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November 2011

A newsletter from the Black Mountain Irrigation District No. 41

VALLEY WATER NEWS

BMID News

Tax notices for the larger parcels of irrigated land within BMID were issued in October. Taxes are due December 23, 2011 after which time a 10% penalty will apply. The BMID office will be closed over Christmas between Dec 24 and Jan 1, 2012.

The BMID Trustees for 2011-12 are Chairman Gordon Ivans, and Trustees Al Horning, Alfred Kempf, Allan Kirschner and Gerry Zimmermann.

Congratulations to Gerry for being elected to City Council. This should continue to strengthen our relationship with the City for the benefit of all of our customers.

BMID 2010 Water Usage

BMID water consumption in 2011 is slightly higher than the 11,522 mega liters (ML) used in 2010. BMID's projected consumption should be approximately 11,740 ML which is about 12% lower than the long term trended average of 13,400 ML/year. The late spring and mid season rainfall reduced early season outdoor water consumption. Water use reports for the larger irrigated parcels are being prepared and will be issued in early January.

2011 BMID Works Program

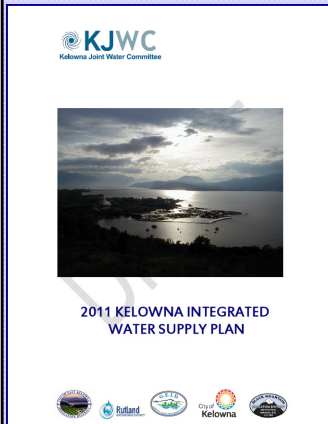
BMID has been busy completing an extensive amount of work in 2011 including:

- Renewal of chlorination equipment at the main Mission Creek chlorinator;
Renewal of equipment at the Surge Tower back-up chlorinator;
Repairs/renewal to travelling screens at the Mission Creek intake;
Replacement of four chemical dosing pumps for the Water Treatment Plant;
Purchase of a track-excavator and deck-truck for district repairs and service work;
Dam maintenance at Belgo Reservoir and James Lake Reservoir;
Hydrant servicing and painting;
Flow meter and remote monitoring/instrumentation at Pressure Reducing Valve (PRV) Station No. 1;
Resurfacing of roof on chlorinator building and on screening building at Mission Creek intake; (continued on next pg.)

KELOWNA INTEGRATED WATER SUPPLY PLAN

Water is supplied to City of Kelowna residents by one large municipal water system, 4 large improvement districts, and approximately 13 smaller utilities. Collectively the annual volume of water supplied is the second largest in the province behind Metro Vancouver (formerly the Greater Vancouver Regional District). The high volume is due to the arid climate and the significant amount of agricultural activity that requires large volumes of water during the summer months.

The Glenmore-Ellison Improvement District, South East Kelowna Irrigation District and BMID provide approximately 65% of the annual regional water supply and have high cost requirements to bring these systems in compliance with the drinking water standards. In 2009, the improvement districts lobbied the Province to assist in funding water quality upgrades. Probable projects and funding needs were identified in 2009 and were reviewed by both City and the Province. The Minister of Community Development at that time, the Honourable Bill Bennett, required that the five large water suppliers collectively develop a comprehensive water quality improvement plan that would:



- 1. Provide best, lowest cost solutions;
2. Be flexible with respect to governance in that amalgamation may not necessarily be a requirement in developing the solutions;
3. Meet the desired public health outcomes; and
4. That the interests of agriculture be maintained.

The development of the plan started in the fall of 2010 and a draft plan was completed in early November, 2011. Once comments are received from Interior Health and from the Ministry of Community Development, the plan will then be finalized.

The plan is the most comprehensive document on the state of water quality supplied within Kelowna.

Presently there are 41 sources of water available to the five large utilities. The plan considers the quality, supply capacity, and risks associated with each water source and breaks them down into one of three categories for long term use.

Table with 3 columns: Primary Domestic Sources, Secondary Domestic Sources, Irrigation Sources

Primary domestic sources are those of lowest risk and highest raw water quality. The highest quality sources are the 3 largest water intakes on Okanagan Lake, selected groundwater wells, and Mission Creek.

Secondary domestic sources include the remaining lake intakes and majority of remaining groundwater wells. They may also be available for long term domestic use, but are considered a back-up source in times of emergency.

Irrigation sources include the three large low elevation creeks, Scotty Creek (BMID), Kelowna Creek (GEID) and Hydraulic Creek (SEKID).

Consideration is given of whether to construct one centralized City-wide treatment facility or to have several locations from which to supply domestic water. The plan also includes guidance on how to approach water system separation. Because most of the water supplied to larger parcels of land is for outdoor irrigation, lower quality water could be provided. Water supplied for indoor use must be of high quality to be safe for human consumption. System separation means the installation of a second pipe so that one pipe provides lower quality irrigation water and the other provides higher quality drinking water. (continued on next pg.)

BMID WATER NEWS

- Upgrading of remote monitoring and controls at Water Treatment Plant;
- Extension of 300 metres of small diameter water main on Walburn Road;
- Completion of servicing work related to Highway 33 widening in 2010;
- Installation of a Guard-All building to cover the Water Treatment Plant flocculators (underway).
- Installation of 450 metres of 42 inch steel transmission main south of Highway 33 by Bennett Contracting (part of BMID Reservoir project);



Loch Long Reservoir Transfer

BMID officially received notification of the transfer of Ministry of Environment water licenses for Loch Long to BMID for licensed storage water from Belgo Reservoir. BMID now owns and maintains the two dams at Loch Long and has licensing for an additional site immediately above at Loch Ochie.



The Ministry has limited capacity to carry out maintenance of their dams, but needs water storage to support conservation flows for fish habitat in lower Mission Creek. BMID requires the highest possible raw water quality for the supply of drinking water.

The high colored water in Belgo Reservoir is best suited to support fish habitat in lower Mission Creek. Obtaining Loch Long helps BMID secure some of the highest quality source water that is available in the region. The licensing transfer process was started in early 2007 and was completed this year.

KELOWNA INTEGRATED WATER SUPPLY PLAN (CONTINUED)



In developing a comprehensive water quality improvement plan, it is challenging to keep the approach simple, direct and in-line with the long-term strategy for water supply for the City. The plan is set out in 8 simple stages:

1. **Improve Source Water Quality:** Access water from the highest quality available water sources;
2. **UV disinfection:** Maximize the use of Ultra-violet disinfection throughout the region as it is proven to be the Best Available Technology and a cost effective barrier that is applicable for use on the high quality primary domestic sources;
3. **Primary Separation:** These are the agricultural areas that require separation immediately. They include Scotty Ck. (BMID-completed), Ellison area (GEID) and most of the SEKID service area;
4. **Phase 1 Interconnections:** Interconnect the existing water distribution system grids in order to improve the interconnection capacity and emergency supply capacity;
5. **Ancillary Works / Reassessment of Status:** These projects improve water quality, redundancy, protect source water quality and/or assist in overall water management;
6. **Secondary Separation:** These secondary areas include the Scenic area in GEID and the Morrison, McKenzie, Gallagher's Road and Belgo areas within BMID;
7. **Filtration of Primary Sources:** If any of the four primary water sources experiences significant deviations in raw water quality, filtration and/or additional treatment would be added;
8. **Phase 2 Interconnections:** The second stage of interconnections is to provide substantial capacity between utilities through the construction of high capacity transmission mains.

All water quality projects from the five Kelowna water utilities were evaluated to see if they matched in with the greater City-wide approach. 48 projects were identified as compatible. To meet the minimum requirements of Interior Health, all projects to the end of Stage 3 must be completed for a total cost of \$41,000,000. To meet the desired levels for service and redundancy, all projects to the end of Stage 5 must be completed for a total cost of \$86,000,000.

The plan provides a simple, technically sound and defensible approach for water quality upgrades for Kelowna, regardless of political boundaries. The rate impact of the improvements with and without funding support from Senior government is presented. The plan will be available for download from the KJWC and BMID websites once final comments are received from the Province and Interior Health.

WTP GUARD-ALL BUILDING

Every year prior to spring runoff, BMID staff spend days removing ice to get the BMID water treatment plant operational. The plant was built in 1999 on a limited budget without a building over the chemical mixing tanks (right side of the photo). The tanks required de-icing each spring. By covering the tanks, plant operations will be more reliable and critical components such as the mixers can be better protected from the weather. A Guard-All building was purchased in October and will be completed in late 2011.



MOTORIZED VEHICLE ACTIVITY

BMID hosted 2 meetings this summer with representatives from the Okanagan Backcountry Association (4x4 club), the Kelowna Snowmobile Club, the Provincial Recreation Officer and Enforcement staff attending. The purpose of the meeting was to reduce conflict in the watersheds and to facilitate cooperative and responsible activities.

BMID has no jurisdictional authority, but has public support to monitor and report on problematic activities. BMID encourages all independent motorized riders to join the recreational clubs/associations, to develop codes of conduct, and provide guidance for the membership on how to be responsible when up in the watersheds.

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