

Opportunities for Individual Organizations using National Databases: The Utah Experience

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Biographical Sketch of Author

Arne Hultquist is an environmental scientist with the Utah State Division of Water Quality. He has 18 years experience including 16 years as the Quality Assurance Officer and STORET Coordinator, and has recently been extensively involved in development of the STORET Interface Module (SIM). Arne originally coordinated an UMTRA project at the Salt Lake City Vitro site for Utah Radiation Control. Arne is an alumnus of the University of Utah with a BS in Mathematics and Chemistry and is a candidate for a BS in Environmental Studies at the U of U. Arne has been the Utah Mountain Running Race Series Overall Champion eight times during the last decade.

Abstract

During the late 1990's the Utah Division of Water Quality was faced with replacing a 20-year-old water quality database. After determining the current data storage needs and the extent of financial and technical support, Utah chose to use the nationally available Modernized STORET (STORET) for its water related monitoring data. Molding a one-size-fits-all database to individual program(s) needs was a daunting task. The presentation exposes the difficulties encountered getting individual data sets and data types into the database. Details on electronic data set characteristics manipulated with custom reformatting software into files that can be used by the importation tools currently available are discussed. The use and development of auxiliary tables that Utah has linked to the STORET tables to meet program specific data storage and reporting requirements are detailed. The tables provide storage of chemical numerical water quality standards used for assessments including 305(b) reports, management of sampling analyses plans and laboratory analyses requests. Finally, the software capabilities and reporting functions developed by Utah to meet requirements of our various programs are explained. Custom-reporting functions that include comparison of temporal chemical results to water quality standards can also be created in a variety of formats. Quality assurance analyses reports were also developed. Utah's experience illustrates that it is possible and practical to use a national database as a "starter" database that can be enhanced to meet a variety of state objectives.