



**VILLAGE OF BELCARRA
REGULAR COUNCIL AGENDA
VILLAGE HALL
June 10, 2019
7:00 PM**



COUNCIL

Mayor Neil Belenkie
Councillor Rob Begg
Councillor Carolina Clark
Councillor Bruce Drake
Councillor Liisa Wilder

1. CALL TO ORDER

Mayor Neil Belenkie will call the meeting to order.

2. APPROVAL OF THE AGENDA

2.1 Regular Council Meeting, June 10, 2019

Recommendation:

That the agenda for the Regular Council Meeting, June 10, 2019 be approved as circulated.

3. ADOPTION OF MINUTES

3.1 Regular Council Meeting, May 13, 2019

Recommendation:

That the minutes from the Regular Council Meeting held May 13, 2019 be adopted.

4. DELEGATIONS AND PRESENTATIONS

**4.1 Water Capacity for Fire Protection Committee, Ian Devlin – Chair,
Tom Kim – Vice-Chair, Douglas Brain, Jim Chisholm, Martin Desbois, report
dated June 10, 2019 regarding the May 2019 Interim Report**

Recommendation:

That Council direct staff to work with all appropriate parties to explore the recommendations as listed in Item 7 of the Water System Capacity for Fire Protection Committee, June 10, 2019, May 2019 Interim Report.

5. REPORTS

- 5.1** Lorna Dysart, Chief Administrative Officer, report dated June 10, 2019 regarding Village of Belcarra Waterworks Bylaw No. 456, 2012 Amendment Bylaw No. 539, 2019

Recommendation:

That the “Village of Belcarra Waterworks Bylaw No. 456, 2012 Amendment Bylaw No. 539, 2019” be read a first, second and third time.

- 5.2** Lorna Dysart, Chief Administrative Officer, report dated June 10, 2019 regarding Traffic Bylaw Enforcement Update

Recommendation:

That the report from the Chief Administrative Officer dated June 10, 2019 regarding a Bylaw Enforcement Update be received for information.

- 5.3** Lorna Dysart, Chief Administrative Officer, verbal report regarding the New Website Launch

Recommendation:

That the verbal report regarding the New Website Launch be received for information.

- 5.4** Bernie Serné, Superintendent of Public Works, dated June 10, 2019 regarding the 2018 Drinking Water Quality Annual Report

Recommendation:

That the 2018 Drinking Water Quality Annual Report be received for information.

- 5.5** Bernie Serné, Superintendent of Public Works, dated June 10, 2019 regarding Bus Stop Street Lighting, 2019 TRIPP Funding Grant

Recommendation:

That Bus Stop Lighting, 2019 Transit Related Road Infrastructure Program (TRIPP) funding grant report be received for information.

- 5.6** Bernie Serné, Superintendent of Public Works, verbal report regarding Watermain Armouring at the Midden

Recommendation:

That the verbal report regarding Watermain Armouring at the Midden be received for information.

- 5.7** Bernie Serné, Superintendent of Public Works, report dated June 10, 2019 regarding Removal of Abandoned Improvements – Across the Road from the 4116 Marine Avenue Riparian Zone

Recommendation:

That the abandoned gate and stairway fronting 4116 Marine Avenue be removed; and That the affected lands be allowed to return to their natural state.

6. REPORTS FROM MAYOR AND COUNCIL MEMBERS – COMMITTEE UPDATES

6.1 Mayor Belenkie, verbal update regarding the TransLink Municipal Proposal

6.2 Mayor Belenkie, verbal update on RCMP Risk Mitigation Planning

6.3 Councillor Clark, regarding Child Care Task Force Appointment

Recommendation:

That Councillor Clark be appointed as the elected representative on the School District 43, Board of Education, Child Care Task Force for the Village of Belcarra

6.4 Councillor Wilder, verbal report regarding the Cement Stair Improvement in the amount of \$10,000 – Marine Avenue at West Road deferred at the Regular Council meeting on February 11, 2019.

Recommendation:

That the money from the proposed Marine Avenue stair improvement at West Road be reallocated for traffic signs, if required.

7. BYLAWS**8. CORRESPONDENCE/PROCLAMATIONS****Recommendation:**

That correspondence items 8.1 to 8.10 be received.

INFORMATION ITEMS

8.1 Sasamat Volunteer Fire Department, Board of Trustees Meeting Minutes of April 18, 2019

8.2 Jonathan X. Coté, Mayor, City of New Westminster, letters dated a) May 8, 2019 and b) May 30, 2019 regarding E-Comm Board of Directors Designate – 2019-2020 Term

8.3 Dorothy Shermer, Corporate Officer, City of Port Moody, dated May 16, 2019 regarding E-Comm Board of Directors Designate – 2019-2020 Term (full report available at the Village Office)

8.4 Cheryl Papove, Belcarra Resident, dated May 11, 2019 regarding Midden Road Closure

8.5 Cherith & Colin Richardson, Lorraine & Lyndon Hanson, Cheryl & Bill Papove, Belcarra Residents, dated May 13, 2019 regarding New Parking Restrictions and Road Closure at Midden Road

8.6 Ralph Drew, 3772 Marine Avenue, dated May 15, 2019 regarding Long Term Debt versus Total Assessed Value

8.7 Neil Belenkie, Mayor, letter dated May 21, 2019 to Mayor & Council, City of Port Moody regarding Farrer Cove Road Access

8.8 Sav Dhaliwal, Chair, Metro Vancouver Board, dated May 24, 2019 regarding Transit-Oriented Affordable Housing Study Phase 2 – Key Findings (full report available at the Village Office)

- 8.9** Council Committee Meeting Minutes:
- a) Farrer Cove Committee Meeting Minutes – April 10, 2019
 - b) Water System Capacity for Fire Protection Committee Meeting Minutes – April 16, 2019
 - c) Tree Committee Meeting Minutes – April 17, 2019
 - d) Revenue Generation Committee Meeting Minutes – April 23, 2019

8.10 Lisa Helps, Mayor, City of Victoria, letter dated May 29, 2019 to the Union of BC Municipalities (UBCM) requesting favourable consideration and resolutions of support to restore Provincial support for libraries.

9. NEW BUSINESS

10. PUBLIC QUESTION PERIOD

11. RESOLUTION TO CLOSE MEETING

That the June 10, 2019 Regular meeting of Council be closed pursuant to the Community Charter Section 90 (1) “A part of a Council meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following:

- (k) negotiations and related discussions respecting the proposed provision of a municipal service that are at their preliminary stages and that, in the view of the Council, could reasonably be expected to harm the interests of the municipality if they were held in public.”

12. ADJOURNMENT

Recommendation:

That the June 10, 2019 Regular Meeting be adjourned.



**VILLAGE OF BELCARRA
REGULAR COUNCIL MINUTES
VILLAGE HALL
May 13, 2019**



Minutes of the Regular Council Meeting for the Village of Belcarra held May 13, 2019 at the Municipal Hall, 4084 Bedwell Bay Road, Belcarra, BC.

Council in Attendance

Mayor Neil Belenkie
Councillor Rob Begg
Councillor Bruce Drake
Councillor Liisa Wilder

Council Absent

Councillor Carolina Clark

Staff in Attendance

Lorna Dysart, Chief Administrative Officer
Bernie Serné, Superintendent of Public Works
Paula Richardson, Administrative Services Assistant

1. CALL TO ORDER

Mayor Belenkie called the meeting to order at 7:00 pm.

2. APPROVAL OF THE AGENDA

2.1 Regular Council Meeting, May 13, 2019

Moved by: Councillor Wilder
Seconded by: Councillor Drake

That the agenda for the Regular Council Meeting, May 13, 2019 be approved as circulated.

CARRIED

3. ADOPTION OF MINUTES

3.1 Regular Council Meeting, April 24, 2019

Moved by: Councillor Begg
Seconded by: Councillor Wilder

That the minutes from the Regular Council Meeting held April 24, 2019 be adopted.

CARRIED

4. DELEGATIONS AND PRESENTATIONS

No items presented.

5. REPORTS**5.1** Lorna Dysart, Chief Administrative Officer, report dated May 13, 2019 Statement of Financial Information (SOFI) Report – Fiscal Year 2018

L. Dysart outlined the report and noted that the SOFI report is an annual report required under the Financial Act. Council asked pertinent questions. Discussion ensued.

Moved by: Councillor Drake
Seconded by: Councillor Wilder

That Council approve the schedules and statements included in the Statement of Financial Information (SOFI) 2018 Report.

CARRIED

5.2 Bernie Serné, Superintendent of Public Works, report dated May 13, 2019 regarding Midden Road Temporary Closure

B. Serné outlined the report. Discussion ensued with regard to a more aesthetical look for the barriers blocking the Midden Road Temporary Closure.

The Chief Administrative Officer will advise TransLink that the Temporary Closure will remain until October 1, 2019.

Moved by: Councillor Wilder
Seconded by: Councillor Begg

That Council approve the temporary closure of Midden Road at Bedwell Bay Road; and
That the Temporary Closure remain in place until October 1, 2019; and
That Council direct staff to advise TransLink, all Emergency Services, and residents.

CARRIED

5.3 Lorna Dysart, Chief Administrative Officer, verbal report regarding a Bylaw Amendment to include the Requirement of Fire Sprinkler Systems.

L. Dysart outlined the report. Discussion ensued relative to the dollar value (or the floor area) of renovations included in the Fire Sprinkler System requirement.

Moved by: Councillor Drake
Seconded by: Councillor Begg

That Council direct staff to prepare a Bylaw Amendment to require fire sprinkler systems to be installed in all new construction and in major house renovations, or additions, that exceed a floor area of 47 square meters and / or where this add-on is deemed feasible; and
That Staff review options for major house renovations in the Bylaw Amendment.

CARRIED

6. REPORTS FROM MAYOR AND COUNCIL COMMITTEE REPRESENTATIVES**6.1** Mayor Belenkie, Verbal report regarding undated Aerocar Service Proposal for Transportation Services

Mayor Belenkie outlined the Aerocar Service Proposal which would be a replacement of TransLink Bus service to Belcarra.

Mayor Belenkie is negotiating the Aerocar Service proposal with TransLink. If successful, TransLink would cover 100% of the cost of this service.

7. BYLAWS**7.1 Village of Belcarra 2019 Annual Tax Rates Bylaw No. 536, 2019**

Moved by: Councillor Drake
Seconded by: Councillor Wilder

That "Village of Belcarra 2019 Annual Tax Rates Bylaw No. 536, 2019" be adopted.

CARRIED

7.2 Village of Belcarra Fees & Charges Bylaw No. 517, 2018 Amendment Bylaw No. 537, 2019 be adopted

Moved by: Councillor Begg
Seconded by: Councillor Wilder

That "Village of Belcarra Fees & Charges Bylaw No. 517, 2018 Amendment Bylaw No. 537, 2019" be adopted.

CARRIED

7.3 Village of Belcarra Fees & Charges Bylaw No. 517, 2018 Amendment Bylaw No. 538, 2019

Moved by: Councillor Wilder
Seconded by: Councillor Drake

That "Village of Belcarra Fees & Charges Bylaw No. 517, 2018 Amendment Bylaw No. 538, 2019" be adopted.

CARRIED

7.4 Village of Belcarra Wildlife Vector Control (Bear) Bylaw No. 535, 2019

It was noted that resident education will be provided related to Wildlife Vector control.

Moved by: Councillor Drake
Seconded by: Councillor Begg

That "Village of Belcarra Wildlife Vector Control (Bear) Bylaw No. 535, 2019" be adopted.

CARRIED

8. CORRESPONDENCE / PROCLAMATIONS

Moved by: Councillor Begg
Seconded by: Councillor Wilder

That correspondence items 8.1 to 8.9 be received.

CARRIED

ACTION ITEMS**8.1 Jody Robertson, Corporate Secretary, E-Comm 911, dated March 29, 2019 regarding E-Comm Board of Directors Designate – 2019 – 2020 Term**

Moved by: Councillor Drake
Seconded by: Councillor Begg

That Council support the nomination of a Burnaby City Councillor and a Coquitlam City Councillor, for appointment to the E-Comm Board of Directors for the 2019 – 2020 term, to serve as representatives for the Village of Belcarra, City of Burnaby, City of Coquitlam, City of New Westminster, City of Port Coquitlam and City of Port Moody.

CARRIED

INFORMATION ITEMS

- 8.2** Council Committee Meeting Minutes:
a) Revenue Generation Committee Meeting Minutes – March 26, 2019
- 8.3** Henry Braun, Mayor, City of Abbotsford, letters dated April 18, 2019 to Honourable John Horgan, Premier regarding the City of Abbotsford Resolutions as follows:
a) Criminal Justice Reform in British Columbia
b) Continued Widening of TransCanada Highway #1, through the Fraser Valley
- 8.4** Sav Dhaliwal, Chair, Metro Vancouver Board, dated April 23, 2019 regarding Office Development in Metro Vancouver's Urban Centres – 2018 Update (full report available at the Village office)
- 8.5** Lorna Dysart, Chief Administrative Officer, letter dated April 26, 2019 to Kevin Desmond, Chief Executive Officer, TransLink regarding Midden Road Temporary Closure
- 8.6** Kevin Desmond, Chief Executive Officer, TransLink, dated May 3, 2019 regarding Closure of Midden Road in the Village of Belcarra
- 8.7** Blanka Zeinabova, Deputy City Clerk, City of Burnaby, dated April 30, 2019 regarding Appointments to E-Comm Board of Directors
- 8.8** Linda Buchanan, Mayor, City of North Vancouver, letter to Honourable Carole James, Minister of Finance & Deputy Premier dated May 1, 2019 regarding Small Businesses Property Assessment and Taxation (full report available at the Village Office)
- 8.9** Mike Hurley, Mayor, City of Burnaby, dated May 2, 2019 regarding Expanding Investment Opportunities (full report available in the Village Office)
- 8.10** Gabryel Joseph, Corporate Officer, City of Port Coquitlam, dated May 9, 2019 regarding E-Comm Board of Directors – Nomination for 2019-2020 Term

9. NEW BUSINESSCouncillor Begg – Traffic & Parking

Councillor Begg raised the matter of increased traffic in the Village due to the early summer like weather and Port Moody limiting parking by Sasamat Lake. Discussion ensued with regard to:

- Resident Parking
- Visitor Parking
- Parking on Pavement

Mayor Belenkie noted that Anmore has Resident Only Parking in the Summer months. The Chief Administrative Officer will confirm signage related to Resident Only Parking. Bylaw Enforcement of the Traffic and Parking Regulation Bylaw is providing a positive effect in the Village.

10. PUBLIC QUESTION PERIOD

No items presented.

11. **ADJOURNMENT**

Moved by: Councillor Wilder
Seconded by: Councillor Begg

That the May 13, 2019 Regular Meeting be adjourned at 8:17 pm.

CARRIED

Certified Correct:

Neil Belenkie
Mayor

Lorna Dysart
Chief Administrative Officer



VILLAGE OF BELCARRA WATER SYSTEM CAPACITY FOR FIRE PROTECTION COMMITTEE MAY 2019 INTERIM REPORT



The primary goal of the Water System Capacity for Fire Protection Committee is to assess the existing water system in Belcarra and its capabilities to support all fire-fighting efforts.

Due to an absence of records at the Municipal Hall offices, the Committee faced numerous challenges in meeting the designated objectives. There does not appear to be any signed and sealed documentation from a licensed Engineer that attests that the current water supply system meets professional standards or regulatory requirements. The findings of the Committee regarding the design basis for the water supply system and fire protection requirements as of May 2019 are summarized as follows:

1. The Village of Belcarra (VOB) water supply system does not currently meet the Fire Underwriters Society (FUS) recommended fire flow requirements. As indicated in an Aug 8 2010 FUS correspondence to VOB, the reviewed design (which includes expanding the Tatlow reservoir volume) barely meets the FUS minimum fire flow requirements. FUS states that the proposed design is **“absolutely minimalistic with respect to providing water supplies for fire-fighting”**.
2. The enlargement or replacement of the Tatlow reservoir as required in the FUS reviewed design to meet the FUS minimum fire flow requirements was never performed. OPUS (firm involved in the design of the water supply system), confirmed to the Committee that further discussions were held between the VOB and FUS. The Committee has requested the VOB Chief Administrative Officer to provide all correspondence between VOB and FUS to clarify the terms of a possible agreement with the Fire Underwriter’s Society.
3. Based on the 2010 review, the FUS advised VOB that **“steps should be taken to improve the water supply system on an ongoing basis to ensure that as the risk within the community increases (with new buildings, etc.) that the capacity of the water supply system also increases to match the increased demand, both in terms of domestic needs (increased Max Day) and in terms of increased required fire flows”**. Both of these water demand terms have increased in an appreciable way since the 2010 design.
4. The Committee reports that yearly inflows from District of North Vancouver (DNV) have increased by a significant 70% since 2013. A supplemental increase in water demand is also expected in 2019 with the recent hook up of the Belcarra Parks picnic area. After recent fire events (loss of 3 residences in 2017), residents have expressed concerns on the fire-fighting capabilities of the current water system. It is becoming evident that time has come to consider the steps requested by FUS in 2010 (see item 3).

5. The FUS also concluded that **“knowing that the water supply system as designed would not provide the recommended fire flows for the type of structures being protected, fire prevention and mitigation measures are strongly encouraged to reduce the risk of loss of life and property when fire occurs”**. The Committee consequently recommends mandatory sprinkler requirements in all new residential construction and in residences requesting permits for major renovations.
6. In the early phases of the VOB water supply design (1990), the fire flow requirement for VOB was assessed as 60L/s for 1.5hrs. The Village of Belcarra who is the Authority having Jurisdiction consequently reduced the requirement to a lower value of 30 L/s for 1hr. The Committee acknowledges that at the time of the initial design, water supply options from DNV, Port Moody or other GVRD sources may have been limited. Maintaining the higher design fire flow requirements as per earlier studies would have entailed the need to replace the Tatlow reservoir with a larger tank at significant additional costs.
7. The Committee consequently makes the following recommendations to Council:
 - a. Request an engineering consultant to evaluate and recommend fire flow requirements for the Village of Belcarra based on recognized municipal standards for fire protection.
 - b. Proceed with an engineering evaluation of the current VOB water supply system, storage facilities and distribution system based on both current and future potable water needs and recommended fire flows of the community.
 - c. Identify and evaluate alternatives for additional water supply, funding models and government grants.

Attachments:

1. Committee questions and OPUS responses, April 2019.
2. Water Supply System Improvements in Belcarra, Letter from Fire Underwriters Society dated August 8 2010.
3. SCADA Summary Report with Recommendations
4. District of North Vancouver Memo re: Belcarra Water Supply Scenarios, March 1, 2019

Water System Capacity for Fire Protection Committee meeting held April 16, 2019

Questions for Walt Bayless (OPUS)

The Water Supply for Fire Protection Committee is exploring options to address fire flow requirements for the Village of Belcarra (VOB) and seeks advice and guidance from OPUS on design issues related to the VOB water supply system.

The VOB has provided the 2006 Dayton Knight *Potable Water Pre-Design Preferred Option Study Report* to the Committee as the only available background information on the VOB Water Supply system's design.

1. Codes, Standards and Design Guidance for Water Supply systems

- a) The Committee understand that there are no imposed Code or Standard mandatory fire flow requirements for municipalities. Designers rely on experience, current practice and design guidelines such as the 1999 *Fire Underwriters Society Water Supply for Public Fire Protection* (FUS) guidelines or the 2012 *BC Design Guidelines for Rural Residential Community Water systems*.

Is this a correct understanding? **Significant discussions where held with the FUS and the Village to discuss the volume requirements for this relative to the affordability threshold of the project. To mitigate this the 30 L/s level was applied with consideration for the continuous feed from NV.**

- b) It appears that many surrounding municipalities have the infrastructure to provide continuous 60 L/s fire flow capabilities and that the 60 L/s flowrate is commonly used as an evaluation criterion for current or future water supply systems. Examples are:
- a. *Village of Lions Bay – Water Distribution System, Model Development and Capacity Analysis*, Geoadvice Engineering Inc., Port Moody.
 - b. Village of Belcarra – Dayton Knight (or Beesley Engineering?) *Options Study*.

Can OPUS elaborate on current design practice? **30 L/s is very low and typically 60 L/s would be used. This would have required a new reservoir as the original intent of raising the tanks was no long viable due to the impact of steel strength and reservoir buckling in a seismic event if it was raised. Funds were insufficient to replace the tank.**

- c) The 2006 Dayton Knight Pre-Design Report states: In the “Potable Water Supply Sources and Design Options” Study a fire flow requirement of 60L/s for 1.5 hrs was used. Based on discussions with the Village this can be reduced to 30L/s for 1 hr”.

Can OPUS clarify the reasons why VOB reduced this fire flow requirement at that time? **Costs. It would have required a full replacement rather than a raising.**

2. Design Basis for Tatlow Reservoir

The Committee understands that the actual potable water system is not as per the design described in the pre-design document and request clarifications on the impact of the following changes:

- a) Based on the 2006 forecast residential demand and on the agreed upon 30L/s minimum flow requirements, the storage requirements for Tatlow reservoir was evaluated at 350,000 L. The pre-design consequently concluded that modifications to the 270,000 L capacity reservoir were required. As indicated on the record drawings, these modifications were never implemented. A second noted change is that the VOB staff have informed the Committee that the Tatlow reservoir cannot be filled to the 270,000 L level indicated on the record drawings. The actual maximum reservoir capacity appears to be limited to 244,600 L. **It was due to the clearance between the underside of the roof and the level monitoring equipment. A 0.3 m clearance is required otherwise the instruments lose monitoring capacity.**

Can OPUS clarify why the Tatlow reservoir is limited to 244,600 L? Is the limitation due to hydrostatic pressure, structural or other equipment constraints?

- b) What is impact of having a 244,600 L limited capacity versus the pre-design requirements of 350,000 L? Is there a final design report which reflects the current installed water supply system? **There was a letter with the FUS agreeing on the lower levels. The decision to drop down was managed with the Village and FUS directly.**
- c) If Tatlow reservoir is indeed limited to 244,600 L capacity, the pre-design report and the BC guidelines referenced in 1a) suggests that the reservoir has already attained or exceeded its design capacity. This assessment is based on:
- i. agreed upon 30 L/s fire flow requirements
 - ii. current average consumption of 3.5 to 4.1 L/s (monthly average in July and August 2018)
 - iii. assumed 2 L/s for 2019 maximum peak daily average of newly connected Belcarra Parks Picnic Area

Is this assessment correct? If this is not the case, can OPUS provide guidance for a revised assessment? **Will have to run some numbers to evaluate it.**

3. Pumps

Can Opus clarify the intent and operating conditions of the VOB potable water system distribution and fire pumps? **The domestic pumps were designed to meet MDD and operate in either a continuous pressure control mode, or when demand was much lower the system would cycle off the pressure tank. Issues around the installation of significant irrigation demand on several residential properties resulted in a rapid drop in pressure and as such the two pumps are run together under higher flows to respond faster to the irrigation demand. Occasionally the fire pump has had to back stop the domestic pumps due to rapid pressure drop.**

4. FUS recommended minimum fire flow requirements

The Committee has been informed that the FUS recommended 30L/s for 1 hr minimum fire flow requirements are based on a common house size of under 2,500 to 3,000 sqft. The BC

guidelines referenced in 1a) indicate in turn, a 80 L/s for 1.7hr recommended FUS fire flow requirement for a 3,000 sqft wood frame residential house in a rural setting.

Can OPUS clarify the large difference between the two recommendations? **The Village coordinated this directly with the FUS.**



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The typical VOB house can be described as follows:

- significantly larger than 3,000 sqft
- of wood frame construction
- with floor heights which often exceed 10ft-15ft
- commonly built on slopes/hillsides.

The FUS guidelines appear to suggest amplification factors to the recommended fire flows for this typical VOB house. Is this a correct interpretation?

Again this was discussed directly between FUS and the Village. FUS accepted the Village 30 L/s request for the community. They stressed this was an absolute minimum.

5. Water inflows from DNV

VOB staff have confirmed that DNV have been providing ± 19.2 L/s since at least 2016. As per attached recent March 2019 correspondence (pages 13-14 of April 8 Council Agenda), DNV now indicate that they can possibly increase the VOB water supply to 60 L/s.

- a) Committee requests clarification on the context of the May 2 2017 OPUS letter which states “OPUS and the Village met with DNV on May 2 2017 to review the additional flow option. The District stated that providing more flow than the agreed upon 14 L/s would likely compromise the District’s fire protection capabilities and therefore, is not considered a viable option. Does OPUS have any knowledge to clarify the contradictions with the actual 19.2 L/s? **The assessment was completed by DNV in 2006 who provided the 14 L/s recommendation. This is based on a theoretical operating condition in DNV under MDD and FD simultaneously. DNV would be required to comment on any changes to this value, however based on their acceptance of the new values they may have**



appendix b.PDF

offset this limit or revised their assessment.

- b) Can the VOB water supply / distribution infrastructure handle 60 L/s from DNV and if this is the case, what possible upgrades are required for the current coverage area? Does the DNV \$2.5M cost estimate of the required VOB

upgrades appear to be accurate? The hydraulic capacity of the supply is the limiting factor to total flow. The two submerged lines have a capacity to provide approximately 30 L/s maximum, however some field testing would need to be done to validate this value as it does not contain a safety factor. I can't comment on the \$2.5M as I do not know the extent of that work. The flow would again be limited by the Village pipe sizes.

6. Questions on the SCADA System

- a) Are there online resources/tutorials, for VOB version of SCADA, providing instruction on running summary reports related to water management that they would recommend?

We can provide that. We also have previously recommended that the data be extracted to Excel for monitoring historic operations.

- b) What is the most cost-effective way to expand our knowledge and use of SCADA?

With a bit of training the best way is to explore the software. Essentially the trending is the important part and how to move data from SCADA to excel for manipulation. So the main lesson is how to plot trends and select data and apply time limits. Likely we can draft up a short how to Word file which can be used to see how to do this.

7. Discussion on SCADA issues (Tom Kim)

SCADA Summary

Through discussions with VOB staff, review of documentation and on-site system, the Committee provides the following summary of its findings related to the VOB SCADA (Supervisory Control and Data Acquisition) system (software and hardware) which allows the VOB to do the following (inductiveautomation.com):

- Control industrial processes locally or at remote locations
- Monitor, gather, and process real-time data
- Directly interact with devices such as sensors, valves, pumps, motors, and more through human-machine interface (HMI) software
- Record events into a log file

Key Details of the VOB SCADA System:

- Data backup limited to after July 2016
- There appears to be no Operating Manuals/User Guide for VOB staff to reference
- Since November 2018, the system is hosted through a virtual server instead of an on-site server
- When the SCADA system loses connectivity with the server or with devices, there is no alert sent to VOB staff
- The VOB system is currently unable to measure water inflow from the City of North Vancouver, rendering the VOB entirely dependant on monthly outflow reports from North Vancouver for billing purposes.
- Certain graphs and charts have labels that appear to not accurately reflect the displayed information or do not have proper titles and labels.

Recommendations:

- Ensure the backup process preserves the SCADA log/data going forward and does not overwrite after 3 years as previously done.
- Given the periodic outage of power and internet connectivity in the VOB and the greater dependency on connectivity since going to a virtual server, consider additional redundancies such as internet backup through a cellular data plan and other cable/optical provider.
- Look into how an alert/alarm can be sent to VOB operation staff when the SCADA system is down to avoid a water supply outage like the failure that occurred in January 2019, when the SCADA system was offline due to a software license issue unknow to the operators and a seismic valve was somehow triggered closing flow into the main reservoir tank.
- Engage a SCADA expert to review the VOB SCADA system to verify and program as needed the system to ensure reports and graphs are accurately pulling the correct data from the linked devices.
- In the absence of proper operating documentation, engage a SCADA expert to help develop a VOB specific operating manual including key reports that should be reviewed regularly.



FIRE UNDERWRITERS SURVEY

A SERVICE TO INSURERS AND MUNICIPALITIES

c/o Risk Management Services

August 8, 2010

Larry Scott, Public Works Superintendent
Village of Belcarra
4084 Bedwell Bay Road
Belcarra BC, V3H 4P8

Subject: Water Supply System Improvements in Belcarra

Dear Sir,

At your request, Fire Underwriters Survey has reviewed the potential impacts of the improvements to the water supply system servicing the Village of Belcarra. The improvements have been considered from the perspective of compliance with Fire underwriters Survey “Water Supplies for Public Fire Protection” and the fire insurance grading and classification system used in Canada.

Background

The Village of Belcarra has not in the past provided a potable water system but has operated several non-potable water reservoirs, distribution pipes and hydrants for the purpose of public fire protection. These efforts have been recognized as minimally achieving the requirements to be recognized for fire insurance grading purposes and as such, published fire insurance grades have indicated the recognition of water supplies for fire protection within the Village.

Current Situation

The Village of Belcarra is currently considering making alterations to water supplies that would allow the Village to provide a potable water supply to constituents. Fire Underwriters Survey has been asked to comment on design considerations with respect to potential changes to fire insurance grade status.

Comments

We have briefly reviewed the report “VILLAGE OF BELCARRA POTABLE WATER STUDY PREFERRED OPTION PRE-DESIGN” authored by Dayton and Knight Ltd. And dated December, 2006.

Key details we have considered are as follows:

1. The area is currently serviced by two reservoirs,
 - a. Tatlow Road Reservoir (270 cubic metres @ TWL=87.44m)
 - b. Dutchman Creek Reservoir (246 cubic metres @ TWL=39.074m)
2. The Dutchman Creek Reservoir will be decommissioned
3. The Tatlow Road Reservoir will be expanded to a volume of 371 cubic metres
4. Domestic demand on the potable water system have been estimated at:
 - a. 14LPS total demand including parks and all domestic uses
 - b. This value is suggested as an estimate of Max Day Demand for the community
5. Proposal includes a supply main from the District of North Vancouver capable of providing 14LPS that would refill Tatlow Road Reservoir
6. The Tatlow Road Reservoir would feed the distribution piping and hydrants
7. Distribution piping and hydrants to be expanded
8. All service areas would be able to achieve a minimum of 30LPS flow rate through hydrants with a minimum residual pressure of 20psi (except at the east end of Main Avenue)
9. The service areas that cannot through gravity achieve the minimum flow rate of 30LPS with a minimum residual pressure of 20psi are proposed to be serviced by an inline booster pump.

The proposed design would meet the minimum requirements of Fire Underwriters Survey and the recognized fire insurance grade of the Village of Belcarra would not be adversely affected by this project. However, it is important to note several things:

1. The fundamental minimum design requirement is for the system to be capable of providing 30LPS + Max Day Demand simultaneously for 1 hour with a minimum residual pressure in the system of 20 psi.
2. The system design is absolutely minimalistic with respect to providing water supplies for fire fighting that would be recognized for fire insurance grading purposes.
3. Steps should be taken to improve the water supply system on an ongoing basis to ensure that as the risk within the community increases (with new buildings, etc.) that the capacity of the water supply system also increases to match the increased demand, both in terms of domestic needs (increased Max Day) and in terms of increased required fire flows.
4. The system must be maintained and tested in accordance with relevant standards to maintain its fire insurance grade status. Fire Underwriters Survey will periodically request to review documentation of maintenance and flow testing.
5. Knowing that the water supply system as designed would not provide the recommended fire flows for the types of structures being protected, fire prevention and mitigation measures are strongly encouraged to reduce the risk of loss of life and property when a fire occurs. Particularly, provision of the earliest possible fire suppression response is recommended, as the earlier the response, the greater the chance of successful outcome with limited resources.

Michael Currie, GFireE, ASCT
Fire Protection Specialist
Fire Underwriters Survey



Memo

March 1, 2019

TO: Laurna Dysart, CAO Belcarra
Park and Facilities

DNV GM Engineering,

FROM: Manager Utilities.

SUBJECT: Belcarra Water Supply Scenarios

This memo provides an overview of potential water servicing scenarios to and for the Village of Belcarra (VOB).

The VOB system was designed to meet current and future customer peak demands and fire flow of 30 L/s for 1 hour. A water servicing agreement permits the VOB to draw up to a maximum flow rate of 21 L/s from the DNV system at a facility on Strathcona Road. In this manner the DNV is a bulk water supplier to the VOB

With regard to recent discussion about exploring increasing DNV supply and expanding the VOB system I have listed some concepts and comments.

Development Impact.

1. **Addition of 50-100 SFR within existing served area.** The original design criteria included projected population growth from 700 in 2006 to 1,200 in 2025. It appears the existing VOB system at the existing DNV supply rate is sufficient to accommodate an additional 100 SRF with little to no VOB or DNV capital upgrade impact.
2. **Supply Extension to Ferrer Cove.** Ferrer Cove was not considered in the original design criteria. If supplied from the VOB system there will likely be VOB capital upgrades (piping, pumping and reservoir) estimated at \$2.5 – 3.5M. A new submarine feed from DNV Woodlands community to Ferrer Cove would require significant DNV and VOB capital works estimated at \$8-12M.

Parks Impact.

3. **Metro Belcarra Park demand increase fourfold.** The original design criteria included Metro park use but did not include projected future increases. A fourfold increase in peak demand would likely trigger the need for VOB

system capital upgrades likely in the form of reservoir and servicing expansions. The estimated upgrades are valued at \$0.75 – 1.5M.

4. **Service Extension to Camp Sasamat & White Pine Beach.** The original design criteria included anticipated demands for Camp Sasamat and White Pine Beach, (and Belcarra Picnic A, Picnic Area Restaurant and Woodhaven Camp) therefore the existing system likely could accommodate the demand without significant capital upgrades to the existing VOB or DNV system.

Fire Fighting.

5. **Increase DNV peak supply flow to 30L/s or 60 L/s.** Preliminary modeling shows that the DNV system is likely capable of supplying 30 or 60 L/s at the existing VOB feed without immediate impact to the DNV system. Upgrades to the VOB system would be required. Further modeling is required to identify long term capital upgrade impacts to DNV system. Preliminary estimated capital upgrades to the VOB system is \$2-3M.
6. **Marine Salt Water Fire Fighting System.** An independent marine supplied system dedicated to fire fighting while technically feasibly could entail a parallel system with estimated costs of \$5-10M. A 'portable' system (fixed pumping with piping assembled when and where needed) would be less expensive but has response time and service reach limitations.
7. **Marine Support:** Membership in the local ship to shore support service could be explored. Response time and reach limitations would be a consideration. While not a first response solution it may augment the existing system and offer options. Annual membership begins at \$40k.

Assumptions have been made when considering these concepts which will likely impact technical feasibility and costs estimates.

Reference:
EDOC # 778047. Village of Belcarra Potable Water Study Preferred Option Pre-Design. Final Draft October 2006.



COUNCIL REPORT

Date: June 10, 2019

From: Lorna Dysart, Chief Administrative Officer

Subject: Village of Belcarra Waterworks Bylaw No. 456, 2012 Amendment
Bylaw No. 539, 2019

Recommendation

That the “Village of Belcarra Waterworks Bylaw No. 456, 2012 Amendment Bylaw No. 539, 2019” be read a first, second and third time.

Purpose

To amend the “Waterworks Bylaw No. 456, 2012” by including an updated Local Service Area (LSA) map that includes Metro Vancouver parcel (PID 011-554-584). The updated LSA map is to take precedence over the LSA map shown as Schedule A in the “Water Supply and Distribution Local Area Service No.1 Establishment and Loan Authorization Bylaw No. 413, 2008” (*‘Bylaw No. 413, 2008’*).

Background

On April 24, 2019, Council approved the request from Metro Vancouver to connect to the Village of Belcarra Water System and the associated connection and water utility fees.

Metro Vancouver is seeking permission to connect two parcels of land (PID 011-554-584 and PID 018-353-347) to the waterworks located within the Village LSA, as defined in *‘Bylaw No. 413, 2008’* (part of “Waterworks Bylaw No. 456, 2012” (*‘Bylaw No. 456, 2012’*)). PID 018-353-347 is located within the established LSA, while half of PID 011-554-584 is located within the LSA (portion north of Bedwell Bay Road), and the other half (south of Bedwell Bay Road) is located outside of the LSA (as shown in Attachment C).

The proposed ‘Amendment Bylaw No. 539, 2019’ with the attached updated LSA map that includes the entire PID 011-554-584 parcel within the LSA boundary (as shown in Attachment B). This amendment will allow the parcel to connect to the Village Water System and to which the *‘Bylaw No. 456, 2012’* will apply. The updated LSA map as shown in Attachment B takes precedence over the LSA map shown as Schedule A in *‘Bylaw No. 413, 2008’*.

Attachments:

- A. Village of Belcarra Waterworks Bylaw No. 456, 2012 Amendment Bylaw No. 539, 2019
- B. Updated Local Service Area map
- C. Local Service Area map



**VILLAGE OF BELCARRA
Waterworks Bylaw No. 456, 2012,
Amendment Bylaw No. 539, 2019**

**An amendment bylaw to add an updated Local Service Area (LSA) map that includes
Metro Vancouver's parcel.**

WHEREAS the *Community Charter* enables a local government to amend its bylaws from time to time;

NOW THEREFORE the Village of Belcarra Council enacts as follows:

1. That this bylaw be cited for all purposes as the "Village of Belcarra Waterworks Bylaw No. 456, 2012 Amendment Bylaw No. 539, 2019".
2. That the "Village of Belcarra Waterworks Bylaw No. 456, 2012," be amended:
 - a) By adding the following text to Section 2 – Definitions:
 - **Local Service Area** means the area established by the Establishment Bylaw and amended by "Waterworks Bylaw No. 456, 2012, Amendment Bylaw No. 539, 2019" to which the Municipality supplies the Water Service.
 - b) And adding the following text to Section 15 – Permitted Connections:
 - All Parcels within the Local Service Area, as shown on the map attached as Schedule B, may connect to the Water Service.
 - c) And adding an updated Local Service Area map that includes Metro Vancouver's parcel (PID 011-554-584) within the Local Service Area boundary as Schedule B.
3. That the updated Local Service Area map attached as Schedule B takes precedence over the Local Service Map shown as Schedule A in the "Water Supply and Distribution Local Area Service No. 1 Establishment and Loan Authorization Bylaw No. 413, 2008."

Read a First Time on

Read a Second Time on

Read a Third Time on

ADOPTED by the Council on

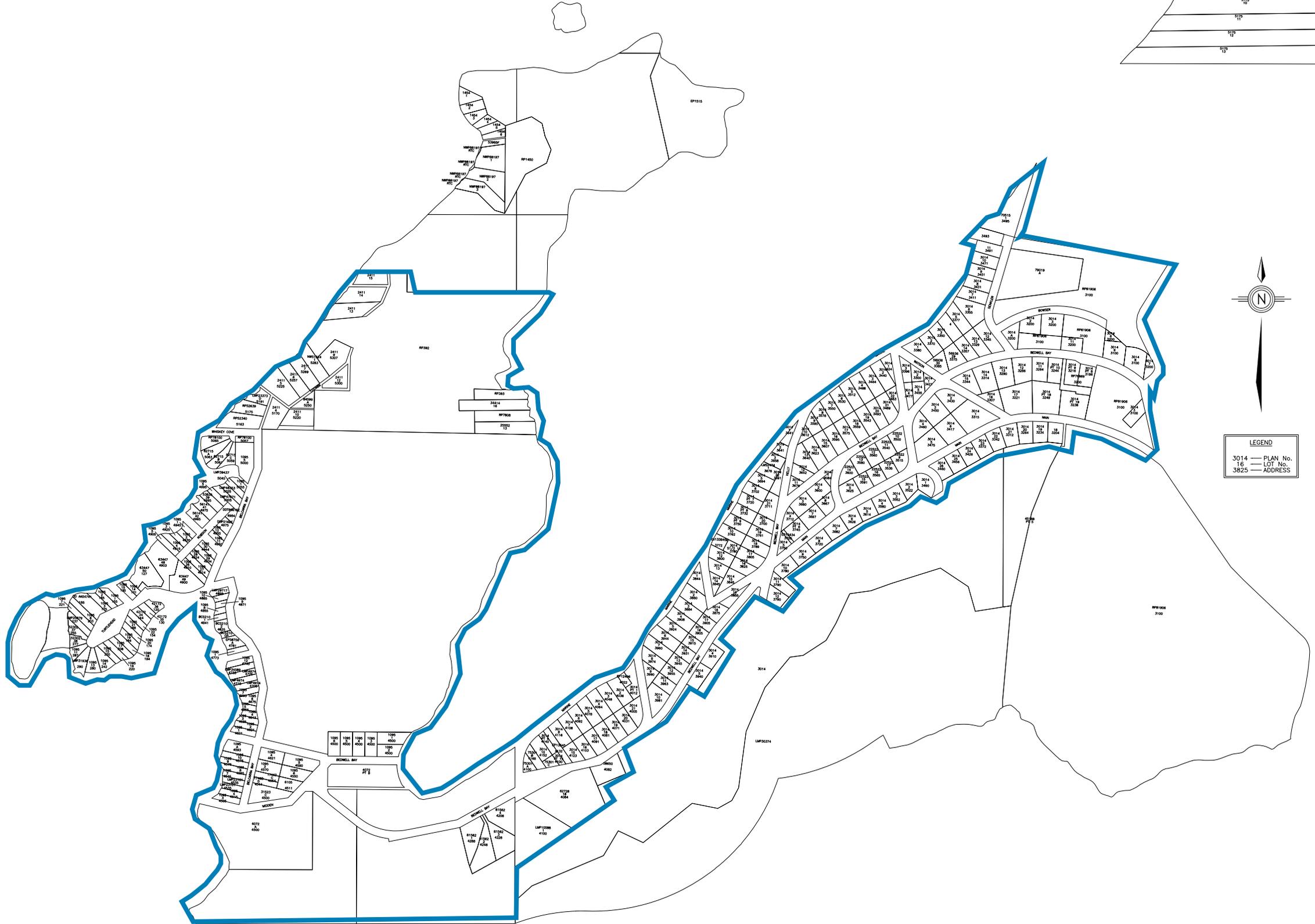
Neil Belenkie
Mayor

Lorna Dysart
Chief Administrative Officer

This is a certified a true copy of
Village of Belcarra Waterworks Bylaw No. 456, 2012
Amendment Bylaw No. 539, 2019

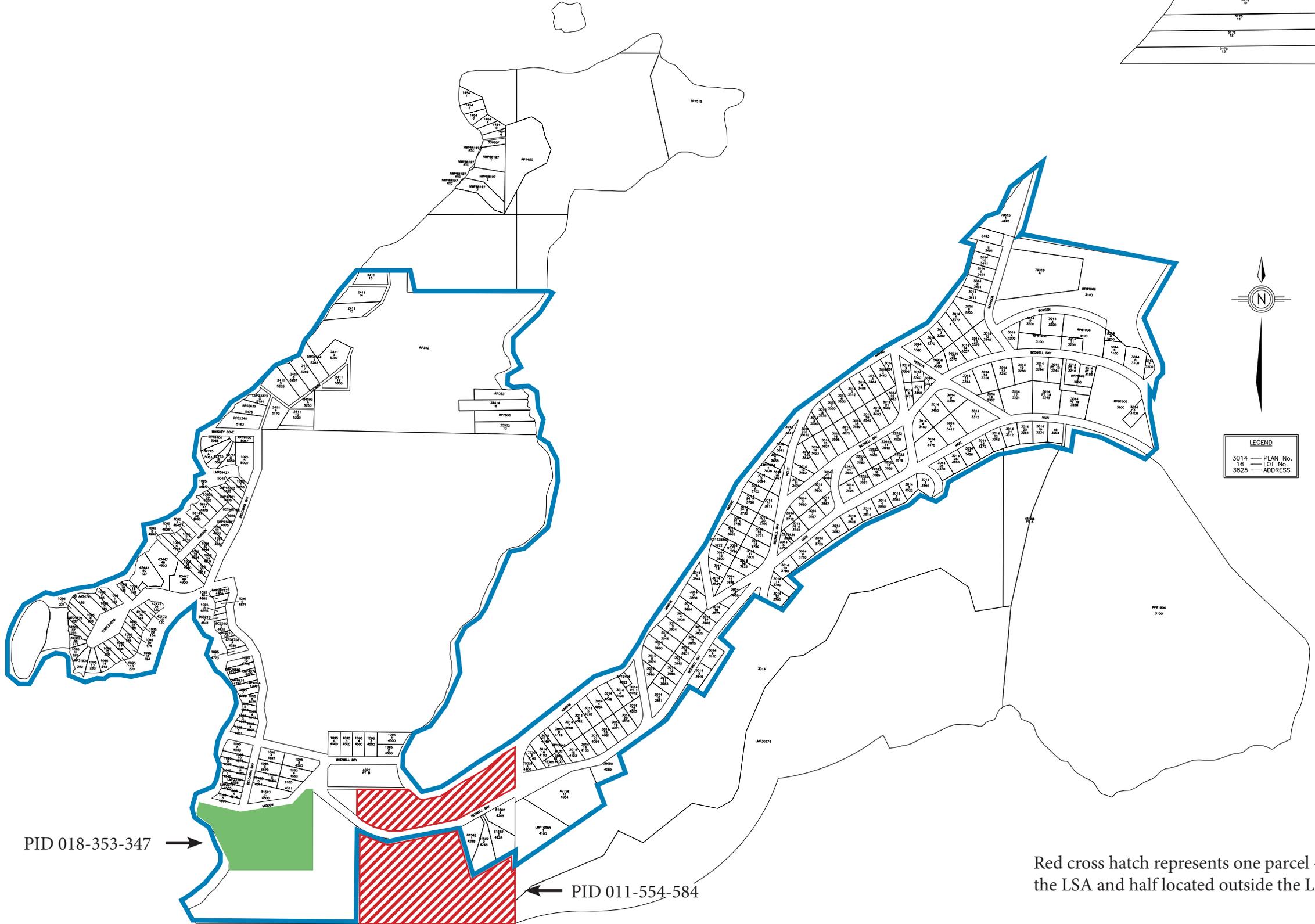
Chief Administrative Officer

515
515
515
515



LEGEND
3014 — PLAN No.
16 — LOT No.
3825 — ADDRESS

515
515
515



LEGEND
 3014 — PLAN No.
 16 — LOT No.
 3825 — ADDRESS

PID 018-353-347 →

← PID 011-554-584

Red cross hatch represents one parcel – half is located within the LSA and half located outside the LSA



COUNCIL REPORT

Date: June 10, 2019

From: Lorna Dysart, Chief Administrative Officer

Subject: **Traffic Bylaw Enforcement Update**

Recommendation

That the report from the Chief Administrative Officer dated June 10, 2019 regarding a Bylaw Enforcement Update be received for information.

Purpose

To provide Council with an update on implementation of the Traffic and Parking Enforcement Bylaw.

Background

Belcarra has experienced an increase in Parks traffic entering the Village for parking. Part of the reason for the increase is the change in parking regulations around Sasamat Lake.

Since January 2019, a total of 230 tickets were issued with 139 of those tickets issued in May. Four vehicles have been issued 2 tickets each. Ticket revenue received in 2019 is \$7, 024.40 with 133 tickets paid. Letters have been sent for nonpayment of tickets. The Collection Agency receives the names of vehicle owners that have not paid their ticket after the second warning.

The Bylaw Enforcement officer has been approved to work up to 4 hours per day on Bylaw Enforcement depending on the weather, as there are more infractions when the weather is sunny and warm.

The change to resident window decals has been seamless. Residents without prior decals complete the required form for their own vehicles or for their guests.

Street signage is frequently reviewed and the placement of signage is placed has been streamlined.

Coquitlam Towing has approval in Anmore to tow illegally parked vehicles. The process they follow is to drive through the Village and any cars that are not parked in accordance with their signage. are towed. In speaking with the manager of Coquitlam Towing, he advised that it is preferred for the tow truck drivers to have full approval to drive through the Village and tow vehicles parked illegally. If Coquitlam Towing is granted total approval, the Coquitlam Towing manager hires extra drivers for the tow trucks on weekends. If Coquitlam Towing waits for calls regarding illegally parked vehicles, the vehicle may be gone by the time the tow truck arrives at the Village. Staff agree with the towing of illegally parked vehicles in emergency turnarounds and of vehicles impeding traffic. Concerns have been expressed over granting approval to Coquitlam Towing for full towing rights. If this approval is given, Bylaw Enforcement Officer position will be reviewed.

Lorna Dysart, Chief Administrative Officer
Bylaw Enforcement Updates
June 10, 2019

Coquitlam Towing - approximate towing rates.

- A normal car that they can back up to \$220
- A larger vehicle or one that needs to go onto a dolly \$250
- Recreational vehicles at \$150/hr \$300

Alternate Recommendation

That Coquitlam Towing be granted full approval to tow illegally parked vehicles in the Village of Belcarra.



COUNCIL REPORT

Date: June 10, 2019

File No. 5600-05-05

From: Bernie Serné, ASCT, Superintendent of Public Works

Subject: 2018 Drinking Water Quality Annual Report

Recommendation:

That the 2018 Drinking Water Quality Annual Report be received for information.

Purpose:

To provide the Belcarra Water Supply and Distribution System consumers and the Fraser Health Authority with the required annual update on the 2018 analytical sampling and operational procedures (water source, supply and water quality information).

Background:

This is the seventh Drinking Water Quality Annual Report prepared by the Village of Belcarra (Belcarra) under the Water Quality Monitoring and Reporting Plan for the Metro Vancouver (MV) and Member Municipalities. It is a Provincial Health requirement to provide information on water quality and system operational procedures to its consumers.

Metro Vancouver reported that all samples collected in 2018 satisfied the bacteriological requirements of the BC Drinking Water Protection Regulation. The Village has not had any water advisories for many years. The report is provided to the Fraser Health Authority for review and comment.

Installation of an actuated Altitude Valve at the Tatlow Reservoir was completed and put in service in November of 2017. The ability to start filling the reservoir remotely or manually on demand, improves water availability for firefighting, with the ability to quickly adjust water levels. The Altitude Valve settings were adjusted and monitored in 2018 to better balance the water quality and quantity. Water sample results were subsequently reviewed, and the Altitude Valve settings were readjusted to improve water quality. Water main flushing takes place in the areas that proved to be sensitive to water stagnation.

Improvements and upgrades were made to the Tatlow reservoir. The ladder rungs were removed to prevent the potential for people from climbing onto the reservoir. Bird screening on the roof air vent was replaced and a backflow preventer installed on the overflow outlet to prevent creature access.



VILLAGE OF BELCARRA



DRINKING WATER QUALITY ANNUAL REPORT

2018

June 2019

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A. INTRODUCTION

This report is the **Seventh** Drinking Water Quality Annual Report prepared by the Village of Belcarra (Belcarra) under the Water Quality Monitoring and Reporting Plan for the Metro Vancouver (MV) and Member Municipalities. The purpose of the report is to provide Belcarra water consumers and the Medical Health Officer (MHO) with drinking water sampling test results for 2018, as well as to present background information on Belcarra concerning water supply, treatment, and specific measures being taken to protect and enhance drinking water quality as per requirements under the Drinking Water Protection Act.

B. GENERAL DESCRIPTION

The Belcarra delivers potable water to its customers via a waterworks distribution system incorporating approximately 11 Km of water mains, one pressure zone, pumping station and water storage reservoir. From the period January 1, 2018 to December 31, 2018, the water distribution system provided water to **176** of a possible 270 parcels (**65%**).

From January to December 2018, there was **65,720** cubic metres (**14,456,411** Imperial gallons) of water consumed by residents, used for flushing and water main flushing. All Belcarra's water is purchased from the Greater Vancouver Water District (GVWD), through the District of North Vancouver (DNV).

C. WATER DISTRIBUTION SYSTEM – Village of Belcarra

1. General

The Belcarra water distribution system is comprised of four networks, these are further described as:

- Village of Belcarra Marine Crossing Mains
- Reservoir Supply Main
- Village of Belcarra Water Distribution System
- Upper Pressure Zone on Main Avenue and Bedwell Bay Road

For the purposes of water quality monitoring and reporting in Belcarra, the location where water is drawn from the GVWD transmission system into the DNV system are considered “sources” for the Belcarra system.

A map of the overall water system showing the gravity and pressure zones and water quality sampling site locations is included (See Appendix A).

2. Belcarra Water Quality Testing

Sample collection to monitor bacteria levels in the Belcarra water distribution system is performed monthly on conveyance water by Belcarra staff. Four to five of the 13 sample stations are tested monthly, with all 13 sample stations being tested over a three-month period (For a list of Belcarra Sample Site Stations See Appendix B).

Samples are delivered to the Metro Vancouver laboratory for analysis and reporting. Standard bacteriological parameters analysed by the Metro Vancouver laboratory are Total Coliform, E. coli and Heterotrophic Plate Count (HPC).

The Fraser Health Authority (FHA) may take random samples from; selected sites, or areas where water quality complaints have originated, or where waterworks construction or maintenance activities are underway.

Locations of water quality sampling points in the Belcarra system are based on a guideline provided by the Regional Medical Health Officers as follows:

- i. One sampling point at “source” (supply from GVWD/DNV)
- ii. Twelve sampling points at system dead-ends or near dead-ends

Sampling frequency for presence of bacteria was completed in accordance with the recommendations provided by the Fraser Health Authority.

A table showing the Schedule for Sampling and Reporting is included (See Appendix C).

(a) Physical Parameters

Water temperature and turbidity are measured for all samples collected for bacteriological testing and are reported in the overall microbiology test results from the Metro Vancouver laboratory. Turbidity is measured in Nephelometric Turbidity Units (NTUs). Health Canada Guidelines for Canadian Drinking Water Quality sets the Aesthetic Objective for water temperature at less than or equal to 15 degrees Celsius and an upper limit of 1 NTU for turbidity. Taste, odour and turbidity are monitored on a complaint basis.

(b) Chemical Parameters

In 2018, chemical monitoring in the water distribution system was conducted for the following:

- i. **Free chlorine residual** – The Medical Health Officer has indicated that the minimum concentration for chlorine residual in a water distribution system should be 0.2 mg/L free chlorine. Free chlorine is measured at all sampling sites when bacteriological samples are collected. 2018 results of less than 0.2mg/L free chlorine totalled **10** sample occurrences of **59**. All samples had chlorine residue available to continue the disinfection of the water.
- ii. **Haloacetic acids (HAA’s)** – HAA’s are disinfection by-products. In 2008 a new Canadian standard for HAA concentrations was established in the *Guidelines for Canadian Drinking Water Quality* (GCDWQ). The Maximum Acceptable Concentration (MAC) for HAA’s is 80 ppb (based on a running annual average calculated with quarterly results for different locations within the system). In 2018, **eight** tests were carried out by the Metro Vancouver laboratory with a maximum average of **31** ppb or less. (See Appendix G)
- iii. **Trihalomethanes (THM’s)** – THM’s are disinfection by-products. The *Guidelines for Canadian Drinking Water Quality* (GCDWQ) list a Maximum Acceptable Concentration (MAC) for THM’s at 100 ppb (based on a running annual average calculated with quarterly results for different locations within the system) sampled with HAA’s. In 2018, **eight** tests were carried out by the Metro Vancouver laboratory with a maximum average of **32** or less. (See Appendix G)

- iv. **pH** – pH is a measurement under the Aesthetic Objective guidelines, with the optimal range of values between 6.5 – 8.5 pH. In 2018, **eight** tests were carried out by the Metro Vancouver laboratory with results of **7.3 – 7.7** pH. (See Appendix G)
- v. **Metals** – during 2001, the regional Medical Health Officers developed a strategy for sampling metals “at the tap”. The requirement is to sample 10% of the sample sites twice yearly for lead, copper and zinc, with sample locations consisting of a mixture of private homes and public buildings, including schools. In 2018, **eight** samples were tested. (See Appendix H)
- vi. **PAHs or BETX** – PAH’s (Polynuclear Aromatic Hydrocarbons) and BETX (Benzene, Ethylbenzene, Toluene, Xylene) are compounds associated with pipe wall lining materials in steel water mains, and usually they can only be detected in water mains newer in age than approximately five years.
(Since there are no significant lengths of PVC water main in the Belcarra System, no testing was performed for PolyVinyl Chloride in 2018.)

3. Results

Test results for bacteria, temperature, turbidity, and chlorine residual are compiled for each sample site.

1. Bacteria

A table of results of bacteriological testing of Sample Station Readings of E. coli, HPC, Total Coliform from January to December is attached (See Appendix D).

Metro Vancouver’s analysis of HPC confirmed of the **58** samples, **nine** samples exceeded Metro Vancouver’s threshold of 500 CFU/ml. The samples were taken from dead end water mains and highly dependent on the waters age and usage at the dead ends. All mains with samples over the threshold were flushed to decrease age of water in those dead end water mains.

Metro Vancouver reported that all samples collected in 2018 satisfied the bacteriological requirements of the BC Drinking Water Protection Regulation (See Appendix F).

2. Physical Parameters

In 2018, **59** samples were tested for of turbidity levels in the Belcarra water distribution system and **one** sample was greater than 1 NTU. Water temperatures ranged from a February low of **4.3°** C to an August high of **28.2°** C with **13** results above 15° C. Temperature is discussed further in the Challenges section below and measures to improve temperature readings are outlined in the 2018 Work Program below. (For Temperature and Turbidity data, See Appendix D). There were no reported concerns related to aesthetics.

3. Chemical Parameters

- i. Belcarra's source water from GVWD/DNV water transmission can be impacted by low chlorine residual levels. A real-time chlorine residual monitor is located at the Tatlow pump station and allows real time analysis and alarming for low chlorine conditions. The Belcarra chlorine residual at the Michael Rosen Water Receiving Building (Midden) averaged **0.61** mg/L. This shows that the level of chlorination continued to provide good chlorine residual levels throughout the water supply system.

In Belcarra, **10** of the **59** samples taken throughout the entire system had chlorine residual concentrations below 0.2 mg/L, the lowest one sample being **0.01** mg/L (See Appendix D). There was a **65** % increase in the number of low samples from the previous year. This is discussed further in the Challenges section below. Measures to improve Chlorine Residuals are outlined in the 2018 Work Program below.

- ii. **Haloacetic Acids (HAA's)** – Haloacetic Acids (HAA)
In Belcarra all **8** of the 2018 samples taken were below the MAC of 80 ppb/mL for this parameter (See Appendix G).
- iii. **Trihalomethanes (THMs)** – Trihalomethanes (THMs)
All **8** of the 2018 samples taken in Belcarra were below the MAC of 100 ppb/mL for this parameter (See Appendix G).
- iv. **pH** – All **8** of the samples taken were within the Aesthetic Objective guidelines of between **6.5** and **8.5** pH (See Appendix G).
- v. **Metals** – a total of **four** samples for metals, including copper, lead and zinc, were collected in 2018 for Metro Vancouver Metals Sampling Program for Belcarra (See Appendix H). All the metals tested were under the recommended maximum allowable Guideline Limits.
- vi. **PAHs or BETX** – as there are no significant lengths of Steel or PVC water mains in the Belcarra System, no testing was performed for PAHs, BETX or PolyVinyl Chloride in 2018.

4. Challenges

Chlorine residual issues generally related to flow from the Capilano source during times of high turbidity have been substantially reduced due to GVWD's operational strategy of the two sources and the performance of the filtration plant.

Maintaining chlorine residuals above the 0.20 mg/L range is supported by cold water temperature, consumption and by moving water through the utility to the consumer. The exchange of water through the reservoir and movement of water through the distribution system ensures the water will remain fresh and cool with a marginal loss in chlorine residual. Similarly, temperature and turbidity can maintain Aesthetic Objectives by the movement of water through the water distribution system. (For site specific data on chlorine residuals, See Appendix D).

Until such time as all the potential connections are made to the ends of the water main or water main branches, there is the potential for water to be held in suspension. Suspended water will result in higher HPC results. Resident consumption at the dead ends serves to ensure water is moved through the distribution system allowing for lower temperatures, higher chlorine residuals and a higher level of freshness. In the absence of consumers, water sampling ports located at the ends of water mains and branches are opened and allowed to bleed water as an operational means to move water through the water mains.

Belcarra Public Works monitors the HPC results and perform additional flushing in areas of HPC greater than 500 CFU/ml. Sampling ports are then changed to adjust the flow to improve circulation of the water main ends.

5. Work Program

2018

System maintenance, operational and emergency response refinements were made in 2018 to continue delivering water with optimum water quality. The water main cleaning program focused on unidirectional flushing in Zone 1 and Fire Hydrant Maintenance in Zone 2. The air valves of the Marine Crossing were purged monthly in the Midden building.

Improvements and upgrades were made to the Tatlow reservoir. The ladder rungs were removed to prevent people from climbing on them. The bird screening on the roof air vent was replaced and a backflow preventer installed on the overflow outlet to prevent creature access.

The Work Plan implemented a combination of measures to enhance water quality by promoting more consumers to connect to the water system or by increasing spillage rates in water main ends in areas of low or no consumer connections. An amendment to Waterworks No. Bylaw 456, 2012 with No. Bylaw 495, 2015 requires any transfer of ownership of a property to connect to the Waterworks system to be provided from the Water Services near property line which were installed during the initial construction.

Installation and monitoring of the Seismic Valve at the Tatlow Reservoir was in full service during 2018. The valve is very sensitive and needed to be cautiously calibrated so that it functions only during a seismic event, thereby closing the reservoir should there be a main failure, to prevent premature emptying. This allows the Public Works to assess any damage and to isolate and/or repair the area, so the water system can be put back into service. This would retain a source of water in the reservoir that could be used for fires, which is commonly associated with seismic events.

Installation of an actuated altitude valve at the Tatlow Reservoir was completed and put in service in November of 2017. The ability to start filling the reservoir remotely or manually on demand, improves water availability for firefighting with the ability to quickly adjust water levels. The altitude valve settings were adjusted and then monitored in 2018 to better balance the water quality and quantity. Water sample results were subsequently reviewed, and the altitude valve settings were readjusted to improve water quality. Water main flushing took place in the areas that are sensitive to water stagnation.

Continual routine monitoring and testing of the generator and fire pump at the Tatlow Building is done weekly to ensure they will be available in an emergency. The diesel fuel for all generators and the fire pump were scrubbed to ensure the quality of the fuel and to deter fouling. Diesel can go off over time and should be scrubbed on a five-year cycle. Surveillance video cameras have been added to further enhance security of the facilities. Real time visual monitoring of utility equipment and exterior of the buildings complements remote monitoring of the utility.

2019

System maintenance, operational and emergency response refinements will continue to be made in 2019 for delivering water with optimum water quality. The 2019 water main cleaning program will focus on unidirectional flushing of Zone 2 & Fire Hydrant Maintenance of Zone 1.

A more aggressive schedule of maintenance of the filter screen at the Strathcona chamber in the District of North Vancouver (DNV) was established and high turbidity alerts critically assessed for this concern. Belcarra has contacted DNV Water Operators and have established protocols on how to work together in an emergency, deal with a breach of the system and alerts during periods of high flows in Belcarra.

Tatlow reservoir is budgeted for inspection by a Remotely Operated Vehicle to check for cleanliness and damage.

The rock armouring protection at the foreshore in Belcarra has been eroded away and will require replacement in 2019 to protect the main from damage and heating. Coordination of the pending works commenced in 2018 with applications to; Vancouver Fraser Port Authority representing the Department of Fisheries, Ministry of Forests, Lands, Natural Resource Operations and the People of the River Referrals Office representing First Nations and the Tsleil-Waututh Nation were directly contacted. A Qualified Environmental Professional and Archaeologist have been retained to ensure compliance of all permits and conditions.

In addition, there are Water Main extensions that could be made to the water distribution system, which could increase water circulation and fire flows by looping dead end mains, as the opportunities present. Strides were made in future connection of the Metro Vancouver Belcarra Park picnic area which may improve water circulation and quality.

D. INCIDENTS/SIGNIFICANT COMPLAINTS

Protocols were refined to improve and coordinate Belcarra, Sasamat Volunteer Fire Department and District of North Vancouver requirements in a fire event.

Nine HPC samples were above and **ten** Chlorine sample were below the recommended guidelines. Public Works flushed those water mains until turbidity subsided and chlorine levels were elevated. Water main bleed rates at the water samplers were then increased on the deficient water main ends to reduce stagnation.

E. GENERAL WATER ADVISORIES

There have not been any water advisories for many years.

F. OPERATOR TRAINING/QUALIFICATIONS

In 2012 Environmental Operators Certification Program (EOCP) advised Belcarra, the water system would be classified as a Level 1 based on 270 connections. Belcarra currently has two water distribution system Operators with Level 1 operator's certification from the EOCP, keeping Belcarra in full compliance with the regulation. Continuing education of the water distribution system Operators ensures their relevant knowledge of operating a water system as they work towards their Level 2 certification.

G. SECURITY MEASURES

Some of the security features at Belcarra include:

- Locked accesses to the reservoir with the ladder removed
- Exterior lighting and fencing for the water receiving building at Midden
- Dual locking mechanisms to enter the Midden and pump station buildings
- Door alarms at Strathcona chamber & kiosk, and Midden & Tatlow buildings
- iPhone intrusion alarm at the Strathcona chamber to the District of North Vancouver
- CCTV cameras at Public Works, Midden building, Tatlow reservoir and pump station

H. NOTIFICATION AND EMERGENCY RESPONSE PLAN

Notification Requirements

The notification process for unusual situations that could potentially affect water quality is shown in Appendix I.

I. LIST OF APPENDICES

Appendix A

Map of Belcarra Water System, Sampling Site Locations and Pressure Zones and Free Chlorine Residual data per Site

Appendix B

List of Belcarra Sample Site Locations

Appendix C

Schedule for Belcarra Sampling and Reporting

Appendix D

Belcarra Sample Station Readings of Temperature, E. coli, HPC, Total Coliform, Turbidity and Free Chlorine

Appendix E

Belcarra Monthly HPC Counts

Appendix F

Metro Vancouver Results of Bacteriological Analysis of Belcarra Potable Water Samples

Appendix G

Metro Vancouver Quarterly THMs, HAAs, and pH

Appendix H

Metro Vancouver Annual Metals Sampling Program

Appendix I

Notification for Unusual Situations Potentially Affecting Water Quality

Daily Drinking Water Testing by Metro Vancouver

<http://www.metrovancouver.org/services/water/quality-facilities/testing-reporting/Pages/default.aspx>

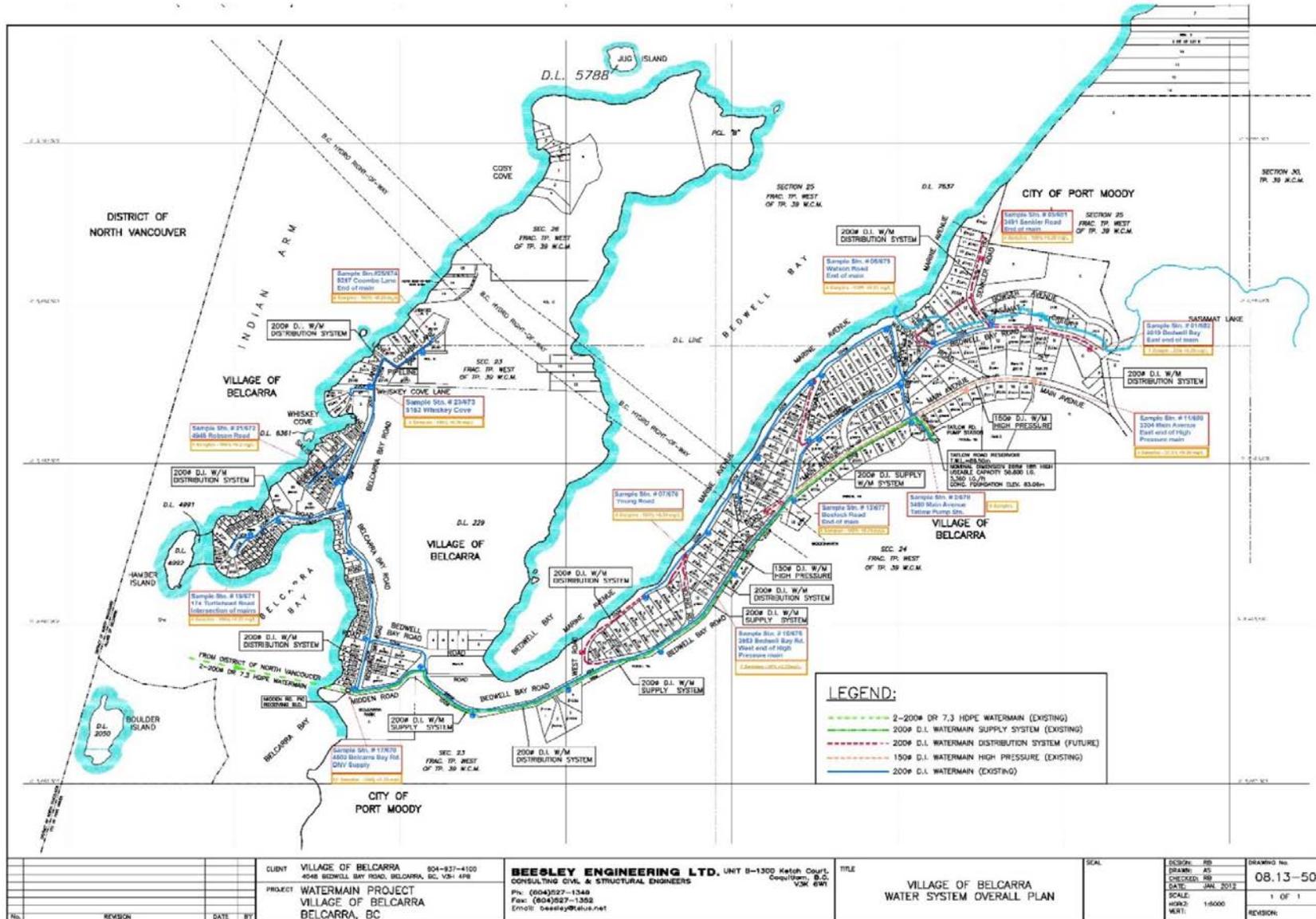
District of North Vancouver Annual Water Quality Report

<https://www.dnv.org/our-government/annual-report>

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Appendix A

Map of Belcarra Water System, Sampling Site Locations and Pressure Zone



Appendix B

List of Belcarra Sample Site Locations

Station No.	Lab BLC No.	Location	Flow Rate	No. of samples taken in 2018
#17	670	4503 Belcarra Bay (Midden Supply GVWD\DNV)	Source	12
#19	671	174 Turtlehead Road	Low	3
#21	672	4945 Robson Road	Low	3
#23	673	5163 Whiskey Cove Lane	Low	3
#25	674	5297 Coombe Lane	Dead End	3
#15	675	3953 Bedwell Bay Road - High Pressure Zone (West)	Dead End	5
#07	676	Young Road	Low	5
#13	677	Bostock Road	Dead End	4
#02	678	3480 Main Avenue (Tatlow Pump Station)	Reservoir	0
#05	679	Watson Road	Dead End	5
#11	680	3204 Main Avenue – High Pressure Zone (East)	Dead End	7
#03	681	3491 Senkler Road	Dead End	4
#01	682	3819 Bedwell Bay Road – East end of Gravity Main	Dead End	5

Appendix C

Schedule for Belcarra Sampling and Reporting for 2018

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<u>DISTRIBUTION SYSTEM SAMPLING</u>												
Temperature, E. coli, HPC, Total Coliform, Turbidity, & Free Chlorine Residuals (Monthly)	X	X	X	X	X	X	X	X	X	X	X	X
HAA's, THM's, pH (Quarterly)		X			X			X			X	
Metals: Copper, Lead, Zinc (Biannually)						X						X
<u>NOTIFICATION</u>												
2018 Annual Report:												
Annual Report sent to MHO						X						
MHO to send Council response							X					
Staff Report to Council						X						
Posted on Web						X						

Appendix D

Belcarra Sample Station Readings of; Chlorine Free, E. coli, HPC, Temperature, Total Coliform, and Turbidity

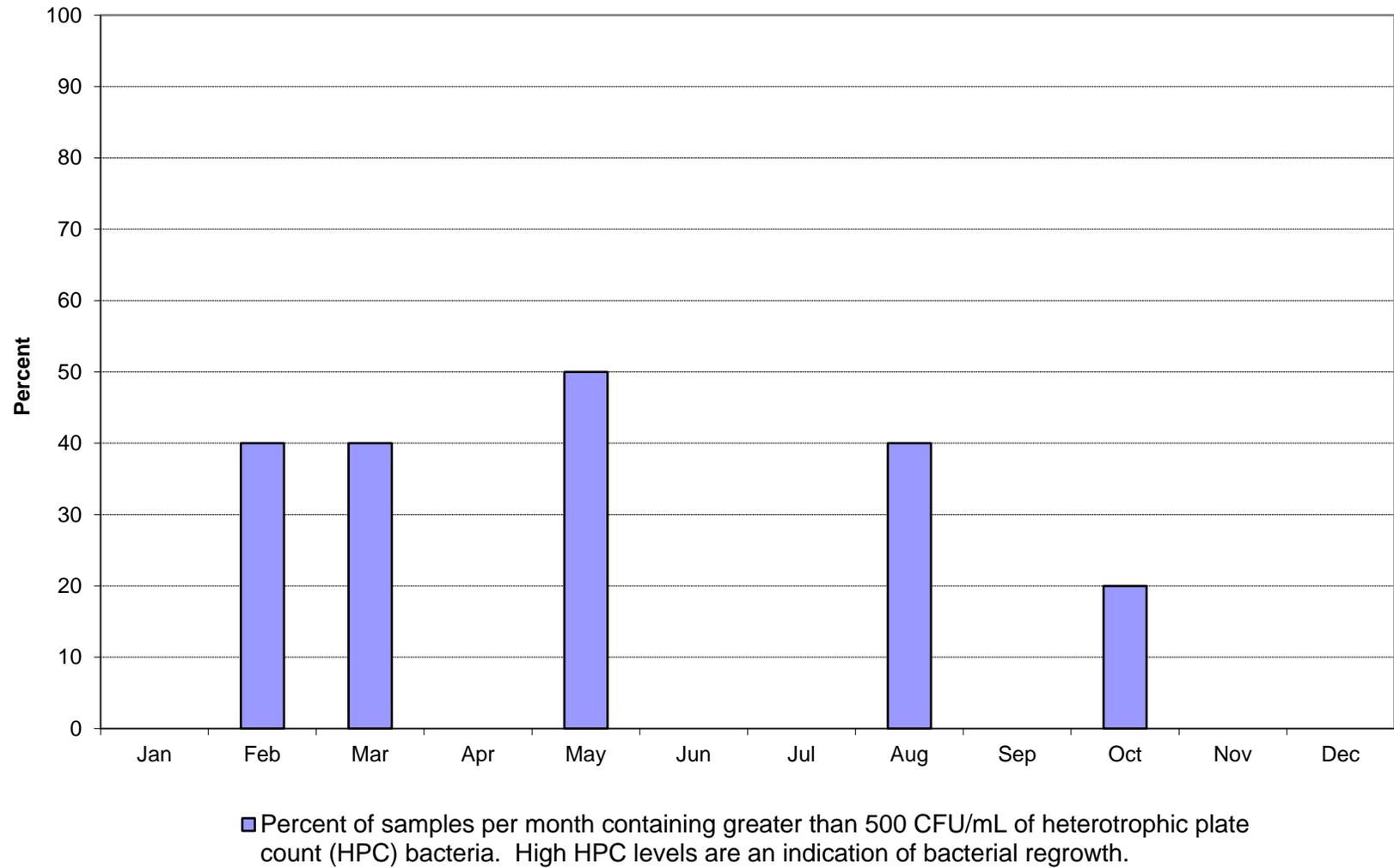
Sample Description	Sampled date	Chlorine Free (mg/L)	E. coli (MF/100 mLs)	HPC (CFU/mL)	Temperature (°C)	Total Coliform (MF/100 mLs)	Turbidity (NTU)
4503 Belcarra Bay Road	11-Jan-18	0.68	<1	<2	7.8	<1	0.37
174 Turtlehead Road	11-Jan-18	0.54	<1	<2	6.7	<1	0.20
4945 Robson Road	11-Jan-18	0.39	<1	230	6.6	<1	0.16
5163 Whiskey Cove Lane	11-Jan-18	0.53	<1	26	6.1	<1	0.37
5297 Coombe Lane	11-Jan-18	0.54	<1	<2	6.1	<1	0.20
4503 Belcarra Bay Road	15-Feb-18	0.65	<1	<2	7.4	<1	0.17
3819 Bedwell Bay Road	15-Feb-18	0.39	<1	<2	5.2	<1	0.23
3491 Senkler Road	15-Feb-18	0.45	<1	4	5.8	<1	0.61
3204 Main Avenue	15-Feb-18	0.04	<1	>11,000	4.3	<1	0.32
Bostock Road	15-Feb-18	0.04	<1	2,900	5.4	<1	0.29
4503 Belcarra Bay Road	14-Mar-18	0.54	<1	4	7.1	<1	0.15
3953 Bedwell Bay Road	14-Mar-18	0.07	<1	4,800	5.6	<1	0.14
Young Road	14-Mar-18	0.51	<1	<2	6.1	<1	0.60
Watson Road	14-Mar-18	0.01	<1	9,600	5.3	<1	0.30
3819 Bedwell Bay	14-Mar-18	0.64	<1	<2	4.8	<1	0.13
4503 Belcarra Bay Road	10-Apr-18	0.70	<1	<2	8.5	<1	0.21
174 Turtlehead Road	10-Apr-18	0.43	<1	<2	8.7	<1	0.19
4945 Robson Road	10-Apr-18	0.46	<1	4	8.5	<1	0.22
5163 Whiskey Cove Lane	10-Apr-18	0.37	<1	10	7.8	<1	0.21
5297 Coombe Lane	10-Apr-18	0.35	<1	<2	7.3	<1	0.13
4503 Belcarra Bay Road	8-May-18	0.73	<1	2	9.6	<1	0.14
Bostock Road	8-May-18	0.03	<1	1,900	9.5	<1	0.32
3204 Main Avenue	8-May-18	0.35	<1	>11,000	13.0	<1	1.10
3491 Senkler Road	8-May-18	0.52	<1	4	13.2	<1	0.15
3819 Bedwell Bay Road	8-May-18	0.44	<1	LA [There was no plate spread]	12.1	<1	0.17
4503 Belcarra Bay Road	15-Jun-18	0.70	<1	<2	12.0	<1	0.21
3953 Bedwell Bay Road	15-Jun-18	0.10	<1	14	13.4	<1	0.16

3204 Main Avenue	15-Jun-18	0.35	<1	32	16.5	<1	0.21
Watson Road	15-Jun-18	0.65	<1	<2	16.2	<1	0.70
Young Road	15-Jun-18	0.70	<1	64	15.9	<1	0.24
4503 Belcarra Bay Road	11-Jul-18	0.73	<1	4	12.8	<1	0.20
Young Road	11-Jul-18	0.64	<1	14	17.4	<1	0.22
Watson Road	11-Jul-18	0.57	<1	<2	16.2	<1	0.29
3953 Bedwell Bay Road	11-Jul-18	0.34	<1	64	15.3	<1	0.19
4503 Belcarra Bay Road	15-Aug-18	0.72	<1	2	15.0	<1	0.14
Bostock Road	15-Aug-18	0.07	<1	>11,000	14.9	<1	0.56
3204 Main Avenue	15-Aug-18	0.13	<1	>11,000	23.2	<1	1.00
3491 Senkler Road	15-Aug-18	0.44	<1	<2	19.8	<1	0.18
3819 Bedwell Bay	15-Aug-18	0.56	<1	<2	19.8	<1	0.15
4503 Belcarra Bay Road	13-Sep-18	0.63	<1	4	14.3	<1	0.13
Young Road	13-Sep-18	0.58	<1	8	16.9	<1	0.19
Watson Road	13-Sep-18	0.59	<1	2	15.9	<1	0.27
3204 Main Avenue	13-Sep-18	0.47	<1	490	18.0	<1	0.16
3953 Bedwell Bay Road	13-Sep-18	0.50	<1	26	15.9	<1	0.10
4503 Belcarra Bay Road	11-Oct-18	0.60	<1	<2	12.4	<1	0.23
174 Turtlehead Road	11-Oct-18	0.24	<1	10	13.8	<1	0.20
4945 Robson Road	11-Oct-18	0.23	<1	20	14.2	<1	0.17
5163 Whiskey Cove Lane	11-Oct-18	0.22	<1	370	13.8	<1	0.15
5297 Coombe Lane	11-Oct-18	0.11	<1	1,800	12.7	<1	0.40
4503 Belcarra Bay Road	14-Nov-18	0.66	<1	<2	10.5	<1	0.15
3204 Main Avenue	14-Nov-18	0.39	<1	<2	9.5	<1	0.15
3491 Senkler Road	14-Nov-18	0.34	<1	<2	10.3	<1	0.17
3819 Bedwell Bay Road	14-Nov-18	0.39	<1	2	9.6	<1	0.16
Bostock Road	14-Nov-18	0.46	<1	4	10.1	<1	0.15
4503 Belcarra Bay Road	13-Dec-18	0.62	<1	<2	8.6	<1	0.10
3953 Bedwell Bay Road	13-Dec-18	0.09	<1	34	7.6	<1	0.25
3204 Main Avenue	13-Dec-18	0.36	<1	<2	5.5	<1	0.16
Young Road	13-Dec-18	0.53	<1	6	5.5	<1	0.16
Watson Road	13-Dec-18	0.41	<1	4	6.9	<1	0.59

LA= Lab Accident

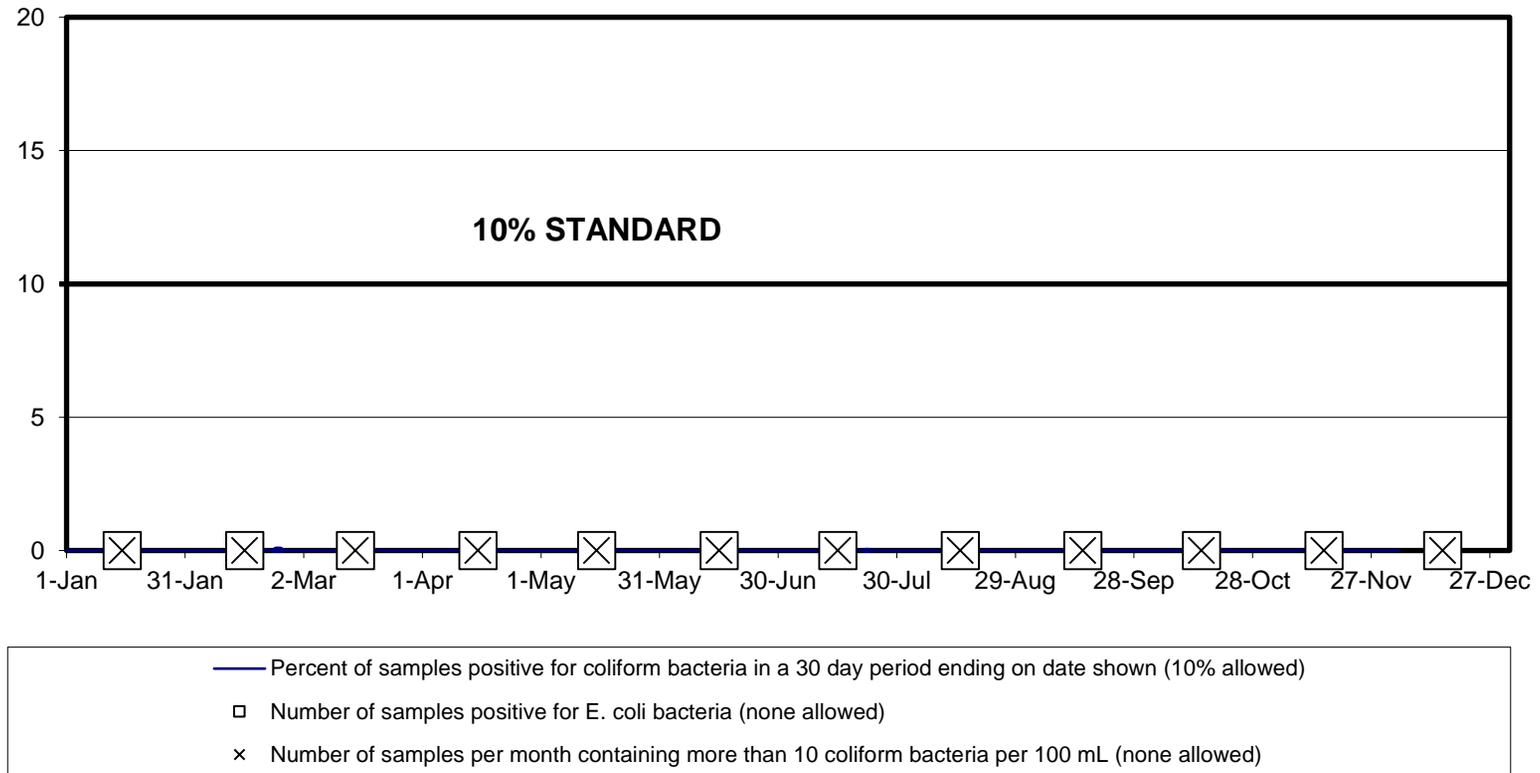
Appendix E

Village Of Belcarra - Monthly Hpc Counts For 2018



Appendix F
Village Of Belcarra - 2018

**Results of Bacteriological Analyses of Potable Water Samples
 Compliance With BC Drinking Water Protection Regulation**



Appendix G

Metro Vancouver Quarterly THMs, HAAs, and pH Results of Bacteriological Analysis

Date Sampled	THM (ppb)						HAA (ppb)							Extras
	Bromodichloromethane	Bromoform	Chlorodibromomethane	Chloroform	Total Trihalomethanes		Dibromoacetic Acid	Dichloroacetic Acid	Monobromoacetic Acid	Monochloroacetic Acid	Trichloroacetic Acid	Total Haloacetic Acid		pH units pH
2018-02-15	<1	<1	<1	21	23		<0.5	12	<1	<2	14.4	28.5		7.3
2018-02-15	<1	<1	<1	26	28		<0.5	15	<1	<2	16.8	33.9		7.6
2018-05-30 10:15	<1	<1	<1	21	23		<0.5	11	<1	<2	10.1	22.7		7.5
2018-05-30 10:25	<1	<1	<1	30	32		<0.5	14	<1	<2	15.7	32.0		7.7
2018-08-08 11:40	<1	<1	<1	20	21		<0.5	6	<1	<2	4.5	12.2		7.5
2018-08-08 11:50	<1	<1	<1	23	23		<0.5	10	<1	<2	9.2	20.8		7.5
2018-11-19 08:50	1	<1	<1	38	39		<0.5	15	<1	<2	13.3	30.9		7.4
2018-11-19 09:10	1	<1	<1	44	45		<0.5	18	<1	<2	18.2	38.6		7.5

Appendix H

Metro Vancouver Annual Metals Sampling Program

		BLC-670	BLC-682	BLC-670	BLC-682	Canadian Guideline Limit	Reason Guideline Established
	Sample Description	4503 Belcarra Bay Road	3819 Bedwell Bay Road	4503 Belcarra Bay Road	3819 Bedwell Bay Road		
	Sample Date	6/11/2018 9:05	6/11/2018 9:20	12/5/2018 9:25	12/5/2018 9:41		
	Sample Type	GRAB	GRAB	GRAB	GRAB		
Aluminium Total	µg/L	26	25	43	36	200	aesthetic
Antimony Total	µg/L	<0.5	<0.5	<0.5	<0.5	6	health
Arsenic Total	µg/L	<0.5	<0.5	<0.5	<0.5	10	health
Barium Total	µg/L	2.7	3.2	3.2	3.8	1,000	health
Boron Total	µg/L	<10	<10	<10	<10	5,000	health
Cadmium Total	µg/L	<0.2	<0.2	<0.2	<0.2	5	health
Calcium Total	µg/L	4,790	4,980	4,640	4,910	none	
Chromium Total	µg/L	<0.05	<0.05	<0.05	<0.05	50	health
Cobalt Total	µg/L	<0.5	<0.5	<0.5	<0.5	none	
Copper Total	µg/L	3.9	5.6	<0.5	5.8	≤1,000	aesthetic
Iron Total	µg/L	<5	9	10	14	≤ 300	aesthetic
Lead Total	µg/L	<0.5	<0.5	<0.5	<0.5	10	health
Magnesium Total	µg/L	144	145	127	135	none	
Manganese Total	µg/L	1.1	0.9	0.9	1.4	≤ 50	aesthetic
Mercury Total	µg/L	<0.05	<0.05	<0.05	<0.05	1.0	health
Molybdenum Total	µg/L	<0.5	<0.5	<0.5	<0.5	none	
Nickel Total	µg/L	<0.5	<0.5	<0.5	<0.5	none	
Potassium Total	µg/L	132	142	140	165	none	
Selenium Total	µg/L	<0.5	<0.5	<0.5	<0.5	50	health
Silver Total	µg/L	<0.5	<0.5	<0.5	<0.5	none	
Sodium Total	µg/L	1,300	1,330	1,400	1,440	≤ 200,000	aesthetic
Zinc Total	µg/L	5.1	3.6	<3.0	4.2	≤ 5,000	aesthetic

Appendix I

Notification for Unusual Situations Potentially Affecting Water Quality

Situation	Notifying Agency	Agency Notified	Time Frame for Notification
E. coli – positive sample	MV Laboratory or BC Centre for Disease Control	Belcarra and Fraser Health Authority	Immediate
Total Coliform over 10 mg/L and no Free Chlorine Residual	Belcarra	Fraser Health Authority	Immediately upon receipt of sample test results
Chemical Contamination	Belcarra	Fraser Health Authority	Immediate
Turbidity > 5 NTU	MV Laboratory or GVWD Operations	Belcarra and Fraser Health Authority	Immediate
GVWD Disinfection failure	GVWD Operations	Belcarra and Fraser Health Authority	Immediate in any situation in which the BCSDWR or the GCDWQ may not be met
Loss of pressure due to high demand	Belcarra	DNV Operations and Fraser Health Authority	Immediate
Water main break in Belcarra, where contamination is suspected	Belcarra	Fraser Health Authority	Immediate
Water main break in DNV, where contamination is suspected	DNV	Belcarra and Fraser Health Authority	Immediate

REPORT PREPARED BY:

Bernie Serné, ASCT
Superintendent Public Works

Village of Belcarra
4084 Bedwell Bay Road
Belcarra, BC V3H 4P8
Canada



COUNCIL REPORT



Date: June 10, 2019
From: Bernie Serné, ASCT, Superintendent of Public Works
Subject: **Bus Stop Lighting, 2019 TRIPP Funding Grant**

Recommendation

That the Bus Stop Lighting, 2019 Transit Related Road Infrastructure Program (TRIPP) funding grant report, be received for information.

Background

Staff were requested to determine the cost estimates for lighting at the Bus Stops. Staff applied for the 2019 TRIPP funding grant in February at an estimated cost of \$220,000, based on a 50/50 cost sharing program for 8 street lights.

Coast Mountain Bus Company (CMBC) may approve funding of either 2 or 3 bus stop lights this year based on a 50/50 cost sharing basis with the remaining lights included in the program for 2020. The grant will only proceed with a 50/50 cost sharing arrangement. Two of the bus stops have been relocated onto Bedwell Bay Road.

Conclusion

The cost of street lighting for 2 to 3 bus stops in 2019 would be \$55,000 to \$82,000, at the Village cost of \$28,000 to \$42,000. The 2019 approved budget set aside \$200,000 for bus stop lighting.

Options

Proceed with the CMBC 50/50 funding grant program and seek other funds to reduce the Village share.

Wait for approval of a potential 75/25 rural grant formula.



COUNCIL REPORT



Date: June 10, 2019
From: Bernie Serné, ASCT, Superintendent of Public Works
Subject: Removal of Abandoned Improvements – Across the Road from the 4116 Marine Avenue Riparian Zone

Recommendation

That the abandoned gate and stairway fronting 4116 Marine Avenue be removed; and
 That the affected lands be allowed to return to their natural state.

Background

The 4116 Marine Avenue property has changed owners. The Former owners had a Highway Encroachment Agreements (HEA) for this stairway that expired.

Located within the Marine Avenue riparian is a gate overgrown with blackberry bushes, plus an abandoned stairway and paths to the foreshore which were considered private for the purpose of Private access to the beach. The HEA insurance expired in 2017. HEA fees have not been kept up to date, and the stairway is in poor condition. These improvements were formally assigned to the property owner at 4116 Marine through the execution of a HEA.

Abandoned Foreshore Access (photos # 1 & 2)

The stair access has deteriorated to the point of being unrepairable and unsafe for use. The access gate to the stairs has been locked and closed to the public and needs to be removed.

Photo # 1 Gate

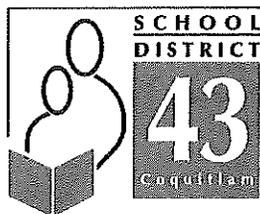


Photo #2 Stairway



Conclusion

Removal of abandoned gate and stairway is recommended.



Learning for a Lifetime

550 Poirier Street, Coquitlam, BC Canada V3J 6A7 • Phone: 604-939-9201 • Fax: 604-939-7828

FILE NO. 0460-01

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Port Moody, BC V3H 3E1

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Village of Belcarra
4084 Bedwell Bay Road
Belcarra, BC V3H 4P8

John McEwen, Mayor and Council
Village of Anmore
2697 Sunnyside Road
Anmore, BC V3H 5G9

November 26, 2018

Re: Child Care Task Force

Dear Mayors and Councillors,

I would like to offer congratulations on behalf of the Board of Education on your election, or re-election, to your respective local governments. The Board and I look forward to continuing to strengthen our existing relationships with our municipal partners.

Prior to the election we sent your Council a request to appoint one elected representative and one staff representative to a Child Care Task Force.

While we have responses from some municipalities, we are following up on our October 9, 2018 request and look forward to working with you on this important matter.

Yours truly,

SCHOOL DISTRICT NO. 43 (COQUITLAM) BOARD OF EDUCATION

Barb Hobson
Chair, Board of Education

cc: Board of Education
Patricia Gartland, Superintendent of Schools
Chris Nicolls Secretary-Treasurer/CFO

FILE NO. 7200-02

**Sasamat Volunteer Fire Department
Board of Trustees**

RECEIVED

Thursday, April 18, 2019
7:00 – 9:00 PM
Anmore Firehall
2690 East Road, Anmore

MAY 24 2019

Chair:	Councillor Darrell Penner	MV Board	P
Members:	Mayor Neil Belenkie	Village of Belcarra	P
	Councillor Bruce Drake	Village of Belcarra	P
	Councillor Liisa Wilder	Village of Belcarra	P
	Mayor John McEwen	Village of Anmore	P
	Councillor Kim Trowbridge	Village of Anmore	P
	Councillor Paul Weverink	Village of Anmore	P
Staff:	Fire Chief Jay Sharpe	Fire Chief	P
	Greg Smith	CTO, Corporate Services, Metro Vancouver	P
	Donna Brown	GM HR and Corporate Services, Metro Vancouver	P
Note Taker:	Jennifer Arabsky	Metro Vancouver	P
Guest(s):	Kimberly Johnston	Johnston Davidson Architecture and Planning Inc.	P
	John Botelho	Johnston Davidson Architecture and Planning Inc.	P
	Carol Mason	CAO, Metro Vancouver	P
	Phil Trotsuk	CFO, Metro Vancouver	P

MINUTES

Call to order 7:17pm

Item #	Item	Status
1.	<p><u>Approval of Agenda</u> MOTION: to approve the Agenda as distributed.</p> <p>Moved and seconded.</p>	Carried
2.	<p><u>Adoption of the Minutes</u> MOTION: to approve the September 27, 2018 Regular Meeting Minutes as distributed.</p> <p>Moved and seconded.</p>	Carried

3. **Invited Presentation**

- Kimberly Johnston and John Botelho of Johnston Davidson Architecture and Planning Inc. provided a presentation on their Condition and Needs Assessment Report updating the current plans and rough costs regarding the Anmore and Belcarra Fire Halls.

The scope of the project was to: observe and document the current functional components of the fire hall facility; assess the building for “gap” between industry standards and current conditions; provide high level costing based on current industry pricing to help give project development financial perspective; and to outline this in a detailed report.

Current fire halls: do not meet BC Building Code; have limited physical space; lack personal protective equipment storage; and do not have enough washroom facilities for firefighters.

Current proposed options with rough costing (not including soft costs, geo-technical surveys, etc.):

Anmore

Option 1: \$4,260,000: Includes a renovated firehall quarters and addition of a new operational spine and apparatus bay with tandem drive through bay including a new connection between the two buildings. Consideration may be given to determining possibility of relocating the Sunnyside Road access closer to, or on, the BC Hydro Right of Way to permit a better entry of apparatus to rear bays.

Option 2: \$ 3,185,000: Includes a renovated firehall quarters and addition of a new apparatus bay with drive through bays including a new connection between the two buildings. Driveway would be clear of BC Hydro’s Right of Way in this option.

Option 3: \$5,480,000: Includes a new one storey firehall quarters and a new apparatus bay with tandem drive through bay. Driveway would encroach on BC Hydro’s Right of Way.

Option 4: \$5,480,000: Includes a new smaller footprint one and two storey firehall quarters and a new operational spine and apparatus bay with tandem drive through bay. Driveway would encroach on BC Hydro’s Right of Way.

Belcarra

Option 1: \$1,750,000: New operational spine and apparatus bay on a new site. Challenges with grade, will require retaining walls. Can keep the old facility operational while construction takes place.

Option 2: \$1,848,000: New operational spine and apparatus bay on the old site – this would require full demolition of the existing facility prior to new construction.

**Sasamat Volunteer Fire Department
Board of Trustees**

April 18, 2019

Page 3

	<p>Discussion took place on potentially adding accommodations, noted was the firm has seen this before and it should be possible if appropriate permits are available.</p> <p>Noted was all new construction would be to Post Disaster Standards, renovations would not. Discussed was the potential to bring to compliance the renovated pieces, but noted was the cost to bring to code all the deficiencies likely outweigh a new compliant build, potential to phase building to distribute costs over time (Anmore: build Option 1, then later build new hall).</p> <p>Trip being considered by Trustees to Bowen Island to review their hall plans.</p>	<p>Received for information</p>
<p>4.</p>	<p><u>Metro Vancouver Updates</u> Introduction of Guests</p> <ul style="list-style-type: none"> • Greg Smith, Chief Technology Officer, Corporate Services, Metro Vancouver introduced Carol Mason, Chief Administrative Officer and Phil Trotsuk, Chief Financial Officer of Metro Vancouver as presenters. <p>Greg provided a quick overview of the current funding, financial plan and allocation of centralized cost followed by Phil's review of the potential firehall upgrade costs and household impacts. Noted was these were different from the architects cost as estimates for soft cost, geotechnical cost, etc. were added in. Builds should be considered in next five-year financial plan and with potential to start contributing to a reserve. Carol provided an overview on the bylaws as well as considerations and next steps. Discussion took place on potential formulas, and timeline reviews for amendment, for funding.</p> <p>Noted was a borrowing bylaw would be required, and a referendum to commit. A communications strategy would be useful to have community support. It was confirmed that this would not add to municipal debt, it would be SVFD debt. A call to UBCM for potential rural grant options should take place. A joint council meeting will need to take place to discuss a formula for funding to move forward.</p>	<p>Received for information</p>
<p>5.</p>	<p><u>Fire Chief's Report</u> Equipment</p> <ul style="list-style-type: none"> • Ladder 7 is in limited service as driver training and ladder training is ongoing. • ATV Trailer retired due to deterioration, will use a flat bed in future to tow. <p>Halls and Grounds</p> <ul style="list-style-type: none"> • Belcarra fire hall repairs completed on budget. <p>Training</p> <ul style="list-style-type: none"> • FR3 training being completed. • Only one new recruit in training as at capacity. 	

**Sasamat Volunteer Fire Department
Board of Trustees**

April 18, 2019

Page 4

	<ul style="list-style-type: none"> • Training Officer is booked for annual BC Training Officers conference. <p>Public Education</p> <ul style="list-style-type: none"> • Ongoing fire hall tours are taking place with various school age groups. • Melissa Cooke has expressed an interest in a Public Education role for the department. <p>Old Business</p> <ul style="list-style-type: none"> • Rogers Cell tower on the Anmore Hall site - excellent way to increase the effectiveness of radio system. When priced a new radio tower for the site, it was in excess of \$200,000 for a tower that was not nearly as tall. Anmore and Belcarra will take to a joint council meeting for discussion. <p>Reports and Information</p> <ul style="list-style-type: none"> • Total of 30 calls as of the report date of April 11, 2018, 4 call since report. Noted was the largest event was a structure fire, big save (likely largest save in last 20 years). Challenges with E-Comm dispatch delay reviewed resulting in mass training taking place for dispatchers re: SVFD and area of service. • 2018 Call out stats were 98 total calls with 51% being MESA. 80% of the calls were in Anmore and 20% in Belcarra. Despite changes in the BCAS call managing system, slight increase still seen in the number of medical calls. Increase can be directly related to the increase in the elderly population. Noted was there were still a number of unconfirmed ambulance sightings in both Villages where the fire department was not called. Noted was BCAS changes are being reviewed. Potential for public education component to address. Also noted was changes would require changes to the E-Comm Policy and Procedures Manual which needs to be done through a MV Board vote. • Both the Anmore District Chief and Belcarra District Chief have taken extended leaves of absences from the department. Sophie helping with Dave's paperwork in his absence and receiving a portion of his compensation. • Captain Colin Richardson appointed to the position of Belcarra District Chief. • Promoted Jason Sadler to Captain, Doug Bakker to lieutenant and Britt Andersen to lieutenant. • Captain David Speakman awarded with his 25-year long service medal from the Office of the Fire Commissioner. <p>MOTION: to receive the Fire Chief's Report</p> <p>Moved and seconded.</p>	
6.	<p><u>New Business</u> Introduction of new Metro Vancouver SVFD representative</p>	

Carried

**Sasamat Volunteer Fire Department
Board of Trustees**

April 18, 2019

Page 5

	<ul style="list-style-type: none">• Greg Smith, Chief Technology Officer, Corporate Services, Metro Vancouver introduced himself as the new Metro Vancouver SVFD representative.	Information
7.	<u>Next Meeting</u> <ul style="list-style-type: none">• The next meeting will be at the call of the Chair.• Adjournment.	Information

Meeting Adjourned at 9:28 pm



Jonathan X. Coté
Mayor



May 8, 2019

Mayor and Council
Village of Belcarra
4084 Bedwell Bay Road
Belcarra, BC V3H 4P8

FILE NO. 7010-03

Dear Mayor Belenkie and Council,

Re: E-Comm Board of Directors Designate – 2018-2019 Term

At a meeting on May 6, 2019, New Westminister City Council passed the following resolution:

THAT the City of New Westminister send a letter to the City of Burnaby, City of Coquitlam, City of Port Coquitlam, City of Port Moody and the Village of Belcarra requesting that they consider the gender and diversity of the appointees to the E-Comm Board, and notify them that the City of New Westminister is unable to support two male nominations.

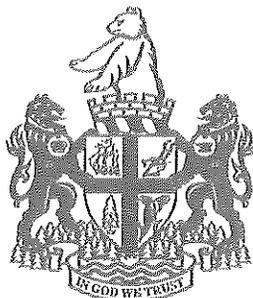
If you have any questions about this or would like more information, please contact City Clerk Jacque Killawee at jkillawee@newwestcity.ca or 604-515-3764.

Yours truly,

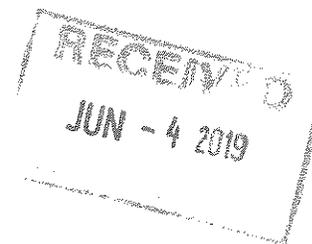
A handwritten signature in black ink, appearing to be "Jonathan X. Coté".

Jonathan X. Coté
Mayor

Cc: City of Burnaby
City of Coquitlam
City of Port Coquitlam
City of Port Moody
Lorna Dysart, Chief Administrative Officer, ldysart@belcarra.ca



Jonathan X. Côté
Mayor



May 30, 2019

Mayor and Council
Village of Belcarra
4084 Bedwell Bay Road
Belcarra, BC V3H 4P8

FILE NO-7010-03

Dear Mayor Belenkie and Council,

Re: E-Comm Board of Directors Designate – 2019-2020 Term

At a meeting on May 27, 2019, New Westminister City Council passed the following resolution:

THAT the City of New Westminister supports gender and diversity in the E-Comm board.

THAT the City of New Westminister proposes two-year terms for appointees.

THAT the City of New Westminister supports the nomination of Brent Amundsen for the 2019-2020 term only.

THAT Council direct staff to communicate these resolutions to the City of Burnaby, City of Coquitlam, City of Port Coquitlam, City of Port Moody, the Village of Belcarra and E-Comm.

THAT the City of New Westminister request that E-Comm establish a gender and diversity mandate for municipal members and inform E-Comm that the City of New Westminister will not be appointing further members to the E-Comm Board until such time.

If you have any questions about this or would like more information, please contact City Clerk Jacque Killawee at jkillawee@newwestcity.ca or 604-515-3764.

Yours truly,



Jonathan X. Côté
Mayor

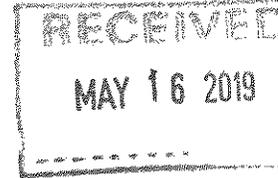
Cc: E-Comm
City of Burnaby
City of Coquitlam
City of Port Coquitlam
City of Port Moody
Lorna Dysart, Chief Administrative Officer, ldysart@belcarra.ca

PORT MOODY
CITY OF THE ARTS

100 Newport Drive, Port Moody, B.C., V3H 5C3, Canada
Tel 604.469.4500 Fax 604.469.4550
www.portmoody.ca

May 16, 2019

File: 01-0375-20-26



By Email to: ldysart@belcarra.ca

file No. 7010-03

Lorna Dysart
Chief Administrative Officer
Village of Belcarra
4084 Bedwell Bay Road
Belcarra, BC V3H 4P8

Dear Ms. Dysart,

Re: E-Comm Board of Directors Designate – 2019-2020 Term

At the Regular Council meeting held on May 15, 2019, Port Moody Council considered the attached memos and report and passed the following resolution:

RC19/228

THAT the following rotational schedule for the E-Comm Board of Director Designate be endorsed and the municipalities designated be authorized to nominate, at their discretion, E-Comm Board of Director Designates to represent City of Burnaby, City of Coquitlam, City of New Westminister, City of Port Coquitlam, City of Port Moody, and the Village of Belcarra on the E-Comm Board of Directors as outlined in the following schedule:

- 2019-2022 – Coquitlam, Burnaby (3 years remaining on 4-year Council term);
- 2022-2026 – Port Coquitlam, Port Moody (4 years);
- 2026-2030 – New Westminister, Coquitlam (4 years);
- 2030-2034 – Burnaby, Port Coquitlam (4 years); and
- 2034-2038 – Port Moody, New Westminister (4 years);

AND THAT the City of Burnaby, City of Coquitlam, City of New Westminister, City of Port Coquitlam, and the Village of Belcarra be encouraged to endorse the rotational schedule and to consider authorizing the designated municipalities to identify nominees at their discretion.

As the Council of Port Moody has opted to authorized the City of Burnaby and the City of Coquitlam to nominate E-Comm Board of Director Designates for 2019-2022 at their discretion, Port Moody supports the nominations of City of Coquitlam Councillor Brent Asmundson and City of Burnaby Councillor Joe Keithley for the 2019-2020 Term, as well as any revised nominations they may submit.

The City of Port Moody encourages the City of Burnaby, City of Coquitlam, City of New Westminster, City of Port Coquitlam, and the Village of Belcarra to endorse the rotational schedule. While Port Moody encourages municipalities in the grouping to authorize the designated municipalities to identify nominees at their discretion, Port Moody's position on authorizing the designated municipalities to identify nominees at their discretion is not contingent upon having all municipalities in the grouping agreeing to same, but solely upon adherence to the rotational schedule.

If you require further information or clarification, please contact me by email at dshermer@portmoody.ca or by telephone at 604-469-4603.

Sincerely,



Dorothy Shermer
Corporate Officer

Enclosures (3)

cc: Corporate Secretary, E-Comm 911
City Clerk, City of Burnaby
City Clerk, City of Coquitlam
City Clerk, City of New Westminster
Corporate Officer, City of Port Coquitlam

Paula Richardson

Subject: FW: Thoughts on Midden Road Closure

FILE NO. S400-01

From: cheryl papove

Sent: Saturday, May 11, 2019 3:02 PM

RECEIVED

MAY 13 2019

Subject: Thoughts on Midden Road Closure

Hello, Mayor Belenkie and Councillors!

We are happy to say that our experience with the new Midden Road Closure has been a positive experience! The change has caused us to have to re-route from our normal routine of driving out through Midden Rd, but must say that the benefits of closing the road are many!

Firstly, the traffic calming effect is very much noticeable! No longer do we have a bus going through twice an hour, but the traffic that would normally drive the Bedwell Bay, Belcarra and Midden "Loop" has decreased significantly!! The traffic noise is much reduced. Moreover, the most positive outcome is that the traffic calming as a result, has many more people walking! Along our end of Belcarra Bay Road from the park, through the neighbourhood and along Midden to the trail head at Jug Island. The fact there are less vehicles driving through Midden Road by the parking area, where it has been for years, basically a one-lane thoroughfare, is remarkable from a safety aspect!!

No longer do I see people unloading children, pets, kayaks, picnic gear, etc, at the side of the road where another vehicle is forced to drive into the oncoming lane to get through! It would make sense to maintain this closure. I feel that this is a benefit to Belcarra, Metro Vancouver as well as to Translink!

Alternatively, Midden would have to have the pavement repaired, back to the original two-lane roadway and along with some parking permitted along the S/W roadside for either public parking and/or residents permit parking. (BTW: consider changing the sign on the N/side of Midden. Right now is a green circle around P that says permit.) I have spoken to many a confused person parked there that feels it says parking permitted. (Green circle around a P). I know it is for Farrer Cove permits, but not many people get it. If there's an issue for our bylaws people, that could explain it!

Since the Translink bus is on a "**Flag down**" system, the public needs to be made aware of this. Currently the existing bus stop on Belcarra Bay Road in the 4500 block, redirects bus passengers to Bedwell Bay Road. With no map, no one is sure where they need to go to stand to catch the bus! They actually feel like in the city, they need to stand in one spot to catch the bus. I have explained to many people standing at the stop, to either go North towards the intersection of Bedwell Bay Road to flag the bus or go back to Midden then go East to Bedwell Bay Rd and catch it by the Yellow Gates by the parking area. I feel this is the **BEST AREA** for the Bus to Stop and pick/up drop/off passengers for the park! It is only a short walk to this connection point that gets the bus coming and going out of the Village!

Thanks for listening!
Cheryl Papove

Sent from my iPad

Mayor and Council

May 13th, 2019

Village of Belcarra

FILE NO. 5400-01
RECEIVED

MAY 13 2019

Dear Mayor and Council,

Re: New Parking Restrictions and Road Closure at Midden Rd.

We, the residents most affected by the Midden Rd. closure, are writing to indicate our support for the recent changes to the traffic flow and parking restrictions in and around Midden Road.

Prior to the road closure and new parking restrictions, our neighbourhood was subjected to a consistent flow of vehicular park traffic and parking congestion. This was particularly bad around dinner time and weekends. Drivers were always circling the block, either out of curiosity or in an attempt to find parking while they visited the park.

The difference now is unbelievable. Our neighbourhood is safer and quieter for residents, pedestrians and cyclists.

If Council is considering reversing this road closure and re-introducing the previous parking regulations, we ask them to consider the following:

- The previous parking regulations were a benefit only to non-residents.
- Prior to the road closure and the new parking restrictions, our neighbourhood became a virtual "parking lot" for park visitors.
- Visiting vehicles were parking in such a manner (on both sides of the road) that the bus had difficulty traversing between them. Inevitably, in an emergency situation, fire trucks would have found the road to be impassible.
- Vehicular traffic into the Village has increased every year many park visitors are choosing not to use the parking lots provided within the park.
- The significantly reduced traffic on Midden Road means that the much needed road repairs are no longer urgent and perhaps could be carried out at less cost to the Village (i.e. less road preparation and a less costly overlay).
- There is far less trash along the roadside on Midden Road and at the bus stop on Belcarra Bay Rd. In the past, park visitors have consistently left large amounts of trash at the side of the road.
- The residents of Midden Rd. are now able to exit their driveways without the hindrance of parked vehicles all over the street.
- On weekends, vehicles were parking in such a manner (on both sides of the road) that all traffic had difficulty traversing between them. Inevitably, in an emergency situation, fire trucks and ambulances would have found the road to be impassible. This impacts the safety of park users and the entire Village.

- Neighbourhood safety has improved because traffic is no longer circling the block at high rates of speed and the overall amount of traffic has been drastically reduced.

Accordingly, we would like to see the following:

- The road closure becomes permanent.
- A better turn around space is provided.
- The aesthetic appearance of the road closure be improved with consultation of the neighbouring homes.
- Permanent signage at the corner of Bedwell Bay Rd. and Belcarra Bay Rd. to indicate "NO EXIT" and "NO PUBLIC PARKING".
- Improved signage at the three way Stop at Bedwell Bay Rd. and Tum-Tumay-Whueton Rd. to indicate clearly the direction into the park and the parking lots.

The actions taken by the Village in this instance have made our streets safer and, in turn, made the Village safer.

Thank you for considering our input.

Cherith and Colin Richardson

Lorraine and Lyndon Hanson

Cheryl and Bill Papove

May 15, 2019.

Village of Belcarra
4084 Bedwell Bay Road
Belcarra, BC, V3H 4P8

RECEIVED

MAY 15 2019

Attention: Mayor & Council

FILE NO. 0100-01

Dear Mayor Belenkie & Belcarra Councillors,

Re: “Long Term Debt” versus “Total Assessed Value”

The recently received annual financial audit report included several graphs showing debt expressed in various contexts. However, missing from the discussion was information showing “Long-Term Debt” expressed as a ratio of the “Total Assessed Value” for municipalities. In other words, the report did not present information regarding the “Debt-to-Equity Ratio” for comparable municipalities.

The “Debt-to-Equity Ratio” is important in that a municipality’s “Total Assessed Value” is one measure of a municipality’s ability to pay-down long-term debt — much like total household income relates to the size of mortgage that a family can support.

The attached table summarizes 2017 *B.C. Ministry of Finance* data for British Columbia municipalities, and shows that the *Village of Belcarra* in a reasonably good position in the overall picture compared to other municipalities. The ratio of “Long-Term Debt” to “Total Assessed Value” for Belcarra was 0.64% as of December 31st, 2017.

Note that there are 42 municipalities that have a higher ratio than Belcarra. Also note that there are eight municipalities with a “Debt-to-Equity Ratio” that is 10 times greater than Belcarra; namely: Grand Forks (6.0%), Prince George (6.3%), Masset (6.7%), Richmond (6.8%), Fort St. John (7.8%), Vancouver (13.4%), Kelowna (14.1%) and Surrey (17.6%).

It is also important to note the “Servicing Liability Limit” which is the upper limit established by the provincial government for servicing debt. As of 2017, Belcarra’s annual “Servicing Liability Limit” was \$400,000 while the “Actual Debt Servicing Cost” was \$235,444. In other words, Belcarra’s actual debt servicing cost was 59% of the “Servicing Liability Limit” leaving considerable room for emergency borrowing if it was necessary.

Suggestions that Belcarra is in a tenuous financial position are simply not correct!



Ralph Drew
3772 Marine Avenue
Belcarra, BC, V3H 4R9



VILLAGE OF BELCARRA

"Between Forest and Sea"

4084 BEDWELL BAY ROAD, BELCARRA, B.C. V3H 4P8
 TELEPHONE 604-937-4100 FAX 604-939-5034
 belcarra@belcarra.ca • www.belcarra.ca



May 21, 2019

Mayor & Council
 City of Port Moody
 100 Newport Drive
 Port Moody, BC V3H 5C3

Dear Mayor & Council:

Re: Farrer Cove Road Access

At a regular Council meeting of the Village of Belcarra held April 24, 2019 the following motion was passed:

“That Council direct staff to work with all appropriate parties with respect to exploring mechanisms to secure long-term legal access to Farrer Cove.”

The Belcarra `Farrer Cove Committee' identified the most important issue facing Farrer Cove is its lack of legal access connecting Farrer Cove directly to Belcarra Village, its water system and services.

The Farrer Cove Committee unanimously recommended that a legal access route to Farrer Cove be explored utilizing the existing Farrer Cove Hydro right-of-way (ROW) currently connecting Belcarra and Farrer Cove (hereafter, known as the North-South Connector).

This recommendation was based on the Committee's research and evaluation, as well as previous studies, and is the same route as stated in the 2011 OCP and the 1997 OCP:

“6.3 Belcarra North Road Access: Facilitate discussions with the appropriate parties with respect to exploring mechanisms to secure long-term legal road access to Farrer Cove (South).”

(As taken from Belcarra Bylaw 435, 2011 OCP, and Bylaw 252, 1997 OCP)

We are requesting consideration by Port Moody for legal access to connect these two areas of Belcarra for the following reasons:

1. Providing year-round road access to Farrer Cove would enable emergency services to respond more quickly, in greater numbers, and with potential to support better emergency outcomes.

2. Belcarra Village's water system would be extended to Farrer Cove during construction of this North-South Connector, enabling:

A: Vastly improved residential and wildfire firefighting protection.

- NOTE: The last forest fire at Farrer Cove was fought with one portable seawater pump, two Camp Howdy standing reservoirs and a tanker truck driving back and forth to Anmore to refill a portable water dam.

B: Consistent access to safe, potable water. Farrer Cove currently relies on a surface water supply.

3. Additional services extended to Farrer Cove would include natural gas and fiber optic cables which would improve livability and internet/phone for Farrer Cove residents.
4. A physical connection to the main Village area of Belcarra would allow for a more united and stronger community - "Community Building".
5. Farrer Cove resident and visitor traffic would be removed from the gated White Pine Beach Park and Metro Vancouver Parks seasonal gravel road.

The proposed North-South Connector route involves crossing approximately 565 metres of Belcarra Regional Park land within Port Moody.

We look forward to Port Moody Council considering this request for approval for the Village of Belcarra to receive approval for road access to Farrer Cove.

Sincerely,



Neil Belenkie
Mayor

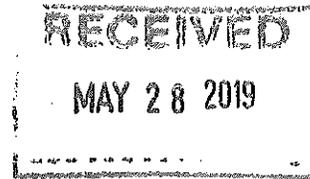
cc Belcarra Council
L. Dysart, Belcarra CAO

Office of the Chair
Tel. 604 432-6215 Fax 604 451-6614

File: CR-12-01
Ref: RD 2019 Apr 26

MAY 24 2019

Mayor Neil Belenkie and Council
Village of Belcarra
4084 Bedwell Bay Road
Belcarra BC V3H 4P8



FILE NO. 0470-01

Dear Mayor Belenkie and Council:

Re: Transit-Oriented Affordable Housing Study Phase 2 – Key Findings

I am pleased to inform you that at the April 26, 2019 regular meeting, the Board of Directors of the Metro Vancouver Regional District (Metro Vancouver) received a report with key findings from the *Transit-Oriented Affordable Housing Study Phase 2* and adopted the following resolutions:

That the MVRD Board:

- a) *send a letter communicating the key findings from the Transit-Oriented Affordable Housing Study Phase 2 to the following parties to encourage continued efforts to support transit-oriented affordable rental housing and equitable transit-oriented communities:*
 - *the Federal Ministers of Infrastructure, and Families, Children and Social Development;*
 - *the Provincial Ministers of Municipal Affairs and Housing, Transportation and Infrastructure, and Finance, as well as the Parliamentary Secretary for TransLink;*
 - *Mayors' Council on Regional Transportation and TransLink Board of Directors; and*
 - *member jurisdiction Councils; and,*
- b) *direct staff to continue to explore options to collaborate with interested partners on a regional transit-oriented affordable rental housing fund, including identifying potential champions, and report back to the Regional Planning Committee.*

The Metro Vancouver region has a long-standing practice of integrating regional land use and transportation planning, and it is now evident that the relationship between affordable rental housing and transit location is an essential component of that integration. The *Transit-Oriented Affordable Housing Study (TOAH)* is intended to expand practitioner and decision-maker knowledge about the challenges and opportunities to increasing affordable rental housing supply in transit-oriented locations, and about the roles the public, private and non-profit sectors can play to support this critical work.

29468750

The TOAH Study Phase 2 extends the research findings from Phase 1, which were communicated to you in 2017, to examine specific policy and financial tools. On the policy side, Phase 2 focused on ways to address the barrier of high land cost, such as: the strategic acquisition of lands for transit construction that, post construction, could provide affordable rental housing development opportunities; making better use of under-utilized or surplus lands owned by the public sector or non-profits to support affordable rental housing development; and, the roles of housing agreements, residential rental tenure zoning, and inclusionary housing requirements.

Phase 2 also explored the potential for a regional revolving loan fund to target affordable rental housing projects in transit-oriented locations. Metro Vancouver will continue to explore options to collaborate with interested partners, including identifying potential champions.

It is our sincere hope that the *TOAH Study* provides additional guidance and inspiration to the public, private, and non-profit sectors to work together to confront one of the most challenging issues affecting our region today. We look forward to continuing to work with you on this critical issue.

Yours sincerely,



Sav Dhaliwal
Chair, Metro Vancouver Board

SD/CM/NC/rk

Encl: Report dated March 14, 2019, titled "Transit-Oriented Affordable Housing Study Phase 2 – Key Findings" (Doc #28896875)



**VILLAGE OF BELCARRA
Farrer Cove Committee
Village Hall
April 10, 2019
Minutes**



Minutes of the Farrer Cove Committee for the Village of Belcarra, held Wednesday, April 10, 2019 at the Municipal Hall, 4084 Bedwell Bay Road, Belcarra BC.

Members in Attendance

Ashford, Brian - Chair
Carlsen, Larry – Vice Chair
Spence, Lynda
Wilson, Bob

Absent

Sy Rodgers, Committee Member
Liisa Wilder, Councillor

Staff in Attendance

Lorna Dysart, Chief Administrative Officer
Connie Esposito, Recording Clerk

1. Call to Order

Chair Ashford called the meeting to order at 7:05 pm.

2. Approval of the Agenda

Agenda for April 10, 2019

It was moved and seconded that the Agenda for April 10, 2019 be approved as circulated.

CARRIED

3. Adoption of the Minutes

Minutes of March 13, 2019

It was moved and seconded that the Minutes of the meeting held March 13, 2019 be adopted.

CARRIED

4. Unfinished Business

No items

5. New Business

a) Discussion regarding the proposed letter of recommendation to Council

Discussion ensued relative to:

- Specific wording on the Council report;
- Communicating the proposed road access route with Farrer Cove residents;
- Obtaining a copy of the Official Community Plan Consolidated Bylaw 252, 1996 which was replaced by Bylaw 435, 2011;
- Including sections of the Official Community Plan (OCP) Bylaw 435, 2011, that reference Farrer Cove, in the report to Council;
- Including pertinent maps in the report to Council;
- Committee members appearing before Council to present their report at the April 24, 2019 Council meeting.

L. Dysart advised the Committee on the process for a report to go to Council. Committee members agreed to keep the recommendation to Council simple and straight forward.

6. Next Steps

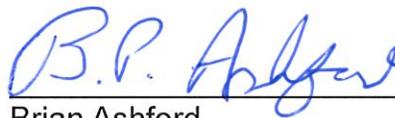
No items

7. Adjournment

The Chair declared the meeting adjourned at 8:06 pm.



Lorna Dysart
Chief Administrative Officer



Brian Ashford
Chair

Next Meeting Date: Wednesday, May 15, 2019



VILLAGE OF BELCARRA
Water System Capacity for Fire
Protection Committee
Village Hall
April 16, 2019
Minutes



Minutes of the Water System Capacity for Fire Protection Committee for the Village of Belcarra, held Tuesday, April 16, 2019 at the Municipal Hall, 4084 Bedwell Bay Road, Belcarra BC.

Members in Attendance

Brain, Douglas
 Chisholm, Jim
 Desbois, Martin
 Devlin, Ian - Chair

Member Absent

Kim, Tom – Vice-Chair

Council Member in Attendance

Rob Begg, Councillor

Staff in Attendance

Lorna Dysart, Chief Administrative Officer
 Connie Esposito, Recording Clerk

Also in Attendance

Walt Bayless, Project Manager, Infrastructure, wsp (OPUS)

1. Call to Order

Chair Devlin called the meeting to order at 7:01 pm

2. Approval of the Agenda

2.1 Agenda for April 16, 2019

It was moved and seconded:

That the Agenda for April 16, 2019 be approved as circulated.

CARRIED

3. Adoption of the Minutes

3.1 Minutes of March 19, 2019

Committee members requested to review draft minutes.

It was moved and seconded:

That the Minutes of the meeting held March 19, 2019 be adopted.

CARRIED

4. Delegation

4.1 Walt Bayless, Project Manager – Infrastructure, wsp (OPUS)

- W. Bayless answered questions from Water Committee members

Considerable discussion ensued relative to:

- Fire Underwriters Survey guidelines;
- History surrounding the decision on flow rate of 30 L/s;
- The design specifications and capability of the Tatlow reservoir;
- Guidelines regarding firefighting on a municipal level;
- Hydraulic capability and storage capacity are main components that determine the design of the water system;
- Financial constraints of the municipality at the time of design of the water system;
- The evolution of the types of housing in Belcarra;
- Policy decision is one way to handle the changing types of building in Belcarra;
- District of North Vancouver determined through a safety analysis that 14 L/s was a comfortable minimum taking into account maximum use of the system, but the use of hydraulics pushed this figure to 19 L/s;
- The potential for the system to handle 60 L/s on both sides;
- History surrounding the agreement between Village of Anmore and City of Port Moody which includes restrictions;
- Original cost estimate of the system versus the cost over-run, which was mainly due to the road overlay;
- SCADA system and how to interpret the data;
- Water quality the main factor in determining water flow and the importance of having residents connect to the water system.

5. Unfinished Business

5.1 Feedback from Committee members on the March 19, 2019 meeting assignments. Each Committee member provided a brief summary of information that they have concluded and other information pending as follows:

- Objectives of the Committee Report to Council – Ian Devlin
- Design basis of water supply system and fire protection – Martin Desbois
- April 2017 Turtlehead fire event – Doug Brain
- August 2017 Senkler fire event– Doug Brain
- Water supply for fire protection improvements after 2017 fire events - Martin Desbois
- Review of fire flow requirements – Martin Desbois/Jim Chisholm/Tom Kim

Discussion ensued relative to the objectives of the Committee Report noting:

- The process for Committees;
- A one-page progress report listing facts may be sufficient;
- A visual presentation may be beneficial;
- A final report would include more in-depth information and graphs;
- A status review was conducted of where Committee members regarding their areas of the report.

6. New Business

6.1 Discussion on memo to the Chief Administrative Officer from the District of North Vancouver dated March 1, 2019

Discussion ensued relative to:

- Wording in the agreement pertaining to guarantee of flows is standard practice;
- Exploring the possibility of increasing the flow rate to 60 L/s;
- Access to water during an earthquake;
- Rules and regulations surrounding the possibility of using sea water and its impact on equipment;
- Identifying areas in Belcarra where sea water may be accessed;
- Firefighting capabilities in Farrer Cove.

6.2 Emphasis on collecting/affirming accurate information (like a "fact check")

Committee member, Tom Kim, is preparing a report detailing a list of facts on a spreadsheet.

6.3 Fire Sprinklers

Discussion and approval of a recommendation to support a motion for Council to require fire sprinkler systems to be installed in all new construction and in major house renovations or additions that exceeds a floor area of 47 square meters and/or where this add-on is deemed feasible.

Discussion ensued relative to:

- Benefits and history of houses with built in fire sprinklers;
- Sasamat Volunteer Fire Department (SVFD) response time of approximately 5-10 minutes;
- Other measures that may be used to address mitigation of fires such as fire resistant building materials;
- New home construction in Belcarra have included sprinklers.

It was moved and seconded:

That Council require fire sprinkler systems to be installed in all new construction and in major house renovations or additions that exceeds a floor area of 47 square meters and/or where this add-on is deemed feasible.

CARRIED

7. Next Steps

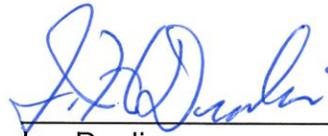
No items.

8. Adjournment

The Chair declared the meeting adjourned at 9:10 pm.



Lorna Dysart
Chief Administrative Officer



Ian Devlin
Chair

Next Meeting Date: Tuesday, May 21, 2019



**VILLAGE OF BELCARRA
Tree Committee
Village Hall
Wednesday, April 17, 2019
Minutes**



Minutes of the Tree Committee for the Village of Belcarra, held Wednesday, April 17, 2019 at the Municipal Hall, 4084 Bedwell Bay Road, Belcarra, BC

Members in Attendance

Begg, Mary – Vice Chair
Bramley, Les
Chapman, Sandra – Chair
Struk, Deborah

Member Absent

Greig, Vicky

Council in Attendance

Carolina Clark, Councillor

Staff in Attendance

Lorna Dysart, Chief Administrative Officer
Paula Richardson, Administrative Services Assistant

1. Call to Order

The Chair called the meeting to order at 7:00 pm.

2. Approval of Agenda

2.1 Agenda for April 17, 2019

It was moved and seconded that the Agenda for April 17, 2019 be approved as circulated.

CARRIED

3. Adoption of Minutes

3.1 Minutes of March 20, 2019

It was moved and seconded that the Minutes from the meeting held March 20, 2019 be adopted.

CARRIED

4. Unfinished Business

No items presented.

5. New Business

a) Fire Hazard signage at entry to the Village

Committee members discussed Fire Hazard signage in similar communities for public awareness. Further discussion ensued with regard to the location of a Fire Hazard sign to be determined by staff after consultation with the Fire Chief.

It was moved and seconded:

That a request be made to Council to direct staff to investigate the placement, building and installation of a Fire Hazard sign.

CARRIED

b) Discuss options for Fire Smart Education & develop recommendations

Committee members discussed the tree removal process in the Village and staff requirements for the vetting process for view scape work. The ability to assess properties and advise residents of safety issues was discussed including advertising in the Barnacle to raise awareness for residents to assess or have their own properties assessed.

Discussion ensued with regard to hazard trees on Crown land, Park land and BC Hydro right of ways and the responsibility for removal of debris following a tree being removed.

Committee members discussed resident education by posting a FireSmart assessment test on the website to encourage resident diligence to maintain minimal fuel sources around their properties.

The following items were discussed which require further research:

- Issues around elderly residents doing clearing and the recommendation that a group of volunteers / students be assembled to assist and / or charging a small fee for assistance
- The possibility that the Committee may seek Arborist recommendations
- Costs involved with Public Works providing a curb side pickup of cleared materials. It was noted that materials are to be placed in the organic bin at the Waste and Recycle Depot (WARD)
- Development of grid of zones in the Village for ease of designating fuel locations
- Development of an inventory of dangerous trees in the Village
- The possible recommendation of a new policy to limit and remove fuel on Village property and in the riparian zone

c) Review "Frequently Asked Questions" (City of Port Moody document)

Committee members discussed the creation of a "Frequently Asked Questions" (FAQ) for Village residents for posting on the website.

6. Next Steps

- Development of a list of questions for L. Dysart to forward to Chief Sharpe
- Committee Vice-Chair will rewrite the sample Frequently Asked Questions list suitable for the Village, in a user friendly format.
- Committee members will review the present tree removal application for discussion at the next meeting.
- Review of the Tree Removal Bylaw requirement to canvas 3 neighboring properties prior to removal with a view to a possible amendment to canvas neighbours within 50 ft of the property for approval.
- Invite a guest speaker to provide insight into the Riparian zone (i.e. Village resident: John Reynolds).

7. Adjournment

The Chair declared the meeting adjourned at 8:49 pm.

Next meeting date: Wednesday, May 22, 2019

Certified Correct:



Lorna Dysart
Chief Administrative Officer



Sandra Chapman
Chair



**VILLAGE OF BELCARRA
REVENUE GENERATION COMMITTEE
Village Hall
April 23, 2019
Minutes**



Minutes of the Revenue Generation Committee for the Village of Belcarra held April 23, 2019 at the Municipal Hall, 4084 Bedwell Bay Road, Belcarra BC.

Members in Attendance

Hirsch, Brian
Kim, Tom – Chair
Moen, Penny
Sulcs, Maris
Sweet, Sharilyn – Vice Chair

Council Representative

Liisa Wilder, Councillor

Staff in Attendance

Lorna Dysart, Chief Administrative Officer
Paula Richardson, Administrative Services Assistant

1. Call to Order

The Chair called the meeting to order at 7:03 pm.

2. Approval of the Agenda

2.1 It was moved and seconded that the Agenda for April 23, 2019 be approved as circulated.

CARRIED

3. Adoption of Minutes

3.1 It was moved and seconded that the Minutes from the meeting held March 26, 2019 be adopted.

CARRIED

4. Unfinished Business

No items.

5. New Business

Chair Kim provided an overview of an informal workshop Committee members held on April 10, 2019. Discussion at the workshop included the assignment of tasks for members to research before the next Committee meeting. Discussion items included:

- Senior Housing
- Road Ends
- The formation of a Charitable Foundation
- An Impost Fee (Development Cost Charge) for new residents

L. Dysart advised that she would acquire information from the Planners with regard to Development Cost Charges.

a) Progress update on road end assessment

Information was provided with regard to the size and location of the road ends listed on the Road End Report. It was decided that, as per the Freedom of Information and Protection of Privacy Act (FOIPPA), the spread sheet would not include the names of the owners of the properties neighboring the road ends.

Further information on road ends is required regarding:

- o current public use
- o future / potential public use
- o historical and current private use
- o visual site observations
- o issues surrounding trails and water ways crossing road ends

Committee member discussion included modification requirements for the OCP to allow for smaller lot sizes and the possibility of road ends being sold to adjacent property owners to provide additional size to existing lots. Some adjacent properties appear to be encroaching on road ends. It was noted that the Road End on Salish has a memorial bench onsite and is used for beach access.

Committee members will identify 2 Road Ends (possibly site 17) to request that the Planners provide a breakdown of the costs involved with surveys, legal etc. to determine the profit margins in relation to revenue vs costs to develop.

Discussion ensued with regard to Provincial regulations and other municipalities approach to prohibited development of road ends to regulate public water access.

Committee members agreed to continue a visual assessment of the Road Ends and report back at the next meeting. L. Dysart will then query the Planners regarding Committee members questions on costs involved in developing Road Ends.

b) Impost fee (Development Cost Charges) consideration

Committee member discussion included Development Cost Charges (DCC) in neighboring communities and the use of funds and justification for collecting funds.

L. Dysart noted that the Village has the capacity to charge back for consultants, planners and staff time as per the Fees & Charges Bylaw. Residents are required to connect to the Village water system when they purchase a home or complete a major renovation for certain dollar value.

c) Establishment of a Belcarra foundation or charitable body

Discussion ensued with regard to holding a public meeting to discover resident interest in forming a foundation. It was suggested that an education program for the public on how to make donations, the provision for donor recognition (plaques etc.) and the purpose of funds collected.

Further research is required with regard to registering a private foundation, the requirement for a Board of Directors and professional planning for investing funds.

d) Short Term Rentals

Committee members discussion included possible requirements for Official Community Plan (OCP) amendments, including whether a room tax may be charged to generate revenue and parking issues with respect to visitors renting within the Village.

Further discussion is required regarding guidelines for recommendations to Council for Short Term Rentals.

L. Dysart noted that Short Term Rentals are part of the staff work plan for 2019.

It was moved and seconded:

That the Short Term Rental item be removed from the Revenue Generation Committee Agenda.

CARRIED

M. Sulcs voted in opposition

It was noted that B. Hirsch may bring the Short Term Rental information to Council as a delegation.

e) Lot size bylaw and increased density

Committee members discussed the requirement for an OCP review to reduce lot sizes and provide greater density. Further research on septic field requirements would also be necessary to provide services for densification in the Village.

Committee members discussed whether size and density were within the scope of the Committee mandate.

6. Next Steps

- Chair Kim will reformat Appendix 10.2 of the Road Ends Report to an Excel spreadsheet for Committee members use.

7. Adjournment

The meeting adjourned at 9:13 pm.

Next meeting date: Tuesday, May 28, 2019

Certified Correct:

Lorna Dysart
Chief Administrative Officer

Tom Kim
Chair

THE CITY OF VICTORIA



OFFICE OF THE MAYOR

FILE NO. 0450 -01

RECEIVED

JUN / 3 2019

May 29, 2019,

To The Union of British Columbia Municipalities,

I am writing on behalf of Victoria City Council, requesting favourable consideration and resolutions of support to restore Provincial support for libraries.

At the May 23, 2019 Council Meeting, Council approved the following resolution:

WHEREAS WHEREAS libraries are a social justice equalizer that provide universal access to information and learning materials irrespective of income levels;

WHEREAS libraries are now so much more than books, building community and a sense of inclusion;

WHEREAS restoring funding to libraries supports the BC Government's agenda to eliminate poverty, improve access to education, and address social justice in BC;

WHEREAS funding rates have been frozen since 2009 and inflationary costs have increasingly been put on municipal property tax payers which is a regressive approach to funding public libraries;

WHEREAS municipalities face downloading from upper levels of government and have few tools to raise funds,

THEREFORE BE IT RESOLVED that Council request the Mayor write to the Minister of Education, the Premier, and all local MLAs strongly advocating for the restoration of library funding to a level that reflects both inflationary cost increases since 2009 and the value of this system to the Province.

BE IT FURTHER RESOLVED that this resolution be forwarded to other municipalities in the Capital Regional District and across BC requesting their favourable consideration.

We eagerly look forward to your support on this matter.

Sincerely,

Lisa Helps
Victoria Mayor