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September 2009

A newsletter from the Black Mountain Irrigation District No. 34

### BMID WATER NEWS

**Scotty Creek System Separation:** Scotty Creek has high cattle activity during the summer which results in high bacteria and *E.Coli* readings in the raw water. This contamination challenges the disinfection system and as a result, the area has been under several Water Quality Advisories in recent years. In order to eliminate Scotty Creek as a drinking water source, BMID has awarded a \$533,000 contract to Bennett Contracting Ltd. to install 4.5 kms of small diameter domestic water main. The mains are to be installed along Old Vernon Road and Scotty Creek Road. Tender prices were very competitive and the project should be of excellent value to our community. When completed later this fall, Scotty Creek water will be used only for agriculture irrigation and there will be lower demands on our Mission Creek water system and Water Treatment Plant. This work is our highest priority water quality improvement project.

**Water Governance:** In the previous newsletter, the issue of water governance was presented. BMID declined to participate in the City initiative to carry out a City-wide Water Master Plan and Governance Study as there was no prior consultation with the Improvement Districts who provide 72% of the total water volume. The Districts are in the process of developing a summary report on the issues of interconnection, water treatment and water governance for the Kelowna region.

### Black Mountain Reservoir Project

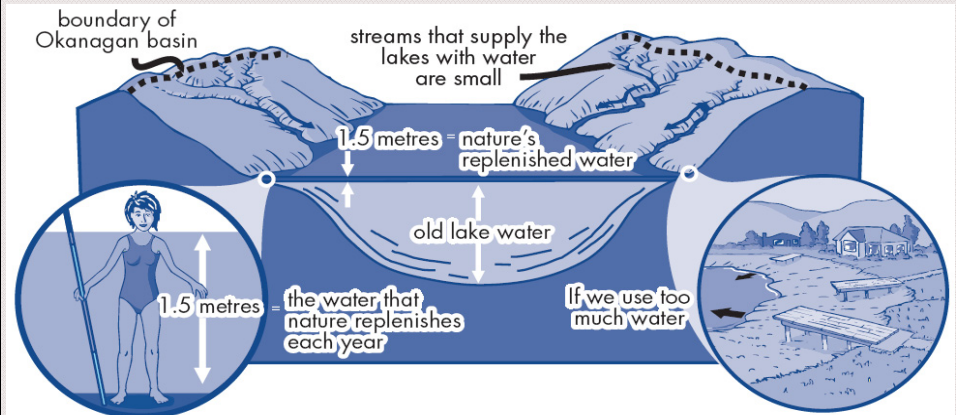
Work on the reservoir project continues. BMID is approximately 18% into the project. BMID has purchased all of the steel pipe for the transmission mains and has approximately 70% of the 42" and 60" diameter steel mains coated. BMID was able to obtain exclusion from the Provincial BC Environmental Assessment process as the reservoir is "off-line" from the Mission Creek environmental corridor. The project still requires a City Environmental review and BMID has retained Ecoscape Consultants to guide us through the City process. A visual impact assessment, landscaping, drainage, site grading, and fisheries impacts are also being addressed at the current time. Topographic surveys for all works are nearly completed. (continued Pg. 2)

### REGIONAL DROUGHT CONCERNS

Although the Okanagan has been fortunate in recent days to receive precipitation, we are still in the midst of a regional drought. The primary indicator of this is the level of Okanagan Lake. The average lake level at this time of the year should be at 342.05 metres. Despite the recent rains, as of September 4, Okanagan Lake was at 341.78 metres or 0.27m below normal levels. This equates to 94,000,000 cubic metres of water or 40% of the total annual water use in the entire Okanagan Valley. The situation was much worse in late June prior to the rains. The lake levels are controlled by the Ministry of Environment who have restricted releases from the lake to minimal levels for the last year due to the lack of precipitation. The lowest annual lake levels, experienced in April each year before spring runoff, are currently projected to be very low in early 2010.



Okanagan Lake is the only lake in the valley lake chain that operates with a variable storage greater than the annual evaporation. The variable levels in the other lakes: Wood, Kalamalka, Skaha, Vaseaux and Osoyoos Lakes; are all less than the total annual evaporation depth. This means that the water through these small valley lakes is a flow-through amount and the useable storage within those lakes is limited. Although the total volume of water in the Okanagan is substantial, the renewable volume is limited to 1.5m as illustrated below. (Source: OBWB Sustainable Water Strategy).



BMID received many calls and questions between June and August this year from concerned citizens asking whether or not BMID was on drought restrictions. BMID was fortunate in that the reservoirs were all full at the end of spring runoff and BMID did not have to utilize water from storage reservoirs until July 15 due to the slow and gentle runoff experienced on Mission Creek. BMID is extremely fortunate to have the Graystoke Plateau in our watershed which is the area with the highest annual precipitation and highest raw water quality in the entire Okanagan Basin.

On July 23, 2009, the OBWB hosted a "Planning for Drought Workshop" to continue work on a valley-wide coordinated Drought effort. Presentations were received from the Ministry of Environment, local water suppliers, local fisheries staff, and provincial agricultural staff regarding water for agriculture. The event was attended by 87 local utility and ministry staff, and municipal, provincial and federal politicians. The information gathered is providing feedback to the OBWB coordinated valley-wide drought plan.

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"I bought some Instant Water one time, but I didn't know what to add to it" comedian Stephen Wright





**Leased Lot Issue**

At the July 28, 2009 BMID Board meeting, the Okanagan Cabin Owners Association (OCA) presented their position regarding the controversial issue of the potential sale of the Provincially leased lots adjacent to drinking water reservoirs in the Okanagan basin. Some of the leases have been held with families for many decades. Recently, BC Assessment substantially increased the assessed value and tax rate applied to these leased properties. This resulted in a request from the leasees to purchase the properties and own them in a fee-simple arrangement.

The BMID Board stated at the meeting "that as there are no leased lots on BMID reservoirs, that the BMID Board is not opposed to the leases being renewed, provided that those holding the leases be required to maintain the lots to the highest health standard. The issue of the sale of leases is between the OCOA and the Province".

BMID suggested that the OCOA explore partnerships with the water utilities in watershed protection. Such a relationship exists between BMID and the Kelowna Snowmobile Club where both parties are stakeholders and part of the solution in maintaining the Graystoke area in a natural condition. The opportunity exists for the OCOA to receive support from the utilities of lobbying for lower assessed values and taxes applied to the leases if partnerships are formed.

The elimination of access and activities in the watershed is not realistic, and therefore, education and control of activities in the watershed should be of priority to all existing and potential stakeholders.

**Interior Health Authority**

Dr. Andrew Larder, the Chief Medical Health Officer from Interior Health Authority met with the OBWB on September 1 in Penticton. The presentation by IHA was positive and it was clarified at the meeting that the primary goal for all large utilities is that they meet the 4,3,2,1,0 IHA protocol criteria. This criteria consists of:

- 4 log (99.99%) inactivation of viruses;
- 3 log (99.9%) inactivation of *Crypto* and *Giardia*;
- 2 types of treatment and/or disinfection;
- Less than 1.0 NTU Turbidity at all times;
- 0 Coliforms in the treated water at all times.

BMID requires the installation of a UV disinfection system to achieve the 3 log criteria for *Cryptosporidium* inactivation. The UV disinfection system is the second highest water quality priority after separating the irrigation and domestic water systems in the Scotty Creek area.

BMID will be contributing to the coordinated OBWB basin-wide drought planning initiative. In 2005, BMID developed a District Drought Plan that set out steps in the event of a significant shortfall in water held in our storage reservoirs. All of the drought triggers for water-use restrictions are tied to the time of year and remaining volume of water held in storage.

A coordinated valley-wide plan will result in more common messaging to the public, a greater understanding of the drought issues, and the ability to react appropriately so that man can reduce the potential for catastrophic drought events. Nature has the capacity to override even the best plans of man.



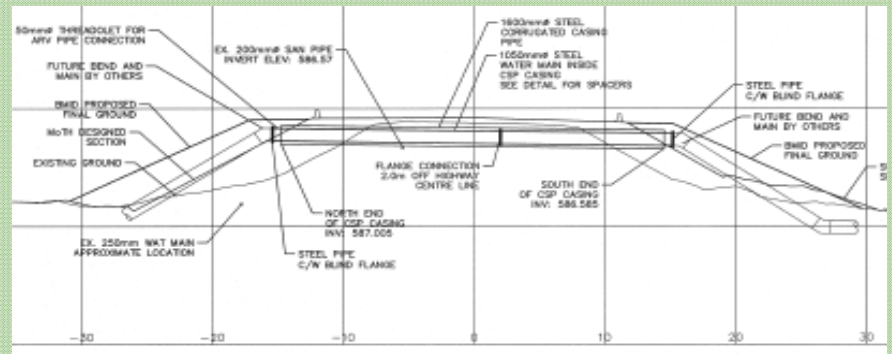
A key question raised in the Drought Workshop was "Why should my water utility conserve if my reservoirs are full and my ratepayers invested accordingly in reservoir storage where others may not have?" The concern is that the utilities with licensed storage in the watersheds would, during an extreme drought, be required to release additional water to fill Okanagan Lake. The simple answer is that release of the small amount of storage from upper level reservoirs will have a

minimal impact on the level of water in Okanagan Lake. Storing water at the highest possible elevation is the recommended strategy to reduce regional drought impacts as the level of evaporation is greatly reduced at higher elevations.

Ultimately, during a regional drought, the entire valley should consider tightening up water usage. The second year of a drought is usually more critical than the first year. The lesser the volume of water used from high elevation reservoir storage, the more water that will be retained in those reservoirs over the winter. This would allow more water to flow to the lower lakes during the subsequent spring runoff.

**HIGHWAY 33 WIDENING WORKS**

BMID is in the process of working with the Ministry of Transportation on the widening of Highway 33 from Muir Road to Gallagher Road. The 4.2 kilometer upgrade affects BMID water infrastructure that is within the Highway 33 Right-of-Way. The largest component of the water main works is the crossing of Highway 33 with two large 42" diameter water mains to and from the Black Mountain Reservoir. The large 42" mains are to be cased with a 1600mm diameter corrugated steel pipe and wood timber strapping so that the mains remain in a secure location within the casing. The works are integrated into the highway contract. All materials supplied by BMID are currently in our Works Yard. All asbestos concrete water mains within the highways right-of-way are being replaced so that future repairs are reduced.



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

"With true friends.....Even water drunk together is sweet enough" - Chinese Proverb