

ADAPTATION AND COMPARISON OF QUEBEC AND BAVARIAN TOOLS FOR INTEGRATED WATER MANAGEMENT AT THE WATERSHED SCALE IN THE CONTEXT OF CLIMATE CHANGE (PHASE 2)



PROJECT START DATE AND LENGTH

June 2009 • 18 months

Information:

projet@ouranos.ca

514 282-6464

www.ouranos.ca

CONTEXT

A collaborative project between Quebec and Bavaria was launched in 2006, in the field of water management and climate change. The first phase showed the complementary nature of Quebec and Bavarian modelling tools and made it possible to identify issues of interest to both parties. This phase led to the signing of a bilateral agreement between Ouranos and the LMU on May 8, 2008, at a ceremony attended by the Premier of Quebec and the President of Bavaria. The second phase will follow up on the work accomplished to date.

OBJECTIVES

- The goal of the project is to study the problem of climate change adaptation, as applied to the management of multiple uses of water at the watershed scale. The work will first focus on the impact of the complexity of hydrological models on identifying options for adapting to climate change.
- The second focus is to study adaptation options for a number of pre-determined issues, such as dam management for target watersheds in Quebec and Bavaria.

EXPECTED RESULTS

- Enhanced Quebec/Bavarian collaboration in watershed management in a context of climate change, with the goal of constantly improving knowledge, the tools available and the processes involved in implementing relevant and innovative adaptation measures.
- Greater knowledge regarding the relative extent of uncertainty associated with hydrological simulation tools and climate projections.
- Greater knowledge concerning the level of complexity required in hydrological models to evaluate the impact of climate change on specific issues.
- Integration of stakeholders in the analysis process, to come up with concrete recommendations for climate change adaptation options and measures for integrated water management at the watershed scale in Quebec and Bavaria.

PARTNERS

- Centre d'expertise hydrique du Québec (CEHQ)
- Hydro-Québec
- Ouranos
- Université Ludwig Maximilian de Munich (LMU)
- Bayerisches Landesamt für Umwelt (LFU)

FUNDING

- Ministère du Développement économique, de l'Innovation et de l'Exportation – Programme PSIIRI
- Ouranos
- CEHQ
- Hydro-Québec

TEAM

Lead researchers

Diane Chaumont, Ouranos

Richard Turcotte, CEHQ

Ralf Ludwig, LMU

Associate Researchers

Daniel Caya, Ouranos

Jean-François Cyr, CEHQ

René Roy et *Marie Minville*, Hydro-Québec

PROJECT OVERVIEW

Case studies will be done for the Saint-François and Gatineau river watersheds in Quebec, and for the Isar and Altmühl/Regnitz watersheds in Bavaria. The scientific teams will collaborate and use Quebec and Bavarian hydrological modelling tools on these watersheds. Study missions and workshops will be organized on both sides of the Atlantic to share the findings and to identify climate change adaptation options and measures. For this latter aspect, the main organizations involved in water management will work with the scientists in this project to implement a participatory approach.