



BMID WATER NEWS

BMID Trustees With the passing of BMID Trustee Al Horning in March 2023, a by-election was held. Local orchardist and businessman David Geen was elected. The BMID Trustees are Colin Day (Chair), Allen Kirschner, Gerry Zimmermann, Sukhpaul Bal and David Geen. The 3-year terms of Trustees Day and Bal expire in April, 2024. Both have stated they will be seeking re-election.

Annual General Meeting BMID's 102nd AGM will be held at the BMID office at 285 Gray Road in mid-April with date to be confirmed. Annual reporting documents will be available one-week ahead of the meeting time for pick-up at the office, and at our website. Please monitor our website and the local newspapers for AGM and election details.

2024 Domestic Water Rates The 2024 Toll Bylaw was ratified by the Board in late 2023. The quarterly water rate is:

- Single-family residence - \$178.50
- SF residence plus suite - \$267.75.

2024 Water Irrigation Tax is set at an annual rate per acre dependent on grade:

- Grade A land \$148.00
- Grade C land, \$118.40

This year overages on allotment will be charged at a rate of \$ 0.15/m³ for range of 0-20% over. Overages > 20% will be charged \$0.50/m³. BMID currently has 5,133 acres of Grade A land, 1,013 acres of Grade C land and another 4,569 acres of dry land within the District boundary.

Irrigation Turn-Ons Historically BMID turns the irrigation on starting the second week of April. Early requests will be accommodated, weather permitting. As in past years, there is a \$50 fee and the customer will be required to sign a form accepting all responsibilities for damages incurred during early turn-on due to freezing or other extenuating conditions.

BMID 2024 Projects include the following;

- Graystoke Dam - Stability upgrade
- PRV 8 - Relocate/renew above ground
- Loch Long Reservoir – Expansion design
- Fish Hawk Dam - Renew outlet gate
- Cornish Well - PLC upgrade
- Old Vernon Road - Watermain installation
- Belgo Dam - Outlet gate-remote control
- Screen Works Building - renew gates
- McDougall Tunnel - 1500mm main installation

MISSION CREEK - BMID'S SOURCE WATER

As Mission Creek meanders through Kelowna, the stream corridor appears as one of the most beautiful and natural remaining areas in our rapidly developing City. It is one of the amenities that makes Kelowna a desirable place to live.

In our semi-arid climate, the Mission Creek watershed is by far the largest contributor of water to Okanagan Lake, providing more than 30% of the inflow in most years. Unknown to most is that the creek is under considerable stress with respect to maintaining its natural form and being able to meet all of the demands and expectations placed upon it. Mission Creek supplies irrigation for agriculture, and domestic water for our homes. The creek's ecosystem functions support fish and wildlife and unseen important biological functions for the environment. The flow demand on the creek in late summer is high for all stakeholders.

Yet the creek remains as one of the purest water sources around with limited contamination by man. During spring runoff, the creek may have high turbidity and appear dirty. Fortunately, man-made chemical contamination such as microplastics, pharmaceuticals, forever chemicals, personal care products, and road-tire contamination is not measurable in the upper watershed. In our polluted world, a natural high quality source of water is becoming less common. **The importance of protecting Mission Creek for future generations cannot be over-emphasized.**



Lower Mission Creek Habitat Conservation & Restoration Plan – S. Matthews (July 2022)



Historically, we have moved, graded, damaged and relocated the creek in many places. The severe flooding in 1948 saw much of the Benvoulin and Mission Flats areas flooded and the bridge at KLO Road washed out. This resulted in the Province constructing containment dikes along the creek from Hollywood Road to Okanagan Lake. This channelization resulted in a more direct route to the lake with the distance being half of what it was naturally. With less oxbows, pools and ponds, and a steeper grade, Mission Creek has reduced natural capacity to absorb high runoff flows. The reduced number of natural pools has resulted in less fish habitat. With the higher stream velocity, the energy produced by the creek increases, making it potentially far more dangerous.

BMID is a steward of the upper Mission Creek watershed with our focus on land-use activities above our water intake near Eight-Mile Ranch. BMID has limited involvement in the lower creek except for managing water releases from storage which impact on the flow rates in the creek from July to October. In the recent dry years, such as 2021 and 2023, only half of the water released from BMID reservoirs was collected at the BMID intake. The remaining water was lost to evaporation, groundwater recharge, and/or directed to the lower creek. BMID, in agreement with the Province and the City, follows the 2010 Mission Creek Water Use Plan. Its objective is to maintain or exceed the natural flow rate in the creek from July - Oct.

To complicate matters, the 2016 Water Sustainability Act, which governs water use in BC, allows the Province to direct any water, even snowmelt water held in high-elevation reservoirs, to be released when needed for fish protection. The requirement to provide *Environmental Flow Needs* (EFNs) is stated within the act. The optimum EFN target doesn't mean that water is actually available. BMID has 1,013 acres of Grade C lands in the district, i.e. land with water rights that are not using water, but may at some time in the future. (continued over)

"Mission Creek is the Jewel of Okanagan water resources"
Heinz Koetz—BMID Trustee 1973-2010



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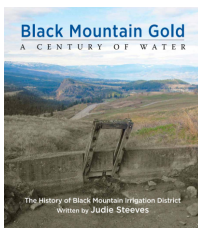
Drought Levels The majority of regional reporting on drought levels is typically on unregulated streams that are not supported with water from reservoirs in the upper watershed. The information is well-intended, but may be misinterpreted by some that our region is nearly out of water. Most communities rely on valley lakes or upper storage reservoirs filled by snowmelt. BMID reservoirs capture snowmelt each spring where it is stored and then released when needed in mid-summer. During the growing season, we would direct the BMID customers to the BMID website for information on drought restrictions as those are the regulations that apply to our customers. Social media platforms and forums do not always provide reliable or accurate information. Please go to the BMID website at www.bmid.ca

BMID reservoir levels were low at 2023 year-end, partly because of the dry year, but also because BMID had to empty both Fish Hawk and James Reservoirs to carry out renewal works on their outlet gates. Snow pack levels are currently at the 30th percentile which is well below average. The three highest snowfall months for the upper watershed are March-to-May. Each year these three months determine the water supply condition for BMID.

Boundary Amendment The 1,898 acre boundary amendment proposed for agricultural properties above and below Highway 33 was passed as Order-in-Council No. 582 at the BC Legislature on Oct. 23, 2023. Having dry land, these land owners perhaps value the importance of water more than we who sometimes take it for granted. BMID's boundary now extends to the west side of Dave's Creek (Eight-Mile Ranch). For the expansion of water supply to these areas, its implementation cannot have a detrimental impact on our existing ratepayers. BMID currently has three additional boundary amendment applications that are to be reviewed by the Board.

BMID History Book

The BMID 100-year history book, written by Judie Steeves, is a remarkable record of the settlers who valued agriculture and created the landscape that surrounds us. It is available at the front desk at the BMID office. Price is \$25.00 cash or debit.



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

MISSION CREEK - BMID'S WATER SOURCE (CONTINUED)

BMID's Grade C land customers pay 80% of the Grade A water rate. Their payment covers their share of maintenance of reservoir storage and conveyance. Reservoir storage water allocated to Grade C customers, if not used, is diverted to support EFNs downstream in Mission Creek. BMID is obligated to provide the water to our customers at such time in the future that it is requested. This will reduce the amount of water that is currently being provided for EFNs.



On December 1, 2023 a stakeholder workshop was held for Mission Creek. It was hosted by the OBWB and Kelowna-Mission MLA Merrifield. with 50 stakeholders attending. Speakers from the City of Kelowna, the Province, Okanagan Nation Alliance and BMID presented information for the group.

The OBWB provided an overview of the day, introduced the participants, and the day's objectives. The Province presented on the dikes along

lower Mission Creek, their history, condition, and lack of funding for maintenance. The City presented on the Mill Creek diversion to Mission Creek, and the changing hydrology demonstrated by recent extreme weather events. The Okanagan Nation Alliance commented on the reduced fish habitat in the lower creek due to channelization. In 2023, the Province, with the ONA, released one million sockeye fry into Mission Creek with hopes that many of them will return fully-grown in 3 to 5 years. The biologists are working to determine what additional water may be needed to provide for sufficient sockeye spawning habitat. BMID commented on the loss of forest canopy and its impacts to higher creek flows, setbacks for activities along the creek, and the critical need for more reservoir storage.

Monitoring and protecting Mission Creek is a community responsibility. BMID has a leadership role and will be working with the various stakeholders to facilitate the provision of more stable creek flow from the upper watershed. This includes upgraded control on reservoir releases (BMID responsibility) and the construction of additional storage in Mission Creek (a shared responsibility).

The Provincial licensing staff understand the livelihood issues with agriculture, and that BMID has commitments to all existing customers who are paying for reservoir maintenance. They understand the natural flow patterns in most of the local creeks. The Water Supply Association, of whom BMID is a member, is meeting with the Province for a workshop in April, 2024. The workshop is to work through some of the complex issues that the utilities and Province together will have to face.

2024 Belgo Reservoir Outlet Gate - Remote Control Release Project



BMID operates with 4 reservoirs in the Mission Creek watershed. Travel time for water released from the closest dam at Belgo Reservoir (inset photo) to the BMID intake is 14 hours. The travel-time for staff, round-trip to Belgo Dam, is 4 hours which results in release gate adjustments being made two times per week. With upgraded communications capacity, and better technology for remote power supply, the tools are available to control reservoir release flow rates using BMID's

instrumentation control system. Only the closest reservoir has to be adjusted to control the creek flow variations. Stabilizing the flow rate in the creek will benefit all downstream users. The project budget of \$90,000 will see the ability to save approximately 500 megalitres (500,000 m³) of water annually which equates to a \$1,500,000 upper watershed storage reservoir.

"It seems like upper watershed storage provides us with the reliability and security of water supply so we can sit around and discuss what to do for the next 20 years".
Anonymous Quote by young water conference attendee