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, and as further amended effective December 18, 2025.

Table of Contents

List of Tables **3**

List of Figures and Appendices **3**

Introduction **5**

Element 1 - Goals **8**

Element 2 - Organization **9**

Element 3: Legal Authority **14**

Element 4: Operation and Maintenance Program **16**

Element 5: Sanitary Sewer Spill Emergency Response Plan **20**

Element 6: Fats, Oils and Grease Control Program **66**

Element 7: Design and Performance Provisions **69**

Element 8: System Evaluation and Capacity Assurance Plan **70**

Element 9: Monitoring, Measurement, and Program Modifications **73**

Element 10: SSMP Program Audits **77**

Element 11: Communication Program **83**

LIST OF TABLES

Table 2-1: Names and Telephone No's of BCPUD Staff Responsible for Sewer System . .11

Table 2-2: Contact Numbers for SSO Chain of Communication 13

Table 9-1: SSMP Monitoring Parameters, by SSMP Element 63

LIST OF FIGURES

Figure 2-1: Organization of BCPUD Staff Responsible for Sewer System 10

Figure 2-2: SSO Reporting Chain of Communication 12

LIST OF APPENDICES

Appendix 1: SSMP Development Plan and Schedule . . . . . .
Appendix 2: BCPUD Ordinance 29 . . . . . .
Appendix 3: Sewer System Maps . . . . . .
Appendix 4: Water Quality Monitoring Program Plan . . . . . .
Appendix 5: Standard Specifications and Drawings . . . . . .

These Appendices can be found on BCPUD's Sewer System Management Plan Webpage

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, two (2) Shift Operators, one (1) General Manager, one Assistant 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

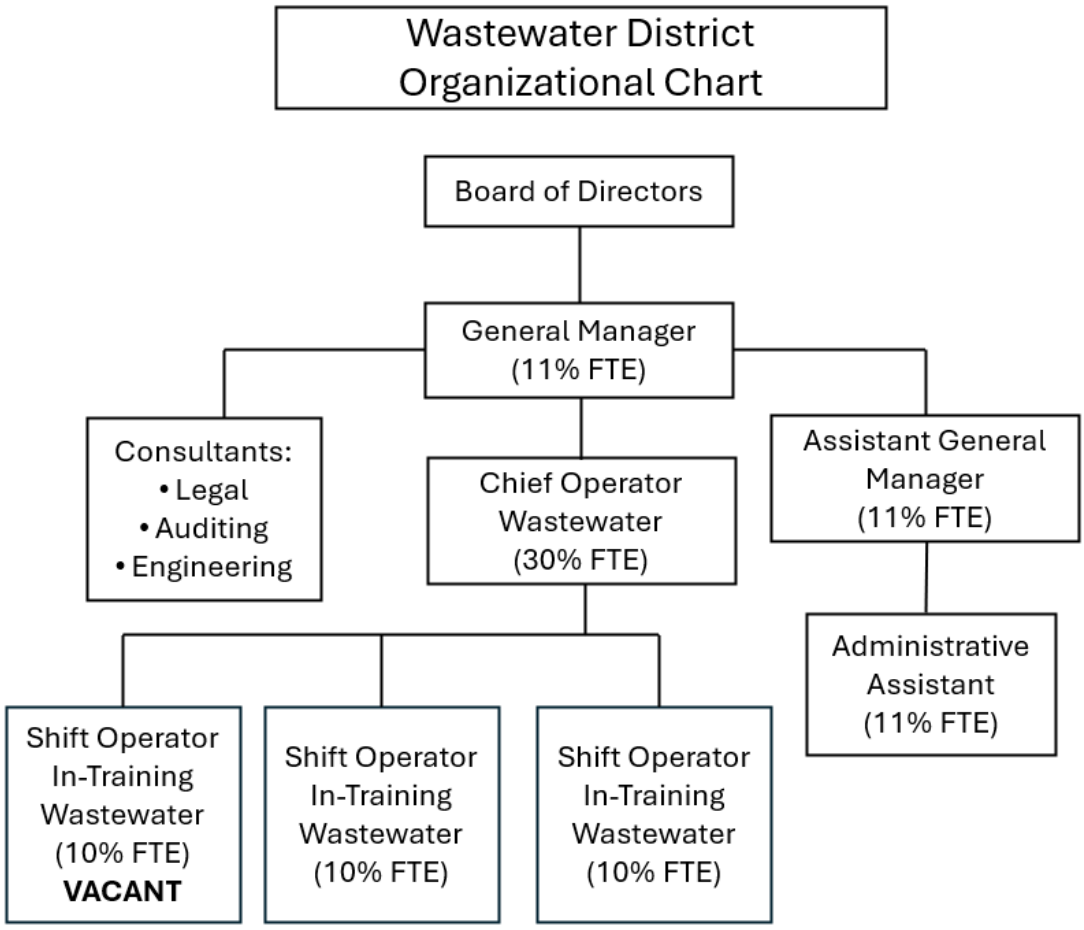


Table 2-1: Names and Telephone Numbers of BCPUD STAFF Responsible for Sewer System

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

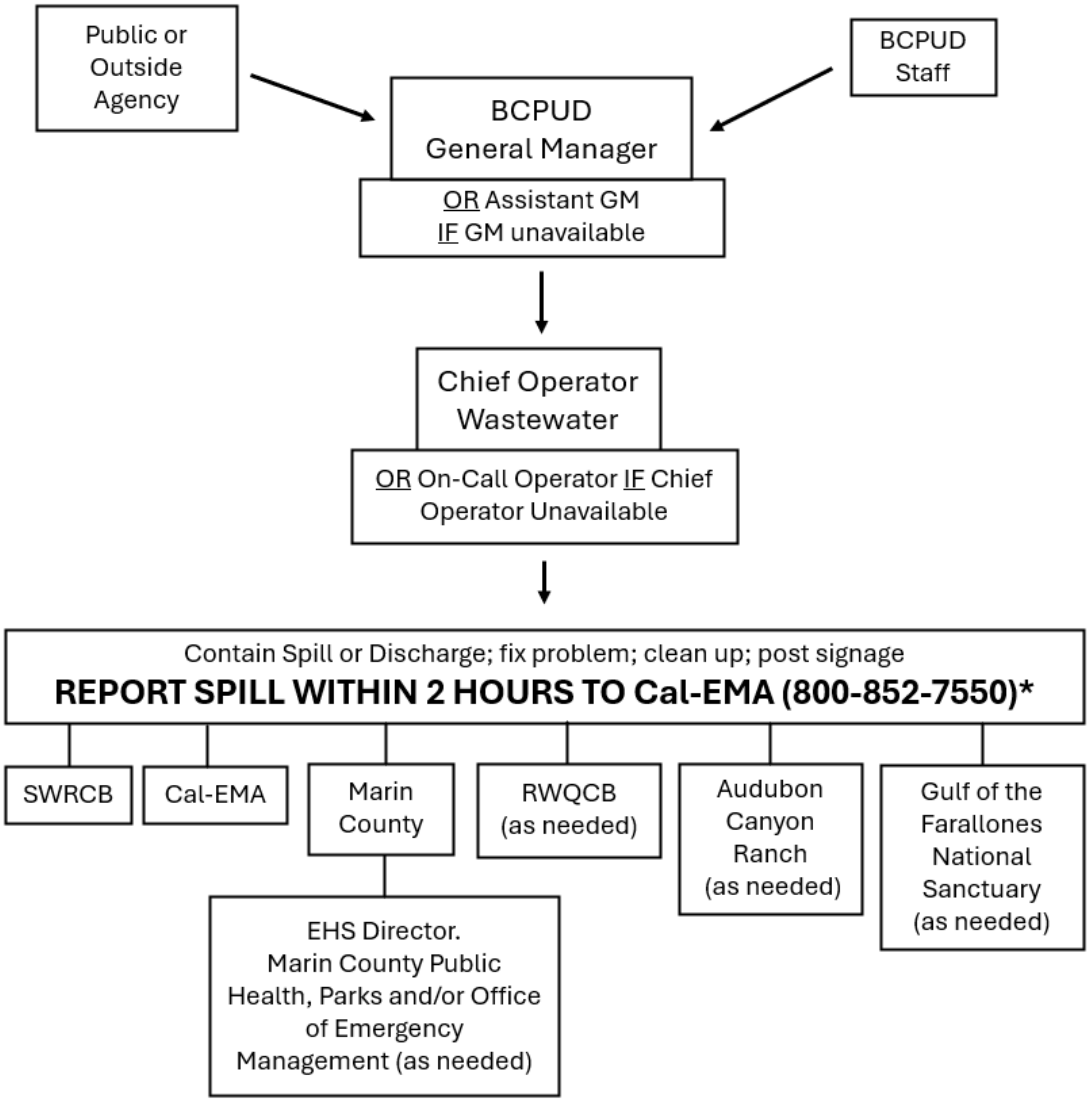
Board Member	Kevin McElroy	(415) 341-6657
General Manager	Georgia Woods*	(415) 868-1224/686-1827
Chief Operator	Andrew Spalding	(415) 868-1224/847-0830
Assistant General Manager	Belle Wood	(415) 868-1224/847-0343
Shift Operator-in-Training	Evan Kahn	(415) 868-1224/852-8042
Shift Operator-in-Training	Sean Morgan	(415) 868-1224/300-7786
Administrative Assistant	Annie Laufman	(415) 868-1224/(443)-852-2549

* BCPUD 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
Assistant General Manager	(415) 868-1224/847-0343
Chief Operator – Wastewater	(415) 868-1224/847-0830
Shift Operator-in-Training – Wastewater	(415) 868-1224/852-8042
Shift Operator-in-Training - Wastewater	(415) 868-1224/300-7786
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: SANITARY SEWER SPILL EMERGENCY RESPONSE PLAN

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

SWRCB REQUIREMENTS FOR THE SPILL 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

This Spill Emergency Response Plan ("SERP") is required under Waste Discharge Requirements Order No. 2022-0103-DWQ (the "WDR") adopted by the State Water Resources Control Board ("SWRCB") on December 6, 2022 and effective as of June 5, 2023. The WDR requires that Enrollees such as the Bolinas Community Public Utility District ("BCPUD" or "District") maintain an up-to-date SERP to (1) ensure prompt detection and response to spills; (2) reduce spill volumes, and (3) collect information for the prevention of future spills. A "spill" is defined in the WDR as a discharge of sewage from any portion of a sanitary sewer system due to a sanitary sewer system overflow, operational failure, and/or infrastructure failure.

This SERP provides guidelines for BCPUD personnel to follow when responding to, reporting, and properly documenting spills that may occur within the BCPUD's service area. This plan provides standard response procedures to ensure that every report of a confirmed spill is immediately communicated to BCPUD personnel so that the effects of the overflow can be minimized with respect to impacts to public health, adverse effects on beneficial uses and water quality of surface waters, and customer service. This SERP also includes provisions to ensure that notification and reporting is made to the appropriate local, state and federal authorities.

PURPOSE AND GOALS

The BCPUD seeks to serve the community with reliable, safe wastewater collection and treatment services in compliance with applicable law. While providing this service, the BCPUD strives to prevent or minimize the impact of any sewer spills. The specific purposes of this SERP are to support a prompt and effective response by the BCPUD to a sewer spill and to protect public health and the environment at all times. The SERP provides guidelines for district staff to follow when responding to, cleaning up, reporting and properly documenting spill that may occur within the district's service area.

The BCPUD's goals with respect to responding to a sewer spill are:

► Prompt detection and notification of appropriate stakeholders and regulatory authorities.

► Immediate, coordinated response to stop the cause of the spill and prevent or minimize a discharge or potential discharge to waters of the State.

► Containment of the spill or reduction of the spill volume so as to prevent or minimize a discharge to waters of the State.

► Thoroughly clean all publicly accessible areas and properly dispose of sewage and wash-down water.

► Compliance with all applicable regulatory requirements concerning notification, monitoring, reporting, post-spill response evaluation and record-keeping.

REGULATORY BACKGROUND

This SERP is intended to meet the requirements of WDR Order No. 2022-0103-DWQ as it may be amended from time to time and as it applies to the BCPUD's sewer system. The WDR requires Enrollees to prepare and implement a SERP that has procedures to:

- Notify primary responders, appropriate local officials, and appropriate regulatory agencies in a timely manner;
- Notify other potentially affected entities (for example, health agencies, water suppliers, etc.) of spills that potentially affect public health or reach waters of the State;
- Comply with the notification, monitoring and reporting requirements of this General Order, State law and regulations, and applicable Regional Water Board Orders;
- Ensure that appropriate staff and contactors implement the Spill Emergency Response Plan and are appropriately trained;
- Address emergency system operations, traffic control and other necessary response activities;
- Contain a spill and prevent/minimize discharge to waters of the State or any drainage conveyance system;
- Minimize and remediate public health impacts and adverse impacts on beneficial uses of waters of the State;
- Remove sewage from drainage conveyance systems;
- Clean the spill area and drainage conveyance systems in a manner that does not inadvertently impact beneficial uses in the receiving waters;
- Implement technologies, practices, equipment, and interagency coordination to expedite spill containment and recovery;
- Conduct post-spill assessments of spill response activities;
- Document and report spill events as required by the WDR; and
- Annually, review and assess effectiveness of the SERP and update the SERP as needed.

DEFINITIONS

Attachment A to the WDR sets forth the definitions of many terms used throughout the WDR, including but not limited to spill categories and other terminology. Frequently

used terms defined in the WDR and referred to in this SERP are included below; please see the General Order for a complete list.

Drainage Conveyance System: A publicly- or privately-owned separate storm sewer system, including but not limited to drainage canals, channels, pipelines, pump stations, detention basins, infiltration basins/facilities, or other facilities constructed to transport stormwater and non-stormwater flows.

California Integrated Water Quality System (CIWQS): The statewide database that provides for mandatory electronic reporting as required in State and Regional Water Board-issued waste discharge requirements.

Enrollee: A public, private, or other non-governmental entity that has obtained approval for regulatory coverage under the Statewide Sanitary Sewer Systems General Order 2022-0103-DWQ. (The BCPUD is an Enrollee under this General Order.)

Exfiltration: The underground exiting of sewage from a sanitary sewer system through cracks, offset or separated joints, or failed infrastructure due to corrosion or other factors.

Lateral: An underground segment of smaller diameter pipe that transports sewage from a customer's building or property (residential, commercial, or industrial) to the Enrollee's main sewer line in a street or easement.

Legally Responsible Official: An official representative, designated by the Enrollee, with authority to sign and certify submitted information and documents required by the Statewide Sanitary Sewer Systems General Order 2022-0103-DWQ. (The BCPUD's General Manager is the district's Legally Responsible Official.)

Potential to Discharge, Potential Discharge: Any exiting of sewage from a sanitary sewer system that can reasonably be expected to discharge into a water of the State based on the size of the sewage spill, proximity to a drainage conveyance system, and the nature of the surrounding environment.

Sanitary Sewer System: A system that is designed to convey sewage, including but not limited to, pipes, manholes, pump stations, siphons, wet wells, diversion structures and/or other pertinent infrastructure, upstream of a wastewater treatment plant headwork, including: laterals owned and/or operated by the Enrollee; satellite sewer systems; and/or temporary conveyance and storage facilities, including but not limited to temporary piping, vaults, construction trenches, wet walls, impoundments, tanks and diversionary structures.

Spill: A discharge of sewage from any portion of a sanitary sewer system due to a sanitary sewer system overflow, operational failure, and/or infrastructure failure. Exfiltration of sewage is not considered to be a spill if the exfiltrated sewage remains in the subsurface and does not reach a surface water of the State.

Spill Categories:

> **<u>Category 1 Spill</u>**: A spill of any volume of sewage from or caused by a regulated sanitary sewer system that results in a discharge to:
>
> ● A surface water, including a surface water body that contains no flow or volume of water; or
>
> ● A drainage conveyance system that discharges to surface waters when the sewage is not fully captured and returned to the sanitary sewer system or disposed of properly. Any spill volume not recovered from a drainage conveyance system

is considered a discharge to surface water, unless the drainage conveyance system discharges to a dedicated stormwater infiltration basin or facility.[1]

Category 2 Spill: A spill of 1,000 gallons or greater, from or caused by a regulated sanitary sewer system that does not discharge to a surface water.
A spill of 1,000 gallons or greater that spills out of a lateral *and* is caused by a failure or blockage in the sanitary sewer system is a Category 2 spill.

Category 3 Spill: A spill of equal to or greater than 50 gallons and less than 1,000 gallons, from or caused by a regulated sanitary sewer system that does not discharge to a surface water.
A spill of equal to or greater than 50 gallons and less than 1,000 gallons, that spills out of a lateral *and* is caused by a failure or blockage in the sanitary sewer system is a Category 3 spill.

Category 4 Spill: A spill of less than 50 gallons, from or caused by a regulated sanitary sewer system that does not discharge to a surface water.
A spill of less than 50 gallons that spills out of a lateral *and* is caused by a failure or blockage in the sanitary sewer system is a Category 4 spill.

Waters of the State: Surface waters or groundwater within boundaries of the state as defined in Water Code section 13050(e), in which the State and Regional Water Boards have authority to protect beneficial uses. Waters of the state include, but are not limited to, groundwater aquifers, surface waters, saline waters, natural washes and pools, wetlands, sloughs, and estuaries, regardless of flow or whether water exists during dry conditions. Waters of the State include waters of the United States.

Waters of the United States: Surface waters or waterbodies that are subject to federal jurisdiction in accordance with the Clean Water Act.

[1] A spill from an Enrollee-owned and/or operated lateral that discharges to a surface water is a Category 1 spill under the WDR; however, the BCPUD does not own or operate any sewer laterals – all sewer laterals in the BCPUD's sanitary sewer system are privately owned and the responsibility of the property owner.

SPILL EMERGENCY RESPONSE TEAM

The BCPUD's spill emergency response team members include the following personnel:

- General Manager (who serves as the district's Legally Responsible Official)
- Assistant General Manager (who helps the GM)
- Chief Operator – Wastewater
- Operator(s) in Training
- Fire Chief
- Engineering Consultants
- Legal Consultants
- Outside emergency contractors and pumping companies (on as-needed basis)

In general, if any spill occurs from the district's sanitary sewer system, 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 a spill emergency are described as follows:

General Manager – Supervises all operations staff responsible for spill response. Serves as direct contact for any media inquiries and inquiries from the Board of Directors, regulatory authorities and the public. Arranges for all public statements regarding the district's emergency response. Coordinates with other responsible agencies, including the Marin County Department of Public Works (Stormwater Pollution Prevention Program) and Marin County Environmental Health Services Department. Responsible for all reporting (telephonic and electronic) to regulatory authorities.

Assistant General Manager – In the case that the General Manager is not available, the Assistant GM supervises all operations staff responsible for spill response. Serves as direct contact for any media inquiries and inquiries from the Board of Directors, regulatory authorities and the public. Arranges for all public statements regarding the district's emergency response. Coordinates with other responsible agencies, including the Marin County Department of Public Works (Stormwater Pollution Prevention Program) and Marin County Environmental Health Services Department. Responsible for all reporting (telephonic and electronic) to regulatory authorities.

Chief Operator - Wastewater – In charge of spill assessment, response and clean-up in accordance with this SERP. In direct contact with the General Manager (or Assistant

GM) to report on status of assessment, response and 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 assessment, response and 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.

Fire Chief – First responder in the event of medical events and/or hazardous waste incident to a spill emergency event; also provides trained volunteer firefighters for traffic control and/or emergency response assistance if requested by the district.

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 district when necessary in connection with a spill.

Outside Emergency Contractors – If engaged by the BCPUD to assist with spill response and/or spill clean-up, outside emergency contractors are responsible for performing response and/or clean-up response tasks as assigned by the Chief Operator.

CONTACT INFORMATION FOR SPILL EMERGENCY RESPONSE TEAM

General Manager: Georgia Woods
Daytime: 415-250-7251 After Hours: 415-250-7251

Assistant General Manager: Belle Wood
Daytime: 415-868-1224 After Hours: 415-847-0830

Chief Operator: Andrew Spalding
Daytime: 415-868-1224 After Hours: 415-847-0830

On-Duty Operator: 415-868-1224 (will be paged by answering service)

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

Engineering Consultant: West Yost, Inc.
Daytime: (925) 949-5800

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

CONTACT INFORMATION

EXTERNAL EMERGENCY ASSISTANCE

Pumping Companies

Coast Sanitary	415-868-2720
Roy's Sewer Services	415-381-0256
Roto-Rooter Plumbing Service	415-898-2700

Contractors:

Piazza Construction	707-484-1614
Miksis Services, Inc.	707-433-8053
Mesa Electric	415-868-2208

SPILL RESPONSE PROCEDURE

The Spill Response Procedure presents a strategy for the BCPUD to mobilize labor, materials, tools and equipment to immediately respond to a spill. The BCPUD's Spill Emergency Action Flow Chart is attached as Exhibit A.

RECEIPT OF INFORMATION REGARDING A SPILL

A spill may occur due to the sanitary sewer collection system failure, force main failure (including failure inside the check valve vault, clean-out assembly and/or other ancillary components), wastewater treatment plant failure, or failure of the lift station. The BCPUD has established various procedures to receive information regarding spills occurring at these different locations.

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

Spills due to sewer collection system failure, force main failure (including the check-valve vault station in front of 41 Wharf Road) 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 spills and for forwarding to the in-charge sewer personnel (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 spill may also call the Bolinas Fire Protection District (415-868-1566) or County Sheriff Dispatch (415-663-1151 to report the spill. Under this circumstance, the Fire District or law enforcement will forward the call to the BCPUD.

SPILL DUE TO LIFT STATION FAILURE

A spill 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 SEWER SPILL

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

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

Pursuant to BCPUD Ordinance 29, sewer laterals are owned by and are the responsibility of the home/business owner. These owners are responsible for their laterals from the building to the BCPUD's sewer main in the easement or street. If a lateral spill occurs that is not caused by a failure or blockage in the district's sanitary sewer system, 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 spill is remediated.

CREW INSTRUCTION AND WORK ORDERS

BCPUD staff will receive instruction from the IC regarding appropriate materials supplies, and equipment needed to respond to a spill. All staff dispatched to the site of a spill shall proceed immediately to the site of the spill. 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. An Emergency Sewage Spill Report form is included as Exhibit B to this Plan and should be completed by a staff member designated by the IC in connection with the spill response. 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 the spill.

PRELIMINARY ASSESSMENT OF DAMAGE TO PRIVATE AND PUBLIC PROPERTY

BCPUD staff should assess and report any damage to public or private property as a result of the spill 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 spill 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 spill report.

COORDINATION WITH HAZARDOUS MATERIAL RESPONSE

Upon arrival at the scene of a spill, 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, staff should immediately contact the IC or Chief Operator – Wastewater for guidance before taking further action. If the IC or Chief Operator is not available, staff should contact the Fire Chief 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.

COORDINATION WITH COUNTY DEPARTMENT OF PUBLIC WORKS

Upon arrival at the scene of a spill, if the spill has entered or as the potential to enter the County of Marin's separate storm water system, staff should immediately report this to the General Manager who will coordinate with the Marin County Department of Public Works' Stormwater Pollution Prevention Program.

SPILL CORRECTION, CONTAINMENT AND CLEAN-UP

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

- To protect public health, environment and property from sewer spills and restore the 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 responsible regulatory agencies of preliminary spill information and potential impacts;
- To contain and remove the spill to the maximum extent possible, including preventing or minimizing the discharge of sewage into surface waters; and
- To minimize the BCPUD's exposure to any regulatory agency penalties and fines.

FIRST RESPONDER PRIORITIES

The priorities for the crew initially responding to the spill are to:

► Promptly respond to the spill

► Follow safe work practices

► Respond promptly with the appropriate and necessary equipment

►Reduce spill volume and contain the spill

►Restore the sanitary sewer system to full operation as soon as possible

►Minimize public access to and/or contract with the spill

►Promptly notify the General Manager if the spill response requires additional resources

►Return the spilled sewage to the sanitary sewer system

►Restore the area of the spill to its original condition

►Collect information for the prevention of future spills

►Promptly document the spill and response activities

RESPONSIBILITY OF RESPONSE CREW UPON ARRIVAL

It is the responsibility of the first BCPUD crew to arrive at the site of a spill to protect the health and safety of the public by mitigating the impact of the spill to the extent possible. Should the spill 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 State, then prudent emergency action should be taken until the responsible party assumes responsibility. Upon arrival at a spill, the BCPUD response crew should do the following:

- Note the arrival time at the site of the spill.
- Verify the spill and whether it is from the district's sanitary sewer system.
- Identify and assess the affected area and extent of the spill.
- Assess the spill location and spread using photography, GPS equipment and other available tools.
- Determine what is needed to make the work area safe, determine the equipment and personnel necessary to correct, contain and clean-up the spill;
- Document the spill on the Sanitary Sewer Spill First Responder Report form, including taking photographs or videos.
- Make the work area safe by donning protective gear, etc.;

- Take immediate steps to stop the spill, e.g. relieve pipeline blockage, manually operate pump station controls, repair pipe, etc.;

- Take immediate steps to reduce or eliminate any spill to surface waters or to drainage conveyance systems to surface waters;

  ˚ determine the immediate destination of the spill

  ˚ plug storm drains using appropriate equipment; if the spill has reached the storm drainage system, attempt to contain the spilled sewage by plugging the downstream storm drain facilities.

  ˚contain/direct the spill using sandbags or other appropriate equipment

  ˚vacuum sewage wherever practicable

  ˚bypass pump as necessary

- Fully assess the spill 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.;

- If the spill reached a drainage conveyance system:

  ˚ document the drainage conveyance system transporting the spill;

  ˚ photograph the drainage conveyance system entry location(s);

  ˚ estimate the spill volume that reached the drainage conveyance system;

  ˚ estimate the spill volume fully recovered from the drainage conveyance system;

  ˚estimate the spill volume remaining within the drainage conveyance system;

  ˚estimate the spill travel time from the point of entry into the drainage conveyance system to the point of discharge into the receiving water.

  ˚ estimate the total spill volume recovered.

- Interview the person or persons who reported the spill (if applicable) for additional information to determine as accurately as possible how long the spill may have been flowing before it was reported in order to accurately determine the spill 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 spill 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;

INITIAL MEASURES FOR CONTAINMENT

Initiate measures to contain the spill and recover, where possible, all sewage that already has been discharged, including the following:

- Determine the immediate destination of the spill, 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 spill, if not otherwise readily available at the BCPUD's lift station, treatment plant or maintenance yard;

- Take immediate steps to contain the spill, 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, 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 a spill occurs in the collection system, control of the spill normally is accomplished 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 spill and continuous or periodic monitoring of the by-pass pumping operation shall be implemented as required.

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

CLEAN-UP

Spill sites must be thoroughly cleaned after the spill is contained. 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. 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 spill 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 spill 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 conveyance structures which are not under immediate control.

- If the spill occurs on an unpaved surface, as much liquid as possible should be removed by vacuuming as above and disposed of properly. If feasible, the spill area should be washed down with clean de-chlorinated water and the wash water shall be contained, vacuumed up and disposed of in the same manner as the sewage.

- Regardless of the surface area where the spill occurred, the responding crew shall broadcast lime onto moist soil or standing sewage in order to 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 a spill 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.

SAMPLING AND LAB TESTS

When sewage discharges to surface waters, various regulatory authorities must be notified as explained elsewhere in this SERP. As part of this notification process, bacteriological and other sampling may be required by the Marin County Environmental Health Services Department.

(Sampling for spills in excess of 50,000 gallons that discharge to surface water must be conducted pursuant to the Receiving Water Quality Monitoring section of this SERP.) Samples generally must be taken upstream of the entry point, just downstream of the entry point and at a further distance downstream of the entry point. The actual sample point chosen will vary on a case-by-case basis as directed by Marin County EHS. 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 and fecal Coliform, E. Coli, Enterococcus, dissolved oxygen and ammonia.

SANITARY SEWER SPILL FIRST RESPONDER REPORT

A Sanitary Sewer Spill First Responder Report form must be completed for all spills and provided to the General Manager as soon as possible.

SANITARY SEWER SPILL REPORT

A Sanitary Sewer Spill Report must be completed by the General Manager for all spills.

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 sewer spills 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 and the Marin County Environmental Health Services Department, shall determine if posting of a confirmed spill is undertaken or if there is reasonable potential for a spill to occur -- thus the need to post in advance.

Should the posting of surface water bodies or ground surfaces subjected to a spill 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 spills to the SWRCB's CIWQS Online 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 following table summarizes the actions and associated deadlines for each of the four spill categories (see below for additional detail):

NOTIFICATION, MONITORING AND REPORTING REQUIREMENTS	**Spill Category**			
	1	2	3	4
Notify the California Office of Emergency Services (CalOES) within **2 hours of knowledge of a spill of 1,000 gallons or more, discharging or threatening to discharge to surface waters;** obtain notification control number from CalOES.	X	X		
Assess the spill location and spread and estimate spill volume. For spills discharging to surface waters, conduct additional observations of the receiving water.	X	X	X	X
Conduct water quality sampling of receiving water within **18 hours** of initial knowledge of a spill that is 50,000 gallons or more, discharging to surface waters.	X			
Submit a Draft Spill Report via CIWQS within three (3) business days of knowledge of the spill.	X	X		
Submit a Certified Spill Report via CIWQS within fifteen (15) calendar days of the spill end date.	X	X		
Submit Monthly Certified Spill Report via CIWQS within 30 calendar days after the end of the month in which the spill occurs			X	
Certify monthly the estimated total spill volume exiting the sanitary sewer system, and the total number of all Category 4 spills; submit within 30 calendar days after the end of the month in which the spill occurs				X
Submit a Technical Report within 45 days after the spill end date for a spill of 50,000 gallons or more discharged to surface waters.	X			
If necessary to update a Certified Spill Report, submit an Amended Spill Report within 90 calendar days after the spill end date.	X	X		
If necessary to update a Monthly Certified Spill Report, submit an Amended Spill Report within 90 calendar days after the Certified Spill Report due date.			X	
Upload and certify a report of all spills of this category by February 1st after the end of the calendar year in which the spills occur.				X

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

SPILL CATEGORIES

Category 1 Spill: A *spill of any volume* of sewage from or caused by a regulated sanitary sewer system *that results in a discharge to*:
● *A surface water*, including a surface water body that contains no flow or volume of water; or
● *A drainage conveyance system that discharges to surface waters when the sewage is not fully captured and returned to the sanitary sewer system or disposed of properly*. Any spill volume not recovered from a drainage conveyance system is considered a discharge to surface water, unless the drainage conveyance system discharges to a dedicated stormwater infiltration basin or facility.[2]

Category 2 Spill: *A spill of 1,000 gallons or greater*, from or caused by a regulated sanitary sewer system *that does not discharge to a surface water*.
A spill of 1,000 gallons or greater that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system is a Category 2 spill.

Category 3 Spill: *A spill of equal to or greater than 50 gallons and less than 1,000 gallons*, from or caused by a regulated sanitary sewer system *that does not discharge to a surface water*.
A spill of equal to or greater than 50 gallons and less than 1,000 gallons, that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system is a Category 3 spill.

Category 4 Spill: A spill of less than 50 gallons, from or caused by a regulated sanitary sewer system that does not discharge to a surface water.
A spill of less than 50 gallons that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system is a Category 4 spill.

SPILL NOTIFICATION AND REPORTING REQUIREMENTS

- **Category 1 or 2 Spills of 1,000 gallons or more** – the BCPUD shall notify the California Office of Emergency Services (CalOES) within 2 hours of knowledge of a spill of 1,000 gallons or more that is discharging or threatening to discharge to surface water and shall obtain a notification control number

- **Category 1, Category 2, Category 3 and Category 4 Spills** – All Category 1, 2, 3 and 4 spills shall be reported to the Online CIWQS Sanitary Sewer System Database:

[2] A spill from an Enrollee-owned and/or operated lateral that discharges to a surface water is a Category 1 spill under the WDR; however, the BCPUD does not own or operate any sewer laterals.

a. *Draft reports for Category 1 and Category 2 spills* shall be submitted to the Online CIWQS Sanitary Sewer System Database within three (3) business days of the district becoming aware of the spill. Minimum information that shall be reported in a draft Category 1 or draft Category 2 spill report shall include all information identified in the Mandatory Information to be Included in the Online CIWQS Sanitary Sewer System Database section of this SERP, as applicable, below.

b. *A final Category 1 or Category 2 Spill report* shall be certified through the Online CIWQS Sanitary Sewer System Database within 15 calendar days of the end date of the spill. Minimum information that shall be certified in the final Category 1 or final Category 2 spill report shall include all information identified in the Mandatory Information to be Included in the Online CIWQS Sanitary Sewer System Database section of this SERP, as applicable, below.

c. *Category 3 spills* – All spills that meet the above criteria for Category 3 spills shall be reported to the Online CIWQS Sanitary Sewer System Database and certified within 30 calendar days after the end of the calendar month in which the spill occurs (e.g., all Category 3 spills 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 spill report shall include all information identified in the Mandatory Information to be Included in the Online CIWQS Sanitary Sewer System section of this SERP, as applicable, below.

d. *Category 4 spills* – All spills that meet the above criteria for Category 4 spills *and* the estimated total spill volume exiting the sanitary sewer system shall be reported to the Online CIWQS Sanitary Sewer System Database and certified within 30 calendar days after the end of the month in which the spill occurred.

e. *"No Spill" Certification* – If there are no spills during the calendar month, the district shall certify, within 30 calendar days after the end of each calendar month, a "no Spill" certification statement in the Online CIWQS Sanitary Sewer System Database certifying that there were no spills for the designated month.

   If there are no spills during a calendar month but the district voluntarily reported a private sewer lateral spill, the district shall still certify a "No Spill" certification statement for that month.

f. *Annual Certification of Category 4 Spills* – all Category 4 spills shall be reported and certified in the Online CIWQS Sanitary Sewer System Database annually in a report by February 1st after the end of the calendar year in which the spills occurred.

- **Amended Spill Reports -** the district may update or add additional information to a certified Category 1 or Category 2 spill report within 90 calendar days after the spill end date, or it may update or add additional information to a certified Category 3 spill report within 90 days of the certified spill report due date, by amending the report or by adding an attachment to the spill report in the Online CIWQS Sanitary Sewer System Database; the district shall certify the amended report.

After 90 calendar days, the district shall contact the SWRCB at SanitarySewer@waterboards.ca.gov to request to amend a spill report. The Legally Responsible Official shall submit justification for why the additional information was not reported in the Amended Spill Report due date.

- **Spill Technical Report** – the district shall submit and certify a Spill Technical Report in the Online CIWQS Sanitary Sewer System Database within 45 calendar days of the spill end date for any spill in which 50,000 gallons or greater are spilled to surface waters.

- In the event that the CIWQS Online Database is not available for any reasons , 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 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 spill 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 spill:

- Marin County:

  Environmental Health Services Department

  Open Space District

  Department of Public Works – Stormwater Pollution Prevention Program.

  Office of Emergency Services

- Audubon Canyon Ranch (as appropriate)

- Gulf of the Farallones National Marin Sanctuary (as appropriate)

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

MANDATORY INFORMATION TO BE INCLUDED IN THE ONLINE CIWQS SANITARY SEWER SYSTEM DATABASE

- **Draft Category 1 Spills**:

  Within three (3) business days of the district's knowledge of a Category 1 spill, the district shall submit a Draft Spill Report to the online CIWQS Sanitary Sewer System Database. The Draft Spill Report must, at a minimum, include the following items:

  a. Contact Information: Name and telephone number of district contact person to respond to spill-specific questions;

  b. Spill Location Name;

  c. Date and time the district was notified of, or self-discovered, the spill;

  d. Operator arrival time;

  e. Estimated spill start date and time;

  f. Date and time the district notified the California Office of Emergency Services, and the assigned control number;

  g. Description, photographs and GPS coordinates of the system location where the spill originated;

     a. If a single spill results in multiple appearance points, provide GPD coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;

  h. Estimated total spill volume exiting the system;

  i. Description and photographs of the extent of the spill and spill boundaries;

  j. If the spill reached a drainage conveyance system:

     a. Description of the drainage conveyance system transporting the spill;

     b. Photographs of the drainage conveyance system entry location(s);

     c. Estimated spill volume fully recovered from the drainage conveyance system;

     d. Estimated spill volume remaining within the drainage conveyance system;

  k. Description and photographs of all discharge point(s) into the surface water;

  l. Estimated spill volume that discharged to surface waters; and

m. Estimated total spill volume recovered.

- **<u>Certified Category 1 Spills</u>:**

  Within 15 calendar days of the spill end date, the district shall submit a Certified Spill Report for Category 1 spills to the online CIWQS Sanitary System Database. Upon completion of the Certified Spill Report, the online CIWQS Sanitary Sewer System Database will issue a final spill event identified number.

  The Certified Spill Report must, at a minimum, include the following mandatory information in addition to all information in the Draft Spill Report:

  a. Description of the spill event destination(s), including GPS coordinates, if available, that represent the full spread and reach of the spill;

  b. Spill end date and time;

  c. Description of how the spill volume estimations were calculated, including at a minimum:

     a. The methodology, assumptions and type of data relied upon, such as supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and

     b. The methodology(ies), assumptions and type of data relied upon for estimations of the spill start time and the spill end time;

  d. Spill cause(s) (for example, root intrusion, grease deposition, etc.);

  e. System failure location (for example, main, lateral, pump station, etc.);

  f. Description of the pipe material and estimated age of the pipe material, at the failure location;

  g. Description of the impact of the spill;

  h. Whether or not the spill was associated with a storm event;

  i. Description of spill response activities, including description of immediate spill containment and cleanup efforts;

  j. Description of the spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of major milestones for those steps;

  k. Spill response completion date;

  l. Detailed narrative of investigation and investigation findings of cause of spill;

m. Reasons for an ongoing investigation (as applicable) and the expected date of completion;

n. Name and type of receiving water body(ies);

o. Description of the water body(ies), including but not limited to:

    a. Observed impacts on aquatic life,

    b. Public closure, restricted public access, temporary restricted use, and/or posted health warnings due to spill.

    c. Responsible entity for closing/restricting use of water body, and

    d. Number of days closed/restricted as a result of the spill.

p. Whether or not the spill was located within 1,000 feet of a municipal surface water intake; and

q. If water quality samples, were collected, identify sample locations and the parameters the water quality samples were analyzed for. If not samples were taken, Not Applicable shall be selected.

- **<u>Certified Technical Report for Category 1 Spill in which 50,000 Gallons or Greater is Discharged into a Surface Water:</u>**

  Within 45 calendar days of the spill end date of any Category 1 Spill in which 50,000 gallons or greater of sewage is discharged into a Surface Water, the district shall submit a Certified Technical Report to the online CIWQS Sanitary Sewer System Database. This report shall include, at a minimum, the following information:

  1. Spill Causes and Circumstances:

     a. Complete and detailed explanation of who and when the spill was discovered;

     b. Photographs illustrating the spill origin, the extent and reach of the spill, drainage conveyance system entrance and exit, receiving water, and post-cleanup site conditions;

     c. Diagram showing the spill failure point, appearance point(s), the spill flow path and ultimate destinations;

     d. Detailed description of the methodology employed and available data used to calculate the discharge volume and, if applicable, the recovered spill volume;

     e. Detailed description of the spill cause(s);

f. Description of the pipe material, and estimated age of the pipe material, at the failure location

g. Description of the impact of the spill;

h. Copy of the original field crew records used to document the spill; and

i. Historical maintenance records for the failure location.

2. District's Response to the spill:

a. Chronological narrative description of all actions taken by the district to terminate the spill;

b. Explanation of how the SERP was implemented to respond to and mitigate the spill; and

c. Final corrective action(s) completed and a schedule for planned corrective actions, including:

i. Local regulatory enforcement action taken against an illicit discharge in response to this spill, as applicable;

ii. Identifiable system modifications and operation and maintenance program modifications needed to prevent repeated spill occurrences; and

iii. Necessary modifications to the SERP to incorporate lessons learned in responding to and mitigation the spill.

3. Water Quality Monitoring:

a. Description of all water quality sampling activities conducted;

b. List of pollutant and parameters monitored, sampled and analyzed per the Receiving Water Quality Monitoring section of this SERP;

c. Laboratory results, including laboratory reports;

d. Detailed location map illustrating all water quality sampling points; and

e. Other regulatory agencies' receiving sample results (if applicable).

4. Evaluation of spill impact(s), including a description of short-term and long-term impact(s) to beneficial uses of the surface water.

- **Draft Category 2 Spill Reports:**

Within three (3) business days of the district's knowledge of a Category 2 spill, the district shall submit a Draft Spill Report to the online CIWQS Sanitary Sewer System Database. The Draft Spill Report must, at a minimum, including the following items:

1. Contact Information: Name and telephone number of district contact person to respond to spill-specific questions;

2. Spill Location Name;

3. Date and time the district was notified of, or self-discovered, the spill;

4. Operator arrival time;

5. Estimated spill start date and time;

6. Date and time the district notified the California Office of Emergency Services, and the assigned control number;

7. Description, photographs and GPS coordinates of the system location where the spill originated;

    a. If a single spill results in multiple appearance points, provide GPD coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;

8. Estimated total spill volume exiting the system;

9. Description and photographs of the extent of the spill and spill boundaries;

10. If the spill reached a drainage conveyance system:

    a. Description of the drainage conveyance system transporting the spill;

    b. Photographs of the drainage conveyance system entry location(s);

    c. Estimated spill volume fully recovered from the drainage conveyance system;

    d. Estimated spill volume remaining within the drainage conveyance system;

    e. Estimated spill volume discharged to a groundwater infiltration basin or facility, if applicable, and

11. Estimated total spill volume recovered.

- **<u>Certified Category 2 Spills:</u>**

Within 15 calendar days of the spill end date, the district shall submit a Certified Spill Report for the Category 2 spill, to the online CIWQS Sanitary Sewer System Database.

Upon completion of the Certified Spill Report, the online CIWQS Sanitary Sewer System Database will issue a final spill event identified number.

The Certified Spill Report must, at a minimum, including the following mandatory information:

1. Description of the spill event destination(s), including GPS coordinates, if available, that represent the full spread and reach of the spill;

2. Spill end date and time;

3. Description of how the spill volume estimations were calculated, including at a minimum:

    a. The methodology, assumptions and type of data relied upon, such as supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and

    b. The methodology(ies), assumptions and type of data relied upon for estimations of the spill start time and the spill end time;

4. Spill cause(s) (for example, root intrusion, grease deposition, etc.);

5. System failure location (for example, main, lateral, pump station, etc.);

6. Description of the pipe material and estimated age of the pipe material, at the failure location;

7. Description of the impact of the spill;

8. Whether or not the spill was associated with a storm event;

9. Description of spill response activities, including description of immediate spill containment and cleanup efforts;

10. Description of the spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of major milestones for those steps;

11. Spill response completion date;

12. Detailed narrative of investigation and investigation findings of cause of spill;

13. Reasons for an ongoing investigation (as applicable) and the expected date of completion;

14. Whether or not the spill was located within 1,000 feet of a municipal surface water intake.

- **Certified Category 3 Spill Reports:**

  The district shall report and certify all Category 3 spills to the online CIWQS Sanitary Sewer System Database **within 30 calendar days** after the end of the month in which the spills occurred. (For example, all Category 3 spills occurring in the month of February shall be reported and certified by March 30th.) After the district's Legally Responsible Official certifies the spills, the online CIWQS Sanitary Sewer System Database will issue a spill event identified number for each spill.

  The monthly reporting of all Category 3 spills must include the following items for each spill:

  a. Contact Information: Name and telephone number of district contact person to respond to spill-specific questions;

  b. Spill location name;

  c. Date and time the district was notified of, or self-discovered, the spill;

  d. Operator arrival time;

  e. Estimated spill start date and time;

  f. Description, photographs and GPS coordinates of the system location where the spill originated;

     i. If a single spill results in multiple appearance points, provide GPD coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;

  g. Estimated total spill volume exiting the system;

  h. Description and photographs of the extent of the spill and spill boundaries;

  i. If the spill reached a drainage conveyance system:

     a. Description of the drainage conveyance system transporting the spill;

     b. Photographs of the drainage conveyance system entry location(s);

     c. Estimated spill volume fully recovered from the drainage conveyance system; and

     d. Estimated spill volume discharged to a groundwater infiltration basin or facility, if applicable.

  j. Estimated total spill volume recovered.

  k. Description of the spill event destination(s), including GPS coordinates, if available, that represent the full spread and reach of the spill;

l. Spill end date and time;

m. Description of how the spill volume estimations were calculated, including at a minimum:

    a. The methodology and type of data relied upon, including supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and

    b. The methodology and type of data relied upon for to estimate the spill start time and the spill end time;

n. Spill cause(s) (for example, root intrusion, grease deposition, etc.);

o. System failure location (for example, main, lateral, pump station, etc.);

p. Description of the pipe material and estimated age of the pipe material, at the failure location;

q. Description of the impact of the spill;

r. Whether or not the spill was associated with a storm event;

s. Description of spill response activities, including description of immediate spill containment and cleanup efforts;

t. Description of the spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of major milestones for those steps; including, at a minimum:

    i. Local regulatory enforcement action taken against an illicit discharge in response to this spill, as applicable, and

    ii. Identifiable system modifications, and operation and maintenance program modifications needed to prevent repeated spill occurrences at the sample spill event location including:

        ˚ Adjusted schedule/method of preventative maintenance,

        ˚ Planned rehabilitation or replacement of sanitary sewer asset,

        ˚ Inspected, repaired asset(s), or replaced defective asset(s),

        ˚ Capital improvements,

        ˚ Documentation verifying immediately implemented system modifications and operating/maintenance modifications,

        ˚ Description of spill response activities,

        ˚ Spill response completion date, and

- Ongoing investigation efforts, and expected completion date of investigation to determine the full cause of the spill;

u. Detailed narrative of investigation and investigation findings of cause of spill.

- **Annual Certified Spill Report of Category 4 Spills:**

For all Category 4 spills the district shall annually upload and certify a report in appropriate digital format of all record-keeping of spills to the online CIWQS Sanitary System Database by February 1st after the end of the year in which the spill(s) occurred.

The district shall maintain records for each individual Category 4 Spill as follows:

1. Contact Information: Name and telephone number of district contact person to respond to spill-specific questions;

2. Spill location name;

3. Description and GPS coordinates of the system location where the spill originated;

4. If the spill reached a drainage conveyance system:

    a. Description of the drainage conveyance system transporting the spill;

    b. Estimated spill volume fully recovered from the drainage conveyance system; and

    c. Estimated spill volume remaining within the drainage conveyance system;

5. Estimated total spill volume exiting the sanitary sewer system;

6. Spill end date and time;

7. Spill cause(s) (for example, root intrusion, grease deposition, etc.);

8. System failure location (for example, main, lateral, pump station, etc.);

9. Description of spill response activities, including description of immediate spill containment and cleanup efforts;

10. Description of how the spill volume estimations were calculated, including at a minimum:

    a. The methodology and type of data relied upon, including supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and

    b. The methodology and type of data relied upon for to estimate the spill start time and the spill end time;

11. Description of implemented system modifications and operating/maintenance modifications.

12. Total Annual Spill Information:

    a. Estimated total annual spill volume;

    b. Description of spill corrective actions, including at a minimum:

    ˚ Local regulatory enforcement action taken against the sewer lateral owners in response to a spill, as applicable; and

    ˚ System operation, maintenance and program modifications implemented to prevent repeated spill occurrences at the same spill location.

RECEIVING WATER QUALITY MONITORING

Order No. WQ 2022-0103-DWQ requires the BCPUD to conduct water quality sampling in the event of a sanitary sewer spill in which an estimated 50,000 gallons or greater are discharged to surface water. Sampling must be conducted as soon as possible but no later than **18 hours** after the BCPUD's knowledge of a potential discharge to surface water. The samples must be analyzed by a laboratory accredited by the State Water Board through its Environmental Laboratory Accreditation Program ("ELAP") for **ammonia** and appropriate bacteriological indicator(s) per the San Francisco Bay Basin (Region2) Water Quality Control Plan ("Basin Plan") water quality objectives, including one or more of the following:

- **total coliform bacteria,**
- **fecal coliform bacteria,**
- ***e.coli,* and**
- **enterococcus**

Surface Waters of Concern:

The following waters of the State are in the District's service area:

- Bolinas Lagoon
- Pacific Ocean

Beneficial Uses of Receiving Waters:

The San Francisco Bay Basin Plan identifies existing and potential beneficial uses for a large, representative portion of water bodies in the San Francisco Bay Region. The table below lists receiving water bodies downstream of the district's sewer collection system, as well as their existing beneficial uses.

	Beneficial Use										
Receiving Water	IND	COMM	SHELL	MAR	MIGR	RARE	SPWN	WILD	REC-1	REC-2	NAV
Bolinas Lagoon	E	E	E	E	E	E	E	E	E	E	E
Pacific Ocean		E	E	E	E	E	E	E	E	E	E
Acronyms: IND = Industrial Service Supply, COMM = Commercial and Sport Fishing, SHELL = Shellfish Harvesting, MAR = Marine Habitat, MIGR = Fish Migration, RARE = Preservation of Rare and Endangered Species, SPWN = Fish spawning, WILD = Wildlife Habitat, REC-1 = Water Contact Recreation, REC-2 = Noncontact Water Recreation, NAV = Navigation; E = Existing Beneficial Use											

Water Quality Objectives for Bacteria for All Surface Waters within the Region, except the Pacific Ocean

Beneficial Use	Fecal Coliform (MPN/100mL)	Total Coliform (MPN/100mL)	Enterococcus (CFU/100mL)g	E, coli (CFU/100mL)
Water Contact Recreation			geometric mean <30 STV<100	geometric mean < 100 STV <320
Shell Fish Harvesting	median < 14 90th percentile <43	Median <70 90th percentile < 230		
Non-contact Water Recreation	mean < 2000 90th percentile < 4000	geometric mean < 100		
Municipal Supply: Surface Water	geometric mean < 20			
Municipal Supply: Groundwater		<1.1		

Notes:

a. Based on a minimum of five consecutive samples equally spaced over a 30-day period.
b. Source: National Shellfish Sanitation Program.
c. Based on a five-tube decimal dilution test or 300 MPN/100mL when a three-tube decimal dilution test is used.
d. Source: Report on the Committee On Water Quality Criteria, National Technical Advisory Committee, 1968.
e. Source: California Department of Public Health recommendation.
f. Based on multiple tube fermentation technique: equivalent test results based on other analytical techniques. as specified in the National Primary Drinking Water Regulation, 40 CFR, Part 141.21(f), revised June 10, 1992, are acceptable.
g. Numeric values are from Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California based on Section 7958 of Title 17 of the California Code of Regulations, 69FR 67217 et. Seq., and 40 CFR Part 131.41 (effective date December 16, 2004). The **enterococcus** objective applies to marine and estuarine waters where the salinity is greater than 1 part per thousand more than 5 percent of the time. The **E. coli** objective applies to freshwaters where the salinity is equal or less than 1 part per thousand 95 percent or more of the time. The **geometric mean** for enterococcus and E. coli is computed weekly for all samples in a 6-week interval.

There is no fecal coliform objective to protect water contact recreation for inland surface waters, enclosed bays, or estuaries, but a fecal coliform objective protecting this use remains in the California Ocean Plan.

The STV is the statistical threshold value and shall not be exceeded by more than 10 percent of the samples collected in a calendar month.

The units CFU demote forming units. This unit of measurement is equivalent to MPN (most probable number). The use of either MPN or CFU is based on the method used to detect bacteria, and both are valid measures of bacteria density.

Per the Ocean Plan, the beneficial uses of the ocean waters of the State that shall be protected include industrial water supply; water contact and non-contact recreation, including aesthetic enjoyment; navigation; commercial and sport fishing; mariculture; preservation and enhancement of designated Areas* of Special Biological Significance (ASBS); rare and endangered species; marine habitat; fish migration; fish spawning and shellfish harvesting. Dependent on the receiving water(s), sampling of bacterial indicator must be sufficient to determine post-spill (after the spill) compliance with the water quality objectives and bacterial standards of the California Ocean Plan or the California Inland Surface Water Enclosed Bays and Estuaries Plan, including the frequency and/or number of post-spill receiving water samples as may be specified in the applicable plans.

The district will collect and analyze additional samples as required by the applicable Regional Water Board Officer or designee.

Sufficiently Sensitive Methods:

The District shall instruct its laboratory, Brelje & Race Laboratories, Inc., an ELAP Certified Drinking Water and Wastewater Laboratory (Certificate Number 1243), to analyze the samples according to sufficiently sensitive test methods approved under 40 Code of Federal Regulations Part 136 for sample analysis of pollutants (i.e., at or below the receiving water pollutant criteria).

Receiving Water Sampling Locations:

Sampling of flow in drainage conveyance system (DCS) prior to discharge:

Sampling Location	*Sampling Location Description*
DCS-001	A point in a drainage conveyance system before the drainage conveyance system flow discharges into a receiving water.

Receiving Surface Water Sampling (RSW)[3]:

Sampling Location	*Sampling Location Description*
RSW-001 Point of Discharge	A point in the receiving water where sewage initially enters the receiving water.
RSW-001U Upstream of Point of Discharge	A point in the receiving water, upstream of the point of sewage discharge, to capture ambient conditions absent of sewage discharge impacts.
RSW-001D Downstream of Point of Discharge	A point in the receiving water, downstream of the point of sewage discharge, where the spill

[3] The district shall use its best professional judgment to determine the upstream and downstream distances based on receiving water flow, accessibility to upstream/downstream water body banks, and size of vidible sewage plume.

	material is fully mixed with the receiving water.

Sampling Frequency:

The district shall collect the required samples within 18 hours of becoming aware of a known or potential spill discharging 50,000 gallons or more to surface water. The WDR requires daily sample collection for each day of the duration of the spill.

Sample Analysis:

Samples will be analyzed by the district's ELAP-certified laboratory, Brelje & Race Laboratories, Inc., and the test method will be identified by Brelje & Race.

Safety and Access Exceptions:

Water quality sampling is to be performed only if it is safe to do so and access to the surface water is not restricted. Unsafe conditions include, but are not limited to, visibility, heavy wind or rain, high surf or velocity of current, and steep water banks.

Field Sampling Equipment and Supplies:

The following is a list of field sampling equipment and supplies stored by the district:

PPE	**Sampling Equipment**
Nitrile, non-powered gloves	Clipboard and notebook
Safety glasses	Camera
Waders	Sample collection devices
Rubber boots or steel-toed boots	Sample Containers and labels
Safety vests	Permanent markers
	Zip-lock bags
	Cooler or ice chest
	Chain of custody forms
Cleaning	**Safety**
DI water	Drinking water
Soap	Cell phones
Trash bags	Rain gear
Towels	

Sample Collection and Handling

The following are procedures for sample collection and handling by district personnel:

1. Notify the lab in advance of sample collection; advise the lab of the number of samples, analyses and when they can expect to receive them.

2. Put on PPE and ensure necessary equipment is gathered prior to performing sampling.

3. The grab surface water samples will be collected either by:

    a. Directly filling the container from the drainage conveyance system or the receiving water being samples; filled against the direction of water flow, or

    b. Decanting water from a collection device such as a clean 1-liter plastic bottle or other device. If transferring from a collection device, care will be taken to ensure the device does not come into contact with the sample containers.

4. A sample may be collected directly into the sample container when the sampling location is accessible by wading or other means. If wading is not possible due to safety concerns, locate a spot along the edge of the receiving water where the sample can be safely collected.

    a. Face upstream and collect the sample without disturbing the bottom sediment.

    b. Take care not to displace the preservative from a pre-preserved sample container.

5. A deconned collection device may be used to collect a water sample from a location that is too deep to access by wading or is not easily accessible.

6. Collect the sample into lab-provided containers and label. Do not overfill sample containers with chemical preservatives.

7. Place sample containers associated with a single location into a zip-top bag and place them on ice in the cooler.

8. Record sampling locations and date and time of sample collection.

9. Complete the Chain of Custody form and place with the samples.

10. Courier or transport the samples in the cooler to the lab within 6 to 8 hours of sample collection (the sample holing time for bacterial indicators).

Additional Sampling:

In addition to the water quality sampling described above and required by the WDR, whenever a spill discharges to surface water the BCPUD shall notify the County of Marin's Environmental Health Services (EHS) Department of the spill and request any sampling requirements and instructions. In general, samples should be collected as soon as possible after the discovery of the spill 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.

ANNUAL REVIEW AND TRAINING

The BCPUD will annually review the effectiveness of this SERP and will make updates, if needed. The review will include an evaluation of SERP procedures and responses to sanitary sewer spills over the past year. As part of the review, the district will request feedback and participation from all first responders and outside contractors and advisors, as applicable.

All BCPUD personnel will be trained on the procedures and requirements set forth in this SERP when hired and then at least annually thereafter.

EXHIBIT A

SPILL EMERGENCY ACTION FLOW CHART

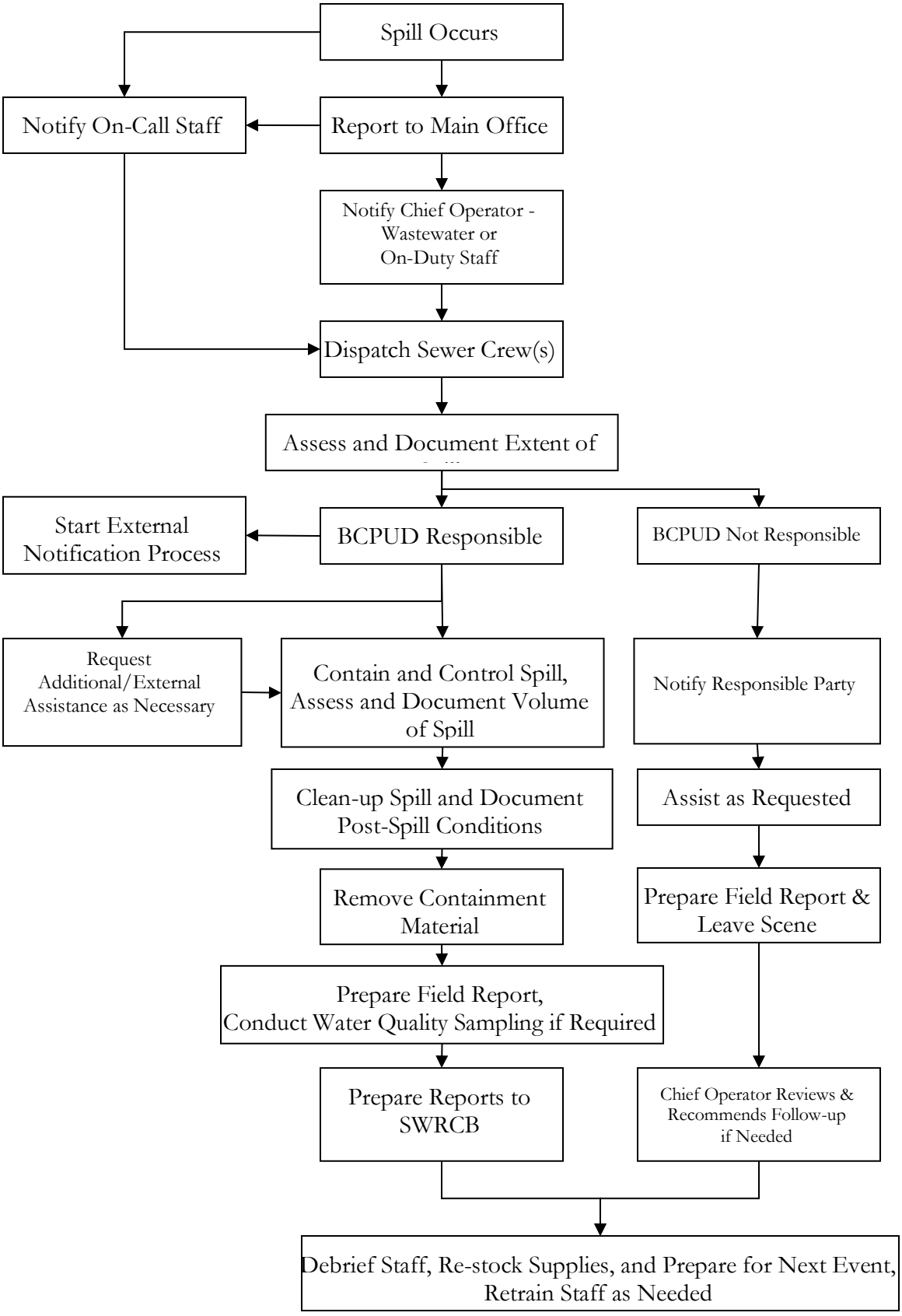

Spill Occurs
Notify On-Call Staff
Report to Main Office
Notify Chief Operator - Wastewater or On-Duty Staff
Dispatch Sewer Crew(s)
Assess and Document Extent of
Start External Notification Process
BCPUD Responsible
BCPUD Not Responsible
Request Additional/External Assistance as Necessary
Contain and Control Spill, Assess and Document Volume of Spill
Notify Responsible Party
Clean-up Spill and Document Post-Spill Conditions
Assist as Requested
Remove Containment Material
Prepare Field Report & Leave Scene
Prepare Field Report, Conduct Water Quality Sampling if Required
Prepare Reports to SWRCB
Chief Operator Reviews & Recommends Follow-up if Needed
Debrief Staff, Re-stock Supplies, and Prepare for Next Event, Retrain Staff as Needed

EXHIBIT B

EMERGENCY SEWAGE SPILL REPORT FORM

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: _____

   _____

6. Inventory: Take pictures and notes of all damage and inventory of all property (obtain occupant's signatures on list). Picture should show extent of spill.

ITEM	***DESCRIPTION***

_____

Occupant's Signature

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

Name	*Hours*	*$/Hr*	*Total*
		Total Labor Cost	$

Equipment

Unit Name	*Quantity*	*$Unit Price*	*Total*
		Total Equipment Cost	$

Material

Item	*Quantity*	*$Unit Price*	*Total*
		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 C

CONTACT INFORMATION FOR 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

Department of Public Works, Stormwater Management Office, Marin County
3501 Civic Center Drive, Room 304
San Rafael, California 94903
(415) 473-6530

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 devises, 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 PROVSISIONS

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 an in 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	• 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	• Response time • Overtime hours • Monthly trend analysis
Fats, Oils & Grease Control	Minimize blockages due to FOG	• 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	• 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.

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.