

WORKSHOP

Water Strategy for the World Climate Research Programme

To address the WCRP Global Grand Challenge on Past and Future Changes in Water and the GEWEX Science Question on Global Water Resource Systems:

5-7 June 2013, Saskatoon, Canada

Sponsored by the World Climate Research Programme (WCRP)

Workshop Motivation:

The World Climate Research Programme (WCRP) expects to play a leading role in developing the scientific understanding and modeling and prediction tools needed for a new era of global water management. WCRP via the Global Energy and Water Exchanges (GEWEX) core project is promoting activities to address major outstanding issues which include development of a new generation of land surface and global hydrological models, building on recent developments in earth observations that represent the dynamics of managed and natural waters in conjunction with the other WCRP Core Projects.

This workshop will sharpen the WCRP Grand Challenge and add flesh to the current outline, define desired activities (meetings, workshops, conference sessions, panel meetings, etc) and timelines, and assess needed resources (organizational, financial and human resources).

The Workshop will address the following principal issues and questions:

How do changes in land surface and hydrology influence past and future changes in water availability and security?

How do changes in climate affect terrestrial ecosystems, hydrological processes, water resources and water quality, especially water temperature?

How can new observations lead to improvements in water management?

How do models become better and how much confidence do we have in global and regional climate predictions and projections of precipitation?

How can better climate models lead to improvements in water management?

The Workshop will be modeled on other similar WCRP events which emphasize critical scientific and technical discussions over presentations. The proposed Workshop will be divided into half-day sessions over a period of 2 days. Each session would begin with one or two reports reviewing the main issues, followed by structured discussions steered by the chairperson of the session. The conclusions of the Workshop, identified in a wrap-up session at the end of the second day, will be documented in a synthesis report describing the knowledge gaps identified during the Workshop and steps to be taken to address them, which will form the basis for the Science and Implementation Plan for this Grand Challenge.

Participants at the Workshop will include specialists from multiple disciplines related to Hydrologic and Atmospheric Sciences, Climate and Weather Modeling (regional/global-NWP), Large Scale Hydrological Modelling, Remote Sensing and Data Assimilation. Attendance will be limited to 30 invited participants.

All participants will contribute to a briefing at the end of the Workshop during which session chairs will outline, with relevant background, the issues considered at the Workshop and the main conclusions.