

Eawag Seminar Invitation

From real time data to the city council: There and back again

Speaker **Dr. Evangelina Belia**
Primodal Inc., Quebec, Canada

When **May 12, 11.00 – 12.00 a.m.**

Where **Forum Chriesbach C20, Eawag Dübendorf**

Abstract The Grand Rapids WRRF (Michigan, USA) serves a population of approximately 270 000 people in 11 communities. The Grand Rapids WRRF has no difficulty meeting its effluent permit. However, for several years it had set a goal to reduce energy consumption and operational costs. An additional goal is to use smart technology to increase plant capacity and avoid plant expansion in the future. Ultimately, the utility is looking to transition into integrated catchment management and control. In order to meet its goals the plant has been investing in advanced real-time process control since 2010. More recently it decided to embark in an ambitious project that uses dynamic simulation to develop and implement real time data quality combined with plant-wide control.

The talk will touch upon the transition a utility goes through when implementing an innovative tool. The successful transition includes the involvement of not only the utility but also public administration. The areas impacted cover every part of the organization including engineering, instrumentation, plant operations and laboratory practices. As a result the utility undergoes personnel restructuring, organizational integration and a mentality shift towards systems thinking. Starting from the treatment plant as their first system to try this approach out and expanding the project to include the river and collections system also includes additional knowledge transfer from the private sector to the utility on matters of emerging contaminants and surface water quality.