BEAR VALLEY WATER DISTRICT
SEWER SYSTEM MANAGEMENT PLAN

January 23, 2017

SSMP DOCUMENT VERSION CONTROL

	SEWER SYSTEM MANAGEMENT PLAN
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Element No.	Element Name	Included in this version of the SSMP
1	Goals	√
2	Organization	√
3	Legal Authority	√
4	Operations and Maintenance Program	√
5	Design and Performance Provisions	√
6	Overflow and Emergency Response Plan ("OERP")	√
7	Fats, Oils, and Grease (FOG) Control Plan	√
8	System Evaluation & Capacity Assurance Plan ("SECAP")	√
9	Monitoring, Measurement, and Program Modifications	√
10	SSMP Audits	√
11	Communication Program	√
12	SSMP Change Log – MRP Section E.3	√

FOR INFORMATION REGARDING THE CURRENT VERSION OF THIS DOCUMENT PLEASE JEFF GOUVEIA AT (209) 753 – 2112.

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LIST OF ACRONYMS

APWA	American Public Works Association
ASCE	American Society of Civil Engineers
BACWA	Bay Area Clean Water Agencies
BMP	Best Management Practice
CASA	California Association of Sanitation Agencies
CCTV	Closed-Circuit Television
CIP	Capital Improvement Program
CIWQS	California Integrated Water Quality System
CMMS	Computerized Maintenance Management System
CMOM	Capacity, Management, Operations, and Maintenance
CPC	California Plumbing Code
CVCWA	Central Valley Clean Water Association
CWEA	California Water Environment Association
EMA	Enhanced Maintenance Area
FOG	Fats, Oils, and Grease
FSE	Food Service Establishments
GRD	Grease Removal Device
I/I	Infiltration and Inflow
LRO	Legally Responsible Official
MOP	Manual of Practice
MRP	Monitoring and Reporting Program effective 9/9/13
MS4	Municipal Separate Storm Sewer System

NACWA	National Association of Clean Water Agencies
NASSCO	National Association of Sewer Service Companies
NGO	Non-Government Organization
NOI	Notice of Intent
NOV	Notice of Violation
O&M	Operations & Maintenance
OERP	Overflow Emergency Response Plan
OES	Office of Emergency Services, State of California
PACP	Pipeline Assessment & Certification Program
PLSD	Private Sewer Lateral Discharge
PM	Preventive Maintenance
POTW	Publicly Owned Treatment Works
QA/QC	Quality Assurance/Quality Control
R/R	Rehabilitation or Repair/Replacement
RWQCB	Regional Water Quality Control Board
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow
SSS WDR	Statewide General WDR for Sanitary Sewer Systems
SWRCB	State Water Resources Control Board
UPC	Uniform Plumbing Code
USEPA	United States Environmental Protection Agency
WDR	Waste Discharge Requirements
WWTP	Waste Water Treatment Plant

GLOSSARY OF TERMS

Collection System – Generic term for any system of pipes or sewer lines used to convey wastewater to a treatment facility.

Enrollee – A public entity that owns or operates a sanitary sewer system and has submitted a complete and approved application for coverage under the SSS WDR.

Lateral (also called Service Lateral) – A segment of pipe that connects a home or building to a sewer main, which may be located beneath a street or easement. The responsibility for maintaining a lateral can be solely that of the Enrollee or the private property owner; or it can be shared between the two or more parties. Local communities dictate lateral responsibility and the basis for a shared arrangement, if it applies. See Lower Lateral and Upper Lateral definitions.

Lower Lateral – That portion of a lateral usually from the property line or easement line to the sewer main. Enrollees may or may not be responsible for maintenance of this portion of the lateral. If not, the lower lateral is owned and maintained by the property its serves.

Miles of Gravity Sewer – Amount of gravity sewer lines/pipes in an Enrollee's sanitary sewer system, expressed in miles.

Miles of Publicly-Owned Laterals – Amount of laterals in an Enrollee's sanitary sewer system that the Enrollee is responsible for maintaining, expressed in miles.

Miles of Pressure Sewer (Miles of Force Main) – Amount of pressurized sewer lines/pipes in an Enrollee's sanitary sewer system, expressed in miles or portions thereof.

Miles of Private Laterals – Amount of private laterals tributary to an Enrollee's sanitary sewer system that private property owners are responsible for maintaining, expressed in miles or portions thereof.

Percent Reached Surface Water – Volume of sewage discharged from a sanitary sewer system or private lateral or collection system estimated to have reached surface water divided by the total volume of sewage discharged.

Percent Recovered – Volume of sewage discharged that was disposed of properly, divided by the total volume of sewage discharged.

Private Lateral – Privately owned sewer service lateral.

Private Lateral Sewage Discharge (PLSD) – Sewage discharges caused by blockages or other problems within privately owned laterals, collection systems or other private sewer assets that are tributary to the reporting Enrollee's sanitary sewer system. Reports of these events may be submitted by Enrollees on a voluntary basis except in San Diego Region 9, but are not the Enrollee's responsibility unless caused by issues in the main line or because of other Enrollee activity. Normally, this type of sewage discharge is the responsibility of the private lateral, private asset, or collection system owner.

Sanitary Sewer Overflow (SSO) – Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:

i. Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;

ii. Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and

iii. Wastewater backups into buildings and on private property caused by blockages or flow conditions within the publicly-owned portion of a sanitary sewer system.

Sanitary Sewer System – Any system of pipes, pump stations, sewer lines, or other conveyances, upstream of a WWTP head works and which is comprised of more than one mile of pipes and sewer lines, used to collect and convey wastewater to a publicly owned treatment facility.

Service Lateral – See Lateral.

SSO Category 1 – All discharges of sewage resulting from a failure in an Enrollee's sanitary sewer system that resulted in a discharge to a drainage channel and/or surface water.

SSO Category 2 – All discharges of sewage resulting from a failure in an Enrollee's sanitary sewer system of a volume equal to or greater than 1,000 gallons that did not reach surface water.

SSO Category 3 – All discharges of sewage resulting from a failure in an Enrollee's sanitary sewer system of a volume less than 1,000 gallons that did not reach surface water.

SSO Database – Online reporting system developed, hosted, and maintained by the SWRCB for compliance with the Monitoring and Reporting Program contained in SSS WDR.

Storm Drain – For the purposes of complying with the SSS WDR, any pipe that is part of a Municipal Separate Storm Sewer System (MS4) used for collecting or conveying storm water.

Total # of SSOs per 100 miles of Sewer per Year – Broad metric used to compare the relative performance of Enrollees and their sanitary sewer systems. This metric expresses the number of SSOs for which the reporting Enrollee is responsible, for every 100 miles of pipe or sewer lines in an Enrollee's sanitary sewer system. Due to the large variation in facility specific characteristics, this metric should only be viewed as a rough comparison of the operation and maintenance performance of Enrollees and their sanitary sewer systems. For systems smaller than 100 miles, this metric tends to skew the result as the miles of pipe get smaller. This metric is calculated as described below:

$$\text{Total \# of SSOs per year} = \frac{\text{(Total \# of SSOs x 100)}}{\text{((Years) x (Miles of Pressure Sewer + Miles of Gravity Sewer + Miles of Public Laterals))}}$$

Total Volume of SSOs Reached Surface Water per 100 miles of Sewer – Broad metric used to compare the relative performance of Enrollees and their sanitary sewer systems. This metric expresses the volume of SSOs, for which the reporting Enrollee is responsible, that reached surface water for every 100 miles of pipe or sewer lines in an Enrollee's sanitary sewer system. Because sewage discharges that reach surface water pose a greater threat to public health and the environment, this metric reflects some accounting of the threat posed by SSOs. Due to the large variation in facility specific characteristics, this metric should only be viewed as a rough comparison of the operation and maintenance performance of Enrollees and their sanitary sewer systems. For systems smaller than 100 miles, this metric tends to skew the result as the miles

of pipe get smaller. This metric is calculated as described below:

Total Annual Volume of SSOs Reaching Surface Waters =

$$\frac{\text{(Total volume of SSOs reaching Surface Waters x 100)}}{\text{((Years) x (Miles of Pressure Sewer + Miles of Gravity Sewer + Miles of Public Laterals))}}$$

Total Volume Reached Surface Water – Amount of sewage discharged from a sanitary sewer system, private lateral, or collection system estimated to have reached surface water.

Total Volume Recovered – Amount of sewage discharged that was captured and disposed of properly.

Upper Lateral – Portion of a lateral usually from the building foundation to the property line or easement line where it connects to the Lower Lateral. Enrollees may not own and maintain this portion of a Lateral since responsibility usually lies with the owner of the property that the lateral serves.

WDID – Waste Discharge Identification number assigned as a unique identifier by the SWRCB to each Enrollee for regulatory recordkeeping and data management purposes.

1.0 INTRODUCTION

In 2001, California Water Code section 13193, through State Assembly Bill A.B. 285, required the State Water Resources Control Board (State Water Board) and Regional Water Quality Control Boards (collectively Water Boards) to gather comprehensive and specific Sanitary Sewer Overflow (SSO) information. Water Code section 13193 also required the Water Boards to make available to the public information including but not limited to the cause, estimated volume, location, date, time, and duration of the SSO; whether the SSO reached or may have reached surface waters; the response and corrective action taken by the collection system owner or operator (hereafter, Enrollee) for each SSO event; and the contact information for each Enrollee.

The Water Board adopted General Waste Discharge Requirement (WDR or 2006-WDR), Order No. 2006-0003-DWQ, on May 2, 2006 to regulate all publicly owned sanitary sewer collection system utilities in California with more than one mile of sewer pipe. This permit is known as SWRCB Order No. 2006-0003, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems. The 2006 WDR included a Monitoring and Reporting Program (2006-MRP) in the event of a sewer system overflow (SSO) defining spill categories and respective reporting requirements.

The State Water Board Executive Officer issued a revised MRP for the SSS WDRs on February 20, 2008 to rectify notification deficiencies that occurred early in program implementation and to ensure that first responders (e.g., Water Boards, California Office of Emergency Services, and County Health Departments) were notified in a timely manner for SSOs discharged to surface waters.

Since January 2007, numerous violations of the SSS WDRs were documented by the Water Boards through data review, compliance monitoring, and onsite inspections. Based on over six years of implementation of the SSS WDRs, the State Water Board concluded that the February 20, 2008 revised MRP was no longer adequate to advance the Sanitary Sewer Overflow Reduction Program objectives, assess compliance, and enforce the requirements of the SSS WDRs.

Following its January 24, 2012 workshop with stakeholders for the review and update of the SSS WDRs, the State Water Board directed staff to review and evaluate the existing monitoring and reporting requirements and prepare an amended MRP for the Executive Director's issuance. Staff worked with the key stakeholders (e.g., California Association of Sanitation Agencies) to revise the monitoring and reporting requirements.

On July 30, 2013, Attachment A to the Order was promulgated and became effective on September 9, 2013. Attachment A, SWRCB Order No. WQO 2013-0058-EXEC, amended the Monitoring and Reporting Program for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems addressing the issues that had become apparent in the implementation of the SSS WDRs over previous six years.. Today, together these documents constitute what is commonly referred to as the "SSS WDR".

This order, among other things, requires local public sewer collection system agencies, referred to as "Enrollees," to develop a Sewer System Management Plan ("SSMP"). SSMPs must be self-audited at least every two (2) years and updated every five (5) years from the original adoption date by the Enrollee's governing board. The original SSMP must have been approved by the governing board of the Enrollee at a public meeting and adopted.

The five-year SSMP update must also be approved and certified as do all significant updates to the SSMP. The SSMP, all references in the document, and the adoption documents by the governing board must be available on the agency website or submitted to the SWRCB upon adoption or recertification. Enrollees do not send their SSMP to the State or Regional Water Boards for review or approval, but must make it publicly available, and upload an electronic copy to the SSO database or provide a link to the Enrollees' website where the SSMP is posted.

Bear Valley Water District (BVWD) operates a wastewater collection system with more than 17 miles of sanitary sewer and therefore must meet the requirements of both Order No. 2006-0003-DWQ and Order No. WQO 2013-0058-EXEC. This Sewer System Management Plan (SSMP) is being prepared to incorporate the mandatory elements of an SSMP as described in Section D.13 and D.14 of the SSS WDR. This SSMP was prepared pursuant to the guidance document entitled "Guide for Developing and Updating of Sewer System Management Plans ("Guide") intended to aid Enrollees in the preparation and revision of an SSMP. The "Guide" document replaces the previous SSMP development guidance published by Bay Area Clean Water Agencies (BACWA) in July of 2005, which is no longer considered appropriate for the formatting of the SSMP. This SSMP is established to be a usable planning, operations, and procedures document meeting State 2006-WDR and 2013-MRP requirements. This SSMP has been put together following the requirements as stated in section D.13 of the 2006 WDR.

1.1 REGULATORY SETTING, POLICY DEVELOPMENT, AND REQUIREMENTS

The Bear Valley Water District provides sewerage service for the community of Bear Valley, Bear Valley Mountain (ski resort), and the Lake Alpine Basin and serves a permanent resident population of approximately 121. The wastewater treatment plant design average dry weather flow capacity is 0.5 MGD and under current permit the annual average daily inflow into the wastewater treatment plant shall not exceed 100,000 GPD. The treatment system at the facility consists of a comminutor, biological treatment by aerated ponds, disinfection through chlorination, an effluent storage reservoir, and final effluent disposal through spray irrigation or surface water disposal.

With its unique location at the top of the watershed and a facility designed with limited storage capacity particularly an issue in above average water years, the Bear Valley WWTF has over the years faced operational and compliance challenges characterized as SSO's that have resulted in a host of mandatory compliance orders, as well as additional monitoring, reporting and discharge permit requirements. In conjunction with these requirements, this SSMP seeks to recognize both the regulatory setting facing the District preceding the adoption of SWRCB Order No. 2006 as well as the progress achieved since this time to ensure the wastewater collection system is managed to support and enhance historical compliance measures and commitments related to the treatment, storage and disposal operations of the District.

In certain years, the effluent disposal potential of the District's wastewater treatment facility is less than the amount of total water (i.e., wastewater, precipitation, and groundwater) entering the system. During wet years prior to 2000, the District entered the winter season with a substantial amount of water still in its storage reservoir from the previous winter. Consequently, emergency (unauthorized) discharges of effluent from the storage reservoir to a tributary to Bloods Creek were unavoidable at the end of some snow melt seasons. The District attributed the unauthorized discharges due to lack of adequate storage

capacity, excessive inflow and infiltration (I/I), back-to-back wet years, and heavy snowmelt. Most notably, during the wet years of the 1990's, the District violated WDR Order No. 94-191 by discharging treated wastewater to Bloods Creek from June to July 1995 (977,000 gallons), May 1996 (4,000,000 gallons), from June to July 1998 (4,000,000 gallons), and from April to June 1999 (7,420,000 gallons),

Consequently, in December 1999, the Regional Board issued an Administrative Civil Liability (ACL) Complaint for $30,000 against the District for seasonal discharges to Bloods Creek from its effluent storage pond. Following negotiations with the District, the Board reduced the liability to $5,000, provided that by March 2000 the District submit an analysis of alternatives that would allow it to come into compliance with its WDRs and that it adopt a revenue plan to produce the funds to implement the necessary measures. The District completed the required tasks on time and paid the $5,000 liability.

On January 27, 2000, the Central Valley Regional Water Quality Control Board adopted Cease and Desist (C&D) Order No. 5-00-001 against the District for the same discharges to Bloods Creek from the effluent storage pond. The Order imposed a time schedule for the implementation of both interim and long-tern measures to prevent future unauthorized discharges from the storage pond. The C&D also banned the addition of more than four residential connections to the District's WWTF per year.

In February 2002, in response to a requirement of Cease & Desist (C&D) Order No. 5-00-001, the Discharger submitted a Land Disposal Maximization Plan for the facility, which evaluated the feasibility of many options that would either minimize flow to the land disposal facilities or maximize the land disposal capability of the facility. The plan stated the Discharger would implement five of the options evaluated. The five options chosen were:

a) To design and implement a water conservation program. On 27 August 2002, the Discharger submitted the *Bear Valley Water District Water Conservation Plan*;

b) To implement an Inflow and Infiltration (I/I) Reduction Program. On 4 June 2002, the Discharger submitted a *Sanitary Sewer Overflow Prevention and Maintenance Plan*, which included elements constituting an I/I Reduction Program;

c) To increase irrigation application by continuing to evaluate potential expansion within current permitted land by installation of controls and pumps to maximize irrigation and minimize runoff potential and to explore the addition of previously permitted 10 acres of Orvis Meadow land;

d) To apply for extension of the U. S. Forest Service Special Use Permits beyond year 2011.

Based on the Discharger's initial steps taken in implementing the plan and the commitment to implement the plan in its entirety, the Regional Board rescinded C&D Order No. 5-01-209 on June 7, 2002.

The Bear Valley Water District submitted a Report of Waste Discharge, dated April 7, 2004, and applied for a permit authorization to discharge waste under the National Pollutant Discharge Elimination System (NPDES) from the Bear Valley Wastewater Treatment Plant proposing seasonal discharges of treated effluent to Bloods Creek in order to avoid future unauthorized discharges to surface waters. In response, the Central Valley Regional Water Quality Control Board issued Waste Discharge Requirements (WDRs)

Order No. R5-2005-0139, and subsequently similar orders in 2011 (R5-2011-0053) and 2016 (R5-2016-0054).

In addition to maximization of land disposal, the District's Water Conservation Plan and infiltration and Inflow (I/I) Reduction Program have been fully implemented since their development in 2002. Similarly, the District has continued efforts to reduce the influx of storm water into the Polishing Reservoir. In 2012, the District re-graded the existing diversion ditch, an improvement estimated to improve the ditches performance to divert storm water flow from the reservoir by 25 percent, which is an approximate reduction of 10 million gallons during a 1 in 100 water year. Further, a 2013 aerial survey and analysis of the storage reservoir revealed the total storage capacity to be 76.4 million gallons (not 106 million gallons) suggesting that inputs from I/I into the ponds (directly and from snowmelt on adjacent land) may be less than previously estimated.

In aggregate, the District's implementation of both interim and long-tern measures to prevent unauthorized discharges from the storage pond to Bloods Creek has prevented unauthorized discharges from January 2000 to the present.

1.2 ELEMENTS OF THE SSMP

Section D.13 of the SSS WDR, requires all Enrollees to development an SSMP and make it available to the public and to the SWRCB and RWQCB. The SSS WDR further specifies eleven (11) mandatory Elements that must be addressed in the SSMP. The SSS WDR also requires that the SSMP be audited at least every two (2) years from the original governing board approval date and updated or revised and re-certified by the governing board at least every five (5) years from adoption or whenever and must include any significant changes to the SSMP, as specified in Section D.14 of the SSS WDR.

The minimum requirements of each Element are shown in gray boxes in the beginning of each Section of this SSMP. Table 1 below identifies the elements of the SSMP that are included in this version of the SSMP.

The eleven (11) required SSMP Elements that must be included in an SSMP are as follows:

TABLE 1 – ELEMENTS OF THE SSMP

Element No.	Included in this version of the SSMP	Element Name
1	√	Goals
2	√	Organization
3	√	Legal Authority
4	√	Operations and Maintenance Program
5	√	Design and Performance Provisions
6	√	Overflow Emergency Response Plan ("OERP")
7	√	Fats, Oils and Grease (FOG) Control Plan
8	√	System Evaluation & Capacity Assurance Plan ("SECAP)"
9	√	Monitoring, Measurement and Program Modifications
10	√	SSMP Program Audits

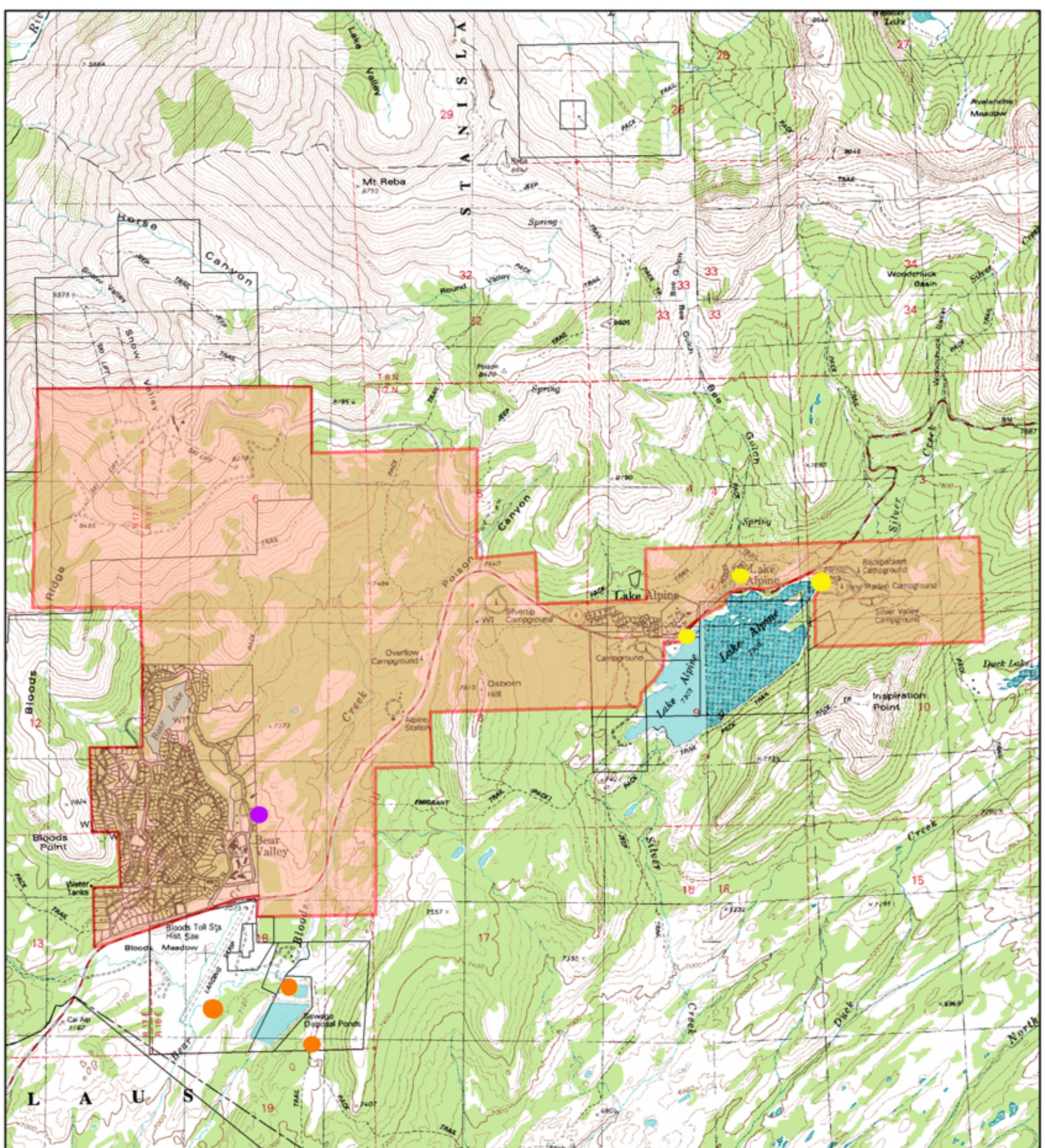
11	√	Communications Program
12	√	SSMP Change Log – MRP Section E.3

1.3 SEWER SYSTEM OVERVIEW

1.3.1 <u>BVWD Wastewater Treatment System</u>

The Bear Valley Water District (District) provides sanitary sewer collection, treatment and disposal for approximately 600 residential and commercial connections in the Alpine County community of Bear Valley. The District's service area is comprised of approximately 3000 acres located primarily north of California State Highway 4 (Figure 1). The District serves the developed private, residential and commercial areas of the Bear Valley village as well as developed adjoining federal recreational lands including the United States Forest Service's (USFS) Lake Alpine Resort and campgrounds, special use permit (SUP) residential cabins and the Bear Valley Mountain downhill ski resort. The District's wastewater treatment and disposal facility (WWTF) is regulated by the Central Valley Regional Water Quality Control Board (Regional Board) under Waste Discharge Requirements (WDRs) Order No. 5-01-208 and Order No. R5-2016-0054.

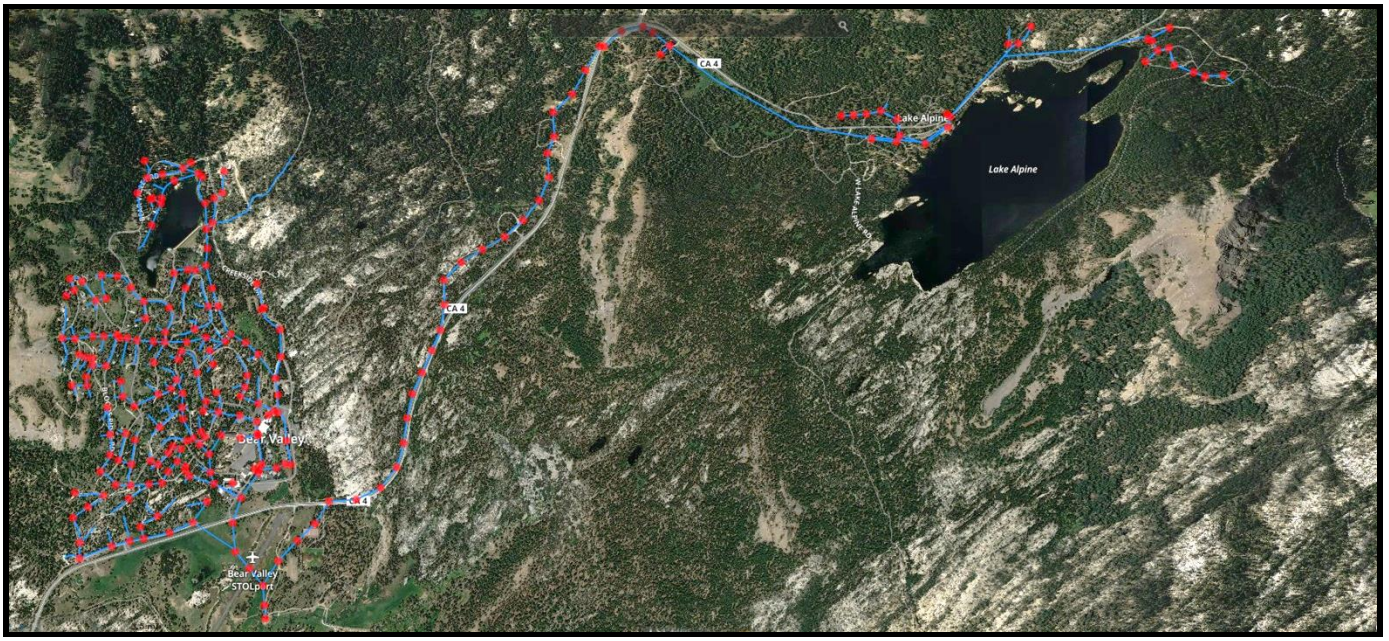
1.3.4 **Figure 1 - BVWD Wastewater Service Area**



1.3.2 Collection System

The District's collection system includes approximately 17.38 miles of sewer collection pipeline, 160 manholes and 4 pump stations. The pipeline ranges in size from 4 inches to 12 inches in diameter. The 4 pump stations lift wastewater throughout the collection system as it travels to the WWTF. Figure 2 below illustrates BVWD's collection system network.

1.3.4 **Figure 2 - BVWD Collection System**



1.3.3 Wastewater Treatment Facilities

Preliminary treatment at the District's main pump station (headworks) consists of shredding (comminutor) and grit removal before the influent reaches the primary sedimentation tank where the settable solids are allowed to fall to the bottom of the tank. Effluent flow is then measured during transfer via three, 10 HP Paco pumps to a 14.18 million gallon (MG) two cell, aerated treatment lagoon for secondary biological nutrient removal. While in the two cell lagoon system, the constituents are largely consumed and/or sequestered. Air is delivered to the secondary treatment lagoon via one, 40 HP, VFD-equipped Gardner Denver positive displacement blower to thirty six (36) - 18" diameter, submerged helixor, coarse bubble diffusers. Inline YSI sensors communicate with the VFD blower by way of the SCADA system to keep dissolved oxygen and suspended solids at optimum levels. Treated effluent from the aerated lagoon is then chlorinated during transfer via (2) - 200 GPM Paco pumps through a 12,000 gallon chlorine contact tank. The chlorinated effluent is then placed into storage and receives further treatment in a 76.4 MG effluent polishing reservoir.

During the irrigation season, typically late spring through early autumn, the polished effluent is disposed of through spray irrigation on approximately 80 acres of sprayfields: 40 acres of land which is authorized by Special Use Permit (SUP) from the USFS and 40 acres under private lease through 2048. Both the leased disposal area and the permitted land have been in service since before the installation of the groundwater monitoring wells (approximately 40 years for the leased land) at the site.

Effluent disposal via spray irrigation involves the disbursement of the effluent through low impact, high uniformity, Nelson sprinkler heads upon soils and vegetation within the disposal area. The average monthly application rates during the peak disposal months range from approximately 0.4 to 0.7 acre feet ((0.128 MG – 0.222 MG) per acre per month. The water is allowed to percolate into the soil and evapotranspirate into the atmosphere. WDRs Order No. 5-01-208 limit application of wastewater to reasonable rates considering soil, climate, and irrigation management system.

Figure 3 below illustrates BVWD's process flow and Figure 4 a topographic overview of District facilities including Bloods Creek.

Figure 3 - BVWD Process Flow Diagram

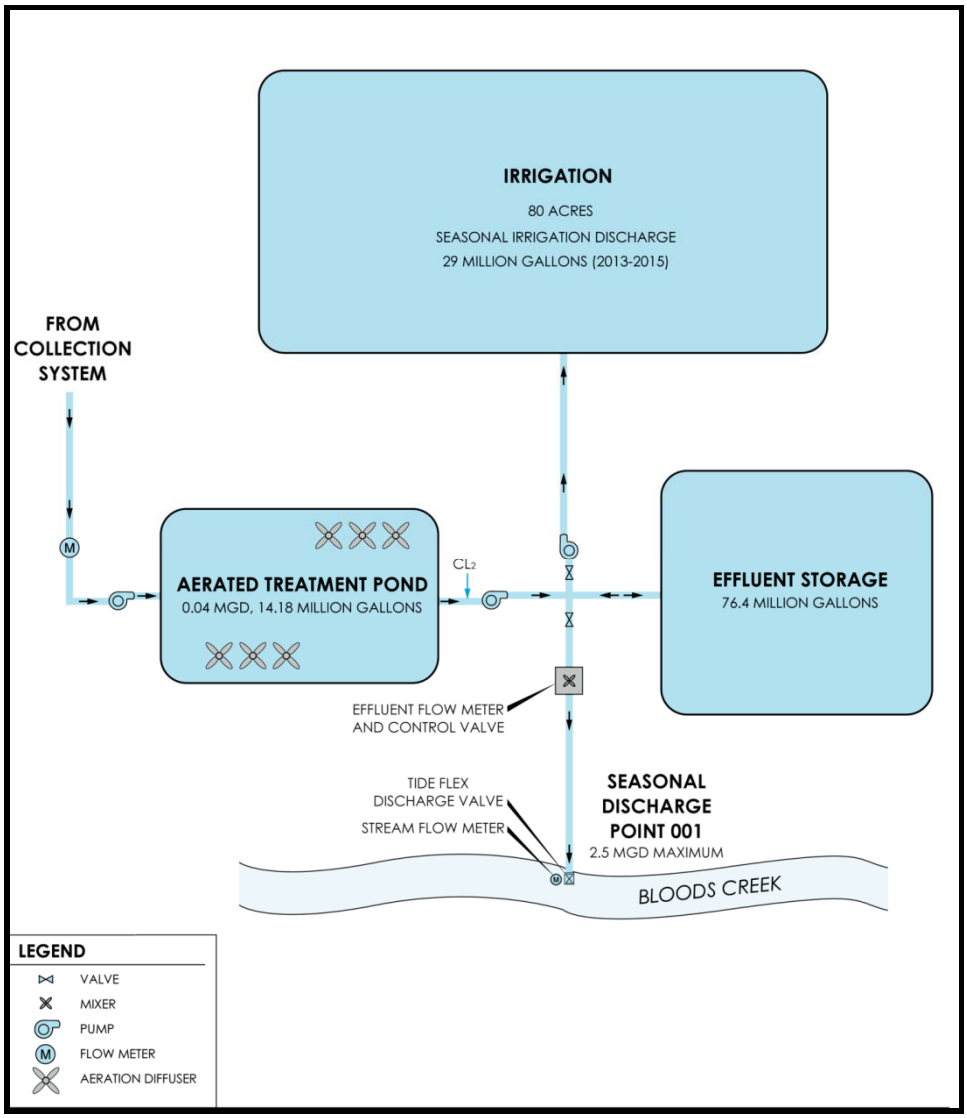


Figure 4 - BVWD Facility Topo Map


BEAR VALLEY
Main Pump Station
Discharge Point EFF-001
Treatment Pond
Control Building
Effluent Storage Reservoir
Bear Creek
Bloods Creek
Creekside Dr
Station House Rd
Immigrant Rd
Alpine Way
Snowshoe Rd
Bear Valley Rd
Lake Rd
Schimke Rd
Orvis Rd
Quaking Aspen Rd
Fremont Rd
Toll Gate Rd
4
Alpine County
Calaveras County

2.0 ELEMENT 1 - GOALS

This section of the SSMP formally states the Districts' goals for this SSMP. This SSMP element identifies goals the District has set for the management, operation, and maintenance of the sewer system and discusses the role of the SSMP in supporting these goals. This section fulfills the Goals requirement of the SWRCB (Element 1) SSMP requirements.

2.1 REGULATORY REQUIREMENTS FOR GOALS ELEMENT

The summarized requirements for the Goals element of the SSMP are as follows:

D.13.(i) ***Goals****:*

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.

2.2 GOALS DISCUSSION

The District has made a commitment to properly fund, manage, operate, and maintain all parts of the wastewater collection system operated by the District in the interest of enhanced performance and protection of the environment from the effects of SSOs.

In support of this mission, the District has developed the following goals for the operation and maintenance of its sewer system and to meet the requirements of the SSMP:

- Effectively manage, operate, and maintain all portions of the wastewater collection system to minimize the frequency and size of SSOs.
- Implement regular, proactive maintenance of the system to remove roots, debris, and FOG in areas prone to blockages that may cause sewer backups or SSOs
- Cost effectively minimize infiltration/ inflow ("I/I").
- Provide adequate capacity to convey existing and projected peak wastewater flows.
- Comply with all applicable regulatory notification and reporting requirements.
- Ensure adequate funding is available to support the program objectives.
- Regularly evaluate the effectiveness of the management plan and update the SSMP as necessary.
- Prevent adverse impacts to surface waters and their beneficial uses.

3.0 ELEMENT 2 - ORGANAZATION

This section of the SSMP identifies District staff responsible for implementing this SSMP, responding to SSO events, and meeting the SSO reporting requirements. This section also includes the designation of the Authorized Representative to meet SWRCB requirements for completing and certifying spill reports. This section fulfills the Organization requirement of the SWRCB (Element 2) SSMP requirements.

3.1 REQUIREMENTS FOR THE ORGANIZATION ELEMENT

The requirements for the Organization element of the SSMP are summarized below:

D.13.(ii) **Organization**: The SSMP must identify:

(a) The name of the responsible or authorized representative as described in Section J of this Order (SSS WDR).

(b) 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; and

(c) 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 (Cal OES)).

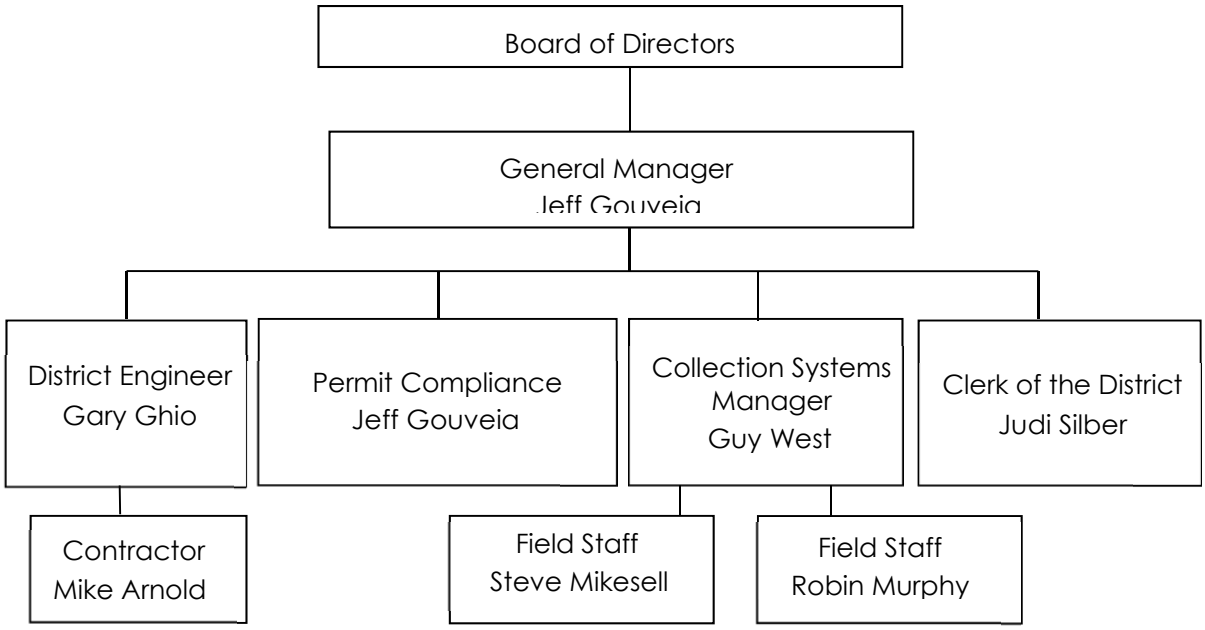
3.2 LEGALLY AUTHORIZED REPRESENTATIVE

Jeff Gouveia, General Manager, currently resides as the Legally Responsible Officer (LRO) who is authorized to certify electronic SSO reports to the State Water Resources Control Board (SWRCB). Data submittals and preliminary reporting is conducted by the Chief Plan Operator.

3.3 LINES OF AUTHORITY

The District's organizational structure and list of contacts is presented in Figure 5. The organizational chart illustrates the lines of authority within the District. Following the chart, a description of each title as it relates to the responsibilities of the sewer collection system follows.

Figure 5 - Organizational Chart



Personnel and responsibilities are as follows:

Board of Directors: The executive board that oversees the entire collection, treatment and disposal system and develops policy.

General Manager – Jeff Gouveia - Establishes policy, plans strategy, leads staff, allocates resources, delegates responsibility, authorizes outside contractors to perform services, and may serve as public information officer. Provides for training programs for operations and maintenance (O&M) staff in specific tasks, which include collection system preventive maintenance and SSO response. Works to improve efficiency and effectiveness of sewer operations and authorizes capital improvement projects.

District Engineer – Weber, Ghio & Associates - Ensures that new and rehabilitated assets meet District standards, works with field crews to handle emergencies when contractors are involved. Prepares wastewater collection system planning documents, manages capital improvement delivery system; documents new and rehabilitated assets, assists with permit compliance, and reports to the General Manager.

Office Manager – Judi Silber - Routes SSO calls to the General Manager or O & M staff.

Chief Plant Operator / Collection System Manager – Guy West - Plans, organizes, and supervises the maintenance and repair of the collection system. Manages field operations and maintenance activities, provides relevant information to management, prepares and implements contingency plans, leads emergency response, investigates and reports SSOs, and trains field crews.

Permit Compliance Specialist – Jeff Gouveia - Works as needed on applicable permits, laws, and regulations; provides support to all parts of operation.

Field Crew – Steve Mikesell, Robin Murphy - Undertakes preventive maintenance activities, mobilizes and

responds to notification of stoppages and SSOs; mobilizes sewer cleaning equipment, by-pass pumping equipment, and portable generators.

The names and contact information for District staff and emergency contractors is maintained by the General Manager and may be found in Appendix A of this SSMP.

3.4 SSO REPORTING CHAIN OF COMMUNICATION

The communication plan identifies District staff who are responsible for managing the SSO response, investigating the cause, reporting the SSO to the appropriate parties and lines of communication by which an SSO is reported to the wastewater collection system agency, and how management staff is notified. It also provides a consolidated list of contact information for key agency personnel.

The General Manager determines the category of SSO based on information at hand, and will re-categorize the SSO as appropriate. All SSOs are reported to the General Manager, who informs the Board of Directors and District Engineer. For Category 1 SSOs, where more than 1,000 gallons is discharged to surface water or drainage systems, immediate notification is provided to the State Office of Emergency Services who will notify the local health agencies and the Regional Water Board. Figure 2 shows the chain of communication for reporting SSOs. The District's Sanitary Sewer Overflow Response Plan (SSORP) also contains the District's notification plan.

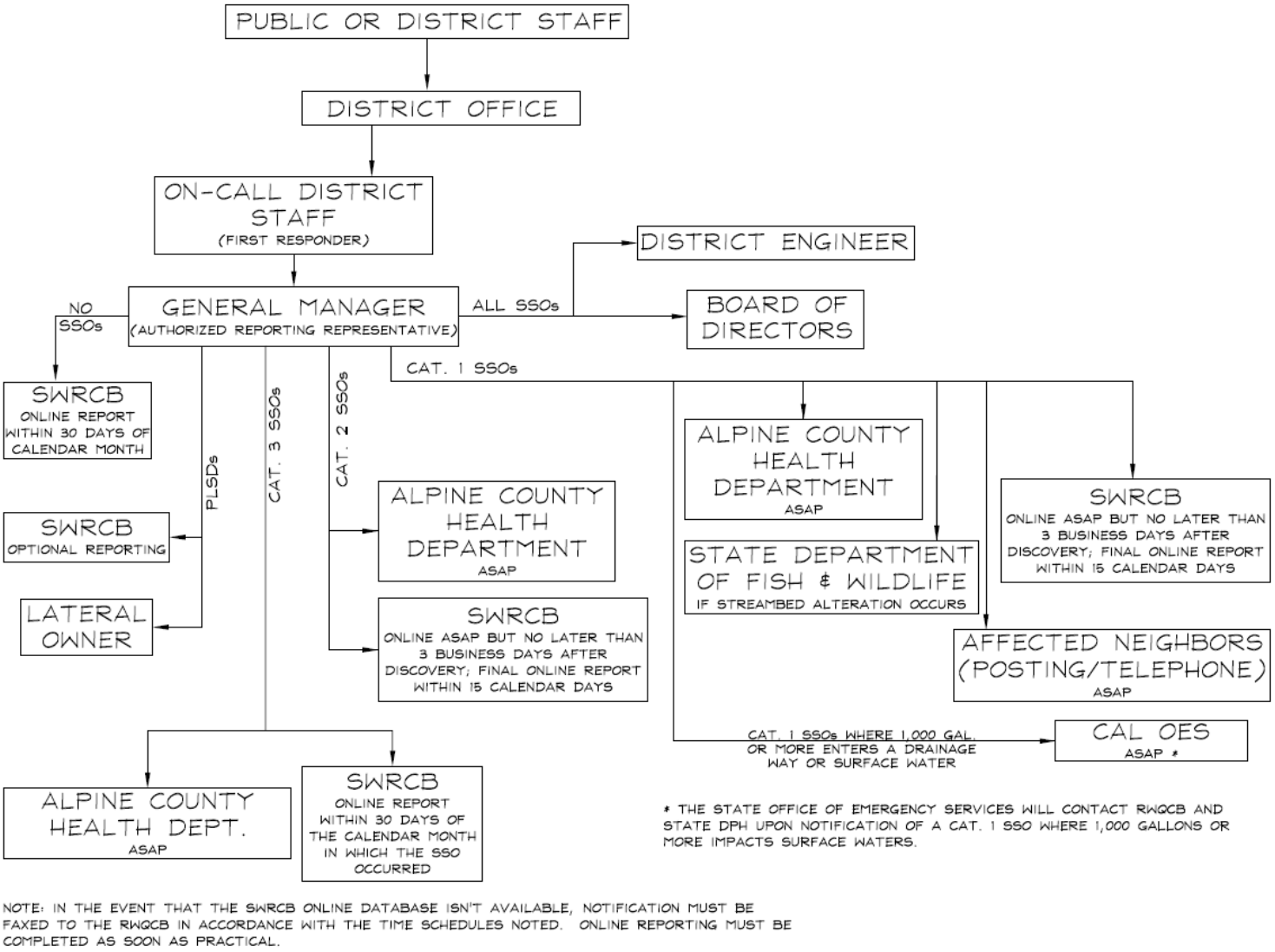
Additionally, if raw sewage enters or threatens to enter a watercourse, immediate telephone notification is given to the Alpine County Health and Human Services Department, the State Department of Public Health, the State Department of Fish and Wildlife, Calaveras County Health Department, and residents and businesses potentially affected by the SSO. The telephone notification list is maintained by the General Manager and can be found in Appendix B of this SSMP along with a copy of Figure 2.

On-line reporting of SSOs is provided to the SWRCB according to the category of SSO as required by the Statewide General WDRs, as follows:

- Category 1 SSO – Discharges of any volume that reach surface waters or drainage channel: Draft report ASAP but no later than 3 days after discovery; final report within 15 days.
- Category 2 SSO – Discharges greater than or equal to 1,000 gallons that do not impact surface waters: Draft report ASAP but no later than 3 days after discovery; final report within 15 days.
- Category 3 SSO – all other SSOs: Report within 30 days of the calendar month of occurrence.
- PLSD – Discharges from privately owned sewer lateral or system: Report at the discretion of the General Manager.
- No SSO: Report within 30 days of the calendar month.

The District's SSORP, included at the back of this SSMP, contains the District's notification plan.

Figure 6 - Chain of Communication



NOTE: IN THE EVENT THAT THE SWRCB ONLINE DATABASE ISN'T AVAILABLE, NOTIFICATION MUST BE FAXED TO THE RWQCB IN ACCORDANCE WITH THE TIME SCHEDULES NOTED. ONLINE REPORTING MUST BE COMPLETED AS SOON AS PRACTICAL.

4.0 ELEMENT 3 -LEGAL AUTHORITY

This section of the SSMP presents the District's legal authority to comply with the SSMP requirements.

4.1 REQUIREMENTS FOR LEGAL AUTHORITY SECTION

The summarized requirements for the Legal Authority element of the SSMP are:

D.13.(iii) Legal Authority: 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 infiltration and inflow (I/I), storm water, 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.

4.2 LEGAL AUTHORITY DISCUSSION

On August 5, 1968 the Bear Valley Water District's wastewater system was authorized pursuant to Section 35302 of the Water Code. As a Special District under the Municipal Utility District Act of the State of California (Article 5.5), the District's Board of Directors has authority to make and enforce such regulations for the control of the quantity, quality, and flow of wastewater within the boundaries of the District.

4.3 PROVISIONS OF THE FEDERAL AND STATE LAW

The District also derives its legal authority from, and is regulated by, federal and state law and their administrative agencies. In exercising the authority granted there under, the District has adopted Board Policies and Administrative Regulations setting forth the terms and conditions of service.

Federal and State Laws include but are not limited to:

•California Irrigation District Law (Water Code § 20500 et seq.) (grant of authority to perform "all acts necessary" in its operation and control of its sewer disposal system)

• Federal Water Pollution Control Act, commonly known as the Clean Water Act (33U.S.C. § 1251 et seq.)

• California Porter Cologne Water Quality Act (California Water Code § 13000 et seq.)

• California Health & Safety Code § 25100 et seq.

• Resource Conservation and Recovery Act of 1976 (42 U.S.C. § 6901 et seq.)

• California Government Code §§ 54739, 54740 (grant of authority to regulate and/or prohibit the discharge of industrial waste into the District's collection system and treatment works)

4.4 PROVISIONS OF THE ORDINANCE

Applicable ordinances pertinent to the sanitary sewer system for the District are outlined in the District Sewer Ordinance Code (Ordinance). According to the Ordinance, the District is responsible for administering, implementing, and enforcing the provisions outlined in the Ordinance which are applicable to the sewer system. All of the requirements and/or prohibitions per WDR requirements are satisfactorily addressed in respective ordinance sections.

Chapter 3 of the Ordinance specifically stipulates the District's legal authority as related to compliance with SSMP requirements:

a) Prevent illicit Discharges

Illicit discharges from surface or sub-surface drainage, rain water, storm water, seepage, cooling water or unpolluted industrial process water into any sanitary sewer are strictly prohibited under Ordinance Article 7, Section 7.01.

b) Design and Construction of Sewers and Connections

Sewers and connections shall be built in accordance with the requirements of the County and in accordance with the District Standard Specifications under Article 5, Section 5.02.

c) Lateral Access Maintenance

Access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the District is ensured as a requirement of service under Article 10, Section 10.02. All of the District's collection system facilities are located within District owned property, public right-of-ways, or easements that allow District access for maintenance, inspections, and repairs.

d) Limit Discharge of FOG and Other Debris

The discharge of fats, oils, grease and other debris into the system that may cause blockages is limited under Ordinance Article 7, Sections 7.02, 7.03, 7.04 and 7.05.

e) Enforcement Measures

The District is empowered to enforce any violation of its sewer requirements and seek legal redress under Article 9, Sections 9.01 – 9.06.

To further demonstrate that the required authorities exist, Table 2 below a details the specific ordinance sections that relate to the items and abilities cited in the SSS WDR, and the items that are relevant to SSMP implementation.

Table 2 - Legal Authority Checklist

Requirement	Enrollee Code Reference
Public Sewers	
Ability to prevent illicit discharges into the wastewater collection system	Article 7, Section 7.01
Ability to require that sewers and connections be properly designed and constructed	Article 5, Section 5.02
Laterals	
Ensure access for maintenance, inspection, or repairs for portions of the service lateral owned or maintained by the Enrollee	Article 10, Section 10.02
FOG Source Control	
Ability to limit the discharge of FOG and other debris that may cause blockages	Article 7, Section 7.03
Enforcement	
Ability to enforce any violation of the Enrollee's sewer ordinances	Article 9, Section 9.01 – 9.06

5.0 ELEMENT 4 - OPERATION AND MAINTENANCE PROGRAM

This element of the SSMP discusses the District's documented operations, maintenance and performance measures and activities associated with the preventative maintenance performed on its sanitary sewer system.

5.1 REGULATORY REQUIREMENTS FOR MEASURES AND ACTIVITIES

Per requirements of section D.13 (iv) of the 2006 WDR, and as part of its good management practices, the District:

D.13.(iv) Operation and Maintenance Program. 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 line segments and manholes, pumping facilities, pressure pipes and valves, and applicable storm water conveyance facilities;

(b) Describe routine preventive operation and maintenance activities by staff and contractors; including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders;

(c) Develop rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short and long term plans plus a schedule for developing the funds needed for the capital improvement plan;

(d) Provide training on a regular basis for staff in sanitary sewer system operations, maintenance, and require contractors to be appropriately trained; and

(e) Provide equipment and replacement part inventories, including identification of critical replacement parts.

5.2 DESCRIPTION OF EXISTING FACILITIES

The District's sanitary sewer collection system consists of approximately 15.76 miles of gravity sewer pipe, 1.62 miles of force main, approximately 160 manholes, 1 main pumping facility, and 3 satellite pumping facilities. The predominant pipe material is asbestos cement, clay and PVC pipe. Information on the Districts pumping facilities can be found in chapter 8 (Table 8.2).

5.2.1 Collection System Maps

An updated map of the collection system was completed in 2013. The sewer system map is based on survey data provided by a licensed surveyor. Depth measurements were taken at each manhole and cleanout with data recorded onto Manhole Data Sheets. The data sheets include depth to flow line, pipe sizes, condition of manhole, and other relevant information. This information was used in the analysis of the collection system described later in this SSMP. The collection system map is maintained at the District office and the office of the District Engineer. Updates will be made to the map when necessary.

The District has schematic mapping of all the existing facilities with detailed location mapping to field locate select facilities where necessary. The maps encompass the complete limits of the District service area. A "map correction" process is in place allowing maps to be continuously maintained and/or updated as information is generated in the field. The master copy of current maps is available in both hardcopy and PDF format. Hardcopies are located in the operations office in the administrative building and PDF copies are located in a designated area in the District's computer network. Hardcopies of all field maps are located in all District vehicles for access at any time by crew members.

5.2.2 As-Built Plans

"Sewer Assessment District" (SAD) maps provide construction plan quality plan sheets (plan/profile) for most of the sewer facilities. These SAD maps are available in both hardcopy and electronic formats. Hardcopies are located in the District office and electronic copies are located in a designated area in the District's computer network. In addition to the SAD maps, many other construction level (i.e. contract documents) as-built plans are located in the District's map room.

5.3 PREVENTIVE OPERATIONS & MAINTENANCE PROGRAM

5.3.1 Resources & Funding

The following District policies and procedures are in place to ensure that there is adequate funding and budgetary support for operating, maintaining, and repairing the collection system:

Policy 4.02 – Cash Reserves and Debt Management Maintain operating reserves at a level sufficient to meet working capital and unanticipated needs while maintaining a reasonable balance between debt and current revenue financing of capital projects

Policy 4.04 – Financial Planning and Budgetary Control Establish a financial plan and biennial budget for the Wastewater System

Procedure 417 – Financial Planning and Budgetary Control Establish responsibility for preparing the budget and revisions, preparing financial projects and revising schedule of rates

Procedure 801, Wastewater Revenue Program System Outline the process for establishing rates, classifying user groups, collecting fees, and demonstrating that revenues are sufficient to cover the costs of providing services.

The main source of revenue for operating, maintaining, and repairing the collection system is a user-

supported rate paying structure. Rates for residential customers are flat rate based and rates for commercial customers are based on flow.

As part of the annual budget process, the District's General Manager prioritizes repair and maintenance expenses and capital purchases as necessary. The District's 5 year capital improvement plan is also reviewed and updated at this time. These processes are done in close coordination with the District's Treasurer to maintain alignment with resources. With purchases, improvements, and funding identified, staff recommends for Board approval adequate and/or appropriate amounts. Once authorized by the Board the funds are available for use as required.

The operating budget consists of resources necessary to operate and maintain the collection system. Such resources include staff, chemicals, parts and materials, vehicles, fuel, and outside contracts. Labor costs and other expenses are tracked continuously. The budget for these resources is established based on the District's salary schedule and staffing plan, and historical data, trending/projections, and inflation factors.

5.3.2 Gravity Pipelines and Manholes

The District's preventive maintenance program addresses the prevention of line blockages by keeping the collection system piping free of debris. Maintenance activities consist mainly of regular cleaning and inspection for any defects. Formalized work orders to accomplish maintenance tasks are not issued at this time, due to the small work force, relatively small size of the District service area, and the limited amount of equipment to maintain. The General Manager initiates basic work orders and oversees necessary tasks with the assistance of field staff. Maintenance tasks are routinely performed and documented by the Chief Plant Operator.

The District's pipeline preventative operation and maintenance program consists of a system-wide cleaning/inspection program on a rotating basis, as well as a more frequent cleaning/inspecting program necessary to target known problem areas. These known problem areas are scheduled to be cleaned more frequently, typically annually, than the rotating basis of the larger collection system.

The cleaning / inspection schedule is tracked and documented in the District's files. For each cleaning / inspection, crews are required to document their findings in a sewer cleaning log. Crew findings are reviewed by the General Manager and/or Chief Plant Operator to determine whether the cleaning frequency should be modified. Pipes that are considered to be in good condition with no history of maintenance related issues are placed on the system-wide cleaning program. These pipes are scheduled to be cleaned once every five years, equating to approximately 3.15 miles per year.

The following tasks are currently performed on the collection system:

- Commercial grease traps are inspected annually.
- Known problem area sewer lines are hydrojetted annually.
- Video analysis of the entire collection system is in process to locate areas in need of rehabilitation.
- The influent pump station flow rates are continuously monitored by flow meter and remote lift station flows are monitored to verify the efficiency and condition of the pumps.
- Manhole condition and relative flow rates within the system are visually inspected at every manhole every year.

- Pump Stations are visited regularly to clean grease off of the floats and check pump operation.

5.3.3 Lift Stations

Lift stations are regularly maintained by District staff. All maintenance activities and their associated schedules are maintained in the District's Asset Management System (AMS). The Standard Operating Procedures (SOPs) for routine maintenance of the District's lift stations are provided in Exhibit 4-1.

5.4 REHABILITATION AND REPLACEMENT PLAN

5.4.1 Condition Assessment and Inspection

Gravity Pipelines & Manholes

The District uses Closed Circuit Television (CCTV) to assess gravity sewer pipe deficiencies and has adopted the National Association of Sewer Service Companies (NASSCO) Pipeline Assessment and Certification Program (PACP) standards to perform these assessments and condition grading. Inspections are scheduled in the AMS and cover the inspection of all gravity mainline and manholes in the District over a six year period, equating to approximately 12.5 miles per year.

Lift Stations

As part of the preventative maintenance program, the District's crews visually assess the condition of assets within each lift station. Based on these assessments, crews will make recommendations for asset repair, rehabilitation, replacement, or a more formal condition assessment.

Force Mains

The sewage export system, including the force mains throughout the District, was installed between 1972 and 1973. The force mains were installed with no real way of inspecting the inside of the pipe. With this in mind, the District will take every opportunity available to verify the internal condition of the force mains when the opportunity exits.

A six-year inspection plan identifies needed rehabilitation areas within the collection system. A complete inspection of the entire BVWD system will be implemented in a six-year cycle. The inspection will be separated into the various areas of the collection system. Each year, a different area will be monitored, inspected, and prioritized. Any necessary repairs or rehabilitation will be conducted as prioritized.

The District inspection plan will utilize three layers of inspection for each basin of the system. The three inspection layers are:

1. **Monitoring** – Lift station flows may be monitored during dry and wet weather to identify the presence of I/I problems within a basin. Visual monitoring of manhole flows during dry and wet weather may help locate problem areas. Where visual inspection is not possible or practical, a portable flow meter may be installed to measure flows during dry and wet weather. Flow monitoring may also help document a reduction in I/I after completion of repairs.

2. **Isolation** – Smoke testing, visual inspection, and flow measurement may be used to focus in on areas of each basin that have infiltration and to discover sources of inflow. Smoke testing may discover sources of inflow and extreme sources of infiltration. Visual manhole inspection may isolate problem areas for CCTV inspection.

3. **Identification** – Closed Circuit Television (CCTV) may be used in areas that are identified as having infiltration by smoke testing, or areas suspected of having infiltration by visual inspection or flow monitoring. CCTV will help to identify the type and extent of any rehabilitation needed.

The dry weather flow may be established during periods of no precipitation, and the infiltration rate per inch of recorded rainfall may be established during wet weather periods. Due to significant tourist population during certain times of the year, dry weather flow measurements will emphasize periods when tourist traffic is heaviest.

Repairs to the system will be prioritized by the potential and/or history for causing an SSO and the amount of infiltration that can be removed from the system for the given capital expense of repair. Critical rehabilitation repair areas are those that cause 96% full pipe condition. A pipe at 96% full reaches its maximum flow capacity, and so depths greater than 96% full have the potential to cause an SSO to occur due to hydraulic restriction. A repair is designated "critical" if the 96% full condition (or more) exists in the branch, or the branch's flow causes a 96% full condition (or more) in a main line.

If critical infiltration rates exist, then the section needing rehabilitation must be isolated. The damaged pipe section may be isolated between manholes by visual inspection of flow rate during a wet weather event; however, the presence of snow can make visual inspection difficult to impossible. If visual inspection alone is not successful in isolating the section, use of portable flow meters can isolate deteriorated sections by trial and error.

The District may also utilize smoke testing for the isolation of inflow sources. Typical inflow sources include roof drains, sump pump connections, cleanouts with missing covers, and illicit storm drain connections to the sanitary sewer. Smoke testing is a common way to easily identify large sources of inflow, and smoke testing can also identify serious infiltration problems. Inflow can account for a high percentage of I/I in a sanitary sewer system. Removing inflow sources is a cost-effective way of reducing SSOs from the system and should be done before any rehabilitation work commences. If inflow sources are found and shut down, the infiltration should be re-measured to check if the 96% full pipe condition still exists. Smoke testing will require the creation of a public education program and notification of property owners in the area being inspected, prior to any testing.

Once damaged sections of the system are isolated, the District's CCTV camera may be used to help quantify the deterioration of the pipe and/or connections.

Visual inspections of the existing manholes during a wet weather event in the suspected area will determine any manhole rehabilitation needed to reduce I/I.

During the dry weather season, the District will conduct repairs as needed. During the following wet season, inspection and monitoring may verify that the I/I rate has lowered.

5.4.2 Repair and Replacement Decision Process

Minor repair and replacement decisions for pipes, manholes, and lift stations are made by the Operations group and are scheduled according to priority. Major Repair and replacement projects are typically prioritized based on observed deficiencies, failure events, and/or amount of crew time delegated to the asset. Significant improvements, requiring capital funding, are reviewed with all District management and scheduled within the Capital planning process as noted below.

5.4.3 Capital Plan

The District maintains a five year capital plan reviewed annually to reprioritize and/or adjust as necessary. Most of the projects identified are focused on repairing, rehabilitating, or replacing existing infrastructure that is nearing the end of its useful life. See the "Repair and Replacement Decision Process" above. A copy of the latest capital plan is on the Districts website.

5.5 WASTEWATER CREWS AND TRAINING

The District's staff is cross trained to maintain the sewer collection system as well as to dispose of all stored effluent on annual basis. The District is in the process of certifying staff in the NASSCO PACP gravity sewer system grading systems. A copy of the NASSCO PACP Condition Grading System Code matrix is included in Exhibit 4-2.

In addition, as time and resources allow, the District uses in-house classes and on the job training to train its wastewater collection system staff. Training topics include (but are not limited to): OSHA, equipment, PM, emergency response, operating documents, etc.

All trainings are tracked and logged in the AMS management database. Training specific to the SSMP and/or SSO Emergency Response is also tracked in Appendix G.

The District's collection system staff is trained to know how to maintain and operate the collection system during normal conditions and during emergency conditions to manage flows and avoid SSOs. On the job training is provided in the use of the hydro-flusher, hand tools, equipment O&M and safety. Tail gate meetings are held weekly covering a variety of topics both operational and safety related. The California Water Environmental Association, Collection System Committee offers a well-developed training certification program that the District encourages staff to utilize. District employee certification information can be found in Appendix A.

5.6 EQUIPMENT AND REPLACEMENT PARTS

5.6.1 Contingency Equipment

The District owns and maintains a limited supply of emergency response equipment, such as pumps, generators, piping, etc. The District budgets for new equipment through the capital budget process (see Element 6b.)

In addition, the District maintains contracts with local vendors to provide emergency equipment to supplement the District's inventory on an as-needed basis.

The District tracks their spare parts in the AMS. Parts are tracked and re-ordered on a consistent basis to assure needed parts for emergency repairs are always available.

The District maintains an inventory of contingency materials and equipment for emergency repairs and to minimize facility downtime.

Contingency Equipment includes:

- Back-up 12 kW generator (for bee Gulch and Chickaree pump stations)
- Electric drain cleaner
- Manual drain cleaner
- Back-up 5,250 W generator
- Trash pump with 150 feet of fire hose

5.6.2 Replacement Inventories

The District maintains a spare parts inventory for the pump stations. These parts are selected based on manufacturers' recommendations and the District's own experience with the parts that are likely to fail, i.e. critical parts. The spare parts inventory records are kept in the District's AMS andcan be retrieved by the maintenance staff.

Replacement materials include:

- Sewer pipe, 4" SDR 35 – 200 lf ±
- Sewer pipe, 6" SDR 35 – 200 lf ±, C900 – 200 lf ±
- Sewer pipe, 8" SDR 35 – 100 lf ±
- Sewer pipe, 10" SDR 35 – 20 lf ±
- Miscellaneous couplings and fittings, 4" – 10"
- Miscellaneous gate valves, 4" – 10"
- Repair couplings, 4" – 10"

6.0 ELEMENT 5 - DESIGN AND PERFORMANCE PROVISIONS

Proper design and installation of sewer system pipelines and appurtenances is one of the most important aspects in maintaining a functioning, long-lasting sewer system. A properly designed and installed sewer system can minimize system deficiencies that could cause or contribute to future overflows and reduce operation, maintenance, and renewal requirements.

6.1 REGULATORY REQUIREMENTS FOR DESIGN AND PERFORMANCE PROVISIONS

Per requirements of section D.13 (v) of the 2006 WDR, and as part of its good management practices, the District maintains:

> D.13.(v) Design and Performance Provisions:
>
> (a) 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
>
> (b) Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.

6.2 DESIGN AND CONSTRUCTION STANDARDS

The District's design criteria for construction of new and rehabilitated sewer lines and appurtenances are outlined in District Ordinance. These documents are available at the District Office and on the District's website.

The District's design and construction standards are used by the District staff and are communicated to consulting engineers and/or developers at the start of a design process or proposed development

Design and construction standards are contained in the District's Standard Design and Construction Specifications and referenced in Sections 502 and 603 of Ordinance No. 16. District Standards include general requirements, design criteria for pipelines and structures, and construction requirements.

Any new sewer construction or rehabilitation plans will be reviewed by the District Engineer during the permitting process. The application for a permit for new public sewer construction or repair of existing sewer is required to be accompanied by complete plans, profiles, and specifications complying with all applicable ordinances, rules and regulations of the District prepared and stamped by a registered civil engineer, showing all details of the proposed work based on an accurate survey of the ground. The application, together with the plans, profiles, and specifications is examined by the District Engineer, who may require them to be modified as deemed necessary to comply with District Standards and meet or exceed industry standards.

6.3 INSPECTION AND TESTING STANDARDS AND PROCEDURES

6.3.1 Inspection

The inspection and testing requirements are outlined in District Ordinance. Testing is required for all assets owned by the District, as well as those connected to the system. The complete details of test parameters and requirements are provided in the District's technical specifications. In some cases the technical specifications do not address all asset types or tests required by the District as part of the Districts current requirements. In these cases, the bid documents providing project specific requirements incorporate the District's requirements.

The following is a brief definition as to the type of testing required per asset type.

Service laterals: Air or Water test (per District ordinance, standard details, and tech. specs.),

Bedding/Backfill inspection (per District ordinance)

Gravity mains: Air testing (per District tech. specs.), TV final (per District tech. specs.), Mandrel test (per District specs.), bedding & pipe zone inspection (per capital project bid specs.), and backfill (per county encroachment permit).

Manholes: Water or Vacuum test (per District tech. specs.)

Force mains: Pressure test (per District tech. specs.)

Pump Stations: Curve tests (factory and site) (per capital project bid specs.), Construction management and inspections (per District).

The District Engineer will witness all construction in any new sewer construction project or rehabilitation project. All steps of sewer construction from pipe fitting to compaction will be observed to ensure that District design standards are upheld.

Materials used in the construction of sanitary sewers will be inspected by the District Engineer upon delivery to the construction site. Pipe materials will be inspected for any damage due to transportation and/or handling. Pipe material will be inspected for the proper classification. The District Engineer will inspect all delivered pipe prior to installation. Installed sewer pipe alignment will be inspected for straight

pipe formation with the exception of curvilinear alignments with minimum radii per manufacturer requirements. The District Engineer will inspect equipment and appurtenances such as pumps, valves, and other equipment prior to placement or installation. Any piece of equipment or appurtenance is required to be installed per the manufacturer's recommendations and District standards. Inspection requirements are referenced in Ordinance No. 16, Section 814.

6.3.2 Testing

All new or rehabilitated collection system components are tested and subject to approval by the District Engineer. All new or rehabilitated sewer pipe and manholes will be pressure tested after backfill to ensure tightness in connection and or repair. All tests will be witnessed and approved by the District Engineer.

Acceptance testing of new or used equipment and/or appurtenances such as pumps, valves, and other equipment shall be witnessed by either the District Engineer prior to commencing operations. Manufacturer's standards for testing will be used determine the effectiveness of the appurtenance or equipment. Manufacturer standards will be a requirement in the specifications for a given design.

Testing requirements are detailed in in Ordinance 16.

7.0 ELEMENT 6 - OVERFLOW EMERGENCY RESPONSE PLAN

This chapter describes the District's Sanitary Sewer Overflow Response Plan (SSORP). Elements outlined in this plan note State requirements and how the District is meeting said criteria. As emergency response processes typically occur in the field, for the purposes of creating a user friendly document, the District has prepared a "Sanitary Sewer Overflow Response Plan" folder. In many cases, this document satisfies State requirements in regards to response activities and is therefore referenced as applicable below.

Appendix ?? provides a copy of the "Sanitary Sewer Overflow Response Plan" operating procedures.

7.1 REGULATORY REQUIREMENTS FOR DESIGN AN OVERFLOW EMERGENCY RESPONSE PLAN

Per requirements of section D.13 (vi) of the 2006 WDR, and as part of its good management practices, the District's OERP focuses on procedures which facilitate:

D.13.(vi) Overflow Emergency Response Plan - 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 SSOs in a timely manner;

(b) A program to ensure appropriate response to all overflows;

(c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, regional water boards, water suppliers, etc…) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDR or NPDES 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, such as traffic and crowd control and other necessary response activities; and

(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.

7.2 SSO DEFINITIONS

All SSOs that occur in California as a result of a failure within the District's sanitary sewer system are subject to applicable notification and reporting requirements as summarized below. Requirements for notification

and reporting are as stated in SWRCB Order No. WQ 2013-0058- EXEC, Amending Monitoring and Reporting Program for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (or MRP). Notification and reporting is the responsibility of the District. Notification requirements apply to more serious and/or environmentally detrimental events; as such, notification to applicable agencies occurs by way of phone. Reporting of other, not as serious and/or environmentally detrimental, SSO events occurs through the State Water Resources Control Board (SWRCB) Sanitary Sewer Overflow (SSO) eReporting Program (http://ciwqs.waterboards.ca.gov/). The District's General Manager is registered as a "Legally Responsible Official" (LRO) for reporting on the State's SSO database (CIWQS). Reporting time frames vary based on the severity of the event.

Notification Requirements (via phone) per MRP:

For any discharges of sewage greater than 1,000 gallons to surface water or probable conveyance to surface water, the Discharger shall, as soon as possible, but not later than two (2) hours after becoming aware of the discharge, notify the State Office of Emergency Services.

Reporting Requirements (via CIWQS) per MRP:

As defined in the Statewide General WDRs amended 2013 Monitoring and Reporting, there are four categories of Sanitary Sewer Overflows:

- Category 1 – All discharges of wastewater resulting from a failure in the District's sanitary sewer system that:
    a. Reach surface water and/or a drainage channel tributary to a surface water; or
    b. Reach a Municipal Separate Storm Sewer System (MS4) and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly.

- Category 2 – Discharges of wastewater 1,000 gallons or greater resulting from a failure in the District's sanitary sewer system that do not reach surface water or a drainage channel, unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.

- Category 3 – All other discharges of wastewater resulting from a failure of the District's sanitary sewer system.

- Private Lateral Sewage Discharge (PLSD) – Discharges of wastewater resulting from blockages or other problems within a privately owned sewer lateral connected to the District's sanitary sewer system or from other private sewer assets.

A Sanitary Sewer Overflow Response Plan (SSORP) has been developed by the District to eliminate the threat to public health and the environment if possible, and to mitigate any effects of SSOs to the maximum extent reasonably possible. The District's SSORP can be found in Appendix C of this SSMP.

7.3 SSO NOTIFICATION PLAN

For proper and timely notification of an SSO to primary responders and regulatory agencies, an overflow emergency response chain of communication has been developed and the responsible individuals have participated in its development and training. Remote monitoring, inspections, and the District call center are the backbone for receiving initial reports of a potential SSO.

Refer to Figure 2 in Section 2.C of this SSMP for the SSO Reporting Chain of Communication and communication procedures. Notification protocol may also be found in "Step 3" beginning on Page 4 of the SSORP which may be found in Appendix C of this SSMP.

7.4 SSO RESPONSE MOBILIZATION, PUBLIC AGENCY NOTIFICATION, ABATEMENT AND MITIGATION

BVWD's Wastewater Emergency Operations Plan documents the procedures for responding to reported SSOs, including mobilization of District forces, regulatory and public notifications, and implementation of best practices for abatement and mitigation. The procedures can be found on the District's web site.

Immediately upon learning of an actual or threatened SSO, the General Manager or on-call staff personally investigates the scene. An O&M staff member or the District Engineer may be called upon to investigate in the absence of the General Manager.

See the SSORP for organization of the response efforts. Depending on the nature of the SSO, the General Manager may mobilize the District's own equipment and forces, or may call upon outside contractors to assist in containment, pump-around, pump-out, and emergency repair activities.

More detailed response procedures may be found in the District's SSORP which is located in Appendix C of this SSMP.

7.5 PROGRAM AWARENESS AND RESPONSE TRAINING

The District uses a combination of: in-house classes, outside training exercises, outside instructors, on the job training, and State certified certifications to train its wastewater collection system staff. Standard forms, ensuring consistent training topics/direction, have been developed to document on the job training sessions. Training topics include (but are not limited to): OSHA, equipment use, infrastructure use, PM, emergency response, operating documents, etc.

Collection system personnel complete routine training sessions to maintain familiarity with the District's Emergency Response Plan (ERP). The sessions include mobilization and testing of actual emergency equipment. Chapter 9 - Emergency Plan Approval, Update and Exercise of the District's ERP describes current training requirements. All trainings are tracked and logged in the AMS management database. Training specific to the SSMP and/or SSO Emergency Response procedures is also tracked in Appendix G.

The current BVWD staff associated with SSO response consists of the General Manager, the Chief Plant Operator, and BVWD staff operator(s). All of these individuals have familiarized themselves with the District's SSORP and know their duties in case of an SSO event. More detailed information on staff awareness and response training can be found in the District's SSORP.

7.6 EMERGENCY OPERATIONS PROCEDURES

Procedures to address containment, cleanup, and other necessary activities can be found in the District's SSORP. For emergency procedures, beyond the capabilities of District staff, emergency outside contractors shall be contacted. A list of emergency contractors may be found in Appendix A of this SSMP.

7.7 IMPACT MITIGATION

If raw sewage enters a lake or creek, initial grab samples are collected from the creek upstream and downstream of the spill location and analyzed for total and fecal coliform as soon as possible after the spill is detected. Additional samples are collected on a schedule agreed with the Regional Board and Alpine County Health and Human Services Department.

Pursuant to Amended Monitoring and Reporting Program Order No. WQ 2013-0058-EXEC, an SSO Water Quality Monitoring Program must be developed and implemented when 50,000 gallons or more of wastewater are spilled to surface waters. The SSO Water Quality Monitoring Program may be found in Appendix E of this SSMP.

8.0 FATS, OIL AND GREASE (FOG) CONTROL PROGRAM

The District's FOG Control Program includes four elements: Legal Authority, Preventative Maintenance, Commercial FOG Source Control, and Public Outreach.

8.1 REGULATORY REQUIREMENTS FOR A FOG CONTROL PROGRAM

Fats, Oils, and Grease (FOG) are discharged to sanitary sewer systems by residential users, food handling facilities, and other commercial and industrial establishments. Commonly, FOG can cause pipe blockages leading to SSOs. To control FOG, and meet requirements of section D.13 (vii) of the 2006 WDR, the District has established a FOG Control Program, which includes:

D.13.(vii) Fats, Oils, and Grease (FOG) Control Program: Each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed, the Enrollee must provide justification for why it is not needed. If FOG is found to be a problem, the Enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. This plan shall 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. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a 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 (such as traps or interceptors) design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;

(e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;

(f) An identification of sanitary sewer system sections subject to FOG blockages and establish a cleaning maintenance schedule for each section; and

(g) Development and implementation of source control measures, for all sources of FOG discharged to the sanitary sewer system, for each section identified in (f) above.

8.2 NATURE AND EXTENT OF THE FOG PROBLEM

The District currently has 5 active commercial sources of grease discharging into the sewer collection system. In 2016 the District implemented a FOG control program which includes:

- Grease Trap/Interceptor requirements on all restaurant remodels or change of business licenses
- Grease Interceptor requirements on all new Food Service Establishments
- Proactive inspection program
- Public Outreach Program

The FOG control program was established to reduce FOG related SSOs and consists of FOG hotspot investigations, food service establishment (FSE) and gravity grease interceptor inspections, enforcement support, hotspot reporting, and outreach. These components are summarized below.

Grease traps are currently required at all public premises where food is handled or prepared such as restaurants, cafeterias, bed and breakfast establishments, hotels, and markets. The community of Bear Valley does not contain a large number of restaurant connections within the commercial district. All fat, oil, and grease interceptors are maintained by the owner of the connection who is required to maintain efficient operation at all times by District ordinance. The type and size of a grease interceptor must be approved by the District Engineer prior to installation per District Standards. District staff currently inspects all commercial grease interceptors annually to determine compliance of operation.

Due to the limited number of blockages, a formal FOG control program is not necessary. The District has created a website and posted information regarding the detrimental effects of FOG with tips on alternative disposal means to inform the public. The District's FOG prevention flyer can be found in Appendix D of this SSMP.

The diligent cleaning schedule and public outreach appear to be effective in preventing blockages caused by FOG within the District's system.

Outreach

Public education and outreach that promotes proper handling and disposal of FOG is an ongoing effort through various methods and media. EBMUD provides education and outreach materials for FSEs in multiple languages as a component of the overall program.

BVWD also provides information to residents on how to properly dispose of household cooking oil. This outreach effort includes partnerships with other organizations such as regional non-governmental organizations, and local retail outlets. Residential hotspot response includes targeted outreach materials in multiple languages. Additional outreach information for businesses and residents is available on BVWD's website.

9.0 SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

The District prepared a Sewer Evaluation & Capacity Assurance Plan (SE & CAP) including a Capital Improvement Plan to evaluate the collection system and analyze hydraulic capacity under existing and future flows. The SE & CAP is maintained as a separate document at the District office. This SSMP Section 8 summarizes the findings in the SE & CAP.

9.1 REGULATORY REQUIREMENTS FOR A CAPACITY ASSURANCE PLAN

Per requirements of section D.13 (v) of the 2006 WDR, and as part of its good management practices, the District maintains:

D.13.(viii) 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 from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events;

(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 capital improvement plan (CIP) to address identified hydraulic deficiencies including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction 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 as described in Section D. 14.

9.1 COLLECTION SYSTEM EVALUATION

The Bear Valley Water District maintains approximately 83,210 linear feet (15.76 miles) of wastewater gravity collection lines and 8,560 linear feet (1.62 miles) of force mains. These range from the largest diameter of 12 inches down to 4 inches, with the most common size being 6 inch. There are over 160

manholes and 4 lift stations in the system.

Hydraulic modeling of the BVWD collection system was utilized to evaluate the capacity and to identify areas of the collection system needing improvement. Results of the collection system analysis indicate there are currently no known problem areas in the system under existing flow conditions. Four areas have been identified as needing upsizing to accommodate future development. These areas are discussed in Section 8.C of this SSMP.

A professional surveyor was retained to collect location and other data for all the system manholes. This data was used in the hydraulic model.

9.2 CAPACITY DESIGN CRITERIA

The goal of system capacity enhancements is that under peak wet weather flow conditions no manhole will surcharge.

The design criteria used to evaluate the system is as follows:

- An average daily flow of 441 gallons per day per Residential Living Unit (RLU) including inflow and infiltration.
- Build-out projections based on known proposed developments and vacant lots within District boundaries.
- 715 existing RLUs served by the system.
- 1,672 RLUs served by the system at build-out.

The design criteria are further described in the District's Sewer Evaluation & Capacity Assurance Plan on file in the District office.

9.3 CAPACITY ENHANCEMENT MEASURES AND SCHEDULE OF COMPLETION

Analysis of the existing system flows found the system to be adequate. Analysis of future system flows found upsizing requirements for four pipeline segments to accommodate contemplated growth. The District Engineer's estimate of probable costs to complete the upsizing is approximately $500,000.

The segments requiring upsizing are noted in the table below.

Pipe #	MH# to MH#	(E) Dia. (in)	(P) Dia. (in)	Length (ft)
P-41	E1 to V8	8	10	275
P-104	V3 to V2	12	15	312
P-152	V7A to V7	8	10	482

P-159	**V8 to V7A**	**8**	**10**	**36**
Total Length				**1,105**

9.4 SCHEDULE AND FUNDING SOURCES

The four pipe segments identified to accommodate future flows will be scheduled for upsizing as development occurs. At this time it is not known when future development will occur or where it will connect to the District's system.

Funding for the future development upsizing equates to approximately $520 per new RLU and will come from connection fees imposed on developers.

10.0 MONITORING, MEASUREMENT, AND PROGRAM MODIFICATIONS

10.1 REGULATORY REQUIREMENTS FOR MONITORING, MEASUREMENT, AND PROGRAM MODIFICATIONS

Per requirements of section D.13 (v) of the 2006 WDR, and as part of its good management practices, the District maintains:

> D.13.(ix) 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.

10.1 Recordkeeping

Historical O&M records are kept to identify areas of the collection system that may require increased maintenance efforts. These records are also used in the prioritization of future rehabilitation work.

Records are kept by the General Manager for:

- Blockages
- Overflows
- Line replacements
- Service calls
- Maintenance performed on equipment

10.2 SSMP PROGRAM MONITORING AND EVALUATION

The General Manager is responsible for monitoring the effectiveness of this SSMP and revising it as and when needed, in consultation with District Board members and staff. The General Manager will regularly update the District Engineer about dry and wet weather SSOs, system blockages, and any other items related to maintaining an updated and effective SSMP. The General Manager will review the SSMP and District records annually to monitor its effectiveness.

10.3 PREVENTATIVE MAINTENANCE PROGRAM ASSESSMENT

The General Manager is responsible for monitoring the effectiveness of the Preventative Maintenance Program and revising it as and when needed, in consultation with District Board members, District Engineer, and staff. The General Manager will keep track of repair logs, cleaning schedules, and any other preventative maintenance tasks necessary to ensure a reliable collection system.

10.4 PROGRAM UPDATING

In order to ensure this SSMP remains current and useful over time, the various programs contained herein will be reviewed and monitored on a regular basis. The District staff will periodically review the SSMP to check for compliance and effectiveness.

As each element of the Capacity Assurance Plan is completed, or if schedules need to be changed, this SSMP will be revised to reflect that. After significant improvements have been made that affect the hydraulic modeling of the system, the modeling will be repeated and the System Evaluation will be revised.

If the notification and response actions done according to Section 6 are not effective in dealing with SSOs, those procedures will be reviewed and revised or expanded as necessary.

10.5 SSO TREND TRACKING

Sanitary Sewer Overflows (SSOs) are rare within the District. There have only been three (3) SSOs in the past decade, with minimal volume spilled and timely district response and resolution. As such, formal SSO trend tracking is not required at this time.

SSOs are reported to state and regional water boards as required. The District Manager maintains information on any SSOs. Should SSOs become frequent, a trend tracking mechanism will be instituted and this SSMP will be updated to include tracking protocol.

11.0 SSMP PROGRAM AUDITS

11.1 REGULATORY REQUIREMENTS FOR SSMP PROGRAM AUDITS

Per requirements of section D.13 (v) of the 2006 WDR, and as part of its good management practices, the District maintains:

> D.13.(x) SSMP Program Audits - As part of the SSMP, the 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 identified in this subsection (D.13.), including identification of any deficiencies in the SSMP and steps to correct them.

At a minimum of every two years, the District Manager will initiate an internal audit of the SSMP in accordance with the State Water Resources Control Board Order No. 2006-0003. The SSMP will be evaluated as to whether it contains all the mandatory elements required by the Statewide General WDRs. Inspection, maintenance, training, and SSO records will be reviewed. Any deficiencies in the SSMP or its implementation will be brought to the attention of District staff, and corrective actions will be tracked.

An audit report will be prepared and the District Manager will meet with the District staff to discuss any needed changes to the various SSMP elements. Information collected pursuant to Section 9 above will be used to prepare the audit.

11.1 Internal Audit Process

Internal audits will be performed on an annual basis to determine relevance and effectiveness of each element of the SSMP. Audits will include a review of progress on deficiencies identified in the previous year audit report. A summary of the audit results and significant findings from Element 9, Monitoring, Measurement and Program Modifications will be included in a report to the Central Valley Regional Water Quality Control Board.

11.2 Correcting Deficiencies

If deficiencies or modifications are identified as part of the annual audit, the SSMP shall be updated accordingly or items shall be cataloged, assigned a lead section, a priority and a proposed schedule for implementation.

11.3 Report Submittal and Record Keeping

A copy of the signed report will be transmitted annually to the Central Valley Regional Water Quality Control Board. A copy will be kept on file at the District.

12.0 PUBLIC COMMUNICATIONS PROGRAM

12.1 REGULATORY REQUIREMENTS FOR PUBLIC COMMUNICATIONS PROGRAM

Per requirements of section D.13 (v) of the 2006 WDR, and as part of its good management practices, the District maintains:

> D.13.(xi) Communication Program. 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.
>
> The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system.

The District's website includes a copy of this SSMP for public review and information. When comments on the SSMP are received from the public, they will be distributed to the District Engineer for consideration in future SSMP updates. The website contains various District documents, permits, presentations, and other information to keep customers informed about District procedures, matters before the Board, personnel, news, etc.

The District's website also contains an informational flyer that provides information on detrimental effects of FOG and other debris to the collection system and treatment facilities. The information also includes recommended disposal methods to help educate the public. The District's FOG flyer may be found in Appendix D.

The District maintains active public outreach and communications efforts with its customers and the public-at-large to provide timely information on District projects, improvements, and emergency situations.

Communications outlets range from public meetings and representation at community groups to time-critical posting of signage in emergency situations, and updates and postings to the District's public website and 24-hour telephone reporting systems. Additionally, newsletters are developed and distributed to outside agency contacts, communities, and customers. Flyers are often included with customer bills to update the rate payers on District projects and programs. Further, District public affairs representatives maintain routine contacts with news outlets and publications to transmit news briefs in a timely manner.

12.1 SSMP related Communication Program

Efforts which support SSMP requirements include:

- Posting of the SSMP on the District's website with contact information to facilitate questions and comments.

• Emergency response posting in the field backed up by telephone hotline and web posting of advisories. Additionally the hotline provides access to District representatives that can address questions and provide additional information on the any current advisories or BVWD's SSMP.

13.0 SSMP APPENDICES

13.1 REGULATORY REQUIREMENTS FOR SSMP APPENDICES

Per requirements of section D.13 (v) of the 2006 WDR, and as part of its good management practices, the District maintains:

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

3.5 **References**

3.5.1 SSMP Sample Change Log

{Insert Enrollee Name}

Sewer System Management Plan

Change Log

Date	SSMP Element/ Section	Description of Change/Revision Made	Change Authorized By: