

Volume 12

PLACER COUNTY CABIN CREEK

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 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.

CABIN CREEK HISTORY AND DESCRIPTION

The Cabin Creek Facility is located at the north end of Cabin Creek Road which connects to State Highway 89 south of Truckee and north of Squaw Valley. The property is the destination of all solid waste refuse from the Placer County portion of North Lake Tahoe, along with the Town of Truckee and vicinity. At this site in 1973, a landfill was constructed on leased U.S. Forest Service administered federal land and the County began using the land to bury solid waste. In 1995, the landfill portion was closed and a transfer station was opened. Also in 1995, a Material Recovery Facility (MRF) was constructed at the site and much of the solid waste is now recycled with the remaining non-recyclable material trucked to a landfill in the State of Nevada. In 1999, a vehicle maintenance facility and office building was built at the landfill site for the Tahoe Area Rapid Transit system (TART) and the Placer County Department of Public Works (DPW) Road Maintenance Division. Additional DPW facilities were constructed in 2007.

At the present time, wastewater from the following facilities is connected to the Cabin Creek sewer system:

- MRF
- MRF Operator and Garbage Collection Service (franchiser) Maintenance Shops

- TART and DPW Offices and Maintenance Facility.
- Landfill Leachate

All structures at Cabin Creek are located on property controlled by Placer County; therefore, the County owns this private sewer system. In the 1970's, when structures were first built at the landfill site, sewage disposal was through septic tanks and leach fields. By 1996, a sewer pipe was constructed down Cabin Creek Road and across Hwy 89, primarily because the volume of leachate from the landfill was becoming too large to handle on-site. The property was annexed into the boundaries of Tahoe City Public Utilities District (TCPUD), the local sewer purveyor, and permits were obtained to connect to the sewer system. TCPUD is a satellite sewer system to the Truckee Tahoe Sanitary Authority (TTSA) which owns the trunk sewer on the east side of Highway 89 and operates the area's only wastewater treatment plant east of Truckee.

A Cabin Creek sewer map is provided in Section 4a.1 of this Sewer System Master Plan. As of July 2007, the Cabin Creek has 1.5 miles of sewer pipe in the ground.

PLACER COUNTY CABIN CREEK
SEWER SYSTEM MANAGEMENT PLAN

Table of Contents
Volume 12
CABIN CREEK SSMP

Section	Page
Table of Contents.....	i
1.0 Goals	
1.1 Introduction.....	V12-3
1.2 Placer County SSMP Goals	V12-3
2.0 Organization	
2.1 Introduction.....	V12-4
3.0 Legal Authority	
3.1 Introduction.....	V12-5
3.2 Placer County Code, Articles 13.12 and 13.14.....	V12-5
4.0 Operations and Maintenance Program	
4a.0 Collection System Mapping	
4a.1 Introduction.....	V12-7
4b.0 Preventive Operations and Maintenance	
4b.1 Introduction.....	V12-10
4c.0 Rehabilitation and Replacement Plan	
4c.1 Introduction.....	V12-10
4c.2 Condition Assessment, Rehabilitation, and Replacement Plan	V12-10
4c.3 Cabin Creek Rehabilitation and Replacement Schedule	V12-11
4d.0 Training	
4d.1 Introduction.....	V12-11
4e.0 Contingency Equipment and Replacement Inventories	
4e.1 Introduction.....	V12-12
5.0 Design and Performance Provisions	
5a.0 Standards for Installation, Rehabilitation and Repair	
5a.1 Introduction.....	V12-13

5b.0 Standards for Inspection and Testing of New, Rehabilitated And Repaired Facilities	
5b.1 Introduction.....	V12-13
6.0 Overflow Emergency Response Plan	
6.1 Introduction.....	V12-14
7.0 Fats, Oils, and Grease (FOG) Control Program	
7.1 Introduction.....	V12-15
7.2 Existing Cabin Creek Sewer System	V12-15
7.3 Selected FOG Source Control and Public Education Outreach Program	V12-15
8.0 System Evaluation and Capacity Assurance Plan	
8.1 Introduction.....	V12-16
8.2 Existing Cabin Creek Sewer System	V12-16
8.3 Selected Capacity Analysis Type	V12-16
8.4 Capital Improvement Program and Funding	V12-16
8.5 CIP Schedule	V12-17
9.0 Monitoring, Measurement, and Program Modifications	
9.1 Introduction.....	V12-18
9.2 Maintain Relevant Information.....	V12-18
9.3 Monitor the Effectiveness of the SSMP and Success of the PM Program	V12-21
9.4 Update Program Elements	V12-21
9.5 Identify and Illustrate SSO Trends	V12-21
10.0 SSMP Program Audits	
10.1 Introduction.....	V12-22
11.0 Communications Program	
11.1 Introduction.....	V12-23
12.0 SSMP Completion and Certification	
12.1 Introduction.....	V12-24

PLACER COUNTY CABIN CREEK
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**

PLACER COUNTY CABIN CREEK
SEWER SYSTEM MANAGEMENT PLAN

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.**

PLACER COUNTY CABIN CREEK
SEWER SYSTEM MANAGEMENT PLAN

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. Cabin Creek is within the boundary of the TCPUD and its wastewater is treated at the TTSA wastewater treatment Plant. It is therefore, subject to the legal authority of those two districts as well as the Placer County Code. An explanation of the Placer County code is as follows:

3.2 Placer County Code, Articles 13.12 and 13.14

Every Placer County maintained sewage collection system, whether it has its 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 CABIN CREEK

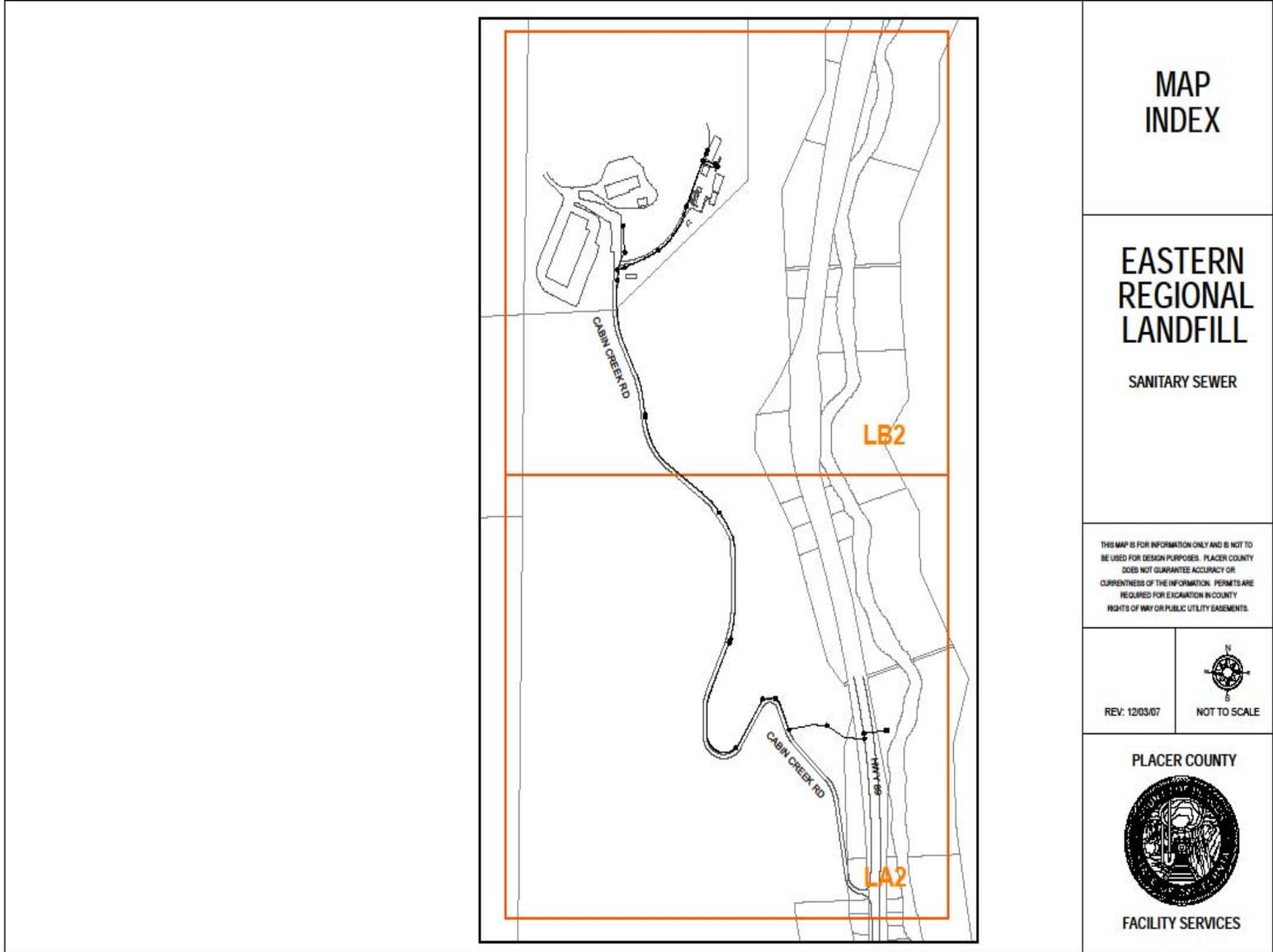
SEWER SYSTEM MANAGEMENT PLAN

**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 Cabin Creek 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 and the Environmental Engineering Offices.





LB2

LA2

EASTERN REGIONAL LANDFILL
SANITARY SEWER

THIS MAP IS FOR INFORMATION ONLY AND IS NOT TO BE USED FOR DESIGN PURPOSES. PLACER COUNTY DOES NOT GUARANTEE ACCURACY OR CURRENTNESS OF THE INFORMATION. PERMITS ARE REQUIRED FOR EXCAVATION IN COUNTY RIGHTS OF WAY OR PUBLIC UTILITY EASEMENTS.



REV: 12/03/07

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 an 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.
- Hydrocleaning of 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 41 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 sheer volume of work to be completed and analyzed. In those districts, dividing the sewer district into smaller

sections is a feasible way of completing the project over a number of years rather than all at once.

In the case of Cabin Creek, the following information is available:

- The sewer system has only 1.5 miles of sewer pipe and one new sewage pump station. Of the pipe mileage, 1.3 miles is a four inch force main and most of the remaining gravity sewer is new within the last two years.
- No smoke testing has been done in the system.
- TV work was completed on the new gravity sewer when it was accepted.
- No sewer system overflows have been recorded in the system since the pump station was constructed.
- No condition assessment or Rehabilitation and Replacement Plans have been developed.

Therefore, due to the fact the sewer system is new, no condition assessment of the sewer system is proposed for the next six years at which time the system should be televised and inspected again.

4c.3 Cabin Creek 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	To be Determined
Pump Station Evaluation	2015
Condition Assessment Report	2015
Rehab 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 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 “Contingency Equipment and Replacement Inventories” requirements.**

PLACER COUNTY CABIN CREEK

SEWER SYSTEM MANAGEMENT PLAN

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.**

PLACER COUNTY CABIN CREEK

SEWER SYSTEM MANAGEMENT PLAN

**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.**

PLACER COUNTY CABIN CREEK
SEWER SYSTEM MANAGEMENT PLAN

**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 CABIN CREEK SSMP, the reader should review Section 7 of Volume 1 to better understand the methods chosen to control FOG in the CABIN CREEK Sewer System.**

7.2 Existing Cabin Creek Sewer System

See the “Introduction” of this SSMP, CABIN CREEK History and Description, for a summary of the district sewer system. As noted at that location, the existing sewer system consists primarily of a short collection system, a sewage pump station and a sewage forcemain where the wastewater is pumped to Highway 89 and discharged into a TCPUD sewer line. The entire system, both gravity and forcemain, is only 1.5 miles long and collects wastewater from the landfill leachate, TART and DPW office buildings, the material recovery facility and the franchise operators maintenance shops. There is minimal gravity sewer to accumulate FOG and there are no FOG producing establishments on the site.

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 A”. Due to the lack of flow and grease in the sewer system, the “Do Nothing” program is proposed.

PLACER COUNTY CABIN CREEK
SEWER SYSTEM MANAGEMENT PLAN

**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 Cabin Creek SSMP, the reader should review Section 8 of Volume 1 to better understand the methods chosen to evaluate the Cabin Creek sewer system.**

8.2 Existing Cabin Creek Sewer System

See the “Introduction” of this SSMP, CSA 23 History and Description, for a summary of this district sewer system. As noted at that location, the existing sewer system at the Cabin Creek is very small, only 1.5 miles, and most of it is less than 10 years old. It consists of a small amount of gravity sewer pipe, a sewage pump station and a long sewage force main.

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 A”.

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 Cabin Creek 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 cannot be presented.

8.5 CIP Schedule

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

Proposed Assessment	Completion Year
Flow Metering	Completed
Capacity Analysis and report completed	2015
Capital Improvement Program and report completed	2015
Funding Program and Report Completed	2016

PLACER COUNTY CABIN CREEK

SEWER SYSTEM MANAGEMENT PLAN

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 districts, depending on specific circumstances. Table 9.1 lists the activities selected for this district. When data is available, Table 9.1 also lists the totals from the last three years for those activities to provide a base line for evaluation.

Table 9.1 Cabin Creek Measurement Categories

Category	Current District Total 7/1/07	Description	Unit	Number By Year	
				2007	2008
SSOs	--	Caused by Roots	Count	0	0
SSOs	--	Caused by Grease	Count	0	0
SSOs	--	Caused by Contractors	Count	0	0
SSOs	--	Caused by Vandalism	Count	0	0
SSOs	--	From Lift Stations	Count	0	0
SSOs	--	From Other Causes	Count	0	0
SSOs	--	Total Category 1	Count	0	0
SSOs	--	Total Category 2	Count	0	0
SSOs	--	Total per 100 Miles per Year	Count	0	0
Gravity Sewers	0.2 Miles	CCTV Inspection Sewers	Miles	0	0
Gravity Sewers	0.2 Miles	Clean Sewers	Miles	0	0
Gravity Sewers	0.2 Miles	Sewer Rehabilitation Dig and Repair	Count	0	0
Gravity Sewers	0.2 Miles	Sewer Rehabilitation Pipe Lining	Linear Feet	0	0

Table 9.1 Cabin Creek Measurement Categories (continued)

Category	Current District Total 7/1/07	Description	Unit	Number By Year	
				2007	2008
Gravity Sewers	0.2 Miles	Root Treatment	Miles	0	0
Force Mains	1.3 Miles	Force Main Pigged	Miles	0	0
Sewage Air Relief Valves	3 Each	ARV Maintenance	Count	0	0
Manholes	11 Each	Manholes Rehabilitation	Count	0	0
Lift Stations	1 Each	Lift Station Major Rehabilitation	Count	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 SSMPs will be completed after the end of Fiscal Year 2015-16, allowing two full years of data.

9.4 Update Program Elements (Requirement 9.0 d)

Based on data collected through Fiscal Year 2015-16 for this district, SSMP program elements can be updated based on their performance. This update should be completed in the first half of FY 2016-17.

9.5 Identify and Illustrate SSO Trends (Requirement 9.0 e)

Placer County began reporting SSOs 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.

PLACER COUNTY CABIN CREEK

SEWER SYSTEM MANAGEMENT PLAN

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.**

PLACER COUNTY CABIN CREEK

SEWER SYSTEM MANAGEMENT PLAN

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.**

PLACER COUNTY CABIN CREEK

SEWER SYSTEM MANAGEMENT PLAN

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.**