Volume 10
PLACER COUNTY SERVICE AREA 28, ZONE 55
(CSA 55) LIVOTI
SEWER SYSTEM MANAGEMENT PLAN

INTRODUCTION

PLACER COUNTY MAINTAINED PUBLIC SEWER SYSTEMS

The Placer County Department of Facility Services operates and maintains ten separate sanitary sewer systems within the County. Nine of the ten are either Sewer Maintenance Districts (SMD's) or County Service Areas (CSA's) which derive their operating revenue from sewer user fees. Funds do not co-mingle between Districts. The Placer County Board of Supervisors is the governing board of each SMD or CSA. The tenth sewer system serves the Cabin Creek Facility, with the property being owned by the County. On May 2, 2006, the State Water Resources Control Board adopted Order 2006-003 which required all public owned sewer systems in the State with more than one mile of pipe to develop a Sewer System Management Plan (SSMP). Volume 1 (All Districts), 2 (Appendix) and this volume are the SSMP for this District and the reader should refer to Volume 1 Introduction for a detailed description of that State requirement.

CSA 55 HISTORY AND DESCRIPTION

The neighborhood that was eventually called "Livoti" was first subdivided in 1946 by the Livoti family. That subdivision, and several after it, created about 234 residential lots of about 10,000 square feet each. A number of homes were built on them and sewage disposal was by leach fields and seepage pits. By the early 1960's, it became obvious that there was a health problem with the soil systems and, in1964, an assessment district was formed with bonds sold for the design and construction of a sewer system.

All of the area that is now CSA 55 drains south into Sacramento County, which has gravity sewer pipes on their side of the County line. In 1964, an agreement was reached with Sacramento County Sanitation District 1 to accept wastewater from the Livoti Area. In that agreement, Sacramento County agreed to operate and maintain the sewage collection system in the Livoti Area (inside Placer County) and collect sewer service charges directly from the homeowners. Over time additional sewer lines were constructed to serve the parcels of land as they developed. Also, in 1999 Placer County applied for and obtained a Community Development Block Grant to sewer the remaining portion of the Livoti area that was on leachfields. This project covered the northeast corner of the Livoti area and when it was complete, all existing homes were ordered to abandon their leaching systems and to connect to the new sewer system.

In 1986 Sacramento County informed Placer County that they no longer wished to operate and maintain the sewer pipes within Placer County and wanted to re-negotiate their contract. A new agreement was reached (copy contained in Volume 2, Appendix F) and Placer County formed County Service Area 28, Zone 55. Wastewater continued to flow into Sacramento County for treatment and disposal while the CSA began operating the sewer system in Livoti. Also, in the 1980's and 1990's, the City of Roseville annexed all of the open land on the north and east of CSA 55 into their city limits. That Roseville area was developed with sewers connecting to the City of Roseville wastewater treatment plant rather than Sacramento County.

Through the CSA, Placer County collects sewer user fees from parcels connected to the sewer system. The County uses the fees to pay for sewer maintenance and to pay Sacramento County to treat the wastewater. A district sewer map is provided in Section 4a.1 of this SSMP. It shows the main part of Livoti's sewers connecting to Sacramento County off Whyte Avenue along with five other short connections (serving only a few lots each) between Mariposa Avenue and Sunrise Avenue. Nine lots at the north end of Mariposa Avenue do drain into the City of Roseville's Sewer System; however, that portion also goes into Sacramento County for sewer service. As of July 2008, CSA 55 has approximately 3 miles of sewer pipe in the ground and 234 Equivalent Dwelling Unit (EDU's) connections.

PLACER COUNTY SERVICE AREA 28, ZONE 55
(CSA 55) LIVOTI
SEWER SYSTEM MANAGEMENT PLAN

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PLACER COUNTY SERVICE AREA 28, ZONE 55
(CSA 55) LIVOTI
SEWER SYSTEM MANAGEMENT PLAN

1.0 GOALS

1.1 Introduction

Goals are the crux of any plan. They are the defining targets in which more specific objectives of this SSMP are aimed. Even though Placer County could develop a number of very specific goals as developed in further sections of this SSMP, they are best summed up in the following general goals.

1.2 Placer County SSMP Goals

As mentioned in the introduction to this SSMP, a number of requirements or sections of the SSMP provide data pertaining to all ten County maintained public sewer systems and there is no reason to duplicate the information. This section is one of those sections and it can be found in its entirety in Volume 1 and 2. **The reader should refer to those binders for information regarding the "Goals" requirements**

2.0 ORGANIZATION

2.1 Introduction

As mentioned in the introduction to this SSMP, a number of the requirements or sections of the SSMP provide data pertaining to all ten of the Placer County maintained public sewer systems and there is no reason to duplicate that information. This is one of those sections that can be found in its entirety in Volume 1 and 2. **The reader should refer to those binders for information regarding the "Organization" requirements.**

3.0 LEGAL AUTHORITY

3.1 Introduction

Of the ten wastewater collection systems owned and maintained by Placer County (see Table Int-1), five have their own wastewater treatment systems and do not rely on other agencies for wastewater treatment. The remaining five sewer systems are satellite collection systems that connect to wastewater treatment plants owned and operated by other public agencies. This makes the legal authority for all ten sewer systems and their two satellite systems somewhat complicated. CSA 55 has its own wastewater treatment system and thus is not a satellite collection system. An explanation of the districts legal authority is as follows:

3.2 Placer County Code, Articles 13.12 and 13.14

Every Placer County maintained sewage collection system, whether it has it own wastewater treatment plant or it is a satellite collection system to another agency's treatment plant, is covered by Articles 13.12 and 13.14 of the Placer County Code. Article 13.12 is a comprehensive sewer ordinance that has been in use over 40 years and governs operation and maintenance of the County's sewer system. It also contains the user fee, annexation fee and connection fee schedule for the nine sewer systems (excluding Cabin Creek). This ordinance has been updated many times and will continue to be updated as conditions warrant. Article 13.14 is the Placer County Industrial Pretreatment Ordinance. While this article primarily regulates industry to protect the district wastewater treatment systems, it does regulate many industrial types of discharges that could have adverse effects on collection systems.

Section 3, of the State's GWDR, directs that legal authority cover a minimum of five items. Those five items and their location in the Placer County Code are summarized in the following table.

Table 3-1, GWDR Legal Authority Requirements

Requirement	Code Location
Prevent illicit discharges	Section 13.12.020 Section 13.12.070 Section 13.12.100 Section 13.12.140 Section 13.14.050
Require proper design and construction	Section 13.12.210 and 220
Ensure access for maintenance/repairs	Section 13.14.180
Limit FOG discharges	Section 13.14.050
Enforce violations	Section 13.12.190 and 330

The Placer County Department of Facility Services periodically publishes a booklet containing current copies of Sections 13.12 and 13.14 of the County Code together with copies of the applicable City of Roseville Sewer Codes (see Sub-Section 3.2 of this Section). That booklet is contained in **Appendix "B"** and a separate copy can be obtained at the Facility Service's front counter or the Community Development Resources Agency front counter. It is titled "Rules and Regulations of Placer County Operated Sewer and Water Systems". A current copy of the Placer County Code can also be found on the County web site at http://ordlink.com/codes/placer/index.htm.

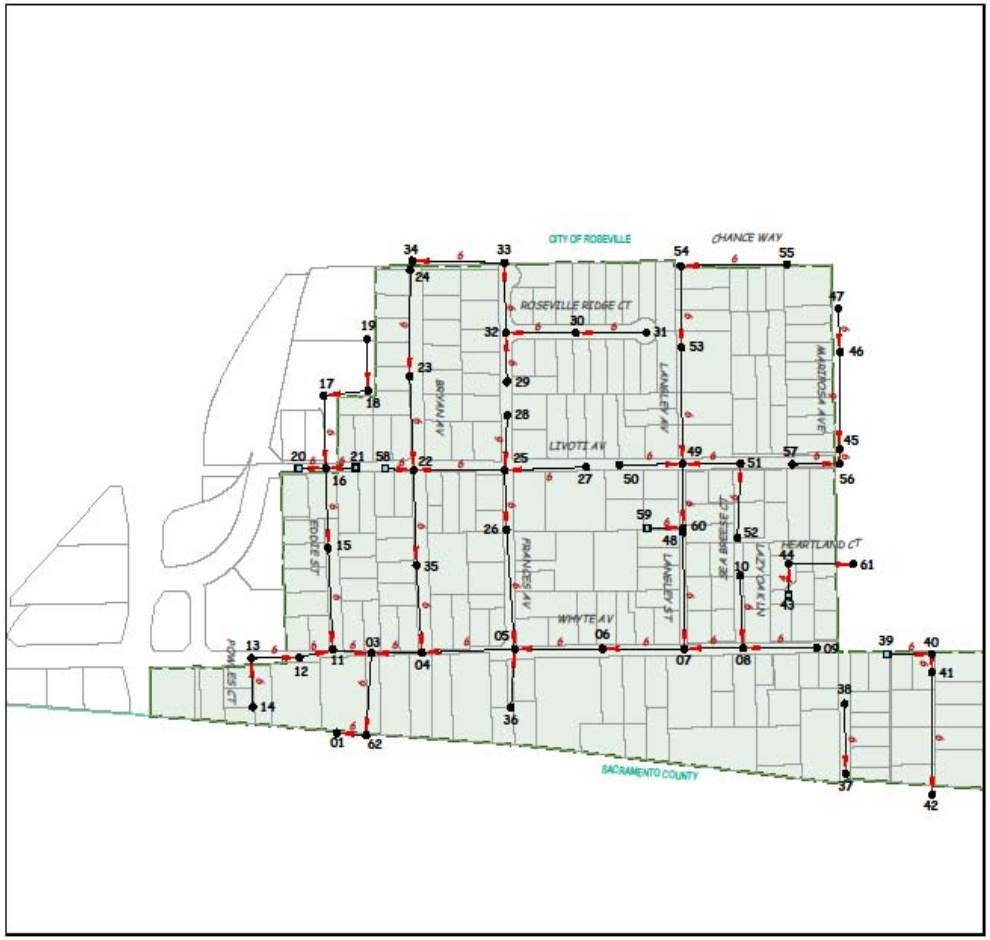
PLACER COUNTY SERVICE AREA 28, ZONE 55
(CSA 55) LIVOTI
SEWER SYSTEM MANAGEMENT PLAN

4.0 OPERATIONS AND MAINTENANCE PROGRAM

4a.0 Collection System Map

4a.1 Introduction

As described in detail in Section 4 of Volume 1 (all districts SSMP), Placer County uses a GIS mapping system to produce sewer maps of each of the ten sewer systems it maintains. The mapping system produces wall size maps (1”=400’) of the boundary of each district and also produces 11”x17” map book pages placed in map books and used by maintenance personnel. Index map copies and one of the individual map pages for CSA 55 are contained in the following two pages. Wall maps of the entire sewer district are available for public review at the front counter of the Community Development Resource Agency the Environmental Engineering Offices.



HA1 HA2

LIVOTI

CSA 28 - ZONE 55
SANITARY SEWER

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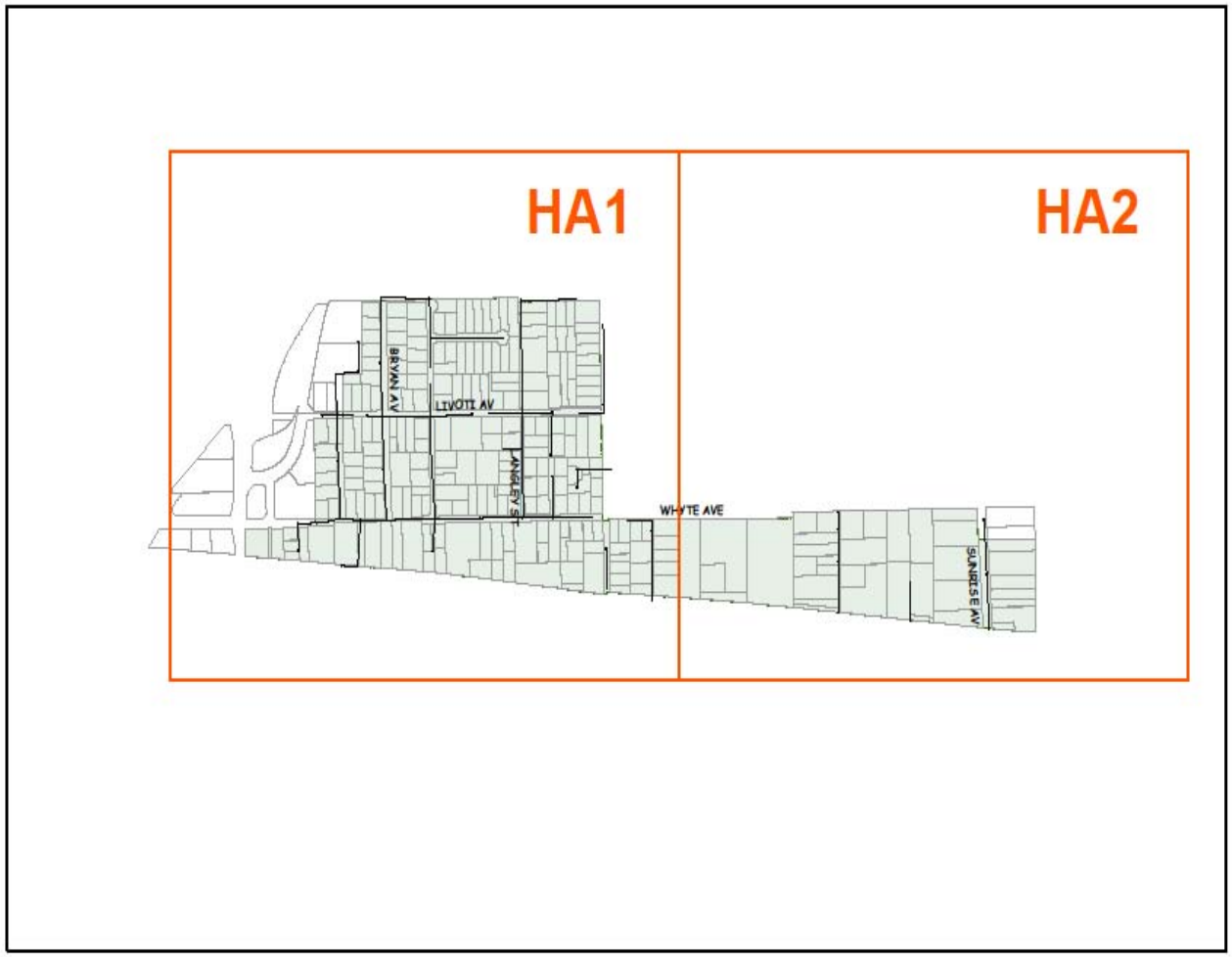
SCALE: 1" = 400'

PLACER COUNTY

FACILITY SERVICES



MAP INDEX

LIVOTI

CSA 28 - ZONE 55
SANITARY SEWER

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PLACER COUNTY

FACILITY SERVICES

4b.0 Preventive Operation and Maintenance

4b.1 Introduction

As mentioned in the introduction to this SSMP, a number of the requirements or sections of the SSMP provide data pertaining to all ten of the Placer County maintained public sewer systems and there is no reason to duplicate that information. This is one of those sections that can be found in its entirety in Volume 1 and 2. **The reader should refer to those binders for information regarding the "Preventive Operation and Maintenance" requirements.**

4c.0 Rehabilitation and Replacement Plan

4c.1 Introduction

As noted in Volume 1, "All districts SSMP", Section 4c, in order to develop a Rehabilitation and Replacement (R & R) plan for a sewer system, a condition assessment of the sewer system must be completed. Methods of doing a condition assessment are detailed in Section 4c. **Before proceeding with this section of this SSMP, the reader should review Section 4c of Volume 1 to better understand the methods chosen to evaluate this sewer system.**

4c.2 Condition Assessment, Rehabilitation, and Replacement Plan

As noted in Section 4c, before a R&R plan can be developed, a condition assessment of a sewer system must be made. That condition assessment usually consists of the following:

- Television inspection of gravity sewer lines.
- Smoke testing sewer lines.
- Hydro cleaning sewer lines.
- Visual inspection of manholes.
- Complete inspection of sewage pump stations.

The ten sewer districts maintained by Placer County vary in size from 0.5 miles to 118 miles of pipe and have 42 sewage pump stations between them. Therefore, a condition assessment can be relatively easy to complete for the small districts and difficult for the large districts. For the large districts, conducting a condition assessment of the entire district at one time can be cumbersome and inefficient due to the shear volume of work to be completed and analyzed. In those districts, dividing the sewer districts into small sections is a feasible way of completing the project over a number of years rather than all at once.

In the case of CSA 55, the following information is available:

- The CSA has approximately three miles of sewer pipe and no sewage pump stations.
- Some TV work and smoke testing has been done in recent years.
- No sewer system overflows have been recorded in the last five years.
- No Condition Assessment or Rehabilitation and Replacement Plans have been developed.

Therefore, it is recommended that the sewer system and manholes be inspected, smoke tested and a condition assessment be completed prior to the preparation of an R & R plan.

4c.3 CSA 55 Rehabilitation and Replacement Schedule

The proposed schedule for completion of the above noted work is as follows:

Proposed Project	Completion Year
Televise Sewers	2015
Manhole Inspections	2015
Smoke Testing	2015
Condition Assessment Report	2015
Rehabilitation and Replacement Plan developed (if needed)	2015
Funding Program (if needed)	2016

4d.0 Training

4d.1 Introduction

As mentioned in the introduction to this SSMP, a number of the requirements or sections of the SSMP provide data pertaining to all ten of the Placer County maintained public sewer systems and there is no reason to duplicate that information. This is one of those sections that can be found in its entirety in Volume 1 and 2. **The reader should refer to those binders for information regarding the "Training" requirements.**

4e.0 Contingency Equipment and Replacement Inventories

4e.1 Introduction

As mentioned in the introduction to this SSMP, a number of the requirements or sections of the SSMP provide data pertaining to all ten County maintained public sewer systems and there is no reason to duplicate that information. This section is one of those sections and it can be found in its entirety in Volume 1 and 2. **The reader should refer to those binders for information regarding the "Contingency Equipment and Replacement Inventories" requirements.**

5.0 DESIGN AND PERFORMANCE PROVISIONS

5a.0 Standards for Installation, Rehabilitation, and Repair

5a.1 Introduction

As mentioned in the introduction to this SSMP, a number of the requirements or sections of the SSMP provide data pertaining to all ten of the Placer County maintained public sewer systems and there is no reason to duplicate that information. This is one of those sections that can be found in its entirety in Volume 1 and 2. **The reader should refer to those binders for information regarding the "Design and Performance Standards" requirements.**

5b.0 Standards for Inspection and Testing of New, Rehabilitated, and Repaired Facilities

5b.1 Introduction

As mentioned in the introduction to this SSMP, a number of the requirements or sections of the SSMP provide data pertaining to all ten of the Placer County maintained public sewer systems and there is no reason to duplicate that information. This is one of those sections that can be found in its entirety in Volume 1 and 2. **The reader should refer to those binders for information regarding the "Standards for Inspection and Testing" requirements.**

6.0 OVERFLOW EMERGENCY RESPONSE PLAN

6.1 Introduction

As mentioned in the introduction to this SSMP, a number of the requirements or sections of the SSMP provide data pertaining to all ten of the Placer County maintained public sewer systems and there is no reason to duplicate that information. This is one of those sections that can be found in its entirety in Volume 1 and 2. **The reader should refer to those binders for information regarding the "Overflow Emergency Response Plan" requirement.**

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

7.1 Introduction

There are a number of ways a FOG Control and Public Outreach Program can be developed for an existing sewer system depending on its size and type of connections. Those methods are summarized in Volume 1, "All districts SSMP", Section 7. **Before proceeding with this section of the CSA 55 SSMP, the reader should review Section 7 of Volume 1 to better understand the methods chosen to control FOG in the CSA 55 Sewer System.**

7.2 Existing CSA 55 Sewer System

See the "Introduction" of this SSMP, CSA 55 History and Description, for a summary of the district sewer system. As noted at that location, the existing sewer system Livoti has approximately three miles of gravity sewer and primarily consists of residential connections. The only non-residential connections include a beauty college and two churches which usually do not produce FOG.

7.3 Selected FOG Source Control and Public Education Outreach Program

Due to the conditions noted above, the most appropriate FOG Source Control and Public Education Outreach Program (see Section 7.6, Volume 1) would be "Program B". There are no commercial connections to the sewer system, and, therefore, a Public Education Outreach Program is sufficient.

8.0 SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

8.1 Introduction

There are a number of ways a System Evaluation and Capacity Assurance Plan can be developed for an existing sewer system depending on its size and age. Those methods are summarized in Volume 1, "All Districts SSMP", Section 8. **Before proceeding with this section of the CSA 55 SSMP, the reader should review Section 8 of Volume 1 to better understand the methods chosen to evaluate the CSA 55 sewer system.**

8.2 Existing CSA 55 Sewer System

See the "Introduction" of this SSMP, CSA 23 History and Description, for a summary of the district sewer system. As noted at that location, the existing sewer system at Livoti is small in size with approximately three miles of pipe. There are no sewage pump stations and all of the wastewater flows into Sacramento County for treatment and disposal in that facility. Although excessive peak wet weather flows have not been seen by maintenance crews, wet weather flow monitoring has never been completed in the district. It is proposed to conduct such monitoring in the next year and to use the data to complete a hydraulic model of the sewer system.

8.3 Selected Capacity Analysis Type

Due to the conditions noted above, the most appropriate Capacity Analysis Type (see Section 8.3, Volume 1) would be "Type B".

8.4 Capital Improvement Program and Funding

Based on the results of the proposed Capacity Analysis in Section 8.3, if improvements are needed to the CSA 55 Sewer System, a Capital Improvement Program (CIP) and funding program will be developed to meet those needs. However, at this time, the capacity analysis has not been completed and, therefore, the CIP and funding program can not be presented.

8.5 CIP Schedule

The proposed schedule for the above noted work is as follows:

Proposed Assessment	Completion Year
Flow Metering	Assumed
Capacity Analysis and report completed	2010
Capital Improvement Program and report completed	2010
Funding Program and report completed	2010

9.0 MONITORING, MEASUREMENT, AND PROGRAM MODIFICATIONS

9.1 Introduction

As noted in Section 9 of the All Districts SSMP (Volume 1), Monitoring, Measurement, and Program Modifications is probably one of the most important components in developing an SSMP. Once all programs and projects listed in the previous chapters are implemented, they need to be monitored and measured in some form so they can be evaluated to determine their effectiveness. This evaluation is done by collecting data on a yearly basis that will show how effective they are in reaching the goals of the SSMP, reducing Sewer System Overflows (SSOs) and protecting the environment.

9.2 Maintain Relevant Information (Requirement 9.0 a)

Section 9 (Volume 1) lists a number of potential maintenance activities that could be tracked in any district, depending on specific circumstances. Table 9.1 lists the activities selected for this district. When data is available, Table 9.1 also lists totals from the last three years for those activities to provide a baseline for evaluation.

Table 9.1 CSA 55 (Livoti) Measurement Categories

Category	Current District Total 7/1/08	Description	Unit	Number By Year				
				2004	2005	2006	2007	2008
SSOs	--	Caused by Roots	Count					
SSOs	--	Caused by Grease	Count					
SSOs	--	Caused by Contractors	Count					
SSOs	--	Caused by Vandalism	Count					
SSOs	--	From Lift Stations	Count					
SSOs	--	From Other Causes	Count					
SSOs	--	**Total Category 1**	**Count**	**0**	**0**	**0**	**0**	**0**
SSOs	--	**Total Category 2**	**Count**	**0**	**0**	**0**	**0**	**0**
SSOs	--	Total per 100 Miles per Year	Count	0	0	0	0	0
Gravity Sewers	2.6 Miles	CCTV Inspection Sewers	Miles	0.03	0.09	0	0.48	0.05
Gravity Sewers	2.6 Miles	Clean Sewers	Miles	2.66	0.44	1.87	0.98	0.80
Gravity Sewers	2.6 Miles	Sewer Rehabilitation Dig and Repair	Count	0	0	0	0	0
Gravity Sewers	2.6 Miles	Sewer Rehabilitation Pipe Lining	Linear Feet	0	0	0	0	0

Table 9.1 CSA 55 (Livoti) Measurement Categories (continued)

Category	Current District Total 7/1/08	Description	Unit	Number By Year				
				2004	2005	2006	2007	2008
Gravity Sewers	2.6 Miles	Smoke Test Sewers	Miles	0	0	0	0	0
Gravity Sewers	2.6 Miles	Root Treatment	Miles	0	0.05	0.51	0	0.57
Manholes	64 Each	Manholes Rehabilitation	Count	3	0	0	0	0
Flow Meters - Temporary	--	Number of Flow Meter Days per Year	Count	0	0	0	0	0

9.3 Monitor the Effectiveness of the SSMP and the Success of the Preventative Maintenance Program (Requirement 9.0 b-c)

The GWDR requires Placer County to monitor the effectiveness of the SSMP and the success of the preventative maintenance program. Several years of data collected under the previous section for this district will be needed before this requirement can be completed. It is expected that the appropriate sections of this district's SSMP's will be completed after the end of Fiscal Year 2008-09, allowing two full years of data.

9.4 Update Program Elements (Requirement 9.0 d)

Based on data collected through Fiscal Year 2008-09 for this district, SSMP program elements can be updated based on their performance. This update should be completed in the first half of FY 2009-10.

9.5 Identify and Illustrate SSO Trends (Requirement 9.0 e)

Placer County began reporting SSO's on the State Water Resources Control Board's web based reporting system on September 2007. The information placed into that data base is extensive and adequately identifies and illustrates each SSO after September 2007. During the preparation of the district SSMP, SSO information was collected from 2004 to the present and is provided in the table above which depicts five years of overflow trends.

10.0 SSMP PROGRAM AUDITS

10.1 Introduction

As mentioned in the introduction to this SSMP, a number of the requirements or sections of the SSMP provide data pertaining to all ten of the Placer County maintained public sewer systems and there is no reason to duplicate that information. This is one of those sections that can be found in its entirety in Volume 1 and 2. **The reader should refer to those binders for information regarding the "SSMP Program Audits" requirements.**

11.0 COMMUNICATIONS PROGRAM

11.1 Introduction

As mentioned in the introduction to this SSMP, a number of the requirements or sections of the SSMP provide data pertaining to all ten of the Placer County maintained public sewer systems and there is no reason to duplicate that information. This is one of those sections that can be found in its entirety in Volume 1 and 2. **The reader should refer to those binders for information regarding the "Communications Program" requirements.**

12.0 SSMP COMPLETION AND CERTIFICATION

12.1 Introduction

As mentioned in the introduction to this SSMP, a number of the requirements or sections of the SSMP provide data pertaining to all ten of the Placer County maintained public sewer systems and there is no reason to duplicate that information. This is one of those sections that can be found in its entirety in Volume 1 and 2. **The reader should refer to those binders for information regarding the "SSMP Completion and Certification" requirements.**