Integrating Management of Sensor Data for a Real Time Decision Making and Response System

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This project developed a framework for a Decision Support System (DSS) including an Excel-based Decision Support Tool (DST) to aid operators and managers of direct potable reuse (DPR) facilities to make appropriate real-time actions based on anomalies and events at critical process control points. The project outcomes summarize the current state of the industry with respect to online sensors applicable to potable reuse; provide information on commercially available software detectors and math models which are applicable to anomaly detection as part of an overall DPR decision support system; propose a framework for an overall DSS applicable to DPR consisting of operational monitoring, data collection, data analysis using software detectors and DST; and provide a functional Excel-based DST for potable reuse facilities which can be configured based on specific facility characteristic and monitoring requirements.
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Mission Statements

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The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

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