

BOLINAS COMMUNITY PUBLIC UTILITY DISTRICT

SEWER SYSTEM MANAGEMENT PLAN

August 2010

as amended effective December 21, 2011; August 15, 2012 August 20, 2014; and September 19, 2019, as further updated and recertified effective July 15, 2015 and July 23, 2020, and as further amended effective January 18, 2023.

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Abbreviations / Acronyms

BCPUD	Bolinas Community Public Utility District
BWWTP	Bolinas Wastewater Treatment Plant
EHS	Environmental Health Services Department, Marin County
FOG	Fats, Oils, and Grease
GIS	Geographic Information System
O&M	Operation and Maintenance
OES	Office of Emergency Services
Order	California State Water Resource Control Board Order No. 2006-0003-DWQ
RWQCB	Regional Water Quality Control Board, San Francisco Bay Region
SSO	Sanitary Sewer Overflow (as defined in the Order)
SSMP	Sewer System Management Plan
SWRCB	State Water Resources Control Board
WDR	Waste Discharge Requirements or General Waste Discharge Requirements

INTRODUCTION

This section describes background information regarding the purpose and organization of this Sewer System Management Plan (SSMP), and provides a brief overview of the Bolinas Community Public Utility District (BCPUD)'s sewer system.

This plan is intended to include all elements required to complete the SSMP and comply with WDR Order 2006-0003-DWQ as amended by Order No. WQ 2008-0002-EXEC and as further amended by Order No. WQ 2013-0058-EXEC. It will be developed and implemented by BCPUD and will be available to the State Water Resources Control Board and the Regional Water Quality Control Board, as well as to the general public. The BCPUD's Board of Directors will approve each phase of the document at a duly noticed public hearing.

This plan began as an interim document and was continuously under development until August 2, 2010, per the schedule mandated by the State Water Resources Control Board. The plan is subject to periodic updates and revisions as may be required either through legislative changes, or through refinements of substance or procedures once policy implementation has begun. The plan was amended in 2011, 2012, 2014 and 2019 at duly noticed meetings for the BCPUD's Board of Directors, was updated and recertified after five years at duly noticed meetings of the Board on July 15, 2015 and on July 23, 2020, and was further amended effective January 18, 2023.

SSMP REQUIREMENTS

The California State Water Resources Control Board (SWRCB) adopted statewide Order No. 2006-0003-DWQ on May 2, 2006 (the Order) (which subsequently was amended in 2008 and 2013, as noted above). The General Waste Discharge Requirements (WDR) of this Order requires all public wastewater collection systems in California with greater than one mile of sewer collection pipes to be regulated and monitored in accordance with the Order. Among other things, the Order mandates that all such systems develop a SSMP and requires the reporting of sanitary sewer overflows (SSOs), or lack thereof via a "no spill" certification process, using an on-line reporting system.

The SWRCB also adopted a time schedule setting forth the dates by which each section of the SSMP is required to be completed by each system based on its population size. BCPUD's SSMP Development Plan and Schedule is presented in Appendix 1.

DOCUMENT ORGANIZATION

This SSMP is intended to meet the requirements of WDR Order No. 2006-0003-DWQ as it is amended from time to time (including but not limited to the 2008 and 2013 amendments) as it applies to the BCPUD's sewer system. This SSMP includes eleven elements; each of these elements (listed below) forms a complete, stand-alone section of the SSMP.

1. Element 1 – Goals
2. Element 2 – Organization
3. Element 3 – Legal Authority
4. Element 4 – Operation and Maintenance Program
5. Element 5 – Overflow Emergency Response Plan
6. Element 6 – Fats, Oils, and Grease (FOG) Control Program
7. Element 7 – Design and Performance Provisions
8. Element 8 – System Evaluation and Capacity Assurance Plan
9. Element 9 – Monitoring, Measurement, and Program Modifications
10. Element 10 – SSMP Program Audits
11. Element 11 – Communication Program

BCPUD SERVICE AREA AND SEWER SYSTEM

The BCPUD is a public utility district located in an unincorporated area of West Marin County, California providing water, wastewater and solid waste services, among other things, to its customers since 1967. Prior to 1967, two public utility districts provided water service in Bolinas – the Bolinas Beach Public Utility District (serving the Big Mesa) and the Bolinas Public Utility District (serving the downtown and Little Mesa) – these districts were consolidated in 1967 pursuant to a resolution of the Marin County Board of Supervisors. The BCPUD also is the successor agency to Marin County Sanitary District #3, which was organized in 1908. Today, the BCPUD's power and authority are primarily regulated and defined by the California Public Utilities Code. Its five-member Board of Directors is elected from the community at large to govern the District's operations and policies. The BCPUD's 6-person staff consists of a General Manager, a Chief Operator, three Shift Operators and an Administrative Assistant.

The BCPUD owns and operates a sanitary sewer system that collects, treats and disposes an average of approximately 30,000 gallons per day (GPD) of wastewater (with a maximum permitted flow of 65,000 GPD) from 162 business and residential connections in the downtown area and 1 connection on the Bolinas Mesa. The remainder of the 1,483-person community is served by private, on-site wastewater systems. In the BCPUD sewer system, wastewater is collected from the downtown sewered area and pumped up to the treatment facility on the Big Mesa (the single Bolinas Mesa sewer connection is pumped laterally to the treatment facility), which consists of a series of four oxidation ponds for stabilization and storage, with ultimate disposal through pond evaporation and spray disposal on 45 acres of grasslands. The BCPUD's entire sewer service area encompasses approximately 3 square miles; the collection system consists of pipelines ranging in size from 2-inches to 6-inches, spanning approximately three linear miles and including PVC and AC pipe (over 80% of which is slip-lined with PEP). In 1990, the BCPUD completed an infiltration and inflow ("I&I") correction project to eliminate unwanted stormwater runoff and seawater intrusion. While the project significantly reduced I&I, the BCPUD's sewer collection system continues to experience some I&I during storm events; accordingly, the

district has continued the moratorium on new service connections it enacted in 1985 as a requirement for Clean Water Grant Program funding. The BCPUD operates its sewer system pursuant to Waste Discharge Order 88-100 of the California Regional Quality Control Board, San Francisco Bay Region (RWQCB).

ELEMENT 1 - GOALS

This section identifies goals that the BCPUD has set for the management, operation, and maintenance of its sewer system. This section fulfills the SWRCB Element 1 SSMP requirements.

SWRCB REQUIREMENTS FOR GOALS ELEMENT

The goal of the SSMP is to provide a plan and schedule to properly manage, operate and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that do occur.

GOALS DISCUSSION

The BCPUD's ultimate goals for the operation and maintenance of its sewer system are as follows; to:

1. Serve the community with reliable, safe wastewater collection and treatment service in compliance with applicable law;
2. Protect public health and the environment;
3. Perform all system operations in a safe manner to avoid personal injury and property damage;
4. Prevent or minimize sanitary sewer overflows;
5. Ensure a timely response to any spills/releases of untreated or treated wastewater;
6. Protect the district's large investment in its sewer system by maintaining adequate system capacity and extending the useful life of the collection and treatment system; and
7. Communicate effectively with customers and the general public about the district's operation and maintenance of its sewer collection and treatment system.

This SSMP is intended to ensure the BCPUD's full compliance with the SWRCB Order No. 2006-0003-DWQ (as amended) by supporting high-level, consolidated guidelines and procedures for all aspects of the BCPUD's management of its sewer collection and treatment system.

ELEMENT 2 - ORGANIZATION

This section describes BCPUD's organizational structure and chain of communication. This section identifies the management, administrative and maintenance positions responsible for implementing, managing and updating this SSMP, as well as for reporting SSOs to the appropriate parties. This section includes the designation of the authorized representative to meet SWRCB requirements for completing the certification of all spill reports and no-spill certifications. This section also provides a consolidated list of contact information for key agency personnel, and describes the line of communication by which an SSO is reported. This section fulfills the organization requirement of SWRCB Element 2 SSMP requirements.

SWRCB REQUIREMENTS FOR ORGANIZATION ELEMENT

The SSMP must identify:

- (1) The name of the responsible or authorized representative as described in Section J of the Order (Table 2-1);
- (2) The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation (Figure 2-1 and Table 2-1); and
- (3) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (OES)) (Figure 2-2).

AUTHORIZED REPRESENTATIVE

The BCPUD's authorized representative for purposes of Section J of the SWRCB Order is the General Manager.

ORGANIZATIONAL CHART

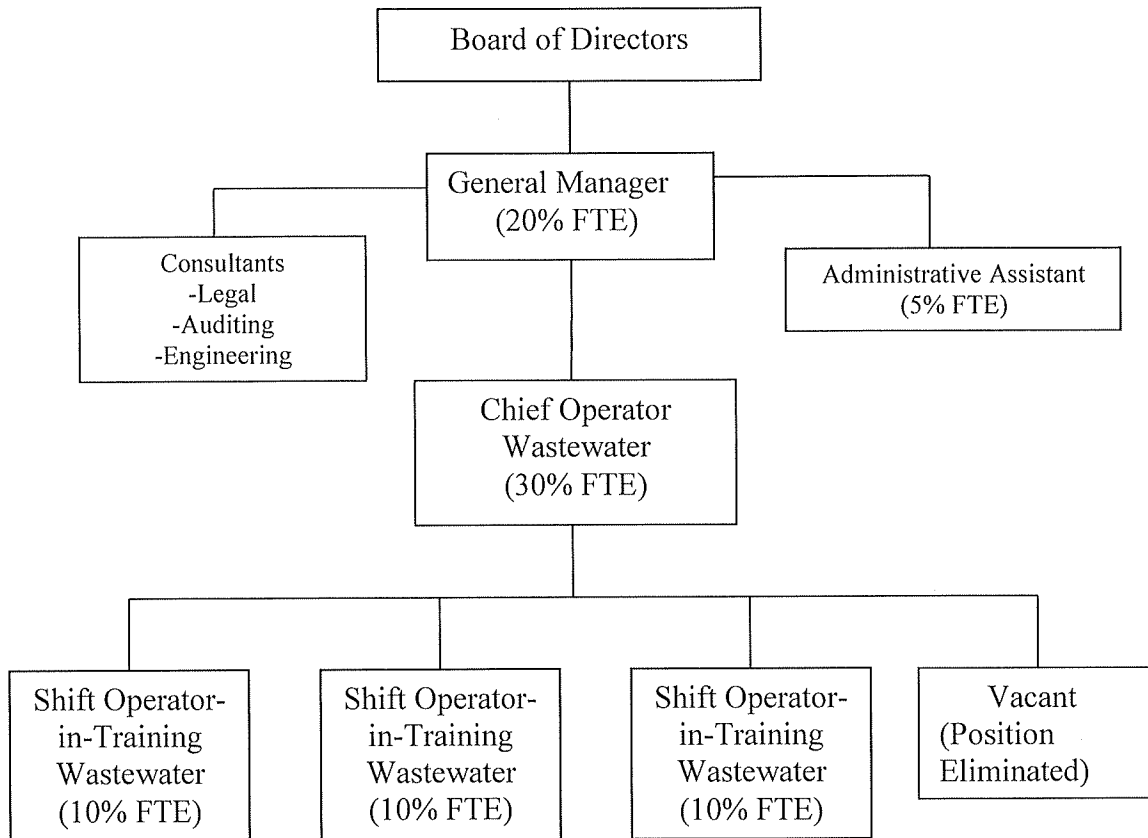
The BCPUD has six (6) employees, including one (1) Chief Operator, three (3) Shift Operators, one (1) General Manager and one (1) Administrative Assistant; their responsibilities include, but are not limited to, management, operation and maintenance of the district's sewer system. The BCPUD allocates approximately 1 FTE to the management, operation and maintenance of its sewer system (i.e., a combined percentage of all employee hours so allocated). The BCPUD presently has one Grade 1 wastewater-certified shift operator and three wastewater shift operators-in-training. The Organizational Chart for the personnel responsible for the BCPUD's sewer system is shown in Figure 2-1. The names and phone numbers of staff filling these positions are included in Table 2-1.

GENERAL RESPONSIBILITIES

The responsibilities of each position with regard to wastewater operations are:

- Board of Directors: Establishes all policy for the district.
- General Manager: Enforces BCPUD policies; plans, organizes, and supervises BCPUD's operational activities and strategy; allocates resources; supervises all staff and delegates responsibility; advises the Board of Directors on district matters; prepares and manages the BCPUD budget; reviews project plans, specifications, and technical engineering planning studies for wastewater and other projects; authorizes outside contractors to perform services; serves as the public information officer; leads the development and implementation of the SSMP; authorized representative for SSO reporting.
- Chief Operator – Wastewater: Supervises sewer system operations and maintenance work; reviews project plans and specifications for sewer and other projects; makes recommendations regarding maintenance, construction, and operational aspects; confers with contractors, engineers, and members of the general public on construction, maintenance problems, and procedures; cleans and repairs treatment facilities; schedules work assignments, maintains records of projects assigned and completed; tracks supplies and equipment used and costs incurred; makes estimates of needed equipment and equipment maintenance for treatment facilities; trains crew members in specific tasks, as needed, including preventive maintenance and SSO response; checks work of assigned crew, implements contingency plans, leads SSO emergency response, investigates and reports SSOs, participates in the development and implementation of the SSMP.
- Shift Operators – Wastewater: Conduct collection system preventative and corrective maintenance activities; investigate sewer-related complaints from the general public; perform cleaning and repair of sewer mains and lines and related work assignments, maintain records of sewage collection system projects assigned and completed, supplies and equipment used, and cost incurred; train fellow crew members in specific tasks, as needed, including collection system preventive maintenance and SSO response; participate in the development and implementation of the SSMP; implement contingency plans; mobilize and respond to notification of stoppages and SSOs.
- Administrative Assistant: Performs clerical tasks and assists the General Manager. These tasks include typing of reports, correspondence and other paperwork necessary to the operation of the district; filing; maintenance of the accounts receivable and accounts payable; preparation of deposits for the County of Marin; maintenance of customer records and accounts; work necessary in obtaining special reports and services from Marin County; annual preparation of utility district assessment list, and other work as required.

FIGURE 2-1: Organization of BCPUD Staff Responsible for Sewer System



**TABLE 2-1: NAMES AND TELEPHONE NUMBERS OF BCPUD STAFF
RESPONSIBLE FOR SEWER SYSTEM**

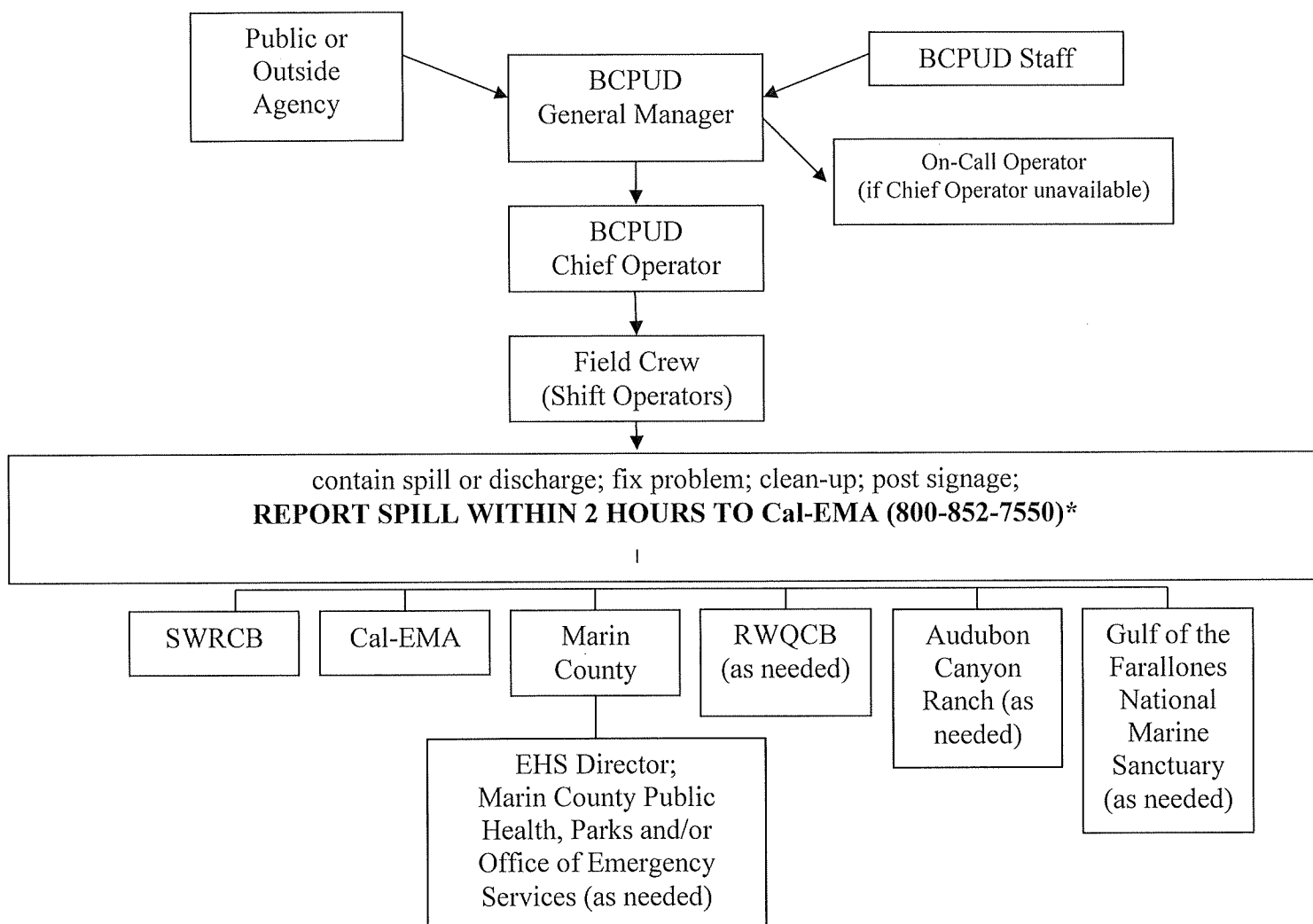
Board Member, President	Jack Siedman	(415) 868-0997
Board Member, Vice President	Grace Godino	(415) 868-1812
Board Member	Kirsten Walker	(415) 699-0475
Board Member	Andrew Alexander Green	(262) 573-3066
Board Member	Kevin McElroy	(415) 341-6657
General Manager	Jennifer Blackman*	(415) 868-1224/686-1827
Chief Operator	Stewart Oakander	(415) 868-1224/717-0839
Shift Operator-in-Training	Blake Miller	(415) 868-1224/(760) 815-3195
Shift Operator-in-Training	Evan Kahn	(415) 868-1224/852-8042
Shift Operator-in-Training	Andrew Spalding	(415) 868-1224/847-0830
Administrative Assistant	Belle Wood	(415) 868-1224/847-0343

* BCPUD's Authorized Representative

FIGURE 2-2: SSO REPORTING CHAIN OF COMMUNICATION

Figure 2-2 demonstrates the BCPUD's chain of communication for responding to and reporting any SSO or unauthorized discharge that results in discharge to surface water and/or a drainage channel tributary to a surface water. The contact phone numbers for the parties included in the chain of communication is listed in Table 2-2.

Figure 2.2: Chain of Communication for Reporting SSOs or Discharges



* BCPUD also shall submit a draft report about the SSO to the SWRCB via CIWQS within 3 business days and certify the report via CIWQS within 15 business days. *(In the event of a spill of less than 1,000 gallons to a surface water or drainage channel tributary to a surface water, or a spill of over 1,000 gallons that does not reach surface waters or a drainage channel tributary to a surface water, a call within 2-hours to Cal-EMA is not required.)* BCPUD shall submit an SSO Technical Report via CIWQS within 45 calendar days for any SSO in which 50,000 gallons or more is spilled to surface waters. BCPUD shall conduct water quality sampling within 48 hours after initial SSO notification for any Category 1 SSO spilled to surface waters.

Table 2-2. Contact Numbers for SSO Chain of Communication

Contact	Telephone/Cell Number
General Manager	415-868-1224/686-1827
Chief Operator – Wastewater	415-868-1224/717-0839
Shift Operator-in-Training – Wastewater	415-868-1224/(760) 815-3195
Shift Operator-in-Training – Wastewater	415-868-1224/852-8042
Shift Operator-in-Training - Wastewater	415-868-1224/847-0830
On-Duty Operator/After Hours Operator	(415) 868-1224
Regional Water Quality Control Board	(510) 622-2485
California Emergency Management Agency (Cal-EMA)	(800) 852-7550
Marin County Environmental Health Services Director	(415) 473-6919
Marin County Public Health Officer	(415) 473-4163
Marin County Parks District	(415) 473-6387
Marin County Office of Emergency Services	(415) 473-7250
Audubon Canyon Ranch	(415) 868-9244
Gulf of the Farallones National Marine Sanctuary	(415) 561-6622

ELEMENT 3: LEGAL AUTHORITY

This section demonstrates that the BCPUD possesses the necessary legal authority to comply with SWRCB Order No. 2006-0003-DWQ, as amended. This section fulfills the SWRCB Element 3 SSMP requirements.

SWRCB REQUIREMENTS FOR THE LEGAL AUTHORITY ELEMENT

Each Enrollee must demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:

- (a) Prevent illicit discharges into its sanitary sewer system (examples may include I/I, stormwater, chemical dumping, unauthorized debris and cut roots, etc.);
- (b) Require that sewers and connections be properly designed and constructed;
- (c) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;
- (d) Limit the discharge of fats, oils, and grease and other debris that may cause blockages, and
- (e) Enforce any violation of its sewer ordinances.

THE LEGAL AUTHORITY GOVERNING THE BCPUD'S SEWER SYSTEM

In the late 1970's the San Francisco Regional Water Quality Control Board determined that the BCPUD's collection system had serious infiltration and inflow problems, which caused capacity issues for the wastewater treatment facility. In response to these concerns, in 1985 the BCPUD adopted a resolution prohibiting illicit discharges into its sanitary sewer system (Resolution 257) and a resolution establishing a moratorium on new sewer connections (Resolution 259).

In 1989, the BCPUD adopted Resolution 312, which sets forth Service Termination Procedures for sewer users.

In 1994, the BCPUD adopted Ordinance 29, which provides for a comprehensive system of wastewater regulation. Ordinance 29 rescinded all previous ordinances governing sewer usage; however, Ordinance 29 does not rescind the sewer moratorium set forth in Resolution 259.

In 2004, the BCPUD adopted Resolution 500, which identifies two exceptions to the sewer moratorium.

In 2009, the BCPUD requested a legal opinion from counsel as to whether any revisions or amendments were necessary to Ordinance 29 to ensure that it meets the requirements of SWRCB Order No. 2006-0003-DWQ.

In 2010, the BCPUD adopted Ordinance 39, which amends Ordinance 29 specifically to ensure that the BCPUD's comprehensive system of wastewater regulation meets all of the requirements of SWRCB Order No. 2006-0003-DWQ, as amended, and provides the BCPUD with all of the necessary legal authority to implement the SSMP. A true and correct copy of BCPUD Ordinance 29, as amended by BCPUD Ordinance 39, is presented in Appendix 2.

ELEMENT 4: OPERATION AND MAINTENANCE PROGRAM

This Section describes the BCPUD's operation and maintenance program for its sanitary sewer system. It includes copies of the available maps of the system, describes routine preventative operations and maintenance activities, identifies and prioritizes system deficiencies and rehabilitation actions needed, describes training activities and identifies critical equipment and replacement parts. This section fulfills the SWRCB Element 4 SSMP requirements.

SWRCB REQUIREMENTS FOR THE OPERATIONS AND MAINTENANCE PROGRAM ELEMENT

The SSMP must include those elements listed below that are appropriate and applicable to the Enrollee's system:

- (a) Maintain an up-to-date map of the sanitary sewer system, showing all gravity lines segments and manholes, pumping facilities, pressure pipes and valves;
- (b) Describe routine preventative operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system;
- (c) Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The plan should include regular visual and TV inspections of manholes and sewer pipes; a system for ranking the condition of sewer pipes and scheduling rehabilitation (focusing on pipes at risk of collapse or prone to frequent blockages due to pipe defects) and a capital improvement plan (CIP) addressing management and protection of infrastructure assets, a time schedule for implementing short and long-term projects, and a schedule for developing the funds needed to implement the CIP.
- (d) Provide training on a regular basis of all staff in sanitary sewer systems operations and maintenance, and require contractors to be appropriately trained; and
- (e) Provide equipment and replacement part inventories, including identification of critical replacement parts.

UP-TO-DATE MAP OF THE SANITARY SEWER SYSTEM

The current available maps of the BCPUD's sanitary sewer system are presented in Appendix 3. Staff plans to begin a project in 2023-24 to do the field work needed to create an updated map of the collection system, including all sewer mains, manholes and lateral

points of connection. The sanitary sewer system maps also will be updated from time to time to reflect rehabilitation and/or replacement projects.

ROUTINE PREVENTATIVE OPERATIONS AND MAINTENANCE ACTIVITIES

The BCPUD sanitary sewer system is a gravity system that is self-cleaning and does not regularly (or even infrequently) experience collection main stoppages or blockages or sanitary sewer overflows. Nonetheless, BCPUD staff conducts regular preventative operations and maintenance activities to ensure continued proper functioning of the system. Specifically, during the winter months the BCPUD staff hydro-jets the collection mains on an as-needed basis. In addition, the BCPUD retains an outside contractor approximately every two years (or more frequently, as needed) to video and vacuum a portion of the collection system: in general, on a rotating basis, the lower end of the system is videoed and vacuumed (i.e., Wharf and Brighton Roads) and two years later the upper ends of the system (i.e., Terrace Avenue and the Little Mesa) are videoed and vacuumed. On an as-needed basis, the district video-inspects and conducts smoke testing to identify/reduce infiltration and inflow and also inspects the exposed sewer laterals on the lagoon side of Wharf Road. In 2023, the BCPUD purchased its own inspection camera to facilitate this process and reduce outside video contractor costs. Sewer system manholes on each of these ends of the system are inspected and either rehabilitated or replaced on an as-needed basis. BCPUD staff also inspects the system's lift station, check valve vault and treatment facilities on a regular basis in connection with the "daily run". BCPUD staff regularly evaluates the adequacy of maintenance equipment and makes purchases of new or replacement equipment on an as-needed basis. Finally, the district is in the process of implementing a system of Work Orders to track and memorialize specific preventative operations and maintenance activities.

REHABILITATION AND REPLACEMENT PLAN

In 1990, the BCPUD completed an infiltration/inflow correction project to eliminate unwanted stormwater runoff and seawater intrusion whereby virtually the entire sanitary sewer system was slip-lined, all manholes were replaced, and all service laterals were replaced. The only section of the system not improved at this time was a section of Wharf Road, from the BCPUD lift station to the end of Wharf Road at Brighton Beach; this section is videoed and vacuumed periodically and any customers discovered to have compromised laterals are required to repair them promptly. Overall, the district's sanitary sewer collection system is in good condition.

BCPUD staff regularly inspects the collection system during the above-described hydro-jetting and video/vacuuming maintenance activities and in response to customer complaints. As a result of BCPUD staff inspections and consultation with the district's outside engineers, the following capital improvement projects have been identified and prioritized for the collection system:

1. Rehabilitation of the lift station wetwell;
2. Potential transition to submersible pumps at the lift station;

3. Replacement of the clean-out assembly on the force-main on Olema-Bolinas Road;
4. Inspection of the force-main from downtown to the treatment ponds;
5. Regular rehabilitation and maintenance of lift station pumps and force main check valve, and regularly scheduled/budgeted replacement of pumps and check valve;
6. Possible slipline of Wharf Road sewer main from the Lift Station to the end of Wharf Road, and
7. Relocation of collection main off of Terrace Avenue at Surfer's Overlook -- this section of the collection main is threatened by on-going bluff erosion (preliminary engineering is complete) -- although this project may not be necessary and/or as high a priority because the County of Marin replaced the road-level retaining walls and stabilized the upper bluff in Fall 2015.

STAFF TRAINING IN OPERATIONS AND MAINTENANCE

All BCPUD staff are required to be CWEA certified in wastewater collection system maintenance. In addition, BCPUD staff receive training in operations and maintenance of the sanitary sewer system via on-the-job training and mentoring by the Chief Operator and the district's more experienced shift operators. BCPUD staff also receive training via the certification and recertification process required to maintain wastewater treatment licenses. This training is documented by the staff on daily work reports. From time to time the district also contracts out for additional training: for example, BCPUD staff receive training (usually annually) from the district's insurance provider, ACWA/Joint Powers Insurance Authority on subjects including, but not limited to , Defensive Driving, First Aid, CPR, Traffic Control, Confined Space Entry, Safe Handling of A/C Pipe and First Responder Awareness. All safety training is documented and records are on file with the BCPUD office.

EQUIPMENT AND REPLACEMENT PART INVENTORIES

BCPUD staff has identified the critical components of the sanitary sewer system and redundancy has been built into the system at these components to ensure uninterrupted service in the event of component failure (i.e., lift station pumps to force main and irrigation pumps from ponds to spray fields). A third, back-up lift station pump has been purchased and is available on-site for installation in the event of a pump failure. Back-up power has been installed at the lift station and by-pass pumping is available on a contract basis as needed in the event of an emergency. The lift station itself also serves as a containment area in the event of overflow events due to pump failure. An alarm system is in place at the lift station and it is on-line 24/7 to auto-dial the on-call staff operator in the event of an emergency. Routine parts are available on site and elsewhere in the district for minor repairs and trouble-shooting. The district owns a Hurco-Vac (for spill response), Hydro-Jet (for sewer main cleaning) and camera (for sewer main and private lateral inspections). Major

pump repairs or replacements are performed by experienced outside contractors with whom the district has established long-term service relationships.

ELEMENT 5: OVERFLOW EMERGENCY RESPONSE PLAN

This section sets forth the BCPUD's Sanitary Sewer Overflow Emergency Response Plan and fulfills the SWRCB Element 5 SSMP requirements.

SWRCB REQUIREMENTS FOR THE OVERFLOW EMERGENCY RESPONSE PLAN ELEMENT

Each Enrollee shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:

- (a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSO's in a timely manner;
- (b) A program to ensure an appropriate response to all overflows;
- (c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities of all SSOs that potentially affect public health or reach the waters of the State in accordance with the all applicable law and permit requirements. The SSMP should identify the officials who will receive immediate notification;
- (d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;
- (e) Procedures to address emergency operations;
- (f) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

INTRODUCTION

The purpose of this Sanitary Sewer Overflow Emergency Response Plan is to ensure that the BCPUD complies with regulatory requirements of the Order in containing, cleaning-up, decontaminating and reporting SSOs or other discharges to a drainage channel or surface water which occur within the BCPUD's service area. This plan provides standard response procedures to ensure that every report of a confirmed sewage overflow is immediately dispatched to the appropriate crews so that the effects of the overflow can be minimized with respect to impacts to public health and adverse effects on beneficial uses and water quality of surface waters and customer service. This Response Plan also includes provisions to ensure that notification and reporting is made to the appropriate local, state and federal authorities.

The primary objectives of this Plan are:

- To protect public health, water environment and beneficial uses of receiving waters;
- To mitigate any adverse impacts on the public and to the environment;
- To ensure a timely response to uncontrolled releases of untreated or partially treated wastewater;
- To establish a basis for corrective action to prevent uncontrolled releases of wastewater;
- To satisfy regulatory agency requirements;
- To minimize risk of enforcement actions against the District.

Additional objectives of this Plan include:

- To provide appropriate customer service;
- To protect wastewater treatment plant and collection system personnel;
- To protect the collection system, wastewater treatment facilities, and all appurtenances;
- To protect private and public property beyond the collection and treatment facilities.

OVERFLOW EMERGENCY RESPONSE TEAM

The BCPUD's overflow emergency response team members include:

- General Manager;

- Chief Operator – Wastewater;
- Shift Operators/Operator(s) in Training;
- Engineering Consultants;
- Legal Consultants.

In general, if any SSO occurs the Chief Operator – Wastewater, aided by the Shift Operator(s) and/or Operator(s)-in-Training will be in charge of the clean-up for any spills. During an emergency, the Chief Operator – Wastewater will assume the responsibilities of the Incident Commander (IC) for the clean-up activity. If an incident occurs after-hours or on a weekend, the IC will be the on-duty staff or the first Shift Operator on scene, when notified of a spill or discharge.

The responsibilities of each position during the overflow emergency are described as follows:

- General Manager – Serves as direct contact for any media inquiries and inquiries from the Board of Directors and regulatory authorities. Arranges for all public statements regarding the district's emergency response. Responsible for all reporting (telephonic and electronic) to regulatory authorities.
- Chief Operator - Wastewater – In charge of spill response and clean-up. In direct contact with the General Manager to report on status of clean-up. Responsible for conducting environmental assessment of situation and performing duties of the IC unless and until relieved by higher authority.
- Shift Operators/Operator in Training – Responsible for performing clean-up tasks as assigned by the Chief Operator or, in the absence of the Chief Operator, for performing the responsibilities of the Chief Operator, unless and until relieved by higher authority.
- Engineering Consultant – Responsible for providing technical assistance as needed to the IC and for coordinating internal and outside remediation efforts if and when necessary;
- Legal Consultant – Responsible for providing legal advice to the IC when necessary.

Contact information for each of the foregoing positions is presented in Exhibit 1 to this Element 4. Contact information for external emergency assistance (i.e., local contractors and bypass pumping companies) is presented in Exhibit 2 to this Element 4.

OVERFLOW RESPONSE PROCEDURE

The Overflow Response Procedure presents a strategy for the BCPUD to mobilize labor, materials, tools and equipment to correct or repair any condition that may cause or contribute to an unauthorized discharge or SSO.

The BCPUD's Overflow Emergency Action Flow Chart is presented in Exhibit 3 to this Element 4.

RECEIPT OF INFORMATION REGARDING A SANITARY SEWER OVERFLOW

An SSO may occur due to the wastewater collection system failure, force main (including the check valve vault and other ancillary components) failure, wastewater treatment plant failure, or failure of the lift station. The BCPUD has established various procedures to receive information regarding SSOs caused at these different locations.

SANITARY SEWER OVERFLOW DUE TO WASTEWATER COLLECTION SYSTEM FAILURE, FORCE MAIN FAILURE OR WASTEWATER TREATMENT PLANT FAILURE

SSOs due to wastewater collection system failure, force main failure or wastewater treatment plant failure may be detected by a BCPUD employee or by others, including the general public. The BCPUD's main office (phone number 415-868-1224) is primarily responsible for receiving phone calls from the public of possible sewer overflows and for forwarding to the in-charge sewer personnel (usually the Chief Operator - Wastewater or the On-Duty Shift Operator if the Chief Operator cannot be reached). After hours, the district's answering service will page the on-call Shift Operator. The Chief Operator or the on-call Shift Operator will then assume the responsibilities of the IC for the clean-up activity unless and until relieved by higher authority.

Residents who observe a sewer system overflow may also call the Bolinas Fire Protection District (415-868-1566) or County Sheriff, Point Reyes Sub-Station (415) 663-1151) to report an overflow. Under this circumstance, the Fire District or law enforcement will forward the call to the BCPUD.

SANITARY SEWER OVERFLOW DUE TO LIFT STATION FAILURE

An SSO may also occur due to the failure of the lift station. The lift station is equipped with float devices that will activate an alarm in the event of a high level in the wet well and page the office or, if after hours, the on-call operator. If the office is called, the General Manager or Administrative Assistant will immediately notify the Chief Operator or a Shift Operator if the Chief Operator is unavailable. If the on-call operator is paged, he or she is required to be on-site within 20 minutes. If the on-call operator fails to respond within

5 minutes by calling to acknowledge the alarm, the auto-dialer will continue to page the on-call operator until the alarm is acknowledged and reset at the lift station.

DISPATCH OF APPROPRIATE CREWS TO SITE OF SANITARY SEWER OVERFLOW

After receiving notification of a potential or actual sewer system overflow, the IC will dispatch the appropriate personnel and resources as required. Staff and equipment shall be available to respond immediately to any SSO location.

Once it is confirmed that BCPUD is responsible for the sewer system overflow, the IC shall notify the General Manager regarding the SSO location. If the BCPUD is not responsible for the SSO, the IC shall notify the responsible party and offer necessary assistance to the responsible party as requested.

Sewer laterals are the responsibility of the home/business owner. These owners are responsible for their laterals from the building to the BCPUD's wastewater main in the easement or street. If an SSO occurs in lateral, the BCPUD shall contact the resident or business owner and advise them that they should not discharge wastewater into their lateral until a repair has been completed. The staff of the District will then instruct them as to how to alleviate the problem using a plumber or other services. The staff will monitor their progress in order to ensure that the SSO is remediated.

CREW INSTRUCTION AND WORK ORDERS

BCPUD staff should receive instruction from the IC regarding appropriate crews, materials supplies, and equipment needed to respond to an SSO. All employees dispatched to the site of an SSO shall proceed immediately to the site of the overflow. Any delays or conflicts in assignments must be immediately reported to the IC for resolution. Response staff should in all cases take photographs and report their findings, including possible damage to private and public property, to the IC immediately upon making their investigation. If the IC has not received findings from the field crew within thirty minutes, the IC shall contact the response crew to determine the status of the investigation.

ADDITIONAL RESOURCES

The IC should receive and shall convey to appropriate parties requests for additional personnel, material suppliers and equipment from crews working at the site of a sewer overflow.

PRELIMINARY ASSESSMENT OF DAMAGE TO PRIVATE AND PUBLIC PROPERTY

Responding BCPUD staff should assess and report any damage to public or private property as a result of the SSO immediately. Staff should use discretion in assisting the property owner/occupant as reasonably as they can and should avoid inflicting any further damage to private property. Staff may enter private property for purpose of assessing

damage and taking appropriate still photographs and video footage, if possible, of the outdoor area of the sewer overflow and impacted area in order to thoroughly document the nature and extent of impacts. Available photographs should be forwarded to the BCPUD office for filing with the SSO report.

COORDINATION WITH HAZARDOUS MATERIAL RESPONSE

Upon arrival at the scene of an SSO, should a suspicious substance (e.g. oil sheen, foamy residue) be found on the ground surface, or should a suspicious odor not common to the sewer system be detected, the responding staff should immediately contact the IC or Chief Operator – Wastewater for guidance before taking further action.

Should the IC or Chief Operator determine the need to alert a hazardous material response team, BCPUD staff shall await the arrival of Bolinas Fire Department personnel or until appropriate regulatory agencies to take over the scene. Only when that authority determines it is safe and appropriate for the sewer staff to proceed can they then proceed with the containment, clean-up activities and correction.

OVERFLOW CORRECTION, CONTAINMENT AND CLEAN-UP

The objectives of SSO correction, containment and clean-up are:

- To protect public health, environment and property from sewer system overflows and restore surrounding area back to normal as soon as possible;
- To establish perimeters and control zones with appropriate traffic cones and barricades, vehicles or use of natural topography (e.g. hills, berms);
- To promptly notify the regulatory agencies' communication centers of preliminary overflow information and potential impacts;
- To contain and remove the SSO to the maximum extent possible, including preventing the discharge of sewage into surface waters; and
- To minimize the BCPUD's exposure to any regulatory agency penalties and fines.

RESPONSIBILITY OF RESPONSE CREW UPON ARRIVAL

It is the responsibility of the first personnel who arrive at the site of a sewer system overflow to protect the health and safety of the public by mitigating the impact of the overflow to the extent possible. Should the SSO not be the responsibility of the BCPUD but there is imminent danger to public health, public or private property, or to the quality of waters of the United States, then prudent emergency action should be taken until the responsible party assumes responsibility. Upon arrival at an SSO, the response crew should do the following:

- Make an assessment of the SSO and what is needed to make the work area safe, determine the equipment and personnel necessary to correct, contain and clean-up the overflow;
- If possible, take immediate steps to stop the overflow, e.g. relieve pipeline blockage, manually operate pump station controls, repair pipe, etc.;
- If appropriate, take immediate steps to reduce or eliminate any overflow to surface waters or to drainage tributaries to surface waters;
- Fully assess the SSO site to estimate of the volume of the spill, make all necessary measurements to assist in this such as flow depths, distances, and size of water pools, etc.;
- Interview the person or persons who reported the SSO for additional information to determine as accurately as possible how long the SSO may have been flowing before it was reported in order to accurately determine the SSO start time.
- Notify the IC, Chief Operator and/or General Manager immediately upon completion of the assessment;
- Inform the IC, Chief Operator and/or General Manager if the school is in the vicinity of the affected overflow area, and the BCPUD office will contact the school and inform them of the current situation;
- Determine if private property is impacted; if yes, the IC or Chief Operator should be informed;
- If damage to private property has occurred, do not attempt any clean-up work until the area has been photographed and the Chief Operator is on site;
- If so instructed, post the area with proper warning signs;
- Photograph the affected area, if possible;
- Make the work area safe by donning protective gear, etc.;
- If the SSO was caused by a blockage in the BCPUD's sewer collection main, clean the main to both the upstream and downstream manholes, then check the upstream sewer main for additional problems which may have developed.

INITIAL MEASURES FOR CONTAINMENT

Initiate measures to contain the SSO and recover, where possible, wastewater that has already been discharged, including the following:

- Determine the immediate destination of the SSO, e.g. storm drain, street curb gutter, body of water, creek bed, etc.;

- Identify and obtain the necessary materials and equipment to contain or isolate the overflow, if not otherwise readily available at the BCPUD's lift station, treatment plant or maintenance yard;
- Take immediate steps to contain the SSO, e.g. block or bag storm drains, recover through vacuum truck, divert into downstream manhole, etc.;
- Where possible, the best solution to a spill is to direct the flow to a downstream manhole, where this is not possible, divert to holding areas on vacant lots, culverts or storm water basin;
- Use site features such as natural low areas, berms, curbs, storm-drain basins, culverts, vacant lots and fields to advantage while performing the containment procedures; and
- Unless absolutely essential, do not excavate to create a holding area. If excavation cannot be avoided, the area should be checked for underground utilities by Underground Service Alert before excavation begins.

CONTROL

If an SSO occurs in the collection system, control of the SSO is normally obtained by clearing the pipeline blockage using hydro-flushing or snakes. In the event clearing the pipeline blockage is not successful, set up a portable bypass pumping station, use a pump truck(s) or temporary, in-ground or above ground bypass piping, either gravity fed or pressurized, or other various methods.

Appropriate measures shall be taken to determine the proper size and number of pumps required to effectively handle the sewage flow and continuous or periodic monitoring of the by-pass pumping operation shall be implemented as required.

If an SSO occurs at the wastewater treatment plant, control of the SSO should be obtained by correcting the operational error and/or clearing any obstruction.

SAMPLING AND LAB TESTS

When sewage discharges to surface waters, various regulatory authorities must be notified as explained elsewhere in this SSMP. As part of this notification process, bacteriological and other sampling will be performed and reported to Marin County EHS. Samples must be taken upstream of the entry point, just downstream of the entry point and at a distance downstream of the entry point. The actual sample point chosen will vary on a case-by-case basis. Samples should be collected as soon as possible, the response crew shall call the Chief Operator and request that the samples are taken at the spill location. The samples will be analyzed for total Coliform, E. Coli and/or Enterococcus, dissolved oxygen and ammonia.

CLEAN-UP

SSO sites are to be thoroughly cleaned after an overflow. No readily identified residue (e.g. sewage solids, papers, rags, plastic, rubber products) shall remain.

- Before clean-up is begun, operators should photograph the area affected, if possible. Photographs should show all damage to property whether public or private. After the clean-up effort has been completed, the area should be photographed again using, to the extent possible, the same camera angles.
- The overflow site is to be secured to prevent contact by members of the public until the site has been thoroughly cleaned; posting if required should be undertaken pursuant to the Section below entitled "Public Advisory Procedure".
- Samples of the spill material may be requested, the response crew shall check with the Chief Operator before disposing of liquids removed from the site.
- If the SSO has occurred on paved streets, the liquid can be vacuumed up to a truck and either directed to a nearby manhole or to the district's wetwell, or transported to the treatment ponds at 101 Mesa Road. The affected area should then be hosed down with clean de-chlorinated water and the wash water contained, vacuumed up and disposed of in the same manner as the sewage. Neither raw sewage nor wash water should be allowed to flow to surface waters or to drainage structures which are not under immediate control.
- If the SSO occurs on an unpaved surface, as much liquid as possible should be removed by vacuuming as above and disposed of properly. If feasible, wash the area down with clean de-chlorinated water and again remove the wash water.
- Regardless of the surface area where the SSO occurred, it is a good procedure to broadcast lime onto moist soil or standing sewage. This can suppress odors and kill many harmful bacteria associated with raw sewage. Lime should never be spread on or adjacent to planted areas, however, as damage to plant growth can occur.
- Where the sewage has resulted in ponding, the pond should be pumped dry and the residue disposed properly.
- If a ponded area contains sewage that cannot be pumped dry, it may be treated with bleach. However, if the sewage has discharged into a body of water that may contain fish or other aquatic life, bleach or other appropriate disinfectant should not be applied and the State fish and wildlife agency should be contacted for specific instructions.
- When an SSO occurs inside a building, clean-up should not be attempted unless the Chief Operator is present. The affected area should always be photographed both before and after clean-up. Mop, squeegee and wet vacuum all surfaces exposed to the sewage. Flush surfaces with clean de-chlorinated water and re-mop and vacuum.

- Use of a portable aerator may be required where complete recovery of sewage is not practical and where severe oxygen depletion in existing surface water is expected.

OVERFLOW FIELD REPORT

An Emergency Sewage Spill Report (as presented in Exhibit 4) should be completed for all SSOs and the IC should be promptly notified when the overflow is eliminated. The Emergency Sewage Spill Report should include the following information:

- The location and address of the SSO;
- Date and time information received and/or reported to have begun and later substantiated by the IC or response crew;
- Indication and description as to whether the BCPUD is responsible for the SSO or not;
- Name, address, phone number of the owner where property damage occurred, if applicable;
- Description of all damage and inventory of all properties, with the occupants' signatures on list, if applicable;
- Indication and explanation as to whether drinking water sources were threatened or not;
- Indication as to whether sewage reached surface waters or whether there was obvious indication (e.g. sewage residue) that sewage flowed to the surface waters;
- Indication as to whether the sewage overflow did not reach surface waters, such as where observation or on-site evidence clearly indicates all sewage was retained on land and did not reach surface water and where complete clean-up occurs leaving no residue;
- Determination of the duration of the SSO;
- Determination of the volume of the SSO;
 - a. When the rate of overflow is known, multiply the duration of the overflow by the overflow rate; or
 - b. When the rate of overflow is not known, investigate the surrounding area for evidence of ponding or other indication of overflow volume.
- Description of the actions taken to lessen damage;
- Description of the actions taken to prevent human contact and odors;

- Description of the actions taken to prevent reoccurrence of overflow;
- Description of the clean-up activities;
- Description of repair activities;
- Determination of the cost breakdown;
- Estimation of the property damage.

PUBLIC ADVISORY PROCEDURE

The BCPUD, usually in consultation with the Marin County Environmental Health Services department, has primary responsibility for determining when to post notices of polluted surface water bodies or ground surfaces that result from uncontrolled wastewater discharges from its facilities. The postings do not necessarily prohibit use of recreational areas, unless posted otherwise, but provide a warning of potential public health risks due to sewage contamination. The Chief Operator – Wastewater, working in consultation with the General Manager, shall determine if posting of a confirmed overflow is undertaken or if there is reasonable potential for an overflow to occur -- thus the need to post in advance.

Should the posting of surface water bodies or ground surfaces subjected to an SSO be deemed necessary by the Chief Operator - Wastewater, he/she shall also determine the need for further public notification through the use of pre-scripted notices made available to the printed or electronic news media for immediate publication or airing, or by other measures (e.g., front door hangers).

REGULATORY AGENCY NOTIFICATION PROCEDURE

The BCPUD shall report all SSOs to the SWRCB's Online SSO Database through their website <http://ciwqs.waterboards.ca.gov> in a timely manner. The BCPUD is also required to report to other authority agencies pursuant to local, state and federal regulations.

The BCPUD's authorized representative in all sewer system matters is the General Manager. The General Manager is authorized to submit SSO reports to the appropriate government agencies and to certify electronic spill reports submitted to the SWRCB.

SANITARY SEWER OVERFLOW CATEGORIES

- Category 1 – All discharges of untreated or partially treated wastewater of any volume resulting from a failure in the District's sanitary sewer system or flow condition that:
 - a. Reach surface waters and/or reach a drainage channel tributary to a surface water; or
 - b. Reach a Municipal Separate Storm Sewer System (MS4) and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharged to a dedicated storm water or groundwater infiltration basin (e.g., infiltration pit, percolation pond)
- Category 2 – Discharges of untreated or partially treated wastewater greater than or equal to 1,000 gallons resulting from the District's sanitary sewer system failure or flow condition that does not reach surface water, a drainage channel, or a MS4 unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.
- Category 3 – All other discharges of untreated or partially treated wastewater resulting from a failure or flow conditions of the district's sanitary sewer system.
- Private Lateral Sewage Discharges – Sewage discharges that are caused by blockages or other problems within a privately owned lateral connected to the BCPUD's sewer system.

SANITARY SEWER OVERFLOW REPORTING TIMEFRAMES

- Category 1 SSOs – All SSOs that meet the above criteria for Category 1 SSOs *and* are greater than or equal to 1,000 gallons in volume discharged to surface water or spilled in a location where it probably will be discharged to a surface water must be

reported to Cal-EMA (by telephone) as soon as possible, but not later than 2 hours of becoming aware of the SSO.

- Category 1 and Category 2 SSOs – All SSOs that meet the above criteria for Category 1 or Category 2 SSOs shall be reported to the CIWQS online SSO database:
 - a. Draft reports for Category 1 and Category 2 SSOs shall be submitted to the CIWQS online database within three (3) business days of the district becoming aware of the SSO. Minimum information that shall be reported in a draft Category 1 or draft Category 2 SSO report shall include all information identified in the Mandatory Information to be Included in SSO Online Reporting section, as applicable, below.
 - b. A final Category 1 or Category 2 SSO report shall be certified through the CIWQS online database within 15 calendar days of the end date of the SSO. Minimum information that shall be certified in the final Category 1 or final Category 2 SSO report shall include all information identified in the Mandatory Information to be Included in SSO Online Reporting section, as applicable, below.
- Category 3 SSOs – All SSOs that meet the above criteria for Category 3 SSOs shall be reported to the CIWQS online SSO database and certified within 30 calendar days after the end of the calendar month in which the SSO occurs (e.g., all Category 3 SSOs occurring in the month of February shall be entered into the database and certified by March 30). Minimum information that shall be included in a final Category 3 report shall include all information identified in the Mandatory Information to be Included in SSO Online Reporting section, as applicable, below.
- “No Spill” Certification – If there are no SSOs during the calendar month, the district shall either 1) certify, within 30 calendar days after the end of each calendar month, a “no Spill” certification statement in the CIWQS online SSO database certifying that there were no SSOs for the designated month.

If there are no SSOs during a calendar month but the district reported a Private Sewer Lateral Discharge, the district shall still certify a “No Spill” certification statement for that month.

- Collection System Questionnaire: update and certify every 12 months
- Amended SSO Reports – the district may update or add additional information to a certified SSO report within 120 calendar days after the SSO end date by amending the report or by adding an attachment to the SSO report in the CIWQS online SSO database.
- SSO Technical Reports – the district shall submit an SSO Technical Report in the CIWQS Online SSO database within 45 calendar days of the SSO end date for any SSO in which 50,000 gallons or greater are spilled to surface waters. This report, which does not preclude the Water Boards from requiring more detailed analyses if requested, shall include at a minimum, the following:

1. Causes and Circumstances of the SSO:
 - a. Complete and detailed explanation of who and when the SSO was discovered;
 - b. Diagram showing the SSO failure point, appearance point(s) and final destinations(s);
 - c. Detailed description of the methodology employed and available data used to calculate the volume of the SSO and, if applicable, the SSO volume recovered;
 - d. Detailed description of the cause(s) of the SSO;
 - e. Copies of the original field crew records used to document the SSO; and
 - f. Historical maintenance records for the failure location.
 2. District's Response to the SSO:
 - a. Chronological narrative description of all actions taken by the district to terminate the spill;
 - b. Explanation of how the SSMP Overflow Emergency Response plan was implemented to respond to and mitigate the SSO.
 - c. Final corrective action(s) completed and/or planned to be completed, including a schedule for actions not yet completed.
 3. Water Quality Monitoring:
 - a. Description of all water quality sampling activities conducted including analytical results and evaluation of the results
 - b. Detailed location map illustrating all water quality sampling points.
- Private Lateral Sewage Discharges – All sewage discharges greater than or equal to 1,000 gallons of untreated or partially treated wastewater that result or may result in a discharge to surface water resulting from failures or flow conditions within a privately owned sewer lateral may be voluntarily reported to Cal OES or to the Online SSO Database. If a Private Lateral Sewage Discharge is recorded in the SSO Database, the District must identify the sewage discharge as occurring and caused by a private lateral, and a responsible party (other than the BCPUD) should be identified, if known.
 - In the event that the SSO Online Database is not available, the BCPUD should fax or email all required information to the appropriate RWQCB office in accordance

with the time schedules identified above. In such event, the BCPUD must also enter all required information into the CIQWS Online SSO Database as soon as practical.

Pursuant to Health and Safety Code section 5411.5, the BCPUD also shall immediately report to the Environmental Health Services (EHS) department of the County of Marin any SSO that may be discharged in or on any waters of the State, or discharged in or deposited where it is, or probably will be, discharged in or on any surface waters of the State including storm drains and drainage channels

The BCPUD's notification policy also includes reporting to the following agencies and other interested or possibly impacted parties, as necessary, immediately after the discovery of the violation:

- Regional Water Quality Control Board for the San Francisco Bay Area;
- California Emergency Management Agency;
- Marin County EHS, Open Space District (as appropriate) and Office of Emergency Services;
- Audubon Canyon Ranch (as appropriate);
- Gulf of the Farallones National Marine Sanctuary (as appropriate).

The contact information for the agencies to be notified is presented in Exhibit 4.

MANDATORY INFORMATION TO BE INCLUDED IN SANITARY SEWER OVERFLOW ONLINE REPORTING

- Draft Category 1 SSOs:
 - a. SSO Contact Information: Name and telephone number of district contact person who can answer specific questions about the SSO being reported;
 - b. SSO Location Name;
 - c. Location of the SSO by GPS coordinates. If a single overflow event results in multiple appearance points, GPS coordinates should be provided for the appearance point closest to the failure point and each additional appearance point in the SSO should be described;
 - d. Whether or not the SSO reached surface water, a drainage channel, or entered and was discharged from a drainage structure;
 - e. Whether or not the SSO reached a municipal separate storm drain system;

- f. Whether or not the total SSO volume that reached a municipal separate storm drain system was fully recovered.
- g. Estimated SSO volume, inclusive of all discharge point(s);
- h. Estimate of the SSO volume that reached surface water, a drainage channel, or was not recovered from a storm drain;
- i. Estimate of the SSO volume recovered (if applicable);
- j. Number of SSO appearance point(s);
- k. Description and location of SSO appearance point(s). If a single sanitary sewer system failure results in multiple SSO appearance points, each appearance point must be described.
- l. SSO start date and time.
- m. Date and time district was notified or, or self-discovered, the SSO;
- n. Estimated operator arrival time;
- o. For spills greater than or equal to 1,000 gallons, the date and time CAL-OES was called.;
- p. For spills greater than or equal to 1,000 gallons, the Cal-OES control number.
- Certified Category 1 SSOs (in addition to the above information for a Draft Category 1 SSO):
 - a. Description of SSO destination(s);
 - b. SSO end date and time;
 - c. SSO causes (mainline blockage, roots, etc.);
 - d. SSO failure points (main, lateral, etc.);
 - e. Whether or not the spill was associated with a storm event;
 - f. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
 - g. Description of spill response activities;
 - h. Spill response completion date;
 - i. Whether or not there is an ongoing investigation, the reasons for the investigation and the expected date of completion;

- j. Whether or not a beach closure occurred or may have occurred as a result of the SSO;
 - k. Whether or not health warning were posted as a result of the SSO;
 - l. Name of beache(es) closed or impacted. If no beach was impacted, NA shall be selected;
 - m. Name of surface water(s) impacted;
 - n. If water quality samples were collected, identify parameters the water quality samples were analyzed for. If no samples were taken, NA shall be selected;
 - o. If water quality samples were taken, identify which regulatory agencies received same results (if applicable). If not samples were taken, NA shall be selected;
 - p. Description of methodology(ies) and type of data relied upon for estimations of the SSO volume discharged and recovered; and
 - q. SSO Certification: Upon SSO Certification, the CIWQS Online SSO Data base will issue a final SSO identification (ID) number.
- Draft Category 2 SSOs: At a minimum, the following mandatory information shall be reported for a draft Category 2 SSO report:
 - r. Items a – n, above for a Draft Category 1 SSO.
 - Certified Category 2 SSOs: At a minimum, the following mandatory information shall be reported for a certified Category 2 SSO report:
 - s. Items a – n, above for a Draft Category 1 SSO and items a – i and item q, above, for a Certified Category 1 SSO.
 - Certified Category 3 SSOs: At a minimum, the following mandatory information shall be reported for a certified Category 3 SSO report:
 - a. Items a – n, above for a Draft Category 1 SSO and items a – f and item q, above, for a Certified Category 1 SSO.

WATER QUALITY MONITORING REQUIREMENTS

Order No. WQ 2013-0058-EXEC amended the Order in 2013 to require all enrollees to implement an SSO Water Quality Monitoring Program to assess impacts from SSOs to surface water in which 50,000 gallons or greater are spilled to surface waters and provided that the SSO Water Quality Monitoring Program shall, at a minimum:

- a. Contain protocols for water quality monitoring;
- b. Account for spill travel time in the surface water and scenarios where monitoring may not be possible (safety, access restrictions, etc.);
- c. Require water quality analyses for ammonia and bacterial indicators to be performed by an accredited or certified laboratory;
- d. Require monitoring instruments and devices used to implement the SSO Water Quality Monitoring Program to be properly maintained and calibrated, including any records to document maintenance and calibration, as necessary, to ensure their continued accuracy;
- e. Within 48 hours of the district becoming aware of an SSO, require water quality sampling for, at a minimum, the following constituents:
 - a. Ammonia
 - b. Appropriate bacterial indicator(s) per the applicable Basin Plan water quality objective or Regional Board direction which may include total and fecal coliform, enterococcus and e-coli.

4. The BCPUD's Water Quality Monitoring Program is attached to this SSMP as Appendix

In addition, water quality sampling and testing are required whenever spilled sewage enters a surface water (regardless of the size of the spill) to determine the extent and impact of the SSO. The following guidelines must be followed:

- The BCPUD shall notify the County of Marin's Environmental Health Services (EHS) Department of the SSO and request sampling requirements and instructions. In general, samples should be collected as soon as possible after the discovery of the SSO event.
- For spills less than 1,000 gallons, the County of Marin EHS Department generally requires, at a minimum, that water quality samples be collected at the discharge point, 100 feet upstream, and 100 feet downstream on a daily basis until instructed otherwise.
- If a spill is more than 1,000 gallons, additional sites may be required to be sampled and requirements will be established by the County of Marin EHS Department.

- If a spill reaches a large water body, the water quality samples should be collected near the point of entry of the spilled sewage and every 100 feet along the shore of stationary water bodies or otherwise as directed by the County of Marin. The procedure for water quality sampling is included in Appendix 4 - Water Quality Monitoring Program Plan.

SANITARY SEWER OVERFLOW RECORD KEEPING REQUIREMENTS

The following records shall be maintained by the district for a minimum of five (5) years and shall be made available for review by the Water Boards during an onsite inspection or through an information request:

1. General Records: The district shall maintain records to document compliance with all provisions of the SSO WDRs and Monitoring and Reporting Program orders for each sanitary sewer system owned including all required records generated by the district's sanitary sewer system contractors.
2. SSO Records: the district shall maintain records for each SSO event, including but not limited to:
 - i. Complaint records documenting how the district responded to all notifications of possible or actual SSOs, both during and after business hours, including complaints that do not result in SSOs. Each complaint record shall, at a minimum, include the following information;
 - a. Date, time and method of notification;
 - b. Date and time the complainant or informant first noticed the SSO;
 - c. Narrative description of the complaint, including any information the caller can provide regarding whether or not the complainant or informant reporting the potential SSO knows if the SSO has reached surface waters, drainage channels or storm drains;
 - d. Follow-up return contract information for complainant or informant for each complaint received, if not reported anonymously; and
 - e. Final resolution of the complaint.
 - ii. Records documenting steps and/or remedial actions undertaken by the district, using all available information, to comply with Section D.7 of the SSS WDRs.
 - iii. Records documenting how all estimate(s) of volume(s) discharged and, if applicable, volume(s) recovered were calculated.

3. Records documenting all changes made to the SSMP since its last certification indicating when a subsection(s) of the SSMP was changed and/or updated and who authorized the change or update. These records shall be attached to the SSMP.

4. Electronic monitoring records relied upon for documenting SSO event and/or estimating the SSO volume discharged, including, but not limited to records from:

- i. Supervisor Control and Data Acquisition (SCADA) systems;
- ii. Alarm system(s); and
- iii. Flow monitoring device(s) or other instrument(s) used to estimate wastewater levels, flow rates and/or volumes.

MEDIA NOTIFICATION PROCEDURE

When an SSO occurs and media personnel arrive at the overflow site the response crew shall refer them to the General Manager or the District office. All employees of the BCPUD are expected to be polite, courteous and professional.

When an overflow has been confirmed and it is a threat to public health, the response crew should verify the overflow and report back to the IC, and the IC shall inform the General Manager, who shall be the district's authorized representative for the media.

DISTRIBUTION AND MAINTENANCE OF THIS PLAN

Copies of this Plan and any amendment should be distributed to:

- All of the personnel who may become incidentally involved in responding to overflows should be familiar with this Plan;
- The Bolinas Fire Protection District; and
- The County of Marin Environmental Health Services department.

REVIEW AND UPDATE OF THIS PLAN

This plan should be reviewed annually and amended as appropriate to reflect all changes in policies and procedures as may be required to achieve its objectives. This Plan should also be updated with the issuance of a revised or new State waste discharge permit.

The BCPUD shall conduct annual training sessions with appropriate personnel and review and update, as needed, the various contact person lists included in the Plan.

EXHIBITS

EXHIBIT 1
CONTACT INFORMATION FOR
BOLINAS COMMUNITY PUBLIC UTILITY DISTRICT
OVERFLOW EMERGENCY RESPONSE

General Manager: Jennifer Blackman
Daytime: 415-868-1224 After Hours: 415-686-1827

Chief Operator: Stewart Oakander
Daytime: 415-868-1224 After Hours: 415-717-0839

On-Duty Operator: 415-868-1224

Fire Chief: George Kraukauer
Daytime: 415-868-1566 After Hours: (415) 847-9888

Engineering Consultant: Nute Engineering, Inc.
Daytime: (415) 453-4480

Legal Consultant: Somach, Simmons & Dunn
Daytime: 916-446-7979

EXHIBIT 2
CONTACT INFORMATION OF
EXTERNAL EMERGENCY ASSISTANCE

Pumping Companies

<u>Company</u>	<u>Phone</u>
Coast Sanitary	415-868-2720
Roy's Sewer Services	415-381-0256
Roto-Rooter Plumbing Service	415-898-2700

Contractors:

<u>Company</u>	<u>Phone</u>
Piazza Construction	707-484-1614 (James Piazza cell)
Miksis Services, Inc.	707-433-8053
Mesa Electric	415-868-2208

EXHIBIT 3
BOLINAS COMMUNITY PUBLIC UTILITY DISTRICT
OVERFLOW EMERGENCY RESPONSE
FLOW CHART

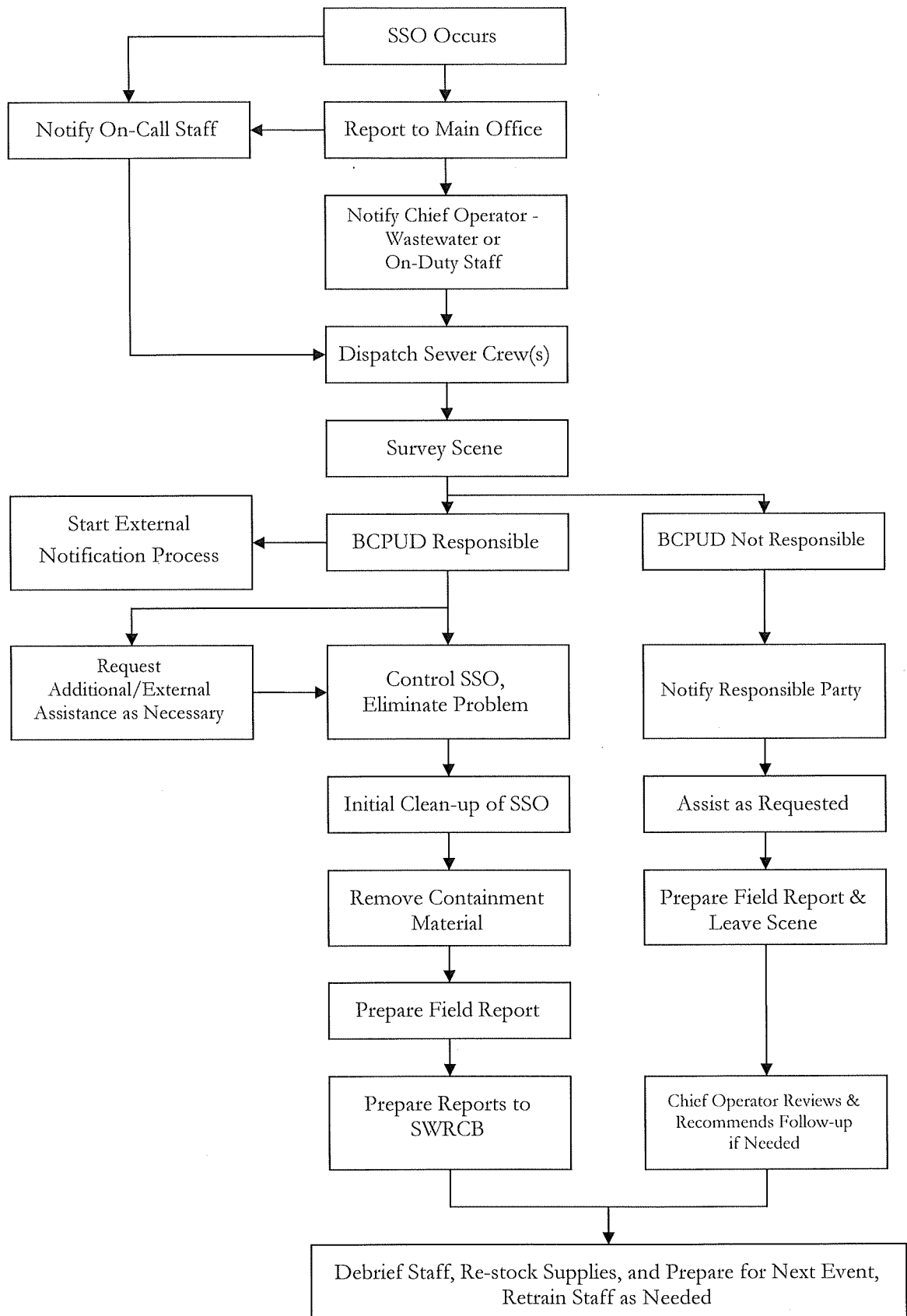


EXHIBIT 4
BOLINAS COMMUNITY PUBLIC UTILITY DISTRICT
EMERGENCY SEWAGE SPILL REPORT

Bolinas Community Public Utility District

EMERGENCY SEWAGE SPILL REPORT

This report must be completed immediately upon notification of a spill to the Bolinas Community Public Utility District. Notification of supervisory personnel (Step 4 below) should be instituted regardless of time of day.

Address/Location of sewage spill _____

Date: _____ Time BCPUD notified _____ am/pm.

1. Verify discharge _____ On property _____ Off property _____

Main line _____ Lateral _____ Other _____

2. BCPUD responsible for discharge?

_____ Yes _____ No Describe _____

3. Immediately notify BCPUD staff to stop the discharge and begin clean up. Assist any affected entity as much as possible to prevent further damage. Time of work crew notification: Date _____ Time _____ am/pm.

4. Notify General Manager and Chief Operator.

a. Begin notification of all organizations and individuals.

b. Document notification.

5. Name of owner where property damage occurred _____

Address _____

Phone number _____

Additional notes: _____

7. Drinking water sources threatened? ____ Yes ____ No (wells, water mains, lakes, streams or creeks).

If yes, explain _____

8. Volume that flowed into drinking water source _____

9. Volume to ocean or stream _____

10. Duration: How long did flow continue? _____ Hours _____ Minutes

11. Volume estimation: How many gallons flowed? _____ Gallons

12. Mitigation: What actions were taken to lessen damage? _____

13. Control to prevent human contact and odors. _____

14. Prevention: Actions taken to prevent reoccurrence _____

15. Clean-up (bury, disk, chlorinate, etc.) _____

16. Repairs _____

17. Cost breakdown (Labor/equipment/material):

Labor

<u>Name</u>	<u>Hours</u>	<u>\$/Hr</u>	<u>Total</u>
Total Labor Cost			\$ _____

Equipment

<u>Unit Name</u>	<u>Quantity</u>	<u>\$Unit Price</u>	<u>Total</u>
Total Equipment Cost			\$ _____

Material

<u>Item</u>	<u>Quantity</u>	<u>\$Unit Price</u>	<u>Total</u>
Total Material Cost			\$ _____

18. Property damage cost estimate: \$ _____

19. BCPUD has one (1) Chief Operator and three (3) operators-in-training; plus emergency contractor personnel.

20. BCPUD maintains the following equipment on site:

- Dump Truck
- Assorted Utility Vehicles
- Loader
- Two (2) portable Trash Pumps
- Hurco-Vac
- Hydro-Jet
- Absorbent pads, booms, storm drain covers, and other spill response materials.
- Inspection Camera

EXHIBIT 5
ADDRESS LIST OF AGENCIES
TO BE NOTIFIED (AS NEEDED)

State Water Resources Control Board

1001 I Street
Sacramento, California 95814
916-341-5615/916-445-9260

California Regional Water Quality Control Board, San Francisco Bay Region

1515 Clay Street, Suite 1400
Oakland, California 94612
510-622-2485

California Emergency Management Agency

2800 Meadowview Road
Sacramento, CA 95832
800-852-7550

Environmental Health Services Department of Marin County

3501 Civic Center Drive, Room 308
San Rafael, California 94903
415-473-6919

Parks District of Marin County

3501 Civic Center Drive, Room 260
San Rafael, California 94903
415-473-6387

Office of Emergency Services of Marin County

3501 Civic Center Drive, Room 266
San Rafael, California 94903
415-473-7250

Audubon Canyon Ranch

4900 Shoreline Highway 1
Stinson Beach, California 94970
415-868-9244

Gulf of the Farallones National Marine Sanctuary

991 Mason Street
San Francisco, California 94108
415-561-6622

ELEMENT 6: FATS, OILS AND GREASE CONTROL PROGRAM

This Section describes the BCPUD's Fats, Oils and Grease Program and fulfills the SWRCB Element 6 SSMP requirements.

SWRCB REQUIREMENTS FOR THE FATS, OILS AND GREASE CONTROL PROGRAM ELEMENT

Each Enrollee shall evaluate its service to determine whether a FOG control program is needed and, if so, the program should include the following *as appropriate*:

- (a) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;
- (b) A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area;
- (c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;
- (d) Requirements to install grease removal devices, design standards for the removal devices, maintenance requirements, BMP requirements, record-keeping and reporting requirements;
- (e) Authority to inspect grease-producing facilities and enforce agency requirements;
- (f) An identification of the sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and
- (g) Development and implementation of source control measures for all sources of FOG for each section identified in (f), above.

BCPUD EVALUATION OF ITS SANITARY SEWER SYSTEM TO DETERMINE WHETHER FOG PROGRAM IS NEEDED

BCPUD staff evaluated its sanitary sewer system to determine whether a FOG program is needed. Overall, the district does not have a significant problem with FOG; there are four restaurants and a commercial kitchen in Bolinas on the sewer system (i.e., the Coast Café, Smiley's Saloon, Eleven, Bovita and the Bolinas Community Center) and all of them with the exception of Bovita (which does not prepare food on site) are required by the BCPUD to install and maintain a grease interceptor to remove FOG prior to any discharge of any wastewater into the BCPUD sewer system. BCPUD staff is implementing an

inspection schedule to assess these grease interceptors to ensure compliance with this requirement.

Although the BCPUD does not have a significant FOG problem, BCPUD staff periodically implements outreach programs and encouraged the local restaurants to follow certain best management practices with regard to FOG. BCPUD staff also periodically conducts public education and outreach programs as described more fully below.

BEST MANAGEMENT PRACTICE FOR RESTAURANTS

The BCPUD encourages local restaurants to implement Best Management Practices (BMPs) in their operations to minimize the discharge of FOG to the sewer system. The BMPs include but are not limited to:

- (1) Drain screens shall be installed on all drainage pipes in food preparation areas.
- (2) All waste cooking oil shall be collected and stored properly in recycling receptacles such as barrels or drums. Such recycling receptacles shall be maintained properly to ensure that they do not leak. Licensed waste haulers or an approved recycling facility must be used to dispose of waste cooking oil.
- (3) All garbage and food waste shall be disposed of directly into trash bins or containers, and not in sinks. Double-bagging food waste that has the potential to leak in trash bins is highly recommended.

- (4) Employee Training:

Employees shall be trained by twice each calendar year in the following areas:

- a. How to “dry wipe/scrape” pots, pans, dishware and work areas before washing to remove FOG.
 - b. How to properly dispose of garbage, food waste and solids in enclosed plastic bags prior to disposal in trash bins or containers to prevent leaking and odors.
 - c. The location and use of absorption products to clean under fryer baskets and other locations where FOG may be spilled or accumulated.
 - d. How to properly dispose of FOG from cooking equipment into a FOG receptacle such as barrel or drum without spilling.
- (5) Training shall be documented and employee signatures retained indicating each employee’s attendance and understanding of the practices reviewed. Training records shall be available for review at any reasonable time by the FOG control program manager or his/her designees.
 - (6) Exhaust filters shall be maintained in good operating condition utilizing frequent cleaning practices. The sewage generated from cleaning the exhaust filter shall be disposed properly.

- (7) Kitchen BMP and “NO GREASE” signs, posters or similar information in appropriate language(s) shall be prominently displayed in the food preparation and dishwashing areas at all times.
- (8) Absorbent materials (e.g., kitty litter or paper towels) shall be placed under the fryers or other areas where FOG typically or frequently drips or spills.
- (9) Covered conveyance devices shall be used in order to transport FOG without spilling.
- (10) FOG containers shall be emptied before they are full to avoid accidental or incidental spills.

PUBLIC EDUCATION AND OUTREACH

The BCPUD recognizes that its ability to be proactive and effective is also dependent upon public outreach and education. The BCPUD periodically develops and distributes FOG brochures and/or newsletters to its sewer system customers to provide homeowners with important information on general best management practices, kitchen best management practices, food waste reduction, and other tips to minimize the possibility of FOG discharge into the BCPUD sewer system and eliminate the possibility of a lateral blockage or backup caused by FOG.

ELEMENT 7: DESIGN AND PERFORMANCE PROVISIONS

This Section describes the BCPUD's Design and Performance Provisions and fulfills the SWRCB Element 7 SSMP requirements.

SWRCB REQUIREMENTS FOR DESIGN AND PERFORMANCE PROVISIONS

Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances and for the rehabilitation and repair of existing sanitary sewer systems; and

Procedures and standards for inspecting and testing the installation of new sewers, pumps and other appurtenances and for rehabilitation and repair projects

DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS

The district's long-standing practice is to engage professional wastewater engineers to develop particularized design and construction specifications and drawings for specific projects on a case-by-case basis, as needed, for the construction of new facilities as well as improvements to existing facilities. Because there is little-to-no new development in the BCPUD's service area and because there is an on-going moratorium on new connections to the district's sewer system, new construction is not anticipated at any time in the near future. With regard to sewer laterals, the district has adopted the specifications of another sewer agency in Marin County (attached as Appendix 5) and plans to modify and adopt them as appropriate for the district. To the extent that significant modifications are made to these procedures as a result of this effort, the BCPUD will present the modifications to the BCPUD Board of Directors for re-certification as required by SWRCB Order No. 2006-0003-DWQ.

INSPECTION AND TESTING PROCEDURES AND STANDARDS

For purposes of this SSMP, the district has adopted general inspection and testing procedures and standards for sewer laterals that are included in Appendix 5. As noted above, these general inspection and testing procedures and standards were developed by another sewer agency in Marin County and the district plans to modify and adopt these procedures and standards as appropriate for this district. To the extent that significant modifications are made to these procedures as a result of this effort, the BCPUD will present the modifications to the BCPUD Board of Directors for re-certification as required by SWRCB Order No. 2006-0003-DWQ.

ELEMENT 8: SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

This Section describes the BCPUD's System Evaluation and Capacity Assurance Plan and fulfills the SWRCB Element 8 SSMP requirements.

SWRCB REQUIREMENTS FOR THE SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

The Enrollee shall prepare and implement a capital improvement plan (CIP) 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:

(a) **Evaluation:** Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an 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 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;

(b) **Design Criteria:** Where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria; and

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

(d) **Schedule:** The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a) – (c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements.

EVALUATION OF HYDRAULIC SUFFICIENCY

The BCPUD sewer system has not historically experienced SSO discharges caused by hydraulic deficiency. The BCPUD sewer system is a gravity-fed collection system which transports wastewater to a single wetwell and lift station located approximately eighteen (18) feet underground in the Bolinas downtown area on Wharf Road. Wastewater is pumped via two thirty (30) horsepower (hp) pumps into the system's force main, a six-inch diameter pipe approximately 3,500 feet in length, to the system's wastewater treatment facility at 101 Mesa

Road. As noted, the BCPUD maintains two pumps at its lift station; one is redundant in the event of a failure or damage to the other pump. A single pump in operation runs an average of approximately 1.8 hours per day, conveying approximately only 0.024 MGD of wastewater.

The BCPUD sewer system is designed to treat an average daily flow of 30,000 gallons (or 0.030 MGD), with a maximum flow into the treatment plant of 65,000 gallons (or 0.065 MGD). Peak flows historically occur on July 4th, when thousands of visitors arrive in Bolinas to attend the annual July 4th downtown parade and, during significant storm events due to I&I. Based on historic records of peak flows into the BCPUD's sewer system since 2000, staff estimates that peak flows on July 4th average 0.064 MGD and that wet weather flows (i.e., November – March) average 0.050 per day. The current hydraulic capacity of the two pumps located at the downtown lift station is adequate to handle these peak flows. The BCPUD sewer system has not experienced any SSOs caused by peak flows into the collection system.

As noted earlier in this SSMP, prior to 1990 the BCPUD periodically experienced significant infiltration and inflow into the collection system during major storm events, a problem that was significantly improved by a rehabilitation project (primarily via slip-lining) of the entire collection system, with the exception of a 900 foot section of collection main located under Wharf Road. In 2013 and again in 2017, the BCPUD video-inspected the collection main and all private laterals on this 900-foot section, as well as the remainder of Wharf Road, and required several homeowners to make repairs to their sewer laterals. Subsequent video inspections in 2021 and 2022 of additional sections of Wharf and Brighton Avenue revealed the need for additional sewer lateral repairs, which have been required. In the meantime, the BCPUD regularly inspects its manholes and periodically smoke-tests the sewer system in an effort to identify and correct any continued infiltration and inflow from other sources.

DESIGN CRITERIA

Not applicable.

CAPACITY ENHANCEMENT MEASURES

BCPUD staff has not identified any hydraulic deficiencies in the district's existing sewer collection system upstream of the treatment facility and, because the system essentially is fully built out, staff does not foresee the need to increase pipe size, pumping capacity or storage facilities. That said, the importance of vigilant inspection and maintenance of the district's existing facilities and equipment, including the integrity of the district's collection mains and pumps, cannot be overstated. On average, the district video-inspects its entire collection system every four years and the district fully upgraded both of its lift station pumps in 2016. However, the district has experienced problems with the new rotary lobe pumps (cavitation and other internal damage); an engineering study is underway to identify the source of the problems. The district currently also plans to rehabilitate the sewer system wet well, to replace the clean-out assembly on the force main in Olema-Bolinas Road and, as

mentioned above, inspect the 3,500 foot long force main that runs between the lift station and the treatment ponds on the Bolinas Mesa.

SCHEDULE OF COMPLETION DATES

Rehabilitate wet well: 2023-4. Source of funding: operating budget derived from service charges paid annually by customers and district reserve funds.

Lift Station Study: 2023 -- the district's engineers are conducting a study of the lift station to identify the reasons for recent lift station rotary lobe pump failures; this study may result in a recommendation to transition to submersible pumps. Source of funding: operating budget derived from service charge paid annually by customers and loan/grant funding.

Replacement of the Clean-Out Assembly on Olema-Bolinas Road: 2024. Source of funding: operating budget derived from service charges paid annually by customers and district reserve funds.

Relocation of Collection Main on Terrace Avenue at Surfer's Overlook: unknown at this time. Source of funding: operating budget derived from service charges paid annually by customers and district reserve funds. The district also plans to apply for federal or state grant and/or loan funding for this project if it should be necessary. The County of Marin replaced the road-level retaining walls and stabilized the roadway and bluff at this location in the Fall of 2015.

Pump Replacement: Both of the district's lift station pumps were replaced and upgraded in 2016. One pump was repaired in late 2020 and a second was replaced in 2021 due to cavitation. A third pump also was purchased in 2022 as an emergency back-up. Source of funding: operating budget derived from service charges paid annually by customers and district reserve funds.

Force Main Inspection: 2023-24 or 2024-25. Source of funding: operating budget derived from service charge paid annually by customers and district reserve funds.

Preventative Maintenance: Specific to activity (see below). Source of funding: operating budget derived from service charges paid annually by customers and district reserve funds.

Regular cleaning of gravity sewers (i.e., hydro-jet cleaning) – annually
Manhole inspection and diaphragm replacement, if needed – annually
Root control – as needed (historically not a major problem)
Investigation and resolution of customer complaints – as needed
CCTV – portions of the system will be inspected annually or when deemed necessary
Smoke test – every two – five years or when deemed necessary

ELEMENT 9: MONITORING, MEASUREMENT, AND PROGRAM MODIFICATIONS

This Section describes the BCPUD's Monitoring, Measurement and Program Modifications and fulfills the SWRCB Element 9 SSMP requirements.

SWRCB REQUIREMENTS FOR THE MONITORING, MEASUREMENT, AND PROGRAM MODIFICATIONS

The Enrollee shall:

- (a) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;
- (b) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;
- (c) Assess the success of the preventative maintenance program;
- (d) Update program elements, as appropriate, based on monitoring or performance evaluations; and
- (e) Identify and illustrate SSO trends, including: frequency, location and volume.

MAINTAIN RELEVANT INFORMATION/IDENTIFY TRENDS

BCPUD wastewater staff tracks numerous performance measures of the district's sewer system, including the following:

- daily flows into the collection system
- daily pump hours at the downtown lift station
- flow meter reports at the treatment ponds
- daily pump hours at the spray fields (during spray season)
- available free board in holding ponds
- weekly lab tests for coliform and nitrates
- SSO records (including reports and response documentation)
- maintenance records
- repair records
- weather records

These measures of the district's sewer system are evaluated by the Chief Operator – Wastewater to determine whether there are any trends pertaining to SSO which might indicate a need for a rehabilitation or replacement project.

In addition, on a monthly basis, the Chief Operator – Wastewater generates reports to the Regional Water Quality Control Board pursuant to WDR 88-100 and, since November 2007, the General Manager submits monthly SSO-related reports to the State Water Resources Control Board pursuant to WDR Order 2006-0003-DWQ. The General Manager discusses these reports regularly with the Chief Operator – Wastewater and also from time-to-time with district staff at the regular staff meetings. The BCPUD plans to continue tracking performance measures that are currently tracked.

MONITOR THE IMPLEMENTATION OF THE SSMP AND SUCCESS OF PREVENTATIVE MAINTENANCE

The BCPUD's Chief Operator – Wastewater periodically reviews the district's preventative maintenance activities to assess their effectiveness and relevance. This review will include, but not necessarily be limited to:

- a review of any SSOs, if any, including volume, cause and response time
- inspection overview and results
- preventative maintenance schedule and any backlogs
- completed projects
- planned projects

The Chief Operator checks in with collection system operators on at least a monthly basis (and generally much more frequently) to identify potential areas for improvement based on the above review. Verbal progress reports summarizing these meetings and any recommendations for change are regularly provided to the General Manager, usually on at least a weekly basis. The district is considering the implementation of a procedure for written progress reports, depending on staff resources.

In addition, to monitor the effectiveness of the SSMP, the BCPUD has selected certain specific parameters that can be documented and compared on an annual basis. Changes in these parameters over time will indicate the overall success of the SSMP or, conversely, underlying conditions that can be investigated further. The SSMP monitoring parameters of program effectiveness are shown in the table provided on the next page

Table 9-1 - SSMP Monitoring Parameters, by SSMP Element

SSMP Element	Summary of Element Purpose	Actions or Measures of Tracking Effectiveness
Goals	Reduce overflows	Not needed
Organization	Establish the hierarchy and assign responsibility within the organization	Review, update and adjust based on organizational changes
Legal Authority	Ensure the district has sufficient legal authority to properly maintain the sewer system	Modify as needed
Operation and Maintenance Program	Minimize blockages and reduce SSOs by properly maintaining the system and keeping the system in good condition	<ul style="list-style-type: none"> • Total number and volume of SSOs • Number of repeat SSOs • Total number of mainline blockages • Length of pipe cleaned • Length of pipe CCTV'd and inspected • Number of laterals replaced • Length of mains replaced • Number of cleanouts installed • Length of pipe treated for roots
Design & Construction Standards	Ensure any new or repaired facilities are properly designed and constructed	Modify as needed
Overflow Emergency Response	Provide timely and effective response to SSMP emergencies and comply with regulatory reporting requirements	<ul style="list-style-type: none"> • Response time • Overtime hours • Monthly trend analysis
Fats, Oils & Grease Control	Minimize blockages due to FOG	<ul style="list-style-type: none"> • Number of blockages, if any, due to FOG • Number of SSOs, if any, due to FOG
Capacity Management	Minimize SSOs due to insufficient hydraulic capacity	<ul style="list-style-type: none"> • Number of SSOs, if any, due to hydraulic capacity limitations • Number of SSOs, if any, due to wet weather
Monitoring, Measurement and Program Modifications	Evaluate effectiveness of SSMP, keep SSMP up-to-date and identify necessary changes	As needed
Program Audits	Review the program effectiveness and make necessary changes to comply with the requirements	Formally audit the program every two years
Communication Program	Evaluate the effectiveness of communication and identify necessary changes	As needed

PROGRAM MODIFICATIONS

The BCPUD's SSMP will be modified to include operations changes that affect the SSMP elements. The BCPUD will review the successes and needed improvements of the SSMP as part of the SSMP annual audit (see Element 10).

BCPUD staff will update critical information, such as pager numbers, radio call signs, contact information and all other SSO response change of communication information as needed. A comprehensive SSMP update will occur every 5 years, as required by the SWRCB. Major changes proposed for the SSMP will be presented for approval to the BCPUD's Board of Directors at duly noticed public meetings.

ELEMENT 10: SSMP PROGRAM AUDITS

This Section describes the BCPUD's SSMP Program Audits fulfills the SWRCB Element 10 SSMP requirements.

SWRCB REQUIREMENTS FOR SMMP PROGRAM AUDITS ELEMENT

Each Enrollee shall conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the Enrollee's compliance with the SSMP requirements, including identification of any deficiencies in the SSMP and steps to correct them.

BCPUD SSMP PROGRAM AUDIT

The BCPUD shall audit and update its SSMP at least every two years. The audit process is documented in the SSMP Audit form, a copy of which is included on the following pages. The audit form provides a structure for a systematic review of each SSMP element to ensure the SSMP contains current information, regulatory requirements are satisfied, and programs are effective. If updates or changes are required, the content and timeline to complete those changes are described in the audit form.

BCPUD's Sewer System Management Plan ("SSMP") Audit Form

The purpose of this SSMP Audit Form is to evaluate the effectiveness of the BCPUD's SSMP and identify any needs for improvement.

Directions: Please check **YES** or **NO** for each question. If **NO** is answered for any question, describe the updates/changes needed and the timeline to complete those changes in the "Description of Scheduled Updates/Changes to the SSMP" section on Page 5 of this form.

ELEMENT 1 – GOALS		YES	NO
A.	Are the goals stated in the SSMP still appropriate and accurate?		
ELEMENT 2 – ORGANIZATION			
A.	Is the BCPUD Staff telephone list current?		
B.	Is the SSO Chain of Communication telephone list current?		
C.	Is Figure 2-1 of the SSMP, entitled "Organization of BCPUD Staff Responsible for Sewer System," current?		
D.	Are the position descriptions accurate portrayals of staff responsibilities?		
E.	Is Figure 2-2 of the SSMP, entitled "SSO Reporting Chain of Communication" accurate and up-to-date?		
ELEMENT 3 – LEGAL AUTHORITY			
Does the SSMP contain references to the current BCPUD Ordinance(s) documenting the BCPUD's legal authority to:			
A.	Prevent illicit discharges?		
B.	Require proper design and construction of sewers and connections?		
C.	Ensure access for maintenance, inspection or repairs for portions of the laterals owned or maintained by the district?		
D.	Limit discharges of fats, oils and grease?		
E.	Enforce any violation of its sewer ordinance?		

ELEMENT 4 – OPERATIONS AND MAINTENANCE PROGRAM			
Collection System Maps			
A.	Does the SSMP reference the current process and procedures for maintaining the BCPUD's sewer collection system maps?		
B.	Are the BCPUD's sewer collection system maps complete, current and sufficiently detailed?		
Resources and Budget			
C.	Does the BCPUD allocate sufficient funds for the effective operation, maintenance and repair of the sewer collection system and is the current budget structure documented in the SSMP?		
Prioritized Preventative Maintenance			
D.	Does the SSMP describe current preventative maintenance activities?		
E.	Are the BCPUD's preventative maintenance activities sufficient and effective in minimizing SSOs and blockages?		
Scheduled Inspections and Condition Assessments			
F.	Is there an ongoing condition assessment program sufficient to develop a capital improvement plan addressing the proper management and protection of infrastructure assets? Are current components of this program documented in the SSMP?		
Contingency Equipment and Replacement Inventory			
G.	Does the SSMP list the major equipment currently used in the operation and maintenance of the collection system and document the procedures of inventory management?		
H.	Are contingency equipment and replacement parts sufficient to respond to emergencies and properly conduct regular maintenance?		
Training			
I.	Are the training records current?		
J.	Does the SSMP document current training expectations and programs within the district's Wastewater department?		

Outreach to Plumbers and Building Contractors			
K.	Does the SSMP document contain current outreach efforts to plumbers and building contractors?		
ELEMENT 5 – OVERFLOW AND EMERGENCY RESPONSE PLAN			
A.	Does the BCPUD’s SSO Overflow and Emergency Response Plan establish procedures for the emergency response, notification and reporting of SSOs?		
B.	Is wastewater staff appropriately trained on the procedures of the SSO Overflow and Emergency Response Plan?		
C.	Is the SSO Overflow and Emergency Response Plan effective in handling SSOs in order to safeguard public health and the environment?		
ELEMENT 6 – FATS, OILS AND GREASE (“FOG”) CONTROL PROGRAM			
A.	Does the FOG Control Program include efforts to educate the public on the proper handling and disposal of FOG?		
B.	Does the FOG Control Program identify sections of the collection system subject to FOG blockages, establish a cleaning schedule and address source control measures to minimize these blockages?		
C.	Are requirements for grease removal devices, best management practices (“BMP”), record-keeping and reporting established in the district’s FOG Control Program?		
D.	Does the BCPUD have sufficient legal authority to implement and enforce the FOG Control Program?		
E.	Is the current FOG Control Program effective in minimizing blockages of sewer lines resulting from discharges of FOG to the system?		
ELEMENT 7 – DESIGN AND PREFORMANCE STANDARDS			

A.	Does the SSMP contain current design and construction standards for the installation of new sanitary sewer systems and for the rehabilitation and repair of existing sanitary sewer systems?		
B.	Does the SSMP document contain current procedures and standards for inspecting and testing the installation of new sewers, pumps and other appurtenances and the rehabilitation and repair of existing sewer lines?		
ELEMENT 8 – SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN?			
A.	Does the BCPUD’s SSMP evaluate hydraulic deficiencies in the system and, if needed, establish sufficient design criteria and short/long term capacity enhancement and improvement projects?		
B.	If needed, does the BCPUD’s SSMP establish a schedule of approximate completion dates for both short and long-term improvements and is the schedule reviewed and updated to reflect current budgetary capabilities and activity accomplishment?		
ELEMENT 9 – MONITORING, MEASUREMENT AND PROGRAM MODIFICATIONS			
A.	Does the SSMP accurately portray the methods of tracking and reporting selected performance indicators?		
B.	Is the BCPUD able to sufficiently evaluate the effectiveness of SSMP elements based on relevant information?		
ELEMENT 10 – SSMP AUDITS			
A.	Will the SSMP Audit be conducted every two years as required by SWRCB 2006-0003-DWQ?		
ELEMENT 11 – COMMUNICATION PROGRAM			
A.	Does the BCPUD effectively communicate with the public about the development and implementation of it’s SSMP and continue to address any feedback?		

Description of Scheduled Updates/Changes to the SSMP

Directions: For each NO answer, please describe the planned revision and indicate the date the revision will be completed. Reference the SSMP element and question number with each explanation.

[illegible]

ELEMENT 11: COMMUNICATION PROGRAM

This Section describes the BCPUD's Communication Program and fulfills the SWRCB Element 11 SSMP requirements.

SWRCB REQUIREMENTS FOR THE COMMUNICATION PROGRAM ELEMENT

The Enrollee shall communicate on a regular basis with the public on the development, implementation and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.

BCPUD's COMMUNICATION PROGRAM

The BCPUD regularly communicates with the public on a wide-range of district matters and did so during the development of its SSMP. BCPUD has and will continue to publicly communicate its efforts to maintain and improve the sewer system because effective communication promotes cooperation and support from our customers. The BCPUD's goal is to communicate with enough frequency and with enough pertinent information so that the SSMP is fully supported by our customers and the public is aware of the district's efforts to reduce and eliminate SSOs. The success of our SSMP is vital to the protection of public health, the environment and the water quality of the region. In addition, it is critical that our customers understand that wastewater collection system improvements will be needed from time to time to ensure the operational efficacy of our system and maintain the historically low rate of SSOs that is characteristic of the BCPUD's sewer system.

The BCPUD's General Manager shall be responsible for ensuring that the district communicates with the public on a regular basis about its sewer system and its SSMP. This communication will take place via the regular monthly meetings of the Board of Directors and presentations during the Manager's Report, where the Board and public are extensively updated on operational issues concerning the sewer system and other major developments. The meetings are duly noticed public meetings and typically attended by a cross section of the district's customers. Minutes of the meetings, once approved by the Board, are publicly available on the district's website, in the local newspaper and at the district offices. The district also communicates with its customers via a quarterly customer newsletter, via the NextDoor social media platform, and via the district's website. Issues of unusual significance and/or particular interest concerning the district's sewer system are communicated to customers directly via personal letters, e-mails and/or phone calls. Members of the public are encouraged at all times to provide input to the district concerning the sewer system and the SSMP.