

## ABSTRACT

*Conference Topic: Integrated Water Resources and Coastal Areas Management*

### NATIONAL WATER INFORMATION SYSTEMS: A TOOL TO SUPPORT INTEGRATED WATER RESOURCES MANAGEMENT IN THE CARIBBEAN

**Trevor Thompson**

*Land Use Division, Ministry of Agriculture, Grenada*  
Ministerial Complex, Tanteen, St. Georges, Grenada, West Indies  
[trevor\\_lud@yahoo.com](mailto:trevor_lud@yahoo.com)

**Marie-Claire St-Jacques**

*McGill University, Montreal, Canada*  
[marie-claire.st-jacques@mcgill.ca](mailto:marie-claire.st-jacques@mcgill.ca)

**Adrian Trotman**

*Caribbean Institute for Meteorology and Hydrology (CIMH)*

**Andreas Haiduk**

*Water Resources Authority, Jamaica*

**Catherine Senecal**

*McGill University, Montreal, Canada*

**Chandra A. Madramootoo**

*McGill University, Montreal, Canada*

National Water Information Systems (NWIS) are powerful tools to contribute to the strengthening of Integrated Water Resources Management (IWRM) in the Caribbean and to address the problems of compartmentalized data, lack of central storage, and limited access to data for decision-making in water management. This paper reviews the development process of the NWIS in two Caribbean countries, Jamaica and Grenada, outlines their main outcomes to date along with the challenges encountered and lessons learnt, and provides an overview of their potential for the wider Caribbean region. NWIS serve as the official repository for hydrologic, climate, land, watershed, infrastructure and water-related data. They are extremely powerful quantitative and qualitative tools which allow not only the archiving of data, but also display information in a very comprehensive and visual manner to give a snapshot of the water resources at any time and geographical scale. The Grenada NWIS has significantly expanded on the capabilities of the earlier Jamaican version through (i) the introduction of a user-friendly system administration interface that readily facilitates the inclusion of new parameters into the database and (ii) links to Google Earth imagery. Since their implementation, the systems have brought together data previously scattered across different agencies, providing timely information to decision-makers and planners freely and remotely through internet access. On a regional scale, the Grenada NWIS offers a starting point for the modernization and standardization of data management led by the Caribbean Institute for Meteorology and Hydrology (CIMH). As part of its role in maintaining a central archive of meteorological and hydrological data for its member countries, CIMH is promoting the Grenada NWIS as the new standard for the region in data management, an important step in the modernization of water information management in the wider Caribbean region.