

From Wildcat Creek to STORET: Journey of Data

Revital Katznelson¹ and David Wilcox²

¹ State Water Resources Control Board, Sacramento, CA; Office: San Francisco Bay Regional Water Quality Control Board, 1515 Clay Street, Suite 1400, Oakland, CA 94612

² Gold Systems, Inc, 3330 S 700 E Suite F, Salt Lake City, UT 84098

Biographical Sketches of Authors

Revital Katznelson received her Ph.D. from the Hebrew University of Jerusalem, Israel, in 1984. She has extensive experience in performing, interpreting, and assuring quality of field and laboratory analyses of chemical, biological, toxicological, and bacteriological water quality parameters. She is currently implementing a Data Quality Management system with the Citizen Monitoring Program of the California State Water Resources Control Board.

Dave Wilcox is Vice President of Gold Systems, Inc, and serves as the Practice Manager for all environmental projects. Dave has overseen the development of the STORET Interface Module (SIM) products and has completed many STORET integration and data management projects across the country.

Abstract

A data quality management (DQM) system consisting of an array of forms, spreadsheet templates, and guidance documents, has been implemented for collection and streamlined processing of monitoring data. The DQM system provides for the primary data management functions of documentation and quality assurance in a way that allows generation and reporting of reliable, defensible, and usable data of known quality. This paper focuses on field measurements and describes the major phases of the process. Data generation and processing at the Project level include field measurements and associated documentation, error calculation, data verification and validation, and assignment of qualifiers to each measurement Result. Data then “move” to the next phase, which includes selection of information fields to export, application of a crosswalk for conversion into a format appropriate for a given central database, and export into that central database. The steps of uploading data into the new STORET (the USEPA national database) via the STORET Interface Module (SIM) demonstrate this process. Finally, data storage and retrieval options in STORET enable retrieval of Results together with information about their accuracy and their precision.