Experiences with collaborative climate impacts assessments for regional governments in southwestern British Columbia

S.R. Sobie, T.Q. Murdock
Pacific Climate Impacts Consortium, University of Victoria, Victoria, Canada

Introduction
Regional and local governments in British Columbia are recognizing the need to obtain detailed information about the effects of future climate change in their communities. The Pacific Climate Impacts Consortium (PCIC) has been a source for relevant analysis and information focused on climate projections and impacts in BC since 2005. Recently, PCIC has moved away from preparing reports directly for users and instead worked in a more collaborative framework with several communities. In this new format, PCIC supplies climate projection information and assistance with interpretation, while allowing users to develop assessments tailored to their individual needs. This new structure allows PCIC to be more relevant in informing adaption practices. Our goal is to describe the process and outcomes from several collaborative climate change assessment projects.

Climate Assessment Regions
We conducted assessments in seven different areas in southwestern British Columbia that vary in size, population, land use, topography and expected climate change impacts.

An Iterative Process
• Communication between scientists and users helps develop a common vocabulary when discussing impacts, which is important when considering different climate variables.
• Assessments begin with simple overviews of climate impacts, what engineers want and policy makers need.
• Scientists learn what impacts information is most applicable to local governments - can guide development of new analyses (e.g. need for snowdepth information leads to development of snowpack model).
• The iterative process works to refine current understanding and develop flexibility given imperfect information.
• Multiple drafts starting early in the assessment leads to greater agreement and consensus at the end.

Collaborative Assessments
The key findings are:
• Early and ongoing dialogue between scientists, policy makers and assessment authors is crucial for success.
• Knowledge that the climate assessment will be used as reference for further focused reports (storm water impacts) helps determine what impacts are key for the final report.
• Regional governments with clear administrative hierarchies and more resources are better equipped to accept and implement assessment recommendations more effectively.
• Having a motivated, single point of contact within the government body helps maintain assessment progress.
• Involving a third party author for the final project report allows for both climate projections and policy options in the final assessment - not feasible if written separately.

Conclusions
Ongoing discussion between climate scientists and users helps reduce the mismatch between what users would like and what is feasible. Involvement of regional governments allows for the inclusion of policy suggestions by users, advise normally beyond the scope of PCIC’s mandate as a climate services provider. The collaborative approach results in assessment information of greater value to all involved parties compared to a process with separate climate projection and impacts components. Future work will focus on continuing the iterative process and improving the means of distributing information for climate change impacts in additional regions.

Acknowledgments
We thank our regional government partners and Pinna Sustainability for their contributions to this project.