



**Lancaster Sanitary Sewer Collections System
2009-2010 Annual Performance Report**

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Lancaster Sanitary Sewer Collections System 2009-2010 Annual Performance Report

Purpose: This report is intended to provide pertinent information on the operations and maintenance of the City of Lancaster Sanitary Sewer Collections System from July 1, 2009, through June 30, 2010. It includes the continued growth of the sewer system, accomplishments, and performance of the Utility Services Division staff that are responsible for the operation and maintenance (O&M) of the sewer system to protect the health and safety of the residents of the City of Lancaster.

Background: The City assumed responsibility for the O&M of its sanitary sewer system from the County of Los Angeles Consolidated Sewer Maintenance District on July 1, 2008. Prior to this, significant local growth in housing development and associated population necessitated the sewer system's expansion to serve increased demands, until the City took over control of the local system in the best interest of its residents.

System Growth and Characteristics: Development in the City has tapered off significantly during the reporting period, and growth characteristics of the sanitary sewer system reflect this. Table I: Sewer System Statistics below compares the makeup of the sewer system from July 1, 2009, to June 30, 2010.

Table I: Sewer System Statistics

System Characteristics	July 1, 2009	June 30, 2010	Net Change	% Change
Pipe Length (miles)	390	397	+7	+1 %
No. of Manholes	8312	8494	+182	+1 %
No. of Sewer Pump Stations	1	1	0	0%

As shown above, on July 1, 2009, the system consisted of approximately 390 miles of various sized sewer mains, 8,312 manholes and a single lift station. On June 30, 2010, the system had grown to approximately 397 miles of various sized sewer mains, 8,494 manholes and a single lift station. This indicates an approximately 1% increase in the length of pipes and a 1% increase in the number of manholes in the system during the year.

The pipe sizes range from 6" to 24" and include cast or ductile iron, and vitrified clay pipe (VCP). The majority of the sewer pipe in the system is 8" diameter VCP.

The age of the sewer system is between 1 and 50+ years with an average age of 30 years.

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Accomplishments: This is the second year the Utility Services Division has operated and maintained its sewer system. As such, there was much time devoted to training, purchasing needed tools and equipment, and preparing policies and procedures for the Division.

Staff include:

- 1 – Utility Services Manager
- 1 – Public Works Supervisor
- 2 - Lead Utility Maintenance Workers
- 4 - Utility Maintenance Worker II
- 5 - Utility Maintenance Worker I

Repositioned Staff include:

- 1 – Environmental Engineer
- 1 – Associate Civil Engineer
- 1 – Engineering Permit Technician
- 3 – Inspectors
- 1 – Division Secretary

Purchased Equipment and Tools include:

- 1 – Hydro Sewer Flushing Truck
- 1 – Sewer Easement Cleaning Machine and Trailer
- 2 - Pickup Trucks
- 2 – Jeep's
- Various small tools such as: confined space entry equipment, pumps, nozzles, bars, hand tools etc.

Training of Staff in various areas of responsibility includes:

- General Workplace Safety
- Sewer cleaning methods and tools
- Emergency response to sewer spills
- Confined space entry and rescue
- Pump station maintenance
- First Aid and CPR
- Job site safety and defensive driving
- California Water Environment Association (CWEA) specific training for passing Grades I, II and III as appropriate for the position held
- California Hazardous Waste Management
- Department of transportation (DOT) Hazardous Materials Training

Certifications: All staff passed required tests appropriate for their position:

- 5 - CWEA Grade I
- 6 - CWEA Grade II
- 1 - CWEA Grade III
- 3-California Department of Public Safety Administration PC 832 POST*
- 2- Cal EPA Basic Environmental Inspector*
- 1- Cal EPA Fundamental Inspector*

** Certifications corresponding to Utility Services Inspector position.*

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Performance: During the year Staff performed the following maintenance on the sewer system which is compared to the previous year's performance:

Sewer System Performance	7/1/08 to 6/30/09	7/1/09 to 6/30/10
<i>Pipe Cleaning</i>		
Total Flushed	407,124 lf / 77.1 mi	438,231 lf / 83 mi
Flushed Planned Maintenance	402,924 lf / 76.3 mi	419,331 lf / 79.41 mi
Flushed Unplanned Maintenance	4,200 lf / 0.79 mi	18,900 lf / 3.58 mi
Total Root Cut	350,080 lf / 66.30 mi	76,459 lf / 14.48 mi
Root Cut Planned Maintenance	348,688 lf / 66 mi	74,803 lf / 14.16 mi
Root Cut Unplanned Maintenance	1,400 lf / 0.26 mi	1,656 lf / .31 mi
Percentage of Planned to Unplanned Maintenance	99%	96%
<i>CCTV Inspection (Contracted)</i>	17,500 lf / 3.31mi	248,959 lf / 47.15 mi
<i>Manholes</i>		
Inspected	3,771 ea	2,463 ea
Repaired	36 ea	40 ea
<i>Number of Public Sanitary Sewer Overflows (SSO) Events *</i>	5	4
SSO Rate, SSO/100 Mi/Yr	1.28	0.99
Portion of SSO Runoff Contained	95%	100%
Portion SSO Runoff to Surface Waters	0%	0%
<i>Main SSO Causes</i>		
Grease	80%	100%
Vandalism	20%	0%

*Performance measures required by the City of Lancaster's Sewer System Management Plan (SSMP) dated March 2009. Staff also responded to 9 private SSO. SSO were reported as required by law.

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The above chart indicates approximately 20% of the entire sewer system was cleaned during the year and 96% of the work performed was planned work, rather than unplanned emergency work.

Other: The Utility Services Manager carried out additional responsibilities of the Confined Space Program Manager and the Environmental Engineer assumed duties of FOG Control Program Manager during the course of this reporting period. USD assumed the responsibility for the storm drain maintenance function (without adding additional staff for that purpose) and the environmental compliance responsibilities for the City.

FOG (Fats, Oils & Grease)

The City advocates strong local business and environmental stewardship, and is actively implementing a program to eliminate FOG related blockages from the municipal sanitary sewer system. FOG, or fats, oils, and grease are a combination of residual kitchen wastes resulting from food processing and preparation of meals.

Blockages caused by FOG in our local sanitary sewer system are a growing industrial and environmental concern. Sanitary sewer systems are neither designed nor equipped to handle the FOG that accumulates in them, yet 100% of sanitary sewer overflows in the City of Lancaster during Fiscal Year 2009-2010 were the result of pipe blockages from FOG accumulation. Not only are these blockages violations of sewer use and environmental regulations, but they directly result in sewer overflows to local residences, businesses and to storm drains.

To prevent such blockages, the City adopted Ordinance No. 926 and Resolution 09-91, effective January 1st of this year, which created the City's FOG Control Program. This program provides a proactive approach to controlling FOG related blockages by overseeing and controlling the discharge of FOG into the City sanitary sewer system, and by requiring that food service establishments (FSE) apply for and obtain a FOG Wastewater Discharge Permit. A FOG permit allows FSEs to discharge to the City sanitary sewer system under controlled conditions. The purpose of the program is to reduce the quantity of FOG entering the sewer system, which in turn will reduce the number and severity of FOG related sewer system overflows (SSOs). The Ordinance requires grease interceptors or other acceptable devices or methods such as kitchen Best Management Practices be used to remove or reduce FOG from entering the sewers and establishes fees to assist with implementation and compliance.

There are currently 268 commercial food service establishments (FSE-FOG sources) served by the City's sanitary sewer collection system. The City preventively cleans approximately 9 miles of sewer lines that have historically been problem areas at frequencies ranging from monthly to semi-annually in order to prevent blockages and

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SSOs due to the deposition of FOG and other debris. The City adds or removes sewer lines to its preventive maintenance program following blockages or SSO events and in response to observations of grease or other debris during CCTV inspections or during proactive cleaning of the sewers. Since January 1st, the Utility Services Division has received FOG Program applications from 95% of the FSE's operating in Lancaster; conducted 141 initial inspections; and exempted 27 local FSE's from the FOG Program.

Conclusion: The Utility Services Division staff met and/or exceeded the performance objectives established with respect to the operations and maintenance of the Lancaster Sanitary Sewer System for Fiscal Year 2009-2010.

It is anticipated that the sewer system will continue to grow and that as the system ages, Capital Improvement projects will be required to repair or replace pipes and manholes. The City has established financial reserves to provide for the repair and future replacement of the sewer system.

As the FOG program continues to mature, gaining awareness and acceptance, the Utility Services Division will begin implementing parallel environmental inspection and compliance programs, such as the Industrial Waste Water Discharge Program in efforts to enhance and safeguard Lancaster's environmental health and prevent property damage through efficient and effective sewer and drainage maintenance.



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RY10 DIRECT ASSESSMENT
'580' TXNS SUMMARY REPORT
08/17/10

<u>ACCT1</u>	<u>ITEM</u>	<u>DA_AMT</u>
18680	7	11,556.79
TOTAL	7	11,556.79

MORE

Utility Services Division Performance Objectives

The following performance objectives were established for the Utility Services Division for the Sewer Collections System for FY 2009-2010.

Complete monthly, quarterly, semi-annual, and annual routine maintenance work as scheduled 95% of the time.

Provide for the health and safety of the citizens of Lancaster through proper maintenance of the sewer collection system.

Respond to and report all public Sanitary Sewer Overflows (SSO) in accordance with WDR.

Respond to citizen concerns within 24 hours of receiving notification for general issues and within 2 hours for emergency issues.

Train staff to CWEA Sewer Collection System Technician Certification Requirement.

Provide an Annual Sewer Collection System Report to City Council.



Goal:

The City's goal is to provide the residents of Lancaster the best possible service at the most economical cost. By reporting vandalism, Sanitary Sewer Overflows (SSO) and by properly disposing of fats, oils and grease (FOG), citizens can assist in keeping service up and costs down.

Sanitary Sewer Overflows

SSO pose a health risk to the public and must be immediately addressed. Such overflows can be costly to the City, as they may result in state and federal fines as well as additional man-hours. Blockages impede scheduled maintenance efforts and require maintenance crews to take strenuous steps in order to clear, clean, and disinfect the area to protect public health.

FOG

FOG is a combination of fats, oils and grease used in food processing and in preparation of meals. FOG bearing materials, among others, include: cooking oil, fat, lard, grease, butter, tallow, shortening and margarine. During food preparation, meats such as beef, pork, lamb, poultry, and seafood also generate FOG. Kitchen waste containing these materials, as well as water that has been used to wash kitchen equipment and floors, contains FOG and does not belong in the sewer system because it is a major contributor to SSO, instead dispose of all FOG in the garbage.

No Drugs Down the Drain

Please do not dispose of medications or other drugs in the sewer system. They can be properly disposed of at:



Antelope Valley Environmental
Collection Center
1200 West City Ranch Road
Palmdale, CA 93551
(888) 253-2652

You Can Help

Please report vandalism, FOG violations, suspicious activity around manholes, spills or strong sewage odors to the City at (661) 723-5985 during regular business hours or (661) 810-7000 after hours.



2009-2010 Sanitary Sewer System Second Annual Performance Report

2009-2010 Sanitary Sewer System Annual Performance

Purpose: This is the second annual sanitary sewer system performance report relating to the operations and maintenance (O&M) of the Lancaster Sewer Collections System. This report is intended to provide pertinent information on the O&M of the system during the previous fiscal year.

Background: The City assumed responsibility for the O&M of its sanitary sewer system from the County of Los Angeles Consolidated Sewer Maintenance District on July 1, 2008, believing that local control of the system was in the best interest of its residents.

The Public Works Department Utility Services Division is responsible for O&M of the system.

On July 1, 2008, the system consisted of approximately 325 miles of various sized sewer mains, 7,450 manholes and a single lift station. On June 30, 2010, the system consists of approximately 397 miles of various sized sewer mains, 8,494 manholes and a single lift station.

This indicates roughly an 22% increase in the size of the system to date.

The sewer mains range in age from 1 to 50+ years old with an average age of 30 years old.

Accomplishments: During the reporting period the Utility Services Division has accomplished the following:

Certification: All staff prepared for and passed the required CWEA test appropriate for their positions: 5 CWEA Grade I, 6 CWEA Grade II, 1 CWEA Grade III; 3 California Department of Public Safety Administration PC 832 POST, 2 Cal EPA Basic Environmental Inspector and 1 Cal EPA Fundamental Inspector.

Training: Staff received training in various areas of responsibility including: Confined space entry and rescue, respirator use, sewer cleaning methods and tools, emergency response to sewer spills, pump station maintenance, First Aid/CPR, job site safety and defensive driving, recycled water site supervision, California Hazardous Waste Management, Department of Transportation (DOT) Hazardous Materials Training and California Water Environment Association (CWEA) training for Grades I, II and III and other training provided through the City.

Promotions, Staff Acquisitions: 2 Lead Utility Maintenance Workers, 3 Utility Maintenance Workers II, 4 Utility Maintenance Workers I, 1 Environmental Engineer, 1 Associate Civil Engineer, 1 Engineering Permit Technician, 3 Inspectors and 1 Division Secretary.

Purchased Equipment including: 1 Hydro Sewer Flushing Truck, 1 Sewer Easement Cleaning Machine, 2 Pickup Trucks, 2 SUVs, and various small tools such as: confined space entry equipment, pumps, nozzles, bars, and other hand tools.

Performance: Staff provided the following O&M services to the citizens of Lancaster. Note 96% of the work accomplished by the Utility Maintenance Crews was Preventative Maintenance (PM) work.

Sewer System Performance	7/1/09 to 6/30/10
Pipe Cleaning	
Flushing	
Planned Maintenance	79.41 mi
Unplanned Maintenance	3.58 mi
Root Cut	
Planned Maintenance	14.16 mi
Unplanned Maintenance	0.31 mi
Percent of Planned to Unplanned Maintenance	96%
CCTV Inspection	47.15mi
Manholes	
Inspected	2463 ea
Repaired/Raised to Grade	40 ea
Number of Public SSO Events	4
SSO Rate, SSOs/100 Mi/ Yr	.99
Portion of SSO Contained	100%
Portion of SSO to Surface Waters	0%
SSO Causes	
Grease	100%
Vandalism	0%

Utility Services Manager carried out additional responsibilities of Confined Space Program Manager, and the Environmental Engineer assumed duties of FOG Control Program Manager during the course of this reporting period.

