify the VRN Status Window and the Win911 Status Window matches the screen shot.

You are done!!!

March 6th, 2012

ALARM SYSTEMS CALL- OUT NUMBERS AND SEQUENCES

SCADA System

For Collection System & Reclamation Plant Alarms

1.	Plant	670.2272 (Week Days 0600-1630, Weekends 0600-1630)
2.	Plant Pager #1	506.6421 (24 Hours all week)
3.	Plant Pager #2	290.4844 (24 Hours all week)
4.	Treatment Plant Cell	708.1122 (24 Hours all week)**password 1-2-3-4
5.	Damon Newman Cell	651.3449 (24 Hours all week)
6.	Gene Palop Cell	746.5713 (24 Hours all week)
7.	Operations Office	670.2764 (All Week 1630-Midnight, Midnight-0600)
8.	Answering Service	297.9510 (All Week 1630-Midnight, Midnight-0600)
9.	Damon Newman Hm	300.8896 (24 Hours all week)

- SCADA system will dial the numbers consecutively with a two-minute delay between calls. Plant and Pager #1 simultaneously on weekdays and weekends between 06:30 and 16:00 in case the operators are in the field.
- All other times the system will dial the pagers first before dialing voice numbers.
- There is two minute delay between calls to Pager #1 and Pager #2.
- There is a five minute delay between calls to all other voice numbers.
- System will retry all numbers twice unless the call is answered the first time. Time delay is 2 minutes between each attempt.

March 6th, 2012

Verbatim Alarm Monitor
For Reclamation Plant alarms only.

1. Plant	670.2272
2. Plant Pager #1	506.6421
3. Plant Pager #2	290.4844
4. Damon Newman Cell	651.3449
5. Gene Palop Cell	746.5713
6. Damon Newman HM	300.8896
7. Operations Office	670.2764
8. Answering Service	297.9510

Lift Station Dialer Call- Out List

1. Plant	670.2272
2. Plant Pager #1	506.6421
3. Plant Pager #2	290.4844
4. Damon Newman Cell	651.3449
5. Operations Office	670.2207
6. Answering Service	297.9510

D. COLLECTIONS & EQUIPMENT OPERATIONS

Water Operations Department Department and Division Procedures – Division 3232	Page 1 of 1	REV 1
RWCWRF *– CCTV Equipment Operation*	**Original Date:** August 28, 2007	
	Latest Revision Date: 2/29/2012	

APPROVED:

Author:_____ Date: _____
Reclamation Plant Supervisor Gene Palop

Approved:_____ Date:_____
Operations Manager Gary Stalker

Revision Record:

Revision	Date	Responsible person	Description of Change
0	8/28/2007	Staff	Initial Release
1	2/29/2012	Damon	Add cover sheet

Water Operations Department Department and Division Procedures – Division 3232	Page 1 of 2	REV 1
RWCWRF *– CCTV Equipment Operation*	**Original Date:** August 28, 2007	
	Latest Revision Date:	

Purpose:

To provide uniform guidelines for the operation of the closed-circuit television (CCTV) inspection equipment.

Procedure:

1. Determine location of access to pipeline that requires inspection. Load camera equipment into a truck and drive to location. Once at the location set up cones around the truck as a traffic control measure.
2. Set up camera equipment around manhole to provide for safe maneuvering once manhole lid has been removed. Set-up of equipment begins with starting the generator. This is done by:

2a Twist grey knob on top of gas tank one full turn to allow ventilation.

2b. Turn fuel knob to the on position.
2c. Pull out choke knob.
2d. Turn the RED switch to the on position.
2e. Pull cord to start generator.
2f. After a few seconds push in the choke knob, and turn the BLACK switch to Econ.

3. Open the box that contains the TELEVISION/VCR/DVD player. Next open the small compartment located below the keyboard and remove the power cord.
4. Make sure the camera power switch is in the off position (toggle switch is next to T.V. screen, OFF is in the middle). Plug power cord into generator and camera.
5. Once that is done plug in the blue camera cable by unraveling the power cord and plugging it into the TELEVISION box.
6. Turn camera power switch located next to the T.V. screen to A.C. (push the switch down) and power on the VCR.
7. Assemble the ABS pipes by screwing one into the other and lower into the manhole facing the direction of the inspection.
8. Unlock the cable reel by turning the knob counter clock wise. Remove camera head and run it through the ABS assembly until it goes all the way through into the pipe. When the camera is in the pipe turn on the light by twisting the dial labeled LIGHT HEAD.
9. Zero out the counter on the cable reel and on the T.V. This is done by pressing Ctrl + F3.

10. To data script the video you are recording follow these steps:
    a) Press Ctrl + F9 – data display scrip – date time,
    b) scroll down to preset text lines delete address with back space button,
    c) enter new address – delete manhole number enter in new manhole number,
    d) press [esc] button to return to main screen
11. Begin pushing the camera head up the line; this is done by pulling out a little slack
12. As problems are observed such as root intrusion and cracked joints, stop the camera head and press RECORD on the remote control.
13. After a few seconds of recording press STOP on the remote control and proceed on with the inspection.
14. Upon completion of inspection pull back the camera head and feed it into the reel housing. Use a rag to clean the cable as it comes back.
15. When the camera head is clear of the ABS pipe clean it off with the water sprayer and wipe it off with a rag.
16. Put away equipment by first turning power to the camera off (toggle switch next to T.V. in the middle).
17. Remove all power-supply cords and shut off generator by switching the RED button to off.
18. Put away all equipment and close manhole lid.
19. To finalize disk go to menu , then go to disk manager , go to finalize and enter Yes, it will ask to continue then enter yes again

Water Operations Department Department and Division Procedures – Division 3244	Page 1 of 1	REV 1
RWCWRF *– Vactor Lubrication & Maintenance*	**Original Date:** December 12, 2006	
	Latest Revision Date: February 29, 2012	

APPROVED:

Author:_____ Date: _____
Reclamation Plant Supervisor Gene Palop

Approved:_____ Date:_____
Operations Manager Gary Stalker

Revision Record:

Revision	Date	Responsible person	Description of Change
0	12/12/2006	Staff	Initial Release
1	2/29/2012	Damon	Add cover sheet

Operations & Maintenance Department Department Procedures – Division 3240	Page 1 of 1	REV 1
RWCWRF – Vactor Lubrication & Maintenance	**Approval Date:** December 12, 2006	
	Latest Revision Date: February 29, 2012	

Purpose:

To assure the proper lubrication of wear-points such as the hose reel, vacuum boom, debris body door, and the debris body ram. Maintenance is also done to optimize safe operation and equipment service life.

This lubrication and maintenance procedure for the Vactor truck will be performed on a monthly basis by section 3242 Utility Workers who are assigned to the Treatment Plant on a long-term basis. Additional maintenance will be conducted by the Fleet Maintenance Section at intervals determined by mileage and run-time hours.

****NOTE****
Due to lubrication point relocation there is no need to climb onto the Vactor truck; all lubrication points are now located on lower points of the truck.

When using lubrication gun, first clean around the zirk fitting with a rag, then pump grease until you can see the older grease start to move. As indicated above, if you cannot see the area where the grease is going, give the lubrication gun two to three pumps.

Lubrication Points: There are a total of 24 lubrication points throughout the truck.

Product: Hydro Synthetic Grease/Solution for all lubrication points.

Hose Reel: There are eight lubrication points (zirk fittings) on the hose reel, including one zirk fitting under the hose reel and one under the hose-control box.

Body Dump Door: There are eight lubrication points on the door, six on back, and two on the right-side of door.

Debris Body: On the passenger side of the truck there is a spot where there are seven lubrication points. When using these fittings give each one two to three pumps. The reason behind this is that it's difficult to see where the grease is going. There is also one lubrication point on the debris body fluid level needle.

Y-Strainer Inspection: Remove, clean, and inspect for damage the two-inch y-strainer located on the passenger side of the truck above the upper water tank. Also remove and inspect the four-inch y-strainer located below the bumper on the passenger side.

Water Operations Department Department and Division Procedures – Division 3244	Page 1 of 1	REV 1
RWCWRF *–Steele Canyon Sewer Lift Station Inspection*	**Original Date:** September 14, 2010	
	Latest Revision Date: March 15, 2011	

APPROVED:

Author:_____ Date: _____
Reclamation Plant Supervisor Gene Palop

Approved:_____ Date:_____
Operations Manager Gary Stalker

Revision Record:

Revision	Date	Responsible person	Description of Change
0	9/14/2010	Staff	Initial Release
1	3/15/2011	Damon Newman	Edit procedure steps

Standard Operating Procedure (SOP)
Steele Canyon Sewer Lift Station Daily Inspection

Purpose:

Verify normal operation of pumps, monitoring system, and back up power equipment at the Steele Canyon Sewer Lift Station.

Procedure:

1. Inspect throughout the lift station for any unusual conditions i.e. vandalism, graffiti or safety concerns.
2. Inspect around the wet well for any signs of a sewer spill.
3. Check the pumps for the following:
   - Leaks
   - Unusual noises
   - Vibrations
   - Oil level (should be more than half full on the sight glass), a white oil indicates a seal leak
   - Open and close the ball valve on the air release (ensure no rags are stuck)
   - Air-release spring position
4. Inspect dialer panel alarm indicators.
5. Check control panel for the following:
   - Verify pump discharge rate
   - Alarm indicators
   - Control switch position
6. Complete lift station inspection sheet with the following information:
   - Operator initials
   - Wet well level
   - Pump 1 & 2 run times
   - Generator run time
   - Note any maintenance performed
7. Complete the APCD Generator Log with the following information:
   - Hour meter reading
   - Monthly run hours
   - Yearly run hour
   - Comment section if needed
8. Before leaving verify the following:
   - All breakers are in the "ON" position or back in its temporary position as applicable.
   - All pump switches are in "AUTO" or back to its temporary pump sequence position as applicable.
   - The Emergency Generator doors are locked.
   - The Dialer cabinet is locked.
   - The Pump Control cabinet is locked.

- The Pump Stations fence gate is locked.

9. Log any maintenance performed into the Operations Daily Log Book at the Treatment Plant.
10. Initiate a weekly vacuuming of the wet well when inflow to the Treatment Plant has been restricted to 0.5MGD or less (ten-inches on partial flume).
11. The inspection forms for all sewer lift stations are to be replaced within the first week of the month and placed into the 3 ringed binders located in the Conference Room.

Water Operations Department Department and Division Procedures – Division 3244	Page 1 of 1	REV 1
RWCWRF *–Cottonwood Meadows Lift Station Inspection*	**Original Date:** August 30, 2007	
	Latest Revision Date: March 15, 2011	

APPROVED:

Author:_____ Date: _____
Reclamation Plant Supervisor Gene Palop

Approved:_____ Date:_____
Operations Manager Gary Stalker

Revision Record:

Revision	Date	Responsible person	Description of Change
0	8/30/2007	Staff	Initial Release
1	3/15/2011	Damon Newman	Edit procedure steps

Standard Operating Procedure (SOP)
Cottonwood Meadows Sewer Lift Station Daily Inspection

Purpose:

Verify normal operation of pumps, monitoring system, and back-up power equipment at the Cottonwood Sewer Lift Station.

Procedure:

1. Inspect throughout the lift station for any unusual conditions i.e. vandalism, graffiti and safety concerns.
2. Inspect dry well for standing water.
3. Inspect the wet well for any signs of a sewer spill
4. Check pumps for the following:
    - Leaks
    - Unusual noises
    - Air-release spring position
    - Pump priming and draw down rate. Compare the pump you are testing with the other pump to ensure equal draw down rate.
5. Inspect dialer panel alarm indicators.
6. Every Wednesday check and clean the low level float ball and submersible transducer for grease and rag build up. Follow the steps below:
    - Turn both pumps "OFF"
    - Disable the Dialer
    - Notify the RPO at the Treatment Plant
    - Remove the low float ball and the submersible transducer carefully
    - Wipe off any excess grease and rags and use CLR if necessary
    - Slowly lower the float ball and transducer
    - Turn the pumps back into "AUTO"
7. To clear the low level alarm, pull up the low level float ball to reset the float ball which will reset the stations alarm condition.
8. Ensure that all alarm conditions are cleared on the Dialer and SCADA by resetting them.
9. Complete lift station inspection sheet as follows:
    - Operator initials
    - Time
    - Wet well
    - Pump 1 and 2 run times
    - Generator run time
    - Note any maintenance performed
10. Complete the APCD Generator Log with the following information:
    - Hour meter reading

- Monthly run hours
- Yearly run hours
- Comment section if needed

11. Inspect wet well for debris build up
12. Before leaving verify the following:
    - All breakers are in the "ON" position or back in its temporary position as you found it.
    - All pump switches are in "AUTO" or back to its temporary pump sequence position as you found it.
    - The Emergency Generator doors are locked.
    - The dry well hatch is locked
    - The Dialer cabinet is locked.
    - The Pump Control cabinet is locked.
    - The Pump Stations fence gate is locked.
    - The iron swing gate on Par Four is locked.
13. Log any maintenance performed in the Operations Daily Log book at the Treatment Plant.
14. The inspection forms for all sewer lift stations are to be replaced within the first week of the month and placed into the 3 ringed binders located in the Conference Room.

Water Operations Department Department and Division Procedures – Division 3244	Page 1 of 1	REV 1
RWCWRF *– Cottonwood Meadows* *Emergency Contingency Plan*	**Original Date:** July 25, 2007	
	Latest Revision Date: March 1, 2012	

APPROVED:

Author:_____ Date: _____
Reclamation Plant Supervisor Gene Palop

Approved:_____ Date:_____
Operations Manager Gary Stalker

Revision Record:

Revision	Date	Responsible person	Description of Change
0	7/25/2007	Staff	Initial Release
1	3/1/2012	Damon	Add cover sheet and edit procedure steps

Water Operations Department Department and Division Procedures – Division 3244	Page 1 of 1	REV 1
RWCWRF *– Cottonwood Meadows* *Emergency Contingency Plan*	**Original Date:** July 25, 2007	
	Latest Revision Date: March 1, 2012	

Purpose:

To have an action plan for simultaneous loss of utility and generator power or failure in the force main.

Procedure:

In the event of an after-hour problem, call for assistance using the Utility Maintenance standby sheet. It directs you to call the on-call crew leader for help. Also notify the Reclamation Plant Supervisor. The wet well dimensions are approximately 20-feet in depth by 8-feet in diameter (7,500 gal). The wet well fill rate is approximately 145 gpm. The force main from the lift station to the discharge manhole at the intersection of Willow Glenn Road and Steel Canyon Road is approximately 0.7 miles.

Protect all potentially affected storm drains and follow the Sewer Spill Response & Notification procedure as necessary.

Confined space entry equipment may be necessary for entry into the drywell for some of the following tasks.

If the station's pumps are inoperable:

1. Drive the Gorman Rupp blue pump into the easement road at the end of Par Four Drive.
2. Unhook the pump when you arrive at the station and park the truck next to the generator.
3. Push the Gorman Rupp pump into position so that the suction hose can go into the wet well and the discharge fire hose can reach the emergency discharge connection in the dry well. No circumstances. It will only have to be turned if the upper check valve and lower flapper valve on adjustment to the pump discharge "T" valve should be necessary under most the No. 1 or No. 2 Pump fails.
4. Connect discharge fire hose and drop suction hose into wet well.
5. Turn both station pumps to "off".
6. Start the Gorman Rupp pump at slow speed. You will need to make a C-5 confined space entry to turn the discharge valve one-quarter turn.
7. With the discharge valve open, increase pump-engine speed to full throttle.
8. Use the wet well level as your guide for slowing down or shutting off the pump.

If the sewer force main is ruptured or broken:

1. Call the Utility Maintenance and Collection crews once you assess the problem is with the force main
2. Call in the Vactor crew to start pumping from the lowest manhole on Par Four Drive if the system is backed up. It is located in front of 3572 Par Four Drive (MH-332-022,IE 336.85). In a serious backup of sewage, a second location to pump from would be at the low manhole (MH-332-010,IE 338.85) at the dead-end of Heatherwood Drive. If the system has not surcharged to the manholes yet, it is desirable for the trucks to draw from the station wet well
3. Contact vendors to employ the use of sewer pumping trucks on a rotational basis.
4. Dumping of sewage is done at the manhole located at the intersection of Sawgrass St. and Medinah Dr., (MH-344-095,IE 355.60), which is just north of the intersection of Steele Canyon and Willow Glen Drive.

Draining the force main:

1. Connect the rigid suction hose located in the station storage shed to the 3 in. bypass cam-lock fitting located on the pumps' discharge line. Then open the ¼-turn plug valve just below the connection to allow drain-back into the wet well or Vactor truck. This can be done from on top of the drywell.

Sewer Pumping Trucks: Two pumping trucks are needed to keep up with flow to the station. When ordering service from vendors request a six-inch discharge-port adapter to speed up the dumping. Also request 4 inch suction lines if available, 3 in. will work. It may be necessary to use multiple vendors due to availability. Lead time is 1-2 hrs. A "10-wheeler" truck with a 4 inch suction line is ideal to set up at the station. This larger truck can then discharge into another smaller truck for disposal at the discharge manhole. However it will take effort to back up the larger truck to the station's wet well. It takes approximately 20 minutes to fill and another 20 minutes, round-trip, to empty a truck

Sewer Pumping Vendors:

1. Atlas Pumping – (619) 443-7867
2. Diamond Environmental – 1(888) 744-7191, Pedro
3. All-Max – (619) 562-5540, Chuck

Water Operations Department Department and Division Procedures – Division 3244	Page 1 of 1	REV 1
RWCWRF *–Hidden Mountain Sewer Lift Station Inspection*	**Original Date:** August 30, 2007	
	Latest Revision Date:	

APPROVED:

Author:_____ Date: _____
Reclamation Plant Supervisor Gene Palop

Approved:_____ Date:_____
Operations Manager Gary Stalker

Revision Record:

Revision	Date	Responsible person	Description of Change
0	8/30/2007	Staff	Initial Release
1	3/15/2011	Damon Newman	Edit procedure steps

Standard Operating Procedure (SOP)
Hidden Mountain Sewer Daily Lift Station Inspection

Purpose:

Verify normal operation of pumps, monitoring system, back up power equipment and chemical feed equipment at the Hidden Mountain Sewer Lift Station.

Procedure:

1. Inspect all around the lift station for any unusual conditions i.e. vandalism, graffiti and safety concerns
2. Inspect around the three wet wells and the pump station for any signs of a sewer spill.
3. Open and inspect the suction manhole for debris build up.
4. Check the pumps for the following:
    - Leaks
    - Unusual noises
    - Air-release spring position
    - Pump priming and draw down rate. Compare the pump you are testing with the other pump to ensure equal draw down rate.
5. Inspect dialer alarm indicators for any alarm conditions.
6. Every Wednesday check and clean the low level float ball and the submersible transducer for grease and rag build up.
7. To inspect the float ball and the submersible transducer follow the steps below:
    - Turn both pumps "OFF"
    - Disable the Dialer
    - Notify an RPO at the Treatment Plant
    - Set up the necessary traffic control cones and Traffic Signage for accessing the wet well
    - Remove the low float ball and transducer carefully
    - Wipe off any excess grease and rags and use CLR if necessary
    - Slowly lower the float ball and transducer
    - Turn the pumps back into "AUTO"
8. To clear the low level alarm, pull up the low level float ball to reset the float ball which will reset the stations alarm condition.
9. Ensure that all alarm conditions are cleared on the Dialer and SCADA by resetting them.
10. Complete lift station inspection sheet with the following information:
    - Operator Initial
    - Wet well level
    - Pump 1 and 2 run times
    - Generator run time

- Bioxide level (notify supervisor at 12-inch level or below)
- Note any maintenance performed

11. Before leaving verify the following:
    - All breakers are in the "ON" position or back in its temporary position as you found it.
    - All pump switches are in "AUTO" or back to its temporary pump sequence position when you found it.
    - The potable water hatch is locked.
    - The Bioxide suction pipe is locked.
    - The Pump Stations housing is locked
12. Log any maintenance performed in the Operations Daily Log Book at the Treatment Plant.
13. The inspection forms for all sewer lift stations are to be replaced within the first week of the month and placed into the 3 ringed binder located in the Conference Room.

Water Operations Department Department and Division Procedures – Division 3244	Page 1 of 1	REV 1
RWCWRF *–Russell Square Sewer Lift Station Inspection*	**Original Date:** August 30, 2007	
	Latest Revision Date: March 15, 2011	

APPROVED:

Author:_____ Date: _____
Reclamation Plant Supervisor Gene Palop

Approved:_____ Date:_____
Operations Manager Gary Stalker

Revision Record:

Revision	Date	Responsible person	Description of Change
0	8/30/2007	Staff	Initial Release
1	3/15/2011	Damon Newman	Edit procedure steps

Standard Operating Procedure (SOP)
Russell Square Sewer Lift Station Daily Inspection

Purpose:

Verify normal operation of pumps, monitoring system and chemical feed equipment at the Russell Square Sewer Lift Station.

Procedure:

1. Inspect all around the lift station for any unusual conditions i.e. vandalism, graffiti and safety concerns.
2. Inspect around the wet well for any signs of a sewer spill.
3. Open and inspect the wet well for debris build up.
4. Check the pumps for the following:
    - Discharge piping leaks
    - Unusual noises
    - Pump priming and draw down rate. Compare the pump you are testing with the other pump to ensure equal draw down rate.
5. Inspect dialer alarm indicators for any alarm conditions.
6. Wash down the Bioxide mat all the while pumping down the wet well level until you reach the shut off level set point.
7. Every Wednesday check and clean the low float ball and submersible transducer for grease and rag build up.
8. To inspect the low float ball and submersible transducer follow the steps below:
    - Turn both pumps "OFF"
    - Disable the dialer
    - Notify an RPO at the Treatment Plant
    - Remove the low float and transducer carefully
    - Wipe off any excess grease and rags and use CLR if necessary
    - Slowly lower the float ball and transducer
    - Turn the pumps back in "AUTO"
9. To clear the low level alarm, pull up the low level float ball to reset the float ball which will reset the stations alarm condition.
10. Ensure that all alarm conditions are cleared on the Dialer and SCADA by resetting them.
11. Complete the lift station inspection sheet with the following information:
    - Operator Initial
    - Wet well level
    - Pump 1 and 2 run times
    - Bioxide level (notify supervisor at 6-inch level or below)
    - Note any maintenance performed

12. Before leaving verify the following:
    - All pump breakers are in the "ON" position or in its temporary position you found it
    - All pump switches are in "AUTO" or back to its temporary pump sequence position when you found it.
    - The wet well hatch is locked.
    - The Dialer cabinet is locked.
    - The Pump Control cabinet is locked.
    - The Bioxide cabinet is locked.
    - The Pump Stations fence gate is locked.
13. Log any maintenance performed into the Operations Daily Log Book at the Treatment Plant.
14. The inspection forms for all sewer lift stations are to be replaced within the first week of the month and placed into the 3 ringed binder located in the Conference Room.

Water Operations Department Department and Division Procedures – Division 3244	Page 1 of 1	REV 0
RWCWRF *–Calavo Gardens Sewer Lift Station Inspection*	**Original Date:** April 13, 2009	
	Latest Revision Date: May 18, 2011	

APPROVED:

Author:_____ Date: _____
Reclamation Plant Supervisor Gene Palop

Approved:_____ Date:_____
Operations Manager Gary Stalker

Revision Record:

Revision	Date	Responsible person	Description of Change
0	4/13/2009	Staff	Initial Release
1	5/18/2011	Damon Newman	Edit procedure steps

Standard Operating Procedure (SOP)

Sewer Lift Stations – Calavo Gardens Sewer Lift Station Inspection

Purpose:

The District replaced the Calavo Gardens lift station in September, 2008. The station is primarily intended for emergency use in the event flow from the collection system needs to be diverted from the County's Rancho San Diego pump station or the Reclamation Plant. In the event of the station running in an emergency situation, the pump station will need to be inspected by either SCADA or a physical inspection. During the weekends if an operator is not working or is working, a SCADA inspection will be suffice. Every Monday to verify the operational readiness of the pumps and equipment, an actual testing of the pumps and discharge rates will be performed.

Procedure:

District vehicles must park on the station's gravel driveway only. Contact property owners prior to events when more parking spaces will be needed.

1. Inspect all around the lift station for any unusual conditions i.e. vandalism, graffiti and safety concerns.
2. Inspect around the wet well for any sewer spills.
3. Open and inspect the wet well for debris build up.
4. Test each pump and check for the following:
    - Discharge pipe leaks
    - Unusual noises
    - Pump priming and draw down rate
    - Discharge rate for each pump and both pumps running together
5. To test both pumps perform the following steps:
    - Place a pump in "HAND" and the other pump in the "OFF" position.
    - Record the discharge rate
    - Turn the pump that was running in the "OFF" position and place the other pump in the "HAND" position.
    - Record the discharge rate.
    - Place both pumps in the "HAND" position.
    - Record the discharge rates
    - After testing the station, place both pumps in the position you found it.
6. Complete the lift station inspection sheet with the following information;
    - Operator initials
    - Wet Well level
    - Totalizer reading (Totalizer measures flow in units of 100 gallons)
    - Individual and combined pumping discharge rates
7. Before leaving verify the following:

- All pump breakers are in the "AUTO" position or in its temporary position you found it.
- All pump switches are in "AUTO" or back to its temporary pump sequence position when you found it.
- The wet well hatch is closed and locked.
- Both control cabinets are locked.
- The Pump Stations fence gate is locked.

8. The inspection forms for all sewer lift stations are to be replaced within the first week of the month and placed into the 3 ringed binder located on the book shelves in the Conference Room.
9. The station's influent valve is to remain normally open. Notify the Lead Reclamation Plant Operator or the Supervisor prior to closing the valve.

- The hydraulic grade line of the wetwell and influent line is about 10.14 feet. In the event the 10 inch trunk line backs up downstream of the station, a sewer spill will first occur at manhole MH 342-087 located on the southbound shoulder of Avocado Blvd. near the entrance roadway to the station.
- #1 pump discharge rate: around 336 gpm at 14.7 psi.
- #2 pump discharge rate: around 361 gpm at 14.9 psi.
- #1 and #2 pumps simultaneous discharge rate: 563 gpm at 17.4 psi.
- The high level float bypass is about 5.5 – 6.0 feet, when the pumps will run on floats instead of the PLC. Once the level reaches the low level float, it will return back to PLC control.

Water Operations Department Department and Division Procedures – Division 3244	Page 1 of 1	REV 1
RWCWRF *– Silverado Emergency Sewer Lift Station Activation*	**Original Date:** August 29, 2006	
	Latest Revision Date: February 29, 2012	

APPROVED:

Author:_____ Date: _____
Reclamation Plant Supervisor Gene Palop

Approved:_____ Date:_____
Operations Manager Gary Stalker

Revision Record:

Revision	Date	Responsible person	Description of Change
0	8/29/2006	Staff	Initial Release
1	3/9/2012	Damon	Add cover sheet

Water Operations Department Department Procedures – Division 3244	Page 1 of 1	REV 1
RWCWRF *– Silverado Emergency Sewer Lift Station Activation*	**Approval Date:** August 29, 2006	
	Latest Revision Date: March 9, 2012	

Purpose:

To maintain a safe and effective sewage removal system from the Silverado Community during an emergency situation.

1. Back the portable pump into the station.
2. Perform confined space entry into the manhole to the right of the pump station near the sidewalk. (See confined space entry procedures.)
3. Remove pipe cap in manhole to allow sewage to flow into the wet well.
4. Place sandbags in the manhole to back up the sewer flow.
5. Connect pump-suction hose to four-inch female cam-lock connection at the station.
6. Connect pump-discharge hose to four-inch female cam-lock connection at the station.
7. Open station discharge hose.
8. Pump wet well based on level.

Note: Water is available at the station for priming the pump.

Equipment:

Portable Gorman Rupp Pump (Blue Pump)
Eight-foot discharge hose with four-inch male cam-lock fittings
Eight-foot suction hose with four-inch male cam-lock fittings
Sandbags (4)
Bolt cutters (to cut lock off curb stop)

Otay Water District Lift Station Level Set Points

Steele Canyon Lift Station

High Level Set Point	9.0 feet
Low Level Set Point	1.3 feet

Calavo gardens Lift Station

High Level Set Point	10.5 feet
Low Level Set Point	0.8 feet

Cottonwood Meadows Lift Station

High Level Set Point	7.3 feet
Low Level Set Point	1.6 feet

Hidden Mountain Lift Station

High Level Set Point	5.0 feet
Low Level Set Point	1.5 feet

Russell Square Lift Station

High Level Set Point	4.5 feet
Low Level Set Point	1.5 feet

Water Operations Department Department and Division Procedures – Division 3244	Page 1 of 1	REV 1
RWCWRF *– Refilling Bioxide Tanks*	**Original Date:** August 29, 2006	
	Latest Revision Date: February 29, 2012	

APPROVED:

Author:_____ Date: _____
Reclamation Plant Supervisor Gene Palop

Approved:_____ Date:_____
Operations Manager Gary Stalker

Revision Record:

Revision	Date	Responsible person	Description of Change
0	8/29/2006	Staff	Initial Release
1	2/29/2012	Damon	Add cover sheet and edit procedure steps

Water Operations Department Department Procedures – Section 3240	Page 1 of 1	REV 1
RWCWRF *– Refilling Bioxide Tanks*	**Original Date:** August 29, 2006	
	Latest Revision Date: February 29, 2012	

Purpose:

For safely and efficiently refilling the Bioxide storage tanks to control odor in the sewer force mains located at the Hidden Mountain and Russell Square Sewer Lift Stations.

Procedure:

1. Verify that the chemical to be received is Bioxide by checking shipment manifest prior to unloading.
2. Unlock cam-lock cap at tank fill point.
3. Observe flow from truck into tank.
4. At approximately 6-inches from the top of the tank, the truck pump is turned off and the truck operator blows air through the feeder lines.
5. Replace and relock the cam-lock on the cap.
6. Open the US Filter cabinet and manually run the pump between two and five minutes to check for air in the lines and verify chemical addition to wet well.
7. Log information into lift station inspection sheet.
8. Log information into the HACH Daily Log Book.

In the event of spill:

1. Use the portable spill kit.
2. After the spill is contained clean it up with absorbent materials and shovel into a container.
3. Dump the contents into the drying beds at the Treatment Plant.
4. Notify the supervisor and log the incident into the lift station log book.
5. Log incident into the HACH Daily Log Book.

(Insert all documents and procedures listed in the above mentioned Table of Contents into the manual)

Appendix A

A-1 Otay Water District Board of Directors Agenda Item 8a “Statewide General Waste Discharge Requirements for Sanitary Sewer Systems - Approval of Otay Water District Plan and Schedule for the Development of a Sewer System Management Plan”.

A-2 Otay Water District Board of Directors Meeting Minutes of November 7, 2007, Meeting Minutes Item No. 9 a) Approval of the proposed Plan and Schedule for the Development of the District’s Sewer System Management Plan (SSMP).

A-3 Otay Water District letter dated November 8, 2007 with attached confirmation of November 7, 2007 on-line SSO certification of Development Plan and Schedule, Section I Goals and Section II Organization.

APPENDIX A

A-1

AGENDA ITEM 8a

STAFF REPORT

TYPE MEETING:	Regular Board	MEETING DATE:	November 7, 2007
SUBMITTED BY:	Meryll Gonzalez Assistant Civil Engineer	PROJECT No./ SUBPROJECTS	P1210/ 25000 DIV. NO. 3,4,5
	Ken Simmons Senior Civil Engineer		
	Ron Ripperger Engineering Manager		
APPROVED BY: (Chief)	Rod Posada Chief, Engineering		
APPROVED BY: (Asst. GM):	Manny Magaña Assistant General Manager, Engineering and Operations		
SUBJECT:	Statewide General Waste Discharge Requirements for Sanitary Sewer Systems – Approval of Otay Water District Plan and Schedule for the Development of a Sewer System Management Plan		

GENERAL MANAGER'S RECOMMENDATION:

That the Otay Water District's (District) Board of Directors approve the proposed Plan and Schedule for the development of the District's Sewer System Management Plan (SSMP).

COMMITTEE ACTION: _____

Please see Attachment A.

PURPOSE:

The California State Water Resources Control Board Order No. 2006-003, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems requires District Board approval of the Plan and Schedule for the development of the District's SSMP.

ANALYSIS:

On May 2, 2006, the State Water Resources Control Board (SWRCB) issued Order No. 2006-003, the Statewide General Waste Discharge Requirements (WDRs) for sanitary sewer systems. These WDRs are the regulatory mechanism for all agencies that own or operate sanitary sewer collection systems greater than one-mile in

length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility. The ultimate goal of the WDRs is to reduce the frequency and volume of sanitary sewer overflows (SSO's) by requiring Districts, sewer agencies, cities, and other entities to properly operate, maintain, and manage their wastewater collection system.

According to the WDRs, each agency must develop and implement a system-specific SSMP. To implement the elements of the SSMP, both the proposed plan to prepare an SSMP and the related schedule must be certified by the agency to be in compliance with the WDRs. The list of the WDRs requirements and the schedule must be presented to the agency's governing board for approval at a public meeting in order to be in compliance.

To meet the WDRs No. 2006-0003, staff has developed the proposed SSMP Development Plan and Schedule for Board approval (Attachment B).

Staff recommends that the Board approve the Development Plan and Schedule for preparation of the District SSMP.

FISCAL IMPACT:

This effort will be performed in-house and is covered by the operating budget.

STRATEGIC GOAL:

This project supports the District's Mission Statement, "To provide safe, reliable water, recycled water and wastewater services to our community in an innovative, cost efficient, water wise and environmentally responsible manner," and the District's Strategic Goals, "To satisfy current and future water needs for potable, recycled, and wastewater services."

LEGAL IMPACT:

None.

General Manager

P:\MORNING\SSMP\Staff Reports\Staff Report SSMP Plan and Schedule_10-4-07.doc

MG/KS/RR/RP:jf

Attachments: Attachment A
Attachment B

ATTACHMENT A

SUBJECT/PROJECT:	Statewide General Waste Discharge Requirements for Sanitary Sewer Systems - Approval of Otay Water District Plan and Schedule for the Development of a Sewer System Management Plan

COMMITTEE ACTION:

The Engineering, Operations, and Water Resources Committee reviewed this item at a meeting held on October 29, 2007. The following comments were made:

- Staff indicated that in May 2006, the State Water Resources Control Board issued an order that all agencies which own or operate a sanitary sewer collection system comply with the Statewide General Waste Discharge Requirements.

- According to the requirements, each agency must develop and implement a system-specific Sewer System Management Plan (SSMP). To be able to implement the elements of the SSMP, the development plan and related schedule must be presented and approved by the agency's governing board to be certified under the State Water Resources Control Board.

- Staff is requesting that the Board approve the proposed SSMP Development Plan and Schedule.

Upon completion of the discussion, the Committee supports Staff's recommendation and forwarding to the Board of Directors for discussion and approval.

ATTACHMENT B

SSMP DEVELOMENT PLAN AND SCHEDULE for the OTAY WATER DISTRICT		
SSMP Component	Due Date	Work Element
	1/2/2007	Implement the Electronic Spill Reporting Program - COMPLETED
	11/2/2007	Develop & Approve SSMP Development Plan and Schedule - 11/7/07 BOARD ACTION
(i) Goal	11/2/2007	Define Goals of SSMP
(ii) Organization	11/2/2007	(a) Authorized Representative (b) Management and Organization Chart (c) SSO Reporting Chain of Communication
(iii) Legal Authority	5/2/2009	(a) To Prevent Illicit Discharges into the System (b) To Require Proper Design and Construction of Sewers (c) To Ensure Access to Publicly Owned Portion of Lateral (d) To Limit the Discharge of FOG and other Debris (e) To Enforce Violations of Sewer Ordinances
(iv) Operation and Maintenance Program	5/2/2009	(a) Up-to-Date Map of Sanitary Sewer System (b) Preventative Maintenance Program (c) Rehabilitation and Replacement Plan (d) Training for Sanitary Sewer System Staff and Contractors (e) Equipment and Replacement Part Inventory
(v) Design and Performance Provisions	8/2/2009	(a) Design and Construction Standards and Specifications (b) Procedures and Standards for Installation, Rehabilitation, and Repair Projects
(vi) Overflow Emergency Response Program	5/2/2009	(a) Proper Notification Procedures for SSOs (b) Appropriate Response Program for SSOs (c) Prompt Notification to Regulatory Agencies (d) Emergency Response Plan and Appropriate Staff Training (e) Emergency Operation Procedures such as Traffic and Crowd Control (f) Containment and Prevention Program for SSO Discharge into U.S. waters
(vii) FOG Control Program	5/2/2009	(a) Implementation Plan and Schedule for Public Outreach (b) Plan and Schedule for Disposal of FOG within the Service Area (c) Legal authority to prohibit FOG discharges and prevent related SSOs and blockages (d) Requirement to install grease removal devices, and provision of design standards and requirements for such devices (e) Authority to inspect grease producing facilities, enforcement authorities, and evidence of sufficient enforcement staff for FOG ordinance (f) Identification and maintenance scheduling of sewer sections prone to FOG blockages (g) Development and implementation of source control measures for FOG sources in above identified sections
(viii) System Evaluation and Capacity Assurance Plan	8/2/2009	(a) Sanitary Sewer System Evaluation (b) Design Criteria (c) Capacity Enhancement Measures (d) Completion Schedule
(ix) Monitoring, Measurement, and Plan Modifications	8/2/2009	(a) Maintenance of information to prioritize SSMP activities (b) Monitoring of implementation and effectiveness of SSMP elements (c) Assessment of Preventative Maintenance Program (d) Update of program elements based on evaluation (e) Identification and illustration of SSO trends
(x) Program Audits	8/2/2009	(a) Identify key result areas and performance measures within SSMP (b) Develop criteria and procedures for measuring system performance and Plan compliance (c) Develop criteria and procedure for measuring the effectiveness of the Plan (d) Develop procedures for periodic Plan updates to address deficiencies and needed improvements (e) Develop procedures for preparing and filing bi-annual Audit Reports
(xi) Communication Program	8/2/2009	Community Outreach / Feedback Communication with Satellite Agencies

MINUTES OF THE
BOARD OF DIRECTORS MEETING OF THE
OTAY WATER DISTRICT
November 7, 2007

1. The meeting was called to order by President Croucher at 3:31 p.m.

2. ROLL CALL

Directors Present: Bonilla, Breitfelder, Croucher, Lopez and Robak

Directors Absent: None

Staff Present: General Manager Mark Watton, Asst. GM Administration and Finance German Alvarez, Asst. GM Engineering and Operations Manny Magana, General Counsel Yuri Calderon, Chief of Information Technology Geoff Stevens, Chief Financial Officer Joe Beachem, Chief of Engineering Rod Posada, Chief of Operations Pedro Porras, Chief of Administration Rom Sarno, Finance Manager Rita Bell, Finance Manager, Jim Cudlip, District Secretary Susan Cruz and others per attached list.

3. PLEDGE OF ALLEGIANCE

4. APPROVAL OF AGENDA

A motion was made by Director Breitfelder, seconded by Director Lopez and carried with the following vote:

Ayes:	Directors Bonilla, Breitfelder, Croucher, Lopez and Robak
Noes:	None
Abstain:	None
Absent:	None

to approve the agenda.

5. APPROVAL OF MINUTES

A motion was made by Director Breitfelder, seconded by Director Lopez and carried with the following vote:

Ayes:	Directors Breitfelder, Bonilla, Croucher, Lopez and Robak
Noes:	None
Abstain:	None
Absent:	None

to approve the minutes of the Special Board Meeting of August 20, 2007 and Regular Board Meeting of September 5, 2007.

6. PUBLIC PARTICIPATION – OPPORTUNITY FOR MEMBERS OF THE PUBLIC TO SPEAK TO THE BOARD ON ANY SUBJECT MATTER WITHIN THE BOARD'S JURISDICTION BUT NOT AN ITEM ON TODAY'S AGENDA

Mr. Gary Rogers of Dudek & Associates introduced himself and indicated that he was in attendance to observe the proceedings.

CONSENT CALENDAR

7. ITEMS TO BE ACTED UPON WITHOUT DISCUSSION, UNLESS A REQUEST IS MADE BY A MEMBER OF THE BOARD OR THE PUBLIC TO DISCUSS A PARTICULAR ITEM:

A motion was made by Director Bonilla, seconded by Director Breitfelder and carried with the following vote:

Ayes:	Directors Breitfelder, Bonilla, Croucher, Lopez and Robak
Noes:	None
Abstain:	None
Absent:	None

to approve the following consent calendar items:

a) APPROVE THE REIMBURSEMENT REQUEST WITH MCMILLIN OTAY RANCH, LLC, FOR THE COMPLETED CAPITAL IMPROVEMENT PROJECT, MCMILLIN OTAY RANCH SPA 2, VILLAGE 6 DEVELOPMENT, PL 16-INCH, 711 ZONE, BIRCH ROAD – LA MEDIA/SR 125 (CIP P2435[W101]), FOR THE AMOUNT OF $215,418

b) AWARD OF A PROFESSIONAL CORROSION SERVICES CONTRACT TO SCHIFF ASSOCIATES FOR THE CATHODIC PROTECTION PROGRAM AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE AN AGREEMENT WITH SCHIFF ASSOCIATES IN AN AMOUNT NOT TO EXCEED $250,000 DURING FISCAL YEARS 2007-2008 AND 2008-2009

c) AWARD OF A PROFESSIONAL ENGINEERING DESIGN SERVICES CONTRACT TO LEE & RO, INC. AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE AN AGREEMENT WITH LEE & RO FOR AN AMOUNT NOT TO EXCEED $175,000 DURING FISCAL YEARS 2007-2008 AND 2008-2009

d) AWARD A CONTRACT TO TECHKNOWSION, INC. FOR MAINTENANCE AND TECHNICAL SUPPORT OF THE SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) SYSTEM

e) APPROVE AMENDMENT NO. 1 TO THE AGREEMENT WITH CRICKET COMMUNICATIONS, INC. FOR AN EXISTING COMMUNICATIONS FACILITY AT THE 485-1 RESERVOIR SITE

f) AWARD A PROFESSIONAL SERVICES CONTRACT TO BOYLE ENGINEERING CORPORATION FOR AS-NEEDED POTABLE AND OFF-SITE RECYCLED WATER PLAN CHECKING SERVICES FOR DEVELOPER PROJECTS IN AN AMOUNT NOT TO EXCEED $150,000

g) ADOPT RESOLUTION NO. 4108 ANNEXING THOSE LANDS DESCRIBED AS CALTRANS STATE ROUTE125 AND STATE ROUTE 54 INTERCHANGE AND ANNEXING SAID PROPERTY TO IMPROVEMENT DISTRICT NO. 1 OF THE OTAY WATER DISTRICT FOR WATER SERVICE

h) AWARD A PAVING CONTRACT TO KIRK PAVING IN THE AMOUNT OF $73,068.00 TO REPAIR THE ROAD SURFACE AT THE INTERSECTION OF JAMACHA BLVD. AND SWEETWATER SPRINGS BLVD.

i) CONSIDERATION TO CAST VOTES TO ELECT FIVE (5) REPRESENTATIVES TO THE NATIONAL WATER RESOURCES ASSOCIATION'S CALIFORNIA CAUCUS BOARD OF DIRECTORS

INFORMATION / ACTION ITEMS

8. FINANCE AND ADMINISTRATION SERVICES

a) ACCEPT THE DISTRICT'S AUDITED FINANCIAL STATEMENTS, INCLUDING THE AUDITORS' UNQUALIFIED OPINION, FOR THE FISCAL YEAR ENDED JUNE 30, 2007

Finance Manager Jim Cudlip indicated that staff is presenting the audited financial statements for the Fiscal Year ended June 30, 2007 for the board's acceptance. He stated that the staff report provides a number of detailed statistics on the income, expenses and percentages, but the main item of interest is that the District has received an unqualified opinion on its financials and internal controls. He introduced Mr. Rich Teaman of Teaman, Ramirez & Smith, Inc., the District's auditor to provide further information on the findings of the audit.

Mr. Teaman indicated that he is happy to report that the District received a "clean opinion" in the audit of its financial statements. He stated that this is the highest level opinion that can be issued. He noted that the board might notice that the opinion letter is dated approximately one month later than in previous audits. He indicated that the date change is due to new Standards issued in December 2006 by the American Institute of Certified Public Accountants which changed how the audit report is dated. In past, the report is dated the last day of the

auditor's field work. The new standard requires that drafts be issued and representation be acquired that management has reviewed the drafts. When this process is complete, the report can be dated. He noted that the audit report is being presented at approximately the same time, but the date is different due to this new process.

He also indicated that the financial statements show some changes related to the issuance of the 2007 Certificates of Participation. He stated that the District's liabilities and cash have increased due to the bond issue.

Mr. Teaman also noted that along with the Financial Statements, they issue an *Internal Controls and Financial Compliance Report* in which the audit determined that there were no findings or exceptions to report. He stated this report is included in the *Single Audit Report*, a new report which includes a schedule indicating the District's expenditures of Federal awards (grants). The *Single Audit Report* looks at additional compliance items and internal controls related to the Federal grants program administered by the District. The audit found no issues or findings to report with regard to the grant program.

The audit reviewed procedures relating to the District's investments and investment policy. He stated the audit randomly selects transactions and determines whether the transactions follow the District's *Investment Policy*. Again, there were no exceptions or issues to report.

There were also no issues to report with regard to the *SAS 61 Report* which indicates that if the auditing firm felt that they were selected because they would provide a favorable opinion, they would need to report this concern within the *SAS 61 Report*.

Mr. Teaman indicated that the *Management Letter* indicates, thus, that there were no management letter comments for this engagement.

Director Robak stated that the Finance, Administration and Communications Committee reviewed the audit findings in detail with Mr. Teaman and the committee was pleased with the results of the audit and recommends that the board accept the Audited Financial Statements for the Fiscal Year ended June 30, 2007.

Director Bonilla inquired with regard to the banking institutional change the District made a couple years ago, if it would be wise to include, within the audit, an evaluation of the District's banking services. Mr. Teaman indicated that it certainly could be included, however, the District could also do a review internally and prepare an evaluation of the services. He stated that through a bidding process, the District may discover new innovative ideas from another banking institution that is seeking the District's business. He indicated that the bidding process may be more suitable.

General Manager Watton indicated that this is an issue that can be reviewed by the Finance, Administration and Communications Committee.

A motion was made by Director Robak, seconded by Director Breitfelder and carried with the following vote:

Ayes:	Directors Breitfelder, Bonilla, Croucher, Lopez and Robak
Noes:	None
Abstain:	None
Absent:	None

to accept the District's Audited Financial Statements, including the auditors' unqualified opinion, for Fiscal Year ended June 30, 2007.

9. ENGINEERING AND WATER OPERATIONS

a) APPROVE THE PROPOSED PLAN AND SCHEDULE FOR THE DEVELOPMENT OF THE DISTRICT'S SEWER SYSTEM MANAGEMENT PLAN (SSMP)

Assistant Civil Engineer Meryl Gonzalez indicated that staff is requesting the board's approval of the proposed Plan and Schedule for the development of the District's Sewer System Management Plan (SSMP). She stated that in May 2006, the State Water Resources Control Board issued the Statewide General Waste Discharge Requirements (WDRs) for sanitary sewer systems. She indicated that the WDRs serve as the regulatory mechanism for all agencies that own or operate sewer collection systems with the ultimate goal of reducing both the frequency and volume of sewer spills. According to the WDRs, each agency must develop and implement a system-specific SSMP. She indicated before the District can implement the elements of its SSMP, and to maintain compliance with the State Board's WDRs, the District's SSMP Development Plan and Schedule must be approved by the Board of Directors. Ms. Gonzales referenced Attachment B to staffs' report which outlines the District's development plan and schedule which consists of eleven elements (see attachment). She noted that each item has a milestone due date in which they must be completed with an ultimate completion target date of August 2, 2009.

She stated that staff recommends that the board approve the development plan and schedule for the preparation of the District's SSMP.

Director Lopez indicated that this item was reviewed by the Engineering, Operations and Water Resources Committee and the committee was comfortable with staffs' recommendation and supports approval of the development plan and schedule.

Director Robak inquired if the District has been penalized for any breaks or spills. Chief of Operations Pedro Porras indicated that the District has had overflows

due to clogged pipes, but no spills and no penalties. It was indicated that the District is very proactive in scheduling cleanings, etc., to avoid spills.

A motion was made by Director Lopez, seconded by Director Breitfelder and carried with the following vote:

Ayes:	Directors Breitfelder, Bonilla, Croucher, Lopez and Robak
Noes:	None
Abstain:	None
Absent:	None

to approve staffs' recommendation.

b) AWARD OF A PROFESSIONAL ENGINEERING PLANNING SERVICES CONTRACT TO PBS&J FOR THE NORTH DISTRICT RECYCLED WATER CONCEPT (NDRWC) STUDY, PHASE I PROJECT IN AN AMOUNT NOT TO EXCEED $149,595

Assistant Civil Engineer Gonzalez indicated that earlier in the year the District completed an Integrated Water Resources Plan (IRP) that examined potential water supply options to enhance the reliability and diversification of the District's water resources supply portfolio. One of the outcomes of the IRP effort included the development of the North District Recycled Water System to maximize recycled water use while decreasing imported supply needs and operating cost of the District's existing recycled water system. She stated in order to allow for future recycled water infrastructure, the District must address the regulatory and institutional requirements for recycled water use in the Jamacha Basin.

She presented a slide showing the Jamacha Basin with the Ralph Chapman Water Recycling Facility and the Sweetwater Reservoir which are located within the basin. Ms. Gonzalez stated the purpose of the North District Recycled Water Concept Study (Phase I) is to:

- Identify and investigate all opportunities and challenges associated with recycled water use in the Jamacha Basin
- Develop an implementation plan that presents various strategies to meet regulatory requirements and inter-agency coordination and stakeholder support

She indicated that District staff plans to formulate the study in collaboration with Sweetwater Authority, Regional Water Control Board, California Department of Public Health, County of San Diego, City of San Diego, development communities and other planning groups, as well as, all other interested stakeholders. She indicated based on preliminary estimates, six potential customers have been identified with a total recycled demand of 1,550 acre feet per year.

Director Robak indicated that Cuyamaca College is plumbing their new landscapes with purple pipe and inquired if their demand has been factored into the potential customers demand. It was indicated that Cuyamaca College is a current customer and they would be included in the final report as the report will be more detailed. Ms. Gonzalez reviewed the project scope which included research and data gathering; stakeholder outreach, involvement and coordination; identification and assessment of evaluation of regulatory, institutional, environmental, and key permitting issues; opportunities and constraints assessment; mitigation and monitoring plan, etc.

She indicated that in accordance with Policy 21, staff solicited proposals for Phase I of the study and received two proposals:

- RMC Eater and Environment
- PBS&J

The proposals were reviewed by a consultant selection panel and PBS&J was selected based on the District's criteria. It is recommended that the contract be awarded to PBS&J for an amount not-to-exceed $149,595.

It was discussed that the regional board will be the biggest stakeholder as they have a concern with the use of recycled water up-stream in the basin. Staff will be meeting with the regional board next week to explore their concerns.

It was inquired how much extra capacity the District can access from the South Bay Water Reclamation Plant. It was indicated that the District is taking all recycled water available from the plant. The plant has a capacity of 9 million gallons (MG); the city requires 3 MG and the District takes the remaining 6 MG.

A motion was made by Director Lopez, seconded by Director Robak and carried with the following vote:

Ayes:	Directors Breitfelder, Bonilla, Croucher, Lopez and Robak
Noes:	None
Abstain:	None
Absent:	None

to approve staffs' recommendation.

10. BOARD INFORMATION / ACTION ITEMS

a) DISCUSSION OF 2007 BOARD MEETING CALENDAR

There were no changes to the Board meeting calendar.

REPORTS

11. GENERAL MANAGER'S REPORT

General Manager Watton indicated that he provided copies of correspondence from the Ramona Municipal Water District thanking the District for its assistance during the Witch Fire and the City of Chula Vista thanking the Salt Creek Golf Club for allowing the City of Chula Vista Fire Department to utilize its facilities as an Emergency Operating Center to combat the Harris Fire. He also noted pictures taken of the Harris Fire that were published in the state-wide distributed *Brown and Caldwell Water News*.

He introduced Mr. Jim Gerber who recently joined the District as its Safety Administrator.

He indicated that he is scheduled to make a presentation to the City of Chula Vista Council on the water supply outlook and Bay Delta issues.

He noted that the District set up its Emergency Operations Center (EOC) on October 22 to respond to the fires threatening the District's facilities. He indicated that it was gratifying to see staff work together effectively and with the City of Chula Vista, San Miguel Fire Department, Cal Fire and other fire agencies. He noted that when the fire threatened the District administrative facilities, staff was able to quickly organize an alternate location for the EOC. The District's vehicles and personnel were moved to the new location without any incident. He stated that none of the District's water facilities were damaged in the fire, but there was economic loss to the District's habitat management area which will be assessed and a request for assistance will be submitted to appropriate agencies.

Information Technology Chief Geoff Stevens indicated that the District received an award from the 2006-2007 Municipal Information Systems Association of California (MISAC) Award for excellence in information technology practices that have surpassed local government standards. He indicated that 300 cities and agencies belong to MISAC and in conjunction with a city college, they have developed a set of business practices that they measure IT organizations against. The District received the highest award presented by the organization.

General Manager Watton shared that the District has implemented an "Out-Dialer" which is an automated system that calls customers with a pre-recorded phone message that is tailored to their specific situation. He indicated that the District saves one full-time equivalent by utilizing the out-dialer as customer service staff member no longer need to make such calls.

He indicated that Governor Schwarzeneggar signed AB554 and the District is now able to establish the OPEB trust with PERS as has been discussed in past meetings. The Finance Department is currently working on this effort.

He noted that Director Bonilla had shared with staff that new laws have been adopted that provides full protection of CD investments by the FDIC. He

indicated that staff originally thought that investing in the new CD's would require changes to the District's investment policy. However, due to the anticipated return on the CD investment and the fact that it will be fully covered by the FDIC, it was determined that changes were not required to the investment policy. He stated that the District will be investing in a CD with Neighborhood Bank who has offered the District a very good rate of return. He noted that the investment fits in with the District's investment program and meets the returns sought by the Strategic Plan.

He indicated that staff had shared with the board at its workshop on October 9 that there is a slowdown in growth within the District. He stated that the slowdown is continuing and staff is exploring areas of efficiency and how the District can delay or slowdown some projects to balance the budget. He indicated that it is early in the fiscal year which gives time for staff to be proactive to manage the budget.

He noted that the District is in discussions with Helix WD, Padre Dam MWD and Sweetwater Authority of the possibility of Otay joining the Joint Water Agencies NCCP/HCP efforts. He stated staff believes that it is a superior environmental program and he wished to share with the board that staff is actively working with its neighboring agencies on an environmental plan.

12. SAN DIEGO COUNTY WATER AUTHORITY UPDATE

General Manager Watton indicated that CWA had a very short meeting – due to fires – in which much of the discussion centered on the construction consultant contracts. The remainder of the matters will be brought forward for discussion at the December board meeting.

13. DIRECTORS' REPORTS/REQUESTS

Director Robak indicated that he was also affected by the fire and he wished to thank Otay staff for their assistance. He also shared that on Saturday, November 10, the California Friendly Garden Festival will be held at the Water Conservation Garden. He stated at 10:00 a.m. they will be honoring the firefighters of San Miguel Consolidated Fire Protection District and Cal Fire. He understands that Supervisor Dianne Jacob will attend and possibly Mayor Jerry Sanders as well. He also mentioned that he received a mailer for Helix Water District customers regarding their artificial turf program. He indicated it was a very nice piece and he would share a copy with the District.

Director Lopez indicated that it was gratifying that none of the District's staff experienced any loss from the fires especially in knowing that Rancho Bernardo had tragically lost 390 homes. He commended General Manager Watton for keeping the board informed during the firestorm and staff for their hard work during the emergency.

Director Bonilla indicated that there were elections in Baja California and the new Governor was sworn in last Thursday. He indicated that the new Governor had headed the water agency for the State many years ago and has been very involved in water issues. He was looking forward to meeting with staff to discuss cross-border water issues. He stated that the new mayor of Tijuana was also the former director of the Baja Water District. He stated that he is very optimistic in the District's relationship with Mexico and that there was a lot of interest in the desalination plant project in Rosarito. He stated that he would like to move forward with the coordination of meetings with Mexico.

Director Breitfelder thanked Directors Lopez and Robak for their participation in the Water Conservation Summit. He stated that Mayor Sanders made the opening address and the discussions were very active and produced a document which would be distributed at the next scheduled Conservation Action Committee. He indicated that he would provide an update at a future meeting following the committee's meeting. He indicated that Senator Kehoe spoke at the Council Water Utilities meeting. He stated that he was very appreciative of the resources shared between agencies during the firestorm and that he has only heard positive comments about the District's emergency operations. He indicated that the District has received invitations from SDG&E and AT&T to discuss their emergency operations and, as it seems the fires have become more common then they have been in the past, he thought it might be a good idea to take advantage of some of these type invitations. He indicated that he planned on doing so and getting a little more involved.

14. PRESIDENT'S REPORT

President Croucher indicated that he was very impressed with the shared resources for auto and mutual aid of the fire and water districts. He indicated that he was proud to be associated with Otay Water District and how the District immediately offered assistance to other agencies and the community they serve during the fires. He stated that he is very thankful for his time on the board as he has learned a great deal about water agencies which has assisted him in his profession as a firefighter. He noted that there was no loss of property or injuries to firefighters or civilians within the San Miguel Consolidated Fire Protection District.

RECESS TO CLOSED SESSION

15. CLOSED SESSION

President Croucher indicated that Item 13(a)(i), HARRON v. OTAY WATER DISTRICT, has been pulled from the agenda as the Board no longer needs to discuss this item. The Board will only discuss Items 13(a)(ii) and 13(b).

The board recessed to closed session at 4:56 p.m. to discuss the following matters:

16. CLOSED SESSION

a) ANTICIPATED LITIGATION (GOVERNMENT CODE §54956.9)

78 CASES RELATED TO THE FENTON BUSINESS CENTER

RETURN TO OPEN SESSION

17. REPORT ON ANY ACTIONS TAKEN IN CLOSED SESSION. THE BOARD MAY ALSO TAKE ACTION ON ANY ITEMS POSTED IN CLOSED SESSION

The board reconvened from closed session at 5:30 p.m. General Counsel Yuri Calderon indicated that the board had taken action by a motion made by Director Bonilla, seconded by Director Breitfelder and carried with the following vote

Ayes:	Directors Breitfelder, Bonilla, Croucher, Lopez and Robak
Noes:	None
Abstain:	None
Absent:	None

to accept 64 claims and deny 11 claims (due to insufficient information) related to the Fenton Business Center.

He stated that no other reportable actions were taken in closed session.

18. ADJOURNMENT

With no further business to come before the Board, President Croucher adjourned the meeting at 5:31 p.m.

President

ATTEST:

District Secretary

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APPENDIX A

A-2

...Dedicated to Community Service
2554 SWEETWATER SPRINGS BOULEVARD, SPRING VALLEY, CALIFORNIA 91978-2004
TELEPHONE: 670-2222, AREA CODE 619 www.otaywater.gov

November 8, 2007 Project: P1210-0025000

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

SUBJECT: SSMP Provision for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WQO No. 2006-003-DWQ); Notice of Certification

To Whom It May Concern:

The Otay Water District (District) has received approval of the SSMP Development Plan and Schedule from the District's governing board at a public meeting held on November 7, 2007. Enclosed is a copy of the signed SSO Database Certification form for your records. Based on the approved plan and schedule, SSMP Sections (i) and (ii) have also been certified as complete as of November 7, 2007.

Should you have any questions, please contact Meryll Gonzalez at (619) 670-2747.

Sincerely,
OTAY WATER DISTRICT

Meryll C. Gonzalez
Assistant Civil Engineer

MG:jf

Enclosure

cc: Gary Stalker
Ron Ripperger

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APPENDIX A

A-3

CIWQS

You are logged-in as: gstalker. If this account does not belong to you, please log out.

SSO - Sewer System Management Plan (SSMP) ? | SSO Menu

Regional Water Board: Region 9 - San Diego
Agency: OTAY MWD
Sanitary Sewer System: Otay Water District CS

Last Updated:	Thu Nov 08 13:25:12 PST 2007
SSMP Element	**Certification Date**
Development Plan and Schedule	11/07/2007 (Date Format: MM/DD/YYYY)
Section I - Goal	11/07/2007 (Date Format: MM/DD/YYYY)
Section II - Organization	11/07/2007 (Date Format: MM/DD/YYYY)
Section III - Legal Authority	(Date Format: MM/DD/YYYY)
Section IV - Operation & Maintenance Program	(Date Format: MM/DD/YYYY)
Section V - Design & Performance Provisions	(Date Format: MM/DD/YYYY)
Section VI - Overflow Emergency Response Plan	(Date Format: MM/DD/YYYY)
Section VII - FOG Control Program	(Date Format: MM/DD/YYYY)
Section VIII - System Evaluation & Capacity Assurance Plan	(Date Format: MM/DD/YYYY)
Section IX - Monitoring, Measurement, and Program Modifications	(Date Format: MM/DD/YYYY)
Section X - SSMP Program Audits	(Date Format: MM/DD/YYYY)
Section XI - Communication Program	(Date Format: MM/DD/YYYY)
Complete SSMP Implementation	(Date Format: MM/DD/YYYY)
Certification Note:	
*** Certified by:**	Gary Stalker Gary Stalker

Note: Questions with "*" are required to be answered before CERTIFY.

Certify

Appendix B

B-1 State Water Resources Control Board, February 20, 2008, Order No. WQ 2008-0002-EXEC, "Amended-Monitoring and Reporting Program No. 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems"

B-2 California Regional Water Quality Control Board, March 14, 2007, San Diego Region, Order R9-2007-0005, "Waste Discharge Requirements for Sewage Collection Agencies in the San Diego Region"

B-3 State Water Resources Control Board, May 2, 2006, Order No. 2006-0003-DWQ, "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems"

B-4 State Water Resources Control Board, May 2, 2006, "Monitoring and Reporting Program No. 2006-0003-DWQ", Statewide General Waste Discharge Requirements for Sanitary Sewer Systems"

APPENDIX B

B-1

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

ORDER NO. WQ 2008-0002-EXEC

ADOPTING AMENDED MONITORING AND REPORTING REQUIREMENTS FOR STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY SEWER SYSTEMS

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

1. The State Water Board is authorized to prescribe statewide general waste discharge requirements for categories of discharges that involve the same or similar operations and the same of similar types of waste pursuant to Water Code 13263, subdivision (i).

2. The State Water Board on May 2, 2006, adopted Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Order No. 2006-0003-DWQ, pursuant to that authority.

3. The State Water Board on May 2, 2006, adopted Monitoring and Reporting Requirements to implement the General Waste Discharge Requirements for Sanitary Sewer Systems.

4. State Water Board Order No. 2006-0003-DWQ, paragraph G.2., and the Monitoring and Reporting Requirements, both provide that the Executive Director may modify the terms of the Monitoring and Reporting Requirements at any time.

5. The time allowed in those Monitoring and Reporting Requirements for the filing of the initial report of an overflow is too long to adequately protect the public health and safety or the beneficial uses of the waters of the state when there is a sewage collection system spill. An additional notification requirement is necessary and appropriate to ensure the Office of Emergency Services, local public health officials, and the applicable regional water quality control board are apprised of a spill that reaches a drainage channel or surface water.

6. Further, the burden of providing a notification as soon as possible is de minimis and will allow response agencies to take action as soon as possible to protect public health and safety and beneficial uses of the waters of the state.

IT IS HEREBY ORDERED THAT:

Pursuant to the authority delegated by Resolution No. 2002-0104 and Order No. 2006-0003-DWQ, the Monitoring and Reporting Requirements for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems No. 2006-0003-DWQ is hereby amended as shown in Attachment A, with new text indicated by double-underline.

Dated: February 20, 2008

Dorothy Rice
Executive Director

ATTACHMENT A

STATE WATER RESOURCES CONTROL BOARD
MONITORING AND REPORTING PROGRAM NO. 2006-0003-DWQ
(AS REVISED BY ORDER NO. WQ 2008-0002-EXEC)

STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS
FOR
SANITARY SEWER SYSTEMS

This Monitoring and Reporting Program (MRP) establishes monitoring, record keeping, reporting and public notification requirements for Order No. 2006-2003-DWQ, "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems." Revisions to this MRP may be made at any time by the Executive Director, and may include a reduction or increase in the monitoring and reporting.

NOTIFICATION

Although State and Regional Water Board staff do not have duties as first responders, this Monitoring and Reporting Program is an appropriate mechanism to ensure that the agencies that do have first responder duties are notified in a timely manner in order to protect public health and beneficial uses.

1. For any discharges of sewage that results in a discharge to a drainage channel or a surface water, the Discharger shall, as soon as possible, but not later then two (2) hours after becoming aware of the discharge, notify the State Office of Emergency Services, the local health officer or directors of environmental health with jurisdiction over affected water bodies, and the appropriate Regional Water Quality Control Board.

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

A. SANITARY SEWER OVERFLOW REPORTING

SSO Categories

1. Category 1 - All discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system that:
   A. Equal or exceed 1000 gallons, or
   B. Result in a discharge to a drainage channel and/or surface water; or
   C. Discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.

2. Category 2 – All other discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system.

3. Private Lateral Sewage Discharges – Sewage discharges that are caused by blockages or other problems within a privately owned lateral.

SSO Reporting Timeframes

4. Category 1 SSOs – Except as provided above, all SSOs that meet the above criteria for Category 1 SSOs must be reported as soon as: (1) the Enrollee has knowledge of the discharge, (2) reporting is possible, and (3) reporting can be provided without substantially impeding cleanup or other emergency measures. Initial reporting of Category 1 SSOs must be reported to the Online SSO System as soon as possible but no later than 3 business days after the Enrollee is made aware of the SSO. Minimum information that must be contained in the 3-day report must include all information identified in section 9 below, except for item 9.K. A final certified report must be completed through the Online SSO System, within 15 calendar days of the conclusion of SSO response and remediation. Additional information may be added to the certified report, in the form of an attachment, at any time.

   The above reporting requirements are in addition to do not preclude other emergency notification requirements and timeframes mandated by other regulatory agencies (local County Health Officers, local Director of Environmental Health, Regional Water Boards, or Office of Emergency Services (OES)) or State law.

5. Category 2 SSOs – All SSOs that meet the above criteria for Category 2 SSOs must be reported to the Online SSO Database within 30 days after the end of the calendar month in which the SSO occurs (e.g. all SSOs occurring in the month of January must be entered into the database by March 1st).

6. Private Lateral Sewage Discharges – All sewage discharges that meet the above criteria for Private Lateral sewage discharges may be reported to the Online SSO Database based upon the Enrollee's discretion. If a Private Lateral sewage discharge is recorded in the SSO Database, the Enrollee must identify the sewage discharge as occurring and caused by a private lateral, and a responsible party (other than the Enrollee) should be identified, if known.

7. If there are no SSOs during the calendar month, the Enrollee will provide, within 30 days after the end of each calendar month, a statement through the Online SSO Database certifying that there were no SSOs for the designated month.

8. In the event that the SSO Online Database is not available, the enrollee must fax all required information to the appropriate Regional Water Board office in

accordance with the time schedules identified above. In such event, the Enrollee must also enter all required information into the Online SSO Database as soon as practical.

Mandatory Information to be Included in SSO Online Reporting

All Enrollees must obtain SSO Database accounts and receive a "Username" and "Password" by registering through the California Integrated Water Quality System (CIWQS). These accounts will allow controlled and secure entry into the SSO Database. Additionally, within thirty (30) days of receiving an account and prior to recording SSOs into the SSO Database, all Enrollees must complete the "Collection System Questionnaire", which collects pertinent information regarding an Enrollee's collection system. The "Collection System Questionnaire" must be updated at least every 12 months.

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

9. Category 2 SSOs:

    A. Location of SSO by entering GPS coordinates;
    B. Applicable Regional Water Board, i.e. identify the region in which the SSO occurred;
    C. County where SSO occurred;
    D. Whether or not the SSO entered a drainage channel and/or surface water;
    E. Whether or not the SSO was discharged to a storm drain pipe that was not fully captured and returned to the sanitary sewer system;
    F. Estimated SSO volume in gallons;
    G. SSO source (manhole, cleanout, etc.);
    H. SSO cause (mainline blockage, roots, etc.);
    I. Time of SSO notification or discovery;
    J. Estimated operator arrival time;
    K. SSO destination;
    L. Estimated SSO end time; and
    M. SSO Certification. Upon SSO Certification, the SSO Database will issue a Final SSO Identification (ID) Number.

10. Private Lateral Sewage Discharges:

    A. All information listed above (if applicable and known), as well as;
    B. Identification of sewage discharge as a private lateral sewage discharge; and
    C. Responsible party contact information (if known).

11. Category 1 SSOs:

A. All information listed for Category 2 SSOs, as well as;
B. Estimated SSO volume that reached surface water, drainage channel, or not recovered from a storm drain;
C. Estimated SSO amount recovered;
D. Response and corrective action taken;
E. If samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken, NA must be selected.
F. Parameters that samples were analyzed for (if applicable);
G. Identification of whether or not health warnings were posted;
H. Beaches impacted (if applicable). If no beach was impacted, NA must be selected;
I. Whether or not there is an ongoing investigation;
J. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
K. OES control number (if applicable);
L. Date OES was called (if applicable);
M. Time OES was called (if applicable);
N. Identification of whether or not County Health Officers were called;
O. Date County Health Officer was called (if applicable); and
P. Time County Health Officer was called (if applicable).

Reporting to Other Regulatory Agencies

These reporting requirements do not preclude an Enrollee from reporting SSOs to other regulatory agencies pursuant California state law. These reporting requirements do not replace other Regional Water Board telephone reporting requirements for SSOs.

1. The Enrollee shall report SSOs to OES, in accordance with California Water Code Section 13271.

Office of Emergency Services
Phone (800) 852-7550

2. The Enrollee shall report SSOs to County Health officials in accordance with California Health and Safety Code Section 5410 et seq.

3. The SSO database will automatically generate an e-mail notification with customized information about the SSO upon initial reporting of the SSO and final certification for all Category 1 SSOs. E-mails will be sent to the appropriate County Health Officer and/or Environmental Health Department if the county desires this information, and the appropriate Regional Water Board.

B. Record Keeping

1. Individual SSO records shall be maintained by the Enrollee for a minimum of five years from the date of the SSO. This period may be extended when requested by a Regional Water Board Executive Officer.

[2. Omitted.]

3. All records shall be made available for review upon State or Regional Water Board staff's request.

4. All monitoring instruments and devices that are used by the Enrollee to fulfill the prescribed monitoring and reporting program shall be properly maintained and calibrated as necessary to ensure their continued accuracy;

5. The Enrollee shall retain records of all SSOs, such as, but not limited to and when applicable:

   a. Record of Certified report, as submitted to the online SSO database;
   b. All original recordings for continuous monitoring instrumentation;
   c. Service call records and complaint logs of calls received by the Enrollee;
   d. SSO calls;
   e. SSO records;
   f. Steps that have been and will be taken to prevent the SSO from recurring and a schedule to implement those steps.
   g. Work orders, work completed, and any other maintenance records from the previous 5 years which are associated with responses and investigations of system problems related to SSOs;
   h. A list and description of complaints from customers or others from the previous 5 years; and
   i. Documentation of performance and implementation measures for the previous 5 years.

6. If water quality samples are required by an environmental or health regulatory agency or State law, or if voluntary monitoring is conducted by the Enrollee or its agent(s), as a result of any SSO, records of monitoring information shall include:

   a. The date, exact place, and time of sampling or measurements;
   b. The individual(s) who performed the sampling or measurements;
   c. The date(s) analyses were performed;
   d. The individual(s) who performed the analyses;
   e. The analytical technique or method used; and,
   f. The results of such analyses.

C. Certification

1. All final reports must be certified by an authorized person as required by Provision J of the Order.
2. Registration of authorized individuals, who may certify reports, will be in accordance with the CIWQS' protocols for reporting.

Monitoring and Reporting Program No. 2006-0003 will become effective on the date of adoption by the State Water Board. The notification requirements added by Order No. WQ 2008-0002-EXEC will become effective upon issuance by the Executive Director.

CERTIFICATION

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

Jeanine Townsend
Clerk to the Board

APPENDIX B

B-2

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
REGION 9, SAN DIEGO REGION

ORDER R9-2007-0005

WASTE DISCHARGE REQUIREMENTS FOR SEWAGE COLLECTION AGENCIES IN THE SAN DIEGO REGION

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board), finds that:

1. **STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS:** State Water Resource Control Board (State Board) Order No. 2006-0003-DWQ, *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems*, adopted by the State Board on May 2 2006, establishes minimum requirements to prevent sanitary sewer overflows (SSOs) from publicly owned/ operated sanitary sewer system. Order No. 2006-0003-DWQ is the primary regulatory mechanism for sanitary sewer systems statewide, but allows each regional board to issue more stringent or more prescriptive Waste Discharge Requirements (WDRs) for sanitary sewer systems within their respective jurisdiction.

2. **ENROLLMENT UNDER ORDER NO. 2006-0003-DWQ:** In accordance with Order No. 2006-0003-DWQ, all federal and state agencies, municipalities, counties, districts, and other public entities that own, operate, acquire, or assume responsibility for sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California are required to apply for coverage under the general WDRs.

3. **ORDER No. 96-04**: On May 9, 1996, this Regional Board adopted Order No. 96-04, *General Waste Discharge Requirements Prohibiting Sanitary Sewer Overflows by Sewage Collection Agencies*, prohibiting the discharge of sewage from a sanitary sewer system at any point upstream of a sewage treatment plant. Each Sewage Collection Agency currently regulated under Order No. 96-04 is required to obtain enrollment under the State Board Order No. 2006-0003-DWQ.

4. **SAN DIEGO REGION SANITARY SEWER OVERFLOW REGULATIONS:** Order No. 96-04 has been an effective regulatory mechanism in reducing the number and magnitude of sewage spills in the Region. The Order is more stringent and prescriptive than Order No. 2006-0003-DWQ in that Order No. 2006-0003-DWQ may allow some SSOs that are currently prohibited under Order No. 96-04. In order to maintain regulation of Sanitary Sewer Systems in the San Diego Region consistent with the provisions of Order No. 96-04, this Order reaffirms the prohibition on all SSOs upstream of a sewage treatment plant. This strict prohibition implements the requirements contained in the Basin Plan, California Water Code, and Federal Clean Water Act.

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5. **CONSISTENT REGIONAL REQUIREMENTS:** The regulation of all Sewage Collection Agencies will be consistent within the San Diego Region by requiring agencies such as California Department of Corrections; California State University, San Marcos; San Diego State University; and University of California, San Diego, which have not been regulated under Order No. 96-04, to comply with Regional Board requirements that augment State Board Order No. 2006-0003-DWQ.

6. **BASIN PLAN:** The Regional Board adopted a Water Quality Control Plan for the San Diego Basin (hereinafter Basin Plan) on September 8, 1994. The Basin Plan was subsequently approved by the State Board on December 13, 1994. Subsequent revisions to the Basin Plan have also been adopted by the Regional Board and approved by the State Board. The Basin Plan designates beneficial uses, narrative, and numerical water quality objectives, and prohibitions which are applicable to the discharges prohibited under this Order.

7. **PROHIBITIONS CONTAINED IN BASIN PLAN:** The Basin Plan contains the following prohibitions which are applicable to the discharges prohibited under this Order:

   a. "The discharge of waste to waters of the state in a manner causing, or threatening to cause a condition of pollution, contamination, or nuisance as defined in California Water Code Section 13050, is prohibited."

   b. "The discharge of treated or untreated waste to lakes or reservoirs used for municipal water supply, or to inland surface water tributaries thereto, is prohibited."

   c. "The discharge of waste to inland surface waters, except in cases where the quality of the discharge complies with applicable receiving water quality objectives, is prohibited. ..."

   d. "The dumping, deposition, or discharge of waste directly into waters of the state, or adjacent to such waters in any manner which may permit its being transported into the waters, is prohibited unless authorized by the Regional Board."

   e. "The unauthorized discharge of treated or untreated sewage to waters of the state or to a storm water conveyance system is prohibited."

   f. "The discharge of waste to land, except as authorized by waste discharge requirements or the terms described in California Water Code Section 13264 is prohibited."

   g. "The discharge of waste in a manner causing flow, ponding, or surfacing on lands not owned or under the control of the discharger is prohibited, unless the discharge is authorized by the Regional Board."

8. **PORTER-COLOGNE WATER QUALITY CONTROL ACT (CALIFORNIA WATER CODE, DIVISION 7):** California Water Code Section 13243 provides that a Regional Board, in establishing waste discharge requirements, may specify certain conditions or areas where the discharge of waste, or certain types of waste, is prohibited. California Water Code 13260 prohibits the discharge of waste to land prior to the filing of a required report of waste discharge and the subsequent issuance of either WDRs or a waiver of WDRs. California Water Code 13264 prohibits discharge of waste absent a report of waste discharge and waste discharge requirements.

9. **FEDERAL CLEAN WATER ACT:** The Federal Clean Water Act largely prohibits any discharge of pollutants from a point source to waters of the United States except as authorized under an NPDES permit. In general, any point source discharge of sewage effluent to waters of the United States must comply with technology-based, secondary treatment standards, at a minimum, and any more stringent requirements necessary to meet applicable water quality standards and other requirements. Hence, the unpermitted discharge of wastewater from a sanitary sewer system to waters of the United States is illegal under the Clean Water Act. Furthermore, the Code of Federal Regulation requires proper operation and maintenance of all POTW facilities including collection systems, which results in prevention of SSOs.

10. **RESCISSION OF ORDER No. 96-04:** Order No. 96-04 can be rescinded after all of the Sewage Collection Agencies regulated under Order No. 96-04 have obtained coverage under Order No. 2006-0003-DWQ.

11. **PRIVATE LATERAL SEWAGE DISCHARGES REPORTING:** Order No. 96-04 does not require Sewage Collection Agencies to report Private Lateral Sewage Discharges. Over the past several years, however, this Regional Board has been tracking the number of Private Lateral Sewage Discharges based on courtesy reports from the Sewage Collection Agencies. Duringthe period from July 2004 through June 2006, a total of 268 Private Lateral Sewage Discharges were reported by the Agencies. Duringsome of those months, more Private Lateral Sewage Discharges were reported than public SSOs. Because the Agencies are not required to report Private Lateral Sewage Discharges, it is not known if the numbers reported fully represent the number and locations of Private Lateral Sewage Spills in the Region.

Finding Nos. 2, 3, and 4 of State Board Order No. 2006-0003-DWQ pertaining to causes of SSOs and the potential threat to water quality resulting from SSOs are also applicable to Private Lateral Sewage Discharges. Because Private Lateral Sewage Discharges are numerous and are a potential threat to public health and the environment, there is a need to have a reliable reporting system for Private Lateral Sewage Discharges for similar reasons as the public SSOs. Although sewage collection agencies are not responsible for the cause, cleanup, or repair of Private Lateral Sewage Discharges, sewage collection agencies are typically notified and/or are the first responders to Private Lateral Sewage Discharges. Consequently, requiring the sewage collection agencies to report all known Private Lateral Sewage Discharges is reasonable and a first step toward development of a regulatory approach for reducing Private Lateral Sewage Discharges in the San Diego Region.

12. **PERMITTING FEES:** This Order will serve as additional requirements to the State Board Order No. 2006-0003-DWQ. Sewage Collection Agencies that are covered and pay the fees under State Board Order No. 2006-0003-DWQ (or orders that supersede 2006-0003-DWQ) will not be required to pay for fees under this Order No. R9-2007-0005.

13. **CALIFORNIA ENVIRONMENTAL QUALITY ACT:** The action to adopt this Order is exempt from the California Environmental Quality Act (Public Resources Code §21000 et seq.) because it is an action taken by a regulatory agency to assure the protection of the environment and the regulatory process involves procedures for protection of the environment. (Cal. Code Regs., tit. 14, §15308). In addition, the action to adopt this Order is exempt from CEQA pursuant to Cal.Code Regs., title 14, §15301 to the extent that it applies to existing sanitary sewer collection systems that constitute "existing facilities" as that term is used in Section 15301, and §15302, to the extent that it results in the repair or replacement of existing systems involving negligible or no expansion of capacity.

14. **PUBLIC NOTICE:** The Regional Board has notified all known interested persons and the public of its intent to consider adoption of this Order. Interested persons and the public have had reasonable opportunity to participate in review of the proposed Order.

15. **PUBLIC HEARING:** The Regional Board has considered all comments pertaining to this Order submitted to the Regional Board in writing, or by oral presentations at the public hearing held on February 14, 2007.

IT IS HEREBY ORDERED, that all Sewage Collection Agencies within the San Diego Region, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following, in addition to the State Water Resource Control Board Order No. 2006-0003-DWQ (or orders that supersede 2006-0003-DWQ) and its addenda (hereinafter referred to as State Board Order):

A. Definitions

1. For purposes of this Order, a Sewage Collection Agency shall mean an "enrollee", as defined in the State Board Order, within the boundaries of the San Diego Region.

B. Prohibition

1. The discharge of sewage from a sanitary sewer system at any point upstream of a sewage treatment plant is prohibited.

C. Monitoring and Reporting Program Requirements

1. Each Sewage Collection Agency shall report all SSOs in accordance with the Monitoring and Reporting Program No. 96-04 until the Sewage Collection Agency notifies the Regional Board that they can successfully report the SSOs to the State Board Online SSO System. The notification shall be a letter signed and certified by a person designated, for a municipality, state, federal or other public agency, as either a principal executive officer or ranking elected official.

2. For Category 1 (as defined in State Board Monitoring and Reporting Program No. 2006-0003-DWQ) SSOs, the Sewage Collection Agency shall provide notification of the SSO to the Regional Board by phone, email, or fax within 24 hours after the Sewage Collection Agency becomes aware of the SSO, notification is possible, and notification can be provided without substantially impeding cleanup or other emergency measures. The information reported to the Regional Board shall include the name and phone number of the person reporting the SSO, the responsible sewage collection agency, the estimated total sewer overflow volume, the location of the SSO, the receiving water (if any), the start date/time of the SSO (if known), the end date/time of the SSO (or whether or not the sewer overflow is still occurring at the time of the report), and confirmation that the local health services agency was or will be notified as required under the reporting requirements of the local health services agency.

3. The Sewage Collection Agency shall provide notification of all Private Lateral Sewage Discharges (as defined in the State Board Order), for which they become aware of, that equal or exceed 1,000 gallons; result in a discharge to a drainage channel and/or surface water; and/or discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system, to the Regional Board by phone or fax within 24 hours after the Sewage Collection Agency becomes aware of the Private Lateral Sewage Discharge, notification is possible, and notification can be provided without substantially impeding cleanup or other emergency measures. The information reported to the Regional Board shall include the following information, if known: the name and phone number of the person reporting the Private Lateral Sewage Discharge, the service area where the Private Lateral Sewage Discharge occurred, the responsible party (other than the Sewage Collection Agency, if known), the estimated Private

Lateral Sewage Discharge volume, the location of the Private Lateral Sewage Discharge, the receiving water (if any), the start date/time of the Private Lateral Sewage Discharge, the end date/time of the Private Lateral Sewage Discharge (or whether or not the sewer overflow is still occurring at the time of the report), and confirmation that the local health services agency was or will be notified as required under the reporting requirements of the local health services agency.

4. The following requirement supersedes the Private Lateral Sewage Discharge Reporting Timeframe for Private Lateral Sewage Discharges in the State Board Monitoring and Reporting Program No. 2006-0003-DWQ: For Private Lateral Sewage Discharges that occur within a Sewage Collection Agency's service area and that a Sewage Collection Agency becomes aware of, the Sewage Collection Agency shall report the Private Lateral Sewage Discharge to the State Board Online SSO Database within 30 days after the end of the calendar month in which the Private Lateral Sewage Discharge occurs. The Sewage Collection Agency must identify the sewage discharge as occurring and caused by a private lateral, and a responsible party (other than the Sewage Collection Agency) should be identified, if known. The Sewage Collection Agency will not be responsible for the cause, cleanup, or repair of Private Lateral Sewage Discharges, but only the reporting of those within their jurisdiction and for which they become aware of.

D. Notification

1. Upon completion with Monitoring and Reporting Program Requirement C.1, the Regional Board will give written notice to the Sewage Collection Agency stating that regulation of the Sewage Collection Agency under Order No. 96-04 is terminated.

2. Order No. 96-04 is rescinded once regulation of all Sewage Collection Agencies under Order No. 96-04 is terminated. The Regional Board will give written notice to all of the Sewage Collection Agencies stating that all Sewage Collection Agencies under Order No. 96-04 was terminated and, thus, Order 96-04 is rescinded.

I, John Robertus, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of Order No. 2007-0005 adopted by the California Regional Water Quality Control Board, San Diego Region on February 14, 2007.

JOHN H. ROBERTUS
Executive Officer

JHR:mpm:rwm:jll

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APPENDIX B

B-3

STATE WATER RESOURCES CONTROL BOARD{PRIVATE }
ORDER NO. 2006-0003

STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY SEWER SYSTEMS

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

1. All federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California are required to comply with the terms of this Order. Such entities are hereinafter referred to as "Enrollees".

2. Sanitary sewer overflows (SSOs) are overflows from sanitary sewer systems of domestic wastewater, as well as industrial and commercial wastewater, depending on the pattern of land uses in the area served by the sanitary sewer system. SSOs often contain high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oxygen-demanding organic compounds, oil and grease and other pollutants. SSOs may cause a public nuisance, particularly when raw untreated wastewater is discharged to areas with high public exposure, such as streets or surface waters used for drinking, fishing, or body contact recreation. SSOs may pollute surface or ground waters, threaten public health, adversely affect aquatic life, and impair the recreational use and aesthetic enjoyment of surface waters.

3. Sanitary sewer systems experience periodic failures resulting in discharges that may affect waters of the state. There are many factors (including factors related to geology, design, construction methods and materials, age of the system, population growth, and system operation and maintenance), which affect the likelihood of an SSO. A proactive approach that requires Enrollees to ensure a system-wide operation, maintenance, and management plan is in place will reduce the number and frequency of SSOs within the state. This approach will in turn decrease the risk to human health and the environment caused by SSOs.

4. Major causes of SSOs include: grease blockages, root blockages, sewer line flood damage, manhole structure failures, vandalism, pump station mechanical failures, power outages, excessive storm or ground water inflow/infiltration, debris blockages, sanitary sewer system age and construction material failures, lack of proper operation and maintenance, insufficient capacity and contractor-caused damages. Many SSOs are preventable with adequate and appropriate facilities, source control measures and operation and maintenance of the sanitary sewer system.

SEWER SYSTEM MANAGEMENT PLANS

5. To facilitate proper funding and management of sanitary sewer systems, each Enrollee must develop and implement a system-specific Sewer System Management Plan (SSMP). To be effective, SSMPs must include provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis. Additionally, an SSMP must contain a spill response plan that establishes standard procedures for immediate response to an SSO in a manner designed to minimize water quality impacts and potential nuisance conditions.

6. Many local public agencies in California have already developed SSMPs and implemented measures to reduce SSOs. These entities can build upon their existing efforts to establish a comprehensive SSMP consistent with this Order. Others, however, still require technical assistance and, in some cases, funding to improve sanitary sewer system operation and maintenance in order to reduce SSOs.

7. SSMP certification by technically qualified and experienced persons can provide a useful and cost-effective means for ensuring that SSMPs are developed and implemented appropriately.

8. It is the State Water Board's intent to gather additional information on the causes and sources of SSOs to augment existing information and to determine the full extent of SSOs and consequent public health and/or environmental impacts occurring in the State.

9. Both uniform SSO reporting and a centralized statewide electronic database are needed to collect information to allow the State Water Board and Regional Water Quality Control Boards (Regional Water Boards) to effectively analyze the extent of SSOs statewide and their potential impacts on beneficial uses and public health. The monitoring and reporting program required by this Order and the attached **Monitoring and Reporting Program No. 2006-0003**, are necessary to assure compliance with these waste discharge requirements (WDRs).

10. Information regarding SSOs must be provided to Regional Water Boards and other regulatory agencies in a timely manner and be made available to the public in a complete, concise, and timely fashion.

11. Some Regional Water Boards have issued WDRs or WDRs that serve as National Pollution Discharge Elimination System (NPDES) permits to sanitary sewer system owners/operators within their jurisdictions. This Order establishes minimum requirements to prevent SSOs. Although it is the State Water Board's intent that this Order be the primary regulatory mechanism for sanitary sewer systems statewide, Regional Water Boards may issue more stringent or more

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

REGULATORY CONSIDERATIONS

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

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

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

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

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

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

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

16. The Federal Clean Water Act largely prohibits any discharge of pollutants from a point source to waters of the United States except as authorized under an NPDES permit. In general, any point source discharge of sewage effluent to waters of the United States must comply with technology-based, secondary treatment standards, at a minimum, and any more stringent requirements necessary to meet applicable water quality standards and other requirements. Hence, the unpermitted discharge of wastewater from a sanitary sewer system to waters of the United States is illegal under the Clean Water Act. In addition, many Basin Plans adopted by the Regional Water Boards contain discharge prohibitions that apply to the discharge of untreated or partially treated wastewater. Finally, the California Water Code generally prohibits the discharge of waste to land prior to the filing of any required report of waste discharge and the subsequent issuance of either WDRs or a waiver of WDRs.

17. California Water Code section 13263 requires a water board to, after any necessary hearing, prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge. The requirements shall, among other things, take into consideration the need to prevent nuisance.

18. California Water Code section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:
    a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
    b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
    c. Occurs during, or as a result of, the treatment or disposal of wastes.

19. This Order is consistent with State Water Board Resolution No. 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California) in that the Order imposes conditions to prevent impacts to water quality, does not allow the degradation of water quality, will not unreasonably affect beneficial uses of water, and will not result in water quality less than prescribed in State Water Board or Regional Water Board plans and policies.

20. The action to adopt this General Order is exempt from the California Environmental Quality Act (Public Resources Code §21000 et seq.) because it is an action taken by a regulatory agency to assure the protection of the environment and the regulatory process involves procedures for protection of the environment. (Cal. Code Regs., tit. 14, §15308). In addition, the action to adopt

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

21. The Fact Sheet, which is incorporated by reference in the Order, contains supplemental information that was also considered in establishing these requirements.

22. The State Water Board has notified all affected public agencies and all known interested persons of the intent to prescribe general WDRs that require Enrollees to develop SSMPs and to report all SSOs.

23. The State Water Board conducted a public hearing on February 8, 2006, to receive oral and written comments on the draft order. The State Water Board received and considered, at its May 2, 2006, meeting, additional public comments on substantial changes made to the proposed general WDRs following the February 8, 2006, public hearing. The State Water Board has considered all comments pertaining to the proposed general WDRs.

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

A. DEFINITIONS

1. **Sanitary sewer overflow (SSO)** - Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:
   (i) Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;
   (ii) Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and
   (iii) Wastewater backups into buildings and on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.

2. **Sanitary sewer system** – Any system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant headworks used to collect and convey wastewater to the publicly owned treatment facility. Temporary storage and conveyance facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.

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

3. **Enrollee** - A federal or state agency, municipality, county, district, and other public entity that owns or operates a sanitary sewer system, as defined in the general WDRs, and that has submitted a complete and approved application for coverage under this Order.

4. **SSO Reporting System** – Online spill reporting system that is hosted, controlled, and maintained by the State Water Board. The web address for this site is http://ciwqs.waterboards.ca.gov. This online database is maintained on a secure site and is controlled by unique usernames and passwords.

5. **Untreated or partially treated wastewater** – Any volume of waste discharged from the sanitary sewer system upstream of a wastewater treatment plant headworks.

6. **Satellite collection system –** The portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility to which the sanitary sewer system is tributary.

7. **Nuisance** - California Water Code section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:
   a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
   b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
   c. Occurs during, or as a result of, the treatment or disposal of wastes.

B. APPLICATION REQUIREMENTS

1. Deadlines for Application – All public agencies that currently own or operate sanitary sewer systems within the State of California must apply for coverage under the general WDRs within six (6) months of the date of adoption of the general WDRs. Additionally, public agencies that acquire or assume responsibility for operating sanitary sewer systems after the date of adoption of this Order must apply for coverage under the general WDRs at least three (3) months prior to operation of those facilities.

2. Applications under the general WDRs – In order to apply for coverage pursuant to the general WDRs, a legally authorized representative for each agency must submit a complete application package. Within sixty (60) days of adoption of the general WDRs, State Water Board staff will send specific instructions on how to

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

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

C. PROHIBITIONS

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

2. Any SSO that results in a discharge of untreated or partially treated wastewater that creates a nuisance as defined in California Water Code Section 13050(m) is prohibited.

D. PROVISIONS

1. The Enrollee must comply with all conditions of this Order. Any noncompliance with this Order constitutes a violation of the California Water Code and is grounds for enforcement action.

2. It is the intent of the State Water Board that sanitary sewer systems be regulated in a manner consistent with the general WDRs. Nothing in the general WDRs shall be:

    (i) Interpreted or applied in a manner inconsistent with the Federal Clean Water Act, or supersede a more specific or more stringent state or federal requirement in an existing permit, regulation, or administrative/judicial order or Consent Decree;
    (ii) Interpreted or applied to authorize an SSO that is illegal under either the Clean Water Act, an applicable Basin Plan prohibition or water quality standard, or the California Water Code;
    (iii) Interpreted or applied to prohibit a Regional Water Board from issuing an individual NPDES permit or WDR, superseding this general WDR, for a sanitary sewer system, authorized under the Clean Water Act or California Water Code; or
    (iv) Interpreted or applied to supersede any more specific or more stringent WDRs or enforcement order issued by a Regional Water Board.

3. The Enrollee shall take all feasible steps to eliminate SSOs. In the event that an SSO does occur, the Enrollee shall take all feasible steps to contain and mitigate the impacts of an SSO.

4. In the event of an SSO, the Enrollee shall take all feasible steps to prevent untreated or partially treated wastewater from discharging from storm drains into

flood control channels or waters of the United States by blocking the storm drainage system and by removing the wastewater from the storm drains.

5. All SSOs must be reported in accordance with Section G of the general WDRs.

6. In any enforcement action, the State and/or Regional Water Boards will consider the appropriate factors under the duly adopted State Water Board Enforcement Policy. And, consistent with the Enforcement Policy, the State and/or Regional Water Boards must consider the Enrollee's efforts to contain, control, and mitigate SSOs when considering the California Water Code Section 13327 factors. In assessing these factors, the State and/or Regional Water Boards will also consider whether:

   (i) The Enrollee has complied with the requirements of this Order, including requirements for reporting and developing and implementing a SSMP;

   (ii) The Enrollee can identify the cause or likely cause of the discharge event;

   (iii) There were no feasible alternatives to the discharge, such as temporary storage or retention of untreated wastewater, reduction of inflow and infiltration, use of adequate backup equipment, collecting and hauling of untreated wastewater to a treatment facility, or an increase in the capacity of the system as necessary to contain the design storm event identified in the SSMP. It is inappropriate to consider the lack of feasible alternatives, if the Enrollee does not implement a periodic or continuing process to identify and correct problems.

   (iv) The discharge was exceptional, unintentional, temporary, and caused by factors beyond the reasonable control of the Enrollee;

   (v) The discharge could have been prevented by the exercise of reasonable control described in a certified SSMP for:
   - Proper management, operation and maintenance;
   - Adequate treatment facilities, sanitary sewer system facilities, and/or components with an appropriate design capacity, to reasonably prevent SSOs (e.g., adequately enlarging treatment or collection facilities to accommodate growth, infiltration and inflow (I/I), etc.);
   - Preventive maintenance (including cleaning and fats, oils, and grease (FOG) control);
   - Installation of adequate backup equipment; and
   - Inflow and infiltration prevention and control to the extent practicable.

   (vi) The sanitary sewer system design capacity is appropriate to reasonably prevent SSOs.

(vii) The Enrollee took all reasonable steps to stop and mitigate the impact of the discharge as soon as possible.

7. When a sanitary sewer overflow occurs, the Enrollee shall take all feasible steps and necessary remedial actions to 1) control or limit the volume of untreated or partially treated wastewater discharged, 2) terminate the discharge, and 3) recover as much of the wastewater discharged as possible for proper disposal, including any wash down water.

   The Enrollee shall implement all remedial actions to the extent they may be applicable to the discharge and not inconsistent with an emergency response plan, including the following:

   (i) Interception and rerouting of untreated or partially treated wastewater flows around the wastewater line failure;
   (ii) Vacuum truck recovery of sanitary sewer overflows and wash down water;
   (iii) Cleanup of debris at the overflow site;
   (iv) System modifications to prevent another SSO at the same location;
   (v) Adequate sampling to determine the nature and impact of the release; and
   (vi) Adequate public notification to protect the public from exposure to the SSO.

8. The Enrollee shall properly, manage, operate, and maintain all parts of the sanitary sewer system owned or operated by the Enrollee, and shall ensure that the system operators (including employees, contractors, or other agents) are adequately trained and possess adequate knowledge, skills, and abilities.

9. The Enrollee shall allocate adequate resources for the operation, maintenance, and repair of its sanitary sewer system, by establishing a proper rate structure, accounting mechanisms, and auditing procedures to ensure an adequate measure of revenues and expenditures. These procedures must be in compliance with applicable laws and regulations and comply with generally acceptable accounting practices.

10. The Enrollee shall provide adequate capacity to convey base flows and peak flows, including flows related to wet weather events. Capacity shall meet or exceed the design criteria as defined in the Enrollee's System Evaluation and Capacity Assurance Plan for all parts of the sanitary sewer system owned or operated by the Enrollee.

11. The Enrollee shall develop and implement a written Sewer System Management Plan (SSMP) and make it available to the State and/or Regional Water Board upon request. A copy of this document must be publicly available at the Enrollee's office and/or available on the Internet. This SSMP must be approved by the Enrollee's governing board at a public meeting.

12. In accordance with the California Business and Professions Code sections 6735, 7835, and 7835.1, all engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. Specific elements of the SSMP that require professional evaluation and judgments shall be prepared by or under the direction of appropriately qualified professionals, and shall bear the professional(s)' signature and stamp.

13. The mandatory elements of the SSMP are specified below. However, if the Enrollee believes that any element of this section is not appropriate or applicable to the Enrollee's sanitary sewer system, the SSMP program does not need to address that element. The Enrollee must justify why that element is not applicable. The SSMP must be approved by the deadlines listed in the SSMP Time Schedule below.

Sewer System Management Plan (SSMP)

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

(ii) **Organization**: The SSMP must identify:

(a) The name of the responsible or authorized representative as described in Section J of this Order.

(b) The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and

(c) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (OES)).

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

(a) Prevent illicit discharges into its sanitary sewer system (examples may include I/I, stormwater, chemical dumping, unauthorized debris and cut roots, etc.);

(b) Require that sewers and connections be properly designed and constructed;

(c) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;

(d) Limit the discharge of fats, oils, and grease and other debris that may cause blockages, and

(e) Enforce any violation of its sewer ordinances.

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

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

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

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

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

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

(v) **Design and Performance Provisions**:

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

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

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

(a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;

(b) A program to ensure an appropriate response to all overflows;

(c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, Regional Water Boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;

(d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;

(e) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and

(f) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

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

(a) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;

(b) A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;

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

(d) Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;

(e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;

(f) An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and

(g) Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (f) above.

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

(a) **Evaluation**: Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs

that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events;

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

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

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

(ix) **Monitoring, Measurement, and Program Modifications:** The Enrollee shall:

(a) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;

(b) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;

(c) Assess the success of the preventative maintenance program;

(d) Update program elements, as appropriate, based on monitoring or performance evaluations; and

(e) Identify and illustrate SSO trends, including: frequency, location, and volume.

(x) **SSMP Program Audits** - As part of the SSMP, the Enrollee shall conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the

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

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

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

14. Both the SSMP and the Enrollee's program to implement the SSMP must be certified by the Enrollee to be in compliance with the requirements set forth above and must be presented to the Enrollee's governing board for approval at a public meeting. The Enrollee shall certify that the SSMP, and subparts thereof, are in compliance with the general WDRs within the time frames identified in the time schedule provided in subsection D.15, below.

    In order to complete this certification, the Enrollee's authorized representative must complete the certification portion in the Online SSO Database Questionnaire by checking the appropriate milestone box, printing and signing the automated form, and sending the form to:

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

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

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

Sewer System Management Plan Time Schedule

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

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

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

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

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

E. WDRs and SSMP AVAILABILITY

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

F. ENTRY AND INSPECTION

1. The Enrollee shall allow the State or Regional Water Boards or their authorized representative, upon presentation of credentials and other documents as may be required by law, to:

    a. Enter upon the Enrollee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;

    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

d. Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order or as otherwise authorized by the California Water Code, any substances or parameters at any location.

G. GENERAL MONITORING AND REPORTING REQUIREMENTS

1. The Enrollee shall furnish to the State or Regional Water Board, within a reasonable time, any information that the State or Regional Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Enrollee shall also furnish to the Executive Director of the State Water Board or Executive Officer of the applicable Regional Water Board, upon request, copies of records required to be kept by this Order.

2. The Enrollee shall comply with the attached Monitoring and Reporting Program No. 2006-0003 and future revisions thereto, as specified by the Executive Director. Monitoring results shall be reported at the intervals specified in Monitoring and Reporting Program No. 2006-0003. Unless superseded by a specific enforcement Order for a specific Enrollee, these reporting requirements are intended to replace other mandatory routine written reports associated with SSOs.

3. All Enrollees must obtain SSO Database accounts and receive a "Username" and "Password" by registering through the California Integrated Water Quality System (CIWQS). These accounts will allow controlled and secure entry into the SSO Database. Additionally, within 30days of receiving an account and prior to recording spills into the SSO Database, all Enrollees must complete the "Collection System Questionnaire", which collects pertinent information regarding a Enrollee's collection system. The "Collection System Questionnaire" must be updated at least every 12 months.

4. Pursuant to Health and Safety Code section 5411.5, any person who, without regard to intent or negligence, causes or permits any untreated wastewater or other waste to be discharged in or on any waters of the State, or discharged in or deposited where it is, or probably will be, discharged in or on any surface waters of the State, as soon as that person has knowledge of the discharge, shall immediately notify the local health officer of the discharge. Discharges of untreated or partially treated wastewater to storm drains and drainage channels, whether man-made or natural or concrete-lined, shall be reported as required above.

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

H. CHANGE IN OWNERSHIP

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

I. INCOMPLETE REPORTS

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

J. REPORT DECLARATION

1. All applications, reports, or information shall be signed and certified as follows:

   (i) All reports required by this Order and other information required by the State or Regional Water Board shall be signed and certified by a person designated, for a municipality, state, federal or other public agency, as either a principal executive officer or ranking elected official, or by a duly authorized representative of that person, as described in paragraph (ii) of this provision. (For purposes of electronic reporting, an electronic signature and accompanying certification, which is in compliance with the Online SSO database procedures, meet this certification requirement.)

   (ii) An individual is a duly authorized representative only if:

      (a) The authorization is made in writing by a person described in paragraph (i) of this provision; and

      (b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.

K. CIVIL MONETARY REMEDIES FOR DISCHARGE VIOLATIONS

1. The California Water Code provides various enforcement options, including civil monetary remedies, for violations of this Order.

2. The California Water Code also provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this Order, or

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

L. SEVERABILITY

1. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.

2. This order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the Enrollee from liability under federal, state or local laws, nor create a vested right for the Enrollee to continue the waste discharge.

CERTIFICATION

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

AYE: Tam M. Doduc
Gerald D. Secundy

NO: Arthur G. Baggett

ABSENT: None

ABSTAIN: None

Song Her
Clerk to the Board

APPENDIX B

B-4

STATE WATER RESOURCES CONTROL BOARD

MONITORING AND REPORTING PROGRAM NO. 2006-0003-DWQ
STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS
FOR
SANITARY SEWER SYSTEMS

This Monitoring and Reporting Program (MRP) establishes monitoring, record keeping, reporting and public notification requirements for Order No. 2006-2003-DWQ, "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems." Revisions to this MRP may be made at any time by the Executive Director, and may include a reduction or increase in the monitoring and reporting.

A. SANITARY SEWER OVERFLOW REPORTING

SSO Categories

1. Category 1 - All discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system that:
   A. Equal or exceed 1000 gallons, or
   B. Result in a discharge to a drainage channel and/or surface water; or
   C. Discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.

2. Category 2 – All other discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system.

3. Private Lateral Sewage Discharges – Sewage discharges that are caused by blockages or other problems within a privately owned lateral.

SSO Reporting Timeframes

4. Category 1 SSOs – All SSOs that meet the above criteria for Category 1 SSOs must be reported as soon as: (1) the Enrollee has knowledge of the discharge, (2) reporting is possible, and (3) reporting can be provided without substantially impeding cleanup or other emergency measures. Initial reporting of Category 1 SSOs must be reported to the Online SSO System as soon as possible but no later than 3 business days after the Enrollee is made aware of the SSO. Minimum information that must be contained in the 3-day report must include all information identified in section 9 below, except for item 9.K. A final certified report must be completed through the Online SSO System, within 15 calendar days of the conclusion of SSO response and remediation. Additional information may be added to the certified report, in the form of an attachment, at any time.

   The above reporting requirements do not preclude other emergency notification requirements and timeframes mandated by other regulatory agencies (local

County Health Officers, local Director of Environmental Health, Regional Water Boards, or Office of Emergency Services (OES)) or State law.

5. Category 2 SSOs – All SSOs that meet the above criteria for Category 2 SSOs must be reported to the Online SSO Database within 30 days after the end of the calendar month in which the SSO occurs (e.g. all SSOs occurring in the month of January must be entered into the database by March 1st).

6. Private Lateral Sewage Discharges – All sewage discharges that meet the above criteria for Private Lateral sewage discharges may be reported to the Online SSO Database based upon the Enrollee's discretion. If a Private Lateral sewage discharge is recorded in the SSO Database, the Enrollee must identify the sewage discharge as occurring and caused by a private lateral, and a responsible party (other than the Enrollee) should be identified, if known.

7. If there are no SSOs during the calendar month, the Enrollee will provide, within 30 days after the end of each calendar month, a statement through the Online SSO Database certifying that there were no SSOs for the designated month.

8. In the event that the SSO Online Database is not available, the enrollee must fax all required information to the appropriate Regional Water Board office in accordance with the time schedules identified above. In such event, the Enrollee must also enter all required information into the Online SSO Database as soon as practical.

Mandatory Information to be Included in SSO Online Reporting

All Enrollees must obtain SSO Database accounts and receive a "Username" and "Password" by registering through the California Integrated Water Quality System (CIWQS). These accounts will allow controlled and secure entry into the SSO Database. Additionally, within thirty (30) days of receiving an account and prior to recording SSOs into the SSO Database, all Enrollees must complete the "Collection System Questionnaire", which collects pertinent information regarding an Enrollee's collection system. The "Collection System Questionnaire" must be updated at least every 12 months.

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

9. Category 2 SSOs:

   A. Location of SSO by entering GPS coordinates;
   B. Applicable Regional Water Board, i.e. identify the region in which the SSO occurred;
   C. County where SSO occurred;
   D. Whether or not the SSO entered a drainage channel and/or surface water;
   E. Whether or not the SSO was discharged to a storm drain pipe that was not fully captured and returned to the sanitary sewer system;

F. Estimated SSO volume in gallons;
G. SSO source (manhole, cleanout, etc.);
H. SSO cause (mainline blockage, roots, etc.);
I. Time of SSO notification or discovery;
J. Estimated operator arrival time;
K. SSO destination;
L. Estimated SSO end time; and
M. SSO Certification. Upon SSO Certification, the SSO Database will issue a Final SSO Identification (ID) Number.

10. Private Lateral Sewage Discharges:

A. All information listed above (if applicable and known), as well as;
B. Identification of sewage discharge as a private lateral sewage discharge; and
C. Responsible party contact information (if known).

11. Category 1 SSOs:

A. All information listed for Category 2 SSOs, as well as;
B. Estimated SSO volume that reached surface water, drainage channel, or not recovered from a storm drain;
C. Estimated SSO amount recovered;
D. Response and corrective action taken;
E. If samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken, NA must be selected.
F. Parameters that samples were analyzed for (if applicable);
G. Identification of whether or not health warnings were posted;
H. Beaches impacted (if applicable). If no beach was impacted, NA must be selected;
I. Whether or not there is an ongoing investigation;
J. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
K. OES control number (if applicable);
L. Date OES was called (if applicable);
M. Time OES was called (if applicable);
N. Identification of whether or not County Health Officers were called;
O. Date County Health Officer was called (if applicable); and
P. Time County Health Officer was called (if applicable).

Reporting to Other Regulatory Agencies

These reporting requirements do not preclude an Enrollee from reporting SSOs to other regulatory agencies pursuant to California state law. These reporting requirements do not replace other Regional Water Board telephone reporting requirements for SSOs.

1. The Enrollee shall report SSOs to OES, in accordance with California Water Code Section 13271.

Office of Emergency Services
Phone (800) 852-7550

2. The Enrollee shall report SSOs to County Health officials in accordance with California Health and Safety Code Section 5410 et seq.

3. The SSO database will automatically generate an e-mail notification with customized information about the SSO upon initial reporting of the SSO and final certification for all Category 1 SSOs. E-mails will be sent to the appropriate County Health Officer and/or Environmental Health Department if the county desires this information, and the appropriate Regional Water Board.

B. Record Keeping

1. Individual SSO records shall be maintained by the Enrollee for a minimum of five years from the date of the SSO. This period may be extended when requested by a Regional Water Board Executive Officer.

3. All records shall be made available for review upon State or Regional Water Board staff's request.

4. All monitoring instruments and devices that are used by the Enrollee to fulfill the prescribed monitoring and reporting program shall be properly maintained and calibrated as necessary to ensure their continued accuracy;

5. The Enrollee shall retain records of all SSOs, such as, but not limited to and when applicable:

   a. Record of Certified report, as submitted to the online SSO database;
   b. All original recordings for continuous monitoring instrumentation;
   c. Service call records and complaint logs of calls received by the Enrollee;
   d. SSO calls;
   e. SSO records;
   f. Steps that have been and will be taken to prevent the SSO from recurring and a schedule to implement those steps.
   g. Work orders, work completed, and any other maintenance records from the previous 5 years which are associated with responses and investigations of system problems related to SSOs;
   h. A list and description of complaints from customers or others from the previous 5 years; and
   i. Documentation of performance and implementation measures for the previous 5 years.

6. If water quality samples are required by an environmental or health regulatory agency or State law, or if voluntary monitoring is conducted by the Enrollee or its agent(s), as a result of any SSO, records of monitoring information shall include:

a. The date, exact place, and time of sampling or measurements;
b. The individual(s) who performed the sampling or measurements;
c. The date(s) analyses were performed;
d. The individual(s) who performed the analyses;
e. The analytical technique or method used; and,
f. The results of such analyses.

C. Certification

1. All final reports must be certified by an authorized person as required by Provision J of the Order.
2. Registration of authorized individuals, who may certify reports, will be in accordance with the CIWQS' protocols for reporting.

Monitoring and Reporting Program No. 2006-0003 will become effective on the date of adoption by the State Water Board.

CERTIFICATION

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

Song Her
Clerk to the Board

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Appendix C

C-1 Section 6.1 Gravity Sewer Pipeline Design Guidelines

C-2 Sewer Manholes and Cleanouts Design Guidelines

C-3 Sewer Laterals Design Guidelines

C-4 Pressure Systems (Force Mains) Design Guidelines

C-5 Standard Specifications for Potable Water, Recycled Water and Sewer Facilities

C-6 Standard Drawings for Potable Water, Recycled Water and Sewer Facilities

APPENDIX C

C-1

WATER AGENCIES' STANDARDS

Design Guidelines for Water and Sewer Facilities

SECTION 6.1
GRAVITY SEWER PIPELINE DESIGN

6.1.1 PURPOSE

The purpose of this section is to provide guidelines for the use, location, alignment and design of gravity sewer collection pipelines for conveying raw sewage.

6.1.2 STANDARD TERMS AND DEFINITIONS

Wherever technical terms occur in these guidelines or in related documents, the intent and meaning shall be interpreted as described in Standard Terms and Definitions.

The following terms and definitions as found in this section shall have the following meaning:

SDR: Standard Dimension Ratio (SDR) is the pipe diameter divided by the pipe wall thickness and provides a method of specifying product dimensions to maintain mechanical properties regardless of size. For a given dimension ratio the pipe stiffness remains constant for all pipe sizes.

Collector: Generally eight inch (8") through fifteen inch (15") pipe that collects sewage from neighborhoods and groups of business and delivers sewage into a single, larger interceptor pipe.

Interceptor: Generally fifteen inch (15") and larger pipe that gathers sewage flow from several smaller collector pipe connections and transports this sewage to a treatment facility or outfall.

Outfall: Generally eighteen inch (18") and larger pipe having no (or minimal) collector pipe connections that carries sewage flow to a treatment facility.

6.1.3 GENERAL

It is the responsibility of the user of these documents to make reference to and/or utilize industry standards not otherwise directly referenced within this document. The Engineer of Work may not deviate from the criteria presented in this section without prior written approval of the Agency's Engineer.

A. Use and placement of manholes and cleanouts shall be in accordance with Section 6.2.

B. Use and placement of sewer laterals in gravity sewer collection shall be in accordance with Section 6.3.

C. Use and design of Sewer Force mains shall be in accordance with Section 6.4.

6.1.4 GUIDELINE

Gravity sewer systems are designed for steady flow conditions based on ability to self-clean at peak hour pipe velocity. Factors to consider in determining gravity system hydraulics include the design formula, roughness coefficient, velocity and slope, and sulfide control. PVC gravity sewer pipe is considered flexible pipe material and shall be designed accordingly.

A. Requirements: Pipe to be used to convey raw sewage shall comply to the following:

1. Gravity sewer mains and appurtenant components shall primarily be Polyvinyl Chloride (PVC) sewer pipe, in accordance with the WAS Approved Materials List.

   Polyethylene Lined Ductile Iron Pipe (DIP) and High Density Polyethylene Pipe (HDPE) may be used in some circumstances. Prior written approval of the Agency's Engineer is required when pipe materials other than PVC are proposed for use by the designer.

2. Minimum size pipe for sewer mains shall be eight inch (8"). Six inch (6") sizes may be allowed in some circumstances only with prior approval of the Agency's Engineer.

3. PVC pipe shall have common profiles for inter-changeability between rough-barrel dimensions, couplings, ends, and elastomeric gaskets to facilitate future repairs.

4. Pipe, fittings, couplings, and joints shall comply with the size, dimensions, materials, and performance requirements of the following ASTM designations:

Pipe Sizes	ASTM Designations
6" through 15"	ASTM D 3034, SDR 35
18" through 27"	ASTM F 679, SDR 35 (T-I)
21" through 48"	ASTM F 794, Closed Profile

5. Curves: Horizontal and vertical curve alignments in sewer mains are allowed in accordance with the manufacturer's recommendations and as follows:

   a. Horizontal and vertical curves are not permitted in the same stretch of pipe between manholes.

   b. Generally horizontal curves shall match the centerline radius of the road in which the sewer main is to be installed. Curves in sewer pipe shall be as recommended by the pipe manufacturer with a minimum radius of two hundred feet (200').

   c. Vertical curves should be avoided whenever possible. Vertical curves may be allowed for changes in slope without the use of an additional manhole in accordance with the manufacturer's recommendations and prior written approval of the Agency's Engineer. If vertical curves cannot be avoided, specific design calculations shall be provided to the Agency's Engineer with a minimum radius of two hundred feet (200').

6. Change in Direction: The maximum change in direction allowed is ninety degrees (90°) for mains fifteen inches (15") in diameter and less, and forty five degrees (45°) for mains eighteen inches (18") and larger.

   Whenever a change in deflection occurs a manhole will be required at the change in direction in accordance with Section 6.2.

7. Trench Loads: PVC sewer pipe is considered flexible pipe material and shall be designed accordingly. Trench loads shall be calculated and a detailed report provided to the Agency's Engineer when the pipe depth exceeds fourteen feet (14'). Calculations shall consider dead loads (i.e. soil above the pipe and asphalt or concrete) and live loads (i.e. vehicle traffic). Maximum long-term deflection of gravity sewer pipe shall not exceed the manufactures recommendations.

8. Pipe slopes: Sewer mains shall be designed to have minimum and maximum slopes in accordance with Section 4.2.

9. Depth of Flow: Depth of flow within a sewer main shall be in accordance with Section 4.2.

10. Junctions or intersection sewer mains shall have a manhole placed in accordance with Section 6.2. The crown elevations shall be matched within the manhole.

11. Inverted Siphons: Inverted siphons are used in gravity sewer systems to overcome grade obstructions that cannot be resolved in any other practical fashion.

    Every effort shall be made to avoid a siphon. Siphons will not be permitted without prior approval of the Agency's Engineer. Alternates to siphons include, but are not limited to aerial crossings, separation structures, relocation of obstructions, relocation of sewer mains, low head pipes, and gravity flow beneath the obstruction. Inverted siphons are a specialty design and a design report shall be provided to the Agency's Engineer for evaluation and consideration.

B. Locations: Sewer mains shall be located, based on the above needs, at areas described below.

1. In general, sewer mains should be located on the centerline of streets or easements. Refer to Section 1.5 for easement widths required.

2. Depth of sewer mains shall be as described as follows:

    a. Minimum Depth: Sewer mains shall be a minimum five feet (5') deep to flow line, unless otherwise approved by the Agency's Engineer. Greater depths may be required where it is necessary to extend mains to serve other areas, or to achieve required depth of laterals at the property line. Anything less than five feet (5') requires the approval of the Agency's Engineer.

    b. Maximum Depth: Sewer mains shall have a maximum depth to flow line of fourteen feet (14'), unless otherwise approved by the Agency's Engineer. The maximum depth of pipe is based on sewer cleaning and maintenance access requirements. Request for approval of deeper mains shall include a sewer main alignment and profile study showing that no other way of providing a main with less than fourteen feet (14') of cover is feasible.

3. Parallel and perpendicular separations between water and sewer mains shall be in accordance with WAS Standard Drawing WI-01 through WI-03.

4. Mains shall be placed on straight lines between structures wherever possible.

5. Generally sewer mains shall be accessible for cleaning equipment, maintenance and repair. Access roads shall have a minimum forty-five foot (45') centerline radius to accommodate cleaning equipment.

Mains shall not be located in the following locations:

- Inaccessible areas.
- Under median strips.
- Parking lanes.
- Within heavy landscape areas that receives more than just ground cover. Bushes, trees or brush should not be planted around the area of the lateral.

C. Appurtenances: Sewer main appurtenances will be required in accordance with WAS Standard Specification 15065 and the Approved Materials List.

D. Installation: Sewer mains shall be installed at locations shown on the approved plans in accordance with WAS Standard Specification 15065 and applicable Standard Drawings.

6.1.5 NOTATIONS ON PLANS

Sewer mains shall be shown in the plan and profile views of the sheet(s) and shall include, but not be limited to the following:

A. Standard symbols, stationing and plan callouts in accordance with Section 1.1.

B. Plan View: Indicate size, class, type of pipe materials and locations of laterals, manholes and pipe connections in accordance with Section 1.1.

C. Profile View: Indicate size, class, type of pipe materials and locations of manholes, flow-line/invert elevations, and slopes in accordance with Section 1.1. If vertical curves cannot be avoided the curve shall be indicated by showing invert elevations at fifteen foot (15') to twenty five foot (25') intervals.

6.1.6 MATERIAL SELECTION

Selection of pipeline materials and appurtenances to be used with the installation of gravity sewers shall be in accordance with WAS Standard Specification 15065 and the Approved Materials List.

6.1.7 REFERENCE

A. Should the reader have any suggestions or questions concerning the material in this section, contact one of the member agencies listed.

B. The publications listed below form a part of this section to the extent referenced and are referred to in the text by the basic designation only. Reference shall be made to the latest edition of said publications unless otherwise called for. The following list of publications, as directly referenced within the body of this document, has been provided for the users convenience. It is the responsibility of the user of these documents to make reference to and/or utilize industry standards not otherwise directly referenced within this document.

1. Water Agencies' Standards (WAS):

   a. Design Guidelines

      1. Section 1.1, Drafting Guidelines
      2. Section 1.5, Easements and Encroachments
      3. Section 4.2, Sewer Planning
      4. Section 6.2, Sewer Manholes and Cleanouts
      5. Section 6.3, Sewer Laterals
      6. Section 6.4, Sewer Pressure Systems (Force Mains)

   b. Standard Specifications:

      1. Section 15065, Polyvinyl Chloride (PVC) Gravity Sewer Pipe

   c. Standard Drawings:

      1. WI-01 through WI-03

   d. Approved Materials List for Sewer Facilities

2. American Society for Testing and Materials (ASTM):

   a. ASTM D3034, Type PSM Poly (vinyl chloride) (PVC) Sewer Pipe and Fittings.
   b. ASTM F 679, PVC Large-Diameter Plastic Gravity Sewer Pipe and Fittings.
   c. ASTM F 794, Poly (vinyl chloride) (PVC) Profile Gravity Sewer Pipe and Fittings.

END OF SECTION

APPENDIX C

C-2

WATER AGENCIES' STANDARDS

Design Guidelines for Water and Sewer Facilities

SECTION 6.2
SEWER MANHOLES AND CLEANOUTS

6.2.1 PURPOSE

The purpose of this section is to provide guidelines for the use and placement of manholes and cleanouts in gravity sewer collection pipelines.

6.2.2 STANDARD TERMS AND DEFINITIONS

Wherever technical terms occur in these guidelines or in related documents, the intent and meaning shall be interpreted as described in Standard Terms and Definitions.

6.2.3 GENERAL

It is the responsibility of the user of these documents to make reference to and/or utilize industry standards not otherwise directly referenced within this document. The Engineer of Work may not deviate from the criteria presented in this section without prior written approval of the Agency Engineer.

A. Design for gravity sewers mains shall be in accordance with Section 6.1.

B. Use and placement of sewer laterals in gravity sewer collection shall be in accordance with Section 6.3.

6.2.4 GUIDELINE

A. Requirements: Manholes are required in gravity sewer pipelines to provide access for maintenance.

Manholes are generally located in the following areas:

- Change in direction of flow.
- Change in pipe size or material.
- Change in grade.
- Intersections of mains.

B. Locations: Manholes shall be located at areas described as follows:

1. Manhole spacing is typically determined by the available sewer maintenance methods and equipment. Maximum spacing of manholes shall be four hundred feet (400') for mains twelve inch (12") and smaller and five hundred feet (500') for mains over twelve inch (12") unless otherwise approved by the Agency Engineer.

2. Manholes shall be located in areas where a change in the direction of flow is made. Whenever a change in direction occurs with a radius less than five hundred feet (500'), a manhole shall be located within approximately ten feet (10') of the downstream end of the curve (EC). One exception to this is when a reverse curve is used, in which case the manhole should be located at the

point of reverse curve. Maximum distances between manholes are to be maintained.

3. Manholes shall be placed at areas where a change in the pipe size occurs. A change in pipe diameter greater than six inches (6") is not allowed without prior approval of the Agency Engineer. A smooth transition within the manhole must be provided between all changes in pipe size.

4. Manholes shall be placed at areas where a change in the pipe grade occurs. Where the change in grade is greater than ten percent (10%), or the potential for a hydraulic jump within the manhole exists, the grade change shall be made in a smooth vertical curve with a manhole twenty five feet (25') downstream from where the sewer levels out to the lesser grade.

5. Manholes shall be located at the ends of mains larger than eight inches (8"), on mains that have four (4) or more laterals at or near the end or on mains extending beyond two hundred feet (200') from the nearest manhole. Manholes at end of mains shall be limited to no more than four (4) laterals entering directly into the manhole.

6. Manholes shall be located at junctions or intersection of side mains.

   a. Manholes with multiple angled inlets and outlets shall be spaced to provide adequate clearance between penetrations to assure clearance and water tightness.

   b. Manholes shall be installed on the existing sewer main where a proposed side main is to be connected.

   c. Typically sewer laterals intercepting the main do not require a manhole in accordance with Section 6.3 and Standard Drawings SS-01 and SS-02 except as follows:

      1. Laterals shall be connected to the sewer main at a manhole when the lateral serving a property has two (2) or more branches installed to serve more than one facility on the property. Residential lots with a second dwelling may be excluded from this requirement at the direction of the Agency Engineer.

      2. Laterals matching the size of the sewer main shall be connected to the main at a manhole.

7. Manholes shall be located at the beginning point and ending point of vertical curves if the curve is longer than two hundred feet (200').

8. Manholes shall not be located in the following locations:

   - Inaccessible areas.
   - Gutters and other depressions or areas subject to inundation.
   - In sidewalks or crosswalks.
   - In driveways.
   - In freeway ramps.
   - Between railroad or trolley tracks. Manholes within a railroad or trolley right-of-way shall be located a minimum of fifteen feet (15') from the track bed.

C. Manhole Appurtenances: Manhole appurtenances will be required as indicated below in accordance with WAS Standard Specification 03461.

1. All manholes will include thirty-six inch (36") diameter frames and two concentric covers. Locking manhole lids may be required in areas where manholes are located in unpaved areas and other areas as determined by the Agency Engineer.

2. Manhole bases may be poured in place, in accordance the WAS Specification Section 03000, or precast concrete, in accordance with WAS Specification Section 03461, with a minimum drop through the manhole as follows:

   a. Mains fifteen inch (15") and smaller: A minimum drop of 0.20 feet and a maximum of 0.60 feet shall be used on a straight-through line.

   b. Mains eighteen inches (18") and larger. The drop across for the manhole shall be calculated using the following formula:

      $$\text{Drop in feet} = D \times [(S_1 + S_2) / 2] + 0.20$$

      Where D equals the inside diameter of the manhole, S_1 equals the invert slope entering the manhole, and S_2 equals the invert slope leaving the manhole. (All dimensions in feet and slopes are feet/ foot.) Calculations shall be provided for review with final requirements summarized on the plans in a data table.

   c. Provide a minimum two tenths of a foot (0.20') drop from any new sewer side inlet invert elevation to any new manhole sewer outlet elevation.

3. T-shaped PVC liner shall be integrally cast into the shaft sections, cone section and grade rings in accordance with WAS Standard Specification 03461 and Standard Drawing SM-07. The base shall incorporate a polyurethane coating. The PVC liner and polyurethane coating are required in the following cases:

   - Mains eighteen-inch (18") in diameter and larger.
   - All manholes where entering pipe slope is 5% or greater.
   - Canyon areas where manholes are normally sealed permanently.
   - Known locations of higher sulfide concentration, such as the discharge from sewage pump stabon force main.
   - All manholes within one thousand feet (1,000') of receiving a force main discharge.
   - All drop manholes.
   - Other areas, where a corrosive atmosphere is anticipated.
   - Siphon inlet and outlet manholes/structures.

D. Installation: Manholes shall be installed at locations shown on the approved plans in accordance with WAS Standard Specification 03461 and Standard Drawing SM-01 through SM-07.

6.2.5 NOTATIONS ON PLANS

Sewer manholes shall be shown in the plan and profile views of the sheet(s) and include, but not limited to the following:

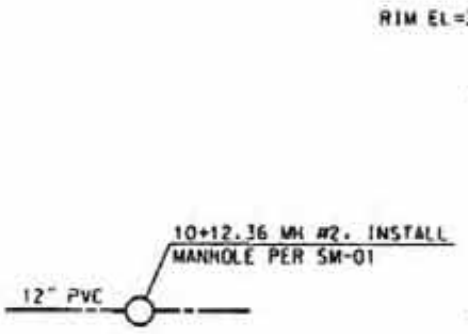
A. Standard symbols, stationing and plan callout notes shall be in accordance with Section 1.1.

B. A numbering system shall be incorporated on the plans numbering each manhole to be constructed. The Engineer of Work shall make an inquiry to the Agency whether an existing numbering system is in place. If no system exists, manholes shall be numbered starting with manhole number one (#1) and increase in the direction matching the direction of stationing.

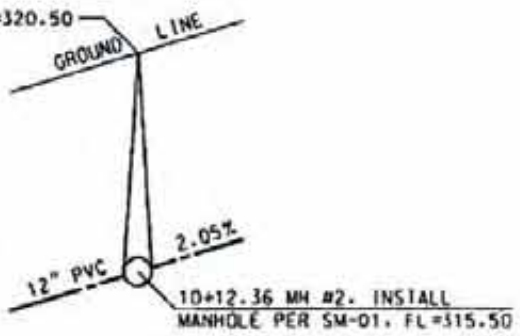
C. Plan View: Manholes shown in the plan view shall be shown with stationing and incorporate a numbering system on the plans. Refer to Figure 1 below.

D. Profile View: Along with stationing and a numbering system, manholes shall also show rim elevations and flow line/invert elevations. Refer to Figure 2 below.

Manhole Plan Callouts



PLAN VIEW
Figure 1



PROFILE VIEW
Figure 2

6.2.6 DROP MANHOLES

Due to cleaning problems associated with drop manholes, it is desirable not to use drop manholes. Drop manholes may be used only with prior approval of the Agency Engineer. Drop manholes may be considered when two collection lines have a vertical difference of four feet (4') or more and are connected at a manhole. Drop manholes shall be installed in accordance with WAS Standard Drawing SM-09 and SM-10.

6.2.7 SEWER CLEANOUTS

Size-on-size cleanouts are required at the upstream end of mains eight inches (8") and smaller that extend no more than two hundred feet (200') past the manhole and have no more than three (3) laterals installed at or near the end of the main. Cleanouts shall be in accordance with WAS Specification Section 15065 and Standard Drawing SC-01.

6.2.8 MATERIAL SELECTION

Manholes and appurtenant components to be used with the installation of gravity sewers shall be in accordance with WAS Standard Specification 03461 and the Approved Materials List.

6.2.9 REFERENCE

A. Should the reader have any suggestions or questions concerning the material in this section, please contact one of the agencies listed.

B. The publications listed below form a part of this section to the extent referenced and are referred to in the text by the basic designation only. Reference shall be made to the latest edition of said publications unless otherwise called for. The following list of publications, as directly referenced within the body of this document, has been provided for the users convenience. It is the responsibility of the user of these documents to make reference to and/or utilize industry standards not otherwise directly referenced within this document.

1. Water Agencies' Standards (WAS):

   a. Design Guidelines

      1. Section 1.1, Drafting Guidelines
      2. Section 4.2, Sewer Planning
      3. Section 6.1, Sewer Pipeline Design
      4. Section 6.3, Sewer Laterals

   b. Standard Specifications

      1. Section 03000, Cast in Place Concrete
      2. Section 03461, Precast Concrete Manholes
      3. Section 15065, Polyvinyl Chloride (PVC) Gravity Sewer Pipe

   c. Standard Drawings

      1. SC-01
      2. SM-01 through SM-11

   d. Approved Materials List for Sewer Facilities

END OF SECTION

APPENDIX C

C-3

WATER AGENCIES' STANDARDS

Design Guidelines for Water and Sewer Facilities

SECTION 6.3
SEWER LATERALS

6.3.1 PURPOSE

The purpose of this section is to provide guidelines for the use and placement of sewer laterals in gravity sewer collection pipelines.

6.3.2 STANDARD TERMS AND DEFINITIONS

Wherever technical terms occur in these guidelines or in related documents, the intent and meaning shall be interpreted as described in Standard Terms and Definitions.

6.3.3 GENERAL

It is the responsibility of the user of these documents to make reference to and/or utilize industry standards not otherwise directly referenced within this document. The Engineer of Work may not deviate from the criteria presented in this section without prior written approval of the Agency Engineer.

A. Design for gravity sewer mains shall be in accordance with Section 6.1.

B. Use and placement of manholes and cleanouts shall be in accordance with Section 6.2.

6.3.4 GUIDELINE

A. Requirements: Sewer laterals shall be used primarily for gravity applications of conveying raw sewage collected from properties to the agency's sewage collection system.

1. Each parcel or lot shall have a separate connection to the public sewer main. Laterals may not cross more than one (1) property line.

2. Sewer laterals shall be a minimum four inch (4") and a maximum of six inch (6"). Eight inch (8") laterals may be used only with prior approval of the Agency Engineer. Laterals shall be sized in accordance with the County or City of Jurisdiction building codes/requirements and these guidelines.

3. Typically sewer laterals intercepting the main do not require a manhole, refer to WAS Standard Drawings SS-01 and SS-02. Laterals shall be connected to the sewer main at a manhole when the lateral serving a property has two (2) or more branches installed to serve more than one facility on the property. Residential lots with a second dwelling may be excluded from this requirement at the direction of the Agency Engineer.

4. Laterals shall have a minimum slope of 2% (¼" per foot) and shall not exceed 100%.

5. Deep-cut laterals may be allowed when the vertical difference between the lateral and the sewer main is four feet (4') or more. Prior approval of the Agency Engineer is required. Deep-cut laterals shall be called out as such on the approved plans.

6. Parallel and perpendicular separations between water and sewer laterals shall be in accordance with WAS Standard Drawing WI-01 through WI-03.

7. Lateral connections to interceptor mains eighteen inches (18") and larger shall be made at a manhole. The lateral and interceptor main top of pipe elevations shall be matched such that the lateral will have free outflow into the interceptor main. If the top of the lateral cannot be matched to the top of the interceptor pipe because of elevation constraints with the lateral, then the minimum allowable conditions shall be as follows:

   a. Match the invert elevation of the lateral to maximum D/d ratio of the interceptor pipe. If this cannot be achieved, then calculations shall be provided for a special manhole base design.

   b. Special notes and details and approval of the Agency Engineer are required.

8. Private pumping units are allowed only in accordance with the County or City of Jurisdiction building codes/requirements. If allowed, pressurized laterals from private pumping units shall discharge at a vertical grade break to a standard sewer lateral with a cleanout at the property line, refer to Figure 1 below. The gravity sewer lateral shall be connected to the sewer main in accordance with WAS Standard Drawing SS-01 through SS-04.

Figure 1
Pressurized Sewer Lateral

9. Sewer laterals internal to the building and from the building to the property line are considered private. Private lateral installations are governed by the Uniform Building Code and enforced by the local building authority.

10. Laterals shall be installed with a cleanout placed at the property line in accordance with Uniform Building Code and the local building authority.

B. Locations: Laterals shall be located as described below:

1. Laterals shall run perpendicular from the sewer main to the property line, except in a cul-de-sac.

   Laterals can connect directly into a manhole at the end of a main or in a cul-de-sac as described in Section 6.2.

2. Laterals shall be a minimum of four feet (4') deep at the property line, unless otherwise approved by the Agency Engineer. Laterals with less than three feet (3') cover will require concrete encasement.

3. Laterals shall have a four foot (4') minimum separation between successive laterals. Refer to WAS Standard Drawing SS-03.

4. Laterals shall not be located in the following locations:

- In driveways.
- Parking areas (if possible).
- Within five feet (5') of the property line between lots.
- Within heavy landscape areas that receives more than just ground cover. Bushes, trees or brush should not be planted around the area of the lateral.

C. Installation: Sewer Laterals shall be installed at locations shown on the approved plans in accordance with WAS Standard Specification 15065 and Standard Drawings SS-01 through SS-04.

6.3.5 NOTATIONS ON PLANS

Laterals shall be shown in the plan view portion of the sheet(s) only and include, but not be limited to, the following information:

A. Standard symbols, stationing and plan callout notes in accordance with Section 1.1.

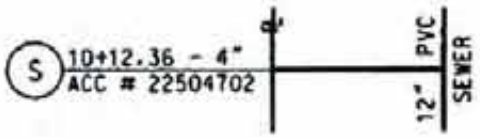
B. Stationing of the lateral at the connection to the sewer main.

C. Size of lateral.

D. Account number (if applicable).

E. Refer to Figure 2 below.

Figure 2
Sewer Lateral Plan Callouts



6.3.6 MATERIAL SELECTION

Sewer laterals and appurtenant components to be used with the installation of gravity sewers shall be in accordance with WAS Standard Specification 15065 and the Approved Materials List.

6.3.7 REFERENCE

A. Should the reader have any suggestions or questions concerning the material in this section, please contact one of the agencies listed.

B. The publications listed below form a part of this section to the extent referenced and are referred to in the text by the basic designation only. Reference shall be made to the latest edition of said publications unless otherwise called for. The following list of publications, as directly referenced within the body of this document, has been provided for the user's convenience. It is the responsibility of the user of these documents to make reference to and/or utilize industry standards not otherwise directly referenced within this document.

1 Water Agencies' Standards (WAS):

a. Design Guidelines

1. Section 1.1, Drafting Guidelines
2. Section 4.2, Sewer Planning
3. Section 6.1, Sewer Pipeline Design
4. Section 6.2, Sewer Manholes and Cleanouts

b. Standard Specifications

1. Section 15065, Polyvinyl Chloride (PVC) Gravity Sewer Pipe

c. Standard Drawings

1 WI-01 though WI-03
2 SS-01 through SS-04

d. Approved Materials List for Sewer Facilities

END OF SECTION

APPENDIX C

C-4

WATER AGENCIES' STANDARDS

Design Guidelines for Water and Sewer Facilities

SECTION 6.4
PRESSURE SYSTEMS (FORCE MAINS)

6.4.1 PURPOSE

The purpose of this section is to provide guidelines for the use, location, alignment and design of pressure sewer pipelines for conveying raw sewage.

6.4.2 STANDARD TERMS AND DEFINITIONS

Wherever technical terms occur in these guidelines or in related documents, the intent and meaning shall be interpreted as described in Standard Terms and Definitions.

The following terms and definitions as found in this section shall have the following meaning:

Force Main: Pressurized pipeline used to convey wastewater from a lift station to a gravity sewer main.

Lift Station: A pump station used for lifting sewer flows from a lower to a higher elevation.

6.4.3 GENERAL

It is the responsibility of the user of these documents to make reference to and/or utilize industry standards not otherwise directly referenced within this document. The Engineer of Work may not deviate from the criteria presented in this section without prior written approval of the Agency's Engineer.

A. Use and design of sewer pipelines shall be in accordance with Section 6.1.

6.4.4 GUIDELINE

A. General Requirements

1. Dual Force Mains: The use of dual force mains shall be as directed by the Agency Engineer. Dual mains may be required where maintenance will be required on a regular basis or due to environmental constraints such as sensitive habitat areas. Each force main shall include the following: isolation valves, check valve, air vac, emergency pump connection, and valved drainage line into the wet well (located inside the dry well). This shall allow use of either force main should the second line require draining and repair.

2. PVC Pressure Pipe: PVC pipe is the preferred material for force mains. Force main fittings and appurtenances shall be ductile or cast iron. Analyze pipeline stresses to PVC that will occur with pressure on/off cycles and surge pressures to ensure the PVC will operate over the working life of the pump station (50 years). Use a roughness coefficient that is appropriate for PVC pipe at the end of its planned design life. However, the minimum pressure class for all stations regardless of total dynamic head requirements shall be at least Class 200.

3. Ductile Iron Pipe (Special Station Requirement): Epoxy lined and coated ductile iron pipe may be specified for force mains in special cases, with prior approval by the Agency Engineer. This may include high lift stations (total discharge head greater than 100 psi) where the initial length of the force main to the property line

(where access for repair is typically difficult due to the depth of pipe) may be constructed of ductile iron. Considerations must be made for corrosion monitoring and protection.

4. Force Main Isolation Valves: Install isolation valves on each force main both inside the dry well (located near the wall penetration) and outside the station within the fenced-in area (located upstream of the emergency pump connections).

5. Flex Couplings at Pump Station Wall: Install dual flexible couplings (dresser couplings) or ball and socket type fittings outside the station on the force main to allow for differential settlement.

6. Corrosion Protection: All buried ferrous pipe, fittings, and valves shall be coated as specified in the contract documents. Prior to backfill, all fittings shall be coated with a wax tape system. All fasteners on buried fittings shall be stainless steel Class 316.

7. Thrust Blocks: Provide thrust blocks at bends on the force main. In constructing the mains, ensure that at bends, each force main thrust block is installed against undisturbed soil. Vertical thrust restraining clamps on siphon high points shall be specified as required to restrain the pipe. Refer to Section 5.2 in the WASDG for use of thrust blocks.

8. Restrained Buried Pipe Joints: Specify restrained mechanical joints as required in special areas (steep sloped areas, fill areas without sufficient resistance to thrust) to ensure security of joints. Indicate locations of restrained joints on the drawings. Fittings that provide joint thrust restraint and/or joint rotation shall be provided as required, PEBA IRON, Megalug or Flextend respectively. Perform restrained length calculations where required to determine if restrained joints are required.

9. Cut-Off Walls: Cut-off walls per WAS Section 02202 shall be used as required for piping on steep slopes. Provide vertical thrust restraint and/or joint rotation fittings, i.e., for subsidence allowance as required.

10. Use of 45-Degree Elbow fittings: To reduce the potential for stoppages where a 90-degree change of direction in the force main is required, show and specify two 45-degree elbows or a horizontal curve instead of a 90-degree elbow.

11. Force Main Drains: (Special Station Requirement): If low points exist in the force main, install valved drains at these points to allow localized draining of the force main to suitable locations to facilitate repairs.

12. Force Main Separation and Pipe Joint Stagger: Construct the force mains in separate trenches with a minimum 5 feet separation between their outer surfaces. Plans should contain a notation for staggering the pipe joints to lessen potential undermining if a leak occurs in either force main.

13. Use of Combination Air Valves: Where at all possible, force mains shall be designed with a continuous uphill slope without high points so that air-release valves are not required on the force main. If the force main cannot be designed this way, provide two (2) redundant air-release valves at high points where there are siphons or at discontinuities in grade. Combination air-release valves (i.e., two body valves to allow air release during filling, air release for trapped air under pressure, and air entry (vacuum relief) during pipe emptying,) shall be installed inside a vault to allow access to the valves for maintenance. All piping and valve appurtenances within the vault shall be Type 316 stainless steel. Discharge from the air vent shall be piped to the nearest sewer manhole. If a manhole is not located within suitable distance, install a separate vault with activated charcoal canister for odor control of the air valve discharge.

B. Isolation Valves and Emergency Pumping Connection

1. Solid Wedge Type Valves: For buried applications, provide "solid wedge" type gate valves for sewage applications with the following features: type 316 stainless steel stem, gate, and seat inserts, stainless steel fasteners in wetted areas, and fusion bond epoxy on all ferrous parts. Valves shall be designed for buried service with water tight bonnet and buried service gear operator.

2. Isolation Valve Location: Install isolation valves inside the station fenced-in area. Where difficult soil conditions exist or where valves may not be easily accessible, install the valves in a vault for easy access. Isolation valves shall be installed on each force main both inside the dry well (located near the wall penetration) and outside the station within the fenced-in area (located upstream of the emergency pump connections).

3. Force Main Drain Lines. Install valved drain lines on each discharge line manifold in the pump room for draining each force main individually back into the wet well (use during maintenance to repair leaks in one force main while operating the second force main).

4. Emergency Pumping Connections: An emergency pump discharge connection shall be built into both force mains. This assembly shall be designed as follows: locate a "wye" fitting on each force main downstream of the flex couplings and force main isolation valve. Extend the side outlet of the wye to an isolation valve and blind flange in a service box vault (use Type 316 stainless steel bolting for corrosion resistance). Size each service box large enough for connections of large diameter flexible discharge hoses from emergency pumps. Orient the blind flange at 45 degrees up from horizontal for ease of connecting hoses in the service box vault. During emergencies which require draining the force main or bypassing the station pumps, a portable pump will be connected to this assembly. The minimum allowable diameter size for the connection is 6 inches. The Agency Engineer may elect to use a quick connect coupling instead of the blind flange in order to facilitate an emergency connection where time will be critical. (Note: this emergency connection can also be used as a cleanout.)

5. Valving Diagram: Specify a wall mounted plastic laminated diagram in the station that shows the location(s) of the dual force mains and the force main valving on the site. This sign shall also note the maintenance schedule for exercising and testing the force main isolation valves.

6. Eccentric plug valves: Specify eccentric plug valves with tight shut-off with pressure in either direction (a distinct advantage in sludge pipelines with multiple flow routings) to provide flexibility.

C. Discharge Manhole

1. Discharge Manhole. The force main will typically discharge into a separate manhole (PVC lined) with gravity discharge into the trunk sewer. Install offset fittings and/or long radius elbows as required in order to enter the manhole at the required height and in the direction of flow in the trunk sewer.

2. Discharge Level to Manhole: If the force main discharges directly into a interceptor sewer, the force main discharge shall be above the flow line of the gravity sewer and in the direction of flow in the trunk sewer (to prevent back flooding into the wet well with leaking check valves).

D. Odor Control

1. Chemical Odor Control: Force mains longer than one mile with excessive detention times of more than 24 hours can create odor problems in downstream discharge sewers. If required due to downstream sewer conditions, provide an odor control system which can include chemical injection into the wet well such as calcium nitrate or other approved chemicals. Long force mains are defined as pressure pipelines grater in length than one mile.

2. Dedicated Gravity Discharge (Special Station Requirement): In some cases, a dedicated force main gravity discharge line to a trunk sewer may be required to prevent odors on existing gravity mains and laterals.

E. Allowable Pipe Velocities

1. In general, the maximum recommended suction pipe velocity is 5 fps. Velocity at the suction bell shall not exceed 3.5 fps. Install a larger suction line than the pump inlet diameter if required to reduce velocity and inlet head losses, in order to provide the required net positive suction head (NPSH) according to the Hydraulic Institute, and prevent cavitations for high flow rate pumps.

2. The maximum recommended velocity in the station discharge piping is 8 fps. The minimum discharge velocity in the force main shall be 4 fps at a designed capacity in order to achieve cleansing velocity.

3. Suction and discharge pipe design shall follow Hydraulic Institute recommendations for items not addressed above in this Section.

6.4.5 NOTATIONS ON PLANS

Sewer pressure mains shall be shown in the plan and profile views of the sheet(s) and shall include, but not be limited to the following:

A. Standard symbols, stationing and plan callouts in accordance with Section 1.1.

B. Plan View: Indicate size, class, type of pipe materials and locations of laterals, manholes and pipe connections in accordance with Section 1.1.

C. Profile View: Indicate size, class, type of pipe materials and locations of manholes, flow-line/invert elevations, and slopes in accordance with Section 1.1. If vertical curves cannot be avoided the curve shall be indicated by showing invert elevations at fifteen foot (15') to twenty five foot (25') intervals.

6.4.6 REFERENCE

A. Should the reader have any suggestions or questions concerning the material in this section, contact one of the member agencies listed.

B. The publications listed below form a part of this section to the extent referenced and are referred to in the text by the basic designation only. Reference shall be made to the latest edition of said publications unless otherwise called for. The following list of publications, as directly referenced within the body of this document, has been provided for the user's convenience. It is the responsibility of the user of these documents to make reference to and/or utilize industry standards not otherwise directly referenced within this document.

1. Water Agencies' Standards (WAS):

   a. Design Guidelines

      1. Section 1.1, Drafting Guidelines
      2. Section 1.5, Easements and Encroachments
      3. Section 4.2, Sewer Planning
      4. Section 6.1, Gravity Sewer Pipeline Design
      5. Section 6.2, Sewer Manholes and Cleanouts
      6. Section 6.3, Sewer Laterals

   b. Standard Specifications:

      1. Section 15064, Polyvinyl Chloride (PVC) Pressure Pipe

   c. Standard Drawings:

      1. WI-01 through WI-03

   d. Approved Materials List for Sewer Facilities

1. American Society for Testing and Materials (ASTM).

   a. ASTM D3034, Type PSM Poly (vinyl chloride) (PVC) Sewer Pipe and Fittings.
   b. ASTM F 794, Poly (vinyl chloride) (PVC) Profile Gravity Sewer Pipe and Fittings.
   c. ASTM A 536, Standard Specifications for Ductile Iron Casings

END OF SECTION

APPENDIX C

C-5

WATER AGENCIES' STANDARDS

Standard Specifications for Potable Water, Recycled Water and Sewer Facilities

SECTION 2

STANDARD SPECIFICATIONS FOR POTABLE WATER, RECYCLED WATER AND SEWER FACILITIES

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Standard Specifications, Division 1 through 16

Standard Specifications for Potable Water, Recycled Water and Sewer Facilities

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DIVISION 05	**METALS**		
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DIVISION 06	**WOOD AND PLASTICS**		
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DIVISION 08	**DOORS AND WINDOWS**		
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DIVISION 09	**FINISHES**		
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DIVISION 13	**SPECIAL CONSTRUCTION**		
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DIVISION 15	**MECHANICAL**		
15000	02/01/2008	General Piping System and Appurtenances	16
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15043	11/01/2002	Sewer Leakage and Infiltration Testing	3
15044	02/01/2008	Hydrostatic Testing of Pressure Pipelines	3
15045	11/01/2002	Closed Circuit Television (CCTV) Inspections	3
15056	03/01/2006	Ductile-Iron Pipe and Fittings	9
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15100	03/01/2001	Resilient Wedge Gate Valves (RWGV's)	5
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15108	03/01/2006	Air Release Valve, Air and Vacuum Valve, Combination Air Valve Assemblies and Manual Air Relief Service	5
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	Not Used		

APPENDIX C

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WATER AGENCIES' STANDARDS

Standard Specifications for Potable Water, Recycled Water and Sewer Facilities

SECTION 3

STANDARD DRAWINGS FOR POTABLE WATER, RECYCLED WATER AND SEWER FACILITIES

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WA-02	11/03/2006	50mm (2") Automatic Combination Air Release and Air/Vacuum Valve Installations
WA-03	11/03/2006	50mm (2") Air and Vacuum Valve Enclosure Locations
WA-04	11/03/2006	100mm (4") Automatic Combination Air Release and Air/Vacuum Valve Installations
WA-05	11/03/2006	150mm (6") Automatic Combination Air Release and Air/Vacuum Valve Installations
WA-06	03/01/2001	100mm & 150mm (4" & 6") Air and Vacuum Valve Enclosure Locations
WB		**BLOWOFF DETAILS**
WB-01	12/31/2003	50mm (2") Blowoff Installation
WB-02	11/03/2006	100mm (4") Blowoff Installation
WB-03	11/03/2006	150mm (6") Blowoff Installation
WB-04	03/01/2001	Blowoff Installation from End of Mains and from Steel Mains
WB-05	12/31/2004	Temporary End Cap and 50mm (2") Blowoff installation
WC		**CATHODIC PROTECTION DETAILS**
WC-01	03/01/2001	Exothermic Weld Detail
WC-02	03/01/2001	Rubber-Ring Joint Bonding Detail for Metallic Pipelines
WC-03	03/01/2001	Buried Mechanical Joint Bonding Detail for Metallic Pipelines
WC-04	03/01/2001	Above Ground Insulating Flange
WC-05	03/01/2001	Buried Insulating Flange Detail
WC-06	07/30/2007	Buried Insulating Flange Test Station Wiring Diagram
WC-07	07/30/2007	Buried Insulated Valve Detail
WC-08	07/30/2007	~~Buried Insulated Butterfly Valve Test Station Wiring Diagram~~ *(ELIMINATED 7/30/07)*
WC-09	03/01/2001	Two Wire Test Station
WC-10	03/01/2001	Casing Test Station
WC-11	03/01/2001	Single Anode Installation Detail
WC-12	07/30/2007	Prepackaged Magnesium Anode Detail
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WC-14	07/30/2007	Cathodic Test Station Box
WC-15	03/01/2001	Reference Electrode Installation Detail
WC-16	03/01/2001	Prepackaged Reference Electrode Detail
WC-17	12/31/2003	New Installation of Sacrificial Anodes for Copper Tubing
WC-18	12/31/2003	Retrofit Installation of Sacrificial Anodes for Copper Tubing
WF		**FIRE HYDRANT AND FIRE SERVICE DETAILS**
WF-01	11/01/2002	150mm (6") Fire Hydrant Installation
WF-02	07/30/2007	150mm (6") Fire Hydrant Installation with Break–Off Check Valve
WF-03	09/03/2001	High Pressure Dry Barrel Fire Hydrant Installation
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WF-05	09/12/2008	100mm (4") and Larger Fire Service Installation (1 of 2)
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Standard Drawings for Potable and Recycled Water Facilities

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WI-02	12/31/2003	Water, Recycled Water and Sewer Main Perpendicular Separations
WI-03	03/01/2001	Water, Recycled Water and Sewer Main Parallel and Perpendicular Separation Notes
WI-04	03/01/2001	Post Meter Constant Pressure Recycled Water Line 75mm (3") Diameter or Less Crossing Potable Water Main or Lateral within Public Right of Way
WI-05	09/03/2001	Allowable Leakage Chart for Testing of Pipes with Rubber Joints
WI-06	12/31/2004	Standard Symbols for Potable and Recycled Water Construction Drawings (1 of 4)
WI-06	11/03/2006	Standard Symbols for Potable and Recycled Water Construction Drawings (2 of 4)
WI-06	12/31/2004	Standard Symbols for Potable and Recycled Water Construction Drawings (3 of 4)
WI-06	12/31/2004	Standard Symbols for Potable and Recycled Water Construction Drawings (4 of 4)
WM		**MISCELLANEOUS WATER DETAILS**
WM-01	11/03/2006	Water Test Station Installation
WM-02	11/03/2006	Water Test Station Enclosure Locations
WM-03	09/12/2008	Retaining Wall for Fire Hydrants and Water and Recycled Water Appurtenances (1 of 2)
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WM-04	12/31/2004	Protection Post Installation
WM-05	12/31/2004	Demountable Protection Post Installation
WM-06	12/31/2004	Easement/Utility Marker Post Installation
WM-07	03/01/2001	Replacement of Sewer Lateral Crossings
WM-08	11/16/2007	Recycled Water "Do Not Drink" Sign
WP		**PIPELINE DETAILS**
WP-01	12/31/2004	Warning/Identification Tape and Tracer Wire Installations
WP-02	07/30/2007	Pipe Bedding and Trench Backfill for Potable and Recycled Water
WP-03	03/01/2001	Cutting and Plugging Abandoned Water, Recycled Water and Sewer Mains
WP-04	03/01/2001	Pipe Casing Installation
WP-05	07/30/2007	Slope Protection Installations
WP-06	03/01/2001	Pipe Protection Pad Installations
WP-07	03/01/2001	Cut - Off Wall Installation in Traveled Areas
WP-08	09/03/2001	Pipe Encasement for Existing Water Main at Utility Undercuts
WP-09	11/01/2002	Pipe Support for Undercut Sewer Mains
WR		**BACKFLOW PREVENTION DETAILS**
WR-01	02/01/2008	19mm through 50mm (3/4" through 2") Reduced Pressure Backflow Prevention Device
WR-02	02/01/2008	75mm (3") and Larger Reduced Pressure Backflow Prevention Device
WR-03	11/16/2007	25mm and 50mm (1" and 2") Recycled Water Irrigation Check Valve Installation
WR-04	11/03/2006	Recycled Water Irrigation Cross Connection Test Station
WR-05	03/01/2001	Temporary Potable Water to Recycled Water Inter-Connection
WR-06	09/12/2008	75mm (3") or Larger Recycled Water Irrigation Wye Strainer & Check Valve (1 of 2)
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WR-07	09/12/2008	75mm (3") or Larger Recycled Water Irrigation Cross Connection Test Station (1 of 2)
WR-07	09/12/2008	75mm (3") or Larger Recycled Water Irrigation Cross Connection Test Station (2 of 2)

Standard Drawings for Potable and Recycled Water Facilities

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WS		**WATER SERVICE LATERAL DETAILS**
WS-01	03/01/2001	25mm (1") Water Service Installation
WS-02	12/31/2003	50mm (2") Water Service Installation
WS-03	12/31/2003	Meter Box Locations for Water and Recycled Water Appurtenances
WS-04	03/01/2001	100mm (4") or 150mm (6") Fireline/Master Meter Installation (1 of 2)
WS-04	11/03/2006	100mm (4") or 150mm (6") Fireline/Master Meter Installation (2 of 2)
WS-05	11/03/2006	100mm (4") or 150mm (6") Meter Installation (1 of 2)
WS-05	11/03/2006	100mm (4") or 150mm (6") Meter Installation (2 of 2)
WS-06	03/01/2001	Vault Locations for 100mm (4") and Larger Water Services
WS-07	03/01/2001	Existing Water Service Assembly Reconnection
WS-08	03/01/2001	Existing Water Service Abandonment
WS-09	11/16/2007	25mm (1") Duel Domestic/Fire Water Service Installation
WT		**THRUST AND ANCHOR BLOCKS AND PIPE RESTRAINT DETAILS**
WT-01	11/16/2007	Concrete Thrust and Anchor Block Installations (1 of 3)
WT-01	11/16/2007	Concrete Thrust and Anchor Block Installations (2 of 3)
WT-01	11/01/2002	Concrete Thrust and Anchor Block Installations (3 of 3)
WT-02	11/16/2007	Valve Support Blocks
WV		**VALVE DETAILS**
WV-01	12/31/2003	Gate Well Installation, Type 1 for Valves 100mm (4") and Larger
WV-02	11/01/2002	Gate Well Installation, Type 2 for Valves 100mm (4") and Larger
WV-03	11/16/2007	Gate Well Identification
WV-04	03/01/2001	Steel Valve Stem Extension for Valves 100mm (4") and Larger
WV-05	07/30/2007	Steel Valve Stem Extension for Valves 50mm (2") and Smaller

Appendix D

Work Order Listing Report

Work Order Listing Report

9/5/2012
7:27 AM

WO # / Start Date/Time / Status	End Date/Time	Category / Problem / Main Task/Task	Address / Cross Street
11-00071		Pipes	
1/5/2011	1/27/2011	Sewer Main PM	
Complete		Sewer Main PM / Supervision	
Crew Comment:	RANCHO SAN DIEGO ID18 SUB AREA 03 STONEFIELD DR		
11-00086		Lift Station	
1/12/2011	1/24/2011	Lift Station PM	
Complete		Lift Station PM / Vacuum Wetwell	
Crew Comment:	Hot Spot - 3 Month Lift Station Wetwell PM (Russell Square)		
11-00121		Manholes	
1/11/2011	1/20/2011	Manhole PM	
Complete		Manhole PM / Spray Roots	
Crew Comment:	RANCHO SAN DIEGO ID18 SUB AREA2 LASVEN CT / STONE FIELD MH		
11-00231		Pipes	
1/24/2011	1/31/2011	Sewer Main PM	
Complete		Sewer Main PM / Traffic Control	
Crew Comment:	RANCHO SAN DIEGO ID18 SUB AREA 04 JAMUL DR / GREYSTONE DR		
11-00233		Pipes	
1/24/2011	2/8/2011	Sewer Main PM	
Complete		Sewer Main PM / General Work - Sewer	
Crew Comment:	RANCHO SAN DIEGO ID18 SUB AREA 05 IVANHOE RANCH RD / STEEL CANYON GOLF COURSE		
11-00238		Pipes	PASEO SALAMONER
1/24/2011	2/22/2011	Fat Oil Grease (FOG)	AVOCADO BLVD
Complete		Hot Spot Sewer Main PM / CCTV Inspection	*HIGHWAY 94*
Crew Comment:	Hot Spot - 1 Month Pipe PM (FOG)		
11-00288		Pipes	WIND RIVER RD
1/31/2011	2/17/2011	Fat Oil Grease (FOG)	*TETON PASS ST*
Complete		Hot Spot Sewer Main PM / Hydrojet Main	1836 CUTTER CT
Crew Comment:	Hot Spot - 12 Month Pipe PM (FOG)		
11-00357		Pipes	
2/8/2011	2/9/2011	Sewer Main PM	
Complete		Sewer Main PM / General Work - Sewer	
Crew Comment:	RANCHO SAN DIEGO ID 18 SUB AREA 06 PAR FOUR DR		
11-00365		Lift Station	
2/1/2011	2/28/2011	Lift Station PM	
Complete		Lift Station PM / Vacuum Wetwell	
Crew Comment:	Hot Spot - 1 Month Lift Station Wetwell PM (Cottonwood, Hidden Mountain,Steele Canyon)		
11-00379		Lift Station	
1/17/2011	1/17/2011	Lift Station PM	
Complete		Lift Station Monthly PM / Exercise 3-way Valve	
Req Comment:	This was preformed by the operators but time was placed onto the routine list station inspection work order		
Crew Comment:			
11-00380		Lift Station	
2/3/2011	2/3/2011	Lift Station PM	
Complete		Lift Station Monthly PM / Exercise 3-way Valve	
Crew Comment:			
11-00406		Manholes	
3/7/2011	3/4/2011	Manhole PM	
Complete		Manhole PM / General Work - Sewer	
Crew Comment:	CALAVO ID18 SUB AREA 05 EXPLORER RD/SIR FRANCES DRAKE MH		

Work Order Listing Report

9/5/2012
7:27 AM

WO # / Start Date/Time / Status	End Date/Time	Category / Problem / Main Task/Task	Address / Cross Street
11-00452		Pipes	
2/9/2011	2/18/2011	Sewer Main PM	
Complete		Sewer Main PM / Locate Manhole	
Crew Comment: HIDDEM MOUNTAIN SUB AREA 09 (NO ID) MC-GRATHS			
11-00643		Pipes	
2/24/2011	3/2/2011	Sewer Main PM	
Complete		Sewer Main PM / General Work - Sewer	
Crew Comment: RANCHO SAN DIEGO ID 18 SUB AREA 08 VISTA RODEO DR / WILLOW GLEN WEST VILLAGE			
11-00715		Lift Station	
2/28/2011	3/21/2011	Lift Station PM	
Complete		Lift Station PM / Vacuum Wetwell	
Crew Comment: Hot Spot - 1 Month Lift Station Wetwell PM (Cottonwood, Hidden Mountain,Steele Canyon)			
11-00754		Pipes	
3/2/2011	3/7/2011	Sewer Main PM	
Complete		Sewer Main PM / Inspect Manhole	
Crew Comment: RANCHO SAN DIEGO ID 18 SUB AREA 07 CAMINO DE LAS PIEDRAS			
11-00784		Pipes	
3/7/2011	3/8/2011	Sewer Main PM	
Complete		Sewer Main PM / Hydrojet Main	
Crew Comment: RANCHO SAN DIEGO ID 18 SUB AREA 09 DEHESA / SYCUAN SUMMIT DR			
11-00792		Manholes	3705 CALAVO DR
3/8/2011	3/10/2011	Roots	MARS WAY
Complete		Hot Spot Manhole PM / General Work - Sewer	1429 FUERTE HEIGHTS LN
			DONAHUE DR
			MUIRA LN
			10922 EXPLORER RD
			1506 WOODPINE DR
			3934 CALAVO DR
			3568 PASEO SALAMONER
			GRETLER PL
Crew Comment: Hot Spot - 6 Month MH PM (Root)			
NOTE: Missing GIS Data for IE: ?? 10ft South of Woodbridge Apts-Calle Verde			
11-00813		Pipes	
3/14/2011	3/23/2011	Sewer Main PM	
Complete		Sewer Main PM / General Work - Sewer	
Crew Comment: RANCHO SAN DIEGO NO ID SUB AREA 10 SINGING HILLS COUNTRY CLUB			
11-00904		Pipes	PASEO SALAMONER
3/17/2011	4/4/2011	Fat Oil Grease (FOG)	AVOCADO BLVD
Complete		Hot Spot Sewer Main PM / General Work - Sew	*HIGHWAY 94*
Crew Comment: Hot Spot - 1 Month Pipe PM (FOG)			
11-00957		Lift Station	
3/22/2011	3/22/2011	Lift Station PM	
Complete		Lift Station Monthly PM / Exercise 3-way Valve	
Crew Comment:			

Work Order Listing Report

9/5/2012
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WO # / Start Date/Time / Status	End Date/Time	Category / Problem / Main Task/Task	Address / Cross Street
11-00968		Pipes	
3/25/2011	3/25/2011	Sewer Main PM	
Complete		Sewer Main PM / Locate Manhole	
Crew Comment: RANCHO SAN DIEGO NO ID SUB AREA 11 WILLOW GLEN DR (1 OF 6)			
11-00969		Pipes	
3/24/2011	3/29/2011	Sewer Main PM	
Complete		Sewer Main PM / Vacuum Manhole	
Crew Comment: RANCHO SAN DIEGO ID 18 SUB AREA 12 WILLOW GLEN DR (2 OF 6)			
11-01001		Manholes	
3/27/2011	4/1/2011	Manhole PM	
Complete		Hot Spot Manhole PM / General Work - Sewer	SHADOW RANCH RD
Crew Comment: Hot Spot - 6 Month MH Inspection PM (Shadow Ranch Outfall)			
11-01077		Pipes	FURY LN
4/1/2011	4/5/2011	Fat Oil Grease (FOG)	*CARPENTER LN*
Complete		Hot Spot Sewer Main PM / Add Grease Bags	JAMACHA BLVD *CHASE*
Crew Comment: Hot Spot - 3 Month Pipe PM (FOG)			
NOTE: Otay is currently cleaning from IE 519.34 (CO-368-010) into private line not indicated on GIS map. Otay will continue to treat this hot spot until further notice/investigation.			
11-01078		Manholes	
4/1/2011	4/6/2011	Manhole PM	
Complete		Manhole PM / Spray Roots	
Crew Comment: RANCHO SAN DIEGO ID18 SUB AREA3 REGULATORY MH			
11-01109		Lift Station	
4/4/2011	4/18/2011	Lift Station PM	
Complete		Lift Station PM / General Work - Sewer	
Crew Comment: Hot Spot - 1 Month Lift Station Wetwell PM (Cottonwood, Hidden Mountain,Steele Canyon)			
11-01245		Lift Station	
6/7/2011	6/7/2011	Lift Station PM	
Complete		Lift Station Monthly PM / Exercise 3-way Valve	
Crew Comment:			
11-01267		Lift Station	
4/9/2011	4/18/2011	Lift Station PM	
Complete		Lift Station PM / Vacuum Wetwell	
Crew Comment: Hot Spot - 3 Month Lift Station Wetwell PM (Russell Square)			
11-01269		Pipes	
4/19/2011	4/25/2011	Sewer Main PM	
Complete		Sewer Main PM / General Work - Sewer	
Crew Comment: RANCHO SAN DIEGO NO ID SUB AREA 13 WILLOW GLEN DR (3 OF 6)			
11-01309		Pipes	
4/25/2011	4/25/2011	Sewer Main PM	
Complete		Sewer Main PM / Traffic Control	
Crew Comment: RANCHO SAN DIEGO ID 18 SUB AREA 14 WILLOW GLEN DR (4 OF 6)			
11-01311		Pipes	
4/26/2011	4/27/2011	Sewer Main PM	
Complete		Sewer Main PM / Traffic Control	
Crew Comment: RANCHO SAN DIEGO NO ID SUB AREA 15 WILLOW GLEN DR (5 OF 6)			
11-01375		Pipes	
4/27/2011	5/2/2011	Sewer Main PM	
Complete		Sewer Main PM / General Work - Sewer	

Work Order Listing Report

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WO # / Start Date/Time / Status	End Date/Time	Category / Problem / Main Task/Task	Address / Cross Street
Crew Comment: RANCHO SAN DIEGO ID 18 SUB AREA 16 WILLOW GLEN DR (6 OF 6)			
11-01412		Pipes	PASEO SALAMONER
5/2/2011	5/4/2011	Fat Oil Grease (FOG)	AVOCADO BLVD
Complete		Hot Spot Sewer Main PM / Supervision	*HIGHWAY 94*
Crew Comment: Hot Spot - 1 Month Pipe PM (FOG)			
11-01441		Pipes	
		Sewer Main PM	
On-Going		Sewer Main PM / Inspect Manhole	
Crew Comment: RANCHO SAN DIEGO COUNTY BDRY SUB AREA 18 JAMACHA RD			
11-01445		Lift Station	
5/2/2011	5/12/2011	Lift Station PM	
Complete		Lift Station PM / Vacuum Wetwell	
Crew Comment: Hot Spot - 1 Month Lift Station Wetwell PM (Cottonwood, Hidden Mountain,Steele Canyon)			
11-01514		Manholes	
5/9/2011	5/11/2011	Manhole PM	
Complete		Manhole PM / General Work - Sewer	GRETLER PL
			WESTON RD
Crew Comment: CALAVO ID 14 SUB AREA 01 RUSSELL/CALAVO MH			
11-01559		Manholes	QUEEN AVE
/11/2011	6/13/2011	Manhole PM	
Complete		Manhole PM / Locate Manhole	
Crew Comment: CALAVO ID14 SUB AREA 03 HUERTERO DR/ QUEEN AVE MH			
11-01586		Pipes	
5/12/2011	5/19/2011	Sewer Main PM	
Complete		Sewer Main PM / General Work - Sewer	
Crew Comment: RANCHO SAN DIEGO COUNTY BDRY SUB AREA 17 VIA RANCHO SAN DIEGO			
11-01635		Pipes	
5/5/2011	7/14/2011	Sewer Main PM	
Complete		Sewer Main PM / General Work - Sewer	
Crew Comment: CALAVO ID 14 SUB AREA 01 RUSSELL/CALAVO			
11-01757		Lift Station	
6/8/2011	6/16/2011	Lift Station PM	
Complete		Lift Station PM / Vacuum Wetwell	
Crew Comment: Hot Spot - 1 Month Lift Station Wetwell PM (Cottonwood, Hidden Mountain,Steele Canyon)			
11-01766		Pipes	PANCHOY DR
6/6/2011	7/28/2011	Roots	*AVOCADO BLVD*
Task Completed		Hot Spot Sewer Main PM / Clear Roots	
Crew Comment: Hot Spot - 12 Month Pipe PM (Root)			
11-01767		Pipes	PASEO SALAMONER
6/7/2011	6/10/2011	Fat Oil Grease (FOG)	AVOCADO BLVD
Complete		Hot Spot Sewer Main PM / Add Grease Bags	*HIGHWAY 94*
Crew Comment: Hot Spot - 1 Month Pipe PM (FOG)			
11-01806		Pipes	AVOCADO BLVD
/12/2011	12/12/2011	Fat Oil Grease (FOG)	*ANAHEIM DR*
Task Completed		Hot Spot Sewer Main PM / General Work - Sew	
Crew Comment: Hot Spot - 12 Month Pipe PM (Grease)			

Work Order Listing Report

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WO # / Start Date/Time / Status	End Date/Time	Category / Problem / Main Task/Task	Address / Cross Street
11-01807		Pipes	10747 DUTTON DR
6/4/2011	6/22/2011	Roots	HIDDEN SPRINGS DR
Complete		Hot Spot Sewer Main PM / General Work - Sew	*HIDDEN KNOLL CT*
			10350 FLAMBEAU PL
			CALLE VERDE

Req Comment: Need to cleanup asset linking after GIS update the map with missing MH. Cleanout should be in the following order:
IE: (missing IE, not in GIS) to 543.92
IE: 532.87 to (missing IE, not in GIS) page 342
IE: (missing IE) to 532.87 page 342
IE: 531.33 to (missing IE, not in GIS) page 342
IE: (missing IE) to 531.33 page 342
530.13 to (missing IE from GIS) page 342

Crew Comment: Hot Spot - 6 Month Pipe PM (root)

NOTE for IT: Please refer to comment tab for Woodbridge Apartments - Calle Verde. Need to cleanup GIS asset.

11-01923		Pipes	JULIANNA ST
6/16/2011	7/11/2011	Sewer Main PM	TIMBERPOND DR
Complete		Hot Spot Sewer Main PM / General Work - Sew	PASEO GRANDE
			VISTA GRANDE CT
			CHALLENGE BLVD
			CALAVO DR
			VISTA RODEO DR
			CALAVO DR
			LOUISA DR
			WILLOW GLEN DR

Crew Comment: Hot Spot - 12 Month Pipe PM (design)

NOTE for IT: Need to add pipe asset (IE 639.44, MH-368-030 to missing MH in GIS). Timberpond Drive.

11-02069		Lift Station
6/26/2011	7/14/2011	Lift Station PM
Complete		Lift Station PM / Vacuum Wetwell

Crew Comment: Hot Spot - 1 Month Lift Station Wetwell PM (Cottonwood, Hidden Mountain,Steele Canyon)

11-02091		Manholes
6/28/2011	6/29/2011	Roots
Complete		Hot Spot Manhole PM / Clear Roots

Crew Comment: Hot Spot - 12 Month MH Inspection PM

11-02101		Pipes
6/29/2011	7/18/2011	Sewer Main PM
Complete		Sewer Main PM / Traffic Control

Crew Comment: CALAVO ID 14 SUB AREA 02 CALAVO/LOUISA

11-02105		Manholes
7/1/2011	6/30/2012	Manhole PM
Complete		Manhole PM / General Work - Sewer

11-02126		Pipes	FURY LN
6/30/2011	7/6/2011	Fat Oil Grease (FOG)	*CARPENTER LN*
Complete		Hot Spot Sewer Main PM / Traffic Control	JAMACHA BLVD
			CHASE

Crew Comment: Hot Spot - 3 Month Pipe PM (FOG)

NOTE: Otay is currently cleaning from IE 519.34 (CO-368-010) into private line not indicated on GIS map. Otay will continue to treat this hot spot until further notice/investigation.

Work Order Listing Report

9/5/2012
7:27 AM

WO # / Start Date/Time / Status	End Date/Time	Category / Problem / Main Task/Task	Address / Cross Street
11-02160		Lift Station	
7/27/2011	7/27/2011	Lift Station PM	
Complete		Lift Station Monthly PM / Exercise 3-way Valve	
Crew Comment:			
11-02167		Pipes	PASEO SALAMONER
7/8/2011	7/21/2011	Fat Oil Grease (FOG)	AVOCADO BLVD
Complete		Hot Spot Sewer Main PM / Locate Manhole	*HIGHWAY 94*
Crew Comment:	Hot Spot - 1 Month Pipe PM (FOG)		
11-02250		Pipes	4170 CALAVO DR
7/12/2011	7/18/2011	Collection System Daily Operations	
Complete		Sewer Main PM / General Work - Sewer	
Req Comment:	Photo's under document control. All statements have been scanned into document control. See follow up notes. Issue with 5'x8' steel plate, that partially fell in when the vactor truck (unit110) drove over it while setting up traffic control for routine sewer cleaning.		
11-02252		Lift Station	
7/13/2011	7/13/2011	Lift Station PM	
Complete		Lift Station PM / Vacuum Wetwell	
Crew Comment:	Hot Spot - 3 Month Lift Station Wetwell PM (Russell Square)		
11-02313		Pipes	
7/20/2011	8/27/2011	Sewer Main PM	
Complete		Sewer Main PM / General Work - Sewer	
Crew Comment:	MUST CORDINATE WITH UTILITY CREW TO PROVIDE TRAFFIC CONTROL FOR THE FIRST 5 SET UP'S. (CALAVO ID 14 SUB AREA 03 FUERTE/NABAL)		
11-02400		Lift Station	
7/27/2011	8/19/2011	Lift Station PM	
Complete		Lift Station PM / Vacuum Wetwell	
Crew Comment:	Hot Spot - 1 Month Lift Station Wetwell PM (Cottonwood, Hidden Mountain,Steele Canyon)		
11-02425		Pipes	
7/28/2011	9/14/2011	Sewer Main PM	
Complete		Sewer Main PM / General Work - Sewer	
Crew Comment:	CALAVO ID 14 SUB AREA 07 AVOCADO BLVD		
11-02457		Pipes	
8/1/2011	8/18/2011	Sewer Main PM	
Complete		Sewer Main PM / General Work - Sewer	
Crew Comment:	CALAVO ID 18 SUB AREA 04 FURY LANE (PART 1 OF 2) PART 2 OF 2 IS CALAVO ID 14 SUB AREA 05 FURY LANE		
11-02458		Pipes	
8/1/2011	8/18/2011	Sewer Main PM	
Complete		Sewer Main PM / General Work - Sewer	
Crew Comment:	CALAVO ID 14 SUB AREA 05 FURY LANE (PART 2 OF 2) PART 1 OF 2 IS CALAVO ID 18 SUB AREA 04 FURY LANE		
11-02622		Pipes	PASEO SALAMONER
8/24/2011	9/14/2011	Fat Oil Grease (FOG)	AVOCADO BLVD
Complete		Hot Spot Sewer Main PM / Traffic Control	*HIGHWAY 94*
Crew Comment:	Hot Spot - 1 Month Pipe PM (FOG)		
11-02662		Pipes	
8/19/2011	8/30/2011	Sewer Main PM	
Complete		Sewer Main PM / Remove Roots	
Crew Comment:	CALAVO ID 18 SUB AREA 06 PASEO SALAMONER/SHOPPING CENTER		

WO # / Start Date/Time / Status	End Date/Time	Category / Problem / Main Task/Task	Address / Cross Street
11-02677 8/31/2011 Complete	8/31/2011	Lift Station Lift Station PM Lift Station Monthly PM / Exercise 3-way Valve	
Crew Comment:			
11-02734 8/28/2011 Complete	9/28/2011	Lift Station Lift Station PM Lift Station PM / Vacuum Wetwell	
Crew Comment:	Hot Spot - 1 Month Lift Station Wetwell PM (Cottonwood, Hidden Mountain,Steele Canyon)		
11-02792 8/31/2011 Complete	9/1/2011	Manholes Manhole PM Manhole PM / General Work - Sewer	1779 TIMBERPOND DR
Crew Comment:	HIDDEN MOUNTAIN ID18 SUB AREA2 TIMBER POND/WOODY HILLS MH		
11-02793 9/7/2011 On-Going		Pipes Sewer Main PM Sewer Main PM / Supervision	
Crew Comment:	Prior to cleaning MH-342-120 located on HWY94 and Via Mercado contact Chris Piquette from CalTrans (619) 572-8520 to set the stop light on flashing red. Do not start before 9am.		
11-02804 9/1/2011 Complete	10/22/2011	Pipes Sewer Main PM Sewer Main PM / Remove Roots	
Crew Comment:	HIDDEN MOUNTAIN ID18 SUB AREA01 TIMBER POND / WOODY HILLS DR		
11-02828 10/6/2011 Complete	10/13/2011	Manholes Roots Hot Spot Manhole PM / General Work - Sewer	GRETLER PL 3568 PASEO SALAMONER 3934 CALAVO DR 1506 WOODPINE DR 10922 EXPLORER RD DONAHUE DR *MUIRA LN* 1429 FUERTE HEIGHTS LN MARS WAY 3705 CALAVO DR
Crew Comment:	Hot Spot - 6 Month MH PM (Root) NOTE: Missing GIS Data for IE: ?? 10ft South of Woodbridge Apts-Calle Verde		
11-02998 9/22/2011 Complete	10/5/2011	Pipes Sewer Main PM Sewer Main PM / CCTV Inspection	
Crew Comment:	HIDDEN MOUNTAIN ID18 SUB AREA 02 HIDDENN SPRINGS / HIDDEN MESA DR		
11-03028 10/5/2011 Complete	10/6/2011	Manholes Manhole PM Hot Spot Manhole PM / General Work - Sewer	SHADOW RANCH RD
Crew Comment:	Hot Spot - 6 Month MH Inspection PM (Shadow Ranch Outfall)		

WO # / Start Date/Time / Status	End Date/Time	Category / Problem / Main Task/Task	Address / Cross Street
11-03081 10/19/2011 Complete	10/26/2011	Lift Station Lift Station PM Lift Station Monthly PM / Exercise 3-way Valve	
Crew Comment:			
11-03114 10/10/2011 Complete	10/10/2011	Pipes Fat Oil Grease (FOG) Hot Spot Sewer Main PM / Traffic Control	FURY LN *CARPENTER LN* JAMACHA BLVD *CHASE*
Crew Comment:	Hot Spot - 3 Month Pipe PM (FOG) NOTE: Otay is currently cleaning from IE 519.34 (CO-368-010) into private line not indicated on GIS map. Otay will continue to treat this hot spot until further notice/investigation.		
11-03125 11/3/2011 Complete	11/8/2011	Lift Station Lift Station PM Lift Station PM / Vacuum Wetwell	
Crew Comment:	Hot Spot - 1 Month Lift Station Wetwell PM (Cottonwood, Hidden Mountain,Steele Canyon)		
11-03151 10/10/2011 Complete	10/13/2011	Pipes Sewer Main PM Sewer Main PM / Inspect Manhole	
Crew Comment:	HIDDEN MOUNTAIN ID18 SUB AREA 03 MARYANN WAY/ JAMACHA RD		
11-03162 10/14/2011 Complete	10/14/2011	Lift Station Lift Station PM Lift Station PM / General Work - Sewer	
Crew Comment:	Hot Spot - 3 Month Lift Station Wetwell PM (Russell Square)		
11-03163 10/17/2011 Complete	11/3/2011	Pipes Fat Oil Grease (FOG) Hot Spot Sewer Main PM / General Work - Sew	PASEO SALAMONER AVOCADO BLVD *HIGHWAY 94*
Crew Comment:	Hot Spot - 1 Month Pipe PM (FOG)		
11-03262 10/17/2011 Complete	11/24/2011	Pipes Sewer Main PM Sewer Main PM / Traffic Control	
Crew Comment:			
11-03326 10/25/2011 Complete	11/7/2011	Pipes Sewer Main PM Sewer Main PM / General Work - Sewer	
Crew Comment:	HIDDEN MOUNTAIN ID 18 SUB AREA 05 VISTA GRANDE / JULIANNA ST		
11-03405 11/8/2011 Complete	12/30/2011	Pipes Sewer Main PM Sewer Main PM / Locate Manhole	
Crew Comment:	HIDDEN MOUNTAIN ID 18 SUB AREA 15 VISTA VERDE/JULIANNA ST		
11-03545 11/16/2011 Complete	11/21/2011	Pipes Sewer Main PM Sewer Main PM / General Work - Sewer	
Crew Comment:	HIDDEN MOUNTAIN ID18 SUB AREA06 MONARCH RIDGE CIRCLE (GATE CODE #2426 or #5296)		
11-03559 11/21/2011 Complete	11/30/2011	Pipes Sewer Main PM Sewer Main PM / Supervision	
Crew Comment:	HIDDEN MOUNTAIN ID 18 SUB AREA 12 DONAHUE DR		

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WO # / Start Date/Time / Status	End Date/Time	Category / Problem / Main Task/Task	Address / Cross Street
11-03631 10/19/2011 Task Completed		Manholes Manhole PM Manhole PM / Spray Roots	
Crew Comment: RANCHO SAN DIEGO ID18 SUB AREA4 HWY 94 MH			
11-03648 11/26/2011 Complete	11/26/2011	Lift Station Lift Station PM Lift Station Monthly PM / Exercise 3-way Valve	
Req Comment: Put on hold until we review the Fall Protection Policy that came out Crew Comment:			
11-03729 11/26/2011 Complete	12/14/2011	Lift Station Lift Station PM Lift Station PM / General Work - Sewer	
Crew Comment: Hot Spot - 1 Month Lift Station Wetwell PM (Cottonwood, Hidden Mountain,Steele Canyon)			
11-03731 12/8/2011 Complete	12/29/2011	Pipes Fat Oil Grease (FOG) Hot Spot Sewer Main PM / Traffic Control	PASEO SALAMONER AVOCADO BLVD *HIGHWAY 94*
Crew Comment: Hot Spot - 1 Month Pipe PM (FOG)			
11-03742 11/30/2011 Complete	12/6/2011	Pipes Sewer Main PM Sewer Main PM / General Work - Sewer	
Crew Comment: HIDDEN MOUNTAIN ID 18 SUB AREA 13 WIND RIVER RD			
11-03813 12/5/2011 Complete	4/9/2012	Pipes Sewer Main PM Sewer Main PM / Supervision	
Crew Comment: HIDDEN MOUNTAIN AD 04 SUB AREA 14 ROP / WIND RIVER			
11-03853 Task Completed		Pipes Sewer Main PM Sewer Main PM / Traffic Control	
Crew Comment: HIDDEN MOUNTAIN AD 04 SUB AREA 08 SUNDALE / FUERTE HEIGHTS LN (2 OF 2)			
11-03877 12/21/2011 Complete	12/27/2011	Pipes Sewer Main PM Sewer Main PM / General Work - Sewer	
Crew Comment: HIDDEN MOUNTAIN ID 18 SUB AREA 10 HILLSDALE RD / CORONA VISTA (1 OF 2)			
11-03882 12/14/2011 Complete	12/20/2011	Pipes Sewer Main PM Sewer Main PM / General Work - Sewer	
Crew Comment: HIDDEN MOUNTAIN ID18 SUB AREA07 SUNDALE / FUERTE HEIGHTS LN (1 OF 2) [GATE CODE *4200]			
11-03886 12/15/2011 Complete	1/10/2012	Manholes Manhole PM Manhole PM / Spray Roots	
Crew Comment: HIDDEN MOUNTAIN ID18 SUB AREA4 SUNDALE/FUERTE ESTATES MH			
11-03929 12/27/2011 Complete	12/28/2011	Pipes Roots Hot Spot Sewer Main PM / Vacuum Manhole	10747 DUTTON DR HIDDEN SPRINGS DR *HIDDEN KNOLL CT* 10350 FLAMBEAU PL CALLE VERDE

WO # / Start Date/Time / Status	End Date/Time	Category / Problem / Main Task/Task	Address / Cross Street
Req Comment:	Need to cleanup asset linking after GIS update the map with missing MH. Cleanout should be in the following order: IE: (missing IE, not in GIS) to 543.92 IE: 532.87 to (missing IE, not in GIS) page 342 IE: (missing IE) to 532.87 page 342 IE: 531.33 to (missing IE, not in GIS) page 342 IE: (missing IE) to 531.33 page 342 530.13 to (missing IE from GIS) page 342		
Crew Comment:	Hot Spot - 6 Month Pipe PM (root) NOTE for IT: Please refer to comment tab for Woodbridge Apartments - Calle Verde. Need to cleanup GIS asset.		
11-03987		Pipes	
12/20/2011	12/21/2011	Sewer Main PM	
Complete		Sewer Main PM / General Work - Sewer	
Crew Comment:	HIDDEN MOUNTAIN AD 04 SUB AREA 08 SUNDALE / FUERTE HEIGHTS LN (2 OF 2)		
11-04000		Manholes	
12/24/2011	3/16/2012	Roots	
Complete		Hot Spot Manhole PM / Inspect Manhole	
Crew Comment:	Hot Spot - 12 Month MH Inspection PM		
11-04029		Pipes	
12/27/2011	3/28/2012	Sewer Main PM	
Complete		Sewer Main PM / General Work - Sewer	
Crew Comment:	HIDDEN MOUNTAIN AD 04 SUB AREA 11 HILLSDALE RD (2 OF 2)		

Appendix E

E-1 Training records for Reclamation Plant Operators

E-2 Training records for Utility Construction Workers

E-3 Certification records for Collection System & Reclamation Plant Workers

APPENDIX E

E-1

I hereby, read and reviewed the Sanitary Sewer Overflow Response and Reporting Work Flow Description, Sanitary Sewer Overflow Response and Reporting Work Flow Plan and understand the duties of all Otay personnel and my own duties regarding to sewer spill responses.

Name: Damon Newman Signature: Dam M. Ne

Title: Lead Reclamation Plant Operator Date: 9.6.12

Name: ROB LEIGH Signature:

Title: RECLAMATION PLANT OPERATOR III Date: 9.6.12

Name: E.J. Colia Signature:

Title: Reclamation Plant operator III Date: 9.6.12

Name: Gae Polof Signature:

Title: Reclamation Plant Supervisor Date: 9/7/12

Name: _____ Signature: _____

Title: _____ Date: _____

Name: _____ Signature: _____

Title: _____ Date: _____

W.O. # 11-02306

CLASS ROSTER

Class Name: **Confined Space Entry (Initial)** **Refresher:** Yes **Tailgate:** No

Description: DISCLAIMER: THIS CLASS MAY OR MAY NOT COVER THE TOPICS BELOW.

This course provides awareness level training for activities related to confined space entry.

Audience: This training program is deemed mandatory for all confined space entrants and attendants.

Instructor: Damon Newman **Signature:** Damon M. Newman

Location: Treatment Plant

Date: 7/20/2011

Start Time: 8:00 AM **End Time:** 9:00 AM

A signature indicates acknowledgment of attendance and understanding of the subject matter.

Employee No.	Employee Name	Signature
1730	Cesar Santos	Cesar Santos
1744	Damon Newman	Damon M. Newman
~~1798~~ 1799	~~David Lord~~ Ivan Murguia	Ivan Murguia
1748	Gene Palop	Gene Palop
1784	Robert Leigh	Robert Leigh

1719 Alma P. Ortega Alma P. Ortega

~~1748 Gene Palop~~

WATER INDUSTRY CONFINED-SPACE ENTRY

CERTIFICATE OF COMPLETION

This is to acknowledge that

Cesar Santos

Has successfully completed the Internet web-based training and successfully passed the examination of the Water Industry Confined-Space Entry Training Course. This course has been approved for 1.0 contact hour in the state of California by CWEA and CA-DPH for both water and wastewater continuing education. This course is classified by CA-DPH as a Safety Course. TargetSafety is located at 10815 Rancho Bernardo Road, Suite 250 San Diego, CA 92127. Phone: 858-592-6880, Fax 858-487-8762.

Ted Cudal, *CSP, CHMM, CHCM, EMS-LA*

March 03, 2010
Date of Training

NFPA Safety Training Partner

TargetSafety.com
Occupational and Environmental Courseware - San Diego, CA

TargetSafety.com

WATER INDUSTRY CONFINED-SPACE ENTRY

CERTIFICATE OF COMPLETION

This is to acknowledge that

Robert Leigh

Has completed the online training and successfully passed the examination of the Water Industry Confined-Space Entry course. This course has been approved for 1.0 contact hour in the state of California by CWEA and CA-DPH for both water and wastewater continuing education. This course is classified by CA-DPH as a Safety Course. TargetSafety DBA TargetSolutions is located at 10805 Rancho Bernardo Road, Suite 200 San Diego, CA 92127. Phone: 858-592-6880, Fax 858-487-8762.[Record ID #10506129]

Ted Cudal

Ted Cudal, CSP, CHMM, CHCM, EMS-LA

February 17, 2010
Date of Training

TargetSolutions
Occupational & Environmental Courseware
San Diego, CA

TARGETSOLUTIONS

WATER INDUSTRY CONFINED-SPACE ENTRY

CERTIFICATE OF COMPLETION

This is to acknowledge that

Damon Newman

Has completed the online training and successfully passed the examination of the Water Industry Confined-Space Entry course. This course has been approved for 1.0 contact hour in the state of California by CWEA and CA-DPH for both water and wastewater continuing education. This course is classified by CA-DPH as a Safety Course. TargetSafety DBA TargetSolutions is located at 10805 Rancho Bernardo Road, Suite 200 San Diego, CA 92127. Phone: 858-592-6880, Fax 858-487-8762.[Record ID #10506135]

Ted Cudal

Ted Cudal, CSP, CHMM, CHCM, EMS-LA

February 17, 2010
Date of Training

TargetSolutions
Occupational & Environmental Courseware
San Diego, CA

TARGETSOLUTIONS

Otay Water District

Hereby certifies that on September 24, 2009

Cesar Santos

has successfully completed

Confined Space Safety Course

(2 Hours)

This course satisfies the requirements defined in OSHA Title 29, Code of Federal Regulations (CFR), Part 1910.146 and the California Code of Regulations (CCR) Title 8, Section 5156-5158 and in recognition is awarded this Certificate of Attendance.

Ted Cudal, CSP, CHMM
Course Instructor

Certificate of Completion

for

Confined Space E & A Competent Person

is awarded to

Robert Leigh

has successfully completed this 8-Hour Confined Space Entry course which includes hazard monitoring, permitting, training requirements, and communication procedures.

CWEA CONTACT HOURS: 8.00

Pacific Safety Council

Your Safety is Our Business!

Larry Vorce

Executive Director

Dec 18, 2008

Certificate of Completion

for

Confined Space E & A Competent Person

is awarded to

Damon Newman

has successfully completed this 8-Hour Confined Space Entry course which includes hazard monitoring, permitting, training requirements, and communication procedures.

CWEA CONTACT HOURS: 8.00

Pacific Safety Council

Your Safety is Our Business!

Warby Vorce

Executive Director

Sep 19, 2008

Certificate of Completion

for

Confined Space E & A
Competent Person

is awarded to

Cesar Santos

has successfully completed this 8-Hour Confined Space Entry course which includes hazard monitoring, permitting, training requirements, and communication procedures.

CWEA CONTACT HOURS: 8.00

Pacific Safety Council

Your Safety is Our Business!

Warby Vorce

Executive Director

Sep 19, 2008

CLASS ROSTER

CLASS NAME: Vehicle Incident Reporting Procedure and Vehicle Driving and Parking

☒ **REFRESHER** ☐ **TAILGATE**

DESCRIPTION: Will review section 101.01a of the Safety Manual and the approved Vehicle Driving and Parking Procedure under Division 3230

INSTRUCTOR: Damon Newman **SIGNATURE:** Dam M Ne

LOCATION: RWCWRF

DATE: 3.7.12

START TIME: 1:00pm **END TIME:** 1:45 pm

A signature indicates acknowledgement of attendance and understanding of the subject matter.

Employee No.	Employee Name	Signature
1744	Damon Newman	Dam M Ne
1748	Gene Palop	
1780	Cesar Santos	Cesar Santos
1784	Rob Leigh	
1799	Ivan Murguia	
1719	Patty Ortega	aP Ortega

CLASS ROSTER

CLASS NAME: Incident Reporting

☒ **REFRESHER** ☐ **TAILGATE**

DESCRIPTION: Read and review handout on ~~incident~~ incident reporting. Also, read and review the districts Fleet Incident Reporting Procedure and Injury and Illness Reporting Procedure

INSTRUCTOR: Damon Newman **SIGNATURE:**

LOCATION: RWCWRF

DATE: 3/2/11

START TIME: 8:30 am **END TIME:**

A signature indicates acknowledgement of attendance and understanding of the subject matter.

Employee No.	Employee Name	Signature
1744	Damon Newman	
Intern	Phillip Reed	
1799	Ivan Murguia	
1784	ROB LEIGH	
1730	CESAR SANTOS	
1719	Alma P. Ortega	
1748	Gene Palup	

TRAINING LOG

W.O. # 10-00033

TRAINING TOPIC TITLE: Fleet Incident Reporting Procedure

SCHEDULE (Date, Beginning and Ending Time): 1/6/10, 07:15 – 8:15

INSTRUCTOR (Print Name and Signature): Dale Kreinbring,

TRAINING LOCATION: Reclamation Plant

TRAINING TYPE: ☒ REQUIRED TRAINING ☐ SEMINAR ☐ VIDEO

KEY TRAINING POINTS:

1. Reviewed the written procedure.
2. Looked at the contents of the Vehicular Accident Packet.

A SIGNATURE INDICATES ACKNOWLEDGMENT OF ATTENDANCE AND UNDERSTANDING OF THE SUBJECT MATTER.

PRINT YOUR NAME	SIGNATURE	EMPLOYEE #
1. Damon Newman		1744
2. Robert Leigh		1784
3. Cesar Santos		1730
4. Kenny James		1367
5. Hector Licon		1755
6. Darrel Hale		
7. Patty Ortega-Carrillo		1719
8. ~~Dale Kreinbring~~		1581
9. Gene Polak		1748
10.		
11.		
12.		
13.		
14.		

Hector and Cesar, please sign and date after you have reviewed the attached docs. Thanks. DK

WATER INDUSTRY DRIVING SAFETY

CERTIFICATE OF COMPLETION
This is to acknowledge that

Damon Newman

Has completed the online training and successfully passed the examination of the Water Industry Driving Safety course. This course has been approved for 1.0 contact hour in the state of California by CWEA and CA-DPH for both water and wastewater continuing education. This course is classified by CA-DPH as a Safety Course. TargetSafety DBA TargetSolutions is located at 10805 Rancho Bernardo Road, Suite 200 San Diego, CA 92127. Phone: 858-592-6880, Fax 858-487-8762.[Record ID #16752002]

Ted Cudal

Ted Cudal, CSP, CHMM, CHCM, EMS-LA

June 07, 2011
Date of Training

TargetSolutions
Occupational & Environmental Courseware
San Diego, CA

TARGETSOLUTIONS

WATER INDUSTRY DRIVING SAFETY

CERTIFICATE OF COMPLETION
This is to acknowledge that

Cesar Santos

Has completed the online training and successfully passed the examination of the Water Industry Driving Safety course. This course has been approved for 1.0 contact hour in the state of California by CWEA and CA-DPH for both water and wastewater continuing education. This course is classified by CA-DPH as a Safety Course. TargetSafety DBA TargetSolutions is located at 10805 Rancho Bernardo Road, Suite 200 San Diego, CA 92127. Phone: 858-592-6880, Fax 858-487-8762.[Record ID #16752020]

Ted Cudal, CSP, CHMM, CHCM, EMS-LA

June 03, 2011
Date of Training

TargetSolutions
Occupational & Environmental Courseware
San Diego, CA

TARGETSOLUTIONS

WATER INDUSTRY DRIVING SAFETY

CERTIFICATE OF COMPLETION
This is to acknowledge that

Robert Leigh

Has completed the online training and successfully passed the examination of the Water Industry Driving Safety course. This course has been approved for 1.0 contact hour in the state of California by CWEA and CA-DPH for both water and wastewater continuing education. This course is classified by CA-DPH as a Safety Course. TargetSafety DBA TargetSolutions is located at 10805 Rancho Bernardo Road, Suite 200 San Diego, CA 92127. Phone: 858-592-6880, Fax 858-487-8762.[Record ID #16751984]

Ted Cudal

Ted Cudal, CSP, CHMM, CHCM, EMS-LA

June 01, 2011
Date of Training

TargetSolutions
Occupational & Environmental Courseware
San Diego, CA

TARGETSOLUTIONS

APPENDIX E

E-2

Training Topic Title: Driver Safety

Schedule (date, beginning, and ending time): May 28 09 6:45 am

Instructor (print name and signature): Patrick Ashton

Training Location: TRAINING Room West

Training Type: ☒ Tailgate ☐ Seminar ☐ Video ☐ Other: _____

Key Training Points: Otay Policy - Reporting, cost of a Incident Uniform Policy

Contact Hours: _____

A signature indicates acknowledgement of attendance and understanding of the subject matter.

	Print Name	Signature	Employee #
1.	Richard Acuña		24
2.	Jerry Muñoz		893
3.	Douglas Rahders		1515
4.	Steven Farr	X VACATION	1672
5.	Omar Sanchez		1594
6.	Gabriel Silva		1492
7.	Narciso Ricasa	RETIRED	1498
8.	Juan Gutierres		1690
9.	Ricardo Nieves		2231
10.	Marvin Woods	Marvin Woods	1408
11.	Gregorio Ponce		1708
12.	Tim Keeran	Tim Keeran	732
13.	Tadeo Vasquez	TADEO VASQUEZ	1279
14.	Chad Thompson		1475
15.	Ed Sanchez		1369

	Print Name	Signature	Emp. #
16.	Mike Plasterer		1425
17.	Mitchell Atkinson		1400
18.	Ken Ely		1646
19.	Ruben Fronda		1647
20.	Michael Gurrola		1721
21.	Vincent Brown		1474
22.	Eric Johnson		1472
23.	Ernest Covington		1620
24.	Juan Rivas		1645
25.	Dale Strunks Jr.		1543
26.	Lincoln Anderson		1513
27.	Denny Warrix		1753
28.	Shannon Coffin		1751
29.	Stephen Martinez		1577
30.	Luis Solorio		1332
31.	Kim Chavez		1504
32.	Patrick Ashton		1775
33.	Freddie Conchas		1774
34.	Frank Anderson		1789
35.			
36.			
37.			
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39.			
40.			

Training Topic Title: CONFINED SPACE

Schedule (date, beginning, and ending time): 8-5-10

Instructor (print name and signature): KIM CHAVEZ

Training Location: CBBW ROOM

Training Type: ☒ Tailgate ☐ Seminar ☒ Video ☐ Other: _____

Key Training Points: _____

Contact Hours: _____

ConFined Space - Silent Killer & ConFined Space Entry

A signature indicates acknowledgement of attendance and understanding of the subject matter.

	Print Name	Signature	Employee #
1.	Richard Acuña		24
2.	Jerry Muñoz		893
3.	Douglas Rahders	VACATION	1515
4.	Steven Farr		1672
5.	Omar Sanchez		1594
6.	Gabriel Silva		1492
7.	Juan Gutierrez		1690
8.	Frank Anderson		1789
9.	Marvin Woods	VACATION	1408
10.	Gregorio Ponce		1708
11.	Tim Keeran		732
12.	Tadeo Vasquez		1279
13.	Chad Thompson		1475
14.	Ed Sanchez		1369
15.	Mike Plasterer		1425

	Print Name	Signature	Emp. #
16.	Mitchell Atkinson	Workman's Comp	1400
17.	Freddie Conchas		1774
18.	KEN JAMES	Treatment Plant	1367
19.	Michael Gurrola		1721
20.	Vincent Brown		1474
21.	Eric Johnson	Eric Johnson	1472
22.	Ernest Covington		1620
23.	Juan Rivas		1645
24.	Dale Strunks Jr.		1543
25.	Lincoln Anderson		1513
26.	Patrick Ashton		1775
27.	Shannon Coffin	Shannon Coffin	1751
28.	Stephen Martinez		1577
29.	Luis Solorio	Luis Solorio	1332
30.	Kim Chavez		1504
31.	Hector Licon		1755
32.			
33.	DANIEL JONES		1655
34.			
35.			
36.			
37.			
38.			
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40.			

CLASS ROSTER

CLASS NAME: CONFINED SPACE ENTRIES / FLEET VEHICLE INCIDENTS

☐ **REFRESHER** ☒ **TAILGATE**

DESCRIPTION: ① Viewed Video on Driving Safety and Safety Tips. Reviewed the District Policy on Fleet Vehicle Incident Reporting. ② Viewed Video on Confined Space (Fountain). Reviewed the District Policy of Procedure on Confine Space / C-5 entry.

INSTRUCTOR: JUAN RIVAS / DALE STRUNKS **SIGNATURE:**

LOCATION: CREW ROOM

DATE: 3-15-2012

START TIME: 6:30 **END TIME:** 7:30

A signature indicates acknowledgement of attendance and understanding of the subject matter.

Employee No.	Employee Name	Signature
0024	Rick Acuña	
0732	Tim Keeran	
1672	Steve Fast	
175	Shannon Coffin	
1425	Mike Pasteel	
1515	Doug Rathbels	
1645		
1722	Ron Benskin	
1408	Marvin Woods	
1475	Chad Thompson	
1721	Michael Gurrola	
1400	Mitch Atkinson	

Employee No.	Employee Name	Signature
1577	Stephen Martinez	
893	JERRY MUNOZ	
1735	Jesse Lizarraga	
1620	Ernest Covington	
1594	Omar Sanchez	
1492	GABE SILVA	
1332	Luis Solorio	
1513	LINCOLN ANDERSON	
1504	Kim Chavez	
1775	PAT ASHTON	
1279	TANGO VASQUEZ	
1789	FRANK ANDERSON	

CLASS ROSTER

CLASS NAME: EMERGENCY SEWER PUMP TRAINING

☐ REFRESHER ☒ TAILGATE

DESCRIPTION: SET UP DISCHARGE/SUCTION HOSES - INSTALL PLUGS - FILL MANHOLE WITH POTABLE WATER AND PRIME INTO DOWNSTREAM MANHOLE. CARLOS FROM GOODWIN PUMPS WENT OVER PUMP / CONTROLS / FLOATS / MAINT. TROUBLE SHOOTING

INSTRUCTOR: CARLOS SIGNATURE: 858) ~~451~~ - 563 - 6017

LOCATION: REG SITE

DATE: 1-29-13

START TIME: 7:30 END TIME: 9:30

A signature indicates acknowledgement of attendance and understanding of the subject matter.

Employee No.	Employee Name	Signature
0024	Rick Acuna	
1543	Dale Stranks	
1784	ROB LEIGH	
1815	EJ. Colia	
1611	DOUG RAHDERS	
1475	CHAD Thompson	
1613	Don Anderson	
1425	Mike Plasterer	
1742	Sam Battikha	
1755	Hector Licón	
1813	Zachary Thornton	
1616	Jeff Edwards	

Employee No.	Employee Name	Signature
1474	VINCENT BROWN	
1820	Keith Swiatkowski	
1817	Raul Villa	
1645		Juan Rivas
1804	Luis Enriquez	
1812	Jose Martinez	
1748	Gene PALOP	
1744	Damon Newman	
1408	MARVIN WOODS	
1722	RON BERSKIN	
1315	WILLIAM ANDERSON	

APPENDIX E

E-3

CALIFORNIA WATER ENVIRONMENT ASSOCIATION

Certification of Competence

THIS IS TO CERTIFY THAT

RICHARD ACUÑA

HAVING SUBMITTED ACCEPTABLE EVIDENCE OF QUALIFICATIONS BY EDUCATION, TRAINING AND EXPERIENCE IS HEREBY GRANTED THIS CERTIFICATION OF COMPETENCY AS A

GRADE II

COLLECTION SYSTEM MAINTENANCE

Expires On 7/31/2013

Carrie Mattingly, President
California Water Environment Association

Certificate No. 271

Lenny Rather, Chair
Technical Certification Program

CALIFORNIA WATER ENVIRONMENT ASSOCIATION

Certification of Competence

THIS IS TO CERTIFY THAT

Mitch Atkinson

HAVING SUBMITTED ACCEPTABLE EVIDENCE OF QUALIFICATIONS BY EDUCATION, TRAINING AND EXPERIENCE IS HEREBY GRANTED THIS CERTIFICATION OF COMPETENCY AS A

GRADE 1

COLLECTION SYSTEM MAINTENANCE

Expires On 7/31/2013

Carrie Mattingly, President
California Water Environment Association

Certificate No. 060721047

Lenny Rather, Chair
Technical Certification Program

CALIFORNIA WATER ENVIRONMENT ASSOCIATION

Certification of Competence

THIS IS TO CERTIFY THAT

Eric Johnson

HAVING SUBMITTED ACCEPTABLE EVIDENCE OF QUALIFICATIONS BY EDUCATION, TRAINING AND EXPERIENCE IS HEREBY GRANTED THIS CERTIFICATION OF COMPETENCY AS A

GRADE I

COLLECTION SYSTEM MAINTENANCE

Expires On 7/31/2013

Carrie Mattingly, President
California Water Environment Association

Certificate No. 00072128

Lenny Rather, Chair
Technical Certification Program

entered by PDuran

CALIFORNIA WATER ENVIRONMENT ASSOCIATION

Certification of Competence

THIS IS TO CERTIFY THAT

Hector Licon

HAVING SUBMITTED ACCEPTABLE EVIDENCE OF QUALIFICATIONS BY EDUCATION, TRAINING AND EXPERIENCE IS HEREBY GRANTED THIS CERTIFICATION OF COMPETENCY AS A

GRADE III

COLLECTION SYSTEM MAINTENANCE

Expires On 7/31/2013

Carrie Mattingly, President
California Water Environment Association

Certificate No. 070723018

Lenny Rather, Chair
Technical Certification Program

CALIFORNIA WATER ENVIRONMENT ASSOCIATION

Certification of Competence

THIS IS TO CERTIFY THAT

Mike Plasterer

HAVING SUBMITTED ACCEPTABLE EVIDENCE OF QUALIFICATIONS BY EDUCATION, TRAINING AND EXPERIENCE IS HEREBY GRANTED THIS CERTIFICATION OF COMPETENCY AS A

GRADE II

COLLECTION SYSTEM MAINTENANCE

Expires On 7/31/2013

Carrie Mattingly, President
California Water Environment Association

Founded 1928

Certificate No. 080722021

Lenny Rather, Chair
Technical Certification Program

CALIFORNIA WATER ENVIRONMENT ASSOCIATION

Certification of Competence

THIS IS TO CERTIFY THAT

Juan Rivas

HAVING SUBMITTED ACCEPTABLE EVIDENCE OF QUALIFICATIONS
BY EDUCATION, TRAINING AND EXPERIENCE IS HEREBY
GRANTED THIS CERTIFICATION OF COMPETENCY AS A

GRADE II

COLLECTION SYSTEM MAINTENANCE

Expires On 7/31/2013

Carrie Mattingly, President
California Water Environment Association

Founded 1928

Certificate No. 398

Lenny Rather, Chair
Technical Certification Program

CALIFORNIA WATER ENVIRONMENT ASSOCIATION

Certification of Competence

THIS IS TO CERTIFY THAT

Chad Thompson

HAVING SUBMITTED ACCEPTABLE EVIDENCE OF QUALIFICATIONS BY EDUCATION, TRAINING AND EXPERIENCE IS HEREBY GRANTED THIS CERTIFICATION OF COMPETENCY AS A

GRADE II

COLLECTION SYSTEM MAINTENANCE

Expires On 7/31/2013

Certificate No. 00072233

Carrie Mattingly, President
California Water Environment Association

Lenny Rather, Chair
Technical Certification Program

Dr ng Water Program, Operator Certification Unit
P. O. E 997377, MS# 7417, Sacramento, CA 95899-7
Phone: (916) 449-5611 Fax: (916) 449-5654
Internet Address: http://www.cdph.ca.gov/certlic/occupations/Pages/DWopcert.aspx

Receipt and Pocket ID Card

State of California
Department of Public Health

This verifies that the individual named below has paid the appropriate fee and is a certified
Water Distribution Operator

Name: **Zachary B. Thornton**
Level: **Grade D2** **Operator # 39629**
Expires: **6-1-2014** ***Fee Paid:*** **$80**
Due: **2-1-2014**
Signature:

Please sign card.

California Water Environment Association
Technical Certification Program
7677 Oakport St., Ste. 600, Oakland, CA 94621
Tel: 510-382-7800 Fax: 510-382-7810

Zachary Thornton
COLLECTION SYSTEM MAINTENANCE
Cert #: 101122006 Grade: 2
Expires: 11/30/2012 **Contact Hours Due:** 11/30/2012

Signature of Certificate Holder

CALIFORNIA WATER ENVIRONMENT ASSOCIATION

Certification of Competence

THIS IS TO CERTIFY THAT

Tadeo Vasquez

HAVING SUBMITTED ACCEPTABLE EVIDENCE OF QUALIFICATIONS BY EDUCATION, TRAINING AND EXPERIENCE IS HEREBY GRANTED THIS CERTIFICATION OF COMPETENCY AS A

GRADE II

COLLECTION SYSTEM MAINTENANCE

Expires On 7/31/2013

Certificate No. 407

Carrie Mattingly, President
California Water Environment Association

Lenny Rather, Chair
Technical Certification Program

State of California

State Water Resources Control Board

Certificate of Competence

This is to certify that pursuant to the provisions of Chapter 9, Division 7 of the California Water Code

Gene R. Palop

has fulfilled the requirements for certification as a

Grade V

Wastewater Treatment Plant Operator

Certificate Number **9400**

Issued this June 28, 2012

Original Issue Date: 04/15/2005

Expiration Date: 12/31/2014

Charles Hoppin
Chairman

This certificate is the property of the State of California and in the event of its suspension, revocation or invalidation for any reason, it must be returned to the State Water Resources Control Board upon demand.

State of California

State Water Resources Control Board

Certificate of Competence

This is to certify that pursuant to the provisions of Chapter 9, Division 7 of the California Water Code

Damon M. Newman

has fulfilled the requirements for certification as a

Grade III

Wastewater Treatment Plant Operator

Certificate Number **9452**

Issued this April 23, 2012

Original Issue Date: 07/11/2006

Expiration Date: 06/30/2014

Charles Hoppin
Chairman

This certificate is the property of the State of California and in the event of its suspension, revocation or invalidation for any reason, it must be returned to the State Water Resources Control Board upon demand.

State of California

State Water Resources Control Board

Certificate of Competence

This is to certify that pursuant to the provisions of Chapter 9, Division 7 of the California Water Code

Robert G. Leigh

has fulfilled the requirements for certification as a

Grade III

Wastewater Treatment Plant Operator

Certificate Number **10851**

Issued this April 23, 2012

Original Issue Date: 09/01/2010

Expiration Date: 06/30/2014

Charles Hoppin
Chairman

This certificate is the property of the State of California and in the event of its suspension, revocation or invalidation for any reason, it must be returned to the State Water Resources Control Board upon demand.