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June 2014

A newsletter from the Black Mountain Irrigation District No. 46

BMID WATER NEWS

BMID 2014 Elected Officials

The Board for BMID remains stable and unchanged for 2014-15. In April, Trustee Allen Kirschner was re-elected by acclamation for a 3-year term. The Board of Trustees for 2014 -15 are: Gord Ivans (Chair), Al Horning, Alfred Kempf, Allen Kirschner & Gerry Zimmermann.

Spring Runoff

The upper snowpack for Mission Creek was at levels higher than all but 3 of the past 40 years. The Mission Creek snow pillow measured a peak of 718mm of snow-water equivalent in early May with the average annual peak being only 500mm. Fortunately the watershed did not receive heavy rainfall in May and June and the snowpack came off with minimal damage to the banks of Mission Creek. The peak flow was measured to be only 59 m³/s on June 13, 2014.

2014 Water Rates

In 2013, the tax and domestic toll increase was set at 8%. For 2014, a 3.5% increase in rates is implemented to match inflation and provide some funding for a portion of the UV Disinfection Facility and Pipeline project that is getting underway. The upgraded water treatment works are necessary to meet the drinking water standards for disinfection. BMID is required to install Ultraviolet disinfection for protection from protozoa risk (*Cryptosporidium* and *Giardia*).

BMID Projects

In 2013, BMID completed the installation of a large 42" transmission main from Joe Riche Road to the site of the UV Disinfection Facility. The 42" diameter mains will carry water to the planned disinfection facility and back to the distribution system. The work was completed by Bennett Contracting on time and on budget. BMID also retained Trojan Contracting to carry out the preliminary site grading of the UV Disinfection Facility and future water treatment area.

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"Water which is too pure has no fish"
Anonymous

BLACK MOUNTAIN RESERVOIR - PROPERTY REZONING

BMID is inviting the public to attend our open houses on July 21 and July 28, 2014 from 3:00 to 8:00 pm at the Black Mountain Golf Course Clubhouse, located at 575 Black Mountain Drive.

BMID will provide information on the Black Mountain Reservoir Rezoning application that is currently underway with the City of Kelowna. BMID will also be informing the public on our intent to borrow \$7,000,000 to fund the UV Disinfection and Pipelines project.

BMID recently completed rezoning the BMID lands immediately south of the reservoir for the purposes of constructing a UV Disinfection Facility. This rezoning was completed in March of 2014.

BMID presently has a second application in to the City of Kelowna to rezone a portion of the BMID owned lands at 2458 Joe Riche Road from A-1 (Agriculture) to P-4 (Utility). The land was purchased by BMID in 1984. The Trustees in 1984 had the foresight to recognize that the site was ideally situated for a future gravity-fed reservoir. Although the reservoir will not be constructed in the immediate future, BMID is progressing with the approvals for various aspects of the reservoir. The reservoir will consist of two dams at the north and south ends of the Gopher Creek valley. The creek will be routed around the east side of the reservoir. The total proposed reservoir water area is 91 acres. The reservoir could hold up to 5,400 megalitres of water. (*megalitre = 1,000 cubic metres*).



The City of Kelowna has responsibilities to their citizens to minimize any negative downstream impacts created through land-use decisions. These could include issues such as soil removal, drainage, seepage and groundwater issues. The Provincial Dam safety staff will eventually review the detailed design for the earth embankments and the measures required for the long term safety of the dams.

The land for rezoning consists of three parcels totaling 385 acres. Only the portion where the reservoir and dams are to be located are being rezoned. The larger remainder of the properties will remain zoned A-1 (Agriculture). There will be opportunity for the public to speak in favour or against the proposed land use change at a Public Hearing that will be part of the reservoir rezoning application.

BMID has an obligation to inform the public on the land use implications and will do so at the public meetings stated above in the public invitation.



BMID Operations and Maintenance

BMID works staff have been working on a number of projects this year:

- ◇ New chemical tanks were installed at the Water Treatment Plant;
- ◇ Additional instrumentation was installed to monitor UV light at the water source at Mission Creek and just after disinfection of the water. This information is being tracked;
- ◇ Hydrants throughout the District are being maintained. Most of the hydrants were painted in 2012 & 2013;
- ◇ System flushing and servicing of gate valves, air valves and stations is ongoing;
- ◇ Upgrading and maintenance work was carried out at two of BMID's largest Pressure Reducing Stations. New remote monitoring equipment was set up for those stations.
- ◇ BMID purchased a grader for use to level our dam crests, the roads to our facilities, and the access roads at our Water Treatment plant.

2013 Water Usage Summary

Total BMID water consumption for 2013 was much lower than average, particularly in the fall, as shown in the table below. The actual and average monthly water usage from all sources in mega-liters (ML=1,000 m3) is listed below.

Month	Actual	Average	%
Jan-Mar	653	601	109%
April, 2013	333	479	70%
May, 2013	1,285	1,509	85%
June, 2013	1,213	1,956	62%
July, 2013	2,802	2,888	97%
Aug, 2013	2,428	2,834	86%
Sept, 2013	851	1,388	61%
Oct, 2013	339	512	66%
Nov—Dec	469	436	108%
2013 FINAL	10,373	12,603	82 %

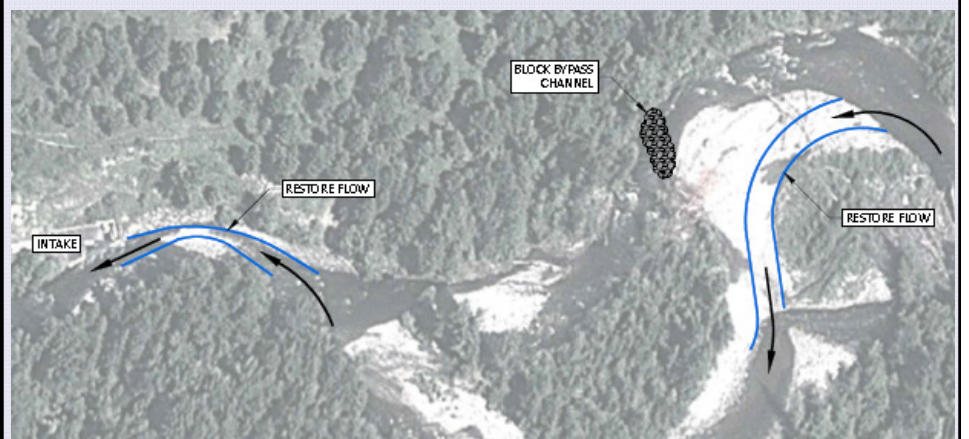
E-Billing BMID is pleased to offer e-billing. Have your utility bill emailed to you. BMID is pleased to provide our customers with an efficient and environmentally friendly billing option. By signing up for e-billing your domestic quarterly bills or monthly bills can be emailed to you directly. Please contact our office at 250-765-5169 to make arrangements, or you can download a copy of the e-bill agreement from our website at www.bmid.ca This option is not available for irrigation tax bills.

Over the past two years, Mission Creek has had to convey unprecedented flow volumes during the spring runoff. There were three runoff events in 2012 that were higher than any previously recorded flow during the 49 years of continuous monitoring on the creek. In 2013, there was one event where the peak flow reached 120 cubic metres per second, which was 20% higher than the 2012 events. Extreme weather events are becoming more prevalent in recent years and are likely due to the warmer atmosphere simply being able to carry more water.

The high flows created an unstable environment along the creek with new channels being gouged out by the high flows and water overtopping the banks of the once stable creek. Creeks naturally try to take the straightest and most direct path when flowing down hill, with the creek banks, rock outcrops and vegetation, providing the means in which to slow down the creek. The oxbows that naturally form in a valley bottom are the result of a creek taking a longer route and flatter slope to its outlet. Meandering creeks are generally flatter and wider and slower than narrow and steep channels that can form in mountainous terrain.



The creek riparian area above BMID was heavily damaged during the spring events of 2012 and 2013. The photo inset shows a huge gravel deposition in the creek bottom just above the BMID intake. The creek channel immediately above the intake was taking a direct line to the wooded area to the south of the intake. (left side of photo)



If left to continue, BMID would have had a dry intake structure in 2014. Fortunately, the Province permitted BMID to carry out corrective works to maintain our supply from Mission Creek. In December 2013, with environmental supervision, and special precautions to meet the provincial requirements, BMID restored the creek channel location to its recent flatter grade and more stable route. The adjustments in the stream were done during a time of low fish activity. The urgency of doing this work last winter could not be understated as if the condition had not been corrected, the water supply for 22,000 people would have been compromised. This situation could not have been fixed in the spring of 2014 when the creek was at high flows.

"A leader takes people where they want to go. A great leader takes people where they don't necessarily want to go, but ought to be. —Rosalynn Carter