

CITY OF HUNTINGTON BEACH



SANITARY SEWER SYSTEM

AUDIT

2011

Approved By:

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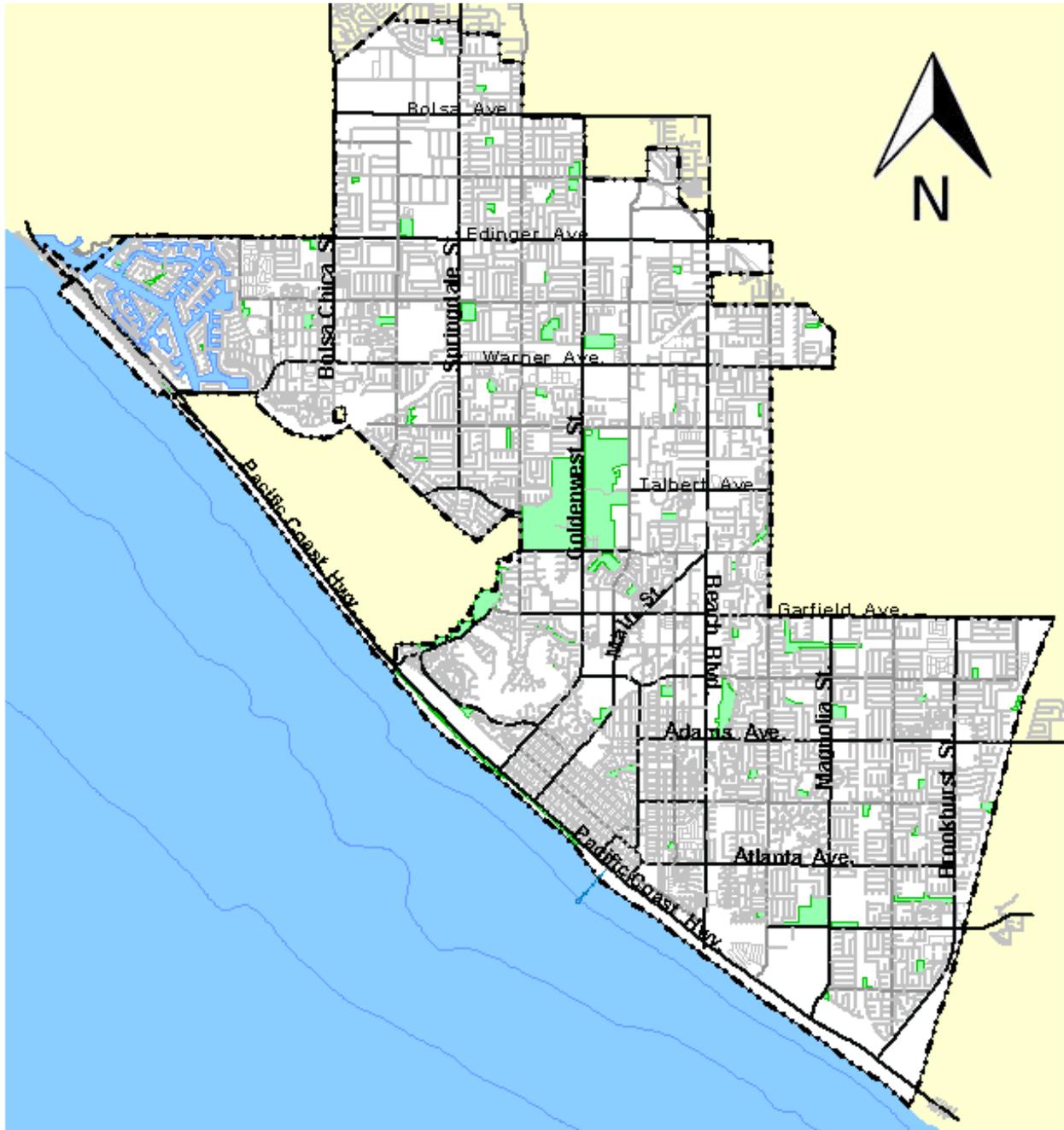
ACRONYMS

BMP	Best Management Practices
CCTV	Closed Circuit Television
CIP	Capital Improvement Plan
CIWQS	California Integrated Water Quality System
CWEA	California Water Environment Association
d/D	where d = depth of submergence and D = pipe diameter
FOG	Fats, Oils, and Grease
FSE	Food Service Establishment
GIS	Geographic Information System
GRD	Grease Removal Device
HOA	Homeowner's Association
HBSMS	Huntington Beach Service Management System
I & I	Inflow and Infiltration
LRO	Legally Responsible Official
NASSCO	National Association of Sewer Service Companies
O & M	Operations and Maintenance
OCSD	Orange County Sanitation District
OERP	Overflow Emergency Response Plan
OES	Office of Emergency Services
SECAP	System Evaluation & Capacity Assurance Plan
SMP	Sewer Management Plan
SOP	Standard Operating Procedure
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow
WATCH	Work Area Traffic Control Handbook
WDR	Waste Discharge Requirements
WO	Work Order

BACKGROUND

The City of Huntington Beach (City) is enrolled in the Statewide General Waste Discharge Requirements (WDR) for Sanitary Sewer Systems, Order No. 2006-0003-DWQ. The Sanitary Sewer Systems WDR requires public agencies that own or operate sanitary sewer systems to develop and implement Sewer System Management Plans (SSMPs) and report all Sanitary Sewer Overflows (SSOs) via the California Integrated Water Quality System, (CIWQS), the State Water Resources Control Board's online SSO database.

To be effective, the SSMP 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. On July 16, 2007, the City Council approved the Sewer System Management Plan, dated September 28, 2005.



Section 1: Goals

The goal of the Sewer System Management Plan (SSMP) is to provide a plan and schedule to properly manage, operate and maintain all aspects of the sanitary sewer collection system. This will help reduce and prevent Sanitary Sewer Overflows (SSOs), as well as mitigate any SSOs that do occur within the City of Huntington Beach.

Quantifiable goals: The goal of the City of Huntington Beach Wastewater Section (within the Utilities Division of the Public Works Department) is to realize a 10% reduction of public SSO occurrences over the next 24 month interval. This will be achieved by the continuation of a rigorous preventative line cleaning and CCTV program in conjunction with the ongoing enforcement of the City's Control and Regulations of Fats, Oils, and Grease (FOG) program.

Goal Audit Elements

(A) Maintain and improve condition of system infrastructure

The City's Wastewater Section implements a proactive sewer line cleaning program. The entire system is cleaned approximately every 18 months. The City performs video inspections of the collection system on an ongoing basis with particular emphasis on those locations in dense commercial areas often impacted by FOG.

(B) Minimize Inflow and Infiltration and provide adequate sewer capacity

It is essential to minimize Inflow and Infiltration (I & I) to the sanitary sewer collection system. The Orange County Sanitation District (OCSD) prepares an annual I & I Analysis Report and the City reviews the report for further action. At a local level, Resolution No. 2003-52 (City of Huntington Beach Sanitary Sewer Master Plan) includes probable locations of infiltration for identification of Capital Improvement Plan needs and future projects.

(C) Minimize the number and impact of SSOs

The City immediately responds and reports on both public and private overflows, regardless of overflow volume. Scheduled line cleaning of the City-owned system limits the number and impact of SSOs. Proper training of staff is crucial and operator certification is pursued through the California Water Environment Association.

Section 2: Organization

There have been several personnel changes in the Public Works Department since inception of the SSMP in 2009. Revisions to the Organization Chart are under review and current information is addressed in detail in the appropriate audit elements section below.

Organization Audit Elements

(A) Designate legally responsible official (LRO)

SSOs are certified via the California Integrated Water Quality System (CIWQS) website. Brian A. Ragland, P.E., Utilities Manager, serves as LRO for the CIWQS site.

Dorien Mc Elroy, Wastewater Supervisor, serves as the primary data submitter for the CIWQS site.

(B) Names and phone numbers for key management/administrative personnel

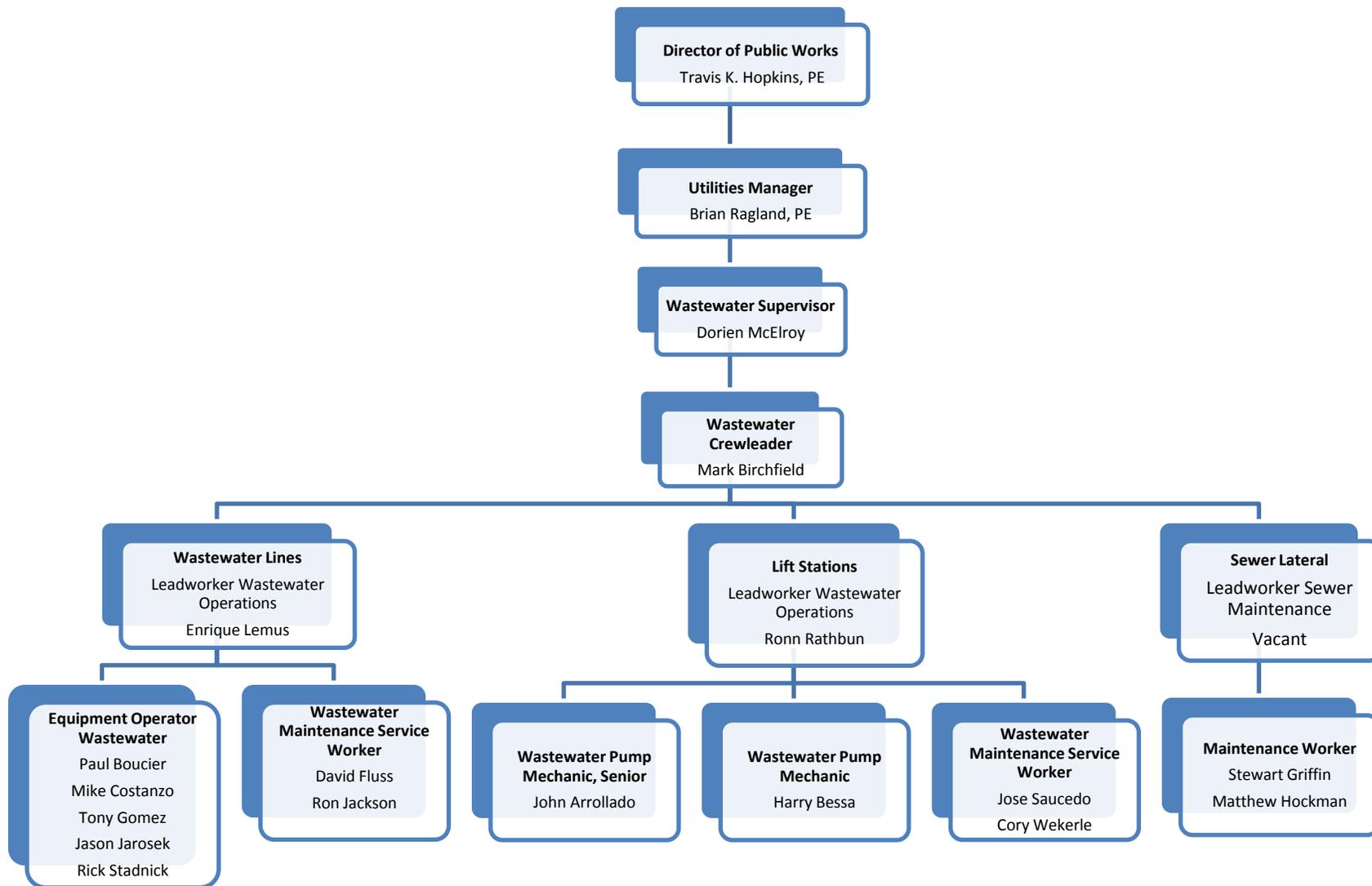
See Attachment A for the names and phone numbers for key management/administrative personnel.

(C) Names and phone numbers for key maintenance personnel

See Attachment B for the names and phones numbers for key maintenance personnel.

(D) Chain of communication for reporting SSOs

Chain of command is followed so that all employees are held accountable and understand the proper dissemination of information. See Figure 2 for the Wastewater Organization Chart.



Section 3: Legal Authority

This section offers a description of the City's legal authority, including codes and ordinances, to enforce the requirements of the Waste Discharge Requirements.

Quantifiable Goal

On an annual basis, the City's municipal ordinances shall be reviewed.

Legal Authority Audit Elements

(A) Prevent illicit discharges into sanitary sewer system

Municipal Code 17.44 – Uniform Plumbing Code

(B) Require that sewers and connections be properly designed and constructed

Municipal Code 14.44.020 – Sewer Main Extensions, Plans and Specifications

(C) Ensure access for maintenance, inspection and repairs

All collection system components are designed to allow access for operation and maintenance (O & M), inspection, and repair. Staff is trained on confined space entry as this requires an entry supervisor and continuous monitoring of sewer gases. Manholes are located at least every 300 feet to allow access to the collection system per City Standard Plans.

(D) Limit discharge of FOG and debris that may cause blockages

Municipal Code 14.56 – Control and Regulations of Fats, Oils, and Grease. Discharge of FOG and debris that may cause blockages is regulated under the FOG program. Please see Section 7 for a comprehensive analysis and elaboration on these procedures.

(E) Enforce violations of the Grease Ordinance

Municipal Code 14.56 – Control and Regulations of Fats, Oils, and Grease. Violations of the Grease Ordinance are regulated under the FOG program. Please see Section 7 for a comprehensive analysis and elaboration on these procedures.

Section 4: Operation and Maintenance Program

This section provides an overview of the City's sewer system operations and maintenance (O & M) program. The primary goal of the O & M program is to provide the best level of service to the public in the most cost-effective manner possible while maintaining the integrity of the environment. Other goals include providing Wastewater employees with greater cross training opportunities to provide better coverage and response and encouraging employees to pursue increasingly higher CWEA certification levels.

Operation and Maintenance Program Audit Elements

(A) *Maintain up-to-date maps of sanitary sewer system (electronic and hard-copy)*

The Utilities Division has two dedicated GIS employees. The GIS Division develops maps on a GIS database of the City of Huntington Beach wastewater collection system facilities that include: gravity sewer lines, force mains, manholes, lift station facilities and pumping operations, storm water conveyance facilities, and other assorted valves and appurtenances associated with the collection system. Map copies are retained in the Utilities Division's offices and each employee's service truck. Map corrections are noted by field crews and submitted to the Wastewater Crewleader who reviews them before submitting to GIS staff. The Sewer Facilities Map is updated twice a year to reflect these changes. See Attachment C.

(B) *Describe routine preventative operation and maintenance program by staff and contractors*

The Wastewater Section staff proactively cleans its entire sewer system approximately every 18 months and preventively cleans sewer lines in Enhanced Cleaning Areas per Table IV-1, see Attachment D. City crews correct problems that are identified by sewer cleaning crews. Sewer repair and replacement projects are coordinated with the City's Pavement Management Program, a program that is overseen by the Street Maintenance Section, whenever feasible. The City repairs significant structural defects of sewer pipelines as they are identified and repairs are completed in priority order.

The City performs CCTV inspections for both periodic condition assessment and for follow-up on SSO events. See Attachment E for the City's Cleaning

Procedure for the sanitary sewer system. In addition, the City contracts a portion of CCTV inspection services in conjunction with the Sewer Lateral Program and FOG program. CCTV inspection footage is used to identify damaged pipeline requiring immediate repairs, root intrusion requiring immediate removal, potential future CIP projects such as sewer lining and/or detect the need for enhanced maintenance due to excessive debris, FOG, pipe misalignment, joint offset, calcium build-up, etc.

(C) *Describe scheduling of regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted in enhanced cleaning areas*

The Wastewater Section staff proactively cleans the entire sewer system approximately every 18 months. See Attachment D for Enhanced Cleaning Areas, Table IV-1.

(D) *Document completed preventative maintenance using system such as work orders*

Scheduled and completed activities are documented on the City's Work Order system, HBSMS, see Attachment F, Sewer Service Fund Performance Audit.

(E) *Maintain up-to-date sewer maintenance list*

See Attachment F for Sewer Service Fund Performance Audit.

(F) *Rehabilitation and replacement plan that identifies and prioritizes sanitary sewer defects*

The Capital Improvement Plan prioritizes the repair of system defects or deficiencies within the system. As previously mentioned, CCTV inspection plays an invaluable role in the identification of any system deficiencies. See Section 8 (SECAP).

(G) *Regular visual and CCTV inspections of manholes and sewer pipes, and a system ranking the condition of sewer pipes and scheduling rehabilitation*

The City utilizes an "internal" rating system that is used for manhole assessments and catch basin inspections. Each facility is rated between 1 through 3.

- 1: Acceptable/Good
- 2: No Action Required

3: Repair/Rehabilitation Necessary

(H) *Capital Improvement Plan shall address proper management and protection of the infrastructure assets- include time schedule in the CIP for implementing short and long term plans and a schedule for developing the funds needed for the CIP*

A Sewer Service User Charge was adopted by the Huntington Beach City Council to finance the rehabilitation, replacement, repair, and maintenance of City-owned sewers and lift stations. On an annual basis the City Council approves the operating budget and CIP projects for the fiscal year.

(I) *Provide regular technical training for City sanitary sewer system staff*

Currently all safety training is being compiled on an Excel Spreadsheet database with the assistance of Risk Management. See Attachment G.

(J) *Require contractors to provide training for their workers who work in the City's sanitary sewer system facilities*

See Attachment H – City of Huntington Beach Sewer Line Cleaning Scope of Work which lists criteria for contracted sewer line cleaning services.

(K) *Maintain equipment inventory*

See Attachment I and Appendix D of the City of Huntington Beach 2003 Preventative Maintenance Program

(L) *Maintain critical spare parts inventory*

See Attachment I and Appendix D of the Sewer System Management Plan for the Equipment List.

Section 5: Design and Performance Provisions

Design and Performance Provisions Goal

The goal of the Design and Performance Provisions is to ensure that the sewer system is designed in accordance with standard construction methods with adequate oversight and inspection during the construction process.

Design and Performance Provisions Audit Elements

(A) *Design and Construction Standards for new sanitary sewer system facilities*

Standard Plans and Specifications for New Construction

- The City maintains Standard Plans for the construction of the Sanitary Sewer System (Section 500).
 - Available on City website
 - Updated periodically
- The City has adopted the Standard Specifications for Public Works Construction (Greenbook).
 - The Greenbook is recognized by the majority of the local agencies in the western United States and is readily available for purchase.
 - Updated periodically by the American Public Works Association.

(B) *Design and construction standards for repair and rehabilitation of existing sanitary sewer facilities*

Standard Plans and Specifications for Repair and Rehabilitation

- The City maintains Standard Plans for the design and construction for repair of the Sanitary Sewer System (Section 500).
 - Available on City website
 - Updated periodically
- The City has adopted the Standard Specifications for Public Works Construction (Greenbook).
 - The Greenbook is recognized by the majority of the local agencies in the western United States and is readily available for purchase.
 - Updated periodically by the American Public Works Association.

(C) Procedures for the inspection and testing of repaired and rehabilitated and new sanitary sewer facilities.

All public sewers to be constructed, repaired or rehabilitated are done so through an encroachment permit. This insures that inspection, by City staff, are done so in accordance with the aforementioned Standard Plans and Specifications.

(D) Standards for the inspection and testing of new, rehabilitated, and repaired sanitary sewer facilities.

All inspections for new, repaired or rehabilitated public sewers are inspected by City inspectors in accordance with the aforementioned Standard Plans and Specifications.

Section 6: Overflow Emergency Response Plan (OERP)

When a sanitary sewer overflow (SSO) occurs, the City takes all feasible steps and necessary remedial actions to control or limit the volume of untreated or partially treated wastewater discharged; terminate the discharge; and recover as much of the wastewater discharged as possible for proper disposal, including any wash down water.

OERP Audit Elements

(A) *Notification procedures so that primary responders and regulatory agencies are informed of all SSOs*

- Notify all applicable Federal, State, regional, and local agencies by phone, facsimile and email correspondence. (Regional Water Quality Control Board, County of Orange Health Care Agency, County of Orange, and State Office of Emergency Services).
- Notify management up through the Director of Public Works.

(B) *Program to ensure appropriate response to all SSOs*

The City implements all remedial actions to the maximum extent they may be applicable to the discharge and consistent with an emergency response plan, including:

- Interception and rerouting of untreated or partially treated wastewater flows around the wastewater line failure
- Vacuum truck recovery of SSOs and wash down water
- Clean up of debris at the overflow site
- System modifications, if applicable, to prevent another SSO at the same location
- Adequate sampling of any water bodies to determine the nature and impact of the release
- Adequate public notification to protect the public from exposure to the SSO

(C) Procedure to ensure proper reporting of all SSOs

See Attachment J, City of Huntington Beach Administrative Regulation No. 808 for the Standard Operating Procedures in the event of an SSO.

Notification

Calls received by the Public Works Department will initiate dispatch of trained response crews to the site where the spill will be evaluated. Appropriate agencies will be notified as necessary.

Incident Response

Wastewater personnel will respond to all reported sewage spills to identify the responsible party and provide clean-up protocol procedures for sewage that has been discharged into the environment on public or private property.

Incident Assessment

Determine if SSO is on public or private property. Currently, the Incident Action Plan is followed regardless if the spill is a public or private incident.

Incident Action Plan

1. Contain and/or minimize the discharge.
2. Identify and notify the responsible party.
3. Collect information, estimate overflow volumes and capture photo documentation.
4. Begin cleanup of the overflow (concurrently with step 3).
5. Notify all applicable Federal, State, regional and local agencies by phone, facsimile and e-mail correspondence. (Regional Water Quality Control Board; County of Orange; Healthcare Agency; and Office of Emergency Services)
6. Notify management up through the Director of Public Works.

Phone numbers and other pertinent contact information are readily available to Wastewater Section employees and staff.

7. Inform the City's Administrative Environmental Specialist for an assessment and recommended course of action if the problem cannot be corrected through normal maintenance efforts.

8. Send billing information to Accounts Receivable Division to invoice responsible private property owners for any City costs associated with the responses/clean-up of the overflow as a result of activities on private property.

(D) Procedure to ensure City staff are trained in the SSORP procedures

The Wastewater Section holds internal training on SSORP procedures on an annual basis. New employees are trained in the SSORP procedures upon hire.

(E) Procedure to ensure contractor personnel are aware of and trained to follow the SSORP

Contract personnel that work for the City must show evidence of proper licensing and training at the time contract negotiations are processed per the Scope of Work, see Attachment H. Such information is kept on file and available upon request.

(F) Procedures to address emergency operations such as traffic and crowd control

Traffic and crowd control training is on-going. The Utilities Division holds monthly Safety training sessions. In addition, each section holds "tailgate safety" training meetings on a regular basis. Employees refer to the Work Area Traffic Control Handbook (WATCH Manual) and utilize proper traffic control for routine maintenance such as line cleaning or accessing collection system sites. They may notify the Huntington Beach Police Department as necessary for assistance.

(G) Program to prevent the discharge of sewage to waters of the US

The City has six flood control stations that are under permit with the Orange County Sanitation District (OCSD) to bypass dry weather urban runoff to the OCSD trunk sewers during dry conditions. The SSO that is collected at these locations are pumped directly into the sewer collection system.

(H) Program to minimize or correct the impacts of any SSOs that occur

The elements listed below are provisions taken to prevent the discharge of sewage to waters of the US. These same elements serve to minimize or correct the impacts of any SSOs that may occur despite vigilant O & M of the collection system.

The City's sanitary sewer collection system maintenance program is based on the following elements:

- A thorough sewer line cleaning program; the entire system is cleaned approximately every 18 months.
- An enhanced cleaning program for areas that may need more frequent cleaning and/or maintenance.
- CCTV inspection of enhanced cleaning areas and system as a whole to document status of the infrastructure.
- Sewer Lateral Program- the City has ownership of sewer laterals from the public right-of-way to the connection to the mainline. Residents with root intrusion in their sewer laterals are assisted by this program that removes the intrusive tree roots, installs a cleanout at the property line, and if necessary, replaces damaged portions of the sewer lateral. This is a proactive approach to minimize the occurrence of SSOs. See Attachment K.

Section 7: Fats, Oil, and Grease Control Program

FOG Program Goal

The goal of the Fats, Oils, and Grease (FOG) Control Program is to reduce the volume of FOG discharged to the sanitary sewer collection system by restaurants, cafeterias, food manufacturing facilities, and residential dwellings. However, the main focus of the FOG Control Inspection program is the inspection and regulation of Food Service Establishments (FSEs) that produce FOG which have been documented to be the largest contributors of FOG into the collection system. As of the end of December 2010, there were 293 FSEs under the FOG Control Program (see Table 4).

The cornerstone of the FOG Program is the implementation of an effective education and outreach process that informs FSE management and employees about methods to prevent the discharge of FOG into the sanitary sewer collection system, including how to properly maintain grease control devices. The education and outreach is conducted through facility inspections and the distribution of the FOG Control Training Manual. To achieve maximum effectiveness, the materials and outreach are designed to clearly convey proper methods to eliminate the introduction of FOG into the sanitary sewer system by using simple and effective control methods.

The education program includes outreach on kitchen Best Management Practices (BMPs) for use by the FSE management. User friendly training tools identify potential sources of FOG and provide effective prevention techniques. Educational and outreach materials have been developed for distribution to FSEs during the course of inspection and BMP evaluation.

The programmatic goals are to reduce the number of FOG related SSOs by 10% each year and achieve at least 90% inspection rate for all FSEs under the FOG Control Program.

FOG Control Program Audit Elements

(A) *Public outreach program that promotes the proper disposal of FOG*

Residential Outreach Program:

- Posted information on local cable access channel HBTv3
 - June – August 2010

- Newsletter articles
 - Posted “Don’t Let FOG Clog Your Holidays” article in Fall 2009 edition of Sands
- Website
 - Currently under development
- Social Media
 - Under development

Commercial and FSE Outreach Program: includes inspection

- Developed FOG Training Manual in 2005
 - Added DVD format to FOG Training Video in 2009 (in addition to CD ROM format)
 - Modified in 2010 to include list of hood filter cleaning vendors

(B) Plan & schedule proper disposal of FOG generated within City

Residential FOG Disposal

Residents are educated on proper disposal methods of FOG generated at home via educational newsletter articles and information posted on local cable access television channel HDTV3. This information includes tips on how to collect FOG and how to properly dispose of the FOG in trash. Residents are also encouraged to dispose of all waste grease at the Household Hazardous Waste Collection Center located at 17121 Nichols Street. The facility which is located at Rainbow Disposal and operated by the County of Orange, accepts a wide range of common household hazardous waste including waste cooking oil/grease for proper disposal at no charge.

Commercial/FSE FOG Disposal

FSEs that generate FOG are provided a list of approved (as approved and inspected by the County of Orange Health Care Agency) waste grease and grease interceptor (mechanical and hydraulic) disposal and cleaning services. This list is included in the FOG Training Manual provided to FSEs during the course of the initial FOG inspection.

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

The City’s Control & Regulation of Fats, Oils, and Grease ordinance, as adopted in 2004 (Municipal Code Section 14.56), explicitly prohibits the discharge of FOG into the sanitary sewer system.

SSO Data

Table 1- FOG Related SSOs

	2009	2010	Total
FOG SSOs	5	3	8

Table 2 - Municipal vs. Private Sanitary Sewer System FOG Related SSOs

	2009	2010
Private Sewer Systems	5	3
Municipal Sewer System	0	0

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

Grease Removal Devices Requirements & Design Standards

The City’s Control & Regulation of Fats, Oils, and Grease ordinance (Municipal Code 14.56) requires all newly constructed grease producing FSEs to install a grease interceptor (mechanical or hydraulic) at the time of construction. The City’s Building Division of the Planning and Building Department administers the issuance of building permits and implements design and sizing criteria for grease interceptors based on the California Uniform Building Code of 2009.

The Control & Regulation of Fats, Oils, and Grease ordinance also requires FSEs with grease removal devices to service the devices on a quarterly basis at a minimum. However, if the grease and solids levels within the grease removal device exceed 25% of the total hydraulic volume of the grease removal device, a more frequent service schedule is required to keep the volume of grease and solids under 25%. In addition, if the volume of FOG has been noted as exceeding 25% at any time, City FOG inspectors educate FSE management that

this may be an indication that the FOG training may not be effectively implemented and that additional training on the kitchen FOG control BMPs may be necessary.

FOG Training Program for Grease Producing FSEs

FSEs that produce grease are identified through preliminary inspections of all new FSEs by the City's FOG inspectors. Once identified as grease producers, the FSEs are enrolled into the City's FOG Control program and are required to implement FOG "Kitchen Best Management Practices (BMPs)" training and education program which is designed to remove FOG at the source (i.e., wiping down greasy pots/pans before washing, wiping down hood filters before washing in sink, etc.). FSEs in the FOG Control Program are required to train kitchen staff at least twice a calendar year and are provided a FOG Training Manual which includes the following training components:

1. "Drying wiping" of greasy pots/pans, dishware, and work areas
2. Proper disposal of food wastes and solids to prevent leaking and odors
3. Spill prevention and proper cleanup
4. Drain screening
5. Dishwashing and equipment cleaning
6. Recycling of FOG
7. Maintenance of kitchen exhaust filters
8. Posting "No Dumping Grease" signs

The training material is also provided to the FSEs in DVD and CD ROM formats in five different languages (English, Spanish, Vietnamese, Korean, and Chinese).

Record Keeping

All FSEs are required to document and keep records regarding the following FOG program elements:

1. Employee FOG training – Required to train staff at least twice a calendar year and document the training in Attachment I of FOG Training Manual.
2. Keep records regarding servicing and maintenance of grease removal devices for at least three years. These devices are to be serviced on a

quarterly basis at a minimum and records must be kept on-site and available for review at the time of inspection.

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

The Control & Regulation of Fats, Oils, and Grease ordinance grants the City the authority to inspect FSEs and other grease producers and enforce violations of the ordinance. Grease producers under the FOG Control program are inspected on a two-tiered inspection schedule as follows:

- Grease producers with grease removal devices (GRD)- Inspected once a calendar year
- Grease producers without GRD – Inspected twice a calendar year

Table 3 - Inventory of FOG Control Program

Calendar Year	FSEs with GRD	FSEs without GRD	Total
2009	144	143	287
2010	160	133	293

Table 4 - FOG Control Program Inspections Calendar Year 2009

FSE Description	Inventory	Inspections Required	Inspections Conducted	Percent Complete
FSEs with GRD (once/year)	144	144	145	~100%
FSEs without GRD (2 times/year)	143	286	284	99%

Table 5 - Inventory of FOG Control Program Calendar Year 2010

FSE Description	Inventory	Inspections Required	Inspections Conducted	Percent Complete
FSEs with GRD (once/year)	160	160	165	100%
FSEs without GRD (2 times/ year)	133	266	243	91%

Table 6 - Enforcement Actions

Year	*Notice of Non-Compliance	**Admin. Citation	Total
2009	110	20	130
2010	76	14	90

* **Notice of Non- Compliance** – Written warning for minor violations.

** **Administrative Citations** – Civil citations for major violations or for repeat minor violations. Citations start at \$125 for the violation, \$250 for the second, \$600 for the third, and \$1,000 for a fourth repeat violation.

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

Sewer line cleaning and television inspection related to the FOG program are performed by City crews or contract staff on an annual basis. The program focuses on the FSEs without FOG control measures in place and is designed to identify FSEs that discharge excessive amounts of grease to the City’s sanitary sewer system. The inspection is conducted via CCTV inspections of the FSEs lateral at the point of connection to the City’s sewer system. Once identified, a report detailing the connection point and photographic evidence is provided to the City’s FOG inspectors for follow-up with the FSEs to identify potential sources of FOG discharges.

The last CCTV inspection of FSE lateral connections was conducted in September of 2010. The inspection was based on a list provided to the CCTV contractor of 52 FSEs that were suspected of discharging excessive amounts of FOG based upon observations of the FOG inspectors. Of this list, 10 of the FSEs

were found to be discharging excessive amounts of FOG to the City's sanitary sewer system. Once identified, these FSEs were re-inspected and the FSEs' management was provided a copy of the CCTV inspection report. The re-inspection focuses on identifying sources of FOG and preventing the discharge of FOG to the sanitary sewer by carefully examining the FSEs daily operating procedures from dish washing to cleaning of hood filters.

(G) Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified

The City has implemented a CCTV inspection program that is used to identify sections of the sanitary sewer system that are more prone to FOG buildup and potential blockages. Once identified, these areas are categorized as high, medium, or low priority and are inspected via CCTV inspection and cleaned using hydro-jetting methods according to the priority.

Selection of these areas and sections of sanitary sewer system are based on the following factors:

- Historical knowledge
- Proximity to FSEs that produce FOG
- Proximity to high density residential areas
- Sections of sanitary sewer pipes with siphons

FOG Summary

The FOG Control Program is now in the sixth year of operation. Several indications of the programs success are apparent. The majority of FSEs now understand the FOG control requirements. Compliance with notices of violation approaches 100%. Spill, overflow and blockage incidents have been reduced by over 50% since the implementation of the program in 2005 and inspection rates of the FSEs in the FOG Control Program has been over 90%.

However, there is room for improvement. The following is a list of areas for targeted improvement or program development:

1. FOG website – complete development and launch webpage.
2. Residential outreach – improve and enhance outreach efforts.

3. FOG Control Inspection Program – achieve at least 95% inspection rate of FSEs in the FOG Control Inspection program.
4. Modify Control & Regulation of Fats, Oils, and Grease ordinance – change language in regards to FOG Control training requirement from “twice a calendar year” to once every six months.
5. Private Spills – conduct outreach to owners of private sewer laterals that are upstream of enhanced cleaning areas that are contributing excessive amounts of FOG.
6. HOA’s – Work with private HOAs with historical problems or SSOs related to FOG to develop maintenance program to maintain sewer laterals/lines and educate residents/tenants on residential FOG BMPs.

Section 8: System Evaluation and Capacity Assurance Plan (SECAP)

SECAP Goal

The goal of the SECAP is to ensure that the sewer system has been adequately analyzed for hydraulic capacity and to better understand the areas of the system that may be susceptible to SSOs due to capacity deficiencies.

SECAP Audit Elements

(A) Identification of elements of the sanitary sewer system that experience or contribute to SSOs caused by hydraulic deficiencies

In 2003, the City adopted the Sewer Master Plan (SMP) in order to evaluate the capacity of the City's sanitary sewer system.

- Nine locations throughout the city were identified as potentially having capacity issues, based on the desktop analysis.
 - SMP is a part of the SSMP.
- Further analysis, including site specific flow monitoring, was conducted in 2008 at these nine locations.
 - Seven locations were determined to have adequate capacity.

One location (downstream of Edinger Sewer Lift Station) was determined to be at "design" capacity, but not flowing full at peak discharge. Therefore, the Edinger Sewer Lift Station immediately upstream of this location was metered to reduce the flow.
 - One location (Beach Boulevard, between Ellis and Slater Avenues) was determined to have flows between "design" capacity and flowing full at peak discharge. This pipe is not in a location historically susceptible to FOG. Since this pipe is not flowing full at peak flow, evaluation of the upstream sewer lift station will be performed, to help mitigate this condition when it is rehabilitated or replaced.

Establish design criteria that provide adequate capacity

The City's Standard Plans and SMP include design criteria in order to provide adequate capacity for new, rehabilitated, and replacement sewer pipes.

- The “d/D” design criteria is utilized for new pipes and is less than flowing full capacity. The extra capacity provides for infiltration, anomalous peak discharges, and future development.
 - This “design” criterion is conservative since the City is practically built out and any future development is required to mitigate any potential downstream capacity issues.

(B) *Short-term CIP that addresses known hydraulic deficiencies*

Based on the capacity analysis performed, no short-term capital improvements are proposed to address capacity issues that could result in SSOs.

(C) *Long-term CIP that addresses known hydraulic deficiencies*

Based on the capacity analysis performed, the City will continue to monitor the one location identified for possible mitigation with the rehabilitation or replacement of the upstream Speer Lift Station.

(D) *Procedures that provide for the analysis, evaluation, and prioritization of hydraulic deficiencies*

Based on the capacity analysis performed, the City does not anticipate any immediate additional analysis of the sanitary sewer system, given its “built out” nature. However, as new development/redevelopment occurs, analysis of the downstream sewer system will be required.

(E) *The short- and long-term CIPs include schedules for the correction of each identified hydraulic deficiency*

Based on the capacity analysis performed to date, the City will continue to monitor the one location identified for possible mitigation with the rehabilitation of the upstream Speer Lift Station. The City, on a yearly basis, reevaluates the priority by which its sewer lift stations are scheduled for rehabilitation or reconstruction.

(F) *Schedule of completion dates for all portions of the Capital Improvement Plan Program*

The City’s Capital Improvement Plan Program is adopted by the City Council in September of each year and is available for review on its website.

(G) *Review and update schedule consistent with SSMP review and update requirements*

The City will conduct an audit on the SSMP once every two years and the SSMP will be updated once every five years.

On September 4, 2001, the Huntington Beach City Council adopted a Sewer Service User Charge and created the Sewer Service Fund. The Sewer Service Fund revenue is designated solely for the rehabilitation, replacement, repair and maintenance of City-owned sewers and lift stations. This is in accordance with the California Health and Safety Code Section 5470, and is included in the ordinance that adds Chapter 14.54 to the Huntington Beach Municipal Code. The ordinance established the Huntington Beach Public Works Commission as both the oversight committee and the final appeals board.

The Sewer Service Fund shall be subject to an annual review and performance audit by the Public Works Commission. The information presented in this report complies with Section 14.54.070 Annual Program Review. In addition, the City Council shall receive, at a regularly scheduled meeting, the recommendations of the Public Works Commission concerning fees, rates, and charges proposed to be modified or added to the sewer service user charge. A public hearing on proposed charges will be held annually in conjunction with the City's annual budget process and hearing.

In accordance with Section 14.55.030 Annual CPIU Adjustments, each Sewer Service User Charge shall be adjusted to reflect the annual percentage adjustment in Consumer Price Index for all Urban Consumers (CPIU) in Los Angeles, Orange and Riverside Counties established by the U.S. Bureau of Labor Statistics and available as of July 1 of each year. The purpose for annual adjustment of the rates is to ensure that the revenues continue to fully fund the needs of the program.

BUDGET

DESCRIPTION	FY 2009/2010	FY 2010/2011
Personnel	\$2,688,434	\$2,721,963
Capital Expenditures	\$432,000	\$3,478,000

OTHER FUNDS

DESCRIPTION	FY 2009/2010	FY 2010/2011
Sewer Engineering/ Construction	\$400,000	
Adams/Ranger Station Design	\$550,000	
PW Sewer Administration	\$641,872	\$696,568
Sewer Service Maintenance	\$5,386,534	\$4,778,000
Sewer Fund – PW Trfs	\$1,122,358	\$1,139,200
Sewer Lift Station CIP	\$200,000	
Sewer Line CIP	\$100,000	\$100,000

Section 9: Monitoring, Measurement and Program Modifications

This section details the City's plan to continually monitor and assess the performance of each Section of the SSMP in achieving the objectives and goals of the SSMP and updating them as necessary. It outlines the process that the City will follow to evaluate the effectiveness of the SSMP to identify the updates that may be needed for a more effective program.

Monitoring, Measurement and Program Modifications Audit Elements

(A) *Maintain relevant information to establish, evaluate, and prioritize SSMP activities*

Relevant SSMP information is retained at the office. The Work Order System stores historical data and is easily accessible. Spill events are certified on the CWIQS site.

(B) *Monitor implementation of the SSMP*

The implementation of the SSMP is monitored continuously.

(C) *Measure, where appropriate, performance SSMP Sections*

The indicators that the City uses to measure the performance of its sanitary sewer collection system and the effectiveness of the SSMP include:

- Total number of SSOs
- Analysis of the number of SSOs by each cause
- Portion of sewage recovered compared to total spill volume
- Planned to actual performance for preventative maintenance

(D) *Assess the success of the preventative maintenance program*

The success of the preventative maintenance program is shown primarily by the decreasing occurrence of SSOs. See Attachment L for the downward trend of SSOs from 2007.

(E) *Update SSMP program elements based on monitoring or performance*

The SSMP will be updated as necessary.

(F) *Identify and illustrate SSO trends*

See Attachment L for Sanitary Sewer Overflow Trends.

Section 10: SSMP Program Audits

This section describes the City's plans to periodically assess the effectiveness of the SSMP based mainly on the plan's ability to reduce SSOs.

SSMP Program Audits Audit Elements

(A) *Conduct periodic audits*

Self audits are performed at a frequency of every two years. The audit will be conducted by a team consisting of City staff selected from the Public Works Department. The scope of the audit will cover each section of the SSMP.

(B) *Record the results of the audit in a report*

The completed self audit information will be compiled in a report. Copies will be provided to all parties involved in the formulation of this report. In addition, the report will be available at the Department of Public Works.

(C) *Record the changes made and/or corrective actions taken*

The SSMP will be updated as necessary and will document the reasons and/or justifications for all changes that are made in a separate section or appendix.

Section 11: Communication Program

This section summarizes the City's plans to ensure that all residents and interested parties are aware of the City's SSMP.

Communication Program Audit Elements

(A) Communicate with the public regarding the preparation of the SSMP

The City will create a link to the SSMP via the City's internet website. Information will be posted on the website regarding future SSMP updates.

(B) Communicate with the public regarding the performance of the SSMP

Once completed, the audit will be made available on the City website and hard copies will be on file at the City's Main Public Library and at the front counter at the Public Works Department in City Hall.

(C) Communicate with any tributary or satellite sewer systems

The City communicates with the Sunset Beach Sanitation District.

The City participates in the WDR Steering and General Committee meetings and contacts various members of both committees for outreach.

ATTACHMENT A

**NAMES AND PHONE NUMBERS OF KEY ADMINISTRATIVE AND MANAGERIAL
EMPLOYEES**

NAMES AND PHONE NUMBERS
OF KEY ADMINISTRATIVE AND MANAGERIAL EMPLOYEES

Travis K. Hopkins, PE, Director of Public Works	714-536-5431
Brian Ragland, PE, Utilities Manager	714-536-5503
Dorien McElroy, Wastewater Supervisor	714-375-5040
Mark Birchfield, Wastewater Crewleader	714-375-5041

ATTACHMENT B

NAMES AND PHONE NUMBERS OF KEY WASTEWATER MAINTENANCE PERSONNEL

NAMES AND PHONE NUMBERS OF KEY WASTEWATER MAINTENANCE PERSONNEL

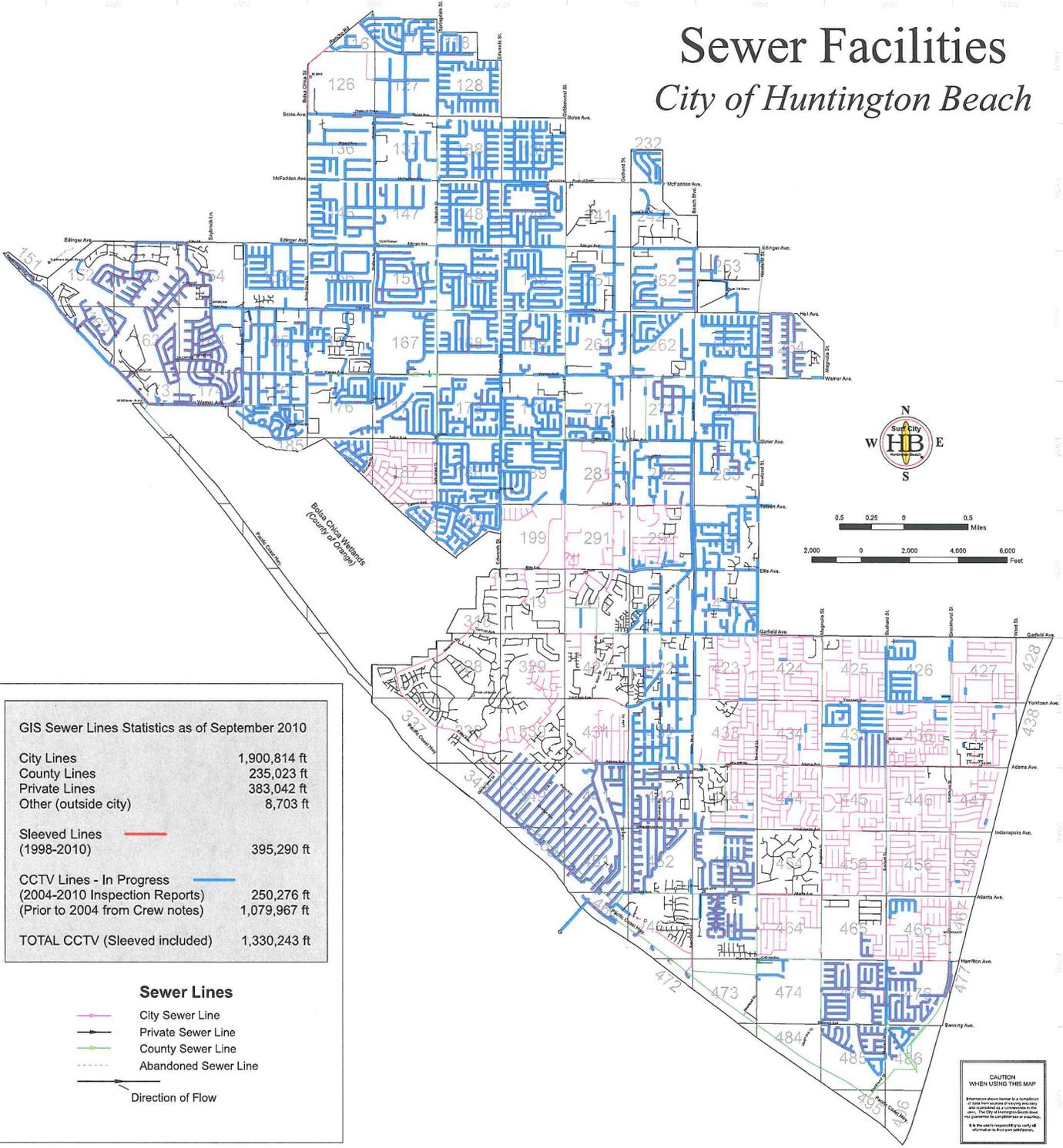
NAME	POSITION	HOME PHONE NUMBER	ALTERNATE PHONE NUMBER
John Arrollado	Sr. Pump Mechanic	714-999-8925	714-520-1235
Harry Bessa	Pump Mechanic	714-848-9497	714-614-5016
Mark Birchfield	Crewleader	714-639-9599	714-329-2885
Paul Boucier	Equipment Operator	714-313-1646	
Mike Costanzo	Equipment Operator	714-377-9678	
David Fluss	Wastewater Maintenance Service Worker	714-606-9471	
Tony Gomez	Equipment Operator	714-596-4621	
Stewart Griffin	Maintenance Worker	714-402-7839	
Matthew Hockman	Maintenance Worker	714-960-7276	
Ronald Jackson	Wastewater Maintenance Service Worker	714-321-9513	
Jason Jarosek	Equipment Operator	714-717-6152	
Enrique Lemus	Leadworker	714-642-7032	714-907-6841
Dorien Mc Elroy	Supervisor	714-369-2557	714-321-0557
Ronn Rathbun	Leadworker	714-375-1323	714-318-6482
Jose Saucedo	Wastewater Maintenance Service Worker	818-404-8967	
Rick Stadnick	Equipment Operator	714-963-8740	714-478-1470
Cory Wekerle	Wastewater Maintenance Service Worker	714-470-9811	

ATTACHMENT C

SEWER FACILITIES MAP

Sewer Facilities

City of Huntington Beach



GIS Sewer Lines Statistics as of September 2010

City Lines	1,900,814 ft
County Lines	235,023 ft
Private Lines	383,042 ft
Other (outside city)	8,703 ft

Sleeved Lines (1998-2010) — 395,290 ft

CCTV Lines - In Progress (2004-2010 Inspection Reports) — 250,276 ft
 (Prior to 2004 from Crew notes) 1,079,967 ft

TOTAL CCTV (Sleeved included) 1,330,243 ft

Sewer Lines

- City Sewer Line
- Private Sewer Line
- County Sewer Line
- - - - Abandoned Sewer Line
- Direction of Flow

CAUTION WHEN USING THIS MAP
 Information shown herein is a compilation of data from various sources and may not represent the current conditions in the field. The City disclaims any liability for errors or omissions. It is the user's responsibility to verify all information before use.

ATTACHMENT D

ENHANCED CLEANING LOCATIONS, TABLE IV-1

TABLE IV-1

LOCATION	CLEANINGS PER YEAR
EDINGER & BEACH ... JET SOUTH 875'	1
EDINGER FROM BEACH TO RR TRACKS ... JET 2,700'	1
GOLDENWEST FROM TALBERT THROUGH (SIPHON) RIO VISTA ... JET 1,375' & (JET BACKWARD FROM TALBERT)	1
SEAPOINT FROM GARFIELD TO SUMMIT ... JET	1
ATLANTA AND NEWLAND ... JET EAST 800'	1
ATLANTA AND NEWLAND ... JET NORTH 500'	1
ATLANTA AND NEWLAND SOUTH 25' TOWARD THE COUNTY	1
PARKING LOT OFF OF COUNTESS FROM PORTOFINO CONDOS TO SEABRIDGE CONDOS 625'	2
PAR AND SPRINGDALE ... JET WEST 800'	2
CHIPPER AND SNEAD ... JET TOWARD THE NORTH BETWEEN THE HOUSES TOWARD THE STORE 150'	2
CENTER FROM HUNTINGTON VILLAGE TO RAIL ROAD TRACKS ... JET 700'	2
AROUND WESTMONT SCHOOL YARD FROM (SIPHON) TO HEIL 1300'	2
BEHIND ATLANTA SEWER LIFT STATION FROM SUNSET TO STATION 1400'	2
ENTRANCE TO ATLANTA STATION ... JET SOUTH 100'	2
ATLANTA FROM EAST OF SURFWOOD TO THE EAST OF BEACH ... JET 1,100'	2
ATLANTA EAST OF BEACH ... JET WEST 125'	2
WARNER FROM WEST OF BEACH TO OAK ... JET 775'	3
LYNDON ... JET 400'	3
WARNER & MAGNOLIA ... JET WEST 475'	3
WARNER & MAGNOLIA ... JET SOUTH 30'	3
CYPRESS AND ELM ... JET EAST 425'	3
ELM AND SYCAMORE ... JET SOUTH 450'	3
BEACH AND CYPRESS ... JET NORTH 300'	3
BEACH AND CYPRESS ... JET SOUTH 800'	3
LARCHWOOD WEST OF NORTHRIDGE ... JET EAST 400' (SIPHON)	4
GLENWOOD & EDGEVIEW ... JET EAST 400' (SIPHON)	4
THOR 625' (SIPHON)	4
SOUTHEAST CORNER SPRINGDALE & MCFADDEN ... JET NORTH 350' (SIPHON)	4
OXFORD & GOLDENWEST ... JET NORTH 150'	4
OXFORD & YORKSHIRE ... JET EAST 500'	4
CANTERBURY & YORKSHIRE ... JET NORTH 275'	4
HANOVER AT MCFADDEN ... JET NORTH 875'	4
HANOVER AT MCFADDEN ... JET EAST 275'	4
MCFADDEN & DAWSON ... JET SOUTH 800'	4
REDCOACH AND DAWSON ... JET WEST 800'	4
HUMBOLDT & WEST OF WAYFARER ... AT THE WET WELL JET WEST 875'	4
EDINGER FROM MELODY TO BOLSA CHICA 1,375'	4
SISSON EAST OF WARREN ... JET SOUTH UNDER THE CHANNEL TOWARD MEADOWLARK 450' (SIPHON)	4
EDINGER AT WARREN ... JET EAST 875'	4
SPRINGDALE SOUTH OF EDINGER ... JET SOUTH 250' AND EAST 30'	4

TABLE IV-1

LOCATION	CLEANINGS PER YEAR
BRADBURY & CHRISTY ... JET EAST 525'	4
HEIL & BRADBURY ... JET NORTH 500'	4
MYRTLE AND MERCIER ... JET WEST 550'	4
`	4
PEARCE FROM LYNN TO BOLSA CHICA 1,475'	4
GREEN & PEARCE ... JET NORTH 525' AND SOUTH 400'	4
HEIL FROM GREEN TO ALGONQUIN 2,125'	4
ALGONQUIN ONE MANHOLE SOUTH OF HEIL ... JET NORTH 325'	4
BOLSA CHICA FROM SOUTH PEARCE TO HEIL 1,675'	4
BOLSA CHICA SOUTH OF HEIL ... JET WEST TOWARD RUDDER 700'	4
REGINA & HEIL ... JET WEST 1,175' (TWO LINES)	4
DIANE & SYLVIA ... JET TOWARD WEST THRU-PARK 700'	4
MARILYN & DIANE ... JET NORTH 575'	4
MARILYN & GOLDENWEST ... JET WEST 875'	4
EDWARDS & MARILYN ... JET EAST 700'	4
EDWARDS SOUTH OF MARILYN & THE CHANNEL ... JET NORTH 800' (SIPHON)	4
WARNER FROM POST OFFICE TO GOLDENWEST 1,175'	4
CORAL CAY & PCH ... JET NORTH EAST 375'	4
WARNER ACROSS FROM HUNTINGTON HARBOR BAY & RACQUET CLUB ... JET NORTH TOWARD THE CLUB 150'	4
NORDINA FROM FORBES TO SLATER LIFT STATION ... 1,225'	4
ST. ANDREWS & KENILWORTH ... JET NORTH 700'	4
GRAHAM & KENILWORTH ... JET WEST 875'	4
GRAHAM & GRAHAM SEWER LIFT STATION ... JET NORTH 325'	4
GRAHAM & GRAHAM SEWER LIFT STATION ... JET SOUTH 75'	4
SLATER LIFT STATION ... JET WEST TOWARD NORDINA 250'	4
GERSHWIN ... JET 175'	4
ARGO ... JET 375'	4
CAPSTONE & DREY ... JET EAST 300'	4
MANHATTAN FROM GIBSON TO MAYOR ... JET 925'	4
MAYOR & SLATER AT THE COUNTY LINE ... JET NORTH 575'	4
SHENLYN & EDWARDS ... JET EAST 525' (SIPHON)	4
WRIGHTWOOD FROM SOUTH OF PINON TO PRICE ... JET 1,425'	4
SPRINGDALE SOUTH OF SLATER ... JET WEST 250' TOWARD PRICE	4
FENLEY FROM EAST OF COLLIE TO SPRINGDALE ... JET 1,075'	4
SLATER LIFT STATION ... JET SOUTH 275'	4
SLATER LIFT STATION ... JET EAST TOWARD POINT LOMA 600'	4
EDWARDS NORTH OF ARMADA ... JET TOWARD EAST UNDER THE CHANNEL TOWARD SABBICAS 550' (SIPHON)	4
COLGATE & CASCADE ... JET WEST NEXT TO SCHOOL 150' AND JET SOUTH 500'	4
ALLEY BEHIND APT AT AMAZON & GANGES ... JET EAST TOWARD AMAZON 875;	4
ALLEY BEHIND APT AT AMAZON AND GANGES NEXT MANHOLE ... JET NORTH 100'	4
SAME MANHOLE ... JET WEST TOWARD THE COUNTY 25'	4

TABLE IV-1

LOCATION	CLEANINGS PER YEAR
RHONE BETWEEN ALHAMBRA & NANCY ... JET NORTH 500', SOUTH 175' BEHIND HOUSE NORTH OF HEIL ... JET NORTH THEN EAST TOWARD RHONE 200'	4
NEWLAND 2ND HOLE SOUTH OF EDINGER ... JET NORTH 275'	4
RHONE NORTH OF RHINE ... JET WEST BETWEEN THE HOUSES 150' THEN JET NORTH 500' AND SOUTH 500'	4
VIEWPOINT AND DAMASK ... JET NORTH 875'	4
DAMASK ... JET 500'	4
BEACH SOUTH OF DAMASK ... JET NORTH 200' (SIPHON)	4
ALLEY BEHIND NORMS SOUTH OF HEIL AND EAST OF BEACH LAST MANHOLE ... JET TOWARD NORTH 400'	4
WAITE & BRUSH ... JET WEST TOWARD ALLEY BEHIND NORMS 175'	4
WAITE ... JET 425'	4
NEWLAND FROM LOIS TO LAMAR 825'	4
NEWLAND FROM LAMAR TO THE SOUTH 150'	4
BRUSH FROM WAIT TO NEWLAND 2,125'	4
NEWLAND NORTH OF WARNER ... JET NORTH 800' & SOUTH 100' (SIPHON)	4
"A" & WARNER ... JET NORTH 625'	4
DELAWARE WEST BETWEEN HOUSE TOWARD YUKON 525'	4
DELAWARE EAST INTO ALLEY 700'	4
DELAWARE & ELLIS ... JET NORTH 275'	4
HUNTINGTON & ELLIS ... JET EAST 675'	4
MAIN FROM FLORIDA TO BEACH 1,025'	4
BEACH NORTH OF ELLIS TO ELLIS 950'	4
ELLIS WEST OF NEWLAND ... JET WEST 275'	4
ELLIS WEST OF NEWLAND ... JET EAST 250'	4
FLORIDA FROM SOUTH OF MAIN TO SHAFFER ... JET 975'	4
AMBERLEAF ... JET 575'	4
DELAWARE FROM ELLIS TO MAIN 1,000'	4
DELAWARE FROM MAIN TO SOUTH ... JET 475'	4
ELLIS & MAIN ... JET NORTH 175'	4
BEACH NORTH OF MAIN ... JET SOUTH 325'	4
BEACH & ELLIS ... JET EAST 875'	4
BEACH & ELLIS ... JET SOUTH 800'	4
YORKTOWN WEST OF NEWLAND ... JET EAST 325' & WEST 600'	4
NEWLAND NORTH OF BRIDGEPORT TO SOUTH OF YORKTOWN ... JET 2,125' (SIPHON)	4
DANBURY & NEWLAND ... JET WEST 525' (SIPHON)	4
GILFORD & NEWLAND ... JET WEST 450' (SIPHON)	4
K-MART SHOPPING CENTER SOUTH OF GARFIELD WEST OF MAGNOLIA ... JET WEST TOWARD LUSS 400' AND NORTH 50' AND EAST 625'	4
MAGNOLIA SOUTH OF GARFIELD TO GARFIELD 650'	4
YORKTOWN WEST OF MAGNOLIA ... JET NORTH TOWARD CORALWOOD 500'	4
YORKTOWN WEST OF MAGNOLIA ... JET EAST 175' FROM THE FIRST MANHOLE	4
YORKTOWN WEST OF MAGNOLIA ... JET WEST 800' FROM THE FIRST MANHOLE	4
YORKTOWN WEST OF BUSHARD ... JET EAST 875' (SIPHON)	4

TABLE IV-1

LOCATION	CLEANINGS PER YEAR
BROOKHURST FROM GARFIELD TO KAMUELA 1,875' (SIPHON DO THE EVERY 3 MONTHS!!!)	4
KAMUELA EAST OF BROOKHURST ... JET WEST 30'	4
ALABAMA & ADAMS ... JET NORTH 875' AND SOUTH 800' (442-001)	4
HUNTINGTON & ADAMS ... JET WEST 450'	4
ROTHERT FROM FLAXMAN TO NORTH NEW BRITAIN 550'	4
CRAWFORD ... JET 500' (DO NOT JET LOTUS)	4
CHESAPEAKE AND ADAMS ... JET NORTH 500'	4
BUSHARD SVS RD WESTSIDE ... JET NORTH 600'	4
YORKTOWN AND HONEYWOOD ... JET 800'	4
HONEYWOOD ... JET 175'	4
CHARING CROSS ... JET 200' (DO NOT GET ON THE SIDEWALK!)	4
SUTTON & ADAMS ... JET NORTH 200'	4
SUTTON & ADAMS ... JET EAST 875'	4
ADAMS TWO MANHOLES EAST OF BUSHARD ... JET NORTH TOWARD LURES 400'	4
ADAMS & BUSHARD WEST SIDE ... JET EAST 875' (SIPHON)	4
RANGER ... JET 1,150'	4
FRONTAGE ROAD & ADAMS SEWER LIFT STATION ... JET EAST 500'	4
JOLIET & ALLEY EAST OF ENGLAND ... JET EAST 675'	4
INDIANAPOLIS AND ALLEY EAST OF ENGLAND JET NORTH 800'	4
ADAMS & NORTH NEW BRITAIN WEST TOWARD THE STATION 100'	4
SOUTHPORT & CAPE COTTAGE ... JET SOUTH THEN EAST THRU THE PARK 375'	4
SOUTH NEW BRITAIN ... JET 700' (USE 600LB PRESSURE 4TH HOUSE!!)	4
SOUTHPORT ... JET 500'	4
MASTERS & NEWBY ... JET WEST 775'	4
NEWBY ... JET 250'	4
MEANDER SOUTH OF BURLCREST ... JET WEST BETWEEN HOUSE 275'	4
BURLCREST FROM CROFT TO MAGNOLIA 1,075'	4
INDIANAPOLIS & BROOKHURST EAST SIDE ... JET NORTH 425' & SOUTH 100'	4
ALLEY BETWEEN 5TH & MAIN AT WALNUT ... JET SOUTHWEST 25' & JET NORTHEAST 400'	4
WALNUT & MAIN ... JET SOUTHWEST 275'	4
WALNUT SOUTH EAST OF MAIN AT ALLEY ... JET SOUTH WEST 200'	4
ALLEY BETWEEN 12TH & 13TH SOUTHWEST OF ORANGE ... JET NORTHEAST 400'	4
FLORIDA & INDIANAPOLIS ... JET WEST 250'	4
GENEVA & FLORIDA ... JET NORTH 275'	4
GENEVA FROM FLORIDA TO ALLEY EAST OF DELAWARE 700'	4
FRANKFORT & ALLEY EAST OF DELAWARE ... JET NORTH 800'	4
ALLEY & DETROIT EAST OF CALIFORNIA ... JET NORTH 800'	4
CALIFORNIA & DETROIT ... JET EAST 175'	4
CARROLTON WEST OF HOPETOWN ... JET EAST 325' (SIPHON)	4
ATLANTA & MAGNOLIA ... JET NORTH 650'	4
BROOKHURST SOUTH OF ENDEVER ... JET EAST 150' (SIPHON)	4
BROOKHURST AND ATLANTA ... JET NORTH 500'	4
BROOKHURST SOUTH OF INDIANAPOLIS ... JET EAST TOWARD SUBURBIA 175'	4
BROOKHURST & INDIANAPOLIS WEST SIDE ... 175' JET NORTH	4

TABLE IV-1

LOCATION	CLEANINGS PER YEAR
THEN WEST BETWEEN HOUSES TOWARD HOTSPRINGS 600'	4
INDIANAPOLIS AND BROOKHURST ... JET EAST JET FROM BOTH SIDES 150' (SIPHON)	4
ST AUGUSTINE & BRETON ... JET NORTH SOUTH 375'	4
ST AUGUSTINE & BRETON ... JET NORTH 600'	4
ST AUGUSTINE FROM BRETON TO SEAFORTH 525'	4
ST AUGUSTINE FROM SEAFORTH TO NEWLAND 625'	4
NEWLAND NORTH OF ST AUGUSTINE ... JET SOUTH 100' AND WEST 15'	4
BROOKHURST AND SPAR ... JET EAST 475' (SIPHON)	4
RHODESIA WEST OF KANEOHE ... JET EAST 100' (SIPHON)	4
RHODESIA & MAGNOLIA ... JET EAST 875'	4
ALOHA WEST OF KANEOHE ... JET EAST 75' (SIPHON)	4
RAMBLER & BUSHARD WEST SIDE ... JET NORTH 675'	4
RAMBLER AND BUSHARD ... JET WEST 575'	4
SUSAN NORTH OF CHRISTINE ... JET SOUTH 175'	4
MARINER ... JET 1,150' (CODE FOR GATE *2468)	6
BEHIND SAM'S SEAFOOD PARKING LOT BY SAM'S SEAFOOD ... JET N W 300'	6
SAM'S & PCH ... JET N.E. INTO PARKING LOT 150'	6
PETER'S LANDING AT PCH ... PCH FROM SAM'S TO LAST HOLE IN THE GRASS AT PETER'S LANDING ... JET 1,625'	6
REDROCK NORTH OF WARNER ... JET TOWARD EAST 350' TOWARD TENNIS COURTS (PIPE OFFSET - MIGHT GET STUCK)	6
WARNER WEST OF GRAHAM ... JET TOWARD NORTH 600'	6
GRAHAM & WARNER ... JET TOWARD THE WEST 200'	6
GRAHAM & WARNER ... JET TOWARD THE NORTH 600'	6
VELARDO AND BUSHARD ... JET EAST 800' (SIPHON)	6
HARBOR ISLE AND BROWNING ... JET EAST UNDER THE CHANNEL TOWARD RAMONA ... JET 775'	6
BEACH FRONTAGE ROAD ...JET 1,750'	6
BEACH PARKING LOT ... JET 900'	6
BUSHARD NORTH OF HAMILTON EAST SIDE ... JET WEST BETWEEN HOUSE TOWARD PIER ... JET 400' (USE SMALL NOZZLE) SOUTH SIDE ONLY!	6
COLUMBIA & MCFADDEN ... JET NORTH 475' (SIPHON)	12
COLUMBIA & MCFADDEN ... JET EAST 800'	12
CENTER FROM EAST OF HUNTINGTON VILLAGE TO HUNTINGTON VILLAGE ... JET 975' (SIPHON)	12
STARK EAST OF BEACH ... JET 625'	12
BEHIND WESTMONT SCHOOL ... JET NORTH 750' (SIPHON)	12
ALLEY FROM STARK EAST OF BEACH TO STARK AND MALAGA (SIPHON) ... JET 1,025'	12
SYCAMORE AND ASH ... JET EAST 450'	12
PIER ... JET 1,825'	12

ATTACHMENT E

CLEANING PROCEDURE FOR THE SANITARY SEWER SYSTEM



CLEANING PROCEDURE

FOR
SANITARY SEWER SYSTEM

CITY OF HUNTINGTON BEACH
Utilities Division
Wastewater Section

Work Procedure

SCHEDULING

The Operator/Crewmember shall receive a schedule of the specific Enhanced Cleaning location sewer line that is to be cleaned. The schedule shall give an estimated breakdown on a day-by-day basis.

The Operator/Crewmember of the jet truck shall follow the schedule of work so that, for each sewer listed, the cleaning begins at the far upstream end and proceeds in a downstream direction until all work on that sewer has been completed.

In the event the jet truck crew cannot access a manhole for the cleaning procedure, the operator of the truck shall immediately notify the Leadworker of the incident.

SEWER CLEANING

All Enhanced Cleaning sewer lines shall be jetted with an operating pressure between 1100 psi to 1500 psi to effectively remove grease, roots, debris and other obstructions from the line.

The Operator/Crewmember of any jet truck shall use the F.O.G Location Guidebook (Fats, Oil, Grease) to assist them in the cleaning process of Enhanced Cleaning locations.

Cleaning methods shall be employed to sufficiently clean the sewer line so a C.C.T.V (Closed- Circuit Television) camera can enter the sewer line for inspection purposes. The structural and operational condition of the sewer line can be assessed and documented in this manner.

On a daily basis, the Operator/Crewmember shall record the following information on a City maintenance report: the location of the cleaning operation, the number of feet cleaned and the conditions encountered for each section of sewer line that is cleaned. The maintenance reports will be handed in at the end of the work shift to their Leadworker.

The Operator/Crewmember is responsible for immediately notifying the Lead Worker whenever any of the following conditions are discovered: damaged manhole cover, partial or total pipe blockage, partial or total pipe collapse, or missing piece of pipe (regardless of size).

In the event of a sewer blockage resulting from operator error, the Operator shall immediately notify his Lead Worker.

PUBLIC AND CITY EMPLOYEES' SAFETY

Prior to performing maintenance work inside a manhole, Wastewater personnel will use a gas detector to check the work space for hazardous atmospheric conditions such as toxic gases (Hydrogen Sulfide, Carbon Monoxide, Carbon Dioxide) explosive or flammable conditions, and oxygen content.

The Operator/Crewmember shall never leave an open manhole unattended or leave any item unattended in any manhole or sewer line. All equipment shall be removed from the line at the end of each work session. The Operator shall perform all work in the safest possible manner. The Leadworker may make unannounced inspections to ensure compliance with safety requirements. Traffic cones shall be placed around all wastewater equipment (three cones in the front and three cones in the back).

TRAFFIC CONTROL

Traffic control shall be established by the Operator. Crew shall conform to requirements of the latest "Manual of Traffic Control for Construction and Maintenance Work Zones" issued by the State of California Department of Transportation or the latest "Work Area Traffic Control Handbook" (WATCH).

DEBRIS DISPOSAL

Sanitary Sewer Grit – Sanitary sewer grit is comprised of the solid waste products and debris that are removed following the cleaning of sewer lines using combination sewer cleaning trucks or other methods. These solid waste products can include grease, tree roots, gravel, sand, and other similar materials. This material is disposed of in the Grit Chamber waste receptacle housed at the City Yard. Appropriate City staff members shall be familiar with the procedure for disposal of such material. (i.e. frequency of disposal, records of disposal materials including quantities, etc.)

PRECAUTIONS

Personal Protective Equipment: The following Personal Protective Equipment shall be worn at all times when performing the procedures described in this Section:

- Hard Hat
- Safety Glasses
- Gloves
- Hard-toed Shoes

PROCEDURE

Disposal Instructions

NOTE: The City Yard manhole is to be used to dispose of excess wastewater prior to unloading grit into the designated Grit Chamber.

- 1) Proceed to the City Yard manhole before disposing of excess wastewater.
- 2) Decant all excess wastewater into the designated City Yard manhole prior to disposing grit into the Grit Chamber.
- 3) Proceed to the designated Grit Chamber location area and ensure that grit is disposed of into Grit Chamber. Cover the grit material if needed with sand after it has been unloaded to assist with vector control.
- 4) Proceed to the designated location at the City Yard truck-wash area to allow for clean-up. Operator and crewmember will wash out the truck body prior to departure.

ATTACHMENT F

WORK ORDERS

SEWER SERVICE FUND PERFORMANCE AUDIT

REVIEW OF FISCAL YEAR 2010-11



City of Huntington Beach

Waste Water Section - Sewer Line Cleaning Program

Report Range: From 10/1/2011 To 11/16/2011

Date	Description	MH's Cleaned	Feet Cleaned	Grit Level	Grease Level	Plugs Found	Buckets Removed	Siphon
Program: 511	Waste Water	694	250234			2	129	
CCTV Sewer Lines-511001			50108					
City Sewer Backups-511004		1	450			1		
Enhanced Cleaning-511033		94	43640				64	
WO: 87652	RD 138 SEWER LINE CLEANING PROGRAM	2	1275					
RD: 422	Garfield Ave /RD: 422 / 67400							
10/10/2011	Driver:Fluss, David R-35314 /Assistant:Lally, Jason T-38369	1	475 Light	Medium				\$4.41
Remark:								No
10/10/2011	Driver:Fluss, David R-35314 /Assistant:Lally, Jason T-38369	1	800 Light	Medium				No
Remark:								
WO: 87654	RD 146 SEWER LINE CLEANING PROGRAM	8	2655				60	
RD: 422	Garfield Ave /RD: 422 / 67400							
10/21/2011	Driver:Fluss, David R-35314 /Assistant:Lally, Jason T-38369	1	300 Medium	Light				\$2.45
Remark:								No
10/21/2011	/Truck: 680-680 - Vactor Truck	3	495 Light					No
Remark:								
10/21/2011	/Truck: 680-680 - Vactor Truck		340 Light					No
Remark:								
10/21/2011	/Truck: 680-680 - Vactor Truck	3	975 Heavy				18	No
Remark:								
10/20/2011	/Truck: 680-680 - Vactor Truck	1	545 Heavy				42	No
Remark:								

Labor Charge \$2,322.19
 Equipment Charge \$3,300.13
 Material Charge
 Contractor Charge
 Total \$5,622.32

Cost per foot cleaned
 No
 No
 No
 18 No
 42 No

Labor Charge \$2,680.54
 Equipment Charge \$3,831.17
 Material Charge
 Contractor Charge

WASTEWATER WORK ORDER NUMBERS 2011-2012

<u>Dist.</u>	<u>Station. #</u>	<u>LIFT STATIONS</u>	<u>ACCT. NO.</u>	<u>W.O.#</u>
176	1.	Graham & Kenilworth	51185201.64570	87840
154	2.	Humboldt & Wayfarer	51185201.64570	87841
162	3.	E Station	51185201.64570	87842
162	4.	A Station	51185201.64570	87843
163	5.	Davenport & Baruna	51185201.64570	87844
164	6.	Edgewater & Davenport	51185201.64570	87845
173	7.	B Station	51185201.64570	87846
173	8.	C Station	51185201.64570	87847
174	9.	D Station	51185201.64570	87848
164	10.	Algonquin & Boardwalk	51185201.64570	87850
167	11.	Lark & Warner	51185201.64570	87950
177	13.	Slater & Springdale	51185201.64570	87951
411	14.	Gothard & Ellis	51185201.64570	87952
437	16.	Adams & Ranger	51185201.64570	87954
466	17.	Brookhurst & Effingham	51185201.64570	87955
453	18.	Atlanta & Beach	51185201.64570	87956
436	19.	Bushard & Pettswood	51185201.64570	87957
282	20.	Speer & Crabb	51185201.64570	87958
149	21.	McFadden & Dawson	51185201.64570	87959
154	22.	Saybrook & Heil	51185201.64570	87960
443	23.	New Britain & Adams	51185201.64570	87961
188	24.	Edwards & Balmoral	51185201.64570	87962
154	25.	Edinger & Santa Barbara	51185201.64570	87963
187	26.	Brighton & Shoreham	51185201.64570	87964
173	28.	Coral Cay	51185201.64570	87965
153	29.	Trinidad & Edinger	51185201.64570	87966
126	30.	Bolsa Chica & Skylab	51185201.64570	87967
175	32.	New D Station	51185201.64570	87849
		Check Lift Stations Inspection	51185201.64570	88192

SEWER LIFT STATION PUMP WORK ORDER NUMBERS 2011-2012

Pumps #	ACCT. NO.	W.O.#	Pumps #	ACCT. NO.	W.O.#
1	51185201.64570	87679	30	51185201.64570	87708
2	51185201.64570	87680	31	51185201.64570	87709
3	51185201.64570	87681	32	51185201.64570	87710
4	51185201.64570	87682	33	51185201.64570	87711
5	51185201.64570	87683	34	51185201.64570	87712
6	51185201.64570	87684	35	51185201.64570	87713
7	51185201.64570	87685	37	51185201.64570	87715
8	51185201.64570	87686	39	51185201.64570	87717
9	51185201.64570	87687	40	51185201.64570	87718
12	51185201.64570	87690	41	51185201.64570	87719
13	51185201.64570	87691	42	51185201.64570	87720
14	51185201.64570	87692	44	51185201.64570	87722
15	51185201.64570	87693	45	51185201.64570	87723
16	51185201.64570	87694	47	51185201.64570	87725
17	51185201.64570	87695	48	51185201.64570	87726
18	51185201.64570	87696	49	51185201.64570	87727
19	51185201.64570	87697	52	51185201.64570	87730
20	51185201.64570	87698	53	51185201.64570	87731
21	51185201.64570	87699	54	51185201.64570	87732
22	51185201.64570	87700	57	51185201.64570	87735
23	51185201.64570	87701	58	51185201.64570	87736
24	51185201.64570	87702	59	51185201.64570	87737
27	51185201.64570	87705			
28	51185201.64570	87706			

WASTEWATER WORK ORDER NUMBERS 2011-2012

<u>Work Orders Numbers</u>	<u>ACCT. NO.</u>	<u>W.O.#</u>
Office Supplies	51185201.64570	88451
Computer Supplies	51185201.64570	88450
Equipment / Maintenance Repairs	51185201.64570	88449
Sewer Improvement	51185201.64570	88448
Safety Supplies	51185201.64570	88447
Uniforms	51185201.64570	88443
Contractual Services	51185201.64570	88417
Dues / Membership	51185201.64570	88446
Certification	51185201.64570	88416
Training / Schools	51185201.64570	88445
Meetings / Conferences	51185201.64570	88415
General Supplies	51185201.64570	88444
USA Marking	51185201.64570	88412

<u>Work Orders Numbers</u>	<u>ACCT. NO.</u>	<u>W.O.#</u>
Sunset Beach Clarifiers O/M	51185201.64570	89496
Wastewater Labor Storm Duty	51185201.64570	88032
Schedule Overtime / Other	51185201.64570	88033
Sewer Paper Work issues	51185201.64570	87839

<u>Storm Drain Accounts</u>	<u>ACCT. NO.</u>	<u>W.O.#</u>
Maintenance	10085501.64570	88442
Channel Maintenance	10085501.64570	88420
Clarifiers Maintenance	10085501.64570	88393
High Tide / Air Bags	10085501.64570	88419
CDS Maintenance	10085501.64570	88418

City of Huntington Beach Public Works Department Sewer Service Fund Performance Audit *Review of Fiscal Year 2010-11*

Introduction

On September 4, 2001, the Huntington Beach City Council adopted a Sewer Service Charge and created the Sewer Service Fund. The Sewer Service Fund revenue is designated solely for the rehabilitation, replacement, repair and maintenance of City-owned sewers and lift stations. This is in accordance with the California Health and Safety Code Section 5470, and is included in the ordinance that adds Chapter 14.54 to the Huntington Beach Municipal Code. The ordinance established the Huntington Beach Public Works Commission as both the oversight committee and the final appeals board.

The Sewer Service Fund shall be subject to an annual review and performance audit by the Public Works Commission. The information presented in this report complies with Section 14.54.070 Annual Program Review. In addition, the City Council shall receive, at a regularly scheduled meeting, the recommendations of the Public Works Commission concerning fees, rates and charges proposed to be modified or added to the sewer service user charge. A public hearing on proposed charges will be held annually in conjunction with the City's annual budget process and hearing.

Program Overview

- Scheduled maintenance projects and minor emergency repairs will be completed within the allotted budget.
- Capital improvements included lift station design and construction work and the sewer lining program.
- The Municipal Code states that the Consumer Price Index for Urban Consumers (CPIU) that is available July 1 shall be used to calculate adjustments to sewer service rates.
- A Sewer Lateral Program was added effective January 3, 2008, and the sewer service charge was adjusted to cover the expense. The program transferred the responsibility to the City for sewer lateral repairs within the City-owned right-of-way. Initially, the cost of the program exceeded the additional revenue generated by the adjustment to the sewer service user charge. Fiscal year 2010-11 marks the third full year of the program and the Utilities Division has realized a drastically decreased number of sewer lateral repairs. In fact, staff projects that

the total number of repairs for FY 2010-11 will be less than half of each of the last two fiscal years. Therefore, it is recommended that the Consumer Price Index (CPI) adjustment required by the Municipal Code be suspended for Fiscal Year 2011-12 and that staff monitor the volume of repairs and costs thereof.

Review of 2010-11 Budget

Personnel and operating expenditures account for approximately forty-five percent (45%) of the 2010-11 Sewer Service Fund budget and are directed toward preventative and routine maintenance. The budget includes salaries, sewer line maintenance, lift station services, manhole upgrades, the sewer lateral program and cost allocation charges to the General Fund. The balance of the expense budget is earmarked for capital equipment replacement and capital projects, including slip lining, pipeline rehabilitation, lift station replacements and capital equipment replacements. In general, the sewer maintenance section of the Utilities Division expends the operating and equipment replacement budgets, and the Engineering Division is responsible for the implementation of capital projects.

Lift Stations: Construction of the Oceanhill Sewer Project was completed this year. The Adams/Ranger lift station construction contract will be awarded this year with construction being completed in FY 2011-12. Design of the Algonquin/Boardwalk lift station began this year.

Sewer Lining: A construction contract for this year's Sewer Lining Project in the amount of \$100,000 will be awarded by the end of this fiscal year.

Warner Avenue Gravity Sewer (WAGS): Design began this fiscal year with scheduled completion by the end of the fiscal year.

Maintenance Activities : Current and projected year-end totals for various maintenance activities are presented below.

Sewer Line Maintenance

- Routine cleaning of 1,248,642 linear feet of sewer pipe, projected to be 1,550,000 linear feet by year-end.
- Removal of 5,050 pounds of debris/grit, projected to be 11,000 pounds of debris removed by year-end.
- Approximately 46 pounds of debris removed per mile of sewer line.
- Cleaned 196 chronic trouble spots/areas of sewer line from twice to twelve times per year.
- Fats, Oils and Grease program has cleaned 302,122 linear feet of sewer line around food service establishments and other areas with high grease concentrations; projected to be 320,000 linear feet by year-end.
- Fats, Oils and Grease program removed 5,500 pounds of grease from sewer lines around food service establishments and other areas with high grease concentrations; projected to be 6,100 pounds removed by year-end.

- Cleaned 59,955 linear feet of arterial sewer lines; projected to be 81,200 linear feet by year end.
- Applied root control to 3,094 linear feet of sewer line.
- Lateral sewer line repair program received 158 concerns for repair, resolved 378 concerns, projected to be 172 by year end.

Manhole Maintenance

- Clean and inspect 6,976 manholes
- Sprayed insecticide for roaches in 106 manholes.

Sewer Lift Station Maintenance

- 28 Lift Stations inspected three times a week and cleaned every two months
- 302 Check valves cleaned projected to be 336 by year-end.
- 4 sewer pumps taken apart and rebuilt with new parts as needed
- Replaced 4 lift station sump pumps.
- Replaced 2 transducers and 1 station controller.
- Replaced two 32 HP motors.
- 23 Sewer wet wells cleaned.
- Paint the interior walls and plumbing/piping of 6 sewer lift stations.
- Replaced 2 check valves and 2 gate valves

Emergency Response

- 11 sewer spills to date (6 private, 5 City).
- 11 power outages requiring the use of generators to power the lift stations.
- 126 service requests from the public during business hours.
- 61 after hours lift station alarms and failures.
- 20 after hour police call outs for miscellaneous sewer related problems.
- Made 4 emergency sewer line point repairs.

*Sewer Service Fund Budget
FY 2010/11 Projected Expenditures*

Personnel	Original Budget	Revised Budget	Projected
Salaries, Permanent	\$1,801,601	\$1,801,601	\$1,200,000
Salaries, Temporary	\$60,000	\$60,000	\$48,000
Salaries, Overtime	\$78,000	\$78,000	\$140,000
Benefits	\$782,362	\$782,362	\$640,000
Total Personnel	\$2,721,964	\$2,721,964	\$2,028,000
Operating			
Utilities	\$168,800	\$166,154	\$130,000
Equipment and Supplies	\$84,005	\$84,005	\$65,000
Repairs and Maintenance	\$1,883,600	\$1,993,901	\$1,010,000
Conferences and Training	\$3,900	\$4,150	\$3,000
Professional Services	\$100,000	\$353,769	\$250,000
Rental Expense	\$3,000	\$3,000	\$2,500
Interdepartmental Charges	\$1,139,200	\$1,139,200	\$1,139,200
Expense Allowance	\$6,300	\$6,300	\$4,000
Other Expenses	\$75,000	\$97,688	\$90,000
Total Operating	\$3,463,805	\$3,848,167	\$2,693,700
Capital			
Equipment	\$428,000	\$584,825	\$530,000
Total Capital	\$428,000	\$584,825	\$530,000
CIP			
Improvements	\$3,050,000	\$6,759,863	\$5,590,000
Total CIP	\$3,050,000	\$6,759,863	\$5,590,000
Total	\$9,663,769	\$13,914,819	\$10,841,700

Beginning Balance 10/1/2009	\$11,865,000
Actual Revenues FY 09-10	\$10,820,000
Actual Expenditures FY 09-10	(\$6,215,000)
Unreserved Funds Available 10/1/2010	\$16,470,000

Beginning Balance 10/1/2010	\$16,470,000
Projected Revenues FY 10-11	\$10,850,000
Projected Expenditures FY 10-11	(\$10,841,700)
Unreserved Funds Available	\$16,478,300

Projected Beginning Balance 10/1/2011	\$16,478,300
--	---------------------

<u>Source</u>	Revenue Detail	
	<u>FY09-10</u> Actual	<u>FY 10-11</u> Projected
Customer Charges	\$10,400,000	\$10,550,000
Interest	\$240,000	\$200,000
Other	\$180,000	\$100,000
Total	\$10,820,000	\$10,850,000

Proposed FY 2011-12 Budget

Sewer Service Charge Adjustments

In accordance with Section 14.55.030 Annual CPIU Adjustments, each Sewer Service User Charge shall be adjusted to reflect the annual percentage adjustment in Consumer Price Index for all Urban Consumers (CPIU) in Los Angeles, Orange and Riverside Counties established by the U.S. Bureau of Labor Statistics and available as of July 1 of each year. The purpose for annual adjustment of the rates is to ensure that the revenues continue to fully fund the needs of the program.

To accommodate the billing system, all service charge rates are calculated to four decimal places, and charged on a daily factor. The daily factor converts the monthly charge based on a 365-day year. This is a modification from the initially adopted rate schedule. The customer's bill reflects a charge based on the number of days between meter readings. A resolution was adopted by the City Council to authorize the daily rate methodology.

The percentage adjustment in the CPIU available as of July 1, 2011 for the month of May reflects an annual increase of 3.1%. Normally, this percentage would be calculated and included as the recommended adjustment to the Sewer Service User Charge effective October 1, 2011. However, as noted in the Program Overview, staff is recommending that the annual adjustment, in this case an increase, be suspended for Fiscal Year 2011-12 so that staff may monitor the sewer lateral program and the revenue requirements and costs thereof. The following table shows the 3.1% increase. For purposes of comparison, the rates represent a monthly charge.

Effect of CPI Adjustment on Current Sewer Service Charge

Customer Category	Charge Type	Unit	Current Charge	CPI Increase
Residential: Single-family & townhouses with individual meters	Flat rate for all customers in category	per unit per month	\$10.6923	\$11.0238
Apartment: All apartments, mobile homes and townhouses served by common meters	Flat rate for all customers in category	per unit per month	\$8.8693	\$9.1442
Regular Commercial/Industrial: Most businesses, including private schools	Flat rate amount per Equivalent Dwelling Unit (EDU). EDU refers to either (1) the capacity of a customer's water meter in comparison to a standard ¾ inch meter, or (2) the number of tenant units that receive water service through the water meter, whichever is greater	per EDU per month	\$12.4089	\$12.7936
High-Consumption Commercial/Industrial: Businesses with high water consumption relative to their meter size	Flat rate per hundred cubic feet (CCF) of estimated sewer discharge	per CCF per year	\$2.3219	\$2.3929
Public Schools: All public K-8 and high school districts with schools in the City	Flat rate per student per year with a different rate per student for K-8 and for high schools ADA - Average Daily Attendance	High School per ADA per year	\$3.4150	\$3.5209
		K-8 per ADA per year	\$2.1991	\$2.2673

*Sewer Service Fund Budget
FY 2011/12 Proposed*

Personnel

Salaries, Permanent	\$1,380,000
Salaries, Temporary	\$65,000
Regular Overtime	\$80,000
Benefits	\$550,000

Total Personnel	\$2,075,000
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Operating

Utilities	\$140,000
Supplies	\$109,350
Repairs and Maintenance	\$1,842,000
Conferences and Training	\$4,000
Professional Services	\$115,000
Rental Expense	\$3,500
Cost Allocation	\$1,175,000
Auto Allowance	\$6,300
Contingency	\$75,000

Total Operating	\$3,470,150
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Capital

Equip, General/Vehicles	\$110,000
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Total Capital	\$110,000
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CIP

Lift Station	\$1,700,000
Slip Lining	\$100,000
WAGS Design/Construction	\$6,000,000

Total CIP	\$7,800,000
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TOTAL	\$13,455,150
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Revenue Detail FY 11-12

Customer Charges	\$10,850,000
Interest	\$250,000
Reimbursements	\$110,000

Total	\$11,210,000
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Sewer Service Fund Projected Balance Sheet

Beginning Balance 10/1/2011	\$16,478,300
Projected Revenues FY 11-12	\$11,210,000
Proposed Expenditures FY 11-12	(\$13,455,150)
Beginning Balance 10/1/2012	\$14,233,150

Capital Projects FY 2011-12

Lift Stations: Construction is planned in 2011-12 for the Algonquin/Boardwalk lift station. Design work is planned for the Trinidad lift station.

Sewer Lining: Sewer lining in the amount of \$100,000 is programmed in FY 2011-12. A lining project is bid once a sufficient number of sewer defects are identified as part of the CCTV inspection program.

Warner Avenue Gravity Sewer (WAGS): Design is expected to be completed, with construction started in FY 2011-12, pending necessary entitlements.

ATTACHMENT G

TRAINING RECORDS

Training Inventory - 2011

1. Mark "X" for any training topic that is required for this employee.
 2. Give date of last training. If employee has not had this training, type "none".
- ** If training is not required for employee, leave blank.

Dept/Division: Wastewater Section/ Utilities
Supervisor: Dorien Mc Elroy
Location of Records: Utility Building

Employee Name	Aerial Lift Operator	Asbestos* (Specify type of exposure)	Backhoe/Loader Operator	Bloodborne Pathogens	Bloodborne Path Vaccinations (Hep B)	Compressed Gas/Cylinders	Confined Space Entry	Crane Operator	Defensive Driver	Emergency Action Plan	Fall Protection Awareness	Fall Protection - Competent	Fire Extinguisher Use	Forklift Operator	HAZCOM
<i>example: (John Doe)</i>	X	2/25/10 Awareness; Cement Pipe	X	X		X		X					X	X	X
			1/22/10	None		None		10/5/08	1/13/09				None	None	6/14/03
John Arrollado			March'09	March'04		Aug. '10		Feb. '09					June '10	May '10	March'10
Harry Bessa		Nov. '04	Dec. '03	May '05		Aug. '10		Feb. '09					June '10	May '10	March'10
Mark Birchfield			Dec. '03	May '05		Aug. '10		Feb. '07					June '10		March'10
Paul Boucier		Nov. '04	March'09	March'04		Aug. '10		Feb. '09					June '10	May '10	Jan. '07
Mike Costanzo			Dec. '03	May '05		Aug. '10		Feb. '09					June '10	April'09	March'10
David Fluss			March'09			Aug. '10		Feb. '08					June '10	April'09	March'10
Tony Gomez			March'09			Aug. '10		Feb. '09					June '10	April'09	Jan. '07
Stewart Griffin						Aug. '10							June '10	May '10	March'10
Matthew Hockman						Aug. '10							June '10		Jan. '07
Ron Jackson			March'08			Aug. '10		Jan. '08					June '10		Feb. '09

ATTACHMENT H

SCOPE OF WORK



**SCOPE OF WORK
SEWER LINE CLEANING
FOR CITY OF THE OF HUNTINGTON BEACH PROPERTY**

- A. General** – The City of Huntington Beach is an urban city with a population of 197,000 residents. It contains approximately 17,730 acres, or 28 square miles, of which 97 percent is developed for residential, commercial, industrial, institutional, public, and street/highway use. Residential use is the largest single land use in the City. Huntington Beach is surrounded by Westminster to the north, Fountain Valley to the northeast, Costa Mesa to the east, Newport Beach to the southeast, Sunset Beach to the northwest, and the Pacific Ocean to the west. Elevations vary from sea level to approximately 200 feet above sea level.

The City is responsible for operating and maintaining 28 sewer lift stations, 360 miles of sewer line, and 10,091 manholes that comprise the Wastewater Collection System. Pipe size ranges from 6 to 30 inches in diameter, and collectively they transport the 18 million gallons of wastewater generated each day in Huntington Beach. The lift stations vary in capacity from approximately 80 to 1,800 gallons per minute, and assist in transporting roughly a third of the city's wastewater. After rehabilitation of the city's oldest pipelines and structures, the average age of the collection system is now 36 years.

Sewer lines to be cleaned are VCP, DIP, and PVC and range in sizes from 6 to 30 inches in diameter. Lengths shown are approximate. Payment will be for actual footage cleaned.

6"	=	3,671 ft.
8"	=	35,313 ft.
10"	=	15,495 ft.
12"	=	15,668 ft.
14"	=	439 ft.
15"	=	7,419 ft.
18"	=	4,715 ft.
21"	=	21 ft
24"	=	1,392 ft.
27"	=	2,658 ft.
30"	=	1,313 ft.

Work crews shall be on site between 7:30 a.m. to 3:30 p.m., Monday through Thursday. Sewers are the property of the City of Huntington Beach and located in the city shown on atlas maps provided to the Service Provider. These sewer lines are located on arterial streets Edwards St. to PCH from Bolsa Ave. South Slater Ave. Attachment A.



The Contractor shall be licensed in the State of California as a General Engineering Contractor, General Building Contractor, or C42 Specialty Contractor with current and valid certificates of license. Additionally, the Contractor shall submit a sample DVD or CD and related documentation of a CCTV inspection to be used in determining the quality of the Contractor's work. The City reserves the right to disqualify and reject the proposal of any Contractor who submits a sample showing an inspection that does not meet the specifications provided herein. Approximately 10% of sewer lines cleaned will be CCTV inspected on a DVD or CD, this shall be used for comparison with work performed under this Contract to determine if the Contractor is delivering promised quality. The Contractor shall submit the digital recording on DVD or CD with any invoices. The City's representative shall select which lines will receive CCTV verification. NASSCO Certified operators and PACP Wincan Version 8 or Granite XP Version 7 is the only format acceptable for the CCTV Inspection. If it is determined that any sewer line has not been cleaned 100%, it is at the expense of the contractor to re clean and CCTV inspect the line again at no cost to the City.

B. Cleaning Equipment

1. Combination of high velocity hydro-cleaning and vacuum removal equipment shall be utilized and shall have the following features as a minimum:
 - a. A minimum of 800 feet of 1-inch diameter high-pressure hydro flushing hose.
 - b. Two or more high velocity nozzles capable of producing a scouring action from 15 degrees to 45 degrees in all size lines to be cleaned. Nozzle skids shall be used for the appropriate size of pipe being cleaned.

Note: Service Provider and City of Huntington Beach representative to ensure jet diameter not to exceed 0.860-inch diameter shall inspect Nozzle jet orifices periodically. Nozzle jets will be considered worn if a 3/32" drill bit can be inserted into the jet orifice. The nozzle shall then be removed from service. For nozzles with replaceable jets, the oversize jets shall be replaced before the nozzle can be used again.

- c. At least one root cutter attachment for 8" through 15" pipe.
- d. A high-pressure handgun for washing and scouring manhole walls, channels, shelves, and manhole cover frames.
- e. A 1,500-gallon minimum water tank, pump and a hydraulically driven hose.
- f. Equipment operational control located above ground.
- g. Minimum working pressure of 1,500 pounds per square inch at 80 G.P.M. rate.
- h. Positive displacement blower vacuum equipment suitable to remove all debris at the downstream manhole while the hydro flushing is being performed.
- i. Two (2) two-way hand held radios for communication in easements.



- C. **Cleaning Precautions** – During sewer cleaning operations, satisfactory precautions shall be taken in the use of cleaning equipment to ensure that the water pressure or head created does not damage or cause flooding of public or private property being served by the sewer. Care shall be exercised in the selection and use of the cleaning tools to avoid pipe damage. Use of a nozzle skid is required to prevent accidental entry of nozzle into house connections.
- D. **Sewer Cleaning Procedures** – The designated sewer line segments will be cleaned using combination high-velocity jet with vacuum removal. The normal cleaning operation shall be to jet from the downstream manhole towards the upstream manhole thereby pulling any debris back to the downstream manhole. If no debris is present then a single pass shall be sufficient. If debris is encountered the entire run shall be made repeatedly until debris is no longer present. Cleaning 100% of all debris. At any sign of significant dirt and gravel the cleaning operation for that pipe shall cease and City of Huntington Beach shall be notified of a possible line break.

Once the appropriate traffic control has been placed the Service Provider shall wash the upstream manhole with the high-pressure water gun while being cautious not to spray any surrounding vehicles or pedestrians. Any major defects in the manhole or the frame and cover shall be noted and brought to the attention of City of Huntington Beach.

Selection of the equipment used will be based on the conditions of the sewer lines at the time work commences. The equipment and methods selected must be satisfactory to City of Huntington Beach's representative(s). The equipment shall be capable of removing dirt, grease, roots, calcium and other materials and obstructions from the sewer lines and manholes. If cleaning of an entire section cannot be successfully performed from the downstream manhole, the equipment will be set up on the upstream manhole and cleaning will again be attempted. If successful cleaning again cannot be performed or the equipment fails to traverse the entire manhole section, it will be assumed that a major blockage exists and the Service Provider will notify City of Huntington Beach's representative(s) of this condition immediately for further instructions. Pullback rate on jetting shall not be greater than three feet per second.

The cleaning method shall be to jet from the upstream manhole down slope for washing purposes on pipeline segments with extremely steep slopes where the jitter nozzle fails to climb to the upstream manhole. Contractor would jet from the downstream manhole upslope so that the cleaning directions overlap. Water for cleaning will be from the closest available fire hydrant. The Service Provider shall make arrangements with the local water agency (City of Huntington Beach, Treasurers Office, 2000 Main St., H.B. Ca. 92648) for the water meters and any other equipment needed to get water from the agency.

Enhanced areas and siphon lists are in Attachment B. If there are any questions regarding these lists or previous cleaning data, they should be directed to Mark Birchfield, Maintenance Supervisor. He may be contacted at (714) 536-5921. City of Huntington Beach crews will be cleaning/maintaining siphon and Enhanced areas on a routine basis, typically a 1-12 month frequency. However, the Service Provider is still required to provide line cleaning in these areas as shown in the cleaning sequence.



- E. Permits and Access** – Service Provider shall acquire all required fees and licenses. For any encroachment permits required by the City of Huntington Beach when cleaning and inspections are necessary on their right-of-ways. City of Huntington Beach will reimburse Service Provider for permit fees. Coordination of sewer cleaning will be made through the City of Huntington Beach's representative Mark Birchfield at (714) 375-5041. Mark Birchfield shall be notified one week in advance of the Service Provider's anticipated cleaning area. Atlas will be provided to the Service Provider. A sewer atlas with the Enhanced areas and siphons highlighted will be provided to the Service Provider.
- Easements requiring additional manpower for making turns in manholes or for pulling the jetter hose, coordination will be made through City of Huntington Beach's contact Mark Birchfield at (714) 375-5041. Two-way hand held radios may be needed for communication.
- F. Material Removed** – The Service Provider shall be responsible for the removal of debris from the pipeline and cleaning and/or relining the pipe wall to City of Huntington Beach's satisfaction. All sludge, dirt, sand, rocks, roots, grease and other solid or semisolid material resulting from the cleaning operation shall be removed at the downstream manhole of the section being cleaned. Passing material from manhole section to manhole section, which may cause line stoppages, shall not be permitted.
- G. Material Disposal** – Liquids shall be decanted and drained back to the sewer. All solids or semisolid resulting from the cleaning operations will be removed from the work site and disposed of at no added cost to the Service Provider, to the Orange County Sanitation District's plant located at 22212 Brookhurst Street, Huntington Beach, California. All materials will be removed from the work site at the end of each workday. Under no circumstances will the Service Provider be allowed to accumulate debris, etc. on the site of work beyond a single workday, except in totally enclosed leak and odor proof containers and as approved by City of Huntington Beach's representative(s). See Attachment C "Sewer Grit Disposal Procedure".
- H. Spill Reporting and Handling** – Service Provider shall immediately notify City of Huntington Beach's representative(s) of any manhole overflow or interruption/backup of customer service and Service Provider shall be responsible for any fines levied by others as a result of the Service Provider's work.

Attachment D is the "Notification Guidelines for a Spill" which includes the telephone numbers of the various agencies. Ultimately, if the Service Provider is involved with a spill, he must:

1. First and immediately notify City of Huntington Beach at (714) 536-5921. City of Huntington Beach will then make the required notifications.
2. Secondly, the Service Provider must attempt to contain the spill to isolate it from entry to any storm drain systems or waterways.
3. Thirdly, the Service Provider must attempt to relieve the spill. Once the spill has been contained and relieved, the area must be cleaned up.
4. Lastly, follow-up reports must be made after spill has been stopped and cleaned up detailing amount of spill, amount of wash water used and final destination of the sewage.



Service provider shall be responsible for any fines levied by others, reimbursement of any agency incurred costs, damage, cleanup, restoration of flow, and any disruption of service costs to customers as of a result of Service Provider's work. The customer in addition to any and all costs incurs this.

Service Provider shall also notify City of Huntington Beach immediately of any apparent non-Service Provider related spills and/or any abnormal conditions.

- I. **Confined Space Issues and Safety Issues** – All manholes in this work are defined as Title 8 Permit Required Confined Spaces. The Service Provider's attention is directed to the General Industry Safety Orders of the State of California, Article 108, Confined Spaces, Section 5157 (Title 8 of California Code of Regulations, Sections 5167, 5157, 5158). Service Provider shall attend a safety meeting at City of Huntington Beach with the Safety and Emergency Response Division prior to award for the purpose of reviewing the Service Providers safety manuals his knowledge of Title 8 and to discuss all safety aspects of the job.

All work shall be conducted from above ground. Manhole entry, if required, shall be conducted in strict accordance with permit required confined space entry regulations. These regulations include, at a minimum: entry permit, trained authorized entrants(s), attendant(s), entry supervisor(s), full body harness (with life line), mechanical retrieval device, continued force air ventilation, continuous air monitoring, communication system (minimum two types), and all other protective equipment that may be required. Work shall be conducted in accordance with all Federal, State, and local laws and regulations.

- J. **Traffic Control** – All traffic control shall be in accordance with the latest American Public Works Association WATCH handbook and City of Huntington Beach Maintenance Work Traffic Control Manual and based on the speed limits posted in the work zones. Flagmen may be required in some locations. Additional local regulations shall have precedence. Service Provider shall apply for all traffic control permits and pay all fees and permits for said permits. Safe and adequate pedestrian and vehicular access shall be provided in accordance with Section 7-10 of the Standard Specifications for Public Works Construction, 2005 Edition.

NOTE – Inadequate or improper signing and delineation for traffic control may be cause for the cancellation of the contract.

- K. **Work Plan** – The Service Provider shall prepare a weekly work plan and submit it one (1) week in advance to City of Huntington Beach representative Mark Birchfield for review and approval at (714) 375-5041. The plan shall verify the cleaning sequence and identify all the line sections to be cleaned based on City of Huntington Beach maps and sequence data provided. Plan may be amended for weather or local road maintenance or construction issues discovered by either party.
- L. **Work Documentation** – Daily reports based on the work plan shall be submitted for City of Huntington Beach review with the invoice for payment. Service provider's log sheets, with a section by section breakdown including comments, shall be maintained on site, in a legible manner, for review at all times. Comments on log sheets include notice of badly worn frames and covers and of badly deteriorated manhole concrete structures.



M. Crew Size – Service Provider shall provide a minimum of a three-person crew at all times, one person shall witness the jetting nozzle reach the upstream manhole. A crew of three shall be utilized for all work in confined spaces. Additional personnel shall be utilized when needed for traffic control flagmen.

Sewer Atlas (Map) – A \$500.00 deposit is required for a set of two Sewer Atlases: This deposit will be refunded provided both are returned in clean condition and within thirty (30) days following the bid opening. Maps not returned within the thirty (30) day time period will be considered as purchased and deposits will be processed accordingly. City of Huntington Beach shall make no obligation to notify bidders that the thirty (30) day refund period is, or has elapsed. No exceptions will be made.

Contact Eric Powell at 714-536-5500 to arrange for a Sewer Atlas (Map) pick-up.

N. Emergency Response – Contractor shall be able to respond to an Emergency Call out within 1 hour from the time the call was placed. Failure to do so would terminate the contract.

O. Contract term – This will be a one (1) year contract. If it is mutually agreeable to both the City of Huntington Beach and the successful bidder, this contract may be renewed for up to four (4) additional years in one (1) year increments.

ATTACHMENT I

EQUIPMENT LIST

CATEGORY	PART TYPE	SIZE	AMOUNT
Behind Shed:	Ring / Cover Storm		3
	Ring / Cover Sewer		10
	Riser Rings		60
	Catch Basin Cover		4
	Storm Drain Box Grate	Small	5
	Storm Drain Box Grate	Large	3
	Station Door	Small	1
	Station Door	Large	1
Store Room:	Telemetry System		5
	Battery Back Up		9
	Telemetry System		12
	56K Modem		1
	Camera Truck Parts		
TV TRUCK #601			
Toolbox:	Chisel		2
	Nut Driver		1
	Screw Driver		2 or 3
	Phillips Screw Driver		2 or 3
	Channel Locks	Small	1
	Channel Locks	Large	1
	Camera Koala Ques	Small	1
	Camera Koala Ques	Medium	2
	Camera Koala Ques	Large	1
	Allen Sets		3
	Crescents		2 or 3
	Pliers		2 or 3
	Cordless Drill	9.6V	1
	Wrench Set		1
	Hack Saw		1
	20 oz. Hammer		1
	3/4 Socket Driver		1
	Box of Parts		1
	Respiratory Escape Pack	5 min.	1
	Ques VCR, T.V., Printer Equip.		
	Electrical Cords Controls		
	Sewer Plugs	8 in.	2
	Portable Air Tank	5 gal.	1
UNIT #674:	Polaroid Camera		1
	Socket Set		1

CATEGORY	PART TYPE	SIZE	AMOUNT
	Screw Driver Set		1
	Trailer Hitch		1
	Pliers		1
	Needle Nose Pliers		1
	Open End Wrench Set		1
	Claw Hammer		1
	Sledge Hammer		1
	Pick		1
	Jumper Cables		1
	Flashlight	MPG	1
	Flashlight	Candle Power	1
	Flashlight	6 Volt	1
	Hydrant Wrench		1
	Crescent Wrench	Small	1
	Crescent Wrench	Medium	1
	Pry Bar		1
	Hand Saw		1
	Razor Knife		1
UNIT #675:	Toolbox		1
	Light		1
	Paddle Sign		1
	Hammer	20 oz.	1
	Screw Drivers		3
	Phillips Screw Driver		2
	Channel Locks		2
	Pliers		1
	Crescent Wrench	8 in.	1
	Crescent Wrench	12 in.	1
UNIT #677:	Nut Driver Set		1
	Open End Wrench Set	20	1
	Socket Set	40	1
	Mag-Light Flashlight		3
	Generator		1
	Chaixi Pulley		1
	Tap/Die Set		1
	Electrical Extension		2
	Box of Fittings		1
	Dolly		1
	Come Along		1
	Oscilloscope		1
	Ear Protection		2

CATEGORY	PART TYPE	SIZE	AMOUNT
	Hard Hats		2
	First Aid Kit		1
	Rubber Mallet		1
	Sledge Hammer		1
	Blower		1
	Safety Harness		1
	Jumper Cables		1
	Weld Mask		2
	Face Shield		1
	Torches	Small	1
	Torches	Large	1
	Air Drill		1
	Air Gun	Medium/Large	3
	Air Gun	Small	3
	Air Chisel		3
	Air Ratchet		2
	Air Grinder	Small	2
	Air Wire Wheel		2
	Crescent Wrench	Small	1
	Crescent Wrench	Medium	1
	Crescent Wrench	Large	1
	Crescent Wrench	X-large	1
	Pipe Wrench	Small	1
	Pipe Wrench	X-large	1
	Allen Wrench		2
	Grease Gun		1
	Crow Bars	Small	1
	Crow Bars	Medium	1
	Crow Bars	Large	1
	Crow Bars	X-large	1
	Channel Locks		2
	Wire Stripper		1
	Side Cutter		1
	Hammers		1
	Vise Grips		1
	Hack Saw		1
	Wire Brush		1
	Scrappers		3
	Screwdriver		1
	Drill Set		1
	Tape Measure	25 ft.	2

CATEGORY	PART TYPE	SIZE	AMOUNT
	Wood Saw		1
	Fire Extinguisher		1
	2 R.T.U		2
	Air Packs	10 min.	2
	Bolts	1/2 - 1 1/8	
	Oxy Settling		2
	Safety Strobes		1
	Water Tank w / Mot.		1
	Water Hose	50 ft.	1
	Pole Choppers		3
	Rubber Bucket		1
UNIT #678:	Mag-Light		1
	Socket Set		1
	Cones		5
	Manhole Pick		1
	Shovel	Small	1
	Scraper		1
	Clam Digger		1
	Fire Extinguisher		1
	Grease Gun		1
	Safety Triangles		1
	Rechargeable Flashlight		1
	Hack Saw		1
	Pipe Wrench		3
	Screw Drivers		8
	Crescent Wrench		3
	Tape Measure		1
	Razor Knife		1
	Hex Key Set / Allen Wrench		1
	Open/Closed Wrench Set		1
	Hammer		1
	Channel Locks		2
	Sledge Hammer	Small / 3 lb.	1
	Nut Driver set		1
UNIT 679:	Mag-Light Flashlight		1
	Socket Set		1
	Cones		6
	Manhole Pick		2
	Shovel	Small	1
	Scraper		1
	Clam Digger		1

CATEGORY	PART TYPE	SIZE	AMOUNT
	Grabber		1
	Fire Extinguisher		1
	Safety Triangles		1
	Grease Gun		1
	Flashlight		1
	Hack Saw		1
	Wire Brush		1
	Sledge Hammer	3 lb.	1
	Sledge Hammer	8 lb.	1
	Pipe Wrench		1
	Screwdrivers		2
	Crescent Wrench		2
	Tape Measure		1
	Razor Knife		2
	Hex Key Set / Allen Wrench		1
UNIT #680:	Pipe Wrench	18 in.	2
	Socket Set		24
	Duct Tape	Rolls 5 lbs.	3
	Grease Gun		2
	Hand Sledge		1
	Nut Drivers		10
	Plastic Flashlight		1
	Black Mag-Light		1
	Hand Held Mirrors		2
	Razor Knife		2
	Hex Sets		2
	Crescent Wrenches	12 in.	2
	Pliers		2
	Channel Locks	Small	1
	Channel Locks	Large	1
	Needle Nose Pliers	Small	1
	Hammer		1
	Wire Brush		1
	File		1
	Phillips Screw Driver	Large	3
	Picks		2
	Sledge Hammer		1
	"Stop" / "Slow" Sign		1
	Nozzles		6
	Vacuum Tubes		7
	Hydrant Wrench		1

CATEGORY	PART TYPE	SIZE	AMOUNT
	Scraper		1
	Push Broom		1
	Rake		1
	Clamps		6
	Chopper		1
	Fire Extinguisher		1
	WD40		1
	Clam Digger		1
	Grabber		1
	Rubber Bucket		1
	Cones		6
	Rope		6
	First Aid Kit		1
UNIT #681:	Mag-Light Flashlight		1
	Spotlight		1
	Water Screen Wrench		1
	Safety Pole Lock		1
	Pole For Vacuum Screen		1
	Grease Nozzle	65 gpm.	3
	Nozzles	2 in.	2
	Buzz Bomb	65 gpm.	1
	Sand Nozzle	4 in.	3
	Hand Gun Sprayer		1
	Hose		2
	Sledge Hammer		1
	Sledge Hammer	Mini	1
	Pick		1
	Grease Gun		1
	Rubber Bucket		1
	Chopper Head		1
	Chopper Extension		5
	Chopper Connection		5
	Hook Head		1
	Grabber		1
	WD40		1
	Glass Cleaner		1
	Tubes		1
	Tubes		1
	Tubes		2
	Crescent Wrench		2
	Hex Key Set / Allen Wrench Set		1

CATEGORY	PART TYPE	SIZE	AMOUNT
	Phillips Screwdriver		2
	Screwdriver		1
	Razor Knife		1
	Hack Saw		1
	Pliers		1
	Channel Locks		1
UNIT #683			
	Air Tools - Drill	GP 3x8x24	1
	Air Tools - Drill	1/2 in.	1
	Air Tools - Grinder	4 in.	1
	Air Tools - Impact Wrench	1/2 in.	1
	Air Tools - Chisel Gun		1
	Set Drill Bits		1
	Level	6 in.	1
	Level	2 ft.	1
ToolBox:	Nuts/ Bolts/ Drill Bits		1
	Screw Driver		2
	Philips Screw Driver		2
	Channel Locks	Small	1
	Files	Small	3
	Allin Sets	Ekland #20911	1
	Hammer	20 oz.	1
	Chisel	Small	1
	Putty Knife		1
	Cresent Proto	8 in.	1
In Truck:	Light	1 Millionth LP	1
	Mag Light	4 in.	1
	Tie Down Strap		2
	Face Shield		1
	Safety Goggles		1
	Tape	16 in.	1
	Tape	25 in.	1
	Rope	25 ft.	2
	Set Easy Out		1
	Tap/Die Set		1
	Socket Set	mm	1
	Socket Driver Set	1/2 in.	1
	Socket Driver Set	3/4 in.	1
	Electrical Cord	50 ft.	1
	Screw Driver Set		1

CATEGORY	PART TYPE	SIZE	AMOUNT
	Philips Screw Driver Set		1
	Channel Lock Set		4
	Long Nose Pliers		3
	Pliers		2
	Vise Grips		3
	Crescent Wrench	8 in.	1
	Crescent Wrench	10 in.	1
	Crescent Wrench	12 in.	1
	Crescent Wrench	24 in.	1
	Combination Wrench Set	11 pc.	1
	Wrench Set	8 pc.	1
	Hack Saw		1
	Wire Brush		2
	Files Baster		5
	Mallot Hammer	#3	1
	Hammer	20 oz.	1
	Pry Bar	Small	1
	Pry Bar	Large	1
	Pipe Wrench	14 in.	2
	Pipe Wrench	24 in.	1
	Pipe Wrench	36 in.	1
	Hand Broom		1
	Push Broom	Large	1
	Brass Hammer	Small	1
	Sledge Hammer	Size 12	1
	Matte Knife		1
	Pick		1
	Pry Bar		1
	Compressor	Large	1
	Bolt Cutters	24'	1
	Footage Wheel		1
	Hand Saw		1
	Air Bottle	30 in.	2
	Face Mask		2
	Escape Mask	5 min.	1
	Multi-gas Detector		8
	Talk-about Radio		2
	Pelican Case		1
	Hand Pump		1

ATTACHMENT J

CITY OF HUNTINGTON BEACH, ADMINISTRATIVE REGULATION NO. 808



ADMINISTRATIVE REGULATION

Office of the City Administrator

Number: AR 808

Sections: 1-7

Effective Date: 1/1/02

**SUBJECT: SANITARY SEWER OVERFLOW AND SUBSURFACE SEWER LEAK
RESPONSE PROCEDURES**

1. Purpose:

To minimize the impact of an accidental discharge from the City's wastewater collection system.

2. Authority:

Huntington Beach City Charter, Section 401.

3. Application:

This regulation applies to all officers and employees of the City of Huntington Beach.

4. Definitions:

4.1. An above-ground release of untreated sewage from the City's wastewater collection and/or pumping system.

4.2. Subsurface Sewer Leak: A release of untreated sewage through collection system pipe and/or pumping system defects below the ground.

5. Responsibilities:

5.1. All discharges of sewage, whether a sanitary sewer overflow or a subsurface sewer leak, shall be reported to the Public Works Maintenance Division.

5.2. The Public Works Maintenance Division, wastewater section supervisor or his designee, will be responsible for reporting all discharges of sewage immediately to applicable Federal, State, regional and local agencies.

5.3. Any discharge caused by defects in the system that cannot be corrected by the Public Works Maintenance Division through normal maintenance efforts will be referred to the Engineering Division for assessment and recommended action.

5.4. The Director of Public Works shall be notified of all discharges of sewage.

5.5 Records of discharges shall be kept for a period of not less than five years, subject to the latest adopted version of the City's records retention policy.

6. Procedure:

- 6.1. A representative of the Fire Department, Public Works Department, or both, will respond to all reported discharges to identify the responsible party.
- 6.2. Discharges that are determined to be caused by activities on private property will be directed to the Public Works Department Hazardous Materials Unit for enforcement of cleanup, billing and agency notifications.
- 6.3. Discharges that are determined to be caused by activities on City property, or which responsibility cannot be established, will be directed to the Public Works Department Wastewater Section for cleanup and agency notifications.
- 6.4. Actions to alleviate discharges will be performed in the following order:
 - 6.4.1. Contain and/or minimize the discharge.
 - 6.4.2. Identify and notify the responsible party.
 - 6.4.3. Collect information, estimate discharge volumes and capture photo documentation.
 - 6.4.4. Begin cleanup of the discharge (concurrently with 6.4.3).
 - 6.4.5. Notify all applicable Federal, State, regional and local agencies.
 - 6.4.6. Notify Public Works management up through the Director of Public Works.
 - 6.4.7. Inform the Public Works Department, Engineering Division for an assessment and recommended course of action if the problem cannot be corrected through normal maintenance efforts.
- 6.5. Private property owners will be billed for all City costs, including overhead, associated with the response or cleanup of a spill caused as a result of activities on their property.
 - 6.5.1. Public Works will send an estimate of private property cleanup charges to the Fire Department within five (5) business days.
 - 6.5.2. Fire Department will consolidate all charges related to the incident and forward to Administrative Services Department within five (5) business days after receiving all charges.

7. Attachments:

- Attachment A: Detailed Sanitary Sewer Overflow Response Procedures
- Attachment B: Detailed Subsurface Sewer Leak Response Procedures
- Attachment C: Sanitary Sewer Overflow Report Form
- Attachment D: Calculation of Sanitary Sewer Overflow Volumes

Ray Silver

Date

ATTACHMENT A:

Detailed Sanitary Sewer Overflow Response Procedures

Detailed Sanitary Sewer Overflow Response Procedures

Notification:

Notification of a sewage spill on public or private property typically will be received by telephone, either through Police Dispatch (9-1-1) or through the Public Works Department Maintenance Operations Division. A call received via 9-1-1 will result in Fire Department response. Calls received by the Public Works Department will initiate dispatch of trained response crews to the site where the spill will be evaluated and other, appropriate City departments will be notified as necessary.

Incident Response:

Fire Department and/or Public Works Department will respond to all reported sewage spills to identify the responsible party and provide clean-up protocol procedures for sewage that has been discharged into the environment on public or private property.

Assessment Process:

The Fire Department/Public Works Department Incident Commander will investigate the incident and determine if the sanitary sewer overflow is on public or private property.

If the overflow is on City property, or has the potential of reaching City property, the Public Works Department Wastewater Section will respond. Notification schedule: City Yard 7:00 a.m. – 4:00 p.m. (714) 960-8861 or Wastewater Section after hours callout pager (714) 433-4170. The Public Works Department Maintenance Operations Division Wastewater Section Supervisor or his/her designee shall be responsible for immediately notifying applicable Federal, State, regional and local agencies by phone, facsimile and certified mail/return receipt.

If the overflow is on private property, the Fire Department Incident Commander and/or Public Works Department Maintenance Operations Division Wastewater Section Supervisor or his designee will contact the responsible party for proper removal of the sewage. The responsible party shall be advised that the substance must be removed immediately under the applicable Federal, State, regional and local codes and regulations.

The Fire Department and/or Public Works Department Wastewater Section Supervisor or his designee shall immediately notify applicable Federal, State, regional and local agencies by phone, facsimile and certified mail/return receipt. The City may initiate cleanup if deemed appropriate to protect the public health, safety and welfare.

Incident Action Plan:

Action taken at the scene by Fire Department or Public Works Department pertaining to sewage spills on public or private properties:

1. Contain and/or minimize the discharge.
2. Identify and notify the responsible party.
3. Collect information, estimate overflow volumes and capture photo documentation.
4. Begin cleanup of the overflow (concurrently with step 3).
5. Notify all applicable Federal, State, regional and local agencies by phone, facsimile and certified mail/return receipt.
6. Notify management up through the Director of Public Works.
7. Inform the Engineering Division for an assessment and recommended course of action if the problem cannot be corrected through normal maintenance efforts.
8. Send billing information to Administrative Services Department to invoice responsible private property owners for any City costs associated with the responses/clean-up of the overflow caused as a result of activities on private property.

ATTACHMENT B:

Detailed Subsurface Sewer Leak Response Procedures

Detailed Subsurface Sewer Leak Response Procedures

Notification:

Notification of a subsurface sewer leak is typically made during routine cleaning or robotic camera inspection by Public Works Department crews but may also be received from the public via calls to Fire or Police. All notifications shall be referred to the Public Works Maintenance Division. Leaks shall be referred to the City Yard 7:00 a.m. – 4:00 p.m. at (714) 960-8861 or Wastewater Section after-hours callout pager (714) 433-4170.

Incident Procedure:

The Public Works Department, Wastewater Section crews shall respond to all suspected subsurface sewer leaks that are within the public right-of-way and will take appropriate action as determined by an assessment process. If the suspected subsurface leak is in a service lateral to a privately-owned building, regardless if said lateral is in the public right-of-way, it is the responsibility of the building owner and said owner will be notified to repair the line immediately.

Assessment Process:

The Public Works Wastewater Crewleader, or his/her designee, shall investigate all reported subsurface sewer leaks within the public right-of-way.

If the Crewleader determines that a crack or leak could be in violation of applicable water quality and/or health care regulations, he/she shall immediately report the incident to the County of Orange Health Care Agency, the California Regional Water Quality Control Board, Santa Ana Region, and the Public Works Street/Wastewater Supervisor⁽¹⁾. Outside agency notifications shall be made by phone, facsimile and certified mail/return receipt.

The Public Works Street/Wastewater Supervisor shall immediately notify the Maintenance Operations Manager and submit an Incident Report to the Public Works Department, City Engineer.

The Maintenance Operations Manager, via the Director of Public Works, shall immediately notify the City Administrator.

Upon receipt of an Incident Report, the City Engineer shall immediately cause the leak to be assessed and, if deemed appropriate, develop a Corrective Action Plan, which may include excavation and repair/replacement, slip lining or other appropriate techniques.

Incident Action Plan:

Continuous communication shall be established with the Santa Ana Regional Water Quality Control Board with regard to all findings, decisions and timetables pertaining to repair and/or monitoring of possible subsurface leaks. Subsurface leaks, at the determination of the Public Works Street/Wastewater Supervisor, may require the immediate diversion of sewage until the repair of the damaged infrastructure may be affected by the City Engineer; however the Street/Wastewater Supervisor, in consultation with the City Engineer, may determine that the extent of the damage is not susceptible to immediate violations of applicable laws and repair may be deferred, or deemed unnecessary, but subject to a specific monitoring schedule to be determined at that time.

(1) Subsurface sewage leaks of less than 1,000 gallons per day are not subject to immediate repair and reporting to regulatory agencies unless there is a potential for contamination of Waters of the State. Nonetheless, documentation and any necessary repair of the damaged line shall be affected pursuant to the City Engineer's Corrective Action Plan and included in the sewer system audit and routine reports to the Regional Water Quality Control Board.

ATTACHMENT C:

**Sanitary Sewer Overflow report Form
(Delivery by Facsimile and Certified Mail/Return Receipt)**

16. ADDRESS: _____

CITY: _____ ZIP CODE: _____

17. COUNTY: _____ (SB, RV, OR)

18. SANITARY SEWER OVERFLOW STRUCTURE I.D.: _____

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

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

21. OVERFLOW CAUSE – SHORT DESCRIPTION – CHECK ONE:

- | | | | |
|---------------------------------|------------------------------------|--|---|
| <input type="checkbox"/> ROOTS | <input type="checkbox"/> GREASE | <input type="checkbox"/> LINE BREAK | <input type="checkbox"/> INFILTRATION |
| <input type="checkbox"/> ROCKS | <input type="checkbox"/> BLOCKAGE | <input type="checkbox"/> POWER FAILURE | <input type="checkbox"/> PUMP STATION FAILURE |
| <input type="checkbox"/> DEBRIS | <input type="checkbox"/> VANDALISM | <input type="checkbox"/> FLOOD DAMAGE | <input type="checkbox"/> MANHOLE FAILURE |
| <input type="checkbox"/> OTHER | <input type="checkbox"/> UNKNOWN | <input type="checkbox"/> CONSTRUCTION | <input type="checkbox"/> PRIVATE PROPERTY |

22. OVERFLOW CAUSE – DETAILED DESCRIPTION OF CAUSE:

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

24. WAS THERE MEASURABLE PRECIPITATION DURING 72-HOUR PERIOD PRIOR TO THE OVERFLOW?

INITIAL AND SECONDARY RECEIVING WATERS:

25. DID THE SANITARY SEWER OVERFLOW ENTER A STORM DRAIN? _____ (Y OR N)

26. DID THE SANITARY SEWER OVERFLOW REACH SURFACE WATERS OTHER THAN A STORM DRAIN? _____ (Y OR N)

27. NAME OR DESCRIPTION OF INITIAL RECEIVING WATERS: (IF NONE, WRITE "NONE")

28. NAME OR DESCRIPTION OF SECONDARY RECEIVING WATERS: (IF NONE, WRITE "NONE")

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

NOTIFICATION:

30. WAS THE LOCAL HEALTH SERVICES AGENCY NOTIFIED? _____ (Y OR N)

County of Orange, Health Care Agency (714) 667-3751

After Hours (714) 628-7008, FAX (714) 667-3754

Date of Call: ____ / ____ / ____ Time of Call: ____ :

Reported To: _____

Date Faxed: _____ / ____ / ____

31. WAS THE OFFICE OF EMERGENCY SERVICES (OES) NOTIFIED? _____ (Y OR N)

State Office of Emergency Services (800) 852-7550

Date of Call: ____ / ____ / ____ Time of Call: ____ :

Reported To: _____

Control #: _____

ADDITIONAL NOTIFICATIONS:

Regional Water Quality Control Board (909) 782-4130

After Hours (916) 262-1621 or (800) 962-8179

FAX (909) 781-6288

Date of Call: ____ / ____ / ____ Time of Call: ____ :

Reported To: _____

Date Faxed: _____ / ____ / ____

Public Facilities & Resources Department (714) 567-6363

(If the spill enters a county channel)

Date of Call: ____ / ____ / ____ Time of Call: ____ :

Reported To: _____

Jim Jones (714) 375-5024

Date of Call: ____ / ____ / ____ Time of Call: ____ :

Robert F. Beardsley (714) 536-5442

Date of Call: ____ / ____ / ____ Time of Call: ____ :

Robert Dominguez Office (714) 536-5257

Home (714) 846-4647, Pager (949) 719-5323

Cellular (714) 615-0158

Date of Call: ____ / ____ / ____ Time of Call: ____ :

AFFECTED AREA POSTING:

32. WERE SIGNS POSTED TO WARN OF CONTAMINATION? _____ (Y OR N)

33. LOCATION OF POSTING (IF POSTED): _____

34. HOW MANY DAYS WERE THE WARNING SIGNS POSTED? _____

35. WERE SAMPLES OBTAINED OF CONTAMINATED WATER? _____ (Y OR N, IF YES ATTACH RESULTS)

36. OTHER REMARKS:

I swear under penalty of perjury that the information submitted in this document is true and correct, and that I have personally examined and am familiar with the information submitted in this document, including all attachments. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe 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: _____ NAME: _____

DATE: _____ TITLE: _____

ATTACHMENT D:

Calculation of Sanitary Sewer Overflow Volumes
(Excerpt from Irvine Ranch Water District Operations Manual)

SEWER SPILL PROCEDURE

CALCULATING SPILLS

The purpose of this report is to take the mystery out of calculating spills. Almost all spills can be calculated using the two examples discussed in this section.

You can use the orifice equation when trying to figure out the volume of a spill. Understanding the orifice equation is not as complex as it may sound. If you know the diameter of the hole (i.e., pick hole or annual space between the ring and cover) and the height at which the fluid is coming out of the hole, then you can figure the flow out of that hole.

The equation is $Q = Ca\sqrt{2gh}$.

Where:

- Q = flow of fluid from the hole,
- C = coefficient of discharge,
- a = area of the hole (measured in feet),
- g = gravity (32.2 ft/sec), and
- h = height of the fluid above the cover (measured in feet).

The coefficient of discharge (C) is the product of the coefficient of velocity (Cv) multiplied by the coefficient of contraction (Cc). The values for Cv have been found to vary from 0.954 for ¼-inch orifices to 0.991 for 2.5 inch orifices. The values for Cc have been found to vary from 0.67 for ¼ inch orifices to 0.614 for 2.5 inch orifices.

Example 1

You receive a report of a spill occurring at 12 noon. Your crews respond to the spill and relieve the spill at 2:30 p.m. In addition, they inform you that the flow was coming from two ¼ inch pick holes in the manhole cover, and when they arrived on the scene, the flow appeared to be coming out of the holes approximately 4 inches above the lid. What is the total flow that you are to report to the Regional Board?

Assumptions for Example 1 spill:

1. Flow started at noon and was stopped at 2:30 p.m. Total time of spill was 2.5 hours (150 minutes).
2. Flow was coming from two ¼ inch pick holes. The area of each ¼ inch hole is 0.44179 in. (see Table 1-2). To convert in² to ft² multiply by 0.006944.

Therefore, $a = 0.44179 \text{ inch}^2 \times 0.006944 = 0.0031 \text{ ft}^2$ for each hole.

SEWER SPILL PROCEDURE

3. Flow was coming out of each hole at a height of 4 inches.

To convert inches to feet, multiply by $\frac{1 \text{ foot}}{12 \text{ inches}}$

Therefore, $H = 4 \text{ inches} \times \frac{1 \text{ foot}}{12 \text{ inches}} = 0.33 \text{ ft}$

4. The coefficient of discharge, $C = C_v \times C_c$. For a $\frac{1}{4}$ inch hole, $C_v = 0.954$, $C_c = 0.67$.

Therefore, $C = 0.954 \times 0.67 = 0.639$

5. Using the orifice equation $Q_h = C_a \sqrt{2gh}$ the flow from each hole is:

$Q_h = 0.639 \{ (.0031 \text{ ft}^2) \sqrt{2(32.2 \text{ ft/sec}^2)(0.33 \text{ ft})}$

6. Total flow, $Q_t = Q_h \times \text{number of holes} \times \text{length of spill (minutes)}$

$Q_t = 4.099 \text{ gpm/hole} \times 2 \text{ holes} \times 150 \text{ minutes} = 1,230 \text{ gallons.}$

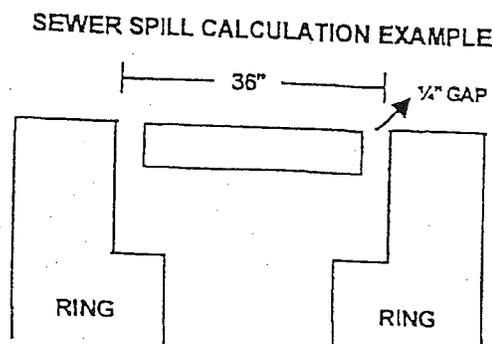
Example 2

In this next Example, the facts are similar to Example 1, except in addition to the flow coming out of the two pick holes, it is also coming out of the $\frac{1}{4}$ inch gap between the ring and cover at a height of 4 inches.

7. In addition to steps 1 through 6 in Example 1, you also need to figure the total area where the flow is coming out between the ring and cover.

We know that the relationship between the ring and cover probably looks like this:

FIGURE 1.14.2



SEWER SPILL PROCEDURE

This problem is made simple if you take the ID of the ring (shown here to be 36 inches), figure out its area and subtract it from the area of the cover (shown here to be 36" - 1/2" = 35.5 inches). Since both of these areas are circles, we know that the formula is $A = \pi(D/2)^2$. Therefore:

$$\begin{aligned} A &= A \text{ ring} - A \text{ Cover} \\ &= [\pi(36/2)^2] - [\pi(35.5/2)^2] \quad \pi=3.1416 \\ &= [3.1416 (324)] - [3.1416(315.1)] \\ &= 1017.9 - 989.8 \\ &= 28.1 \text{ in}^2 \times 0.006944 = 0.195 \text{ ft}^2 \end{aligned}$$

8. From Example 1; $H = 0.33 \text{ ft}$, $g = 32.2 \text{ ft/sec}$, $C = 0.639$

9. Using orifice equation $Q = Ca\sqrt{2gh}$

$$\begin{aligned} Q &= 0.639 \{(0.195 \text{ ft}^2) \sqrt{2(32.2 \text{ ft/sec}^2) (0.33 \text{ ft})}\} \\ &= 0.574 \text{ CFS} = 257.82 \text{ gpm} \\ &= 257.82 \text{ gpm} \times 150 \text{ min} = 38,673 \text{ gallons} \end{aligned}$$

10. In this example, flow was coming from two pick holes and the space between the ring and cover. So in this example we must add the flow calculated in Step 6 above to the flow calculated in Step 9 above - making the total flow of the spill in this example:

$$\begin{aligned} Q_t &= 1230 \text{ gallons} + 38,673 \text{ gallons} \\ &= 39,903 \text{ gallons} \end{aligned}$$

WASTEWATER SPILL CALCULATOR

How high in inches was the water coming out of the pick hole?	1	inches
How many pick holes (there are two per manhole)?	2	pick holes
How many minutes was the water running?	15	minutes

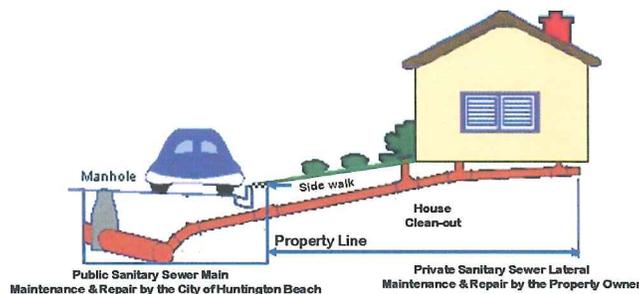
Complete the following if water was also coming out around the manhole lid.
(Leave these fields blank if the above condition does not apply)

How high was the water coming out around the manhole lid?		inches
How many manhole lids?		manholes

The spill rate is:	7.28 gallons per minute
The amount spilled is:	109 gallons

ATTACHMENT K

SEWER LATERAL PROGRAM



Parkway Tree Root Intrusion Into Sewer Lateral - Policy and Procedures

Section 14.54.035 of the City of Huntington Beach Municipal Code addresses responsibilities for the operation, maintenance and repair of sewer laterals. The City is responsible for the maintenance and repair of the portion of the sewer lateral within the public right-of-way that extends from the City-owned sewer main to the private property line. The property owner is responsible for the repair and maintenance of the portion of the sewer lateral located on private property.

Reminder- liquid grease solidifies as it travels from your sink to the collection system down-stream and many items such as baby wipes, feminine hygiene products, eggshells and coffee grounds should not be flushed.

Sewer Lateral Program Procedure:

1. A property owner experiencing problems* with the sewer lateral calls the Public Works Utilities Division at (714) 536-5921, to notify them of the problem.
2. The property owner secures the services of a qualified contractor to clean and video tape the interior of the sewer lateral from the house cleanout to the public sewer main. While cleaning and/or video taping the lateral, it is important for the contractor to locate and mark the actual sewer lateral location at the property line, on the sidewalk, at the curb and at the connection with the sewer main. The use of water soluble spray paint to show the location of the sewer lateral is highly recommended as laterals are often at different angles and locations than portrayed on many record drawings.
3. The property owner submits a copy of the video to the Utilities Division staff at 19001 Huntington Street between the hours of 7:00 AM and 4:30 PM, Monday through Friday.
4. The Utilities Division staff will review the video to determine the cause of the blockage, if and what type of repair is needed and whether the location of the blockage and repair are within the City's right-of-way.
5. Depending on the situation, there are typically two options for repair: 1) Slip Lining the sewer lateral within the public right-of-way and on the private property leaving the parkway tree intact. In this case, the city arborist needs to determine that the integrity of the tree will not be impacted by the repairs made to the sewer lateral. The property owner is responsible for the cost of slip lining the sewer lateral on their private property. 2) In a case where it is determined that the tree must be removed to complete the repair, and it falls within the City's responsibility, the City will initiate repairs at the City's cost and reimburse the cost of the video to the property owner.

Questions regarding the Sewer Lateral Program should be directed to the Public Works Utilities Division at (714) 536-5921. This information can also be reviewed at the City's website: www.surfcity-hb.org

*The first course of action for a blocked or clogged sewer line is a call to a qualified plumber or sewer contractor. Often times, cleaning of the line is needed immediately and residents should not wait for the claim process to be completed. The need for frequent cleaning/rooting of the line is an indication of a possible sewer lateral break or tree root intrusion.

ATTACHMENT L

SANITARY SEWER OVERFLOW TRENDS

California Integrated Water Quality System Project (CIWQS)

COLLECTION SYSTEM OPERATIONAL REPORT

Please see the [Glossary of Terms](#) for explanations of the search results column headings. [More information about the report is found at the bottom of this page.](#)

[\[VIEW PRINTER FRIENDLY VERSION\]](#)

SEARCH CRITERIA: [\[REFINE SEARCH\]](#) [\[NEW SEARCH\]](#) [\[GLOSSARY\]](#)

Region ('8')

County ('Orange')

Date Range: Start_Date (01/01/2007) End_Date (12/31/2011)

DRILLDOWN HISTORY: [\[GO BACK TO LISTING OF COLLECTION SYSTEMS\]](#)

Huntington Beach City CS

Agency: Huntington Beach City

General Information



Region	Place ID	Place Name	CS Category	Place Address	Place County
8	258410	Huntington Beach City CS	Municipal	19001 Huntington Huntington Beach, CA, 92647	Orange



Collection System Spill Summary

Operational Indices: Huntington Beach City CS

Spill Rate Indice (#spills/100mi/yr)						
	Category 1			Category 2		
	Mainlines	Laterals	Not Specified	Mainlines	Laterals	Not Specified
Huntington Beach City CS	0.5	0.11	0.0	0.39	0.2	0.06
State - Municipal - Average	<u>2.17</u>	<u>3.8</u>	<u>1.47</u>	<u>4.27</u>	<u>17.74</u>	<u>3.68</u>
Region - Municipal - Average	<u>0.39</u>	<u>0.43</u>	<u>0.21</u>	<u>3.16</u>	<u>0.7</u>	<u>0.29</u>

Net Volume Spills Indice (Net Vol in gallons/1000 Capita/yr)						
	Category 1			Category 2		
	Mainlines	Laterals	Not Specified	Mainlines	Laterals	Not Specified
Huntington Beach City CS	1.95	0.26	0.0	0.13	0.17	0.0
State - Municipal - Average	<u>1316.5</u>	<u>977.72</u>	<u>8271.61</u>	<u>29.05</u>	<u>2.47</u>	<u>21.82</u>
Region - Municipal - Average	<u>7.76</u>	<u>0.1</u>	<u>12.49</u>	<u>0.71</u>	<u>0.07</u>	<u>1.84</u>

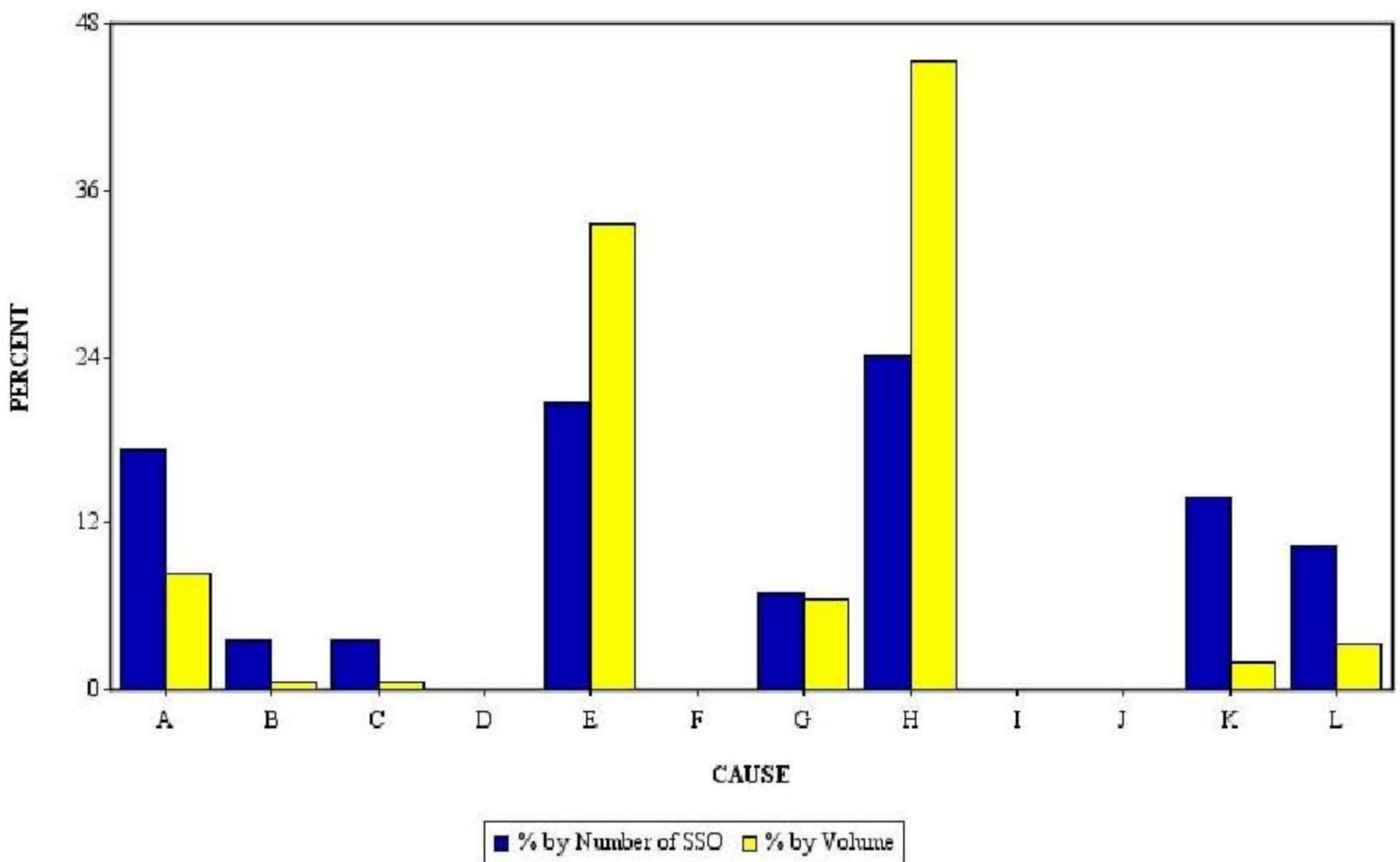
Note: Click on hyperlinks to get comparison charts for CS, Region, and State grouped by 'Miles Of Pipe'.

- (1) The number of Category 1 and 2 SSOs resulting from a failure in the Enrollee sewer system per 100 miles sewer system owned by the Enrollee per year.
- (2) Net Volume (volume spilled minus volume recovered) of SSOs, for which the reporting Enrollee is responsible, per capita (i.e. the population served by your agency's sanitary sewer system), per year.
- (3) Value calculated using miles of force mains and other pressure systems and miles of gravity sewers the agency is responsible for.
- (4) Value calculated using miles of laterals the agency is responsible for (Lower Only, Upper/Lower). For collection systems with no lateral responsibility a N/A is shown.
- (5) Value Calculated using total miles of collection system pipe the agency is responsible for.
- (6) Comparison made between similar collection systems type (e.g. municipal) and lateral responsibility for the entire state over the selected time period. Comparison indices are calculated for all similar collection systems and averaged for comparison.
- (7) Comparison made between similar collection systems type (e.g. Municipal) and lateral responsibility for collection systems in same region (e.g. Region 5S). Collection system indices are calculated for all similar collection systems and averaged for comparison. For airport, hospital, marinas, military, park, port, prison, school, and other collection systems facilities, only state comparison is shown.
- (8) For Criteria used and term definitions refer to the SSO Glossary of Terms.



Percentage of total Number and Volume of SSOs by Spill Cause

Collection System: Huntington Beach City CS

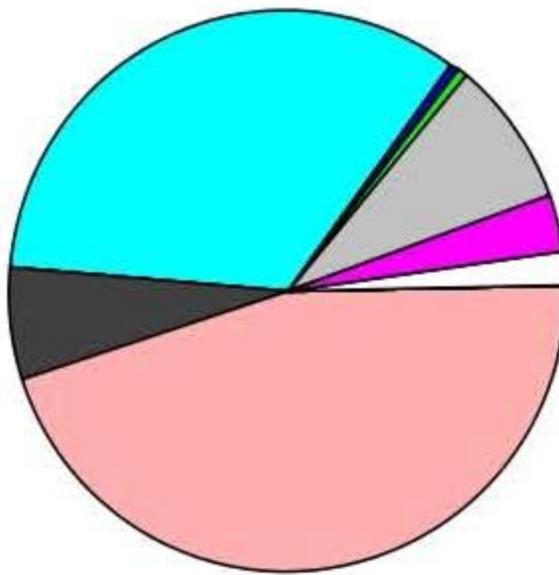


A=Debris-General, B=Debris-Rags, C=Debris, D=Flow exceeded capacity, E=Grease deposition (FOG), F=Operator error, G=Other, H=Pipe structural problem/failure, I=Pump station failure, J=Rainfall exceeded design, K=Root intrusion, L=Vandalism

Percentage of total Volume of SSOs by Spill Cause



Huntington Beach City CS



8% A 0% B 0% C 0% D 33% E 0% F 6% G 45% H 0% I 0% J 1% K 3% L

A= Debris -General, B= Debris-Rags, C= Debris, D= Flow exceeded capacity, E=Grease deposition (FOG), F= Operator error, G=Other, H= Pipe structural problem/failure, I= Pump station failure, J= Rainfall exceeded design, K=Root intrusion, L= Vandalism



Region 8

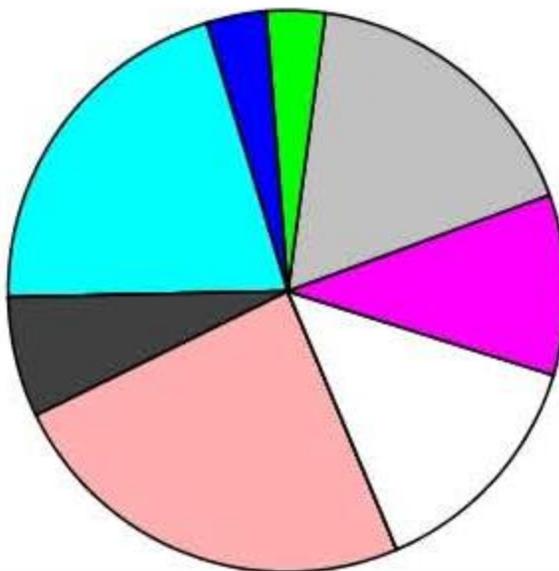


State of California

Percentage of total Number of SSOs by Spill Cause



Huntington Beach City CS



17% A 3% B 3% C 0% D 20% E 0% F 6% G 24% H 0% I 0% J 13% K 10% L

A= Debris -General, B= Debris-Rags, C= Debris, D= Flow exceeded capacity, E=Grease deposition (FOG), F= Operator error, G=Other, H= Pipe structural problem/failure, I= Pump station failure, J= Rainfall exceeded design, K=Root intrusion, L= Vandalism



Region 8



State of California

Collection System Questionnaire Data(*)

Collection System Information: Huntington Beach City CS

Status	Active
Last Updated On	2012-01-25 16:15:38.0
Population Served	201,000
Miles of Force Main	2.3
Miles of Gravity Sewer	360
Miles of Laterals	630
Portion of Laterals Responsible	lower
Miles of Laterals Responsible	705
Number of Service Lateral Connection	52000
Sewer Constructed 2000 Current	3
Sewer Constructed 1980 1999	24
Sewer Constructed 1960 1979	67
Sewer Constructed 1940 1959	3
Sewer Constructed 1920 1939	2
Sewer Constructed 1900 1919	1
Sewer Constructed Before 1900	0
Inaccessible Sewer (Miles)	0
Sewer Clean Production (Miles/Yr)	325
Gravity Sewer Inspection (Miles/Yr)	50

(*) The information presented above was provided by the Enrollee in the Collection System Questionnaire. Enrollees are required to update the questionnaire information at least once a year; therefore, the information presented above may not be the most current.

Sewer System Management Plan (SSMP) Completion (*)

SSMP Information: Huntington Beach City CS

Task and Associated Section	Completed
Development Plan and Schedule	Yes
Section I - Goal	Yes
Section II - Organization	Yes
Section III - Legal Authority	Yes
Section IV - Operation & Maintenance Program	Yes
Section V - Design & Performance Provisions	Yes
Section VI - Overflow Emergency Response Plan	Yes
Section VII - FOG Control Program	Yes
Section VIII - System Evaluation & Capacity Assurance Plan	Yes
Section IX - Monitoring, Measurement, and Program Modifications	Yes
Section X - SSMP Program Audits	Yes
Section XI - Communication Program	Yes
Complete SSMP Implementation	Yes

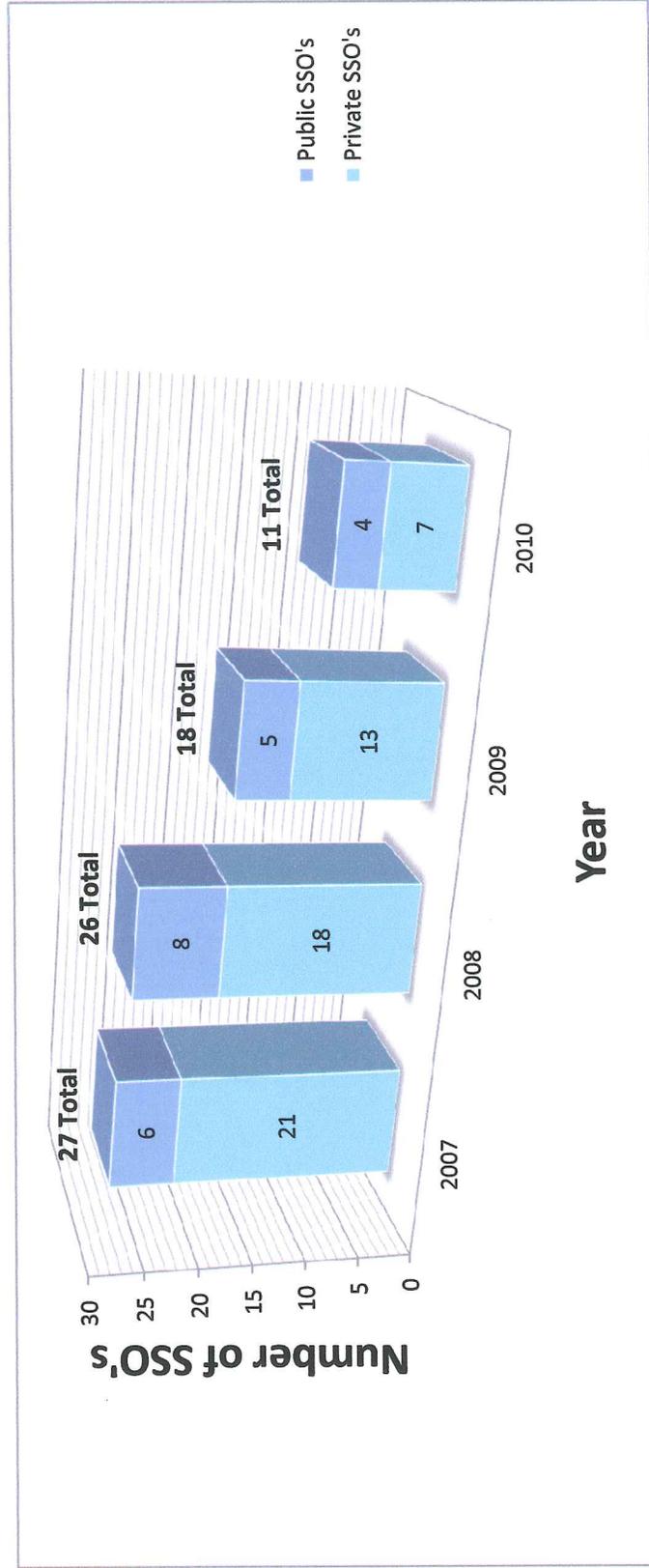
(*) Under the Statewide General WDRs for Sanitary Sewer Systems, WQO No. 2006-0003, enrollees are required to develop and implement a written Sewer system Management Plan (SSMP) and must make it publicly available. The SSMP must be approved by the deadlines in the SSMP Time Schedule presented in the Sanitary Sewer Systems WDR.

Additional Information:

- Data used for the Operational report is reported by the enrollees through the CIWQS (California Integrated Water Quality System) SSO module.
- Indices are calculated for the date range specified (default is past 4 months) and using data available since reporting was required for all enrollees as specified in the Sanitary Sewer Systems WDR. Reporting was required to begin for Regions 4,8,9 on 1/2/2007, Regions 1,2,3 on 5/2/2007, and, Regions 5,6,7 on 9/2/2007.

- Comparisons are made between similar collection systems type (e.g. Municipal), and lateral responsibility for the entire state and region. Indices are calculated for all similar collection systems and averaged for comparison.
- Category 1 spills are required to be fully certified 15 calendar days after SSO response conclusion and Category 2 spills are required to be fully certified 30 Calendar days after end of calendar month which SSO occurred. Therefore, spill records for the past approximately 60 days may be incomplete.
- Average Number of Spills per 100 miles: Measures the number of sewer overflows per 100 miles of sewer lines. Notice that these indices are strongly influenced by the length of collection system owned by the enrollee.
 - For instance, an enrollee that owns and operates a collection system of one (1) mile in length having only one (1) spill (analyzing data for ONE year) will have a Operational indice of 100.0 spills/100mi/yr. On the other hand, an enrollee that owns and operates a collection system of one hundred (100) miles in length having only one (1) spill (analyzing data for ONE year) will have a Operational indice of 1.0 spills/100mi/yr.
- Average Net Volume (volume spilled minus volume recovered) of Spills per Capita: Measures the volume in gallons of SSOs, for which the reporting Enrollee is responsible, per capita (the population served by your agency's sanitary sewer system). Where the volume recovered is greater than the volume spilled, the net volume will be considered to be zero.
- The "agency" or Enrollee listed on a SSO report is responsible for the data presented in this report and should be contacted directly for questions related to their Data.
- More information on the Sanitary Sewer Overflow Reduction program is available at: http://www.waterboards.ca.gov/water_issues/programs/ss0/index.shtml
- The Sanitary Sewer Overflows Incident Map is available at: http://www.waterboards.ca.gov/water_issues/programs/ss0/ss0_map/ss0_pub.shtml
- The Interactive SSO report: https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/PublicReportSS0Servlet?reportAction=criteria&reportId=ss0_main

Year	Private	Public	Total SSO
2007	21	6	27
2008	18	8	26
2009	13	5	18
2010	7	4	11



ATTACHMENT M

LIST OF CONTRIBUTORS

LIST OF CONTRIBUTORS

- Section 1: Goals
Editor
- Section 2: Organization
All/Editor
- Section 3: Legal Authority
Editor
- Section 4: Operation & Management Plan
Wastewater Section – Mc Elroy/Birchfield/Rathbun
- Section 5: Design and Performance Provisions
Engineering Section – Broussard
- Section 6: Overflow Emergency Response Plan
Wastewater Section – Mc Elroy/Birchfield/Rathbun
- Section 7: Fats, Oil, & Grease Control Program
FOG Section – Merid
- Section 8: System Evaluation & Capacity Assurance Plan
Engineering Section – Broussard
- Section 9: Monitoring, Measurement, & Program Modifications
Editor
- Section 10: SSMP Program Audits
Editor
- Section 11: Communication
Editor