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A newsletter from the
Black Mountain
Irrigation District
No. 23

ORGANIZATIONAL NEWS

BMID BMID has scheduled their Annual General Meeting for April 11th, 2007 at 7:00 pm at the 285 Gray Road office. Two trustees, Laurence Petch and Heinz Koetz, have indicated they are seeking re-election for a three year term.

The District is currently continuing with the agricultural metering program which should be completed by mid-summer. Our agricultural users can expect more information on how to monitor their annual water use with the aid of the meter.

If you are immuno-compromised, or have infants in your home, it is recommended by IHA and BMID that you take extra precautions and boil the water received from unfiltered water sources. If you have a normal immune system, the water is considered safe for all household purposes unless we advise otherwise. The risks associated with our raw water can be checked by going to our web page and reviewing the level of coliforms within our raw water.

Kelowna Joint Water Committee

The KJWC implements common initiatives related to water within the City of Kelowna. Initiatives underway this year include groundwater aquifer protection planning, tracking of all groundwater and geothermal wells, integrating common Central Okanagan sprinkler regulations, and contributing to the Regional District's "Living Greener" campaign.

Water Supply Association of BC

The WSABC has lobbied IHA in the last few months to revise their turbidity notification program to make it more effective. Please review the WSABC proposal details at www.wsabc.com.

Okanagan Basin Water Board

The OBWB in conjunction with the Province has begun work on the valley-wide Supply and Demand study. This extensive study is necessary to determine how much water is available in the valley and will serve as a guideline for future water allocations. BMID staff are involved in this work in an advisory role representing the water utilities in the valley.

VALLEY WATER QUALITY DIRECTION

Water districts such as BMID have a long history of water supply in the Okanagan with the first districts formed in 1920. Their formation was based on history that extended back into the 1890's when the first irrigation systems were set up. The urban communities have grown up around these water systems. The water district of 2007 is a very different organization than what was serving the region even 20 years ago. The 2007 version of these utilities must meet all of the Drinking Water Quality requirements of our regulators and still provide the huge volume of water that is required to keep the valley green.

The Interior Health Authority (IHA), in recent news articles, has painted the Okanagan water suppliers and water quality supplied by them to be poor and that they are "sweeping dirty water under the carpet". We are disappointed by these comments. The low level of gastrointestinal sickness for the Central Okanagan confirms that the water is generally very safe in the region.



The Okanagan has experienced waterborne disease outbreaks with the BMID *Giardia* outbreak in 1988 and the Kelowna and Penticton *Cryptosporidium* outbreaks in 1996. The water suppliers have learned a great deal from these events and have subsequently improved their disinfection processes, increased raw monitoring for contaminants, have operators trained to much higher levels, and have initiated a cross-connection-control program to prevent contamination back into our water distribution mains. These are all part of what is known as a multi-barrier approach which is strongly endorsed by all regulatory agencies.

Most of the water supply systems within the Okanagan do not have filtration for two primary reasons. One is that the source water quality is some of the best in North America and the world. We have large natural watersheds that are not industrialized. The largest contaminants we have to our sources is from urbanization. The second reason is that we have huge volumes of water that must be supplied to the agricultural community. Without agriculture in this valley, the quality of life would be greatly reduced.

Currently, the majority of water supplied in the Central Okanagan utilities meets the Guidelines for Canadian Drinking Water Quality year round. It was recently stated in the media that \$500,000,000 would be required to install filtration on all Okanagan water systems. This approach is fiscally and environmentally irresponsible. Filtration is necessary for some of the water utilities in the valley and achievable for some, but not all. The primary focus should not be whether or not to filter, but how do we make the water as safe as possible for all systems. There are many examples in North America of unfiltered water systems that provide water to large populations.

(continued on page 2)

When my grandkids ask me, "Did you do everything you could to protect the environment? I want to be able to answer.... Yes!

David Suzuki in Kelowna, February 25, 2007



BMID has begun an initiative with the Ministry of Environment (MOE) and the Regional District of Central Okanagan (RDCO) to develop additional storage in Upper Mission Creek. A Water-Use-Plan for the Creek will begin this year with the results of the study aimed at improving the management of water releases and increasing the knowledge and understanding of all stakeholders who are dependant on the creek.

BMID currently owns and operates three dams in the Mission Creek watershed and is the largest stakeholder. BMID operates Loch Long Dam for the MOE and releases its 600 megalitres (600 ML or 600,000 cubic metres) of water every year in September and October to provide water to support fish habitat in Lower Mission Creek. Loch Long Reservoir (see photo) is located high in the watershed and holds excellent quality raw water that meets the Guidelines for Canadian Drinking Water Quality year round. The 600 ML of storage at Loch Long is the only water available in the entire watershed that is a “Conservation License” assigned to support fish habitat. BMID is working with MOE and RDCO to substantially increase the storage volumes licensed for conservation.



Of BMID’s three reservoirs, the highest raw water quality is located within the higher elevation Graystoke and Fishhawk Reservoirs. The BMID Ideal (Belgo) Reservoir is 1,500 feet lower in elevation and holds water that is of high organic content and higher colour which is less desirable for drinking water. This water is nutrient rich, more susceptible to algae blooms and taste and odour problems. It is an excellent source of water for supporting fish habitat and the benthic invertebrates that fish feed upon.

In the extensive Okanagan Basin Agreement Project, in 1974, Recommendation No. 36(ii) was for: “New Mission Creek Storage – That 4,400 ML of headwaters storage be licensed and developed for Fisheries by 1980”.

BMID is working with MOE to transfer licenses of high quality drinking water from Loch Long to BMID in exchange for an equivalent volume of Ideal Lake storage water. BMID is also considering, in partnership with the Province and

Regional District, development of additional storage at Loch Long Reservoir and two other existing sites in the upper watershed. The volume would be equivalent to the 6,700 ML volume of water that exists in Belgo Reservoir.

This initiative will take several years for BMID to develop and is in its earliest stages. It is win for fish habitat, a win for BMID customers in higher drinking water quantity, and a win for the environment in the fact that less water treatment plant chemicals will be required. ***Storage licensing for fish should occur now and not in 20 years when demand for water will only increase.***

REASONS FOR PROTECTION AND MANAGEMENT OF OUR HIGH ELEVATION WATERSHEDS

- Source water from rainfall is in its most natural form;
- There are minimal waste impacts from man at higher elevations;
- Water stored at high elevation may be available for use and possible re-use downstream;
- Natural wildlife risks to water are usually manageable;
- Future susceptibility to Global Warming will be less at the higher elevations due to lower temperatures than those in the valleys;
- Annual water supply is more reliable at higher elevations;
- Raw water quality is generally better at higher elevations.

OBSERVE, RECORD & REPORT
questionable watershed activities to
BMID at 765-5169

VALLEY WATER QUALITY DIRECTION (CONTINUED)

In the heavily regulated USA, New York City, Boston, San Francisco, Portland, and one of Seattle’s sources are unfiltered with plans to remain that way. Within BC, Coquitlam Reservoir for Vancouver and Victoria are not planning for filtration. All of these centres have extremely strong source protection programs in place. In up-state New York, they are purchasing back land from private owners to protect land use activities in the upper watershed.

A fiscally and environmentally responsible approach is to expend \$5,000,000 (the first 1.0% of the \$500,000,000 filtration expenditure) on source water protection. Although no funds have been directed here by the Province, the attention from all government agencies in this area has increased which is encouraging.

The primary reasons why waterborne disease outbreaks continue to occur in the industrialized world are: a breakdown in disinfection, a high contamination event, operator error or complacency, or a combination of any of these events. Our operators are the greatest defense that the public has to ensure that safe drinking water is provided at all times. They are on-call 24 hours a day, 365 days a year.

A holistic approach for water supply would include the reduction of the use of water treatment chemicals, coagulants, polymers, and flocculant aids. This can be done by accessing the highest quality source water, ensure that disinfection deals with all of the known potential toxins and pathogens, and that monitoring is sufficient to recognize any deviations in time to notify the public. Feeding the public safe water in its most natural form is a primary objective for all water utilities. We have a gift and an opportunity for the future.

Water is the driver of Nature.
 - Leonardo da Vinci