Quality Management and Upload Platform for Field Measurements Data

Revital Katznelson, UC Extension, University of California, Berkeley (Instructor)
revitalk@sbcglobal.net
Berkeley, CA

Visual observations and field measurements of "vial signs" such as temperature, dissolved oxygen, conductivity, pH and turbidity are extremely valuable in stream health assessments, as any data user will attest. The information value of such data is much higher if observations and measurements are done frequently, and citizen-science can greatly enhance the data density. Unfortunately, citizen monitors' data rarely find their way to central databases, for two major reasons: lack of data quality documentation, and lack of resources to upload and share the data far and wide. The Data Quality Management (DQM) system developed by California's Clean Water Team (The citizen-Monitoring Program of the State Water Resources Control Board) provides a simple Excel platform for the following functions: (1) data entry template with drop-down menus, formatted like the field data sheet for easy navigation; (2) recording of quality-check outcomes; (3) calculation of measurement error, and (4) data validation. The DQM system has recently been expanded to include DQM spreadsheets with crosswalks from the data entry template into the upload templates deployed by the California Environmental Data Exchange Network. This paper is focused on recent data quality management and upload platforms for field monitoring data that small groups and tribes with no budget and no IT support can use to validate and share their data.

Key words citizen monitoring, field measurements, measurement quality, error calculation, data exchange networks, batch upload, upload templates,

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