

**Priority Planning Session Summary**

Okanagan Water Stewardship Council Discussion Series

For the meeting of February 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**

The objective of this meeting was to discuss two policy areas that have been taken up by the Council, (1) Coordinated Water Conservation, and (2) Source Area Protection, and how to make continued progress. Staff presented a draft proposal for developing a coordinated water conservation or drought plan that would take in the entire basin, as well as a draft survey, summarizing the demand management policies now in place in the different local governments in the Okanagan.

**Presenters**

- Anna Warwick Sears, Water Stewardship Director, Okanagan Basin Water Board
- Greg Armour, Program Manager, Okanagan Basin Water Board
- Genevieve Doyle, Water Stewardship Coordinator, Okanagan Basin Water Board

**Conceptual Framework**

We now have a very motivated and engaged Water Stewardship Council and Water Board, and are beginning to identify key areas that need to be addressed, but don't yet have a good process or strategy for moving forward. It seems like a mistake to trickle out policy recommendations without (1) a structured framework for delivery, (2) advanced buy-in from local government, (3) substantial research to determine which policies are in place, and which are needed.

Fragmentation, parochialism and territoriality are all serious concerns in the Okanagan, and hold us back from collaborative action and integrated water management. We need to look at ourselves with relation to what is happening elsewhere in the world, in the country, and in the Province. In the bigger picture, conflicts between urban dwellers, agriculture and the environment are smaller details.

“Running out” of water means different things to different cultures and communities, as can be seen from the example of Israel, Australia and other water-scarce areas in the world. The amount of water we “need” depends in part on our values. But global climate change, global economics, and population growth are changing the rules of the game. If predictions about oil shortages are anywhere near true, there are big changes on the horizon for how we live and work. The question is, how can we best adapt to the changing environment, whether those changes are with respect to climate, ecology, economics or politics?

The Okanagan has a highly-educated population with a broad knowledge-base about water issues, along with substantial economic and political clout dispersed through the valley, and we have great

capacity for making real change with water management. One of the overarching goals of the Council should be to develop frameworks for concerted action and collaboration: developing a shared recognition of water issues, a shared vocabulary, and working to diffuse conflicts between sectors. Throughout the Basin, our common problems are (1) how to share limited water resources, (2) protecting and improving water quality, (3) protecting and restoring environmental systems and services, (4) working with vague, difficult to implement, or insufficient senior government policies, and (5) funding issues.

### **Staff Synthesis**

*The following is a synthesis of the discussion that followed the staff 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.*

### **Water Conservation Discussion**

The following discussion on water conservation had at its starting point the staff proposal to develop a basin-wide water conservation or drought planning strategy, in which local political leaders would agree to a higher-level set of principles or practices, and direct their staff to work together to develop a program that worked for each community but was consistent with overall plans. This plan would focus on domestic or urban water-use policies, anticipating that another plan would be developed by and for the agricultural community.

**Conservation vs. Sustainable Water Use:** To build a region-wide coordinated water conservation plan, we need to develop a strong message and logical rationale to encourage local governments and ordinary citizens to recognize the importance of conservation, and take individual responsibility. For this reason, we may wish to avoid the term “conservation,” which implies doing without, and focus instead on “sustainability” which is forward-thinking. We need to get beyond having a sense of entitlement for water use.

**Rationale for the program:** The idea of a Regional Water Strategy is highly implementable. In general, water providers have found that citizens want to conserve. Water shortages are a familiar problem to Okanagan residents. Although it would be useful to have the Okanagan Water Supply and Demand Study at our fingertips, documenting how much water is available compared to our need in drought years, this is not essential. Once different jurisdictions begin to sign on, they will be eager to not be the last ones in line – especially if they are able to see what other communities are doing to increase water sustainability.

The basic economic argument is that water providers want effective delivery of a public service when they use public funds. Saving water saves on the per-capita costs of infrastructure. It will be important to work closely with groups like the Okanagan Partnership to further develop the economic and business arguments for sustainable water use.

One of the central water management problems in the Okanagan is lack of storage. Although we have a series of large, deep lakes shoreline development limits the ability to increase storage by raising reservoir levels. ‘Mining’ or drawing down lake levels is another way to manage storage space, but this is not without drawbacks and can negatively impact fish passage and spawning areas, marinas, boat docks and water intakes. Erratic precipitation patterns make it difficult to predict when and whether lakes and reservoirs will refill. Like many other parts of the world, the Okanagan

has relied on the 'slow-release' capabilities of the water stored in the snow pack. If climate change reduces the amount of water stored in the snow pack, it will be essential to make best use of our reservoir space. Water conservation – even for uses that are recycled into Okanagan Lake through the wastewater treatment process – allows water to be retained in upper reservoirs for longer time periods. Developing more storage may cost less than upgrading fixtures for increasing indoor conservation (\$1000/Megalitre vs. \$2500/ Megalitre, respectively), but increasing upper reservoir storage may take much longer to put in place, with an extensive approvals process, and may not be feasible in all areas.

Some have asked: “Why should we conserve water if it only leads to greater development?” This question is based on the assumption that development is constrained by water availability, and that using more water than we need is an appropriate and/or effective response to differing ideas on land-use policy. Having abundant supplies of clean water is essential for protecting our high-standard of living, our economy, and our local food security. Along with these human-centric arguments, taking less water from streams will benefit fish, wildlife and the health of riparian corridors. There are democratic channels for influencing land-use and development, without compromising the sustainability of other community values.

Everyone needs to share in the responsibility of conservation, as all tributaries contribute to the lake. Water-wealthy communities taking surface water from the upper watershed are still responsible for resource protection, because water that they save becomes available to people who take water from the lake.

**Examples from other areas:** We can learn from the example of other areas, such as southern Nevada, or Portland, Oregon. The Portland Regional Water Supply Consortium is a voluntary group, with shared funding that provide consistent tools and can (for example) purchase large volumes of low-flow fixtures for the Portland area, providing economies of scale. There are also examples of collaborative water conservation that are already occurring in the valley: KJWC and Westside Joint Water Committee.

**Making it happen:** To get a basin-wide Sustainable Water Plan off the ground, we first need to draft a proposal, and begin to circulate it. This proposal must include discussion points and a strategy for making it happen. Part of the program must involve getting out, talking to the public, having forums and public information sessions. We also need more information on what structure or components would make such a program work for local governments.

If we are trying to develop a common program, we must make it work on the economic side, especially for the smaller jurisdictions. It is important to have a sense of equity between communities. Most successful conservation programs (e.g., those by Powersmart and Teracen) have been driven by economics. Does the conservation make economic sense for consumers (like replacing light bulbs?). It would help if water was priced according to costs. However, there are social justice issues with water pricing. Low-income people are less likely to be able to bear the costs, while wealthy people may continue to use whatever water they want. Some find economic arguments for conserving water to be complex and dull, so it is important to balance this approach with arguments that focus on other issues, such as protecting the environment.

During the meeting, Peter Dill argued that water conservation really only makes substantial contributions to the environment when it reduces the water taken from tributaries and there is very

little direct environmental gain when water is conserved by users on lake intakes. Nonetheless, he feels that programs could be developed that would unify users from each group. He suggests developing an initiative to preserve new parklands, based on water savings. Annual water reduction by each household could count toward a fund to set aside parkland. The amount of water saved each year could be documented and certified as having been returned to the environment. What ever, the gain to the environment that has been achieved by each individual should be tangible. Awards could be presented on BC Rivers Day each September.

To conserve really substantial amounts of water (to make a difference), we need to change systems instead of behaviours. It is more important to work on changing landscaping standards for development, or standards for irrigation systems than on trying to get people to stop running water while they brush their teeth. The four factors that contribute to the greatest behavioral change water use are: Measurement (metering); Pricing (to reflect costs, and charging higher rates for higher use); Education; and Regulations (such as landscaping standards).

Cost/benefit analyses will be important, prioritizing conservation strategies, and looking at which tools give us the biggest bang for our buck. What kinds of programs work best, and how can we make the most progress? It is also essential to have good information on what is already working for different communities in the Basin, like the survey Genevieve Doyle has completed on local government bylaws and policies. The OBWB can provide leadership by continuing to fund focal conservation projects with a regional focus.

### **Source Area Protection**

Source Area Protection concerns both water quality and water quantity. Good assessments and monitoring will be key for establishing the need for changes in land-use management in the watersheds, and which activities cause problems for water quality. Source protection is essentially managing risks, and part of this is being able to assess which are the key pollutants, and how to minimize them. Although everywhere within the boundaries of the Okanagan Basin is, by definition, a water source area, it is essential to prioritize and determine which specific source areas most need protecting.

There is much concern that the IHA and various Ministries have not allocated sufficient staff or resources to adequately implement existing programs for Source Area Protection. In part, this is because the systems are only now being developed (for example, Regional Drinking Water Teams). However, the IHA and Ministry of Health appear to have a different working definition of Source Protection, and this is an obstacle to finding common ground.

#### **Potential actions**

- As we learned in January, there are other legislative tools beyond the DWPA, and it may be valuable to sponsor a legislative analysis of existing policies, outlining the challenges and benefits to each approach.
- ‘Results-based’ regulation has reduced emphasis on ‘best practices’ for watershed management. It would be good to have a manual with BMPs for Source Area Protection in watersheds. This manual could outline different strategies, and measure their effectiveness.

- A recent article highlighted concerns about the quality of water now being discharged from Okanagan sewage treatment plants, especially pharmaceuticals and endocrine disrupters. If people decide that it is no longer safe to drink water out of the lake, they may wish to move to upland or groundwater. It would be good to have a speaker addressing the topic of endocrine disrupters etc... and how big of an issue they are. The Okanagan Basin Water Board has a long history of sponsorship in upgrading these plants, and protecting the quality of the mainstem lakes. It may be appropriate for the Board to support water monitoring of effluents to determine if plants need further upgrades. Summerland Research Station and UBC-O may be able to provide technical expertise for such a study.
- There are different water quality issues in mainstem lakes vs. upper reservoirs. The upper reservoirs are smaller volume and more sensitive. Environment Canada and Ministry of Environment are already involved in water quality monitoring, but it would be valuable to determine the gaps in this effort.
- We may want to go back to working on the reservoir lots issue. This may be difficult to get traction on because there is already a process in place, however pressure from groups now outside of the process (including local municipalities like Summerland), can change the attitudes of the people working within the process.
- Groundwater is often left out of source protection considerations, and seems to need more regional coordination. The Council and Board should find ways to increase funding for this project to provide this regional scope and increase the pace of the project. Local governments should be encouraged to collect data on wells and groundwater use. Source protection involves protecting recharge areas from potential contamination. However, there are also natural contaminants of arsenic and uranium which are difficult to do anything about.