9.0 MONITORING, MEASUREMENT, AND PROGRAM MODIFICATIONS

This section of the SSMP discusses the District's Monitoring, Measurement, and Program Modifications. This section fulfills the Monitoring, Measurement, and Program Modifications requirements for the RWQCB and the SWRCB elements.

9.1 Regulatory Requirements for Monitoring, Measurement, and Program Modifications Element

The requirements for the Monitoring, Measurement, and Program Modifications element of the SSMP are summarized below.

9.1.1 RWQCB Requirement

The District must monitor the effectiveness of each SSMP element and update and modify SSMP elements to keep them current, accurate, and available for audit as appropriate.

9.1.2 SWRCB Requirement

The District shall:

Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;

Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;

Assess the success of the preventative maintenance program;

Update program elements, as appropriate, based on monitoring or performance evaluations; and

Identify and illustrate SSO trends, including: frequency, location, and volume.

9.2 Monitoring, Measurement, and Program Modifications

The District maintains information on sewer condition, repairs, flow, pipeline cleaning history, manhole inspection, number, size and nature of SSOs, etc., in order to establish and prioritize appropriate SSMP activities. This information and more is entered and transferred on the Lucity CMMS discussed in section 6.

In order to comply with SSMP requirements, the District has developed a "Smart Goal Program" approach to monitor the implementation and effectiveness of each element of its SSMP. This program tracks a series of performance indicators, such as those listed above, that are in line with the District's goals. Periodic review and assessment of the Smart Goals allows the District to evaluate the effectiveness of each SSMP element and update the elements as necessary.

Success of the Preventive Maintenance Program is measured by productivity, CCTV confirmation of quality cleaning, the continued decline in SSOs, and the steady reduction in the volume (e.g, gallons spilled) when SSOs occur.

The District maintains spill records in the form of an internal Wastewater Overflow Reports. Hardcopies of the Wastewater Overflow Reports are maintained in the Water Quality Manager's office, along with any other reports and information (i.e., photographs, monitoring data, etc.) related to the event. The District also uses the RWQCB and State electronic SSO reporting systems (CIWQS), which records the number, volume, locations, and causes of SSOs.

All SSOs are assessed within two (2) days of the occurrence. The section of mainline where an SSO occurs is automatically re-cleaned and CCTV'd. The results of the evaluation or Post Spill Assessment are completed within 7-days and reviewed by staff and corrective measures are implemented, such as pipe repair, replacement (CIP), cleaning schedule change, or placement on the "High Frequency" cleaning schedule. In 2014 the District's assessment led to a Preventative Maintenance change in Element #6.

The District also maintains a quality assurance/quality control program ("QA/QC Program") to ensure proper and complete cleaning of sewers. The QA/QC Program consists of spot-checking the cleaning quality in six (6) Sewer Line Segments of the cleaned sewers on a monthly basis using CCTV to inspect the level of cleaning. If the cleaning is found to be inadequate, the Sewer Line Segment will be scheduled to be re-cleaned. Results of the QA/QC will be reviewed with cleaning crews and supervisors. To augment the PM program the District recently purchased a Pipe Hunter Jetter Unit with camera so staff could perform QA/QC while performing routine line cleaning.

The District's CMMS, discussed in Section 6, includes modules for generating work orders, maintaining system inventory and inspection information, and rating sewers based on inspection results. Additionally, the District conducts routine inspections of its sewer facilities to evaluate their condition and identify needed repairs and rehabilitation.

With the information available in the CMMS and the SSO reporting system, the District measures the effectiveness of the SSMP by tracking various parameters related to service calls, and maintenance and inspection activities, as well as by comparing SSO trends from previous years and identifying system components that may contribute to system failures. Specifically, the District tracks the following parameters with which to measure the effectiveness of the SSMP and its effectiveness in reducing SSOs:

Number of SSOs per year,

Volume of SSOs per year,

Number of dry and wet weather SSOs per year,

Number of SSOs per year by cause (e.g., roots, grease, pipe failure, I/I, pump failure or other deficiency, etc.),

Response time to SSOs and other service calls (time from call received to first responder arriving on site),

Length of gravity sewers cleaned annually,

Actual versus scheduled cleaning dates for gravity sewers,

Length of gravity sewers inspected by CCTV annually,

Record of pump station maintenance work orders completed annually, and Location of SSOs.

The District also audits the SSMP on an annual basis as described in Element 10 SSMP Audits.