The Corporation of the Village of New Denver

AGENDA – REGULAR MEETING

DATE: March 9, 2021

TIME: 7:00 p.m.

PLACE: Council Chambers

CALL TO ORDER:

INTRODUCTION OF LATE ITEMS: - Resolution required to add late items, if any

ADOPTION OF AGENDA: - Resolution to adopt the Agenda for the March 9, 2021, Regular Meeting.

MINUTES: - Resolution to adopt the Minutes of the February 23, 2021, Regular Meeting

- Resolution to adopt the Minutes of the February 26, 2021, Committee of the Whole Meeting

PETITIONS & DELEGATIONS: - Nil

PUBLIC QUESTIONS & COMMENTS: -

OLD BUSINESS: - Nil

CORRESPONDENCE FOR INFORMATION: - Resolution to receive the following items for information:

- Notice of Annual General Meeting (Slocan Lake Chamber of Commerce)
- Update on Committee Activities (Columbia River Treaty Local Government Committee - Linda Worley, Chair)
- CBT Community Outdoor Revitalzation Application (CBT - Will Nixon, Senior Manager, Delivery of Benefits)
- Workshop Invitation (Yellowstone to Yukon Conservation Initiative - Nadine Raynolds, Upper Columbia Program Manager)
- 2021 CRI FireSmart Community Funding & Supports Application (UBCM)

STAFF REPORTS: - Resolution to receive the following items for information:

- Water Conservation Plan *(TRUE Consulting - Scott Wallace, Project Engineer)*
- Site Disclosure Statements & Contaminated Sites Regulation Amendments *(Jessica Rayner, Community Planner)*

COUNCIL REPORTS:

Verbal Reports	-	
Regional District of Central Kootenay	-	
West Kootenay Boundary Regional Hospital District	-	
Recreation Commission #6	-	
Economic Development Commission	-	
Rosebery Parklands & Trail Commission	-	
Treaty Advisory Committee	-	
Fire Department Committee	-	
Health Advisory Committee	-	
Sustainability Committee	-	

NEW BUSINESS:

	-	Fire Rescue Truck Purchase
Columbia Basin Broadband Corporation	-	Request for Letter of Support

ADJOURNMENT:

- Resolution to adjourn the meeting at ___ p.m.

The Corporation of the Village of New Denver

MINUTES – REGULAR MEETING

DATE: February 23, 2021
TIME: 7:00 p.m.
PLACE: Council Chambers

PRESENT: - Mayor Leonard Casley
Councillor John Fyke (via Webex)
Councillor Vern Gustafson
Councillor Colin Moss
Councillor Gerald Wagner
Catherine Allaway, CAO

Press: Valley Voice (via phone)
Guests: Nil

CALL TO ORDER:

INTRODUCTION OF LATE ITEMS:

RESOLUTION #57 - Moved by Councillor Gustafson and seconded that the following items be added to the agenda for the February 23, 2021 Regular Meeting:

1. New Business: - UBCM CEPF Flood Risk Assessment, Flood Mapping & Flood Mitigation Planning Grant Application.

CARRIED

ADOPTION OF AGENDA:

RESOLUTION #58 - Moved by Councillor Gustafson and seconded that the agenda for the February 23, 2021 Regular Meeting be adopted as amended.

CARRIED

MINUTES:

RESOLUTION #59 - Moved by Councillor Wagner and seconded that the Minutes of the February 9, 2021 Regular Meeting be adopted as read.

CARRIED

RESOLUTION #60 - Moved by Councillor Moss and seconded that the Minutes of the February 12, 2021 Special Meeting be adopted as read.

CARRIED

PETITIONS & DELEGATIONS: -

PUBLIC QUESTIONS & COMMENTS: -

OLD BUSINESS: - Nil

CORRESPONDENCE FOR INFORMATION: - Nil

STAFF REPORTS:

RESOLUTION #61 - Moved by Councillor Gustafson and seconded that the following reports be received for information:

- 2020 Building Permit Activity Report

CARRIED

COUNCIL REPORTS:

Verbal Reports - Councillor Gustafson reported on his challenges obtaining basic telephone service locally

Regional District of Central Kootenay - Councillor Moss reported on RDCK affairs

West Kootenay Boundary Regional Hospital District - Nil

Recreation Commission #6 - A meeting is scheduled for March 2, 2021 and grant decisions will be made at that time.

Economic Development Commission - Councillor Fyke reported that Ron LeBlanc is preparing an application for CBT funding for 2022

Rosebery Trails & Parklands Commission - Nil

Treaty Advisory Committee - Nil

Fire Department Committee - Nil

Health Advisory Committee - Nil

Sustainability Committee - Nil

NEW BUSINESS:

RESOLUTION #62 - Moved by Councillor Gustafson and seconded that the Village of New Denver submit an application to

the UBCM Community Emergency Preparedness Fund Flooding Flood Risk Assessment, Flood Mapping & Flood Mitigation Planning grant program for funding to plan for structural flood mitigation work on Carpenter Creek; and further, that the Village of New Denver agrees to provide overall grant management for the project.

CARRIED

MOTION TO EXCLUDE:

RESOLUTION #63 - Moved by Councillor Moss and seconded that the public interest requires that, as per section 90(2)(b) of the *Community Charter*, persons other than members of Council and the CAO be excluded from the meeting as it pertains to negotiations with the Provincial government.

CARRIED

RECONVENE IN CAMERA:

RESOLUTION #64 - Moved by Councillor Fyke and seconded that Council recess and reconvene in camera at 7:47 p.m.

CARRIED

RECONVENE IN OPEN MEETING:

RESOLUTION #69 - Moved by Councillor Wagner and seconded that Council reconvene in open meeting at 8:50 p.m.

CARRIED

ADJOURNMENT:

RESOLUTION #70 - Moved by Councillor Wagner and seconded that the meeting be adjourned at 8:50 p.m.

CARRIED

MAYOR CASLEY

CORPORATE OFFICER

The Corporation of the Village of New Denver

MINUTES – COMMITTEE OF THE WHOLE MEETING

DATE: February 26, 2021
TIME: 3:00 p.m.
PLACE: Council Chambers

PRESENT: - Mayor Leonard Casley
Councillor John Fyke via Skype
Councillor Vern Gustafson
Councillor Colin Moss
Councillor Gerald Wagner
Catherine Allaway, CAO

Press: Nil
Guests: Nil

CALL TO ORDER:

INTRODUCTION OF LATE ITEMS: - Nil

ADOPTION OF AGENDA:

RESOLUTION #71 - Moved by Councillor Moss and seconded that the agenda for the February 26, 2021 Committee of the Whole Meeting be adopted as presented.
CARRIED

NEW BUSINESS:

2021 Campground Operations - Council and staff discussed possible staffing options for the 2021 campground season.

ADJOURNMENT:

RESOLUTION #72 - Moved by Councillor Wagner and seconded that the meeting be adjourned at 4:15 p.m.
CARRIED

MAYOR CASLEY

CORPORATE OFFICER

The Corporation of the Village of New Denver

COMMUNICATIONS FOR INFORMATION

SUBMITTED BY: Catherine Allaway, CAO **DATE:** March 5, 2021

RECOMMENDATION:

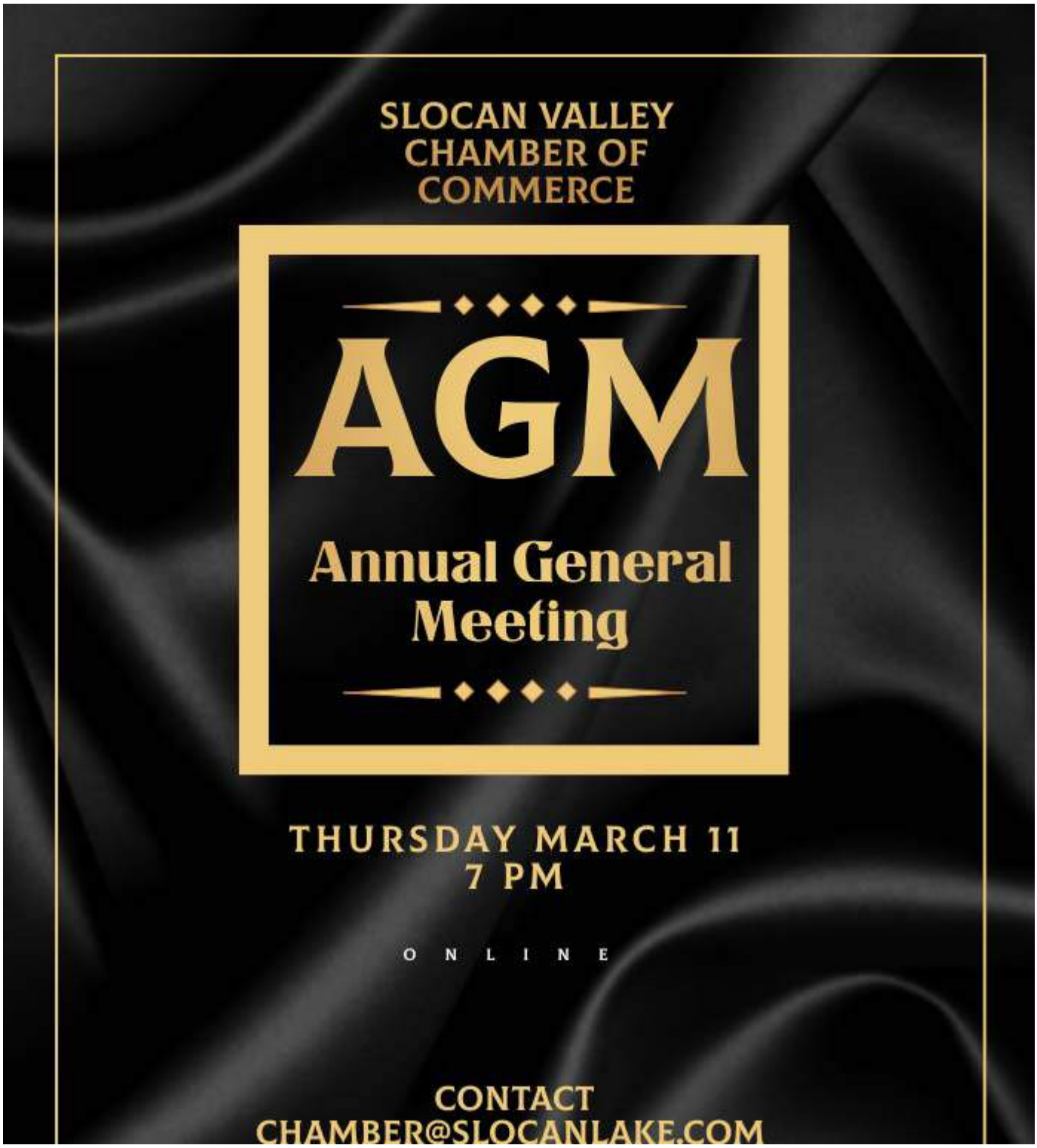
That the following items be received for information:

- Notice of Annual General Meeting *(Slocan Lake Chamber of Commerce)*
- Update on Committee Activities *(Columbia River Treaty Local Government Committee - Linda Worley, Chair)*
- CBT Community Outdoor Revitalzation Application *(CBT - Will Nixon, Senior Manager, Delivery of Benefits)*
- Workshop Invitation *(Yellowstone to Yukon Conservation Initiative - Nadine Raynolds, Upper Columbia Program Manager)*
- 2021 CRI FireSmart Community Funding & Supports Application *(UBCM)*

Catherine Allaway

From: SDCC <chamber@slocanlake.com>
Sent: February 25, 2021 12:16 PM
To: chamber@slocanlake.com
Subject: 2021 AGM announcement

Categories: AGENDA



COLUMBIA River Treaty

To: Regional Districts, Boards of Directors
Valemount Town Council

Date: February 22, 2021

From: Linda Worley, Chair
Columbia River Treaty Local Governments Committee

Subject: **Update on Committee Activities**

Although COVID priorities have delayed some of the Committee's work, since our last update in May 2020 the Committee has held nine virtual meetings and received virtual updates on CRT negotiations, the Fish and Wildlife Compensation Program and CBT programs.

Highlights for June 2020 to January 2021

- ***Updating our Recommendations*** – The Committee has had several presentations about flood risk management and other topics that were raised in the feedback the Committee received on the September 2019 Draft for Review Recommendations. Our updated Recommendations were shared with local governments and regional Indigenous Nations, MLAs and MPs as well as made available to the public in late January. Response to date has generally been very positive.

  We encourage you to review our Recommendations (attached) and send us your comments. A Summary of Revisions is also attached.

  As domestic governance with a modernized Treaty is a key recommendation, the Committee continues to learn more about water governance processes, with a task group exploring options to include local governments and Basin residents in the governance structure for a modernized Treaty.

- ***Updating the 2012 report – A Review of the Range of Impacts and Benefits of the Columbia River Treaty on Basin Communities, the Region and the Province***

  In 2012 the Province commissioned a report to document the impacts and benefits of the Treaty. The Committee has requested that this report be updated, which the Province has agreed to do. The Committee is reviewing the 2012 report to identify sections that require updating and providing source materials.

  A Summary of this report is also available.

- ***Integrating socio-economic interests in CRT scenarios*** – The Province has customized a computer model to evaluate negotiations proposals from the U.S. and to evaluate alternative hydro system operations to best meet B.C. interests. Socio-economic interests such as flood risk management, recreation, tourism, dust generation and others are important to communities. The Committee has accepted the Province's invitation to provide recommendations on measures to assess how well alternative scenarios meet these interests in the computer modelling. You will hear more about this new initiative in the coming months.

  Ecosystem health is also very important to Basin communities. Measures to evaluate ecosystem function are being developed through work that is being led by the regional Indigenous Nations.

Ongoing

- ***Negotiations*** – The tenth round of CRT negotiations between Canada and the United States was conducted by web-conference, on June 29 and 30, 2020. Canada responded to a framework proposed by the United States during the previous round of negotiations and tabled a Canadian proposal outlining a framework for a modernized CRT, developed collaboratively by Canada, B.C. and Columbia Basin Indigenous Nations. The Committee was updated by the Lead Negotiator on July 8 and CBRAC was updated on July 14 – see attached Summary.
- ***Community interests*** – Committee members continue to follow-up with the province on actions requested by community members at the 2018 and 2019 community meetings.

  One of the priorities is the CRT Heritage Project which is designed to recognize how implementation of the CRT impacted the Canadian Columbia Basin, including acknowledging what was lost as a result of the Treaty dams. The CRT Heritage Project proposes a touring route linking a series of information stops at key locations in the Columbia Basin communicating Indigenous and non-Indigenous place-based stories of impacts and loss due to the implementation of the Columbia River Treaty. Basin communities will decide on what stories they want to include in the project and how those stories will be expressed.

  The Request for Proposals for a lead organization to implement the project closed on January 24, 2021. The successful proponent is expected to be selected in February 2021 and work on the project to begin by March 1. The successful proponent will be involved in the development of partnerships to fund expenses associated with Heritage Project commemorative infrastructures.

  Contractor costs will be covered by funding committed by the B.C. Treaty Team. In addition to this operational funding, the project has received grants from Community Futures East Kootenay ($5,000) and Destination BC's Destination Development Catalyst Fund ($28,000). The Catalyst Fund grant is expected to be used for a research project that will contribute to the CRT Heritage Project.

  Other initiatives are underway to address specific community interests. See the attached January Update from the BC CRT Team.
- ***Communications***: The Committee has substantially expanded its website.
- ***Columbia Basin Regional Advisory Committee (CBRAC)*** – CBRAC has been meeting via webinars due to the COVID-19 pandemic. In June and December the webinars provided updates on ongoing activities. The September webinar highlighted the CRT Ecosystem Function work being lead by the regional Indigenous Nations. In January, BC Hydro provided a webinar on their Clean Power 2040 Integrated Resource Plan process. CBRAC terms of reference, membership and meeting summaries as well as presentations and reports discussed at these meetings are available on the CBRAC webpage.

Upcoming

- CRT Virtual Town Hall – February 24 6-8:15 PM PT/7-9:15 PM MT

  Join by web: **https://ca01web.zoom.us/j/67343279632**

  Join by phone: 1 833 955 1088 (Toll Free) Webinar ID: 673 4327 9632

  See more information in the attached BC CRT Team January Update
- Annual Committee strategy session. (February and March)

I encourage you to stay informed about CRT negotiations by visiting the CRT engagement website and signing up for the CRT e-letter. This site will be the source of accurate, updated information as negotiations progress.

Committee Members

RDKB - Linda Worley, Regional Director (LGC Chair) and Diane Langman, Village of Warfield Mayor/RDKB Chair

RDEK - Stan Doehle, Regional Director (LGC Vice Chair) and Jane Walter, Regional Director

RDCK – Aimee Watson, Regional Director/RDCK Chair, Ramona Faust, Regional Director

CSRD – David Brooks-Hill, Regional Director and Mayor Ron Oszust, Town of Golden

Village of Valemount – Donnie MacLean, Councilor

AKBLG – Mayor Clara Reinhardt, Village of Radium Hotsprings/Association of Kootenay Boundary Local Governments President

COLUMBIA
River Treaty

LOCAL GOVERNMENTS' COMMITTEE

Columbia River Treaty:
Local Governments' Committee Recommendations Update

January 2021

The B.C. Columbia River Treaty Local Governments' Committee (the Committee) provided its original recommendations on the future of the Columbia River Treaty (CRT) to the federal and provincial governments in 2013. The original recommendations have been updated in response to CRT-related interests and issues raised by Columbia River Basin residents in Canada. These recommendations are based on currently-available information and will be updated if new information comes forward that results in changes to the Committee's recommendations.

These recommendations have been submitted to the provincial and federal governments to contribute to the current negotiations to modernize the CRT. The Committee will continue to pursue solutions to domestic issues and to monitor and be involved in the Treaty negotiations when appropriate.

For more information about the Committee or to provide your perspectives on CRT related topics, please contact:

- Committee Chair, Linda Worley - lworley@rdkb.com 250 231-1300
- Committee Vice Chair Stan Doehle – directordoehle@rdek.bc.ca 250 531-3300
- Executive Director, Cindy Pearce - cindypearce@telus.net 250 837-8505

Visit the Committee webpage at: https://akblg.ca/columbia_river_treaty.html

For more information about the CRT negotiations go to the provincial CRT webpage: http://engage.gov.bc.ca/columbiarivertreaty/ and sign up for the CRT E-Newsletter.

Background

The Columbia River Treaty (Treaty) was ratified by Canada and the United States (the U.S.) in 1964, resulting in the construction of three dams in Canada – Mica Dam north of Revelstoke; Hugh Keenleyside Dam near Castlegar; and Duncan Dam north of Kaslo – and Libby Dam near Libby, Montana, which creates Koocanusa reservoir that floods 68 kilometres into B.C... Since 1964 the Treaty has provided benefits for the Pacific Northwest region in the U.S. and in B.C.. However, here in the Canadian portion of the Columbia River Basin (the Basin) – the area that was most impacted by the Treaty – substantial sacrifices were made by residents during the creation of the dams and reservoirs, and impacts continue as a result of hydro operations.

Beginning in 2024, either the U.S. or Canada can terminate substantial portions of the Treaty, with at least 10 years' prior notice. This prompted the B.C. government – as the level of government with the responsibility to implement the Treaty – and the U.S. to conduct separate reviews, beginning in 2011, to consider whether to continue, amend or terminate the Treaty. The outcome of both reviews was to negotiate a modernized Treaty, not to terminate. Canada – as the level of government responsible for international treaties, and with the involvement of B.C. - began negotiations with the U.S. in 2018.

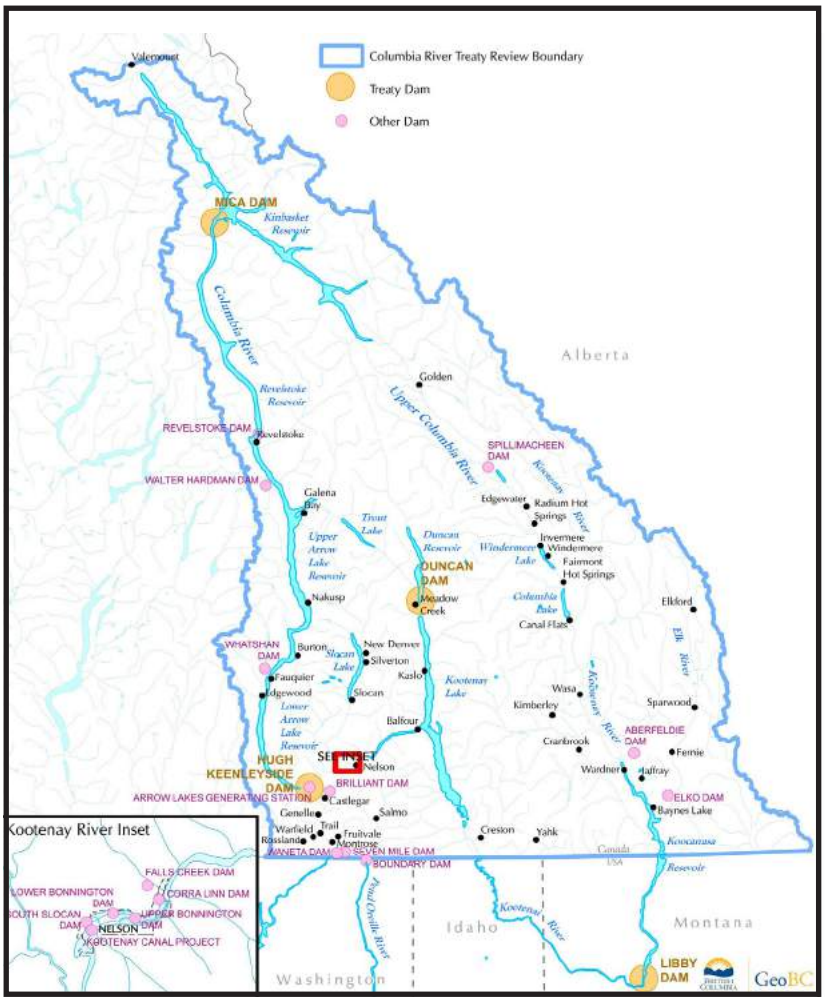
Local governments within the Basin have formed the B.C. Columbia River Treaty Local Governments' Committee (the Committee) to actively and meaningfully engage in decisions around the future of the Treaty. Through the Committee, with support from Columbia Basin Trust (CBT), Basin local governments are working together to seek refinements to the Treaty and to address existing domestic issues to improve the quality of life for Basin residents.

Respecting Our History

The signing of the Treaty with the U.S. was a major historical milestone for the Province of B.C.. However, this agreement was signed without consulting Basin residents or Indigenous Nations, and construction of the Treaty-related dams and the associated reservoirs had massive social, economic, cultural and environmental impacts in this region, leaving deep wounds in Basin communities. Communities in the Canadian Basin, including Indigenous Nations continue to make substantial sacrifices for the economic benefits that are enjoyed by the entire Province and much of the U.S. Pacific Northwest and for environmental benefits enjoyed in much of the U.S. Pacific Northwest.

In our communities, approximately 2,300 people were displaced from their homes, often without adequate or fair compensation, and approximately 30 small communities were partially or fully flooded and lost their infrastructure, public spaces and way of life. Indigenous Nations are separately documenting their losses due to the CRT. Many of these losses were a result of creating the Arrow Lakes, Duncan and Koocanusa Reservoirs. The industrial reservoirs created following the construction of the Treaty-related dams, including Revelstoke Dam, inundated approximately 120,000 hectares (300,000 acres/470 square miles), including over 70,000 hectares (173,000 acres/270 square miles) of lakes, rivers, wetlands, ponds, streams and riparian areas, with related habitats for fish, wildlife, waterfowl, birds and other species. Indigenous Nations and our Canadian Basin communities lost access to wilderness areas, with forests, wildlife and fish and related recreation experiences. Economic development in these areas has been constrained by the loss of valuable low-elevation lands and lack of efficient transportation.

As well, there are ongoing impacts from the large annual fluctuations in water levels within these reservoirs, which create extensive unsightly mudflats uncovered during the spring drawdown periods with resulting dust storms, limited recreation access and ecological impacts. Substantial fluctuations in river levels below the Revelstoke, Arrow and Duncan dams also impact ecosystems and recreation uses. The water storage in Kinbasket reservoir that is in excess of the Treaty requirements is managed through a commercial agreement between B.C. Hydro in B.C. and Bonneville Power Authority in the U.S. Operations under this agreement are not well understood by Basin residents and are seen by some to create further negative impacts in some years.



As shown in the table on the next page, impacts differ significantly between reservoirs. A Review of the Range of Impacts and Benefits of the Columbia River Treaty (2012) provides more details of the impacts from each reservoir.

Basin communities state that commitments that were made about the future development of infrastructure and economic opportunities were not delivered by the Province of B.C.. Some residents feel measures to address the social, environmental and economic impacts have not been adequate. These issues remain sources of hurt, anger and mistrust today.

While we remember and recognize this past history, Basin residents and the Committee are looking to the future. The phrase 'Acknowledge the losses and enhance what remains' was coined by Basin residents during the 2018 CRT community meetings and reflect this view. We see the current negotiations to modernize the CRT as an opportunity for local governments to work collectively with the Province, Indigenous Nations, B.C. Hydro, other regional hydro-electric facility operators and U.S. interests to improve our quality of life in the Basin, and retain the benefits of a modernized treaty on the Columbia River.

Columbia River Treaty Related Dams and Reservoirs

Primary source: A Review of the Range of Impacts and Benefits of the Columbia River Treaty (2012)

Characteristic	CRT Related Dams				
	Mica	Revelstoke	Hugh Keenleyside	Libby	Duncan
Owner	B.C. Hydro	B.C. Hydro	B.C. Hydro / Columbia Power Corporation[1]	U.S. Army Corps of Engineers	B.C. Hydro
Date completed	1973	1985	1968	1975	1967
Height (metres/feet)	243 m./797 ft.	175 m./574 ft.	52 m./171 ft.	129 m./423 ft.	40 m./131 ft.
Length (metres/feet)	792 m./2598 ft.	470 m./1542 ft.	853 m./2799 ft.	931 m./3055 ft.	792 m./2598 ft.
Materials	Earth fill	Concrete/Earth fill	Concrete/Earth fill	Concrete	Earth fill
Water storage (Purpose - MAF[2])	Treaty - 7 NTSA[3] - 5 Dead[4] - 8	0	7.1 Treaty 0.25 NTSA	5	1.4 Treaty
Power generating capacity[5] (MW)[6]	2746	2480	185	604	0
Jointly managed under the CRT	Yes	No – Not authorized by the CRT	Yes	No – Not authorized by the CRT; not managed under the CRT	Yes
Reservoirs	Kinbasket	Lake Revelstoke	Arrow Lakes	Koocanusa (B.C. portion)	Duncan
Length (kms/miles)	216 kms/134 miles	130 kms/81 miles	250 kms/156 miles	B.C. - 67 kms/42 miles Total: 140 kms/90 m	45 kms/28 miles
Area flooded (hectares/acres)	42,647 ha./105,383 ac.	11,534 ha./28,501 ac.	51,270 ha./126,691 ac.	6,683 ha./16,514 ac.	7,302 ha./18,044 ac.
Ecosystems flooded (hectares/acres)					
- Lakes	2,343 ha./5790 ac.	0	34,992 ha./86467ac	0	2,584 ha./6385ac
- Rivers, streams, ponds and gravel bars	5,879 ha./14527 ac.	2,792 ha./6899ac.	5,438 ha./13438ac.	1,791 ha./4426ac.	637 ha./1574ac.
- Wetlands, floodplains, riparian areas	21,389 ha./52853 ac.	4,461 ha./11023ac.	6,995 ha./17285ac	3,245 ha./8019 ac.	3,221 ha./7959ac.
- Upland areas	13,036 ha./32213 ac.	4,199 ha./10376 ac.	3,844 ha./9499 ac.	1,647 ha./4070 ac.	860 ha./2125 ac.
Communities flooded	0	0	23	6[7]	1
People displaced[8]	4 property owners	Mobile home park, 22 property owners	1,350 property owners; over 2,000 residents	74 property owners[9]	30 residents
Annual fluctuation - Average - Licensed maximum (metres/feet)	24.4 m. /80 ft 47.2 m./155 ft	1.5 m./5 ft. 18 m./60 ft.	12.2 m /40 ft 20.0 m./66 ft	18.3 m./60 ft. 22 m./72 ft	30 m./98 feet for both
Economic sectors impacted	Forestry, tourism, agriculture	Forestry, tourism	Agriculture, forestry, tourism	Agriculture, tourism	Forestry, agriculture
Adjacent impacted communities[10]	Valemount, Golden, Revelstoke	Revelstoke	Revelstoke, Nakusp, Burton, Fauquier, Edgewood, Deer Park, Robson, Castlegar	Baynes Lake, Wardner, Grasmere, Elko	Meadow Creek, Howser
Water Use Plan	Columbia	Columbia	Columbia	None[11]	Duncan

[1] B.C. Hydro owns the dam facility; Columbia Power Corporation built the Arrow Lakes Generating Station alongside the dam.
[2] Million acre feet (1 foot of water covering 1 million acres – about a million football fields)
[3] Non-Treaty Storage Agreement - a commercial agreement between B.C. Hydro and the Bonneville Power Administration (BPA) relating to the management of reservoir and power plant operations on the Columbia River in Canada and the U.S.
[4] Dead storage refers to water in a reservoir that cannot be drained by gravity through a dam's outlet works, spillway or power plant intake
[5] Sources: B.C. Hydro; Columbia Basin Trust Dams and Reservoirs webpage
[6] Megawatts
[7] Columbia River Treaty Heritage Project Plan, 2020 and Stan Doehle, Rural Director, Regional District of East Kootenays
[8] The measures differ based on the information provided in the primary source report
[9] Unconfirmed in primary source
[10] Confirmed with CRT Local Governments' Committee members
[11] Water Use Plans are linked to B.C. water licenses and Libby dam, which is located in Montana, does not have a water license in B.C.

Recommendations

A. International Treaty

During negotiations the Province of B.C., the Government of Canada and B.C. Hydro as the Canadian Entity for the Treaty, must address the following priorities for Basin communities, listed here with no priority ranking intended.

Treaty Process

1. **Local government Status in International Discussions:** To avoid repeating the unfortunate legacy of no consultation with Basin residents or Indigenous Nations before the Treaty was signed, the province and the federal governments have been engaging extensively with Indigenous Nations and local governments in the current modernization of the Treaty. The Committee acknowledges and supports the federal decision that the three regional Indigenous Nations have official observer status in the negotiations. This is consistent with the views stated by many Basin residents during the CRT community meetings. As official observers, Indigenous Nation representatives are actively involved in developing negotiation positions on an ongoing basis, they attend all negotiating sessions and recently they made a presentation to the U.S. delegation on ecosystem goals and objectives in the Canadian Columbia Basin, as well as on the collaboration between Indigenous, provincial and federal governments on exploring the reintroduction of salmon in the Upper Columbia.

   Our Committee is engaged with the Canadian CRT Negotiating Team through a Communications and Engagement Protocol. This allows the Team to keep the Committee as informed as possible, while recognizing confidentiality limitations. We remain confident that our recommendations and the voices of Basin residents are being reflected during negotiations. However, the Committee is aware that as negotiations evolve, different outcomes that do not align with these recommendations may be considered. We are prepared to respond swiftly and strongly should this develop.

2. **Engagement with Basin Residents:** The interests of Basin residents must continue to be incorporated in the ongoing discussions and decisions related to the Treaty by the Province of B.C. and Canada. New information must be shared promptly with Basin residents and there must be opportunities for residents in affected areas to fully understand any potential benefits and impacts, and to provide meaningful input to any decisions. Basin residents want to receive regular public updates about the status of the negotiations.

   In 2014 the Committee worked with the Province and B.C. Hydro to create the **Columbia Basin Regional Advisory Committee** (CBRAC). CBRAC is a diverse Basin-wide group representing a broad range of perspectives, interests, and geography, which is informing hydroelectric operations in the Columbia Basin and potential improvements to the CRT. The Committee encourages the Province and Canada to continue to engage with this knowledgeable group of Basin residents.

Church from community flooded by Arrow Lakes reservoir arrives in Nakusp

3. **Assess Benefits and Impacts:** Throughout the negotiations it is essential that the benefits and impacts in both the Canadian and the U.S. portions of the Basin resulting from the current Treaty framework and any future changes are fully assessed as the basis for sound decisions.

   This must include a thorough assessment of benefits and impacts to Basin residents. This information must be promptly communicated to Basin residents, with adequate opportunities for meaningful input to decisions.

Treaty Content

4. **Reduce Negative Impacts to the Basin:** Basin residents strongly support options that reduce the current negative impacts related to the Treaty. We caution the Province and Canada against considering Treaty options or hydro system operations that result in further negative impacts in the Basin – our communities and residents cannot accept more negative impacts.

5. **Equitable Benefit-Sharing:** We believe the Downstream Power Benefits provision of the Treaty should continue to reflect the full value of potential incremental power generation at U.S. facilities as a result of Canadian storage.

In addition, we know that the U.S. receives additional incremental economic benefits from Canadian water storage in the form of tourism and recreational opportunities; reliable and economical navigation; ecosystem enhancements; and agriculture benefits. Although these additional benefits to the U.S. will be difficult to fully document, they need to be clearly described in information that is easily accessible to all Basin residents.

These additional benefits to the U.S. were not recognized or accounted for in the original negotiation of the Treaty. They must be accounted for and shared equitably with B.C. through the renegotiation of the Treaty.

Clear and easily accessible information about the financial benefits to B.C. created through the Treaty and how these benefits are shared within B.C. is needed now and in the future. The Committee is working with the B.C. CRT Team to update the information on provincial and regional benefits from the CRT.

It is essential that the Canadian Basin receives an equitable share of the benefits that come to B.C. to address the ongoing negative impacts of reservoir operations in this region. At this point, communities that are most impacted by the Treaty feel that they are not adequately compensated. The Committee will continue to explore mechanisms to ensure the Basin receives its fair share of benefits.

The Committee recognizes that there needs to be benefit sharing with local communities and residents as well as sharing that is separately negotiated with Indigenous Nations.

6. **Expand the Focus of the Treaty to Include Ecosystems and Other Interests:** The Committee urges the Province to seek refinements to the Treaty and/or the supporting documents that provide for operations to benefit a broad range of interests in this region and in the U.S. As an initial priority, Basin residents support incorporation of ecosystem function as a first-order priority within the Treaty, alongside flood control and power production. Many Basin residents view a healthy environment as the foundation for economic and social well-being in the Basin.

   The Committee is heartened to hear that, in the ongoing negotiations, both Canada and the U.S. have committed to integrating ecosystem function into the Treaty. The Committee strongly supports the ongoing work, led by regional Indigenous Nations, to guide this work, with funding and other supports from the province. We expect the Province and Indigenous Nations to continue to engage with Basin residents as they model and explore scenarios that improve ecosystem function and support restoration to offset past, and any future impacts from dam construction and reservoir operations. We encourage continued assessment of the Arrow Lake Reservoir Mid-Elevation Scenarios, with expansion of this assessment to all Basin reservoirs.

   The Committee has recently received the updated Discussion Paper from the Upper Columbia Basin Environmental Collaborative. We applaud this group for thoughtfully contributing their expertise to further ecosystem management under the Columbia River Treaty. We do not see anything in this Discussion Paper that the Committee would not support. The Committee strongly supports creating greater flexibility in the Treaty to support the testing and learning required through active adaptive management to integrate ecosystem function into the Treaty.


Duncan reservoir - spring drawdown

7. **Flood Risk Management:** Under the current Treaty, in 2024 the existing Assured Annual Flood Control Agreement expires and flood risk management requirements shift to a different approach described as "Called Upon." Canada and the U.S. have not yet reached agreement on how this type of flood management will be implemented. In the Committee's view, implementing a carefully-coordinated annual flood management approach has the greatest potential to meet Basin interests in flood risk management, as well as the greatest mutual benefit for the U.S. However, there are some potential regional benefits from some aspects of the Called Upon approach because reservoirs in the U.S. will have to be drawn down more than they are now for flood risk management which reduces the need for B.C. reservoirs to be drawn down as low as they are now.

   We urge the Province and Canada to seek an agreement for a new flood risk management approach through the Treaty that maximizes benefits and minimizes negative impacts to the interests of Canadian Basin residents, including

reducing drawdown of B.C. reservoirs to meet U.S. needs. For the purposes of Called Upon operations, where 'U.S.' reservoirs must be drawn down first before calling on B.C. to store additional water, in the Committee's view, as almost half of Koocanusa Reservoir is in Canada, it should not be considered a 'U.S.' reservoir under the Treaty and eligible to be drawn down extensively to meet U.S. needs in Called Upon operations.

Within any agreement, the Committee asks the Province and Canada to ensure the definition of "economic losses and operating costs" in B.C. under "Called Upon" operations recognizes losses and costs beyond those experienced by the province and hydropower operators to include impacts on private property, public infrastructure, communities and regional resources, as examples. The Treaty must also include a fair process for defining the losses and costs, including mediation to resolve differences.

The Committee will continue to urge local governments in the Basin to do what they can to reduce flood risk, including bylaws for floodplain management and floodplain covenants, riparian development permits and flood inundation studies. and we will encourage our local government colleagues in the U.S. to address flood risks in their respective areas. We also urge the B.C. Surveyor General to reconsider their process for approving accretions along Kootenay Lake and the Lower Columbia River to fully account for the changes in lake levels and river flows from dam operations and climate change.

8. **Canadian Input to Libby Dam Operations:** The Province must bring Libby Dam fully into the Treaty so that it can be managed as the Committee recommends for other Treaty dams – for power generation, flood control, ecosystem functions, recreation, tourism and other interests. This management needs to include a formal mechanism to ensure Canadian interests are meaningfully incorporated into operational decisions at Libby Dam, just as U.S. interests are accounted for in the operation of the Canadian Treaty dams. As well, a compensation mechanism, paid for by those who benefit, is needed to address the negative impacts in Canada from Libby Dam operations. These include reductions in fish and wildlife habitat; floating debris; dust storms; damage to dikes in the Creston area; and economic damage to property and infrastructure from fluctuating water levels.

9. **Power Generation:** Basin residents support the supply of reliable hydropower to the province and most of Canadian Basin communities from B.C. Hydro


Chinook salmon

Treaty-related facilities in the Canadian Basin. Any future Treaty-related decisions must seek to ensure that power facilities owned by the Columbia Basin Trust (CBT) are not negatively impacted as these facilities create the funds for CBT programs that enhance Basin well-being. If negative impacts are anticipated from any changes to the Treaty, before final decisions are made Basin residents must be provided information about the benefits and impacts so they can provide informed input on the potential impacts.

10. **Continue Treaty Rights to Water Use in B.C.:** Existing Treaty rights for Canadian interests to withdraw water from the Columbia River system for "domestic uses," including irrigation, industrial and municipal use, must be maintained. These rights will continue to be exercised consistent with B.C. legislation and policy.

11. **Integrate Climate Change:** We strongly support the continued incorporation of climate change-related information – particularly projected increases in extreme events and changes in stream flows resulting in more frequent, deeper droughts – into international hydro system scenario planning and operations. Treaty negotiations must include this critical factor, creating a flexible, adaptable Treaty framework that is resilient to changing conditions over the long term (at least 50 years).

12. **Pursue Salmon Restoration:** Indigenous Nations and other Basin residents are passionate about returning salmon to the Columbia River in Canada. We strongly support provincial and federal agencies and Indigenous Nations/ Tribes on both sides of the border continuing to jointly explore the technical and financial feasibility and implementing feasible options to return salmon to their historic ranges in the Canadian portion of the Columbia River where habitats can support salmon species. We congratulate the Ktunaxa, Secwepemc and Sylix-Okanagan Nations, and the federal and provincial governments, on

the signing of the historic Letter of Agreement committing to collaborate on this important initiative.

13. **Less Fluctuation in Reservoir Levels:** It is a priority for Basin residents that water levels in all Treaty related reservoirs fluctuate less to reduce impacts on ecosystems, tourism, recreation and transportation. The Committee applauds the province for continuing to explore options to reduce fluctuations through the Arrow Lake Reservoir Mid-Elevation Scenarios process and encourages expanding this scoping to other reservoirs. A minimum summer drawdown level is needed for the Arrow Lakes Reservoir to avoid extreme summer drawdowns in dry years as occurred in 2015-16. These dry years are expected to occur more frequently as the climate changes.

    The Committee is aware of the interests in the U.S. for additional water flows during the spring for salmon flows and in the summer for irrigation uses. These flows would have impact on reservoir levels in B.C. If these interests are considered during the negotiations, the Committee requests that the province assess the benefits and impacts of these U.S. interests on B.C. Basin interests, share this information with Basin residents, secure their input and incorporate this input into any decisions regarding the future of the Treaty.

14. **Governance:** Treaty implementation is currently governed by the hydro system operators and related provincial and federal government agencies. The Committee acknowledges and supports the growing nation to nation roles for regional Indigenous Nations in Treaty negotiations and strongly encourages expansion of these roles to include domestic hydro system operations over time. Local governments seek a more substantial, ongoing advisory role in Treaty related implementation decisions. Local government advice would be informed by input from residents impacted by each reservoir and likely provided through provincial agencies. The Committee will consider options for roles for local governments and Basin residents, seek input from residents and local governments and advocate for the best options.

    The addition of ecosystem function as a first order value in Treaty operations, as recommended above will require that governance structures be expanded to ensure equal and effective ecosystem function expertise is involved to represent these objectives in all Treaty decisions. Governance should seek increased operational flexibility to allow for experimentation under an 'active adaptive management' approach to explore changes that will restore and/or enhance ecosystem function and habitats within reservoir footprints and affected river reaches.

    While perhaps beyond the governance of the Treaty, the Committee will continue to explore and stay informed about options to establish an international river basin organization, with local government and resident representation, for a future Basin-scale river management system.

Kinbasket reservoir - mudflats during spring drawdown south of Valemount

B. Domestic Issues

Many of the concerns we continue to hear from Basin residents relate to the ongoing operations of dams and reservoirs in the region. We invite the Province and B.C. Hydro to work collaboratively with local governments, CBT and others to identify and implement practical, effective solutions to the issues below in a timely manner.

1. **Support Communities to Address Negative Impacts in the B.C. Basin:** The Treaty is clear that each country is responsible for addressing impacts in their own jurisdiction. The Committee appreciates the Province continuing work with CBT, local governments, and Canadian Basin residents to identify and implement initiatives, in ways that are acceptable to Canadian Basin residents, to reduce current negative impacts from Treaty-related dam construction and operation. However, small communities most impacted by the Treaty feel they are not yet adequately supported. The Committee urges the Province and CBT to work together diligently with the impacted small communities to identify and implement feasible and innovative actions, including responding to suggestions that were raised during the CRT community meetings. The Committee embraces the community statement from these meetings – 'Acknowledge what was lost and enhance what remains' – to guide its advocacy for improved support for impacted communities.

If changes to the Treaty result in additional negative impacts in the Canadian Basin, beyond current operations, a clear compensation model must be implemented to address these impacts.

2. **Community Economic Development:** The creation of the Treaty related reservoirs impacted local economies extensively through loss of settlement lands, fertile agriculture lands, and productive forests as well as recreation, tourism, hunting, trapping and fishing opportunities, along with related loss of local tax revenues. Economic development is further hampered on an ongoing basis by dust storms, navigation safety hazards, erosion, expensive roads along the edges of reservoirs, ferries rather than fixed links, and unsightly mudflats. Kinbasket Reservoir has an especially high economic impact on adjacent communities, in the tens of millions of dollars annually, because of the large area of fertile forest lands and valuable road systems that were inundated and the absence of tourism and recreation development opportunities along the reservoir to offset these losses. Extensive productive forest lands and forestry opportunities were also lost under the Arrow and Duncan reservoirs. The loss of fertile agriculture lands flooded by Arrow Reservoir and range lands inundated by Koocanusa Reservoir significantly reduces the food production self-sufficiency of the region.

   Unfortunately these economic losses have not been consistently documented or evaluated for each reservoir. Interested readers are directed to the compilation of available information for each reservoir in A Review of the Range of Impacts and Benefits of the Columbia River Treaty (2012).

   The Treaty was to create power generation and flood risk management for B.C .and the Pacific Northwest in the U.S., but it has failed to facilitate reliable hydroelectric power for all basin communities, particularly for several small, remote communities that are significantly impacted by Treaty operations. Frequent power outages, sometimes of long duration, in impacted areas with lower populations, such as Nakusp and the Lardeau Valley, further limit local economic development options. The Committee recognizes the efforts B.C. Hydro is making to reduce power outages and encourages them to continue to make improvements, including through collaborating with Fortis B.C..

   High speed fibre digital connectivity is a high priority for all Basin communities. An opportunity currently exists for telecom (e.g. Telus) and hydro-power companies in the basin to support community development by removing barriers to the placement of fibre infrastructure on their existing poles. This would include expediting permits and significantly reducing or waiving the charges levied for the use of their existing poles, including 'make ready' costs to place the infrastructure on existing poles and annual pole rental costs. The provincial government could also support this essential infrastructure through a property tax exemption for this critical infrastructure. This would significantly reduce the time delays and costs of expanding high speed connectivity to smaller communities and rural areas especially.

Kinbasket reservoir - mudflats during spring drawdown north of Golden

   The communities most impacted by these conditions will continue to work with the province and CBT to identify and implement feasible economic opportunities, including the suggestions from the CRT community meetings. However, the Committee expects the provincial and federal governments to enforce relevant legislation to avoid further degradation of the environment, and expedite assistance and necessary approvals for feasible community economic development initiatives, recognizing the sacrifices our communities have made for the benefits that are enjoyed by the Province and the U.S.

3. **Meaningful Ongoing Engagement of Basin Residents:** Decisions about the operation of hydro facilities in the Basin impact many Basin residents on a day-to-day basis. Many residents have told us they want to know more about the system and these decisions, and to be involved in these decisions on an ongoing basis.

   The Columbia Basin Regional Advisory Committee (CBRAC) was implemented by the Province in 2014 with ongoing guidance from the Committee and B.C. Hydro to begin to fill the need for long-term,


Koocanusa reservoir - spring drawdown

meaningful engagement with Basin residents. CBRAC is a diverse Basin-wide group representing a broad range of perspectives, interests and geography. It is helping inform hydroelectric operations in the Columbia Basin and potential future improvements to the Treaty.

4. **Koocanusa Reservoir:** Koocanusa Reservoir was created by the construction of Libby Dam in the U.S. under the Treaty. B.C. water licenses for the other Treaty dams create requirements for Water Use Plans and other mechanisms to address local impacts. As there isn't a B.C. water license for Libby dam, these mechanisms don't exist for Koocanusa Reservoir. B.C. Hydro benefits from this reservoir through power generation at the Kootenay Canal and does undertake some activities to reduce impacts including annual debris removal. However community members and local governments have identified several impacts that require further attention including recreation access management and enforcement in the drawdown zone; agriculture supports to mitigate impacts; ecosystem and fish/wildlife baseline studies and habitat enhancement; and ongoing debris removal. The Committee strongly encourages B.C. Hydro, the Province, Indigenous Nations and CBT to work together to address the identified impacts.

5. **A Water Management Process for the Kootenay River:** Residents with interests in the Kootenay River system in the Canadian Columbia Basin have told us they have no clear way of understanding if and how their interests are taken into account in operational decisions about water management in this system. They have concerns about flooding, impacts on fish habitat, spring drawdown for fisheries in the U.S., dyke infrastructure damage and other topics that require a system-wide perspective to understand and consider potential solutions. For several years the Committee has advocated for the Province and all Canadian operators on the Kootenay River system to work together to collectively initiate a process for the Kootenay River system to better understand how hydro operations benefit or impact the full range of interests, and to address the impacts. The Committee will seek funds to undertake a scoping study to better understand the local interests and concerns; to research options to engage these interests in management of the system; and encourage implementation of feasible options.

6. **Columbia and Duncan Water Use Plan Implementation Order Reviews:** In B.C., the purpose of Water Use Plans (WUPs) is to understand public values and to develop a preferred operating strategy through a multi-stakeholder consultative process. At the completion of the consultative processes for both the Columbia and Duncan WUPs, although all members signed the final reports, some members of the Consultative Committees remained concerned that, in their view, the WUP results did not fully address the issues and concerns they had raised. WUPs were approved in 2007 for the dams along the Columbia River, and Duncan Dam.

   These WUPs have resulted in minimum flow requirements for ecosystem functions from Revelstoke dam, sophisticated boat ramps for ongoing water access as reservoir levels fluctuate and $128 million spent on research, monitoring, debris removal and some on-site enhancement of ecosystems and fish/ wildlife habitats. Basin residents and local governments have concerns about the limited opportunities for involvement in plan implementation and decisions and the validity of the research studies. Although information about the upcoming important review processes is available on B.C. Hydro's website, it is not included in B.C. Hydro's seasonal summaries, which are broadly distributed, or the annual operations updates attended by many Basin residents, leaving Basin residents unclear about the next steps.

B.C. Hydro has outlined their developing plans for the upcoming WUP Order Reviews for the Committee. These plans include some opportunities for Basin residents and local governments to understand the extensive information that has been collected during these WUPs and an opportunity to review the final report.

Effective implementation of WUPs, including full engagement of Basin residents and local governments during the upcoming reviews continues to be one of the primary opportunities for the Province and B.C. Hydro to build a foundation of trust and goodwill with Basin communities following the legacy of negative impacts from the Treaty. The Committee urges B.C. Hydro to communicate with Basin residents about the planned review processes, with regular updates. The Committee will provide suggestions to B.C. Hydro to expand its current plans for engagement with Basin residents and local governments in the reviews, including considering CBRAC as representing key stakeholders, and will advocate to the Province for expanded roles if needed. In addition, the Committee encourages the B.C. Comptroller of Water Rights, the provincial agency directing the WUP Implementation Order Reviews and B.C. Hydro to establish a credible oversight process for the reviews to address the questions about the validity of the research studies.

7. **Columbia Fish and Wildlife Compensation Program (FWCP):** The Committee will continue to work with the FWCP to strengthen relationships and communications between FWCP, the Committee and Basin communities, recognizing that it is the role of the Columbia FWCP Board to guide the Program's regional communications and engagement. The Committee is available to provide advice to further align FWCP's community communications and engagement practices to meet the interests of Basin residents and local governments and, where appropriate, will share FWCP information and engagement opportunities with other elected officials and Basin residents.

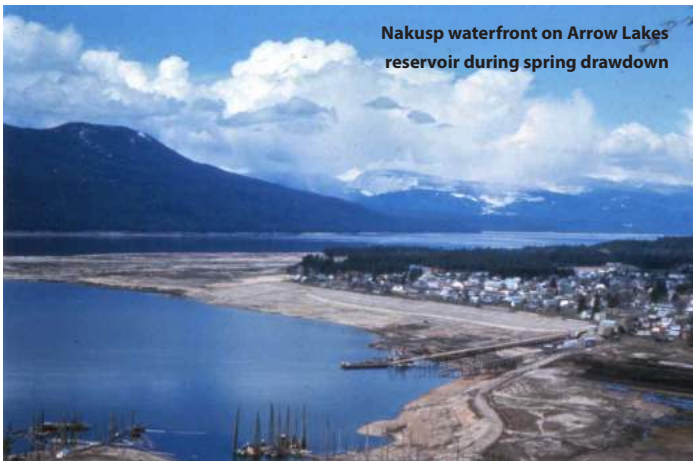
   The Committee notes that the 2019 Evaluation and Audit of the FWCP states 'Current funding capacity of the FWCP is likely insufficient to achieve its intended outcome of compensating for footprint impacts of B.C. Hydro generation facilities'. The Committee agrees with this finding and will advocate for adequate, secure, long-term funding for FWCP and other programs to expand ecosystem restoration and environmental impact mitigation across the Basin, consistent with placing ecosystem function as an equal priority within the Treaty.

Continued Role in Treaty-Related Decisions

Local governments across the Basin are committed to continuing to advise the Province and Canada on Treaty-related decisions, and to work with the Province and others to pursue solutions to domestic issues identified by Basin residents. Proactive and thoughtful response to the Committee's recommendations is one of the primary opportunities for the Province, Canada, B.C. Hydro and other hydroelectric facility operators to continue to build trust and goodwill with Basin communities as we move forward together to refine the Treaty and address outstanding domestic issues.

Basin residents are concerned about whether the Province will act on the commitments it has made during the Treaty Review and the 2018 CRT community meetings and address any impacts arising from changes to the Treaty in the future. The Committee will continue to monitor and provide input to the ongoing Treaty negotiations to ensure Basin voices are heard and reflected in Treaty decisions. We will also continue to work with the B.C. CRT Team and others to seek solutions to the identified domestic issues.

By working together, within the Basin, with the Province, and internationally, with all governments, hydroelectric facility operators, interest groups and residents, we believe it is possible to refine the Columbia River Treaty and related documents to enhance this agreement, and to address the existing domestic issues to improve the quality of life for Basin residents. We believe this can be done while expanding the benefits to others. As local governments, we will continue to work together to achieve this vision.



Nakusp waterfront on Arrow Lakes reservoir during spring drawdown

Columbia River Treaty Local Governments Committee
Updated Recommendations Summary

January, 2021

The following revisions have been made to the current Recommendations, compared to the original December 2013 Recommendations.

RESPECTING OUR HISTORY – A detailed table of dam and reservoir characteristics was added.

A. TREATY

Process

1. **Local Government Status In Treaty Negotiations**: Support for Indigenous Nations roles and a description of the Committee's engagement with the CRT Negotiating Team was added.
2. **Engagement with Basin residents -** Added information on the Columbia Basin Regional Advisory Committee (CBRAC).
3. **Assess Impacts and Benefits** - Paragraph regarding U.S. interests in additional spring and summer flows moved to section on Less Fluctuation in Reservoir Levels.

Content

4. **Reduce Negative Impacts to the Basin –** No changes.
5. **Equitable Benefit Sharing** - Several additions to: expand on the importance of equitable benefit sharing with Basin communities; highlight community need for easy access to clear information on benefits, including the Committee working with the province to update the 2012 Range of Benefits and Impacts Report; and recognize the difference between benefit sharing with Indigenous Nations and Basin communities/residents.
6. **Expand the Focus of the Treaty to Include Ecosystems and Other Interests** - Several additions to: recognize commitments by Canada and the U.S. to integrate ecosystem function into the Treaty; support Indigenous-lead ecosystem function work, with provincial funding and support; share expectation of continuing engagement of Basin residents as ecosystem function work progresses; recognize the Upper Columbia Basin Environmental Collaborative (UCBEC) Discussion Paper noting nothing included that the Committee wouldn't support; and strongly support for increased flexibility in the Treaty to integrate ecosystem function.
7. **Flood Risk Management** - Several additions to: state the Committee's view that Koocanusa reservoir should not be considered a US reservoir under Called Upon operations; expand on the definition of 'economic losses and operating costs' resulting from Called Upon operations including the need for fair processes to define these losses and costs; provide more details on what local governments can do to reduce flood risk; and urge for the Surveyor General to reconsider their process for approving accretions on Kootenay Lake and the Lower Columbia River.

8. **Canadian Input to Libby Dam Operations -** Recreation and tourism interests added.
9. **Power Generation** - If Treaty changes might negatively impact Columbia Basin Trust revenues, Basin residents must have opportunity for informed input has been added.
11. **Integrate Climate Change** - Clarified long term perspective (at least 50 years).
12. **Pursue Salmon Restoration** - Added congratulations for the Letter of Agreement.
13. **Less Fluctuations in Reservoir Levels** - New section. Includes and expands on reference to U.S. interests in increased spring/summer flows for fish and irrigation from 3. Assessing Benefits and Impacts.
14. **Governance** – New section.

B. DOMESTIC ISSUES

1. **Support Communities to Address Negative Impacts in the BC Basin -** Added paragraph to emphasize need for more support for smaller, impacted communities. Paragraph on ecosystem funding moved to 7. Columbia Fish and Wildlife Compensation Program.
2. **Community Economic Development** - Several additions to: describe the productive forestry and agriculture lands that were flooded; note incomplete documentation of losses; highlight the importance of high speed broadband connectivity; and expand on the impacts of power outages.
3. **Meaningful ongoing engagement -** Added information on the Columbia Basin Regional Advisory Committee (CBRAC).
4. **Koocanusa Reservoir** - Updated information about jurisdictions and local concerns.
5. **Water management process for the Kootenay River –** Updated information about Committee activities.
6. **Columbia and Duncan Water Use Plans** – Several additions to: clarify that Consultative Committee members signed the final reports; describe the WUP outcomes; emphasize the need for more communication about Order Review processes and timelines; importance of engagement of local governments and Basin residents in the Order Review processes; and encourage the Water Comptroller and BC Hydro to establish a credible oversight process to address concerns about the validity of WUP research results.
7. **Columbia Fish and Wildlife Compensation Program** - Expanded on the opportunities to strengthen relationships and communications and added agreement with the 2019 Evaluation and Audit finding of insufficient funding capacity to meet intended outcome, with commitment to advocate for adequate, secure, long-term funding for FWCP and other program to restore ecosystems.

Columbia River Treaty Monthly Update for the Local Governments' Committee – January 2021

Issued February 10, 2021

Key Updates:

- Columbia River Treaty negotiations
- Koocanusa Reservoir Dam Feasibility Study
- Columbia River Treaty Virtual Town Hall
- Columbia River Treaty-related community interest project updates

Treaty Negotiations

- There are no new updates regarding Columbia River Treaty negotiations. We will continue to keep you informed as and when possible.
- The Indigenous-led Ecosystem Function Sub-Committee continues its work conducting studies to further explore how to achieve the goals and objectives to enhance ecosystem function in the Columbia Basin.
- The Indigenous Nations' Cultural Values Teams also continue their work collecting Traditional Ecological Knowledge through literature review, interviews and community workshops. The knowledge gained from this work will be incorporated into the ecosystem studies mentioned above.
- These studies, as well as power generation, flood risk management, and socio-economic objectives will support assessments of different potential Treaty dam operations.
- The Local Governments' Committee is beginning work to explore how the socio-economic values will be integrated into that process.

Public Engagement

Koocanusa Reservoir Dam Feasibility Study

- On Jan. 8, 2021, the B.C. government released an independent report outlining preliminary costs, benefits and impacts related to the feasibility of building a weir/dam across Koocanusa Reservoir. The report was commissioned by the Province in response to calls from some local residents to construct a weir across Koocanusa Reservoir, which spans the B.C.-Montana border south of Jaffray. The

suggestion came as a result of ongoing concerns about summer changes to Koocanusa water levels and their impact on recreation on the Canadian side of the reservoir.

- The Province presented results of the study to the Regional District of East Kootenay at their board meeting on Jan. 8, 2021, and hosted a Virtual Town Hall via Zoom on Jan. 12, 2021 to share results of the study and seek feedback from the public.
- Kathy Eichenberger emphasized in both sessions that this is a preliminary study meant to broaden the conversation, involve more people and get input.
- The public session was attended by 145 people, mostly in the Koocanusa region, including some people from the U.S. Questions sent to the Province in advance of the meeting were addressed during the session, as were questions raised during the session.
- Feedback received during the Virtual Town Hall included:
    - Many people expressed that a reservoir elevation higher than 2,440 feet should be explored. (2,440 feet is the seasonal elevation that the Built a Weir Committee asked the Province to study.)
    - Others expressed the need for all property and business owners along the reservoir to have the chance to provide feedback.
    - Some people asked whether the significant funds required to build the dam/weir would be better spent, in a post-COVID world, to support interests other than tourism and recreation.
    - Questions were raised about where the proposed dam was envisioned to be built and how it could impact water levels at particular communities on the Reservoir.
- The Province is accepting feedback on the study until midnight on Feb. 12, 2021. It will then assess feedback prior to further considering the water control structure.
- A summary report of the Town Hall and feedback received will be published on the CRT website in due course.

CRT Virtual Town Hall

- The Province will be hosting another Virtual Town Hall on the Columbia River Treaty, Feb. 24, 2021 from 6pm – 8:15pm Pacific Time, 7pm – 9:15pm Mountain Time.
- People from across the Columbia Basin and beyond will have a chance to hear from, and ask questions to, Canadian negotiators, Indigenous Nations, local government representatives and others involved in current efforts to modernize the transboundary Treaty.
- Topics will include the current Canada-U.S. negotiations, ongoing Indigenous Nations-led ecosystem studies, Local Governments' Committee updated recommendations and work underway domestically to address interests related to the Treaty.

- The session will be held by Zoom, with an option to phone in for those who are not able to connect by web. A recording will be available afterwards.
- Questions are encouraged to be submitted in advance to columbiarivertreaty@gov.bc.ca before 4pm PT / 5pm MT, on Feb. 18, 2021. Questions may be read out loud during the meeting, but will be kept anonymous.
- The B.C. Treaty Team is working with Linda Worley and Cindy Pearce to coordinate the LGC's participation.
- Details for the Town Hall have been posted to the B.C. CRT Website, and shared on Facebook and Twitter. Please share through your channels.
- The B.C. Treaty Team will hold subsequent virtual sessions throughout the year as appropriate and if there is interest. More details to come.

CBRAC

- On Jan. 21, 2021, CBRAC received a presentation from BC Hydro on their 2021 Integrated Resource Plan – Clean Power 2040. The presentation is available on the CBRAC website. CBRAC voiced that it was one of the better presentations they've received from BC Hydro. The Clean Power 2040 team will hold a follow up session with CBRAC in June.
- The Steering Committee met on Jan. 22, 2021 to discuss this year's CBRAC meeting schedule. In addition to receiving updates on Canada-U.S. negotiations and BC Hydro operations, there is an opportunity for CBRAC to provide input on the socio-economic values work being led by the LGC. This may require CBRAC to meet more often (by webinar) than originally planned. A draft schedule will be circulated to CBRAC for their feedback soon.
- Pam Turyk has stepped down from CBRAC after 6 years on the committee, opening a position for a citizen member from the Jaffray/Baynes Lake region. The B.C. Treaty Team is currently accepting expressions of interest for this position until Feb. 28, 2021. Details for how to apply are on the CBRAC website. The CBRAC Steering Committee aims to choose a new member in March.

Community Interest Projects

The B.C. Treaty Team continues work on addressing community interests that have been raised throughout the Province's public engagement on the Treaty. Progress updates on some of the projects are listed below.

Columbia Basin Agriculture

- Meetings have begun with key regional agriculture experts to validate a table that matches agriculture interests expressed during Columbia River Treaty community engagement with existing federal and provincial programs and services. The meetings will also be used to seek recommendations in addressing potential gaps.
- Depending on the feedback the B.C. Treaty Team receives, the table may be posted on the B.C. CRT website and advertised through the newsletter, Facebook and Twitter.

Columbia River Treaty Heritage Project

- The Request for Proposals (RFP) for CRT Heritage Project Implementation closed on January 24, 2021. The successful proponent is expected to be selected in early February 2021 and work on the project to begin by March 1. Contractor costs will be covered by funding committed by the B.C. Treaty Team.
- In addition to operational funding from the B.C. Treaty Team, the Columbia River Treaty Heritage Project has received grants from Community Futures East Kootenay ($5,000) and Destination BC's Destination Development Catalyst Fund ($28,000). The Catalyst Fund grant is expected to be used for a research project that will contribute to the CRT Heritage Project.
- The successful proponent will be involved in the development of partnerships to fund expenses associated with Heritage Project commemorative infrastructures.

Connectivity/Broadband

- A cross-government working group continues to be focussed on the B.C. government priority of supporting economic recovery and getting high-speed internet to as many communities as possible as quickly as possible.

Creston Valley Dikes Management

- A meeting with Creston Valley flood mitigation stakeholders, including representation from each of the diking districts, Yaqan Nukiy, Town of Creston (mayor and staff), and Regional District of Central Kootenay (area director and staff), was held on December 16, 2020 to discuss governance and funding options and gauge stakeholder interest in continuing to explore options.

- The next meeting of the stakeholder group was held on February 3, 2021 to review terms of reference for a potential governance structure tentatively named the Creston Valley Flood Management Partnership and a stakeholder memorandum of understanding.

Duncan Dam Fish Passage

- In January 2021 B.C. Treaty Team staff and a representative from the CRT Indigenous Nations Technical Working Group participated in a presentation by Whooshh Innovations that included updated information based on their work supporting salmon transfer at the Big Bar landslide on the Fraser River and a demonstration project at Chief Joseph Dam on the Columbia River. The presentation was an opportunity to consider the fish passage technology's applicability to the Duncan Dam Fish Passage and the Columbia River Salmon Restoration Initiative Technical Working Group. Information from the presentation was forwarded to BC Hydro.

Ecosystem Enhancement: Data Acquisition

- Arrow and Kinbasket Reservoir spatial mapping data, developed with support from the B.C. Treaty Team and BC Hydro, was given to the CRT Indigenous Nations Technical Working Group and to Ian Parfitt at Selkirk College for the CRT portal he and his team are developing as part of their Rural Open Data initiative.
- Refinement of public access to the CRT portal continues.

Kinbasket Recreational Opportunities

- Golden Community Coop has been requested to submit a funding proposal to the B.C. Treaty Team for a project to update, expand, and amalgamate the Kinbasket Reservoir Commercial and Recreation Opportunities Study, prepared for Golden and Area Initiatives in 2009, and the Kinbasket Reservoir Impacts and Future Opportunities Report, prepared for the Village of Valemount in 2013.

Meadow Creek Mosquito Impacts

- In January 2021, the B.C. Treaty Team responded to queries from Aimee Watson, Regional District of Central Kootenay Chair, regarding issues related to Meadow Creek mosquitos.

Valemount Air Quality Project

- During their January 2021 meeting, the Valemount Clean Air Task Force agreed to proceed with a workplan outlined in a draft Valemount air quality data review project proposal developed by the B.C. Treaty Team and Ministry of Environment and Climate Change Strategy. The project is to undertake a review of particulate matter data collected in Valemount (March 2013 – December 2019) along with information such as local meteorological measurements, Kinbasket Reservoir levels, satellite imagery, and documented observed dust storms (e.g. photos).
- The B.C. Treaty Team and Ministry of Environment and Climate Change Strategy worked with Valemount staff on a Request for Proposals, which was posted by the Village on BC Bid on Feb. 3 and closes on Feb. 23, 2021.
- The two ministries will work with the Village of Valemount to evaluate proposals, review contractor reports and provide project support as needed. The B.C. Treaty Team will also provide project funding to the Village.

Two projects are being monitored or on pause: Nakusp marina; and Grants in lieu of taxes.

Catherine Allaway

From: Will Nixon <wnixon@ourtrust.org>
Sent: March 3, 2021 12:50 AM
To: office@newdenver.ca
Subject: New Denver COR Application - Centennial Park

Village of New Denver
PO Box 40
New Denver, BC V0G 1S0

Catherine

Re: Columbia Basin Trust Community Outdoor Revitalization Application: Centennial Park – Community Centre, Gathering Space, Amenities

Thank you for submitting your application to Columbia Basin Trust's Community Outdoor Revitalization Program. As discussed, the Trust is not able to support this project at this time. As project plans for both Centennial Park and the Bosun Hall replacement continue to be developed, please keep Trust staff informed.

Regards

Will Nixon | Senior Manager, Delivery of Benefits
Columbia Basin Trust
Direct 1.250.426.8878 | 1.800.505.8998
Mobile 1.250.464.9938 | **ourtrust.org**

Columbia Basin Trust operates in the unceded traditional territories of the Ktunaxa, Lheidli T'enneh, Secwepemc, Sinixt and Syilx Nations.

Catherine Allaway

From: Nadine Raynolds <Nadine@y2y.net>
Sent: March 2, 2021 12:24 PM
To: Nadine Raynolds
Subject: A Ktunaxa "Ethical Space": Context and Consideration - March 17 workshop, registration open

Hello,

Join us for the next workshop exploring the question: What does land-based reconciliation look like in our region, and how do we get there, together?

You're invited: March 17 from 10 – 11:30am Pacific Time, with Michele Sam.

A Ktunaxa "Ethical Space": Context and Consideration

Through an intellectual journey by a Ktunaxa scholar, engaged in life work, guided by principles of: Nation Rebuilding, Good

Governance, Restoration of Peoplehood, Cultural Continuity, (Re) Attachment to Lands and Waterscapes, Intellectual Sovereignty and Cognitive Justice, according to place based Indigenous Peoples' ways of being, doing and knowing, this presentation will lead participants through a pragmatic attempt at Reconciliation. The metaphors of "two eyed seeing" and 'braiding' and 'weaving wisdom' as well as the TRC Calls to Action, the UN Declaration of the Rights of Indigenous Peoples, OCAP (Ownership, Control, Access, and Possession), and the 1990s Royal Commission on Aboriginal Peoples contextualize current attempts at framing 'ethical space'—what it is and how it is arrived at, and by whom, and where. The context of intractable conflict and strategic regional competition, as well as a transformative research framework, will round out the discussion topics.

Please register in advance and feel free to invite others.

This workshop will include presentation and small group discussions.

Illustration by mahiken ik

Nadine

Nadine Raynolds
Upper Columbia Program Manager
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UBCM Union of BC Municipalities

February 5, 2021

Hillary Elliott, CAO
Silverton
Box 14
Silverton, BC V0G 2B0

Re: 2021 CRI FireSmart Community Funding & Supports – CONFIDENTIAL Approval Agreement & Terms of Conditions of Funding

Dear Ms. Elliott,

Thank you for submitting an application under the Community Resiliency Investment program for 2021 FireSmart Community Funding & Supports funding.

I am pleased to inform you **in confidence** that the Evaluation Committee and the BC FireSmart Committee recommended your project, *Regional: Slocan Valley Wildfire Resiliency Project*, for funding. A grant in the amount of $139,982.00 has now been approved.

As outlined in the Program & Application Guide, grant payments will be issued when the approved project is complete and UBCM has received and approved the required final report and financial summary.

The Ministry of Forests, Lands, Natural Resource Operations and Rural Development has provided funding for this program and the general Terms & Conditions are attached. In addition, and in order to satisfy the terms of the contribution agreement, the following requirements must be met in order to be eligible for grant payment:

(1) This approval agreement is required to be signed by the CAO or designate and returned to UBCM within 30 days;

(2) To provide the Province of BC with the opportunity to make announcements of funding approvals under this program, please keep information regarding this funding approval in confidence until February 26, 2021;

(3) A post-grant approval meeting with the local BCWS Wildfire Prevention Officer or FNESS Fuel Management Liaison/Specialist must be completed prior to commencing work. Please contact Mike Morrow at the Southeast Fire Centre to schedule this meeting.

(4) The funding is to be used solely for the purpose of the above named project and for the expenses itemized in your approved application;

The Community Resiliency Investment program is funded by the Province of BC

The Corporation of the Village of New Denver

REPORTS FOR INFORMATION

SUBMITTED BY: Catherine Allaway, CAO **DATE:** March 5, 2021

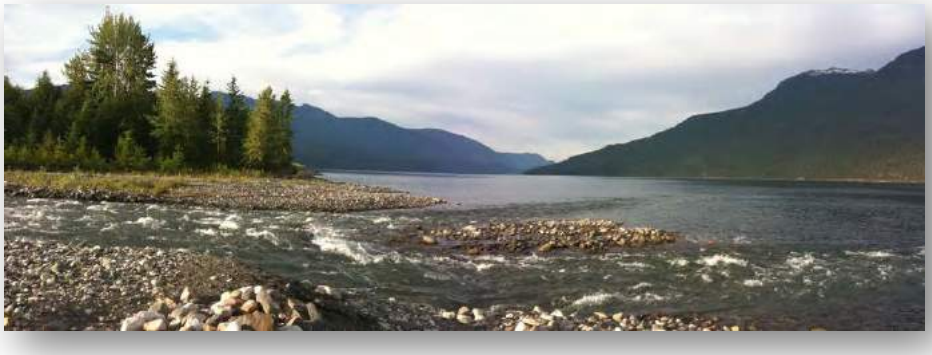
RECOMMENDATION:

That the following item be received for information:

- Water Conservation Plan *(TRUE Consulting - Scott Wallace, Project Engineer)*
- Site Disclosure Statements & Contaminated Sites Regulation Amendments *(Jessica Rayner, Community Planner)*

Water Conservation Plan

Village of New Denver



February 2021

Project No. 1479-051

ENGINEERING ■ PLANNING ■ URBAN DESIGN ■ LAND SURVEYING

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Revision Log

Revision #	Revised by	Date	Issue / Revision Description
1	SW	Feb 4, 2021	Issued (draft) for Village of New Denver Review.
2	SW	Mar 3, 2021	Final report issued to Village of New Denver.

TRUE Signatures

Report Prepared By:

Scott Wallace, P. Eng.
Project Engineer

Report Reviewed By:

Nathan Lee, P. Eng.
Project Review

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List of Acronyms

TRUE	TRUE Consulting
Village	Village of New Denver
RDCK	Regional District of Central Kootenay
CBT	Columbia Basin Trust
USEPA	United States Environmental Protection Agency
MoE	BC Ministry of Environment and Climate Change Strategy
SCADA	Supervisory Control and Data Acquisition
ICI	Industrial, Commercial, and Institutional

Units of Measure

km	kilometre
L/d	Litres per day
L/m	Litres per minute
L/s	Litres per second

L/c/d	Litres per capita (person) per day
m	meter
mm	millimetre
psi	pounds per square inch
USgpm	US gallons per minute

Referenced Reports

1 "Living Water Smart", 2008, BC Ministry of Environment

2 "BC's Water Conservation Guide", Dec 2013, BC Ministry of Community, Sport and Cultural Development

3 "Village of New Denver – Official Community Plan Bylaw 611", 2007.

4 "Village of New Denver – Resilience Action Plan", April 2010, Have Blue Consulting & Design in partnership with Endemic Mountain Design

5 "The Columbia Basin Water Smart Initiative, Building Sustainable Futures for Community Water Use", December 2016, Columbia Basin Trust

6 "BC Stats - Population Estimate by Sub-provincial Areas 2001-2011" and "BC Stats - Population Estimate by Sub-provincial Areas 2011-2019", spreadsheets from https://www2.gov.bc.ca/gov/content/data/statistics/people-population-community/population/population-estimates

7 "Evaluation of Community Water Conservation Efforts in the Columbia Basin 2009 to 2015", July 14 2016, Dr. Hans Schrier, UBC

8 "2011 Municipal Water Use Report", 2011, Environment Canada

9 "Village of New Denver Water Use Data Review and Recommendations for Water Use Efficiency Actions", December 18 2014, Columbia Basin Trust Water Smart Initiative

10 "Regional District of Central Kootenay Housing Needs Report – Slocan Valley Subregional Report" September 2020. RDCK.

11 "Water Conservation Plan Guideline", August 1998, USEPA

Executive Summary

The Village's primary water infrastructure capacity at Well #1 has been exceeded, so to sustain peak summer water use the Village also relies on Well #2; this secondary water source is potentially at low risk of containing pathogens, and is more susceptible to contamination from surface sources.

In addition, the Village is in the process of a significant boundary expansion, which could increase the Village's land area by over 75%. To support that opportunity, it is anticipated that an expansion of Village services (such as provision of drinking water) will be required.

The Village is aware that managing community water use will have a positive impact on future infrastructure requirements and associated capital and operating costs both within the current Village boundaries and the proposed expansion area. In addition, water conservation planning is a requirement for infrastructure grant funding assistance in BC. As such, it is imperative that the Village continue to implement water conservation strategies such as summer irrigation restrictions, and work to enhance those efforts in the coming years.

This Water Conservation Plan includes an overview of the Village's water system infrastructure, followed by development of a community water use profile. The Village's water use profile was created by analyzing water use trends for the past five years, estimating a water use breakdown across various sectors of the community (ie. residential indoor and outdoor, commercial, parks, etc), and determining how the Village's water use impacts its annual operating costs.

Through this analysis, it is clear that, although the Village's water use on a 'per person' basis is lower than some communities in the Kootenay region, New Denver's water use is still higher than others, and higher than the provincial and national averages. The Village has made great strides in reducing general water system leakage during the past five years, but water use during summer months is still quite high, with irrigation comprising an estimated 50% of the Village's total annual water use.

Appropriate demand management strategies will support the Village's goals to replace groundwater supply infrastructure and expand the water service area to beyond current Village boundaries. If the Village is able to reduce the peak summer and annual average 'per capita' water use by 12%, this would bring the Village water use in-line with the provincial average, and would be equivalent to creating capacity for half the potential water service growth needed to sustain a potential peak summer population projection of 1000 people.

Finally, this Water Conservation Plan includes discussion of a number of potential water conservation strategies and their applicability to the Village. Recommended strategies include leak monitoring and water loss management, park irrigation optimization, institutional water service metering, public education and outreach, creation of a water use bylaw, and plumbing fixture (toilet) replacements.

1.0 Introduction

Drinking water is increasingly becoming one of the world's most precious resources. In British Columbia, we benefit from a relative abundance of drinking water resources. However, it is not uncommon for residents of this province to take the availability of fresh water for granted - and as a result, British Columbians have one of the highest per capita water use rates in the world[1]. Water conservation initiatives benefit each and every community – regardless of size and fresh-water availability – and are vital to ensuring the long-term sustainability of British Columbia's fresh-water resources.

In 2008, the province created the BC *Living Water Smart Plan*[1], which set out the following conservation goals:

- By 2020, overall water use in British Columbia will be 33% more efficient (compared to 2008).
- By 2020, 50% of new municipal water needs will be acquired through conservation.

This Water Conservation Plan was prepared with consideration for BC's *Water Conservation Guide*[2], produced by the province in 2013. As described in the BC *Water Conservation Guide*, water conservation plans are now a requirement for local governments who receive capital grants from the province for drinking water and wastewater infrastructure.

TRUE Consulting (TRUE) developed this plan for the Village of New Denver (Village). This plan builds upon past work completed by the Village, and provides direction for future stewardship of the community's water system. This plan will help define the Village of New Denver's water conservation goals and provide the framework necessary to achieve them.

Creation of this water conservation plan supports the Village's *Official Community Plan*[3] completed in 2007, as well as the Village's *Resilience Action Plan*[4] completed in 2010. Water conservation efforts are in line with those planning documents' goals and policies.

A water conservation plan can also serve as readily available information for the public to better inform residents of the current state and operating costs of the water system, as well as the proposed water conservation initiatives. This will allow residents to understand the importance of water conservation and appreciate the potential benefits of actively pursuing a lower individual and community water demand. Decreasing water consumption will help to ensure that future generations continue to have access to clean, sustainably sourced drinking water.

2.0 Water Conservation Planning Regional Lessons Learned

This section provides background information from a regional initiative completed in recent years by the Columbia Basin Trust (CBT), as described in the report titled *The Columbia Basin Water Smart Initiative, Building Sustainable Futures for Community Water Use*[5]. This information is pertinent to the Village of New Denver's water conservation planning.

During the 2009 through 2015 period, CBT organized and funded a Water Smart Initiative as a collaborative, regional, data-driven water conservation initiative with two goals: reduce community water demands, and support local governments in implementing effective water conservation plans, policies, and actions. The Village of New Denver participated in a phase of that program, which included twenty-six local governments from all areas of the Columbia Basin at different stages of the initiative.

The Water Smart Initiative confirmed four factors that can influence community water use, including:

- Human factors: beliefs, norms, and behaviours affecting water use choices.
- Infrastructure and technology: public water infrastructure, metering, and the use of water efficient fixtures.
- Land use.
- Climate and weather.

With the exception of climate/weather, local governments have the ability to influence or change all of those factors and impact how water is used within their community.

The Water Smart Initiative identified four key lessons learned, as follows:

1. Good data illuminates priorities.
   "Collecting and assessing water data is essential to effective community water conservation efforts. Good quality data shows where the greatest gains can be made and which efforts are successful over the long term."
2. Leaks are the Columbia Basin communities biggest water conservation opportunity.
   "Water loss through system leakage constitutes the single largest community water demand. Reducing leakage reduces infrastructure costs and improves climate resilience by reducing demand on local ecosystem supply."
3. Reducing peak demand reduces infrastructure costs.
   "Peak demand, typically driven by irrigation, presents the second largest water conservation opportunity for community water systems. Reducing peak demand helps minimize costs associated with maintaining and expanding water supply infrastructure, and improves climate resilience. Addressing peak demand proved to be a challenge

because it is influenced by so many factors, including temperature, precipitation, type of outdoor and indoor water use, and commercial, institutional and agricultural practices. Further, individual behaviours, perceptions and biases can be difficult to influence."

4. Collaboration accelerates capacity development.
   "Water Smart's collaborative approach and support for peer-to-peer engagement was a driving factor in community success. This approach empowered Basin water managers and operators with knowledge, tools and technical support needed to build local and regional capacity for water conservation."

3.0 Description of New Denver's Water System

The Village of New Denver is located on the eastern shore of Slocan Lake, in the Regional District of Central Kootenay (RDCK). The Village's population is approximately 500 people, with the entire community serviced by the Village's water distribution system. In addition, the Village currently provides water service to 10 residential homes (approximately 25 people) outside of the municipal boundary. Further, in summer months, the non-resident population increases; the Village estimates that the population provided with water service in summer months peaks around 750 people.

The Village does not operate a centralized sewage collection system; all properties are serviced by privately owned onsite sewerage (septic) systems.

The Village's water supply, distribution and storage components include the following:

- Well #1 (Arena Well) was constructed in 1974 with a rated capacity of 10.7 L/s (170 USgpm) and is completed with a submersible pump with a capacity equal to the well rating.
- Well #2 (Lake Well) was constructed in 1974 with a rated capacity of 56.7 L/s (900 USgpm) and is completed with a submersible pump with a capacity of 33.4 L/s (530 USgpm).
- The water distribution system includes approximately 9,100m of watermain including:
  - 2,520m of 200mm diameter watermain.
  - 6,370m of 150mm diameter watermain.
  - 140m of 50mm diameter watermain.
  - 85m of 25mm diameter watermain.

  More than 95% of the Village's watermains were constructed in 1976 using cement lined ductile iron pipe. The Carpenter Creek bridge crossing is a steel pipe, and a section of watermain on Galena Avenue (near the hospital) is thought to be C900 PVC pipe. Any watermain repairs completed in the past 20 years have also used C900 PVC pipe.
- The Village's storage reservoir is an epoxy coated bolted steel tank constructed in 2010 with a useable capacity of 1,295 m^3 (~342,000 USgallons).

The Village's water system supplies approximately 370 residential water services and 50 non-residential (32 commercial and 18 institutional) water services within the Village, and 10 residential water services outside of the municipal boundary. There are no water services to industrial properties. All the water services are unmetered connections.

4.0 Water System Profile

To develop a suitable water conservation plan, the current state of the system must be clearly defined from a water consumption and system operational cost standpoint. In some cases, water conservation initiatives can be partially funded by water system cost savings. An accurate understanding of 'how much', 'when', and 'where' water is used, is crucial to assessing the viability and practicality of water conservation options, the corresponding demand reductions, and the social, economic and environmental benefits.

4.1 Water Use Volumes

Water use in New Denver is measured by flow meters at each of the well pumphouses. Subsequent to the Village's participation in the CBT Water Smart Initiative, as recommended at that time, both devices were replaced with magnetic flow meters to improve data accuracy. The Well #2 flow meter was replaced in December 2015, and Well #1 flow meter was replaced in March 2016. Water use data is manually recorded by Village staff on weekday mornings at approximately the same time each day, typically between 7:00 and 7:30am. Water use data is described in the sections below.

4.1.1 Annual, Monthly and Daily Water Consumption

Water use data for the Village of New Denver from 2016 to 2020 has been compiled and assessed to determine the overall annual water consumption, average per capita water demand and maximum day demand. The total annual water use during this recent five-year period is shown in **Figure 4-1**.

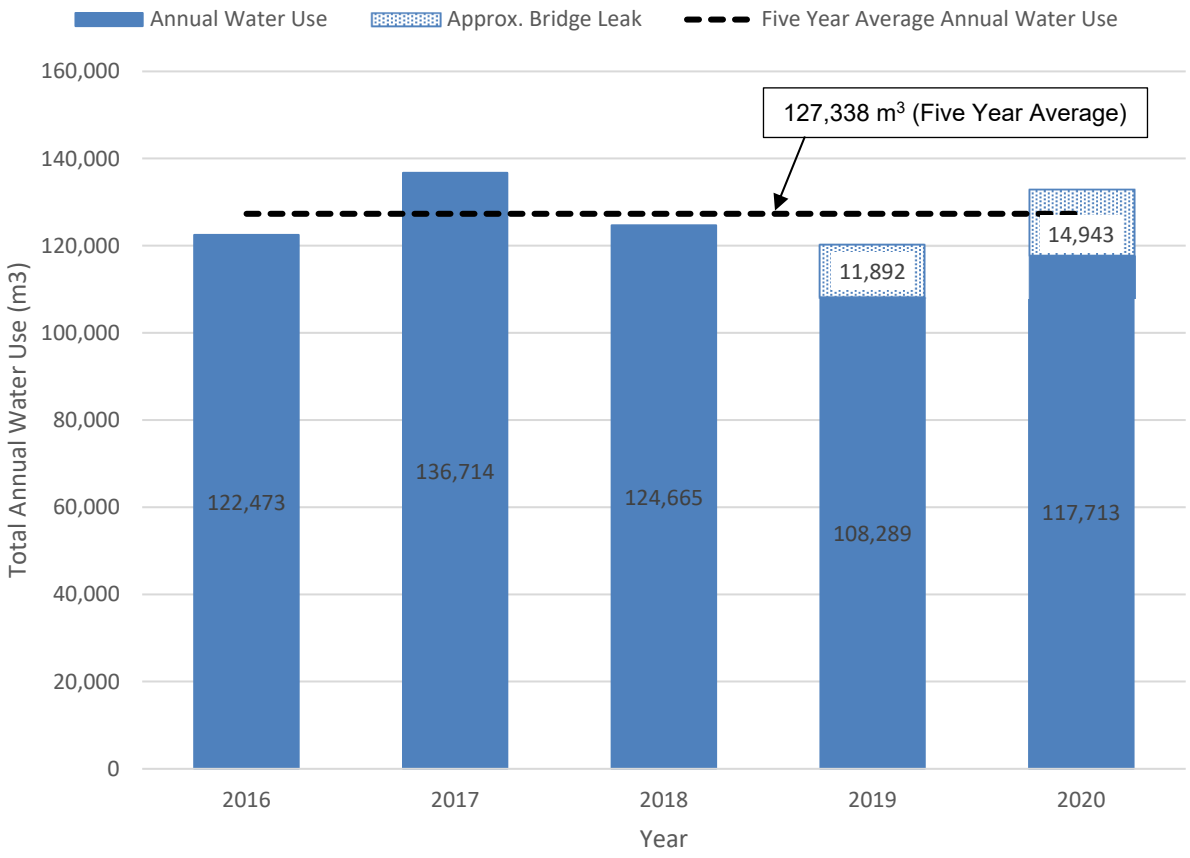


FIGURE 4-1: VILLAGE OF NEW DENVER – ANNUAL WATER USE (2016-2020)

The following observations are made with regard to the Village's annual water use:

- The 2013 and 2014 total annual water use (not shown) were noted as 126,500 m^3 and 132,600 m^3 respectively in previous reporting from the Columbia Basin Trust Water Smart Initiative. Those totals were measured by the previous flow meters; however, they are comparable to the volumes measured by the new flow meters in the recent five-year period.
- Annual total water use has varied from year to year, but not significantly; staying within 8% of the five year average of 127,338 m^3/year. The five-year average includes the bridge leak volumes.
- The 'bridge leak' volumes are estimates, based on the flow recorded in December 2019 through February 2020 in comparison to the ~ 4,000 m^3/month that was used in October and November immediately before that leak occurred. Without the bridge leak, water use in 2020 would have been between 117,713 m^3 and 132,656 m^3 – and definitely closer to the low end of that range. Similar comments regarding bridge leakage apply to the water use in 2019.

The Village's recorded monthly water use is shown below in **Figure 4-2**, including the separate contributions from Well #1 and Well #2.

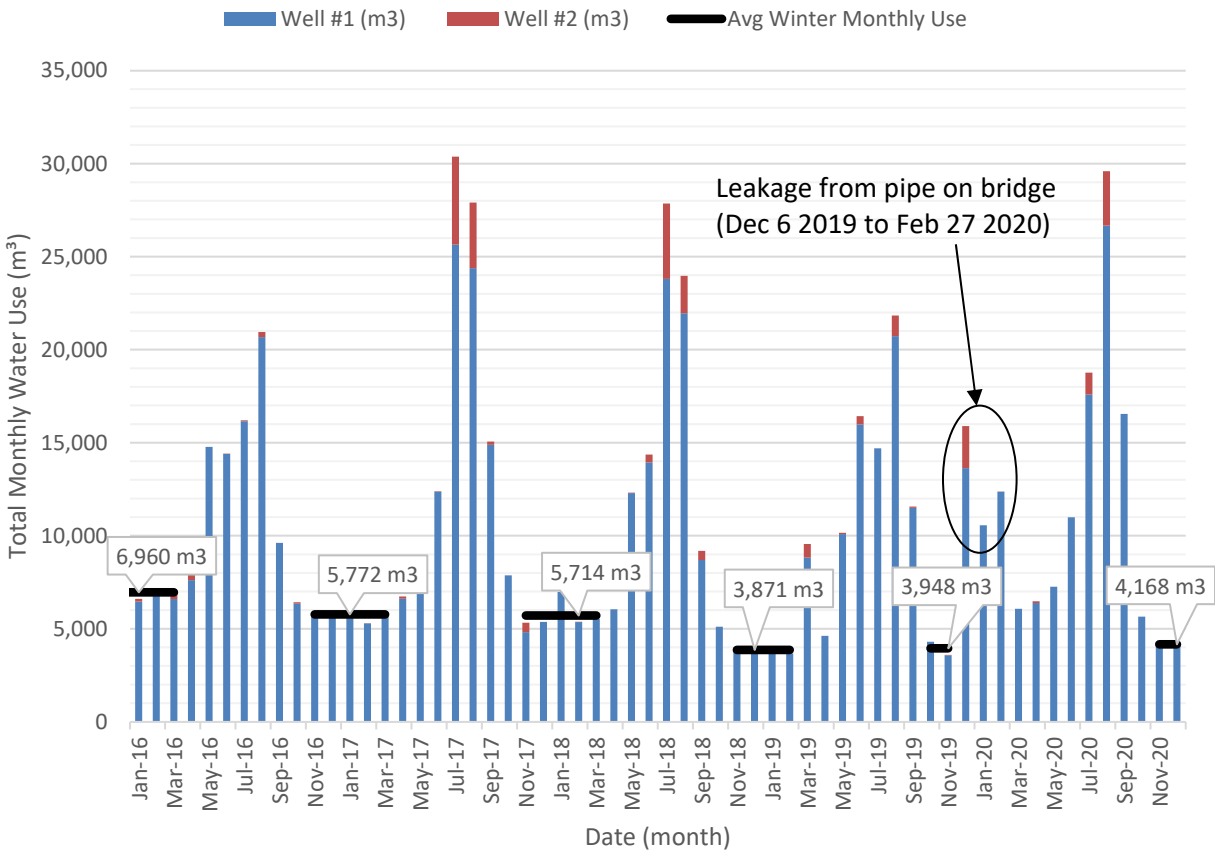


FIGURE 4-2: VILLAGE OF NEW DENVER – MONTHLY WATER USE (2016-2020)

The following observations are made with regard to the Village's monthly water use:

- The Village relies on Well #1 to supply 95% of the water used. Typically, Well #2 only operates during summer months when community water use exceeds the capacity of Well #1.
- The Village's monthly water demand profile varies seasonally, similar to most municipal water systems. 60% to 70% of the total annual water use occurs from May through September each year.
- There have been fairly significant changes in the summer water use from one year to the next. This variance is explored further in Section 4.2.
- The average winter monthly use has significantly decreased in the past five years. These reductions are likely a result of factors including:

- Leakage repairs. Since 2015 the Village has replaced approximately 30 failing water services and repaired two significant watermain leaks (one on a mainline, and one at a fire hydrant connection).
- Winter service shut-offs. The Village offers to shut off water services for any seasonal (non-resident) homeowners to avoid potential unnecessary water use during winter months – such as homeowners leaving a tap running to prevent freezing. For example, in the fall of 2019 the Village shut off 21 water services.

The reduction in winter monthly water use from 2016 to 2020 amounts to a decrease of approximately 33,500 m^3/year.

The Village's recorded daily water consumption values through the summer months are shown in **Figure 4-3**.

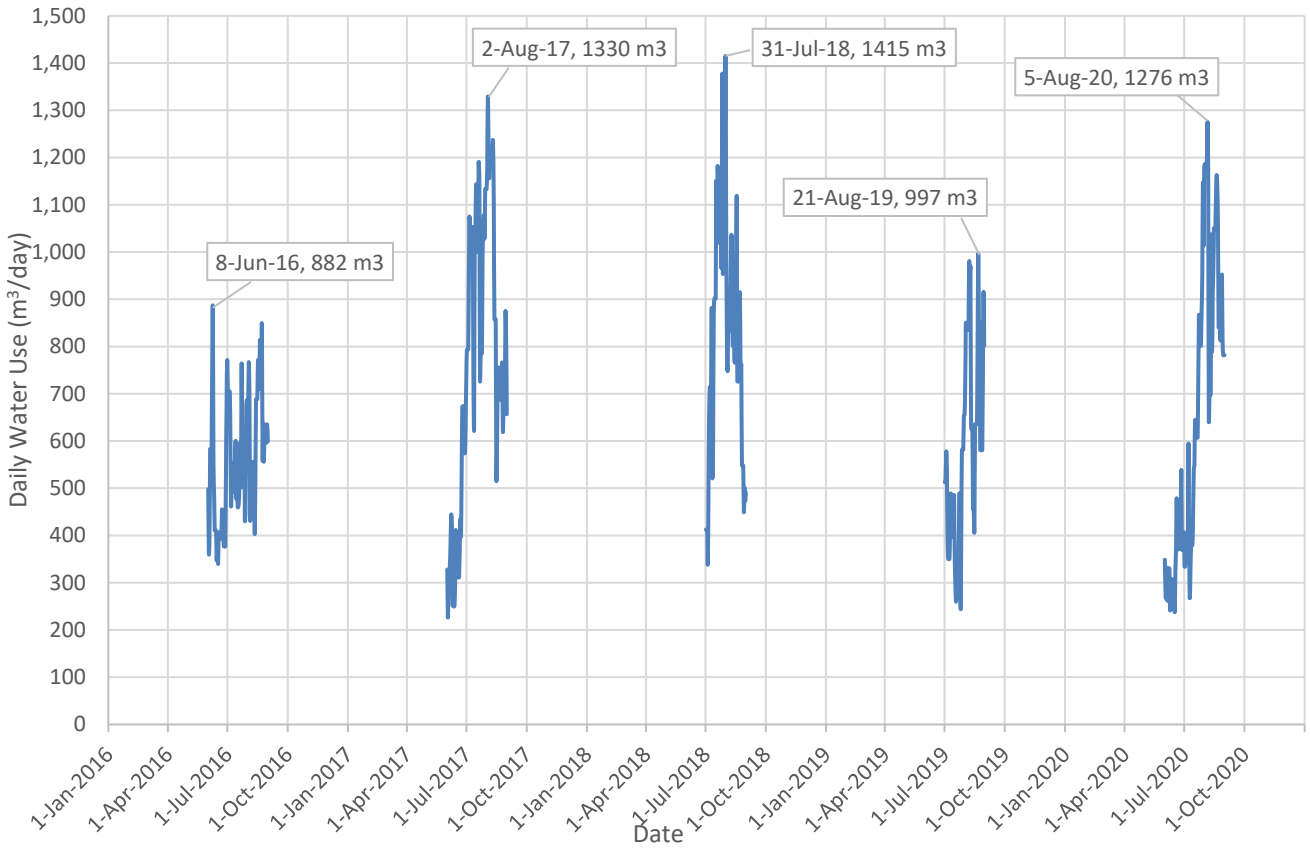


FIGURE 4-3: VILLAGE OF NEW DENVER – DAILY WATER USE IN SUMMER MONTHS (2016-2020)

The following observations are made with regard to the Village's maximum daily water use:

- From 2016 through 2020, the maximum daily water use occurred in either June, July or August.

- Annual maximum water use days ranged from 882 m^3/day to 1415 m^3/day. It is worth noting that all of the maximum days labelled in **Figure 4-3** were not on weekends. Since the weekend water use is not recorded daily, the weekend data is averaged from Saturday through Monday – so there is potential that, if the maximum daily use occurs on a weekend, it could be higher than the days labelled in Figure 4-3. For design purposes, a current maximum day water use of ~1,500 m^3/day is recommended.

4.1.2 Per Capita Water Use

In addition to the total community water use, consideration is given to the 'per capita' water use. New Denver's population data was obtained from *BC Stats - Population Estimate by Sub-provincial Areas 2001-2011* and *2011-2019*[6], and then increased to account for the full-time service area population as shown in **Table 4.1**.

TABLE 4-1: VILLAGE OF NEW DENVER – SERVICE POPULATION ESTIMATE (2016-2020)

Year	Village population (BC Stats)	Estimated service population outside Village	Full time service population
2016	484	25	509
2017	488	25	513
2018	493	25	518
2019	496	25	521
2020	496 (assumed)	25	521 (assumed)

Using annual water use data combined with the population estimates shown above, New Denver's per capita water use is then presented in **Figure 4-4**.

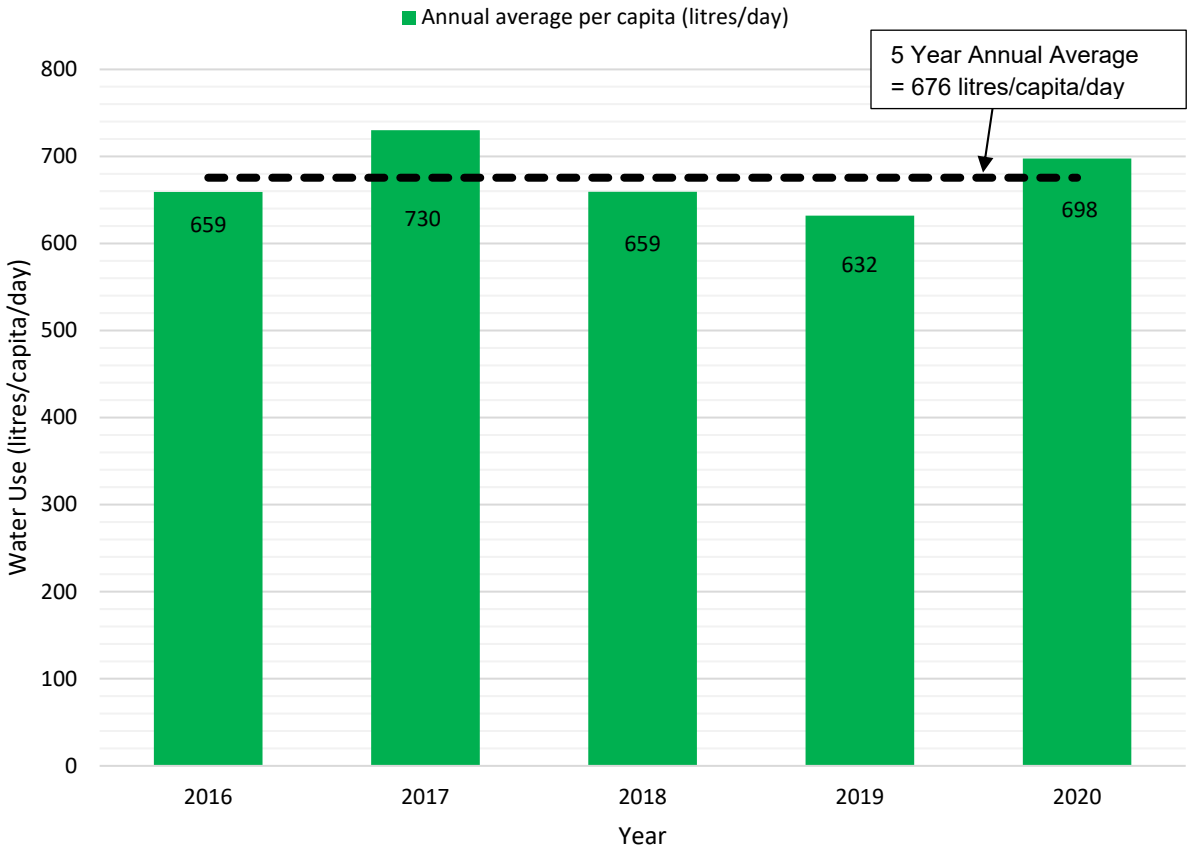


FIGURE 4-4: VILLAGE OF NEW DENVER – DAILY WATER USE PER CAPITA (2016-2020)

The following observations are made with regard to the Village's 'per capita' water use:

- The Village's 'per capita' average day demand has varied during the 2016 to 2020 time-period, with a five-year average of 676 litres/capita/day.

4.1.3 Water Use Comparison

Further to the Village of New Denver's water use, **Figure 4-5** presents a comparison between the annual average 'per capita' water demands in New Denver and other communities in the Kootenay region, as well as regional, provincial and national averages. Data for the other Kootenay communities is taken from the Columbia Basin Trust's Water Smart Initiative, as described in the report titled *Evaluation of Community Water Conservation Efforts in the Columbia Basin 2009 to 2015*[7].

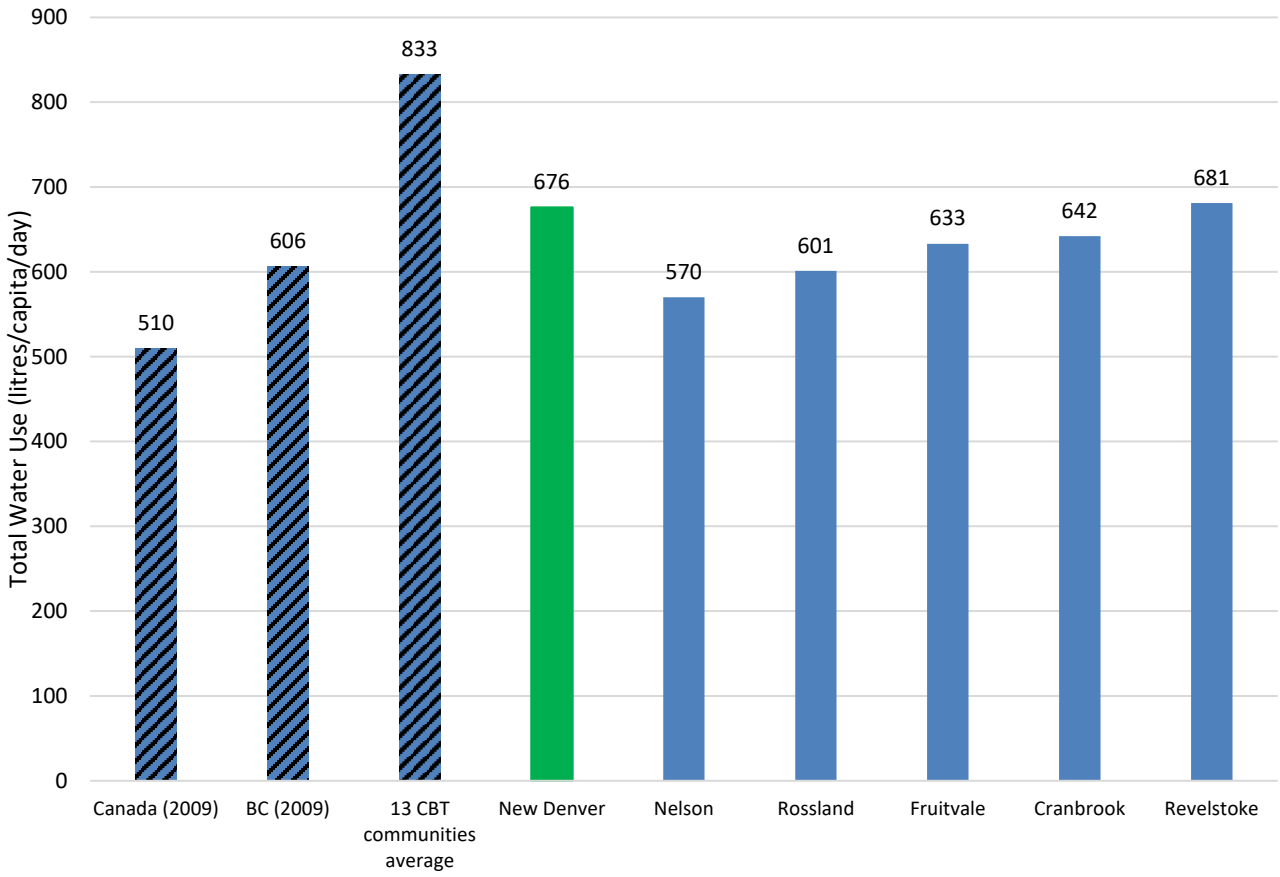


FIGURE 4-5: ANNUAL AVERAGE DAILY WATER DEMAND COMPARISON (PER CAPITA)

Of the 13 communities described in the CBT '*Evaluation…2009 to 2015*' report, 4 of those communities' annual average per capita water use is lower than New Denver's, and 9 of those communities' per capita water use is higher than New Denver's. **Figure 4-5** intentionally only shows the communities whose per capita water use is similar or lower than New Denver's. As described in Section 2.0, one of the key lessons learned by the CBT Water Smart Initiative is 'collaboration accelerates capacity development'. Moving forward, the Village of New Denver should look to collaborate and understand other communities' experiences with various water conservation strategies.

When completing observations and comparisons of water demand statistics in various communities, it is important to note several factors:

- The water use recorded for the Village of New Denver includes all non-residential water use (institutional and commercial). This is a similar methodology for other communities shown; accordingly, the relative impacts of the non-residential water use will affect each community's per capita demands differently.

- Due to the fact that only full-time residents are counted as water users in the associated population estimates, fluctuations in seasonal populations can also influence the water demand statistics for certain communities.

With consideration given to the factors noted above, the following observations are made regarding **Figure 4-5**:

- The Village of New Denver's average per capita water use is lower than the regional average of the 13 communities described in the CBT report.
- The Village of New Denver's average per capita water use is 12% higher than the provincial average, and 33% higher than the national average (values taken from the *2011 Municipal Water Use Report*[8] published by Environment Canada).

4.2 Water Use Assessment

One of the goals in reviewing water use data is to gain understanding of 'where' water is used throughout the community. The following sections review recommendations from the previous Water Smart Initiative, and provide additional information on the estimated breakdown of water use throughout the community.

4.2.1 Review of 2014 Water Smart Initiative Recommendations

During its participation in the CBT Water Smart Initiative, a *"Village of New Denver Water Use Data Review and Recommendations for Water Use Efficiency Actions"* [9] was prepared. That report included a number of recommendations, listed below with comment on current 'status':

2014 Water Smart Initiative Recommendation	Status
1. *As soon as possible, calibrate both source meters to confirm whether or not they are under-registering.*	Complete. Source meters were replaced in December 2015 and March 2016.
2. *Only after the source meter(s) have been calibrated, a night time flow analysis procedure should be reviewed with Water Smart Engineer and then repeated once the full population returns but prior to irrigation season, ideally April and October. Track night flow results for future analysis.*	Complete, see Section 4.2.2 below.
3. *Implementation of data logging on the source meters and the reservoir level sensor would allow for improved system management.*	Incomplete. This recommendation is discussed further in Section 6.0.
4. *Following the night flow analysis, with the Unavoidable Real Loss (UARL) calculation, determine the Infrastructure Leakage Index (ILI). Determine a locally suitable water loss target for the water system. The Water Smart Engineer is available to support this data analysis.*	Complete, see Section 4.2.2 below.
5. *Water supply should be monitored weekly to catch any spikes in demand that may be leakage.*	Complete / ongoing. This is not a 'one time' task.
6. *Investigate winter shut down procedures for the campground. If the internal distribution system has been allowed to freeze at any time, it is highly likely there will be leakage within this system.*	Complete / ongoing. The Village monitors daily water use for any unusual change when the campground system is energized each spring.

7. *In 2015, following the activities above, conduct a night time **step testing** exercise via a reservoir draw down test (isolating sections of the distribution system and measuring flow) in order to determine the most significant sections of the distribution system for water loss.*	Incomplete. This recommendation is currently not supported by the Village.
8. *Once step testing has been completed, consider developing internal capacity to perform acoustic leak detection to pinpoint leaks or hire a contractor to perform this task on a bi-annual basis.*	Incomplete. This recommendation is discussed further in Section 6.0.
9. *Complete a revised Water Balance using 2015 calibrated source meter data and spring 2015 night flow data.*	Complete, see Section 4.2.4 below.

4.2.2 Night Time Flow Analysis

The 2014 WaterSmart Initiative reporting notes that a flow analysis was completed through the night of October 23/24, 2014 – a reservoir drawdown test was completed by turning off the pumped supply to the reservoir and measuring the change in volume in the reservoir between midnight and 4am. Resulting flow was calculated as 155 m^3/day (~56,500 m^3/year).

The Village recently completed a similar flow analysis through the night of November 26/27, 2020 with results shown below on **Figure 4-6**.

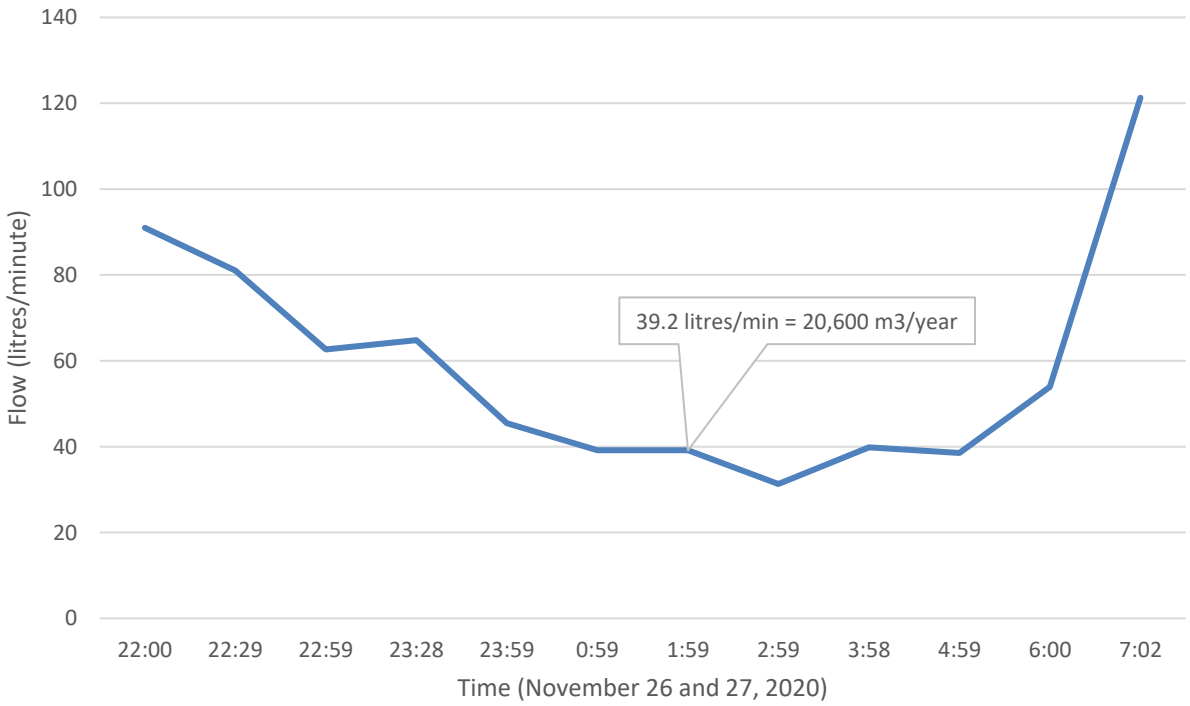


FIGURE 4-6: VILLAGE OF NEW DENVER – NIGHT TIME FLOW ANALYSIS

The 2014 Water Smart Initiative report notes that the calculated 'Infrastructure Leakage Index' for the Village was 5.5, and *"An achievable goal for leakage in a water distribution system of this size and age (Infrastructure Leakage Index of ILI = 3) would typically be in the range of 20-25 ML/year."*

The results of the recent night time flow analysis show an average low flow of ~39 litres/minute (20,600 m^3/year = 20.6 ML/year) which is a very positive result, and a 36,000 m^3/year reduction in night time flow as compared to the 2014 analysis. This reduction also compares favourably with the average winter monthly water use reduction (33,500 m^3/year) noted previously on Figure 4-2.

When using the same methodology as the 2014 Water Smart Initiative reporting, the current Infrastructure Leakage Index (ILI) is calculated as 1.4. An ILI of 1.0 would represent a condition where all avoidable losses have been achieved; for the Village this is expected to be approximately 16,000 m^3/year (ie. a night time flow of 30.6 litres/minute). The Village is very close to that expected 'bottom end', and should continue to strive for further leak reductions to achieve that target.

4.2.3 Summer Water Use and Climate Data

As noted in Section 4.1, significant variances in summer water use have been observed from one year to the next. The summer water use (July and August) is compared against local climate data from Environment Canada (New Denver Station ID #1145460) in **Figure 4-7** and **Figure 4-8**.

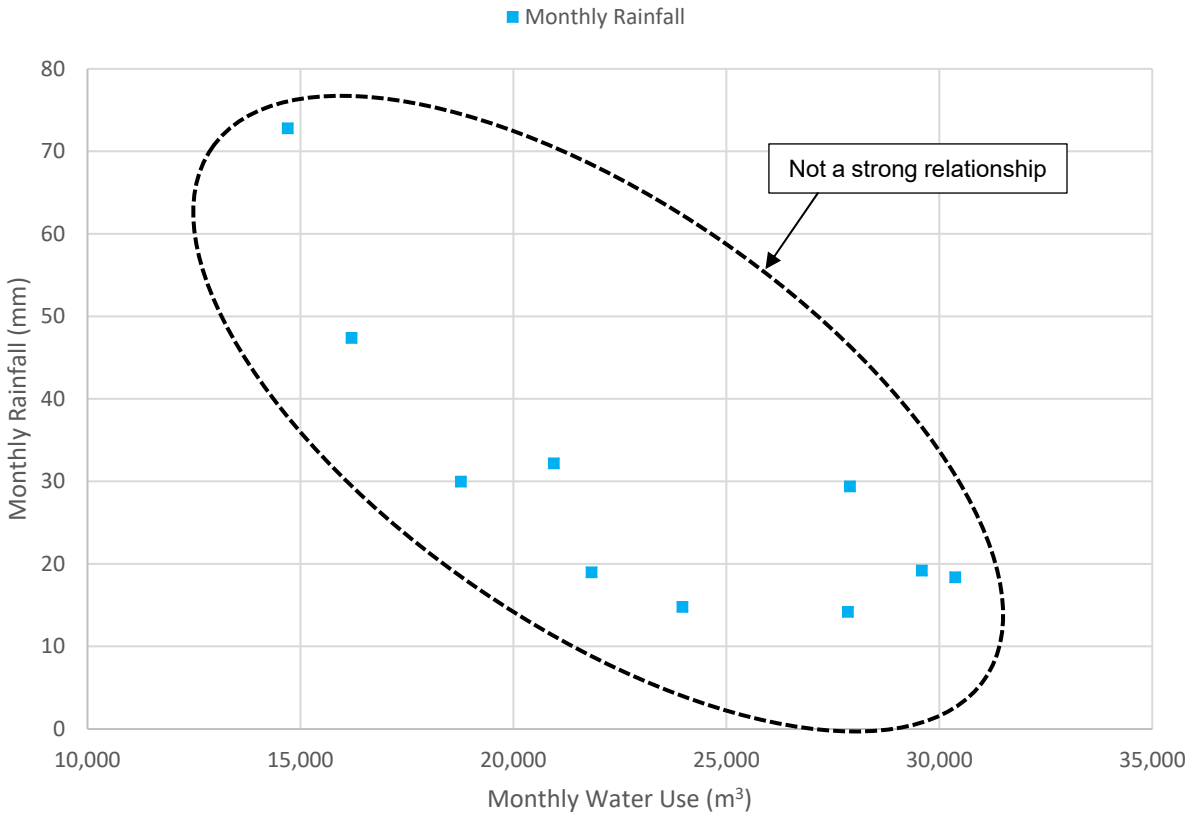


FIGURE 4-7: NEW DENVER – JULY/AUGUST WATER USE AND RAINFALL (2016-2020)

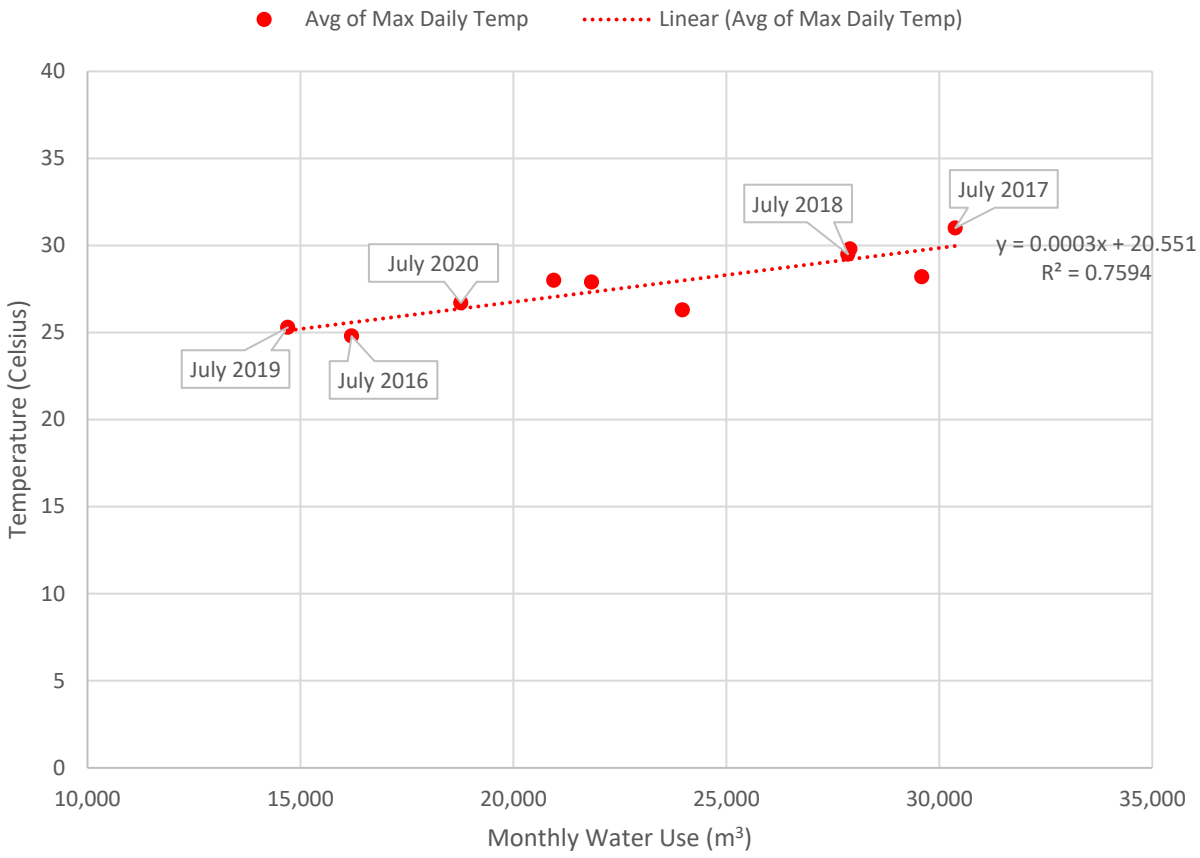


FIGURE 4-8: NEW DENVER – JULY/AUGUST WATER USE AND AIR TEMPERATURE (2016-2020)

The following observations are made with regard to the impact of climate data on Village's summer water use:

- The amount of rainfall in summer months does not have a strong influence on water use.
- Summer water use is closely aligned with maximum daily temperature. The impact of this correlation is significant – particularly for the month of July; the daily maximum temperatures in July 2017 and July 2018 were on average ~5 degrees hotter than July 2016 and July 2019; that temperature change correlates with nearly double the water use.
- Given the strong correlation to maximum daily temperatures, the changes in summer water use from one year to the next are likely a result of irrigation practices (lawn and garden sprinkling).
- Given the strong correlation to maximum daily temperatures - if that relationship holds in the future, then climate change has the potential to result in a future increase to the amount of water used in summer months.

4.2.4 Water Use Breakdown (Water Balance)

As shown previously in **Figure 4-1**, the Village's total annual water use during the 2016 to 2020 time-period averaged 127,338 m^3/year (~127 ML/year).

During the CBT Water Smart Initiative, the Village's review was based on 2013 and 2014 annual water use data (126.5 ML and 132.6 ML respectively), which is very similar to the 2016-2020 average annual water use of 127.3 ML. A current 'water balance' is depicted for the most recent year in **Figure 4-9**. A single year snapshot is not always a good representation of the 'state of affairs'; the 2020 data is no exception, given the significant watermain leak on the bridge crossing.

Regardless, for discussion purposes, this figure has been prepared using a similar methodology to the Water Smart Initiative. However, the Water Smart Initiative tried to estimate water use based on the sector or type of service (residential, commercial, institutional). The approach taken in this report is a water use breakdown mostly based on where the water is used (indoor vs. outdoor). It must be noted that, without any water meter data for individual services, this water use breakdown is a cursory estimate – based on professional judgement and a number of textbook and published design guideline references. The only measured value in the figure below is the 'System Leakage', which does not include the bridge crossing leakage. Since the bridge leak was an unusual occurrence which was actively managed for 3 months, the estimated volume of the bridge leak has been removed from the 2020 water use for this comparison. The resulting total annual 2020 water use that comprises this 'pie chart' is 117.7 ML.

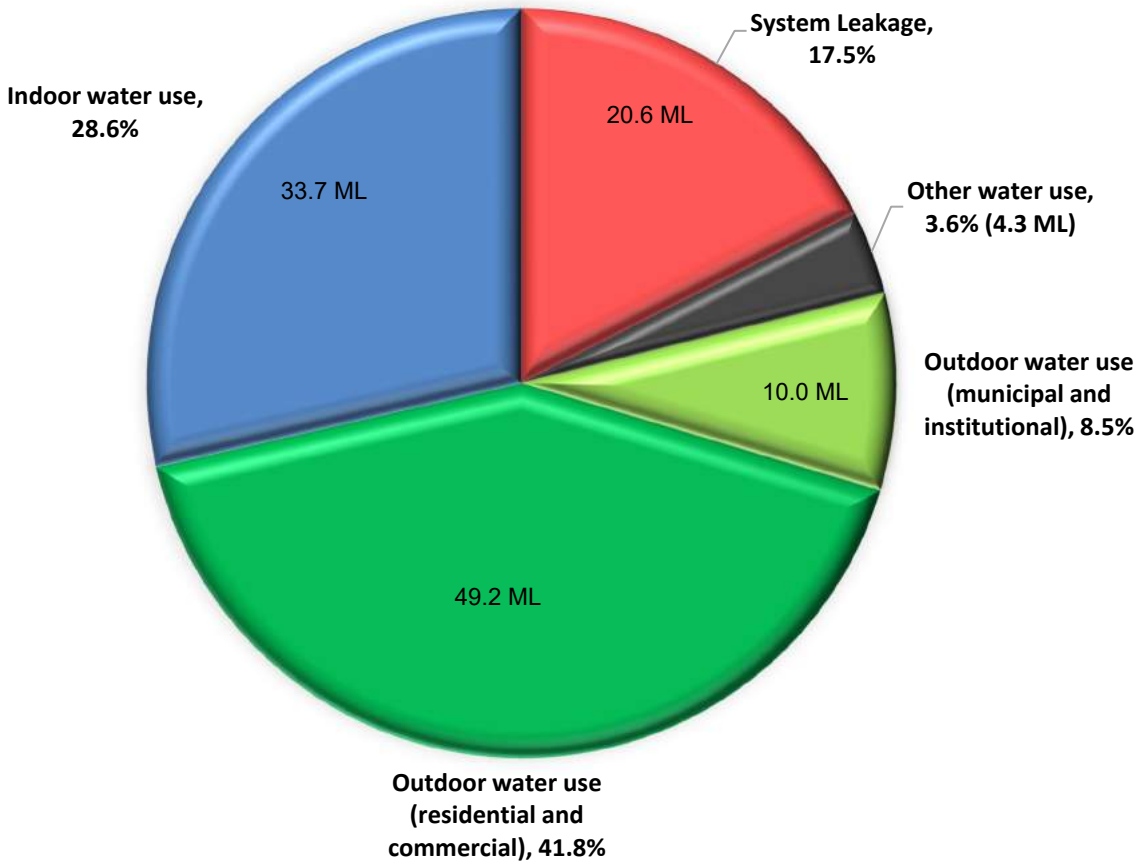


FIGURE 4-9: VILLAGE OF NEW DENVER – 2020 ANNUAL WATER USE BREAKDOWN ESTIMATE

This 'water balance' has been calculated as follows:

- System Leakage is based on the night time flow analysis and calculation from Section 4.2.2, for a total of 20.6 ML in 2020. Note this general system leakage amount was estimated to be much higher in previous years (potentially around 54 ML in 2016).
- Indoor water use for all sectors (residential, commercial, institutional) is calculated by subtracting the system leakage from the total water use in November 2020, and dividing the result by 521 full time residents which results in an indoor water use of 165 litres/capita/day. That factor is then applied based on 521 full-time residents for 10 months of the year and 750 residents for 2 peak summer months of the year for a total annual estimate of 33.7 ML.
- Outdoor water use by municipally owned and institutional properties is carried forward from the Water Smart Initiative estimates (based on 3.7 acres of irrigated land, with 2.2 feet of irrigation water applied from May through September, for a total of 10.0 ML).

Connections included in that estimate are the Nikkei Centre, Greer Park, Brouse Lodge, the Kohan Garden, the Village Hall, the RCMP station and the school.

- Outdoor water use by residential and commercial properties is estimated during the May to September irrigation period by calculating the difference between the recorded irrigation season total water use (May – September water use of 83.2 ML in 2020) and all the other water use estimates during that period, with 'Leakage' assumed to remain consistent throughout the year. The resulting total outdoor water use by residential and commercial properties is estimated as 49.2 ML.
- 'Other water use' is calculated as the difference between the total water use (117.7 ML) and the sum of the other water uses; this remainder is 4.3 ML. This remainder could be a portion of any or all of the other water use areas.

4.3 Water System Operating Costs

During the 2014 to 2020 time period, the total operation, maintenance, and administration costs for the Village of New Denver's water supply, distribution and storage system averaged ~$60,000/year. While the majority of the operations and maintenance budgets for the water system are relatively fixed costs (wages, benefits, insurance, maintenance, administrative costs, etc.), approximately $8,800/year represents costs that vary with the water use. Variable costs include power for operating the water supply system and pumps.

Figure 4-10 illustrates the water system operational costs breakdown from 2014 to 2020.

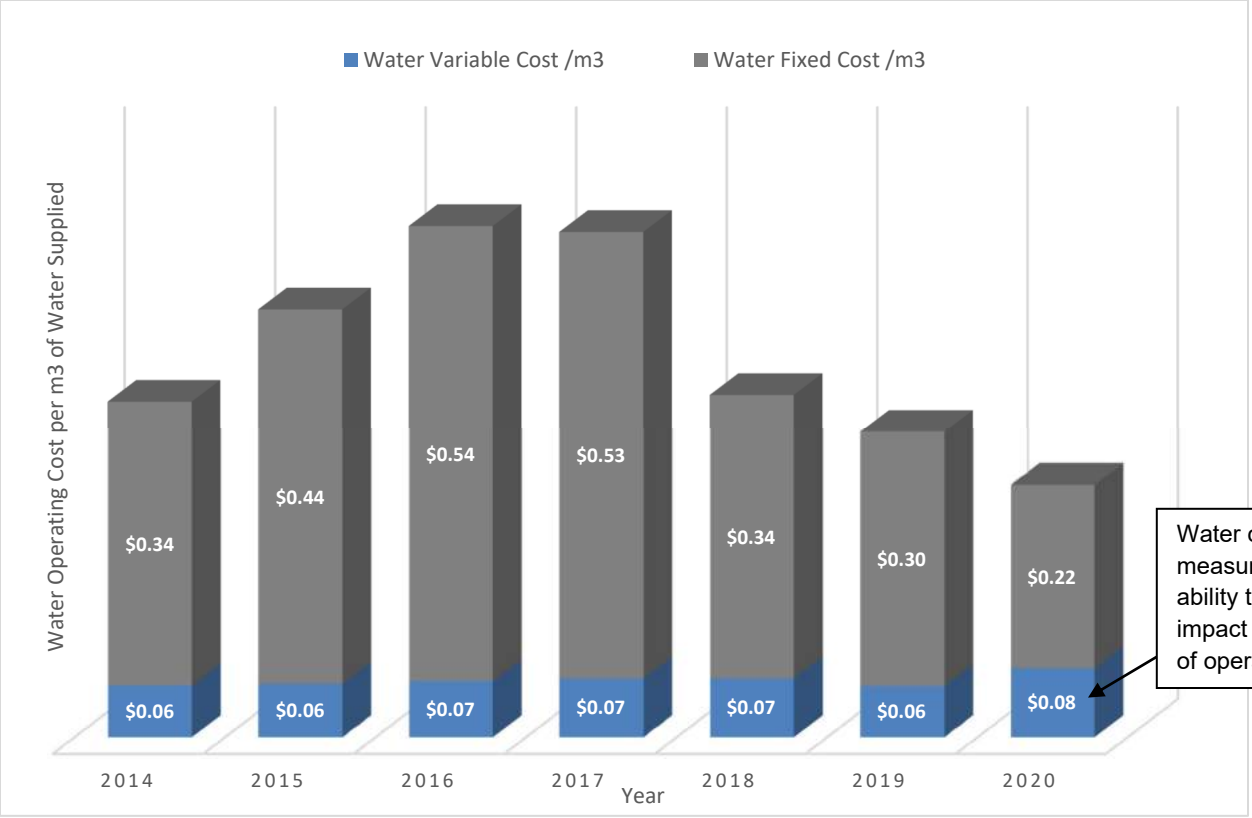


FIGURE 4-10: VILLAGE OF NEW DENVER – WATER OPERATING COST BREAKDOWN

Based on the total water use for the Village's water system, the variable costs work out to approximately $0.07 per cubic meter of water supplied. For perspective, each 1,273 m^3/year of total water use reduction (1% of the Village's total annual water use) would equate to an annual water operational cost savings of about $90/year. Although water use reductions are not currently expected to result in significant operational cost savings, those savings could increase in the future if the water source changes or if there are changes to requirements for water treatment.

4.4 Future Water System Upgrading Costs

A common benefit of a water conservation program is the deferral or reduction of future capital infrastructure improvements.

Consideration is given to the Village of New Denver past population trends, as depicted in **Figure 4-11** (population taken from *BC Stats - Population Estimate by Sub-provincial Areas 2001-2011* and *2011-2019*[6]). New Denver's full-time population trended slightly downward from 2001 to 2011, but has remained relatively stable during the past decade, at around 500 people.

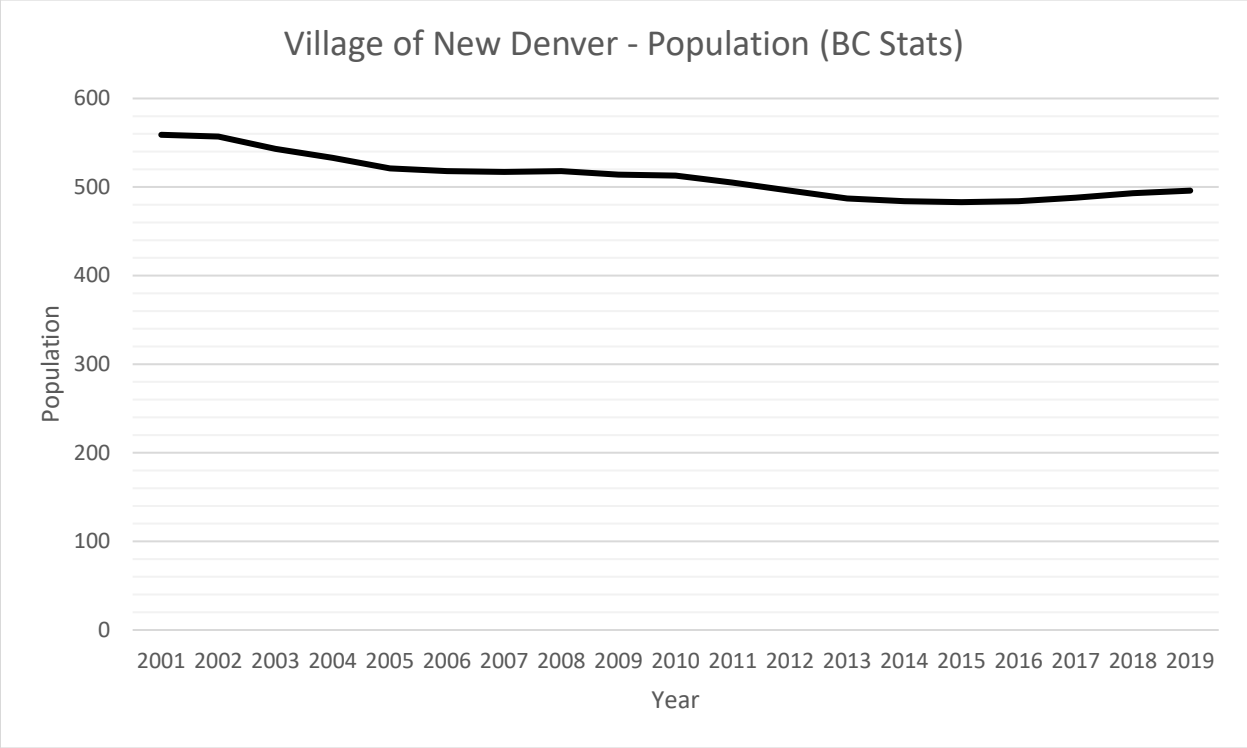


FIGURE 4-11: VILLAGE OF NEW DENVER – POPULATION TRENDS

During peak summer periods, the seasonal population is currently estimated to be around 750 people. The proposed Village boundary expansion and provision of water to the Denver Siding water system would immediately add ~50 people to the Village's water service area. In addition, the recent *Housing Needs Report*[10] prepared by RDCK (September 2020) notes that the population in the Slocan Valley has increased by 4% between 2006 and 2016, with an additional 5% gains anticipated to 2025. If the Village experiences that amount of population increase, it would result in an additional 25 people in the next 5 years. The total peak summer population in that future scenario would be 750+50+25 = 825 people. That is higher than a 1% per year water service growth rate – but if the water service population grows by 1% per year, over a 30-year period the Village's peak summer water service population would be around 1000 people.

If Village population and maximum day water use continue to be directly related to each other, and if those two factors increase at a rate of 1% per year, over the course of a typical well service life (30 years), the water supply capacity would need to be sized for ~2,000 m^3/day.

Alternately, during the next decade if the Village reduces per capita maximum day water use by ~12%, then the future water supply capacity would need to be sized for ~1,800 m^3/day. These relationships are depicted below in **Figure 4-12**.

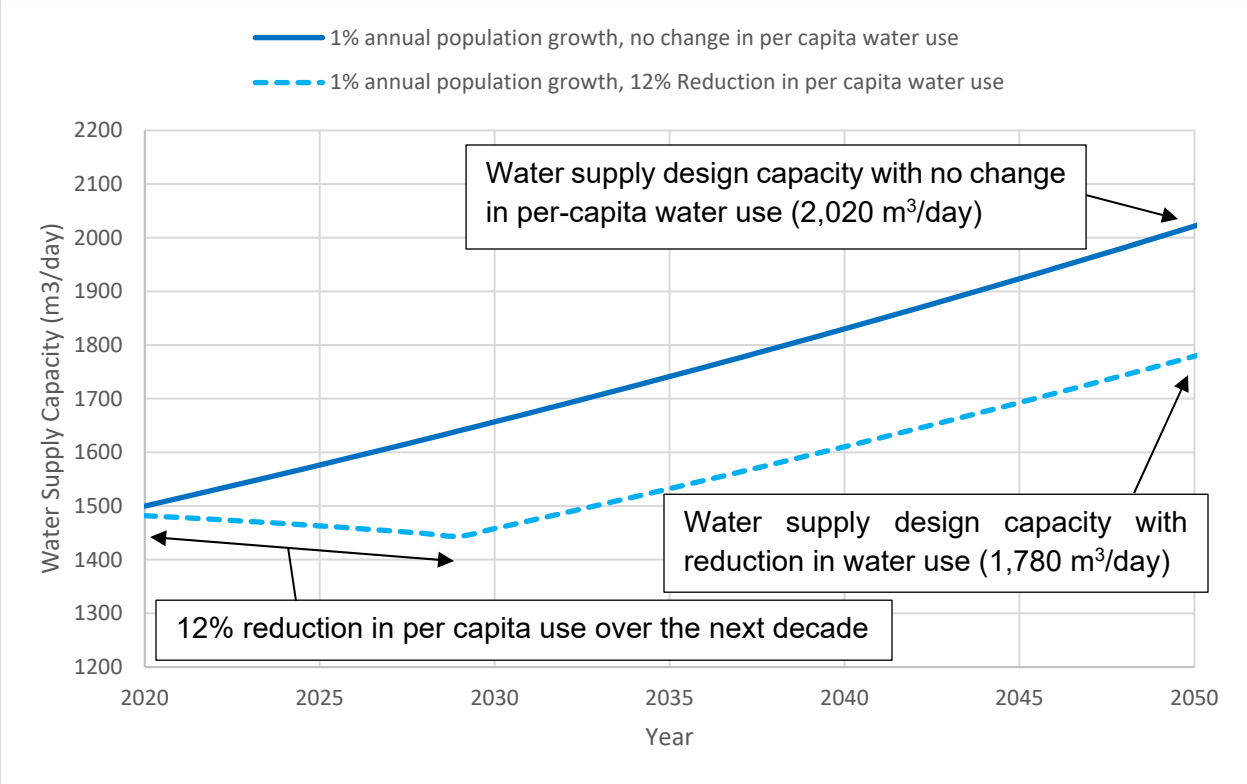


FIGURE 4-12: VILLAGE OF NEW DENVER – FUTURE WATER USE SCENARIOS

The future peak summer water service population is not certain. Regardless, it is worth considering the impacts that maximum day water use has on the water system infrastructure – and acknowledging that a reduction in per capita water use can effectively 'create' water capacity for future growth in population, thereby deferring the need or reducing the size of infrastructure upgrades. This is important, since the Village is currently reviewing options for replacement of its groundwater supply wells – improvements which could cost in excess of $1,500,000.

5.0 Water Conservation Goals

The Province's *Water Conservation Guide* describes a community process to help shape goals and objectives for the Water Conservation Plan. A conservation planning process should consider water savings necessary to ensure:

- streams stay healthy
- fish and other aquatic species have adequate habitat
- aquifers are not depleted
- water is available for economic growth
- costs for water service remain affordable

The 2014 *Water Smart Initiative*[8] report identified the following local drivers for pursuing water use efficiency in New Denver:

- *Infrastructure deferral through demand management*
  - *Specifically, deferral of construction of a new well or treatment for the existing well*
- *Aging infrastructure may be resulting in high water loss*
  - *There may be opportunity to reduce water loss and infrastructure deterioration though water loss management best practices*
- *Ground water pumping/energy costs*
  - *High demand, relative to national averages, may present an opportunity for lowered pumping and energy costs through demand management.*
- *Revenue sufficiency and stability for the water utility*
  - *The Village wants to better understand the full cost of utility operations, maintenance, and capital repair and replacement in relation to water rates.*

To some extent, all of those drivers are still applicable to the Village's goals.

As described in the Section 1.0, one of the Province's goals is for 50% of new municipal water needs to be acquired through conservation. Applying that target to Village of New Denver would mean that, if the summer water service population grows from 750 people (current estimate) to 1000 people in the future (a 33% increase), then the current 1,500 m^3/day maximum day water use should only increase by 16.5% to ~ 1750 m^3/day. In essence, that means the 'per capita' maximum day water use in New Denver would need to decrease by approximately 12%.

As shown previously on Figure 4-5, the Village's average 'per capita' daily water use has averaged 676 litres/capita/day during the past five years. If the Village also strives to reduce its average 'per capita' water use by 12%, that would bring New Denver's annual per capita water use to slightly below the BC provincial average.

There are a number of conservation strategies that can be implemented to work towards a 12% reduction in both maximum day and average daily water use, as described in Section 6.

6.0 Water Conservation Strategies

The BC *Water Conservation Guide* describes a process for identifying and assessing water conservation options. The assessment process includes consideration of:

- past experience; what worked and what didn't
- water savings and the reliability of anticipated savings
- cost effectiveness
- social and political acceptability

The *Water Conservation Guide* suggests that the assessment criteria list be kept short and the process kept as simple as possible. In this section, water conservation options are listed and a commentary provided on applicability to the Village of New Denver.

6.1 Past and Present Water Conservation Initiatives

During participation in the CBT Water Smart Initiative, and subsequent to that program, the Village has implemented a number of water conservation strategies as summarized below:

- Water Smart Ambassador. During the summer of 2016, the Village employed a Water Smart Ambassador. The role of this position was to host workshops and provide targeted water use information and water conservation tips to the general public.
- Sprinkling Restriction Policy. The Village's current policy was implemented in June 2016. The policy defines three 'levels' of sprinkling restrictions:
  - Level 1: No sprinkling between 10:00 a.m. and 6:00 p.m.
  - Level 2: No sprinkling between 10:00 a.m. and 6:00 p.m. Odd-numbered properties sprinkle only on odd-numbered days of the month. Even-numbered properties sprinkle only on even-numbered days of the month.
  - Level 3: No sprinkler use, but hand watering and soaker hose use is permitted.

  The Village implements the policy annually during the summer months, typically at a 'Level 1' restriction - with the specific dates and durations varying from year to year depending on climate and water use. The public is reminded of the policy via insert accompanying the annual tax notices, and notified when the policy is enacted via advertisement in the local newspaper.
- Water service shut-offs. Due to the large seasonal changes in water service population, in the fall of 2016 the Village started offering free water service shut-offs. The purpose of this service is to provide an option for non-resident homeowners, to reduce in-home leakage and practices such as 'leaving a tap running' to avoid potential for frozen plumbing issues during winter months. There are an estimated 125 water service connections to non-resident homes. In the fall of 2019, twenty-one of those homeowners made use of the free water service shut off.

- Water Loss Management. As described further in section 6.2.4, the Village continues to improve its water loss management program.

6.2 Future Water Conservation Options

There are a number of potential water conservation initiatives that can be considered by the Village. Implementing these measures could allow the Village to reduce costs for future infrastructure upgrades, save some money in annual operating and maintenance costs, reduce energy consumption, and reduce impact to the aquifer that supplies the community.

The BC *Water Conservation Guide* describes a wide range of water conservation options that warrant consideration by BC communities. It is recognized that all water conservation options will not be universally applicable. Sections below describe several water conservation options with a discussion of applicability to the Village of New Denver.

6.2.1 Public Education and Outreach

Description

A public information and outreach program is highly recommended. The BC *Water Conservation Guide* indicates that general information tends to be less effective than community or area specific information. Public education is beneficial on its own but can also be used effectively to support all other water conservation strategies. This type of program would explain:

- how each measure will promote water conservation
- specific benefits of the measures
- what individuals need to do to participate
- why water conservation is important

New Denver Context

As described in the *Water Conservation Guide*, communication of this Water Conservation Plan to the public is essential. A public education and outreach plan should be prepared and could include:

- postings on the Village website and social media
- printed material insertions in utility billing mail-outs

Ideally, public education should include discussion of an applicable water conservation strategy with an example of how the strategy can be implemented locally. This allows the public to gain a firsthand understanding of the benefits.

Water savings achieved by public engagement and communication are difficult to quantify. The USEPA *Water Conservation Plan Guideline*[11] suggests that a 2 to 5 percent reduction in water

usage is a realistic target range. There is also significant benefit to increasing the water conservation awareness of the public. The size of the public education program and cost dedicated to this initiative should consider the types of conservation strategies being employed. On its own, public education resulting in a 2% reduction in annual water use would save approximately $180/year in water operating costs.

6.2.2 Water Use Bylaw

Description

As noted in the CBT *Water Smart Initiative*, *"peak demand, typically driven by irrigation, presents the second largest water conservation opportunity for community water systems".* One of the most commonly used regulatory measures to assist with water conservation during peak water use periods is *outdoor watering restrictions*, which limit the number of days and/or specify the timing of outdoor water use. These restrictions help to reduce peak day demand and prevent the system from reaching capacity on hot summer days. This strategy must be designed to include public education and enforcement of fines for violations. Fines can vary depending on how scarce water is in a particular region. For example, in Penticton violators face fines from $25 to $400, whereas in Calgary fines run up to $1,000.

New Denver Context

As discussed in Section 6.1 the Village of New Denver currently has sprinkling restriction policy. It is recommended that the Village of New Denver utilize that policy as the basis for creation of a bylaw, with the addition of fines for violation of the sprinkling restrictions. Enforcement of a sprinkling restriction bylaw would occur in conjunction with a public education program.

6.2.3 Community Development Bylaws

Description

Community bylaws that promote water saving technologies or conservation are another common measure to reduce community water demands. To make these easier to enforce, they should be tied to a permit approval process. For example, water offset conditions can be added to building permits, requiring developers to prove any additional water demands for new developments will be offset by conservation improvements in existing homes or businesses. A community can also create landscaping bylaws that promote drought-tolerant landscaping or maintain a certain depth of topsoil – both of which reduce the need for outdoor water use. For example, the City of Kelowna requires applicants to develop mandatory landscaping standards that show a reduction in water use for permit approval. Changing the rules can help to literally build a water saving community.

New Denver Context

Future development and growth within the Village municipal boundary is not certain, but is expected to be modest. The benefits of any conservation efforts targeted at future development are therefore also expected to be modest within the current Village boundary, but may become more applicable to potential future development if the Village expands its municipal boundary.

The 2015 *National Plumbing Code of Canada* and 2018 *BC Plumbing Code* both require low flow and low flush volumes for faucets, shower heads, and toilets. New Denver's building bylaw references the current BC Building Code.

6.2.4 Leak Monitoring and Water Loss Management

Description

The BC *Water Conservation Guide* notes that water loss management can be one of the cheapest sources of water use reduction for a municipality. The Columbia Basin Trust's *Water Smart Initiative* highlighted opportunity for water loss management in many communities throughout the Columbia Basin area. This strategy can involve many tools, including water loss identification, system monitoring, minimum night-time flow monitoring, pressure management, and leakage management.

New Denver Context

The Village has actively improved its water loss management program during the past five years. This has included the following strategies:

- Monitoring and analyzing daily water use volumes for unusual trends.
- Monitoring and analyzing system water use during seasonal changes (such as shut-down of the campground water service).
- Repair of water system leaks including watermain break repairs and water service connection replacements.
- Offering free water service shut-offs for seasonal (non-resident) homeowners.

These strategies have resulted in a 36,000 m^3/year reduction in leakage and other non-revenue water during the past five years. The Village should continue with these efforts; as described in Section 4, it should be realistic for the Village to achieve a further 5,000 m^3/year reduction, which would be ~4% of the total water use. As noted previously, a low percentage of the non-resident homeowners currently take advantage of free seasonal water service shut-offs; the Village should explore options to improve/increase the number of seasonal water service shut-offs.

In addition, the following water loss management strategies should be considered in the coming years:

- Implementation of data logging on the source meters and the reservoir level sensor. This would allow for more efficient collection of the data, and enable night time leakage

assessments to be completed without having to manually check reservoir levels throughout the night.

- Consider developing internal capacity to perform acoustic leak detection to pinpoint leaks or hire a contractor to perform this task on a recurring basis. Given the relatively low system leakage calculation, completion of a community wide leak detection survey is not currently warranted. However, the Village may look to this option in the coming decade if further progress in leakage reduction cannot be achieved by the current methods.

6.2.5 Universal Water Metering

Description

The experience in British Columbia is that a universal water metering program can result in significant water use reduction both on an annual average and maximum day demand basis. A water metering program must however be combined with an appropriate volume-based rate structure to take full advantage of the opportunities available through a metering program. Some examples:

- Since the introduction of universal metering and volume-based rates between 1996 and 1998, residential average day water usage in the City of Kelowna has reduced by more than 20 percent compared to consumption prior to metering.
- As described in the Columbia Basin Trust Water Smart reporting - two communities, Rossland and Sparwood, have achieved consistent reductions in water use since completing their universal metering programs – resulting in 12 to 23% reduction in annual water use by 2015, as compared to their 2009 baseline data.

New Denver Context

Implementation of a universal water metering program in New Denver is possible. There is a substantial capital investment required to introduce universal metering - ranging from $1000 to $2500 per meter (depending on whether water meters are installed in homes, or in 'meter pits' at property line). In addition to the water meter installation cost, there is also a capital cost to setup a data collection system, and an ongoing cost to collect and utilize the data. The economics of a universal water metering program are also contingent on implementation of an appropriate usage-based rate bylaw.

- Estimated Capital Cost: more than $450,000
- Estimated Annual Savings: $900/year (assuming 10% reduction in water use is achieved)
- Potential 'Payback' Period on capital cost: more than 500 years

A universal metering program would provide data which could be used to support a number of water management and conservation strategies. However, given the costs associated with universal water metering, and the progress that the Village has achieved to date without universal

water metering, several of the other strategies described in this report should be implemented prior to considering universal water metering.

6.2.6 Village Park Irrigation Optimization

Description

The Columbia Basin Trust's *Water Smart Initiative* noted peak water demands are typically driven by outdoor irrigation and represent a large water conservation opportunity for community water systems. At the outset of a community water conservation program, there is benefit in a local government 'leading by example' in monitoring and altering water use at facilities over which it has direct control. Exploring options for community park irrigation services is a visible example which would have positive impacts for both water conservation and community engagement.

New Denver Context

The Village of New Denver installed water meters on its irrigation services to Greer Park and the Nikkei Centre in the spring of 2018. The Village should expand this program to gather irrigation water use data on all municipally owned landscape areas of significant size (say, larger than a typical residential yard). Once the volume of irrigation is confirmed, options could be explored to improve management of these irrigation services. Options could involve adding controls for the prioritized irrigation services to include rain and pressure sensors and automated shut-off valves. These devices would be used to automatically isolate the service in the event of a broken sprinkler head, or to shut-off the irrigation during periods of high humidity or rain. Costs for these types of irrigation improvements can vary significantly depending on the level of automation and control desired; the costs and associated potential benefits would be reviewed when assessing the irrigation improvement options.

- Estimated Capital Cost: $5,000 to $25,000
- Estimated Annual Savings: less than $100/year (1% water use reduction)
- Potential 'Payback' Period on capital cost: greater than 50 years

6.2.7 ICI Metering and Major User Audits

Description

Water utilities can work with larger non-residential water users to understand their water usage habits and opportunities for reducing their usage. When water meters are installed, the local government can review metering data and then contact the significant water users and offer assistance to undertake a comprehensive water audit with the objective of identifying potential water conservation opportunities. This type of program can be quite manageable for communities depending on the number of anticipated audits.

New Denver Context

Water meters could be installed on all 50 of the Village's ICI water services, and that actual water use data then used to guide the auditing program. Once those water meters are in place and data collected over a period of time, the Village could then offer targeted assistance to reduce water use for any services of concern. The costs associated with implementation of water meters on the 50 non-residential water services has not been assessed, but could be significant (more than $50,000).

However, within the Village, most of the commercial services are anticipated to be similar to each other, and relatively low water usage in comparison to a typical residential service. Accordingly, to implement an ICI metering and usage auditing program, instead of metering all of the ICI services, the Village should start by focussing on the expected largest ICI water users:

- estimate potential annual water use by various ICI water services,
- identify which services have the largest annual water use potential,
- install water meters and begin gathering water use data for those specific services.

This is expected to result in an initial focus on the larger institutional water services, such as the school and the hospital. In addition to providing data for auditing and feedback purposes, knowledge of actual water use can be used to guide the Village's annual water use rate structure.

It would also be worthwhile to prioritize metering ICI services with potential for high irrigation volumes. When coupled with the municipal park irrigation monitoring described in Section 6.2.6, the combined data would allow the Village to accurately quantify another segment of the community water use breakdown shown previously in Figure 4-8.

6.2.8 Plumbing Fixture Replacement Program

Description

Today, there are many water saving technologies available - such as low-flow toilets, shower heads, sprinklers and appliances that use less water without impacting peoples' standard of living. A community can increase the uptake of these technologies through rebate or give away programs. In a rebate program, consumers are given money towards the purchase and/or installation of water saving technologies. In some cases, if the savings benefits are great enough, a community may choose to run a give away program – one in which free water saving technologies are distributed to reduce water demand. Providing installation services (professional or volunteer depending on the technology) are important to ensuring hardware is put to use. Rebate or give away programs can also be targeted to particular water users, such as irrigators, commercial users or residents.

New Denver Context

The amount of indoor water use within the Village is not certain. Regardless, if the Village is interested in plumbing fixture replacement options, toilet replacements may offer the best return on investment as they make up a large portion of indoor water usage. The CBT report (*Evaluation of Community Water Conservation Efforts in the Columbia Basin 2009 to 2015*) notes that conversion from 13L flush toilets to 6L or less toilets can result in water savings of 50-75 litres per capita per day. Relative costs and savings for a toilet rebate program in New Denver could be as follows:

- Estimated Capital Cost: $85,000
- Estimated Annual Savings: $630/year (7% water use reduction)
- Potential 'Payback' Period on capital cost: ~135 years

Those program costs are based on $100 per toilet, assuming no low flush toilets currently exist within the Village and assuming approximately 2 toilets per household or per business. Since the amount of estimated residential indoor water use in New Denver is already quite low (165 litres/capita/day), it is likely that some number of low flush toilets already exist; so the program cost and potential water savings may be lower than shown above.

7.0 Summary and Recommendations

The Village of New Denver's annual water use has remained relatively stable during the past five years. The Village has made great progress in reducing system leakage and 'non-revenue' water use over this time period, as noted by the declining base flows during winter months. However, New Denver's total annual flows are dominated by the water use during the irrigation season – and as a result, New Denver's average per capita water use is still higher than the provincial and national averages.

The Village is aware that its water supply requires significant changes in the coming years. Accordingly, there are benefits to be gained by implementing a water conservation plan. Reducing water use will:

- Extend the service life of existing water infrastructure.
- Reduce the capital costs of replacing or upgrading system components.
- Reduce annual energy use and operating costs.
- Preserve existing water resources.

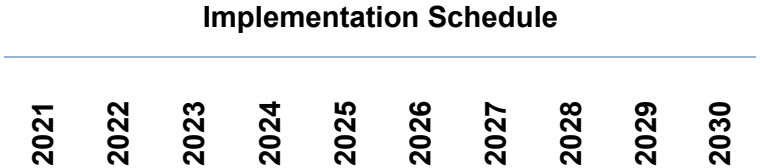
Furthermore, as noted in the BC *Water Conservation Guide,* a water conservation plan is a requirement for any community to receive grants for drinking water and wastewater infrastructure.

Given the factors described throughout this document, it is recommended that the Village of New Denver set water conservation goals of 12% reduction to annual average and maximum day 'per capita' water use within 10 years. These goals would be in-line with the BC *Living Water Smart Plan* and would bring the Village's per capita water use in-line the provincial average.

A number of water management strategies are recommended to achieve these goals, as listed in **Table 7-1**. Although not shown specifically on this table, there can be benefit in providing some amount of time between implementation of certain strategies, to allow results of each strategy to be monitored. The proposed implementation schedule has consideration for the current expected benefit to the overall program goals, cost, and ease of implementation. Leak monitoring and water loss management should continue to be a priority for the Village. Water use data improvements focussing on large and municipal irrigation services should also be prioritized; lessons learned from that experience could then be shared through a public education program. The order of the other recommended strategies is somewhat flexible, depending on Village goals and priorities.

TABLE 7-1: VILLAGE OF NEW DENVER – RECOMMENDED WATER CONSERVATION STRATEGIES

Strategy	Potential Water Savings	Estimated Cost	Focus for Outcome	Implementation Schedule
▪ Leak monitoring and water loss management	💧💧	To be determined	Technology & Behavior change	
▪ Village park irrigation optimization	💧	$5,000 to $25,000 capital	Technology change	
▪ ICI metering and major user audits	💧	To be determined	Technology & Behavior change	
▪ Public education and outreach	💧💧	$1,000 to $5,000/year	Behavior change	
▪ Water use bylaw	💧💧	Modest	Behavior change	
▪ Plumbing Fixture (toilet) Replacements	💧💧💧	$85,000 capital	Technology change	



The Corporation of the Village of New Denver

REPORT TO COUNCIL

SUBMITTED BY: Jessica Rayner, Community Planner **DATE:** March 5, 2021

SUBJECT: Site Disclosure Statements & Contaminated Sites Regulation Amendments

SUMMARY: The purpose of this report is to provide Council with an update on changes to the site identification process in the Environmental Management Act (EMA) and the Contaminated Sites Regulation (CSR) that came into effect on February 1, 2021.

Implementation of the contaminated sites screening process is new to the Village of New Denver as of February 1, 2021. Given recent changes to legislation, New Denver will now receive, assess, and appropriately process any new permits within the Village of New Denver that trigger submission of a site disclosure statement to the Ministry of Environment and Climate Change Strategy. At this time, staff are not recommending implementation of an administrative fee for the Village's role in reviewing these submissions. This change could be implemented at a future date should the Village find it appropriate based on staffing and administrative requirements.

BACKGROUND:

The regulations in BC outlining the identification, investigation, and remediation of contaminated sites are administered by the provincial Ministry of Environment and Climate Change Strategy under the Environmental Management Act and the related Contaminated Sites Regulation. Amendments to the Environmental Management Act related to the Province's contaminated site identification process took effect February 1, 2021. Changes were intended to minimize administrative processes, improve clarity, and ensure equal application of regulatory requirements across British Columbia.

As of February 1, 2021, the Village of New Denver is required to participate in the contaminated sites screening process, requesting and assessing Site Disclosure Statements where properties have a history of specified commercial or industrial uses. Previous to February 1, 2021, the Village had opted out of the site identification process but this is no longer an option.

The following is an overview of the contaminated sites screening process as it pertains to the Village of New Denver. Additional details around changes to this process and BC's Contaminated Sites Regulation amendments can be found on the Province's Site Remediation website at https://www2.gov.bc.ca/gov/content/environment/air-land-water/site-remediation.

Contaminated Sites Screening Process

The site identification process is a series of legal provisions in the EMA and CSR that work together with municipal legislation (such as the Local Government Act) to:

- Identify potentially contaminated sites;
- Ensure contaminated sites are cleaned up before they are redeveloped for a new use; and
- Provide basic site information to the public through the Site Registry.

Only properties with a history of specified industrial and commercial uses are impacted by this process. Schedule 2 of the Contaminated Sites Regulation lists Specified Industrial and Commercial Uses impacted.

Site Disclosure Statements

A site disclosure statement is a form that requires readily available information about the past and present Schedule 2 uses of a site, as well as basic land descriptions. The site owner, operator, or agent can fill out the form, but only the site owner or operator can sign the form.

A site disclosure statement must be completed and submitted to the appropriate recipient if a specified Schedule 2 has occurred, one or more of the triggers for site identification applies to the site, and there are no applicable exemptions.

Triggers for Submitting a Site Disclosure Statement

A site disclosure statement must be completed at the time of any of the following actions related to a property with a history of specified Schedule 2 uses:

- Decommissioning or ceasing operations;
- Applying for municipal approvals such as zoning, subdivision, and development or building permits where soil disturbance is likely to occur;
- An owner is subject to insolvency proceedings;
- Selling a property; or
- Ordered by a director.

Assessment of Site Disclosure Statements

The amended EMA requires local governments and approving officers to assess site disclosure statements provided by applicants before forwarding them to the Ministry of Environment and Climate Change Strategy. Within 15 days of receiving a site disclosure statement the local government or approving officer must:

- Assess whether the site disclosure statement is satisfactorily complete (in accordance with instructions that are provided by the director in the MOECCS responsible for such matters), and either:
    - Forward the statement to the registrar of contaminated sites if the statement was satisfactorily completed and notify the applicant that this has been done, or
    - Notify the applicant that the statement was not satisfactorily completed. For incomplete submissions, if the site disclosure statement is resubmitted, the processing time of 15 days is reset to day 1.

Site Investigations and Reporting

In most cases, submission of a site disclosure statement to the Province triggers a requirement in the EMA and CSR to complete site investigations. In certain cases, the CSR also specifies timelines for completing site investigations, prescribes when reports must be submitted to the ministry, and allows for exemptions from the site investigation requirements where there are overlapping requirements in other parts of the EMA or other legislation.

When a site disclosure site is required to be forwarded to the registrar, the Village of New Denver or approving officer must not approve any applications relating to the site until the Village has received appropriate approval from the Province.

Fees

Municipalities and approving officers may charge an applicant up to $100 per site disclosure statement submitted to offset their administration costs. Additional fees associated with the contaminated sites screening process are outlined in Part 4 of the Contaminated Sites Regulation and a Table outlining all fees for Site Profiles and Information is provided in Schedule 3 of the Regulation. For example, the Ministry of Environment and Climate Change Strategy will charge fees for reviewing reports in relation to release notices according to CSR Schedule 3.

COUNCIL STRATEGIC PRIORITIES: Nil

COMMUNICATION STRATEGY: Information pertaining to site disclosure statements, site remediation requirements, and the provincial regulation will be posted on the Village website and made available in the Village office.

The Corporation of the Village of New Denver

REQUEST FOR COUNCIL DECISION

SUBMITTED BY: Catherine Allaway, CAO **DATE:** March 3, 2021

SUBJECT: Fire Rescue Truck Replacement

PURPOSE: To seek Council authorization to purchase a replacement fire rescue truck

RECOMMENDATION: That Council approve the purchase of a 2021 Dodge Ram 5500 diesel Crew Cab 4x4 chassis at a cost of $68,411.84; and further, that Council approve the purchase of a custom box from Brutus Truck Bodies at a cost of $83,440.00.

ALTERNATIVES & IMPLICATIONS:

1. Do not authorize the purchase.
   The Fire Chief will explore other options for renewing the asset. Additional repair costs are expected if replacement is delayed.

ANALYSIS:

Background: The Rescue Truck is the most frequently used Fire Department vehicle. The current Rescue Truck, a 2006 Ford F550 was purchased new almost 15 years ago and is nearing the end of its useful lifespan. Repair costs have been increasing in recent years, due to the age of the vehicle.

Discussion: The Fire Chief has obtained quotes for a replacement vehicle from several manufacturers, and the recommendation represents the most cost-effective option. In order to keep the purchase price down, the truck chassis and box will be sourced separately. There is currently a 6 month wait time for delivery of a truck, and a full year lead time is required for construction of the box.

Attachments: Nil

Council Strategic Priority: Nil

Communication Strategy: Nil

FINANCIAL IMPLICATIONS: The total estimated cost of replacing the vehicle is approximately $170,000. This includes the following elements:

chassis	68,412
box	83,440
installation	3,000
lights	15,000
TOTAL	169,852

Some additional expenses to complete the installation are anticipated. The resale value of the present vehicle is estimated at $15,000 and is expected to cover the additional costs.

The proposed costs fall within the amounts budgeted in the Village's current Five Year Financial Plan Bylaw. It is anticipated that full payment for the chassis will occur in 2021. Ordering a 2021 model prior to the April 30th deadline will save the Village approximately 10% compared to the cost of a 2022 model. For the box, a 20% down payment ($16,688) is required prior to the start of the build, with the balance payable upon completion. This will result in capital expenditures of approximately $85,100 in the current year, within the amounts agreed to by the participants in the Fire Service.

The Corporation of the Village of New Denver

REQUEST FOR COUNCIL DECISION

SUBMITTED BY: Catherine Allaway, CAO **DATE:**

SUBJECT: Request for Letter of Support – Columbia Basin Broadband Corporation

PURPOSE: To obtain Council's support for an application to install last mile fibre optic service

RECOMMENDATION: That the Village of New Denver provide a letter in support of the Columbia Basin Broadband Corporation's application for funding through the Universal Broadband Fund and the Connecting BC program, to install last mile fiber optic service locally.

ALTERNATIVES & IMPLICATIONS:

1. Do not provide a letter of support.
   CBBC can still submit their application without New Denver's support. New Denver is unlikely to receive FTTH if it is not involved in the project.

ANALYSIS:

Background: The Columbia Basin Broadband Corporation (CBBC) has secured funding to bring fibre optic backbone to the region, including a point of presence in the Village of New Denver. The Village has committed $37,500 to that project, currently in the final stages of securing the required permits, with construction expected to commence this spring.

The current proposal addresses the "last-mile" service to New Denver residents, and proposes to extend Fibre to the Home (FTTH) to the 24 properties within the municipality that have been deemed eligible by the federal government. Funding is being sought through the federal Universal Broadband Fund as well as the provincial Connecting British Columbia Program. Both programs have had their application deadlines extended until March 15, 2021.

Discussion: The provision of high speed broadband service is a complex issue with many options for delivery, including FTTH or wireless technology. The proposed project will result in a publicly owned Open Access network, encouraging market competition. The funders require that all work be completed by 2027.

The criteria that have been used to determine eligibility for funding through the Universal Broadband Fund are problematic and do not accurately reflect the experience of local residents – CBBC is working to correct the errors and it is possible that additional houses may be able to be connected through this project.

The total estimated cost of installing FTTH in New Denver is very expensive (upwards of $1000 per residence) so grant funding is required in order to proceed. A regional approach will achieve the necessary economies of scale required for the ongoing affordable operation of the service once available. By providing a letter of support for this project, the Village of New Denver will ensure that its residents are not excluded from efforts to improve last-mile connectivity within the region.

Attachments:

- CBT Project Overview of UBF Application dated January 29, 2021

Council Strategic Priority: Nil

Communication Strategy: Nil

FINANCIAL IMPLICATIONS: The Village of New Denver is being asked to contribute $15,646 of the $78M project budget, if the funding applications are successful. This represents 5% of the anticipated cost of delivering FTTH for eligible residences within New Denver's boundaries. The proposed project effectively leverages the Village's investment, and relies on grant funding to cover a significant portion of costs.

Attachment 1: Project Overview of UBF Application

January 29, 2021

1. The Trust is seeking support from the Regional District of Central Kootenay (RDCK) for a regional connectivity project that proposes to connect at least 3,300 of the federally deemed eligible underserved homes in 33 communities within Areas A, B, C, G, H and K (complete list of communities and unserved homes attached) with a combination of backbone fibre and fibre-to-the-home solutions.

2. The Trust through its wholly owned subsidiary Columbia Basin Broadband Corporation (CBBC) is preparing a Basin-wide application, which includes the above areas within the RDCK, to the Federal Government's Universal Broadband Fund (UBF) prior to the intake deadline of Feb. 15, 2021.
3. CBBC is also preparing a submission to the Northern Development Initiative Trust's Connecting British Columbia Fund Core Intake Program, which is designed to complement the UBF program, prior to the current intake deadline of February 15, 2021, seeking match funding.
4. If approved, under the program guidelines, projects must be completed by March 31, 2027.

Background

5. Broadband connectivity in rural Canada continues to be a challenge and in response the Federal Government has created the UBF through Innovation, Science and Economic Development Canada (ISED).
6. In addition, the Province of British Columbia is continuing its Connecting BC program to assist in bringing connectivity to underserved areas. The next intake to the program will complement ISED's program and provide additional supplementary funding.
7. To help close the connectivity divide in the Columbia Basin, CBBC was established by the Columbia Basin Trust in 2011 and was mandated to bring better connectivity into the region.
8. Since its inception, CBBC has established a 1000km of fibre optic backbone throughout many of the Basin highway corridors as well as established numerous Point of Presence (POP) breakout locations in communities along the backbone route. Fibre backbone is the primary infrastructure required to enable last mile services to residents and businesses.
9. With much of the backbone network established, our focus has now shifted to closing the infrastructure gaps that exist in the last-mile space (i.e., service to homes and businesses).

Project Overview

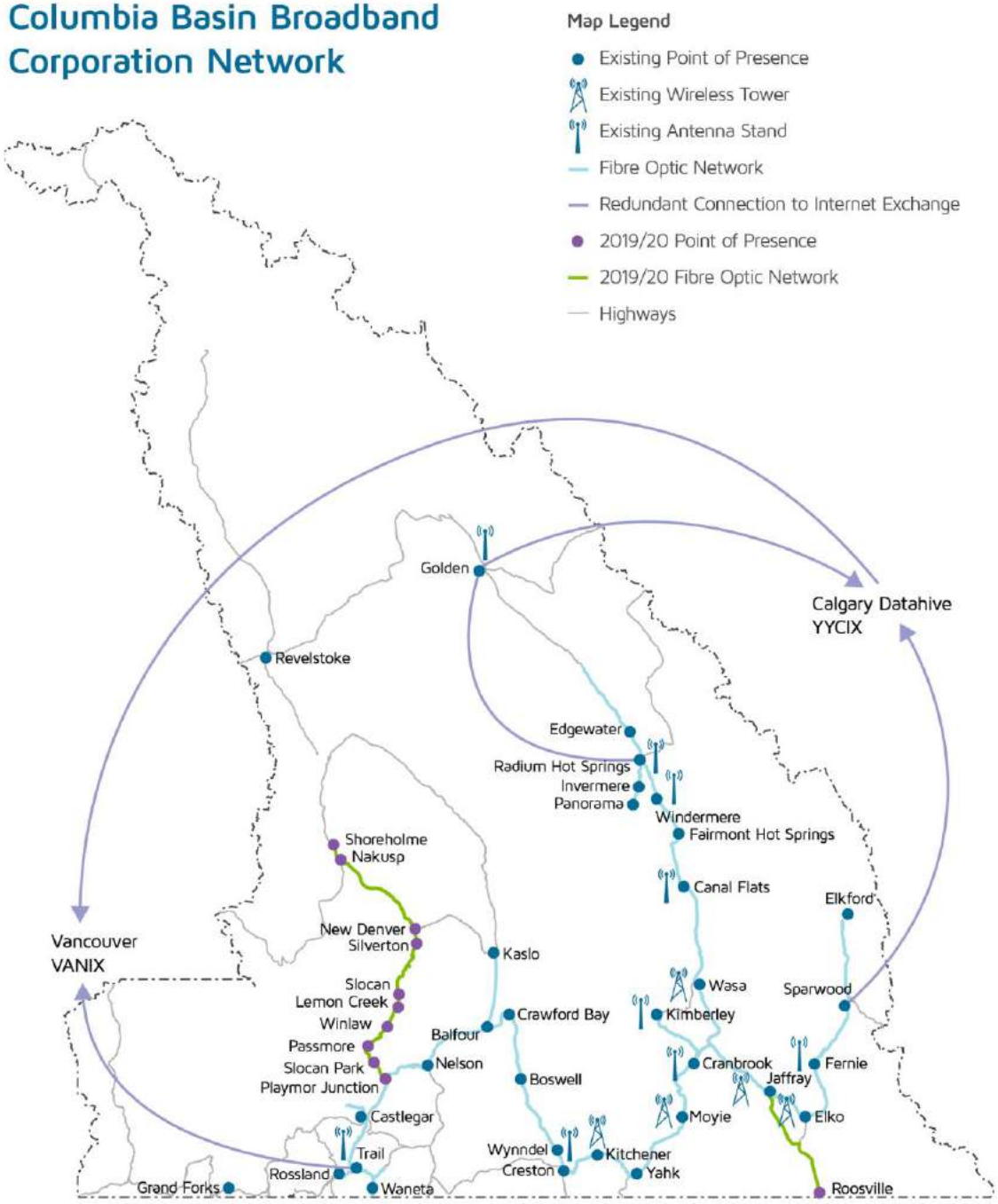
1. The CBBC UBF application aims to leverage the established CBBC backbone infrastructure to extend last-mile services to communities and areas that are considered underserved and eligible for grant funding under the UBF and Connecting BC programs.
2. The Basin-wide project proposal is to build backbone and last-mile infrastructure to 57 of the eligible underserved communities across the Basin and includes fibre-to-the-home infrastructure to over 5,250 homes. The total estimated cost of this project is approximately $78,000,000.
3. Within the RDCK, the project proposes to build 72km of backbone fibre and fibre-to-the-home infrastructure to serve at least 3,300 of the unserved homes in Areas A, B, C, G, H and K. The total estimated cost related to the RDCK portion of the project is $40,783,423 excluding GST, project management costs and ineligible expenditures (e.g. insurance). Approximately $6,000,000 of this cost is attributed to the backbone fibre build between Nakusp and Edgewood (a current gap on the CBBC regional network and a requirement to provide service to the unserved homes in the communities of Burton, Edgewood, Fauquier and Nakusp).
4. A fundamental principle of this application is that it proposes to establish an Open Access network over this infrastructure which will allow any ISP to utilize the network to provide last-mile services and foster competition that will ultimately benefit the residents of the Basin.
5. In addition to proposed funding from the Trust, the Universal Broadband Fund and the Connecting BC program, the same level of funding is being sought by the Trust from each Regional District.

Application Funding Structure	
ISED	49%
NDIT	25%
Trust	21%
Regional Districts	5%
	100%

6. Columbia Basin Broadband Corporation is seeking a letter of support for the application to the Universal Broadband Fund program, indicating an intent for CSRD provide a contribution of up to a total of 5% ($2,039,000) of the proportionate forecasted infrastructure costs related to CSRD under this project.

Attached. (CBBC current Fibre Map)

Columbia Basin Broadband Corporation Network



Project Costs Breakdown - RDCK

Regional District of Central Kootenay	FTTH Homes	Total Budget	RD Contribution
RDCK Area A	**3,278**	**$40,783,423**	**$2,039,171**
Crawford Bay, Kootenay Bay	314	$2,604,190	$130,210
Walkers	58	$1,010,776	$50,539
Wynndel	162	$1,165,460	$58,273
RDCK Area B	**434**	**$5,923,481**	**$296,174**
Huscroft	223	$3,617,302	$180,865
Kitchener	126	$1,572,369	$78,618
Yahk	84	$733,810	$36,691
RDCK Area C	**167**	**$3,327,608**	**$166,380**
West Creston	167	$3,327,608	$166,380
RDCK Area G	**651**	**$7,437,824**	**$371,891**
Erie	68	$474,245	$23,712
Meadows	47	$384,525	$19,226
Salmo, Jersey	305	$4,656,610	$232,830
Ymir, Porto Rico, Hall	231	$1,922,444	$96,122
RDCK Area H	**1,080**	**$9,211,556**	**$460,578**
Hills	106	$920,580	$46,029
New Denver	24	$312,918	$15,646
Playmor, Slocan Park, Passmore	288	$1,911,250	$95,563
Silverton, Red Mountain	51	$1,039,330	$51,966
Slocan City, Lemon Creek	81	$757,917	$37,896
Summit Lake	38	$267,648	$13,382
Winlaw, Valican, Lebahdo, Appledale, Perrys	492	$4,001,913	$200,096
RDCK Area K	**410**	**$10,102,527**	**$505,126**
Burton	213	$1,964,928	$98,246
Edgewood	78	$1,086,892	$54,345
Fauquier	119	$1,039,603	$51,980
Nakusp-Edgewood Backbone	0	$6,011,104	$300,555

Annual Funding Breakdown – RDCK

	Total	2022	2023	2024	2025	2026	2027
Contribution	$2,039,000	$339,833	$339,833	$339,833	$339,833	$339,833	$339,833