



March 2021

A newsletter from the
Black Mountain Irrigation District
No. 53

www.bmid.ca

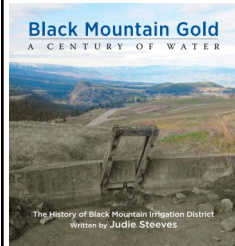
OKANAGAN WATER NEWS

BMID Updates

Customer Survey: Enclosed with this newsletter is a customer survey that assesses performance of the BMID water utility. The last survey was conducted in the summer of 2006. The information is very important to BMID in understanding our customer's perceptions and expectations. It also informs the Province on the level of service provided by BMID. Please take the time to complete the survey.

2021 Domestic Rates for a single-family residence are \$153/quarter or \$612/year.

Irrigation turn-ons are scheduled for the week of April 12, 2021. If you require an early turn-on, there is a fee for the staff time and a waiver to be signed accepting responsibility for freezing damage.



Our history book is available at the front desk. It is a good read and makes a great gift for persons interested in the local history.

Cost \$25.00 cash or debit at the BMID Office.

McDougall Tunnel: For those that have read the book, in January, BMID officially named the existing water tunnel after Dougald McDougall, the BMID Secretary Treasurer and Engineer who led the project in the 1940s. He passed away in 1948 while still employed by BMID.

Okanagan Basin Water Board (OBWB)

OBWB starts each year with 3 appointments from each of the 3 regional districts, plus a representative from the Okanagan Nation, the Water Stewardship Council and the Water Supply Association. The board is fortunate in that there is high political attention given to water with five Mayors and the Chief of Westbank First Nations appointed to the Board. The Chair for the coming year Sue McKortoff, Mayor of Osoyoos.

Challenges facing the OBWB this year continue to be the protection of the water resources including lobbying for funding to inspect out-of-province water craft to stop the entry of Quagga and Zebra mussels that have infected most of North America. The Board also administers \$350,000 in small project grants that benefit water quality and improved water management.

AGRICULTURE EXPANSION

As a natural resource industry, agriculture is an economic driver for Kelowna. It is much more than just an attractive amenity of Kelowna that drives the tourism industry. Economically, there is the initial employment to grow and harvest the crops, but also spin-off jobs, and value-added work that impacts the community in many positive ways. Agriculture forces the protection of our soil and water which must be managed sustainably so that the farms can continue to produce. With the COVID pandemic, there have been safety concerns with globalization and moving products across country borders. Supporting local agriculture is one way to create jobs and reduce external dependencies.

East Bench Transmission Main: Over the last 15 months, BMID staff have been busy facilitating the installation of 3,800 metres of 42-inch diameter steel water main. The work was carried out in two contracts totaling approximately \$8,500,000. The 42" transmission main runs from the Surge Tower where the water exits the water tunnel below Black Knight Mountain, across Gopher Flats valley (photo), to end at the switchback on Swainson Road. The transmission main strengthens the gravity supply from the Mission Creek source to the north service area of the district. In the event of an emergency, it also provides a large second feed to the highest density service areas. The 42 inch steel pipe that was purchased in 2008 is now mostly in the ground.



The work does not impact domestic water rates. It was done in partnership with Frind Winery who has brought 300 acres of agricultural land into the BMID water service area. A cost-sharing agreement was developed between Frind and BMID to fund the transmission main. BMID provided funds from reserves collected from development projects. There is also a 16.5% surcharge to future development for cost recovery to Frind to allow them recovery of a portion of what they contributed. The Frind vineyard above and east of McKenzie Road is to be planted this spring.

In the past five years, the Grade A agricultural land has increased from 4,200 acres to more than 5,200 acres. The economics for agriculture have recently improved for the large-scale family farms and for the first time in 30 years there is expansion.

Pyman Road Agricultural Expansion: There has been site grading work taking place on several hundred acres to the east of BMID around Pyman Road. The work is in preparation for the expansion of orchards. The majority of this land, zoned for agriculture, is outside the City and within the Regional District. Orchard crops are being proposed, and although the elevation is high, at up to 1,000 metres, the recent climate change trends are looking favourable with successful plantings at this elevation in Washington State. Although this land is outside of the BMID boundary, it will require water from the Mission Creek watershed and via a supply route that is above our current creek intake. BMID is presently working with the land owner to develop a Memorandum-of-Understanding of how water supply from Belgo Creek can be facilitated by BMID to service these lands. The development of this land cannot in any way compromise the integrity of BMID's existing water supply. This is another reason BMID is taking a lead role in water supply for this area. (see next pg.)

"Those too lazy to plow in the right season will have no food at harvest."
Proverbs 20:4



BMID WATER NEWS

Water Supply Association of BC

The WSABC, formerly the Association of BC Irrigation Districts, recently held their 97th AGM, and the 26th as the Water Supply Association. It was their first-ever video conference AGM held on November 19, 2020. There were approximately 50 persons that attended. A full slate of 11 Directors is now in place. Their ZOOM spring workshop is to be held on April 9, 2021, with information for sign-up available on their web page at www.wsabc.ca

Kelowna Water Utilities

BMID continues to work with the other water utilities to move forward on collective issues such as water system standards and system interconnections. BMID generally has the largest domestic supply system at high elevation and as such, are at the highest risk of our supply being compromised. Although BMID has pump stations in place to supply the winter water demands, in the event of an emergency the high summer demands could not be provided by the neighbouring utilities or by our groundwater wells. BMID is looking to improve both the supply from other water utilities and also to secure the route of the water supply from our water treatment plant to the water distribution system via a longer water tunnel.

Mission Creek Natural Assets Inventory

BMID, with other agencies, are looking to carry out an inventory of natural assets in the Mission Creek watershed. Placing a numerical value on these assets should help to highlight how important it is to maintain the watershed in its natural state.

KNOW WHERE YOUR WATER SHUT-OFF IS ?

Most water connections in the District have a curb-stop (shut-off valve) located at or near the property line. BMID owns the water service line in the street up to the curb-stop. The home owner owns the service line on private property after the curb-stop. For home owners, please know where the curb-stop is and keep it clear of obstructions without vehicles parked above it. Should a water service line break in your home and the curb-stop not be accessible to BMID staff, it could increase the damage that might occur due to flooding. If you cannot find your curb-stop, please call our office and our staff can meet you on-site to help locate the curb-stop.

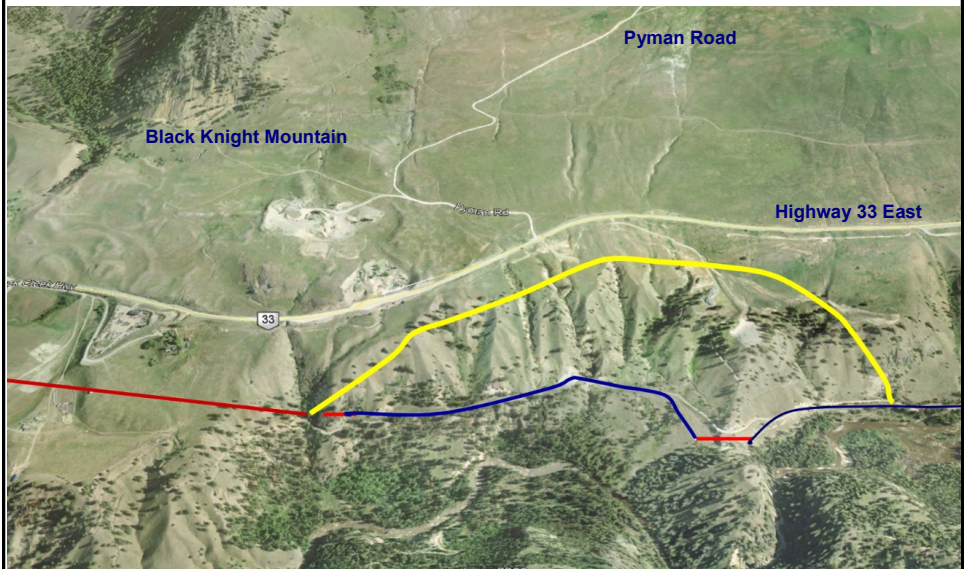


OBSERVE, RECORD & REPORT
questionable watershed activities to
BMID at (250) 765-5169

BMID 1.65 KILOMETER WATER TUNNEL EXTENSION

BMID's primary water source is Mission Creek where we operate a large water treatment plant below Eight-Mile Ranch. The water treatment plant supplies water to Stevens Reservoir and then to Hadden Reservoir. Leaving Hadden, the water is chlorinated and flows 2.0 kilometres through a concrete flume/conduit and steel pipe to where it enters the existing 1.0 km long water tunnel. The route through Gallagher's Canyon has historically been problematic for BMID due to the silt soils that have stability issues. Since installation in 1971, BMID has experienced five failures on this conduit including a catastrophic failure in October of 1973 (see History Book). With the dependence of our community on this route for water, the safety and security of this route must be improved. If a failure was to occur in mid-summer, the losses to the agricultural community alone could be more than \$300,000,000.

In the picture below, the blue line is the existing conduit, the red lines are the existing water tunnels and the yellow line is the proposed route for the new water tunnel. BMID is only one of 2 utilities with a water tunnel in the Okanagan, the other is part of the irrigation system that is drilled below Campbell Mountain east of Penticton.



The last supply failure occurred in 2018 when there were two incidents; one in May and another in October. Since then, investigations have taken place including a detailed seismic survey of the area to determine the location and density of the bedrock. In 2020 BMID carried out a rock drilling program to obtain core samples of the rock mass at the depth of the tunnel. The proposed 1,650m long route has been verified to be as per the yellow line. It will be 100m below ground surface in some locations.

BMID hired specialists to analyze the potential for metals contamination from the bedrock and have found that the rock is very stable with no metals leaching into the water. The rock in the tunnel should be safe, without a liner, as a water supply surface. The large mass of gneiss rock is a stable, non-fractured, metamorphic type rock. BMID is very fortunate. When questioning the mining engineers that could drill the tunnel, they stated "If we had to pick a rock type for a water tunnel, this would be it!" BMID is in the process of negotiating rights-of-way for the tunnel and beginning dialogue with the approval authorities regarding the means and methods for construction and long-term operations. Preliminary budget costs for this project are between \$12 and \$15,000,000.

The scope of work for a design contract is being developed and will be issued to the mining / drilling contractor in the near future. Once completed, more accurate costs will be available and BMID will be looking to fund the project from a number of sources which could include capital and renewal reserve funds, grants from the Provincial government (although not expected), and borrowing, for which public approval would be required. In mid-2021, BMID will have some financial capacity freed up as the \$3,000,000 debt for our water treatment plant, which was completed in the year 2000, will be retired. More information will be forthcoming on this project.

"My grandfather used to say that once in your life you will need a doctor, a lawyer, a policeman and a preacher. But every day, 3 times a day, you need a farmer." - Brenda Schoepp