



Postdoctoral Fellow Position

The Economics of Irrigation in the Okanagan Valley

Organization: Department of Economics, Philosophy and Political Science, the University of British Columbia and the Okanagan Basin Water Board.
Supervisor: Dr. John Janmaat, Department of Economics, Philosophy and Political Science, the University of British Columbia.
Location: Kelowna, British Columbia
Duration: April 1, 2023 to March 31, 2025

Background

The Syilx peoples of the Okanagan Valley have long recognized that, in this landscape, water is life. Redirecting water for the irrigation of agricultural lands was essential to facilitating the colonial settlement of the valley. That investment has led to an extensive reshaping of the semi-arid landscape, creating one of Canada's most important tree fruit and wine grape growing regions and attracting ever increasing numbers of tourists and new residents. Irrigation is a key component in the foundation of the Okanagan's economic prosperity.

Climate change promises to bring hotter and drier summers, with a greater share of precipitation throughout the rest of the year falling as rain. It also promises to increase the amount of land in the basin that is suitable for high value crops and to provide opportunities for crops not currently grown here. Adapting to the changing climate and making the most of changing opportunities will require new investments in irrigation infrastructure. Carefully estimating the costs and benefits of these investments will help inform public agencies responsible for making these investments. A challenging aspect of this analysis stems from the fact that a number of difficult to quantify impacts, ranging from risks to riparian habitats to changes in the perceived quality of landscape aesthetics, may contribute substantially to the balance between costs and benefits.

There are few people alive today who remember an Okanagan without irrigation, rendering it an activity that is seen as a constant of the landscape. However, there is much activity in the Okanagan that would not occur without irrigation, and ongoing investment is required to sustain these activities. The court of public opinion can have a strong influence on how public agencies prioritize investments. Economic impact analyses, which aggregate all the direct, indirect and induced expenditures generated by an activity (e.g. airport, wine industry, motorized recreation, etc.), have become an important part of the public discourse. Identifying and estimating these impacts for irrigation in the Okanagan can balance the analyses being conducted by other groups seeking to influence those public agencies.



Postdoctoral Research Project

Over the duration of the project, the postdoctoral researcher will deliver a cost benefit analysis of several irrigation investment opportunities and an economic impact analysis documenting the direct, indirect and induced impacts of irrigation in the Okanagan.

The postdoctoral researcher will work under the supervision of Dr. John Janmaat, professor of economics in the Department of Economics, Philosophy and Political Science at the University of British Columbia. The researcher will collaborate on an ongoing basis with staff at the Okanagan Basin Water Board and Agriculture and Agrifood Canada researchers at the Summerland Research and Development Center. A technical advisory committee composed of project supporters and regional experts will be consulted periodically to provide input on project direction and results. The utilization of local expertise to ground the work in the local context and to enhance the value of the work to local interests is expected.

Requirements

1. Ph.D. in economics or a related field.
2. Training in cost benefit analysis and the application of benefit transfer methods.
3. Strong communication skills.
4. Demonstrated ability to work in a diverse team.
5. Demonstrated ability to work independently and judiciously continue project work when supervisory input is not available.
6. Satisfy Mitacs eligibility criteria (<https://www.mitacs.ca/>).

Desired Qualifications

1. Coursework to the upper undergraduate level in the natural sciences.
2. A familiarity with the agricultural industry, ideally irrigated agriculture.
3. Experience collaborating with members of the community beyond the university.

Applying

This position remains conditional on funding. If we are able to work with a suitable candidate to secure a Mitacs Elevate Fellowship (deadline February 8, 2023), then a minimum salary of \$70,000 per year is guaranteed, together with Mitacs professional development support.

To apply to this position, please send the material listed below by email to john.janmaat@ubc.ca. The message subject **must** be "OKANAGAN IRRIGATION PDF".

1. Curriculum Vitae,
2. Transcripts for all degrees earned,
3. Statement of interest, including descriptions of relevant experience,
4. Contact information for at least two references, one or more of which is academic,
5. Where English is not the first language, evidence of English proficiency.

Applications will be reviewed by a committee of three persons affiliated with the project. Review of applications will continue until the position is filled.