



From left to right: Adam Wei, Ian Walker
and Craig Nichol.
Opposite page inset: Jeff Curtis.

Thinking Clearly

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When people want to know what determines the brownness of water, they think of Jeff Curtis first. A dubious distinction, perhaps, but it does suggest the depth of Curtis's passion for the stuff of life: water.

Water's brownness, caused by a variety of organisms, processes, and reactions to chemicals like chlorine, is an indicator of water's resistance to ultraviolet (UV) light. Curtis is involved in a number of important research projects looking at water management, including investigating why the water in B.C., particularly in the Okanagan with its abundance of crystal clear lakes, is not that UV resistant.

The Okanagan region is the ideal laboratory for Curtis and colleagues. With a team of like-minded individuals—professors Ian Walker, Adam Wei, David Scott, and Craig Nichol—Curtis looks at groundwater/surface water interactions throughout the Okanagan, where water quality and availability are of vital importance in sectors ranging from agriculture to tourism.

Curtis and his colleagues' research examines the issues around water use and ultimately inform policy decisions to ensure that this precious resource is used and cared for responsibly, in an environmentally sound and sustainable fashion.

"A potential risk in our area is that we have one of the smallest per-capita water supplies in Canada," says Curtis, explaining that despite the abundance of large lakes in the area, the seemingly undersized Okanagan River is the water supply for the region. "How can you have all of these hundreds of thousands of people on this tiny river? The potential risk there is that we have a small per-capita water supply, which means we have a small per-capita volume of receiving water for our wastewater discharge."

Alongside researching local issues like watershed management, water treatment, and irrigation practices, Curtis is investigating what makes one very unique lake in Manitoba a stand-out in terms of water quality. This project has the potential to unlock the mystery of how a particular body of water can remain pristine despite being close to a sizable population in a region not known for its water quality.

Many of the same geochemical processes at work in this Manitoba lake also occur in Okanagan lakes, so the project will clearly provide information that applies to the Okanagan.

According to Curtis, one of Canada's premier researchers in this field, studying water was a natural choice for him from an early age.

"I was always very attached to water environments, spending lots of time as a kid around water. When I found you could have a career in it, it was a very pleasant surprise," he says. "There was no decision to be made, it was very natural from there out."

Curtis's clear passion for this most vital of resources is continually increasing our appreciation for and understanding of water no matter how it looks—but especially when it's brown.