

First Nations Panel and Virtual Water Session Summary

Okanagan Water Stewardship Council Discussion Series

For the meeting of March 8, 2007

In 2006 and 2007, the Okanagan Water Stewardship Council (Council) intends to review the major water resource issues of the Okanagan Basin. The following summary outlines presentations made to the Council, and provides a synthesis of the discussion that followed. The ideas expressed here represent a work in progress, and *do not in any way* signify policy positions of the Council, or of the Okanagan Basin Water Board.

Objective

This meeting was in two parts. The objective of the morning session was to better understand the water supply implications of different agricultural operations, by measuring the net amount of water required to grow specific crops, produce wine, or for animal production. This was introduced through a new concept called Virtual Water. The objective of the afternoon session was to better understand the cultural significance of water to Okanagan First Nations, and to better understand their current concerns about water needs, watershed and water quality protection.

Presenters

- Dr. Hans Schreier, Institute for Resources and Environment, UBC
- Grand Chief Stewart Phillip, Penticton Indian Band
- Chief Fabian Alexis, Okanagan Indian Band
- Richard Armstrong, Traditional Knowledge Specialist, En'owkin Centre
- Deana Machin, Fisheries Program Manager, Okanagan Nation Alliance

Presentations

Slides of all PowerPoint presentations can be viewed on the Okanagan Basin Water Board website at: <http://www.obwb.ca/presentations/>

I. Hans Schreier: *Measuring the Water Footprint in the Okanagan using the Virtual Water Concept*

Most of the time when we think about managing water, we consider only the water from the lakes and streams or that can be drawn from underground aquifers. This can be thought of as *blue water*. However, as much as 50% of the water in the water cycle is caught up in the plant and soil communities – precipitation rapidly caught up in the roots, and lost again to the atmosphere through evapotranspiration. This can be thought of as *green water*. The concept of *virtual water* refers to the amount of water that is required to produce a particular agricultural or industrial product.

Agriculture has particularly high water demands. As the global population increases, there are concerns that we are headed for a crisis. The demand for agricultural crops is predicted to increase by 50% over the next 30 years, because there will be 2-billion new people, 0.8-billion do not now have enough to eat, 1-billion people are changing their diets, and we will need 10-

20% increase in food biomass for production of ethanol and biodiesel. Globally, agriculture uses about 70% of all fresh water, and 40% of all food comes from irrigated land.

Can we increase the irrigated areas in agriculture and produce more food from agricultural land? Demand for water is increasing. The agricultural land-base is shrinking. Climatic variability is increasing. Soil and water degradation problems are increasing. Energy problems are accelerating.

The water footprint of an individual, business or nation is defined as the total volume of water that is required to produce the foods and services they consume. A water footprint is generally expressed in terms of the volume of water use per year (www.waterfootprint.org).

As a general estimate, we need 1200L of water to produce 1 kg of basic staple food, such as wheat and potatoes. It takes 3 times more water to produce 1 kg of chicken meat and 20-30 times more water to produce 1 kg of beef than it does to produce a kilo of grain. Thus, the water needs for a typical diet vary greatly between cultures, depending on their diets. North Americans need more than 5000 litres of water a day to supply their foods. Sub-Saharan Africans need less than 2000 litres a day.

Water-wealthy countries or areas export virtual water in the form of food. This way, water-poor countries or areas have less need to expend water on agriculture. The Okanagan uses 135 million m³ of water per year on crops, and 399 million m³ per year on livestock production, much of which is exported from the valley.

Climate change is predicted to strongly affect water supplies in the Okanagan Basin. To reduce the amount of virtual water exported from the valley, local agriculturists need to improve the efficiency of irrigation systems and examine whether they can shift to less water-consumptive crops. Businesses need to do full water accounting – such as determining the water needed for processing crops or industrial applications.

II. First Nations Panel Presentation

The panel began with a brief introduction of the guests by Deana Machin, ONA Fisheries Program Manager and WSC Member.

Richard Armstrong – En'owkin Centre

Richard Armstrong began by giving thanks to the Council for the meal, and thanks to Grand Chief Phillip and Chief Fabian for being allowed to speak at the gathering.

Richard feels very fortunate for his upbringing. Many of his relatives were sent to residential schools – taken away from their parents in cattle trucks – but Richard's parents wouldn't allow this. Because he stayed home, he was able to go with his parents by horse and wagon to traditional food-gathering and camping places, and learn the traditional ways. One place they would go is Mission Creek, where they would get truckloads of fish. Some would be given to their relatives in Westbank, the rest they would bring home to Penticton.

Growing up, Richard camped and hunted all around the Okanagan Territory. Standing on top of one of the mountains felt like standing on the top of the world. There was one special spring he would visit on the top of Brent Mountain. The water came right out of the ground in a stream, flowing 50 ft, before disappearing back into the ground. It was clear, cold and fresh with charcoal-black fish. He still sometimes rides to the top of this mountain, but the little stream now only runs about 8 ft, with less water and no fish.

Richard learned about the land and the water from his uncle, who taught him to respect water in the special way of the Okanagan people. Water is very sacred. It sustains life and it takes life away. Only the Creator is more important and powerful than water. The Okanagan people believe that water is alive when we drink it, and they have many teachings in the ways to respect and honor the water – with an obligation to remember how sacred it is. When you see water in a stream, you know that it has been there for thousands of years, but as soon as you look at it, it changes – like how our lives change.

Water is sacred in itself: where it comes from never dries up, and where it goes to never is filled. It always moves, and never stays in the same place. No one has the right to claim water for themselves and say “this water belongs to me.” Every creature depends on the water.

Richard described that as he grew up and became educated, he saw things change. No-one was protecting the water, just using it without paying respect. His grandmother taught him that water is powerful and mighty – but doesn’t boast about its power. It seeks the lowest places to flow through. Even water in the lowest gutters comes from the highest mountains to help people.

When asked what can be done to protect the land and waters, Richard said to “look at what you and your people can do,” and told a story his grandmother told him, describing a conversation that “doesn’t need to happen.”

There was once an uncle taking his nephew for a walk, telling his nephew “when I was young, we could drink water from that creek, you could water gardens and eat food from it. There used to be fish in creeks like these.” But the nephew didn’t believe that this story could be true.

When Richard’s grandmother told him this story, he didn’t know that things would be leading to this. Now there is a creek near Richard’s home where he used to fish and play, but that has recently been closed off. Kids are not allowed to go in this creek.

Richard took his grandmother up to Apex [ski hill], thinking it would be a treat for her to see places where she used to go as a young child. They were looking for a spring where they used to get water, but the spring had been covered with houses. His grandmother started to cry, and he was sad that he had brought her up there. Now when he takes his kids to Apex, they just want to ski and snowboard.

Richard now travels with young people to different valleys and different places in the Okanagan to learn traditional ways and give prayers to the water.

Chief Fabian Alexis – Okanagan Indian Band

Chief Alexis is very interested and concerned about the wellbeing of the Okanagan people in relationship to valley development and water needs. The Okanagan people were hunters, fishers and gatherers who lived off the land and nature. The laws of the natural world determined how the Okanagan people developed their own laws and practices.

The Okanagan people lived in this valley for thousands of years. They knew where the good springs were. They believe that water was sacred, cleansing and healing. When white settlers came to this valley, the ways of the Okanagan people were disrupted. They were encouraged to become farmers and ranchers, and were moved onto reserves. This was a transition to a new way of life and a new way of using water. First Nations have water rights associated with their reserves, and while they may not be fully utilized, the water rights should not change. First Nations may still want to use the water in the future for agriculture or other uses, and ongoing urban development is a concern.

When we talk about sustainability in the valley, what can we sustain? There are often questions about water management on Okanagan Indian Band (OKIB) land. For example, should water be piped up the hill to where the houses are, or does this just encourage development? The Band also needs a plan for how much development should be allowed along the lakeshore, and how best to protect the land. Concerns about development do not seem to be heard by the Province.

The Rise development is immediately adjacent to the OKIB lands, and there are also many smaller developments around the reserve. Some of these developments are affecting streams, affecting water quality and causing them to run dry. This hurts both the fish and the downstream users. One neighbor asked if they could use Nashwito Creek water for agricultural purposes, collecting it into a storage pond. But getting a license would just raise the value of his land, and there are no guarantees on what he would then do with it.

Over 140,000 acres of First Nations lands touch on the Okanagan foreshore, and this is extremely valuable. Both Osoyoos and Westbank Bands have begun to develop foreshore lands.

First Nations need to have input on development plans, and to get involved at a government level about how permits are issued. When the Province sells crown lands or allows foreshore development, First Nations are often only notified at the end of the referrals process.

Grand Chief Stewart Phillip – Penticton Indian Band

Grand Chief Phillip has 30 years of involvement in First Nations' political leadership. He began by saying that he believes the work of the Okanagan Water Stewardship Council is very important, and will be increasingly challenging as time goes on. Some of the issues are just beginning to emerge.

Indigenous peoples will always have a spiritual relationship to the land and water. The settlers' relationship is based on economics – for example, how water is sometimes discussed as a commodity. For thousands of years, the Okanagan people lived in harmony with the land. Their world changed at the point of contact. The first newcomers were fur traders. They had a positive relationship with the Okanagan people, and a sense of interdependence. The time of the gold rush was less positive, but there was trade with the prospectors. As cattle ranchers settled here, they had social relationships with the Okanagan people and were also somewhat interdependent, with both groups focused on land stewardship. Currently, modern society has created a major shift. As more people settled here, things became more complicated. There was a huge demand on all resources – particularly water – and there began to be concerns about both water supply and water quality.

The Apex Resort dispute several years ago basically involved concerns with water. The Okanagan Bands were concerned about the grandiose plans, how streams and springs would be affected, and what would become of the effluent. They were also very concerned about how the resort would affect traditional practices of being on the land – their hunting and gathering areas. This example shows the conflicts that can arise when we don't understand each other's world view.

In general, First Nations are very concerned that the Province is fast-tracking approval of large resort developments, while simultaneously cutting back the environmental regulatory bodies that would typically oversee the development. These developments cause problems for our resources, as well as other social ills.

However, it appears that there is a growing sense of community and common views on these issues. We all have a collective sense of our duty and responsibilities to make sure that the Okanagan continues to be the best place to be. We are all responsible for what happens here. The Okanagan valley does not belong to developers from other countries in other parts of the world.

Grand Chief Phillip said he was beginning to develop a sense of optimism. The Penticton Indian Band, along with RDOS and the En'owkin Centre put on a summit on October 31st, 2005. As part of this event, there was a recitation of court cases relevant to the Okanagan Band's legal positions, especially with the Province's duty to consult and accommodate. The interests and concerns of First Nations must be given a place of importance. Although First Nations in BC have a "New Relationship" with the Province, after two years there is little evidence of progress. Where are the new laws and supporting policies? The Delgamuukw decision and others have demonstrated that the Province has a responsibility to consult in a meaningful way with First Nations, taking into account First Nations land rights entitlements and proprietary ownership.

Okanagan First Nations need to work with their neighbors to protect Okanagan resources and our mutual economic interests. In other parts of the country, First Nation prospects are less rosy, but those things don't have to happen here. The solutions begin with us beginning to understand one another. First Nations want to find ways to have benefits and equal partnerships for all groups, finding amicable solutions.

III. Staff Synthesis of Discussion on First Nations Panel

The following section is a synthesis of the discussion that followed the presentations. It reflects the opinions put forth at the meeting, but does not represent consensus ideas, or the last word of the Council on these items. This synthesis was developed by OBWB staff using notes taken during the discussion, rather than verbatim minutes.

Basin residents have similar concerns whether First Nations or not. One major problem is the lack of environmental regulations. Grand Chief Phillip was asked about how best to move forward with protecting watershed areas. He felt that it is important to work on legislative changes or reforms to protect the environment. There may be an opening here, as Campbell has stated that he is ready to make the environment more a priority. This will require a lot of thought about how to do it properly. Raising the profile of water is a good place to begin. It is also important to get municipalities and regional districts to work together.

Bernie Bauer asked the panel, "How we can put 100,000 more people in this valley in a sustainable way? The growth is being driven by external economic forces." Grand Chief Phillip described attending an Okanagan Partnership meeting, where everyone was committed to working together, with common interests, to boost the economy. But his question was "what about the quality of life?" The projections for population inflow to the valley have already been eclipsed. We can't reason with the bottom line. Okanagan aboriginal people have a different perspective from many other Okanagan residents. They have been here for thousands of years, and it is unthinkable for them to up and go somewhere else. The rest of society is more transient.

Collectively we can achieve great results, but we are going to have economic chaos when there are great droughts. We have a right and responsibility to our children to keep this high quality of life, and we need a debate on development. Communities are beginning to evaluate whether they really want intense development.

Chief Fabian Alexis pointed out the irony of hearing non-native people complain about the huge influx of people in the Basin, and then asking First Nations people what can be done about it.

Lee Hesketh described his feelings for his family ranch, and called for people to develop an ethic about our responsibilities for the land, rather than our rights for the land. Lorraine Bennest expressed concern that high land values are pushing development decisions. How can we better protect the land? Anna Sears described a program in California, in which a ¼ cent sales tax is used to purchase lands or covenants to keep properties from development.

There are many other areas of common interest. One is the desire to try to block the sale of leased lots on drinking water reservoirs. The Chiefs requested that the OBWB and OWSC forward them the letters that had been sent to Pat Bell on this issue, and the ONA would consider sending its own letters.

The Okanagan Nation enjoys inextinguishable rights and title to the lands and waters of the Basin. The Province has a biased notion about land ownership, and says that land claims must be based on evidence of prior land use. The land claims movement has evolved in recent years,

going beyond interests in retribution toward interests in protecting the land for the common good. Reconciliation is essential.

V. Potential Actions for Future Consideration

The following actions were proposed by different Council members within the context of the discussion, and may be considered in the future as potential recommendations to be forwarded to the OBWB. These do not represent consensus ideas of the Council.

- The OWSC should work on legislative reforms to improve watershed protection, and gain better local control over resource and resort development. Now is a good time to act, because Campbell has given the environment a high priority.
- The OWSC, OBWB and the Okanagan Nation should work collaboratively to oppose the sale of leased lots on drinking water reservoirs.
- Dr. Schreier's Recommendations for Changing the Course of Water Management
 - Increase Soil Carbon
 - Minimize Soil Compaction
 - Maximize Buffer Zones (to reduce water pollution and increase infiltration)
 - Create Wetlands
 - Detain Drainage Water
 - Address Non-point Source Pollution
 - Reduce Water Demand
 - Address Cumulative Effects
 - Reserve Adequate Water for Environmental Services
 - Develop Innovative Irrigation Practices