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### VALLEY WATER NEWS

#### Okanagan Basin Water Board

The Okanagan Basin Water Board (OBWB) is beginning a new phase of its tenure. The OBWB has historically been represented by Directors from north, south and central Okanagan Regional Districts. The Board has provided excellent direction on wastewater treatment initiatives and on weed control within lakes.

Recently, the OBWB was restructured to include representation from a Stewardship Council, the First Nations, and from the Water Supply Association of BC. The Stewardship Council is an advisory group to the OBWB, with water experts from across the Okanagan Valley. Valley wide water management issues should soon receive a higher level of attention and technical support.

#### Kelowna Joint Water Committee

The Kelowna Joint Water Committee (KJWC) has a busy year planned. Issues that the KJWC will be facing include development of groundwater protection plans and improved reporting and notification to the public.

An area of concern is the high attention and focus on Geothermal heating and cooling. Heat exchange to the ground has numerous benefits and has been highly touted as a sustainable technology.

There may be problems which could include the potential contamination of groundwater aquifers with bacteria or seepage via unsealed drill holes that puncture the aquifer. With added heat to the ground, the chance for iron-rich bacteria re-growth is exacerbated. The impacts to shallow groundwater flow is also unknown. KJWC is beginning the process of collecting baseline ground-water temperatures.

The cure for anything is salt water sweat, tears, or the sea. - Tagore - a Bengali poet and novelist



February 2006

A newsletter from the Black Mountain Irrigation District No. 20

## **BLACK MOUNTAIN TUNNEL & CONDUIT INSPECTION**

Water delivered to BMID customers originates from the Mission Creek watershed east of Kelowna. Water is released from high elevation reservoirs in the Graystokes from where it travels for 18 hours down Mission Creek to where it is diverted to the BMID water treatment plant and balancing reservoirs below Eight-Mile Ranch. From there, water is treated and then conveyed by gravity through a large diameter conduit and pipe through the Black Mountain Tunnel and to the distribution system.

The rock tunnel was an ambitious post-war project constructed in the late 1940's. Every 5 to 7 years, the tunnel and the conduit are drained and inspected. This work recently occurred the week of February 6-10<sup>th</sup>, 2006. Rutland Waterworks temporarily supplied BMID with water. We thank Bruce Wilson and the Rutland Waterworks staff for their assistance in allowing us to carry out this critical maintenance work.



The concrete conduit was inspected and found to be in very good shape. A minimal number of joints required regrouting. The rock tunnel was inspected by Mr. Brian Jamieson, P.Eng. who is a highly qualified mining engineer and the current Manager of the Westbank Irrigation District. The tunnel integrity was tested with scaling bars and we are assured of the integrity and stability of the rock within the tunnel. We are grateful for Brian's assistance.

Inset: Foreman Kevin Burtch within the tunnel at the lower tunnel bulkhead.

#### LAND USE PLANNING RELATED TO WATER

Although BMID has a significant influence on the flows within Mission Creek, we do not have jurisdiction on how the land is used in the watershed. Control of land use in the watershed lies with the Regional District of Central Okanagan (RDCO) and the Province. The RDCO is looking to update the Joe Rich Land Use Bylaw which provides a plan for how land will be used up the Mission Creek valley. The future land use plan for Joe Rich will be determined through the public participatory exercise now underway. In 2004, BMID spent considerable time and resources to identify and explain the dangers of development on the silt bluffs above Mission Creek, and in particular, above the BMID Water Treatment Plant.

The instability of the slopes in the lower Mission Creek valley are well documented and the history of instability has in the past resulted in deteriorated water quality, slides and deaths (Philpot Road). BMID is currently lobbying the RDCO through the current process to put in place stronger land use measures to protect the slopes of Mission Creek up the Joe Rich Valley.

Inset: 400 ft high landslide in 1984 2.0km upstream of BMID water treatment plant.



### WATER METERS

BMID supplies water to 4,200 acres of irrigated land and to 20,000 persons for domestic use. During the arid summer months, irrigation accounts for a significant portion of the total water use.

Since January of 2005, BMID has required the installation of water meters on all new connections. In early February of 2006, BMID received a \$200,000 grant for the supply and installation of water meters for our irrigation connections. The federal grant money originates from the Canada BC Water Supply Expansion Program to augment water for agriculture across the country.

The \$200,000 will cover a significant portion of the irrigation water meter cost. It is planned that the remaining costs will be covered through reserves and revenue surplus. With the exception of inflation, no changes in tax rates are planned to fund the supply and installation of the irrigation water meters. In conjunction with the grant is funding to inform and assist the community with the implementation of meters.

The cities of Vernon, Penticton, and Kelowna, and the South East Kelowna Irrigation District are all presently metered. Under the federal program, meters installations are now underway for the Westbank Irrigation District, Greater Vernon Water, Summerland, Glenmore-Ellison, and Lake Country.

# NOTICE OF AGM

The annual meeting for the Black Mountain Irrigation District will be held on Wednesday, April 12th, 2006 at 7:00 pm at the District Office located at 285 Gray Road, Kelowna.



OBSERVE, RECORD & REPORT questionable watershed activities to BMID at 765-5169 "Man - despite his artistic pretensions, his sophistication, and his many accomplishments - owes his existence to a six inch layer of topsoil and the fact that it rains." - Unknown author -

### WATER QUALITY

#### HIGHER REPORTING STANDARDS TO INTERIOR HEALTH AUTHORITY

In March, 2006, the IHA will upgrade their requirement for public notification in the event of a deviation in water quality from set standards.

The IHA will be tying water quality to *turbidity. Turbidity* is defined as the relative clarity of water. It is measured by how a beam of light is scattered or absorbed as it passes through water. The less scattering and absorption of light, the clearer the water is, and the lower its *turbidity* level.

If *turbidity* is at high enough levels, it can result in compromised disinfection processes. The Guidelines for Canadian Drinking Water Quality (GCDWQ) assign an acceptable maximum *turbidity* level of 1.0 NTU (nephelometric *turbidity* units).

At levels above 1.0 NTU, a Water Quality Advisory is to be issued for the water utility. This means that the public is to be advised of the change in quality and of the potential risks involved with respect to public health and safety. At levels above 5.0 NTU, a Boil Water Notice is to be issued for the water utility. The message to be delivered to the public during water quality deviations is currently being developed by the IHA.

The BMID Water Treatment Plant on Mission Creek typically reduces *turbidity* levels from greater than 100 NTU in the creek to below 1.0 NTU. There may be several days per year where the *turbidity* may reach 1.3 NTU, however this does not compromise the BMID disinfection practices or public safety. Advisories will be called and the public will be notified as stipulated by the Interior Health Authority. Water quality alerts will be available online in April of 2006 at <u>www.kjwc.org</u>

A lake is the landscape's most beautiful and expressive feature. It is earth's eye; looking into which the beholder measures the depth of his own nature. - Henry David Thoreau -

### **DELINQUENT ACCOUNTS**

BMID recently revised their Bylaws to help recover costs and encourage prompt payment of water toll bills. Every three months, BMID notifies the delinquent water users through tagging the home, setting a grace period to allow time to pay and then, if payment is still due, shutting off the water. A \$30.00 turn-on fee has been historically charged. This fee has been increased to \$50 per house visit or \$100 for a turn-off/turn-on event. Final notification of non-payment will now be mailed and the home will no longer be tagged.

Approximately five man-weeks of labour is spent annually to track down delinquent accounts. This cost has been covered by customers whose accounts are up-to-date. This rate adjustment brings BMID in line with other water utilities in the Central Okanagan. Available payment methods include:

- Pre-authorized payments
- Cheque, cash or debit
- On-line or telebanking

## HOME MAINTENANCE: HOT WATER TANKS



After space heating and cooling, the average home hot water tank generates up to 15% of a home energy bill. There are several ways to extend the life of a hot water tank, reduce energy consumption, save money, and preserve the environment.

Hot water tanks can be either natural gas or electric. To lower energy costs, consider reducing the operating temperature from 140°F to 115°F.

To ensure that the elements are operating efficiently, drain the bottom of your hot water tank twice a year to remove silt and sediment. Silt and sediment can reduce the heating efficiency and cause heating elements to burn out prematurely.

Tank insulation kits are also available from your local hardware store. Insulation kits will reduce heat loss from the tanks and save money over time.