

## **Data Comparability – Standardization of Data Quality Assurance Procedures Across Monitoring “Networks of Networks”**

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### **Abstract**

Although it is easy to equate Quality Assurance and Quality control practices to sampling procedures or to laboratory processes, post-lab data QA and validation is a vital and requisite aid in interpreting and reporting on Water Quality Monitoring data. Data validation and flagging schemas are also key qualitative tools and add relevant context to monitoring data.

The water quality monitoring programs operating through Environment Canada and its partners have been developed somewhat independently from one another. This has resulted in variations among the QA/QC programs. National-scale reporting can prove to be a challenging exercise while trying to reconcile data comparability with variations in data QA programs.

Over the last several years, Environment Canada has undergone significant efforts in to assess the comparability of water quality monitoring data. These efforts have now been expanded to examination of the impacts of data QA variability and implement tools and applications to improve the consistency and effectiveness of data QA programs. The result is more credible, consistent and defensible national-scale data generated from distributed “networks of networks”.

### **Keywords**

Data quality assurance