

**Element 13 — Monitoring and Measurement
City of Richmond Public Utilities – Wastewater Treatment**

Date of Last Review 11/11/16	Revision 14	Revised By Biosolids Team	Revision Date 10/28/15	Supersedes all previous versions
		Approved By Biosolids Supervisor	Approval Date 10/28/15	

Purpose

This element covers the process used to track progress toward goals, objectives, and targets of continual improvement. Element 13 also serves the following functions:

1. Ensures compliance with applicable legal and other requirements;
2. Measures biosolids program performance at critical control points;
3. Tracks progress toward achieving biosolids program goals and objectives per Element 5 and;
4. Measures effectiveness of the BMP.

Scope

Element 13 covers all critical control points in the biosolids value chain. It documents the effectiveness of CCP, operational controls, biosolids application, public outreach, and overall BMP efforts.

Responsible Staff

The Biosolids Supervisor, Utility Plant Superintendents I & II, Laboratory Manager, and designated staff are responsible for ensuring that all BMP aspects requiring monitoring and measuring are followed and documented. Plant operators are responsible for relevant monitoring and measurement activities related to their job functions. Contractors are responsible for monitoring and measurement related to their biosolids activities.

Procedure

1. The BMP team reviews progress toward biosolids goals and objectives. Progress is monitored using the goals and objectives in [Table 5.1](#) as stated in Element 5.

Print date:
4/17/2017

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Page 1 of 2

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2. All legally required monitoring and measurements are conducted at specified intervals to ensure compliance with all Federal and state regulations (See Element 4, Table 4.1 pages 12 and 13).
3. Nonconformance and corrective actions are documented in accordance with Element 14.
4. The Laboratory Manager annually evaluates performance metrics of contract laboratories used in biosolids compliance testing using results of EPA standards.
5. A key record in monitoring WWTP operations are the log sheets and log books. These logs are used to track data daily throughout the plant.
6. All records in monitoring and measuring results are stored according to the procedures in Element 12.
7. The hauling/land application contractor conducts monthly monitoring to determine biosolids land application rates. These reports are sent to DEQ on a monthly basis, with copies to the Biosolids Supervisor. Contractors are otherwise required to establish and maintain regular monitoring and measurement procedures and practices for all their assigned biosolids management activities, as defined in their [service agreements](#). (attached)