



USDA-CSREES 2007 National Water Quality Conference

Automatic Surface Water Quality Monitoring Systems and Their Application

Surface water quality monitoring with automatic systems has been conducted in Everglades of south Florida continuously in three years. Procedures mainly consist of the following sections: standard operating procedures (SOPs) for sampling and chemical analysis; site selection and fundamental construction; power supply and essential equipment required for some water quality parameter in situ monitoring; canal profile (contour) and velocity monitoring and measurements, data logger recording, programming, telecommunicating and automatic sampler sampling; procedures to collect grab samples, and composite samples with flow proportional techniques; marsh area sampling skills, transportation, sample preservation, reservation and chemical analysis; quality control and quality assurance (QA/QC) for the low level of interested elements, especially phosphorus. It also provides some examples and general information in equipment selection and basic knowledge for surface water quality monitoring, sampling and chemical analysis. The results of water quality monitoring and implication from different locations are discussed.

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