

Wastewater Flow Monitoring Code of Practice guide

OBJECTIVES

The Wastewater Flow Monitoring Code of Practice provides the framework for appropriate and consistent wastewater flow monitoring practices for the wastewater sector in the Emirate of Abu Dhabi. The Code enables the production of accurate flow data and promotes confidence in flow data reported by sewerage services licensees.

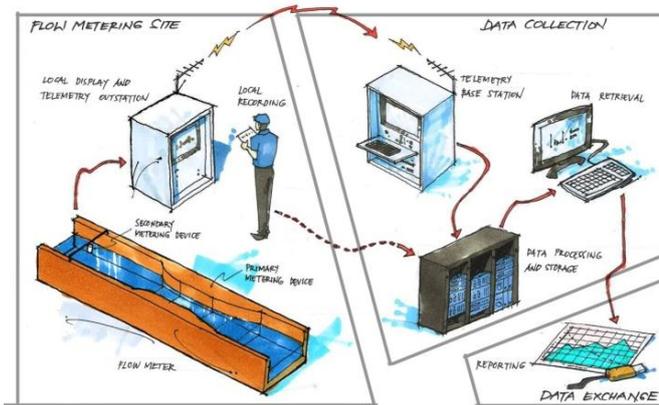
APPLICATION

The Code sets out the responsibilities for managing wastewater flow monitoring activities at regulated flow points (RFP) where the daily flow is 10m³ or greater. RFPs include:

- trade effluent discharges into sewerage systems;
- recycled water discharges at points of transfer;
- flows into and out of treatment systems;
- wastewater transfer points between licensees;
- wastewater terminal pumping stations' output discharges; and
- mobile plant discharges into sewerage or treatment systems.

STRUCTURE

The body of the Code specifies the minimum technical, design and operational requirements associated with wastewater flow monitoring systems, as illustrated below.



The schedules in the Code provide advice and practical examples of how licensees can achieve the requirements defined by the Code.

KEY FEATURES

Flow metering site

The Code requires installation of permanent flow meters and continual recording of flow data at RFPs where the maximum daily volume of flow equals or exceeds 100 m³/day. RFPs with flows between 10 and 100 m³/day require structures to be installed that allow flow meters to be temporarily fitted for periodic measurement of flows. Requirements for flow meter selection, installation, verification and calibration processes are also included.

Data collection

The Code presents requirements for data collection and processing. It defines standards for data storage, data review, identification of errors and making adjustments for faulty or missing data.

The Code also requires the establishment of an uncertainty budget for all elements of each flow monitoring system to understand and communicate the accuracy of flow data generated by the flow monitoring system.

Data exchange

The data exchange elements of the Code define the requirements for data exchange between licensees and the Bureau, and specify the Bureau's processes for reviewing the data.

MAF and flow system registers

The Code requires licensees to maintain a metrological assurance framework (MAF) for all flow metering sites. The policies and procedures in the MAF must define the selection, installation, verification, calibration and maintenance of equipment at flow metering sites.

The Code also requires licensees to establish a flow monitoring systems register for each system. The register is required to include system-specific information, such as the location, type and owner of the flow meter, and references to applicable MAF and uncertainty budget documents.

Advisory panel

The Code established a wastewater monitoring advisory panel to provide advice and guidance to the Bureau on the application and review of the Code. The panel can also advise on the form and content of procedures and standards required to support the Code. The Panel includes members from the Bureau and permanent licensees, and may be supported by expert advisors as required.

ROLES AND RESPONSIBILITIES

Who	Role
Bureau	Specifying reporting requirements of the Code. Auditing the data exchanged under this Code and the systems used to derive flow data.
Sewerage Services Licensees	Implementing arrangements to ensure flow measurements reported to the Bureau are no more than 10% lower or higher than the actual flow values. Selecting, installing, verifying, calibrating, securing and maintaining appropriate flow meters. Establishing and maintaining specified data collection and exchange practices. Maintaining a monitoring systems register for systems at RFPs, and a MAF that applies to each flow metering site.
Wastewater Monitoring Advisory Panel	Facilitating revisions required to the Code or its application. Establishing the form and content of procedures and standards required to support the Code.