

CAMBRIA COMMUNITY SERVICES DISTRICT
SEWER SYSTEM MANAGEMENT PLAN

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LIST OF ACRONYMS AND ABBREVIATIONS

APCD	Air Pollution Control District
BMP	Best Management Practices
Cal OES	California Governor’s Office of Emergency Services
CCSD	Cambria Community Services District
CCTV	Closed Circuit Television
CDF	California Department of Forestry
CDFW	California Department of Fish and Wildlife
CIP	Capital Improvement Plan
CIWQS	California Integrated Water Quality System
CRWA	California Rural Water Association
CWEA	California Water Environment Association
SLOEH	San Luis Obispo County Environmental Health Department
FOG	Fats, Oils and Grease
FSE	Food Services Establishment
GWDR	General Waste Discharge Requirement
HMA	High Maintenance Area
I/I	Inflow & Infiltration
LRO	Legally Responsible Official
MRP	Monitoring and Reporting Plan
mgd	Million Gallons per Day
NPDES	National Pollution Discharge Elimination System
OERP	Overflow Emergency Response Plan
OES	Office of Emergency Services (county)
O&M	Operations and Maintenance
PM	Preventative Maintenance
RWQCB	Regional Water Quality Control Board
SCADA	Supervisory Control and Data Acquisition
SCSMP	Sewer Collections System Management Plan
SSMP	Sewer System Management Plan
SSOR	Sewer System Overflow Report
SSO	Sanitary Sewer Overflow
SWMP	Storm Water Management Plan
SWRCB	State Water Resource Control Board
UPC	Uniform Plumbing Code
WDR	Waste Discharge Requirement
WWTP	Wastewater Treatment Plant

INTRODUCTION

Cambria Community Services District (Cambria CSD) is an independent special district that provides water, wastewater, fire protection, parks, and other community services to its customers. The Cambria CSD's Wastewater Department provides wastewater treatment as well as collection of sanitary waste to a community of approximately 6,200 residents. The sanitary sewer collection system includes ten (10) lift stations and fifty-nine (59) miles of gravity sewers and force mains. The collection system discharges to the Cambria CSD's one-million gallon per day¹ (mgd) capacity wastewater treatment plant (WWTP).

The Cambria CSD service area is about 3,200 acres, or approximately five square miles. The unincorporated coastal community of Cambria is located along Highway 1 in the northwestern portion of San Luis Obispo County, California, thirty-five (35) miles north of the City of San Luis Obispo.

The RWQCB, Central Coast Region 3, oversees the sanitary sewer system requirements as defined in State Water Quality Order NO. 2006-003 DWQ. During May of 2012, the Cambria CSD Board of directors adopted the Cambria CSD's Sanitary Sewer Management Program (SSMP) to be compliant with the State Water Resources Control Board's (SWRCB's) General Waste Discharge Order No. 2006-0003-DWQ Monitoring and Reporting Program (MRP). Since then, the SWRCB amended the MRP with the issuance of Order No. 2013-0058-EXEC. This more recent MRP developed specific categories of sanitary sewer overflows and associated reporting requirements, along with an internal auditing of the SSMP's effectiveness. The audit is to identify any deficiencies with the SSMP and steps to correct them. In addition, the title has been modified to match the "Sewer System Management Plan" (SSMP) used by the State in the aforementioned orders and associated guidebooks. The SSMP presented herein retitles the earlier program, provides an update to the Cambria CSD's 2012 document that complies with the SWRCB's more recent MRP requirements, and responds to identified deficiencies.

This update to the SSMP includes the following elements:

1. Goals
2. Organization
3. Overflow Emergency Response Plan
4. Fats, Oils & Grease Control Program
5. Legal Authority
6. Measures and Activities
7. Design and Construction Standards
8. System Evaluation and Capacity Assurance Management
9. Monitoring, Measurement and Program Modifications
10. SSMP Audits
11. Communication Plan

¹ One mgd is the WWTP's average flow capacity.

CCSD Service Area



SECTION 1. GOALS

It is a primary function of the Cambria CSD to provide effective and efficient wastewater treatment and collection for its customers while protecting the public's health and the environment to the greatest degree possible. This responsibility includes ensuring the collection system is protected and properly utilized, preventing sanitary sewer overflows (SSO's), properly responding to any SSOs should they occur, and may include restricting or prohibiting the volume, type, or concentration of wastes added to the system.

1.1 REGULATORY REQUIREMENTS

The collection system agency shall develop goals to manage, operate, and maintain all parts of the collection system. The goals shall address the provisions of adequate capacity to convey peak wastewater flows, as well as a reduction in the frequency of Sanitary Sewer Overflows (SSO) and the mitigation of their impacts. The Sanitary Sewer Management Plan (SSMP) is to be periodically updated every five years. The last time the Cambria CSD updated its SSMP was during 2012; therefore, this update to the SSMP is to also make the Cambria CSD current on its five-year updating requirement.

1.2 GOALS DISCUSSION

Cambria CSD has developed the following SSMP goals which will contribute to the proper management of the collection system and assist in minimizing the frequency and impacts of SSO's. These goals will be accomplished through providing proper guidance for appropriate maintenance, operations management, and emergency response.

Cambria CSD SSMP goals:

1. Continue with the proactive approach to minimize the likelihood of an SSO. In the event of an SSO the goal of operations staff is to perform an analysis determining if any changes to the current process/management of the collection system is warranted.
2. Convey wastewater to the WWTP with a minimum of Infiltration and Inflow in the wastewater collection system.
3. Prevent public health hazards through proper regulatory notification, emergency response, SSO containment, and SSO clean up procedures.
4. Minimize inconveniences by responsibly and quickly handling interruptions in wastewater collection service.
5. Protect large investments in collection system by maintaining adequate capacities and extending useful life.
6. Use available funds for sewer operations in the most efficient manner. Identify, prioritize, and continuously upgrade and replace sewer system facilities to maintain reliability and adequacy of service to customers.
7. Provide adequate capacity to convey peak wastewater flows
8. Perform all operations in a safe manner to avoid personal injury and/or property damage.

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9. Be available and responsive to the needs of the public. Work cooperatively with local, state and federal agencies to reduce, mitigate, and properly report an SSO.
10. Implement regular, practical maintenance of the sewer collection system to remove roots, debris, sand, fats, oil, and grease (FOG) in areas prone to blockages that may cause SSO or sewer backups.
11. Implement and maintain a FOG program to minimize and/or prevent fats, oils, and grease from entering the collection system.

SECTION 2. ORGANIZATION

2.1 RESPONSIBLE AUTHORIZED REPRESENTATIVES AND CCSD PERSONNEL WITH SSMP RESPONSIBILITIES

The Responsible Authorized Representative is assigned to ensure that all regulatory agencies are notified and reported to. All sewer system overflow events as well as system activities are to be reported to the Responsible Authorized Representative. The Responsible Authorized Representative is determined by the Cambria CSD General Manager.

NAME	TITLE	CIWQS SSO DATABASE
Jerome Gruber	General Manager	Legally Responsible Official
John Allchin	Wastewater Department Supervisor	Legally Responsible Official

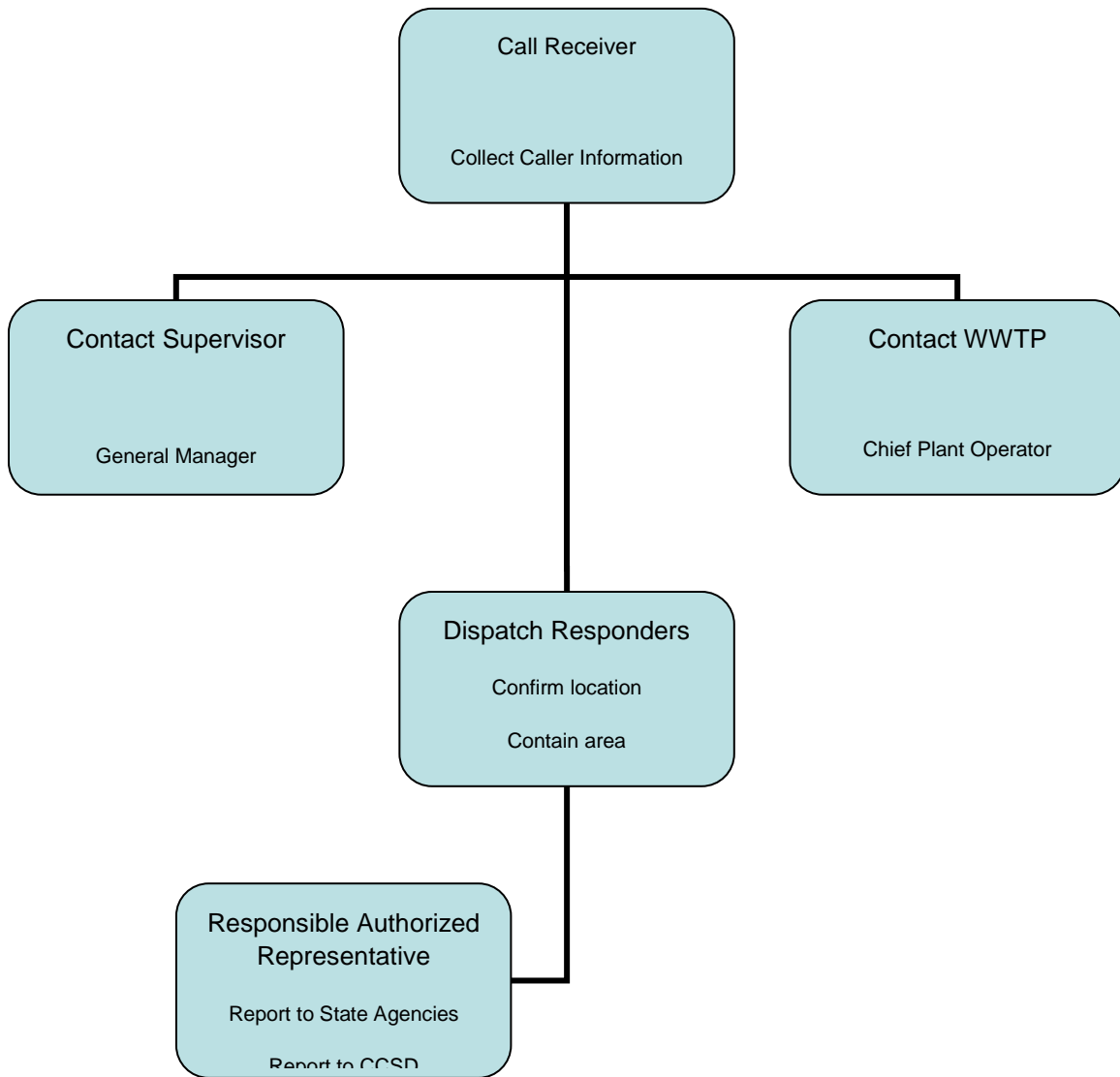
The CCSD has assigned the execution of the SSMP per the following summary:

NAME AND TITLE	SSMP RESPONSIBILITIES	CONTACT NUMBERS
Jerome Gruber, General Manager	Coordinates with District Board on resource needs and policy direction, plans strategy, leads staff, allocates resources, delegates responsibility, authorizes outside contractors to perform services, and serves as public information officer.	805-927-6223
John Allchin, Wastewater Department Manager	Manages field operations and maintenance activities, develops self- monitoring reports and leads communications with regulatory agencies, prepares and implements contingency plans, leads emergency response, investigates and reports SSOs, and trains field crews.	805-927-6221
Robert Gresens, District Engineer	Prepares wastewater collection system planning documents; manages capital improvement delivery system; documents new and rehabilitated assets; and coordinates development and implementation of SSMP.	805-927-6119
Melissa Bland, Permit Compliance Specialist	Supports CCSD staff in meeting regulatory and permitting requirements. Assists with updating the SSMP and tracking updating and its biennial audit. Coordinates with regulatory agency staff on key submittals and deadlines.	805-927-6116

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2.2 LINES OF AUTHORITY

Receiving a Call:



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2.3 KEY SUPPORT NAMES AND TELEPHONE NUMBERS

Please see Section 6 for the CCSD’s emergency overflow response plan and numbers to call in response to specific overflow categories. In addition, the following list includes key contractor and communications contacts for additional reference in completing specific follow up emergency collection system repairs.

CONTACT	TITLE	PHONE NUMBER
CAMBRIA COMMUNITY SERVICES DISTRICT (CCSD)		24/7 EMERGENCY CALLS: 805-927-6223
Jerry Gruber	General Manager	Office: 805-927-6230 Cell: 909-273-3954 Fax: 805-927-5584
John Allchin	Wastewater Department Supervisor/Chief Plant Operator	Office: 805-927-6251 Cell: 805-550-8428 Fax: 805-927-0178
Robert Gresens	District Engineer	Office: 805-927-6119 Cell: 805-909-2210
Toni Artho	WW III Operator	Office: 805-927-6250 Cell: 805-801-3933
Delon Blackburn	WW II Operator	Office: 805-927-6250 Cell: 805-703-3309
Tim O’Marr	WW II Operator	Office: 805-927-6250 Cell: 805-458-1353
Jason Vormbaum	WW OIT	Office: 805-927-6250 Cell: 805-710-6315

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EMERGENCY CONTRACTORS		
Dechance Construction	Emergency Contractor – sewer and force main repairs	805-489-7310
D-Kal Engineering	Emergency Contractor – sewer and force main repairs	805-543-7758
FRM	Emergency Contractor – Lift Station Repairs, contracted vacuum removal (Vactor) of sewer obstructions	805-441-5318
Alpha Electrical Service: Kevin Piper Jim Rady	Emergency Contractor - power supply and electrical controls	Cell: 805-235-4728 Cell: 805-459-4897
Tough Automation Andy Thompson	Lift Station Controls, SCADA, and programmable logic controller (PLC) updating and troubleshooting	Cell: 805-400-9015
Al’s Septic Pumping Service	Emergency Contractor Sewer line pumping/SSO cleanup responses	805-528-0432
North Coast Tree Services	Placement & filling of sandbags, tree & brush removal	805-927-8525
Professional Pipe Services (aka Pro Pipe)	Sewer Cleaning, Trenchless Repair, and CCTV Inspection Contractor	909-598-9743

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TRAFFIC CONTROL		
Associated Traffic Safety	Flagging & signage	805-461-1600
Traffic Management Inc.	Traffic control plans, permitting	805-585-4986
EROSION CONTROL & SITE RESTORATION SUPPLIES		
Pacific Soil Stabilization	Specialty erosion control supplies, including biodegradable swaddles, dechlorination tablets, etc.	(805) 925-7737
S & S Seed	Native grass mixes for hydro-seeding & related restoration applications	(805) 684-0436
Dorman Hydroseeding	hydroseeding	(805) 466-2555
ENVIRONMENTAL MONITORING		
Cindy Cleveland Biological Services	Biological monitoring services	805-234-3759
Kevin Merk Associates	Biological monitoring services	805-748-5837
REGULATORY AGENCIES (Potential impacts on surface water, groundwater, fish or wild animals)		
Cal OES Warning Center	Required of sewage spills of 1,000 gallons or more. Notification required within 2 hours for any Class I SSO that is uncontained and enters a waterway, storm drain or ocean. (See Section 6 and Appendix VIII further information.)	First Call 9-1-1 Then call Cal OES at 800-852-7550, or 916-845-8911

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Central Coast Regional Water Quality Control Board	Jon Rokke – regulatory representative for compliance and notifications	Office: 805-549-3892 Cell: 805-574-4149
Division of Drinking Water (District 6)	Jeff Densmore	805-566-1326
Monterey Bay National Marine Sanctuary	SSOs that could impact the ocean Scott Kathey	Office: 831-647-4203 Fax: 831-647-4250 Direct: 831-647-4251
California Department of Fish and Wildlife - Central Region (Region 4)	Julie Vance Jim Solis	559-243-4005 831-649-2817
U.S. Fish & Wildlife Service	Denise Steurer	805-644-176
National Marine Fisheries	Anthony Spina	562-980-4045
California Coastal Commission	Steve Monowitz	831-427-4863
California State Parks Hilltop Dispatch	Any Beach affected areas	805-927-2068 805-927-2171 805-927-2069
County Environmental Health Sheriff's Administration	Spill line If after hours or on land	805-781-5544 Fax: 805-781-4211 805-781-4550

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NEWS AGENCIES		
Cambrian Newspaper	Kathe Tanner (North Coast Reporter)	805-927-4708
KTEA (Local Cambria Radio Station)	Office	805-924-0103
KSBY (Local SLO County TV Station)	Newsroom	805-597-8400

SECTION 3. LEGAL AUTHORITY

Cambria CSD has the necessary legal authority within its Municipal Code Chapters 5.04.020 through 5.04.860, as set forth, below to prevent illicit discharges into its sewer system, require proper design and construction of its sewers and sewer connections, ensure access, and limit the discharge of fats, oil and grease.

SEWER DISPOSAL

3.1 PREVENTION OF ILLICIT DISCHARGES IN SEWERS

Cambria CSD regulates and limits discharges of certain wastes into the Cambria CSD Sewers through Municipal Code section 5.04.160 entitled, "Types of Wastes Prohibited" specifically, section 5.04.160 states that:

No person shall discharge or cause to be discharged any of the following described waters or wastes to any public sewers.

- A. Any gasoline, benzene, naphtha, fuel oil, or other flammable or explosive liquid, solid or gas;
- B. Any waters or wastes containing toxic or poisonous solids, liquids, or gases in sufficient quantity, either singly or by interaction with other wastes, to injure or interfere with any wastewater treatment process, constitute a hazard to humans or animals, create a public nuisance, or create any hazard in the receiving water of the wastewater treatment plant including but not limited to cyanides in excess of two mg/l as CN in the wastes as discharges to the public sewer;
- C. Any waters or wastes having a pH lower than (5.5) or having any other corrosive property capable of causing damage or hazard to structures, equipment, and personnel of the wastewater works;
- D. Solid or viscous substances in quantities of such size capable of causing obstruction to the flow in sewers, or other interference with the proper operation of the wastewater works such as, but not limited to, ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, un-ground garbage, whole blood, paunch manure, hair and flashings, entrails and paper dishes, cups, milk containers, etc. either whole or ground by garbage grinders.

(Ord. S-82 §3-5)

Municipal code 5.04.170 entitled "other wastes prohibited," gives additional authority to the General Manager to prohibit certain discharges if other "such wastes can harm either the sewers wastewater treatment process, or equipment, have an adverse effect on the receiving stream, or can otherwise endanger life, limb, public property or constitute a nuisance." (Ord. S-82 §3-6)

Municipal Code section 5.04.180 further provides the General Manager with the discretion to limit certain discharges into the Cambria CSD's sewer system which are determined to "contain the substances or possess the characteristics...which in the judgment of the manager, may have a deleterious effect upon the wastewater works, processes, equipment, or receiving waters, or which otherwise create a hazard to life or constitute a public nuisance, and/or may cause the Cambria CSD to violate discharge requirements..." (Ord. S-82 § 3-7)

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3.2 DESIGN AND CONSTRUCTION OF SEWERS AND CONNECTIONS

Cambria CSD regulates the design and construction of sewers and sewer connections pursuant to Municipal Code Section 5.04.480. Specifically, section 5.04.480 states the minimum standards for design and construction of sewers within the Cambria CSD shall be in accordance with the plans, standards and specifications for Cambria Assessment No.1, except where requirements of the State or County are more restrictive, in which case the State or County requirements shall govern. The administration, inspection, enforcement and acceptance shall be by the Cambria CSD. The Cambria CSD may permit modifications or may require higher standards. Before acceptance of any sewer by the Cambria CSD, the sewer shall have been tested and all work shall have been completed in full compliance with the standards and the satisfaction of the Cambria CSD's Engineer.

(Ord. S-82 §5-9)

3.3 ACCESS TO INFRASTRUCTURE

Cambria CSD Municipal Code 5.04.090, "Power and Authorities of Inspectors" requires that:

"The Manager and any duly authorized employees of the Cambria CSD shall be permitted, upon showing evidence of his or her position, to enter private property for the purpose of inspection, re-inspection, observation, measurement, sampling, testing or otherwise performing such duties as may be necessary in the enforcement of the provisions of the ordinances, rules and regulations of the Cambria CSD."

(Ord. S-82 §2-9)

3.4 LIMITATIONS OF DISCHARGES OF FOG AND OTHER DEBRIS

See Section 3.01 above

ENFORCEMENT, DAMAGES AND PENALTIES

3.5 LIABILITY FOR VIOLATION OF ORDINANCES, RULES AND REGULATIONS.

Cambria CSD Municipal Codes 5.04.700 through 5.04.760 establishes general enforcement and penalty provisions for violation of the Cambria CSD Municipal Codes and gives procedures for stepped enforcement if violations occur.

3.6 DISCONNECTION FOR ILLEGAL USE.

Municipal code 5.04.720 states that the General Manager has authority to disconnect the user or subdivision sewer system from the sewer mains of the Cambria CSD and the water service where the violation is occurring.

(Ord. S-82 §7-3)

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Municipal code 5.04.730 further states that during a period of disconnection habitation of such premises by human beings shall constitute a public nuisance;

“Whereupon the Cambria CSD shall cause proceedings to be brought for the abatement of the occupancy of the premises by human beings during the period of such disconnection”.

(Ord. S-82 §7-4)

3.7 VIOLATION AND FINES

Municipal code 5.04.750, “Violation of ordinances, rules and regulations is a misdemeanor”,

“Pursuant to Section 6523 of the Health and Safety Code of the State of California, the violation of any of the provisions of an ordinance, rule or regulation of the Cambria CSD by any person shall be punishable by a fine not to exceed one thousand dollars (\$1,000.00), imprisonment not to exceed one month or both. Each and every connection or occupancy in violation of any ordinance, rule and regulation of the Cambria CSD shall be deemed a separate violation and each and every day or part of a day a violation of the ordinance, rule or regulation continues shall be deemed a separate offense hereunder and shall be punishable as such”.

(Ord. S-82 §7-6)

SECTION 4. OPERATIONS AND MAINTENANCE PROGRAM

4.1 COLLECTION SYSTEM MAPS

It is the responsibility of all those involved in the planning, engineering, construction, maintenance, and operation of the Cambria CSD to keep mapping records current and as accurate as possible. All responsible office and field personnel should work from the same current map version to avoid inaccurate information and confusion. To ensure quick emergency response and to avoid serious damage and possible injury, a system has been developed that tracks mapping updates and changes. Electronic forms are utilized whenever possible; however, paper forms are always available when technology is unavailable. An example of the form used to report changes can be found in Appendix IV. Training of personnel on how to complete the appropriate forms, verify and make the mapping changes, and inform the rest of staff of the changes will be enacted upon adoption of this Program. To further augment and facilitate map updating, the Cambria CSD commissioned the completion of a GIS viewer and acquired a more accurate hand-held GPS locator. This allows operating staff to provide field coordinates on keep facilities needing mapping or mapping updates.

4.2 OPERATIONS AND MAINTENANCE ACTIVITIES

Cambria CSD has a preventative maintenance program which tracks all operations and maintenance activities of the Cambria CSD's Collection System. The Operator has developed a program to plan and track maintenance using a computerized maintenance program and reporting database "KeepTrak".

4.2.1 Enhanced Maintenance Areas

The areas of the Collection system can be identified as "Enhanced Maintenance Areas" due to high solids loading, heavy root growth, or irregularities in the system are tracked using a computerized maintenance program. "Enhanced Maintenance Areas" are categorized based on need into Monthly, Quarterly, Semi-Annual, and Annual work orders that are printed out monthly. Reports can be generated from the computer system to reflect what areas have been cleaned and what areas are due for cleaning. As each "Enhanced Maintenance Area" work order is completed, it is entered into the computer system and the time is reset automatically to the appropriate number of days when it will be due for maintenance again, ranging from 30 to 365 days. There are currently seven (7) listed "Enhanced Maintenance Areas" that have been identified in the Cambria CSD's Collection System (Appendix V). These areas are cleaned and maintained on a regular basis.

4.2.2 Routine Sewer Cleaning

The Cambria CSD completed inspection and cleaning of twenty percent (20%) or approximately 62,304 feet, of its collection system during 2013. This initial cleaning effort focused on the lower, larger-diameter trunk sewers, which tend to be less steep and therefore have slower velocities. Following this initial cleaning and CCTV success, CCSD resources were subsequently devoted to responding to an emergency water shortage brought on by an extreme drought. The Cambria CSD has subsequently updated its goal and is committed to completing ten percent of the collection system cleaning and inspection each year. The available equipment and associated

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procedures for sewer cleaning and inspection can be found in section 4.05, Equipment and Replacement parts.

4.2.3 Collection System Inspection

Cambria CSD will contract a Closed-Circuit Television (CCTV) Contractor and annually video tape ten percent (10%) or approximately 31,000 feet of the collection system, as it is being cleaned. At this rate the Cambria CSD's Sewer Collection System shall be 100% video-taped in eight (8) more years and will be re-inspected every ten (10) years thereafter.

4.2.4 Manhole Inspections

The Cambria CSD GIS consultant has completed mapping 100% of its manholes. The Cambria CSD plans to maintain an annual inspection of manholes during annual Collection System Cleaning. The visual inspection will be performed from the street level. A form is filled out by the inspector and entered into the Cambria CSD preventative maintenance program, "KeepTraK". That form documents the conditions in the sewer system such as solids accumulation, infiltration evidence, failed or compromise structural sections of the maintenance hole, etc. These inspections include documentation that is entered into "KeepTraK" and include a color photo of each manhole. A sample hardcopy form can be found in Appendix VI. The current emphasis of this work is focused on areas with high groundwater tables or may have a history of storm drainage flooding.

4.2.5 Lift Station and Wet Wells Inspection and Maintenance

Cambria CSD has ten (10) Lift Stations that are inspected weekly and pump run times are recorded. Currently, the Cambria CSD cleans the Lift Stations and Wet Wells bi-annually via Hydrovac. The alarm system is tested quarterly. These inspections include documentation that is entered into "KeepTraK".

4.2.6 Odor Complaint Response and Investigation

If an odor complaint is received by any Cambria CSD Staff, the lines of authority instruct that the operator on staff shall respond. A Standard Operating Procedure (SOP) is followed and an "Incident Report Form" is filled out in the Cambria CSD's "KeepTraK" data base.

4.2.7 Service Connection Response

Cambria CSD Municipal Code 5.04.040, "Violation Unlawful" states that:

"Following the effective date of the Ordinance codified in this chapter it shall be unlawful for any person to connect to, construct, install or provide, maintain and/or use any other means of wastewater disposal from any building in the Cambria CSD except by connection to a public sewer in the manner as in this chapter provided, when such public sewer has been constructed and accepted for use and is within two hundred (200) feet of the property containing the building."

(Ord. S-82 §2-4)

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4.3 REHABILITATION AND REPLACEMENT PLAN

Cambria CSD is planning for a Wastewater Collection System Evaluation, which will include smoke testing of the collection system to locate direct sources of inflow. This work, in addition to annual collection system cleaning and TV inspection, will identify needed repairs and replacements each year. The repairs will then be prioritized per an annual budgeting process. Completion of system-wide smoke testing has a completion goal of 2020.

4.4 TRAINING PROGRAM

Those individuals who are involved in the planning, engineering, construction, maintenance, and operation of the Cambria CSD Collection System are encouraged to communicate openly and frequently with each other to maintain adequate performance. Although currently not required, membership and certification in the operations and maintenance of collection systems provided by the California Water Environment Association is available. Membership into such programs allows access to information regarding regulations, training, and safety.

Updates to procedures or regulations will be conveyed to staff using tailgate training sessions and formal reviews of updated material.

4.5 EQUIPMENT AND REPLACEMENT PARTS

Maintenance equipment for cleaning and inspection of the Cambria CSD Collection System is owned and maintained by the Cambria CSD. It is also the responsibility of Cambria CSD to ensure containment equipment is available. In the event of an emergency and none of the equipment listed below can be utilized, there are several sub-contract agencies that can be contacted to respond. These agencies are listed in Section 2.03 Names and Telephone Numbers under "Emergency Contractor".

Critical replacement parts are ordered and kept on hand by the departments in which the equipment is housed. It is the responsibility of the departments to maintain the equipment so that it is kept in good working condition, including California Department of Transportation inspections of vehicles and power testing.

4.5.1 Cleaning Equipment

High Pressure Water Spray
Vactor Truck 2105

4.5.2 Inspection Equipment

The Cambria CSD will contract a CCTV inspection company to video tape the Cambria CSD Sewer Collection System.

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4.5.3 Containment Equipment

Various picks and shovels	2" trash pumps	Absorbent Material
Sand Bags	John Deer Tractor	Signs and cones
Spill Response Kit		

SECTION 5. DESIGN AND PERFORMANCE PROVISIONS

San Luis Obispo County’s 2014 Public Improvement Standards is used by the Cambria CSD for their “Design and Construction Standards.” This document establishes requirements, conditions and regulations for construction of the Cambria CSD’s sewer based upon approval of construction of sewer plans by the Cambria CSD Engineer, industry acceptable practice, and upon the standards set forth therein.

It is in this policy that procedures for inspection and testing installation and repairs of sanitary sewer system structures are also included. Public Improvement Standards, section 7.2.4 “Testing”, states that:

“Prior to final approval, all sewer lines shall be cleaned and tested for leakage by standard hydrostatic or low-pressure air test, for deflection by mandrel test, and for standing water/other debris by TV inspection. All cleaning and testing shall take place after all utilities are installed, and up to, but not including the final paving is completed.”

The referenced Cambria CSD Standards can be found at the following link:

[San Luis Obispo County 2014 Public Improvement Standards](#)

SECTION 6. OVERFLOW EMERGENCY RESPONSE PLAN

To minimize the potential for health and environmental impacts, the CCSD has developed an overflow emergency response plan (OERP), which includes a standard operating procedure packet for ensuring timely, organized, and thorough responses to sanitary sewer overflow (SSO) events. The OERP packet materials can be found in Appendix VIII and include: a checklist and contact table; an event callout data sheet; spill category definitions guide; notification, reporting, monitoring & record keeping requirements; a flow estimation guide; the SSO SOP; facts and guidelines; and a California Proposition 65 form. Personnel are to complete a packet for each sanitary sewer overflow event. The completed packet will assist management in reporting to regulatory agencies, including the on-line based California Integrated Water Quality System (CIWQS).

6.1 OVERFLOW EMERGENCY RESPONSE PLAN SUMMARY

The following provides a summary of the CCSD's OERP. All operating and dispatch staff are to be trained and kept current on the OERP and any subsequent updates. Because time is of the essence in minimizing the potential impacts from an SSO, adequate staff training is essential towards executing safe, efficient, and effective SSO responses. An SSO can originate from residences, businesses, and CCSD facilities (E.g., broken or clogged sewer mains, force mains, syphons, manhole covers, and lift station wet wells). An effective SSO response will also include adequate documentation to perform mandatory reporting as well as reviewing means to address any identified deficiencies and any needed follow up improvements.

The following describes the CCSD OERP reporting requirements, responses to SSOs caused by CCSD-owned facilities, and responses to SSOs from privately owned sewer laterals. The responses and steps involved are also described in more detail within the OERP packet materials at the end of this section. In addition, the emergency contract list contained in Section 2 should also be referenced when developing a specific repair to remedy an SSO.

6.2 OERP REPORTING REQUIREMENTS

SSO notification procedures vary based on whether the SSO is classified as a Category 1, Category 2, Category 3, or private lateral sewage discharge (PLSD). After notifying the RWQCB of any SSO, the Chief Plant Operator or their designated representative should also email RWQCB Staff, Jon Rokke: jrokke@waterboards.ca.gov to confirm that the submitted report was received.

Category 1 SSOs - For any SSO discharge that result in a discharge to a drainage channel or a surface water (including the ocean), or to the County storm drain system and is not fully captured and returned to the sewer system or disposed of properly, the CCSD shall, as soon as possible, but no later than two (2) hours after becoming aware of the discharge, notify the California Governor's Office of Emergency Services (Cal OES) at 1-800-852-7550.

Category 2 SSOs - For any SSO that is 1,000 gallons or greater in volume, which does not discharge to a drainage channel or surface water, the Chief Plant Operator or their designated representative may email RWQCB Staff, Jon Rokke, at jrokke@waterboards.ca.gov to notify him of the SSO within 3 business days after becoming aware of the SSO.

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Category 3 SSOs - If a SSO occurs due to a problem in the District's sanitary sewer collection system and does not reach a drainage channel, surface water, the County storm drain system, or is fully captured from the County storm drain system and returned to the sewer system or disposed of properly and is less than 1000 gallons in volume, the Chief Plant Operator or their designee may email RWQCB Staff, Jon Rokke, at jrokke@waterboards.ca.gov to notify him of the SSO within 30 calendar days after the end of the calendar month in which the SSO occurred.

Once the SSO response incident is concluded, Wastewater Department Staff forward the required data to the **California Integrated Water Quality System (CIWQS)** by visiting the SWRCB database at: <http://ciwqs.waterboards.ca.gov> and entering on-line the requested information about the SSO. Department staff will also retain a copy of all completed reports about an SSO incident in a folder designated for SSO records.

Private Lateral Sewage Discharges (PLSDs) - The CCSD may voluntarily notify regulatory agencies, such as the RWQCB, of a private lateral sewage discharge (PLSD). SWRCB encourages notifying Cal OES of a PLSD if the PLSD is greater than or equal to 1,000 gallons with the potential to reach surface water. The SWRCB also encourages notifying the appropriate regulatory agencies (see list of potential agencies in Section 2: Organization) or notifying the responsible party that notification and reporting should be completed as required by Health and Safety Code Section 5410 et. seq. and Water Code Section 13271 if the PLSD is greater than or equal to 1,000 gallons regardless of the SSO destination.

6.3 SSO'S CAUSED BY CCSD-OWNED FACILITIES

Upon notification, Wastewater Department staff respond and identify the location of the overflow and its characteristics (i.e. apparent source, volume released, extent, and whether it is on private property etc.). They also determine the potential cause of the SSO and the responsible party. This information is recorded on the SSO Response Form. The most senior wastewater staff member present will assume the duties of onsite incident manager until relieved by the chief plant operator, department supervisor, or their assigned representative.

To ensure containment, wastewater department staff will locate the nearest down gradient (down slope) storm drain and determine if the release has, or will, reach this drain. Based on site conditions, the onsite incident manager decides if immediate action or additional staff or equipment is needed to prevent the release from reaching this drain. If the SSO occurred because of a blockage at a main CCSD sewer line, the onsite incident manager will direct wastewater department staff to immediately contain the discharge by completely berming (including sandbagging closed) the storm drain inlet and to clear the blockage. Once the nature and extent of the discharge are known, staff will begin immediate cleanup of discharges caused by a CCSD-owned pipeline; typically, by vacuuming the discharge with the CCSD's Vactor truck for proper disposal.

The information collected on the SSO response form, along with any other relevant information is reported by Wastewater Staff to all required outside agencies such as the California Office of Emergency Services, the Central Coast Regional Water Quality Control Board, the San Luis Obispo

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County Department of Health Services, and if applicable, the San Luis Obispo Flood Control and Water Conservation District. (see the emergency response contacts table in section 2 for more detail). Staff also ensures the release area (all public areas) are cleaned and disinfected after the normal sewer flow is restored and the blockage relieved. If the release has reached the storm drain system, staff will routinely check a couple of storm drain catch basins downstream from the contaminated catch basin to verify how far the release has traveled down the storm drain line. Depending on the severity of the release, samples may be required to be taken from those catch basins and analyzed for pathogenic organisms. Sampling, if any, is implemented at the discretion of the onsite incident manager and is based on site specific observations. If there is a question about the necessity for sampling, onsite staff are to contact the Central Coast Water Board.

If a release from a District-owned main has visibly impacted private property, the onsite staff will photo document all such impacts identified at the time of the release response. Staff also documents the contact information of the property owner and any notes regarding the potential impact in their field notebook. Questions regarding repair costs are directed to the CCSD's risk management officer.

6.4 SSO'S CAUSED BY PRIVATELY-OWNED FACILITIES

If the SSO occurred because of a blockage or other problems within a privately owned lateral line resulting in a discharge to the ground surface and /or into the public right-of-way such as County streets, alleys or side-walks, wastewater department staff will contain and prevent further discharges into the Public Right- of- Way as described in the preceding CCSD-owned facilities SSO response description. This is typically done by using the department's Vactor truck. CSD staff will also contact the subject property owner/manager and direct them to immediately contact a private plumber to relieve the sewer blockage.

Should there be no effective response from the property owner or property manager to abate the SSO within a reasonable time frame (less than an hour), or at the discretion of the onsite incident manager, the water service may be temporarily turned off at the subject property after proper notifications are made by calling CCSD Water Department staff and requesting a temporary water service disruption.

Before attempting to turn off the water service, Water Department and Water Utility Billing staff will try to contact the property owner or property manager. Notification is made verbally and by posting a large placard in a common area and a door hanger on each unit or residence/business. Each placard and door hanger will have contact information for the Chief Plant Operator, Utility Billing, and the San Luis Obispo County Department of Public Health. If possible, door hanger notifications will be placed on each tenant's door depending on access.

SECTION 7. FATS, OILS AND GREASE (FOG) CONTROL PROGRAM

7.1 PUBLIC EDUCATION OUTREACH PROGRAM

Cambria CSD introduced a FOG program to the business community during the summer of 2012. Currently, public outreach is achieved to the residential community via educational material included in the bi-monthly billing for sewer fees.

7.2 DISPOSAL OF FOG

It is the responsibility of each sewer user to take precautions in preventing the disposal of FOG into the sanitary sewer. It is recommended that all used cooking oil and grease be disposed in a proper container, such as a rendering barrel in a restaurant. In a residence, oil can be collected in a small container carefully sealed and disposed of in the garbage. Prior to washing cookware that has a greasy residue; the item should be wiped out with a disposable wipe or cloth and disposed of in the garbage.

7.3 LEGAL AUTHORITY TO PROHIBIT DISCHARGE OF ILLICIT FOG

Cambria CSD Wastewater Ordinance S-82, Articles 1 through 9, provides guidance and requirements for FOG discharge in the Cambria CSD's sanitary sewer system. This Ordinance states that in pertinent part:

"No person shall discharge or cause to be discharge the following described substances, material...or any water or waste containing fats, wax grease, or oils, whether emulsified or not, in excess of one hundred (100) mg/l or containing substances which may solidify or become viscous at temperatures between thirty-two (32) degrees Fahrenheit and one hundred fifty (150) degrees Fahrenheit".

7.4 INTERCEPTORS REQUIRED

Section 3.8 of Ordinance S-82, states that;

"Grease, oil, and sand interceptors shall be provided when, in the opinion of the Manager, they are necessary for the proper handling of liquid wastes containing grease in excessive amounts, or any flammable wastes, sand, or other harmful ingredients; except that such interceptors shall be of a type and capacity approved by the Manager, and shall be located as to be readily and easily accessible for cleaning and inspection".

7.5 MAINTENANCE OF TRAPS

Per Section 3.9 of Ordinance S-82, interceptors "shall be maintained continuously in satisfactory and effective operation by the owner at his expense."

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7.6 BEST MANAGEMENT PRACTICES (BMP) REQUIREMENTS

Cambria CSD requires that any grease removal device must:

- Readily accessible for cleaning and inspection.
- Operated and maintained by the owner at owner expense.
- Ensure contents of material do not exceed twenty-five (25) percent of the grease trap or interceptor capacity.
- Documents of grease trap and/or interceptor activity must be maintained by the owner or their representative and made available to Cambria CSD representatives upon request, at the owner's own expense.

7.7 IDENTIFICATION OF SEWER SECTIONS SUBJECT TO FOG BLOCKAGES

During routine annual line cleaning and regular enhanced maintenance areas, sewer line cleaning staff will document in the Cambria CSD's preventative maintenance program, "KeepTraK", where the areas of heavy grease are located. The frequency of cleaning is evaluated at the time of cleaning as to whether it is effective in preventing a sewer overflow.

7.8 AUTHORITY OF IMPLEMENTATION AND INSPECTION

Ordinance S-82, section 2-9, establishes requirements for implementation of "Source Control Measures" and gives authority to any Cambria CSD's Representatives to inspect and disconnect

"The Manager and any duly authorized employees of the Cambria CSD shall be permitted, upon showing evidence of his or her position, to enter private property for the purpose of inspection, re-inspection, observation, measurement, sampling, testing or otherwise performing such duties as may be necessary in the enforcement of the provisions of the ordinances, rules and regulations of the Cambria CSD."

7.9 DEVELOPMENT OF SOURCE CONTROL MEASURES

The Cambria CSD has determined that there is a need for a FOG Source Control Program. Inspections are performed at minimum on an annual basis which will include the following implementation:

- Verify that an approved FOG device is present at the facility in accordance with the Municipal Code.
- Verify that device is adequately sized for application.
- Evaluate the condition of the grease trap.
- Determine that the pumping frequency is sufficient.
- Review waste grease disposal practices with each user.
- Enforce non-complying users.

SECTION 8. SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

8.1 INTRODUCTION

This section describes the Cambria CSD programs that have been completed, are being performed and are scheduled to be performed as part of the ongoing evaluation to provide adequate hydraulic capacity in the wastewater collection system.

8.2 REGULATORY REQUIREMENTS FOR THE SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

The General Waste Discharge Requirements detail the guidelines necessary to document the existing collection system evaluation to ensure that sufficient hydraulic capacity exists in the system for dry and wet weather flows to prevent a sanitary sewer overflow (SSO). A summary of the minimum requirements that must be addressed in this section according to the General Waste Discharge Requirements (GWDR) guidelines are listed here for reference.

General Waste Discharge Requirements (GWDR) Element 8 – System Evaluation and Capacity Assurance Plan:

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

Evaluation: Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to a sanitary sewer overflow (SSO) discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs that escape the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events.

Design Criteria: Where design criteria do not exist or are deficient, undertake the evaluation identified in the Evaluation requirement above to establish appropriate design criteria.

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

Schedule: The Agency shall develop a schedule of completion dates for all portions of the capital improvement program developed above in Evaluation, Design Criteria, and Capacity Enhancement Measures requirements. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D.14 (of the GWDR). The criteria outlined are discussed in greater detail in the following sections.

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8.2.1 System Evaluation

Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to a sanitary sewer overflow (SSO) discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs that escape the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events.

Planning for the Cambria CSD collection system was commissioned by County Public Works prior to the formation of the Cambria CSD. This led to the completion of the two primary sewer system assessment districts (AD-1 and AD-2) composing about 80 percent of the current system. Since that original planning effort, the Cambria CSD has strongly encouraged water conservation, which has substantially lowered the amount of baseline dry weather flow into the collection system. The Cambria CSD has also been in a development moratorium for the past 18 years. Therefore, very little development has been occurring and the collection system has not been significantly expanded².

Cambria CSD retained an engineering firm in 1992 to evaluate the collection system, which was driven by concerns over too little flow being introduced into the system. The 1992 study identified the following recommendations as an initial capital improvement program:

- Identify existing manhole covers that have been paved over and bring them to grade.
- Re-establish access to manhole structures that are within easements and expand existing easements for accessibility. Perform an analysis of the manholes to ensure their structural condition.
- Establish a budgeted, scheduled system cleaning program to address root intrusion and other potential maintenance issues.
- Perform grease trap inspections as part of a system wide fats, oils and grease program.
- Perform a system wide CCTV inspection.
- Adopt collection system design and inspection standards.
- Perform an annual hydro-cleaning of the collection system trunk lines.
- Protect identified trunk lines from inflow that are adjacent to a creek through manhole lid liners or raising the manhole cone.
- Decrease pump cycling at specific lift stations by adjusting the level switches.
- Clean identified lift stations and force mains on a regular basis to reduce odor complaints in the collection system.
- Correct inaccessible emergency generator power inlet at Lift Station B-1.

² Much of the work in Cambria is infill and does not require extending the sewer system. Exceptions have included sewer service to Leffingwell Continuing Education High School as well as the Cambria Union Grammar School.

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- Establish communication link to Pump Station 8.
- Inspect identified pipelines for misaligned joints in Gleason area.
- Repair/replace existing air release valves.
- Install wet well coating system on identified lift stations.
- Correct misaligned joints and gaps in collection system pipelines.
- Correct damaged/broken pipe joints that are experiencing infiltration.
- Repair misaligned/broken manhole rings.
- Purchase numerous equipment items for the proper maintenance of the collection system.

Most of the repair recommendations above have since been completed, or else migrated into a recommended annual budgeting process for completion based on available funding resources. Most of the Cambria CSD collection system needs involve replacing and updating very old lift stations. The majority of the stations were constructed with separate dry wells and wet wells, which require confined space entry for close-up inspection of pumps. Long-term, the Cambria CSD would eventually like to replace the older stations with new stations using submersible pumps to avoid, or otherwise minimize confined space entry requirements. In more recent times, a 2013 report by Phoenix Engineering assessed the condition of the remote lift stations.

The Cambria CSD has a standing Infrastructure Committee and Finance Committee tasked with oversight of the capital improvement program, including collection system needs, as well as determining how to finance such project needs. This is an ongoing process, which involves Board members as well as local citizen participation.

The following improvements have been made to the wastewater collection system since the last 2012 SSMP was adopted:

- The pumps in Lift Station B were replaced with smaller, more energy efficient pumps. A new Opto 22 PLC-based controller with SCADA interface capabilities was installed in the adjacent, above-grade generator building.
- Replaced Lift Station 9 pumps, controller and generator.
- Replaced pump controller and installed new cellular, phone-based alarm system at lift station B-4.
- Replaced Lift Station #8 pump controller, check valves, plug valves, pump motors and valve vault cover. Installed new variable frequency drives for each of the two pumps.
- Installed new 40KW Kohler emergency generator at lift station A1.
- Installed the new pump control panel at lift station B4.
- Staff installed a new auto dialer alarm system at Lift Station A1.
- Cleared Lift Station A-1 force main.
- Installed a new Sensaphone auto dialer at lift station B1.
- Installed new phone auto dialers at all lift stations.
- Staff worked with AT&T to install phone lines at lift stations #9, B, B2, B3, & A.

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- Pro Pipe completed cleaning and inspection of 20% of the collection system focusing on the trunk lines and commercial areas (approx. 12 miles of pipeline).
- Completed repairs to Orlando Street sewer laterals, which are located below a seasonal drainage channel, and were found to be severed near the lateral connection at the main sewer.
- Located and repaired and/or raised approximately twenty-five manholes that were within, or in very close proximity to, areas subject to surface storm-water drainage flooding. These were considered high priority repairs due to their being attributed to inflow and infiltration during the rainy season.
- Influent pump 3 was replaced at the Wastewater Treatment Plant (WWTP).
- A new portable 6-inch pump was obtained for use in the collection system as well as the as quick means to back up lift stations.
- Replaced stuck emergency bypass valves at lift stations to facilitate connection of a portable pump during station failures or maintenance.
- Papros Inc. completed a comprehensive odor management plan.
- Staff facilitated completion of an energy audit sponsored by SLO County, which included analyzing the remote lift stations.
- The Cambria CSD commissioned completion of wastewater collection system audit, which primarily focused on identifying remote lift station needs.

To continue to confirm that there are no capacity-related issues or to correct any existing restrictions in the existing collection system, the Cambria CSD shall develop funding to allow completion of the following:

- Complete collection system cleaning and closed-circuit television (CCTV) inspection on the remaining 80-percent of collection system over an 8-year period (10 percent per year). Each year, identify and update any pipeline capacity issues and/or areas needing repair. This includes all known enhanced maintenance areas in the collection system or areas where previous SSOs have occurred.
- Continue to implement the existing Cambria CSD adopted fats, oils and grease (FOG) ordinance and develop/execute the annual inspection program.
- Prepare a wastewater collection system assessment plan that identifies and prioritizes collection system areas where infiltration and inflow can be further reduced.
- Compile and review pertinent flow data at the Cambria CSD lift stations to determine the following flow parameters: average dry weather flow (ADWF), peak dry weather flow (PDWF) and peak wet weather flow (PWVF). Compare to earlier planning studies to assess whether maximum wet weather flow is within the capacity of the existing system. Should projected flows be more than planned and designed capacity, proceed to the next step below.
- To assess the potential impacts from future undeveloped tracts or annexations being considered for sewer service, develop a hydraulic model of the Cambria CSD's collection system to compute flows at susceptible (hot spots) and representative locations (critical collection system basin outlets, intermediate lift stations, and major trunk lines) based on area and land use type.

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- Conduct dry weather and wet weather flow monitoring at these same susceptible or representative locations within the system to document d/D measurements (flow depth/pipe diameter) during dry or wet weather conditions.
- Calibrate the model using the data collected in steps 3 and 4 above.
- Identify and confirm hydraulic deficiencies within the system.

8.2.2 Design Criteria

See Section 5, "Design and Construction".

8.2.3 Capacity Enhancement Measures

Recognizing that the Cambria CSD collection system dates to the 1970s, it may be difficult to assess the hydraulic/structural deficiencies that currently exist in the network. Therefore, annual cleaning and associated CCTV inspections will be used to update and augment where future improvements and replacements may be needed. Because of the level of conservation occurring, the consequent lack of flow entering the collection system during dry weather, and lack of any appreciable growth, the CCSD should focus on removing wet weather infiltration and inflow sources as well as updating and/or replacing existing facilities. After the system-wide smoke testing is completed, in parallel with CCTV inspections and operator knowledge and inspections, the Cambria CSD will perform the following tasks:

- Review previous CCTV tapes, reports, studies, and physical properties of the existing collection system, such as pipe size, pipe slope, and collection area and determine areas most susceptible to hydraulic deficiencies and/or sources of infiltration and inflow.
- Annually prepare and update a prioritized short-term capital improvement program based on the CCTV inspections, manhole inspections, and historical recommendations. This list as well as its funding needs will be reviewed each year with the Cambria CSD's standing Infrastructure and Financing Committees as part of the annual budgeting process.
- Develop improvement projects and commence implementing the short-term CIP projects.
- Review the information collected in the 2013 lift stations assessment study, as well as annual CCTV work performed, and any post 2013 study replacements and improvements.
- Develop and update a prioritized listing of collection and lift station projects with budgetary estimates for short-term and long-term CIP projects.
- Should future development be proposed, such as allowing demands beyond existing infill or service boundaries, or significant changes in use that may increase system demand, the Cambria CSD will adopt a policy and/or project approval conditions requiring that development and redevelopment project proponents evaluate the offsite capacity impacts of their project through an engineering study and commit to providing any necessary off-site improvements as part of the project approval process to accommodate the potential flow increase and avoid hydraulic capacity issues.

The Cambria CSD is in the process of adjusting its rates to adequately fund its sewer maintenance program. Capital improvement project design can be started following a Proposition 218

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approval process. Because of the lack of CCTV information beyond the 2013 completed CCTV and cleaning, 10% of the collection system will be cleaned and internally video inspected annually to identify future needs. In addition, high priority areas, such as areas with high groundwater tables or in proximity of drainage swales and creeks, will be given a higher priority for inspection and cleaning to facilitate the reduction in infiltration and inflow. Repair, replacement, and projects to reduce infiltration and inflow will be funded through wastewater customer rates. Any future projects to increase capacity will be funded from future impact fees paid by development. Any future customer rate increases to fund projects will be subject to the successful completion of a Prop 218 process.

8.2.4 Schedule

Appendix VII contains the current listing of the Cambria CSD's proposed Capital Improvement Plan (CIP) projects by year. The CIP program is periodically reviewed by the Cambria CSD's standing Infrastructure and Finance Committees as part of the Cambria CSD's annual budgeting process. When the need for a rate increase is identified, the Cambria CSD typically forms a rate ad-hoc committee and commissions a rate consultant to help navigate and facilitate the Prop 218 process.

SECTION 9. MONITORING, MEASUREMENT, AND PLAN MODIFICATIONS

9.1 MAINTAINING RELEVANT INFORMATION

9.1.1 Annual Sewer Line Cleaning and Closed-Circuit Television Inspection

It is the responsibility of the Cambria CSD to clean and video ten percent (10%) of approximately fifty-nine (59) miles (62,304 feet) of the entire gravity system once every year. All findings will be reported to the Cambria CSD General Manager. Cleaning is tracked using a preventive maintenance program, "KeepTrak". Notes and observations from each section are evaluated with Cambria CSD staff to determine areas that need to be addressed and prioritize for maintenance or repair.

9.1.2 Annual, Semi-Annual, Quarterly, and Monthly Hot Spot Cleaning

There are currently seven (7) "Enhanced Maintenance Areas" in the Cambria CSD's Collection System that have been identified (See Appendix V). Upon determination of such areas, they will be tracked using the computer-based maintenance program, "KeepTrak". This system will be maintained by the Cambria CSD staff. "Enhanced Maintenance Areas" will be categorized based on need into Monthly, Quarterly, Semi-Annual, and Annual work orders that are printed out monthly. Reports can be generated from "KeepTrak" to reflect what areas have been cleaned and what areas are due for cleaning. As each "Enhanced Maintenance Areas" work order is completed, it is entered into the computer system and the time is reset automatically to the appropriate number of days when it will be due for maintenance again, ranging from 30 to 365 days. This frequency can be adjusted based on operator observations, staff evaluation and from information gathered after CCTV inspections.

9.1.3 Manhole Inspections

The Cambria CSD will perform manhole inspections during the annual Collection System cleaning. Using the form in Appendix VI inspectors can rate the condition and inform the Cambria CSD of repair priority in a quarterly report. Manhole inspections include documentation that is entered into the Cambria CSD preventative maintenance program and will include a color photo of each manhole.

9.1.4 Sanitary Sewer Overflows

Sanitary Sewer Overflow events are reported to the California Integrated Water Quality System (CIWQS) and tracked using the website. The Wastewater Chief Plant Operator reports to the General Manager on a monthly and quarterly basis the amount of overflow events along with the cause of each event. This information is used to determine the need and priority of repair and maintenance.

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9.1.5 Odor Response

Cambria CSD Staff tracks odor complaints for the Cambria CSD and reports any findings on a monthly and quarterly basis. A Standard Operating Procedure for responding to an odor complaint is followed and complaints documented in “KeepTrak”.

9.2 MONITORING AND MEASURING THE EFFECTIVENESS OF EACH ELEMENT

It is the responsibility of the Cambria CSD to evaluate the information provided by each of the elements listed above and develop a system to measure the effectiveness of their procedures. Data shall be configured into spreadsheets and charts to graphically map trends and alert staff to deficiencies in the program. Trends should indicate areas that need improvement as well as show progress in the areas of the program that have been most effective.

9.3 ACCESSING THE PREVENTATIVE MAINTENANCE PROGRAM

The preventative maintenance program “KeepTrak” developed by the Cambria CSD demonstrates a trend in reduced service callouts due to blockages and structural failures over a specific period. Upon complete implementation of the preventative maintenance program comparisons should be made on a month to month basis with a quarterly and annual trend to indicate effectiveness.

9.4 UPDATING PROGRAM ELEMENTS

During the monitoring and assessment of the Cambria CSD’s Sanitary Sewer Management Program, it may be determined that certain elements are not effective. If preventative maintenance such as sewer line cleaning or “Enhanced Maintenance Areas” cleaning does not result in a reduction in service callouts, the frequency of such cleaning may be increased. If an increase in cleaning frequency does not decrease the amount of service callouts then an implementation of an alternate program element shall be enacted, such as a spot repair or depending on severity, complete sewer replacement.

It may also be determined that certain program elements are not monitoring the appropriate data needed. Specifics in inspections may indicate that additional data should be tracked. Trending may indicate other factors contributing to problems in the sewer system that have not historically been tracked, causing modifications to the program. These modifications or updates should be added to the program in an organized manner and documented within the Sanitary Sewer Management Program.

9.5 IDENTIFYING AND ILLUSTRATING SSO TRENDS

Sanitary Sewer Overflows (SSO) shall be tracked as frequently as monthly to collect and compare data. By tracking location of overflows, the frequency in which they occur, and the magnitude of each, staff should be able to identify what areas are at most risk and plan for advanced action such as repair or replacement. There are several causes of sanitary sewer overflows that are tracked within the CWIQS system including grease, roots, sags, or line breaks. Each cause requires a specific corrective action such as increased cleaning, application of root control, or pipe lining.

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By illustrating sanitary sewer overflow trends, determinations can be made by staff of where the more immediate needs are in the system. It could at anytime be determined that current maintenance practices are not proving to be effective enough and planned maintenance may be modified.

SECTION 10. SANITARY SEWER MANGEMENT PROGRAM AUDITS

10.1 CONDUCTING PROGRAM AUDITS

To determine the effectiveness and compliance of the developed Sanitary Sewer Management Program, periodic internal audits shall be performed at a minimum of every two years. The audit shall be conducted using the form contained in this section and results kept on file for review.

10.2 AUDIT RESPONSIBILITY

The audit shall be conducted by the Cambria CSD Chief/Senior Plant Operator. Audit findings shall be addressed by staff and followed up by the General Manager. It is the responsibility of the Cambria CSD's Regulatory Official to provide staff with findings and the corrective actions needed to develop a timeline for completion.

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SANITARY SEWER MANAGEMENT PROGRAM INTERNAL AUDIT

DATE OF INSPECTION: _____

NAME OF INSPECTOR: _____

ATTENDEES: _____

Section I. Assessment

	YES	NO	COMMENTS
1. Is there a current map of the collection system?			
2. Is there a copy of the master map on file?			
3. Is there more than one version of the collection system map being used in the field?			
4. Are map changes being reported according to program policy?			
5. Are there any known discrepancies with the current master map?			
6. How many SSO events have occurred in the last 12 months?			
7. Is there documentation confirming reporting on CIWQS database?			
8. Has the number of SSO events increased or decreased in the past 12 months?			
9. How many Category 1 spills were reported in the last 12 months?			

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10. How many Category 2 spills were reported in the last 12 months?			
11. How many Category 3 spills were reported in the last 12 months?			
12. How many SSO's reported in the last 12 months were private lateral spills?			
13. How many SSO events required sampling for contaminants?			
14. How many SSO events have been caused by grease?			
15. Have there been any problems noted in response to SSO events?			
16. Are there any critical areas where the impact of an SSO event could be significant?			
17. Are there any blind areas in the Cambria CSD where an SSO could go unnoticed for a period of time?			
18. Have SSO events been documented on a map with cause identified?			
19. What areas of the system have reoccurring SSO events?			
20. Is there a plan to address these areas?			
21. When is annual line cleaning performed?			
22. Who is responsible for the collection system cleaning?			
23. Is the annual line cleaning program written down?			

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24. What percentage or total footage is cleaned annually?			
25. How often does the entire system get cleaned?			
26. Is cleaning followed by closed circuit television inspections?			
27. Who reviews the closed-circuit television inspection?			
28. What issues were found during the last closed-circuit television inspection?			
29. Are manhole inspections being performed?			
30. Have any significant problems been identified with manhole inspections?			
31. Is there a CMMS database being used to develop and track collection system work orders?			
32. Are Hot Spot areas documented and tracked in a work order system?			
33. Are there any other collection system maintenance activities entered in a work order system?			
34. Have rehabilitation and replacement projects been included in the capital improvement plan?			
35. What projects are planned for the current year?			

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36. Have there been any projects planned that have been postponed?			
37. How are projects prioritized?			
38. Is there adequate funding to address the needs for rehabilitation and replacement?			
39. What rehabilitation and replacement projects have been completed in the past 12 months?			
40. Have rehabilitation and replacement projects that are not immediately required been identified and budgeted for?			
41. Do the CIP costs include all project costs including planning, design, construction, and inspection?			
42. Is there technical and safety training documented for collection system staff?			
43. Have staff participated in CWEA certification and training for collection system maintenance?			
44. Have staff obtained advanced certification in the past 12 months?			
45. Does staff have the appropriate licensing and training for the needed equipment?			
46. What equipment is available for collection system maintenance and response?			
47. Are equipment maintenance and upgrades budgeted for?			

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48. Is there a replacement plan for equipment used in the collection system?			
49. Have critical components of system been identified?			
50. Are adequate supplies on hand to allow for two-point repairs in any part of the system?			
51. Is there a parts standardization policy in place?			
52. Does the utility have a centralized location for storing spare parts?			
53. Does the utility maintain a stock of spare parts for maintenance vehicles and equipment?			
54. Does the utility have a system in place to track and maintain an accurate inventory of spare parts?			
55. For those parts which are not kept in inventory, does the utility have a readily available source or supplier?			
56. Does the utility have a back-up power generator for lift stations?			
57. Does the utility have by-pass capability for lift station operation?			
58. Does utility have standard design criteria?			
59. Have there been changes in the standard specifications for new construction?			

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60. Has there been any new construction or installation in the system within the last 12 months?			
61. Who is responsible for reviewing construction criteria and installations?			
62. Has an I/I investigation been performed within the Cambria CSD? When?			
63. Is there a requirement within the Cambria CSD to have lateral connections inspected prior to the sale of property?			
64. Is there periodic review of the design standards used in the Cambria CSD and is it updated as technology advances?			
65. Does the Cambria CSD have a list of approved contractors, developers, and design engineers that can perform construction on the collection system?			
66. Is there a written program for design and construction acceptance for the collection system?			
67. Are there standards within the program for cleaning, CCTV, air and smoke testing, and pressure testing?			
68. Are costs for inspections and design review for collection system construction covered in fees or budget?			
69. Are lift stations checked routinely?			
70. Is capacity adequate in current lift stations?			

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71. What methods are used to inform Cambria CSD officials of issues concerning the collection system?			
72. Are there routine reports to Cambria CSD Board informing the Public of activities and needs in the collection system?			
73. Is there a written procedure on informing the Public of activity in the collection system?			
74. Does the Cambria CSD have an active grease program informing the Public of grease problems?			

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SANITARY SEWER MANAGEMENT PROGRAM INTERNAL AUDIT

DATE OF INSPECTION: _____

NAME OF INSPECTOR: _____

ATTENDEES: _____

Section II. Evaluation

		COMMENTS
Population Served:		
System Size:		
Number of manholes:		
Number of lift stations:		
Percentage of Pipe: a. 6" b. 8" c. 10" d. 12" e. 14" f. 16" g. 18" h. 24" i. 36" j. 42" or greater		

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<p>Percentage of Pipe:</p> <ul style="list-style-type: none"> a. New, within one year b. 2-5 years c. 5-10 years d. 10-20 years e. 20-30 years f. 30-40 years g. 40-50 years h. 50 years or greater 		
Capacity of WWTP:		
Age of WWTP:		
Number of Collections Personnel:		
Average amount of SSO's in past year:		
Collection System Maintenance Budget:		
List of any Notices of Violation:		

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CAMBRIA COMMUNITY SERVICES DISTRICT

SANITARY SEWER MANAGEMENT PROGRAM INTERNAL AUDIT

DATE OF INSPECTION: _____

NAME OF INSPECTOR: _____

ATTENDEES: _____

Section III. Findings

FINDINGS	CORRECTIVE ACTION NEEDED	COMPLETION DUE BY

SECTION 11. COMMUNICATIONS PROGRAM

11.1 COMMUNICATIONS IN BILLING

Cambria CSD can notify the community of Cambria on activities related to the Sanitary Sewer Management Program in the monthly billing sent for Water, Sewer, and Solid Waste. Comments can be added directly to the bill such as preventative measure reminders. If a greater amount of information is to be relayed to the Public, a flyer could be sent in the mail either included in the direct billing or individually.

11.2 DIRECT MAILERS

If a greater amount of information is to be relayed to the Public, a flyer could be sent in the mail either included in the direct billing or separately. It is advisable that mailers go out before food related holidays that reminds the Public of how to properly dispose of grease. Other mailers may be sent only to specific neighborhoods to inform residents of maintenance activities that may affect them.

11.3 NEWSPAPER ANNOUNCEMENTS

For large community sewer cleaning activities, the Public should be notified by publishing an announcement in the local newspapers. The community of Cambria has the, "Telegram Tribune", and the "Cambrian Newspaper". Any changes to the Sanitary Sewer Management Program shall be published in the local newspapers as well.

11.4 PUBLIC SERVICE ANNOUNCEMENTS

Public service announcements to notify the public of any Public Works activities or measures can be broadcast on local radio stations. It is important to be able to reach the Public through all demographics and these announcements should be broadcast in Spanish as well as English.

11.5 CAMBRIA CSD WEBSITE

Cambria CSD has developed a working website (cambriacsd.org) to inform the Public of the activities going on within the Cambria CSD. It is updated regularly and can be used to inform the Public of the progress on sewer management activities. There are tabs that can direct the public to phone numbers and hotlines they can contact for further questions.

11.6 CAMBRIA CSD STANDING INFRASTRUCTURE COMMITTEE, FINANCE COMMITTEE, AND BOARD OF DIRECTOR MEETINGS

The Cambria CSD has two Board members and three appointed local citizen members on each of its standing committees. The standing committees are subject to the same Brown Act compliance notifications and rules as the regular Cambria CSD Board meetings. The committees meeting days vary from month to month and are subject to the availability of committee members. The Cambria CSD typically holds regular Board meetings on the fourth Thursday of every month beginning at 2:00 p.m. at the Cambria Vets Hall. The meetings are videotaped, and a DVD format is available for check

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out. Minutes are recorded at each meeting and can be made available upon request. Most regular Board meetings are televised on the local public television station as well as streamed on the local C-Span webcast service. Subject to the Brown Act and the posted agenda, the public meetings provide an opportunity for Board Members and Staff, as well as the Public, to address any concerns about the Sanitary Sewer System.

11.7 INTERACTIONS WITH THE PUBLIC

The Cambria CSD Facility Maintenance Crews will be routinely trained in how to deal with the Public when working in the Collection System. Crews are instructed to secure the Public safety and health. When the Collection System Crew is approached by the Public they use that opportunity to educate the Public on proper maintenance and preventative measures that everyone can take to care for the system. During inspections of infrastructure such as Grease Traps, inspectors hand out materials to inform the Public of proper sewer maintenance and explain why it is important to prevent damage to the Collection System.

11.8 COMMUNICATION WITHIN THE AGENCY

It is important that all channels of communication between Cambria CSD Staff, Maintenance Crews, and System Personnel are understood. By following the procedures set forth in this program there should be a clear process in which communications are relayed and received. Inspection Reports, evaluations and reviews, change forms, and system updates should be turned into the appropriate officials that can process these pieces of data and follow up with the proper personnel. Cambria CSD Staff should be able to use the Sanitary Sewer Management Program to address any system concerns, track changes, and standardize procedures.

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APPENDICES

- I. Cambria WDR 01-100 modified 2014
- II. CCSD Ordinance S-82
- III. CCSD Municipal Code, Title V
- IV. Sample Map Change Request Form
- V. Enhanced Maintenance Areas
- VI. Sample Manhole Inspection Form
- VII. CCSD Capital Improvement Plan
- VIII. SSO SOP Packet
- IX. Change Log