



**INFRASTRUCTURE COMMITTEE MEETING  
OF THE VILLAGE OF LIONS BAY  
HELD ON MONDAY, AUGUST 21, 2023 AT 6:00 PM  
COUNCIL CHAMBERS, 400 CENTRE ROAD, LIONS BAY  
AND VIA ZOOM VIDEO CONFERENCE**

TO JOIN THE MEETING, CLICK HERE: <https://us02web.zoom.us/j/2780145720>  
TO JOIN VIA PHONE, DIAL 778-907-2071 AND ENTER MEETING ID: 278 014 5720

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**AGENDA**

- 1. Call to Order**
- 2. Appointment of Recorder**
- 3. Approval of the Agenda**  
THAT the agenda be approved as submitted.
- 4. Public Questions & Comments**
- 5. Approval of Minutes**
  - A. Infrastructure Committee Meeting Minutes – July 27, 2023 (*page 2*)  
THAT the Infrastructure Committee Meeting Minutes of July 27, 2023 be approved.
- 6. Business Arising from the Minutes**
- 7. Unfinished Business**
- 8. New Business**
  - A. Approval of Terms of Reference (*page 5*)
  - B. Non Disclosure for non-council members (*page 10*)
  - C. Discussion on members top 5 priorities (*page 12*)
  - D. Discussion on communication to residents regarding next steps
- 9. Public Questions & Comments**
- 10. Adjournment**
- 11. Next Meeting – TBD**



**INFRASTRUCTURE COMMITTEE MEETING  
OF THE VILLAGE OF LIONS BAY  
HELD ON THURSDAY, JULY 27, 2023 AT 6:00 PM  
COUNCIL CHAMBERS, 400 CENTER ROAD, LIONS BAY**

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**MINUTES**

Members In Attendance (all tentative pending formal acceptance):

Neville Abbott – Councillor and Committee Chair  
Ken Berry - Mayor  
Jaime Cunliffe - Councillor  
Tony Greville – Resident  
Hilary Monfared – Resident  
Brian Ulrich – Resident

**1. Call to Order**

Meeting was called to order at 6:18 pm.

**2. Appointment of Recorder**

Brian Ulrich was appointed Recorder.

**3. Approval of the Agenda**

The Agenda was approved as tabled.

**4. Public Questions & Comments**

None

**5. Approval of the Minutes**

The 20 May 2021 IC meeting minutes were approved as is, however it was noted that there were IC meetings after this date for which no minutes appear to have been posted.

**ACTION:** Neville to search Village records for any more recent IC meeting minutes.

**ACTION:** Neville to send BU the Word document template for minutes used by Council.

**6. Business Arising from the Minutes**

None

**7. Unfinished Business**

None

## 8. New Business

### A. Approval of Terms of Reference (TOR) for the IC.

Draft TOR prepared by Neville, Tony and Brian was tabled with the agenda to this meeting. Ken indicated he had no issues with the Terms except for para 2.1 where it states that the committee members would be appointed for a 4-year term. After discussion it was agreed that a 12-month term with review of the committee effectiveness at the end of the term. Longer term may be specified at that time.

**ACTION:** Ken to edit the TOR with these changes and forward to members

Neville indicated that there were comments about some points in the TOT by David Lee that may or may not have been addressed by Brian's edits regarding limitations on the practice of engineering by members.

**ACTION:** Brian to review David Lee's comments to confirm that they have been addressed.

See Also changes to TOR regarding staff participation in Section 8.E below.

### B. Appointment of Standing Committee Members

Residents Hilary Monfared, Tony Greville and Brian Ulrich were appointed to the infrastructure Committee and Council members Ken Berry, Jaime Cunliffe and Neville Abbott were appointed to the Committee.

Per Section 11.2 of the Terms of Reference, the non-elected (i.e., resident) members of the committee need to sign a Non-Disclosure Agreement with the Village and shall have the opportunity to review the NDA before agreeing to serve on the Committee.

**ACTION:** Ken to forward the Village NDA to non-elected committee members for review and pending no objections, members to sign NDA and give formal agreement to serve on the Infrastructure Committee.

### C. Appointment of Chair

Neville Abbott was appointed Chair of the Infrastructure Committee. The appointment was accepted by Neville.

### D. Committee Schedule

All agreed to the basic meeting schedule stated in the TOR; being the 3<sup>rd</sup> Monday of each month with the Chair having the authority to change the schedule as necessary to accommodate agenda topics (or lack of), and scheduling conflicts.

### E. Participation of Staff

It was agreed that participation of the Public Works Manager at the Committee would be at his/her discretion or as required/invited by the Committee, subject to approval of such participation by the CAO.

**ACTION:** Neville to edit the TOR with words to this effect.

**F. Working/Project Groups**

All agreed in general with Neville’s proposal that in lieu of a number of separate subject matter subgroups as originally proposed, we adopt the structure of a single pool of resident experts from all topic areas from which individuals can be draw as appropriate for specific projects. No further discussion regarding interaction of the talent pool with the Committee was held at this time.

**G. Consolidated Project List**

A draft list of infrastructure items that are deemed to require attention in one form or another was attached to the agenda for this meeting, with no specific priority or ranking attached to each project. As a first task of this new committee, each member agreed to review the list of projects and rank the top 5 or more in order of priority as best they can. Proposed projects may be added to the list and it is expected that the priorities arrived at by each member will vary. At the next meeting a consolidated project ranking will therefore be agreed upon. This list will need to be amalgamated with the project list in the Infrastructure Master Plan (IMP) and the entire list re-prioritized. Some projects in the IMP have been completed and need to be removed from the list.

**ACTION:** All members to review the Consolidated Project List and rank in terms of priority, focusing on the top 5 at least, and also review the project list in the IMP to understand to see where these new projects fit into the overall ranking.

**ACTION:** Neville to find Nai’s update report to the IMP indicating the projects that are completed and the status of the remaining projects.

**ACTION:** Once Members have signed the NDA’s, Tony to distribute the Coastal Health Drinking Water Inspection Report and the Infrastructure Deficit List from the Website.

**H. Council Updates – Disaster Mitigation and Adaptation Fund**

Update received with note in agenda.

**I. Receive for Information**

Infrastructure Master Plan received with agenda.

**9. Public Questions and Comments**

None

**10. Adjournment**

Meeting was adjourned at 7:20 pm

**11. Next Meeting Date**

The next meeting will be Monday 21 August 2023.



## INFRASTRUCTURE STANDING COMMITTEE

### TERMS OF REFERENCE

#### Establishment and Authority

The Infrastructure Standing Committee of Council is established and appointed by the Mayor. (*Community Charter*, SBC 2003, C. 26, s116 (1)(e) and s.141. At least half of the members of the Standing Committee must be Council Members. The role of the Committee is advisory to Council. The Committee shall report to the Council through its Chair. Committee Members shall be appointed by the Mayor for an initial 12 month period; after the initial 12 month period and subject to Mayor approval, extended for the remainder of the Council term. Should there be any questions or disputes, the *Community Charter*, SBC 2003, C. 26, s116 (1)(e) and s.141 will prevail.

#### Committee Procedures

1. The procedures of the Committee are governed by the Council Procedures Bylaw. Should there be any questions or disputes, the *Community Charter*, SBC 2003, C. 26, s116 (1)(e) and s.141) will prevail.
  - 1.1. The Committee shall be comprised of an equal number of Council and an equal number of members of the public as appointed by the Mayor, for a fixed term after which a new call for volunteer members of the public, including sitting members, shall be advertised in the

Village Update. One of the Council members shall act as Chair of the Committee.

- 1.2. A quorum of the Committee shall be 50% plus 1 members and consist of at least one Council member and two non-Council members. The minutes of meetings of the Committee will be recorded and maintained either by a non-committee member from Staff, or by a member of the Committee appointed by the Chair. Each member shall have the opportunity to review and edit a draft of the minutes before they are approved by the Committee.
- 1.3. A sub-committee working group can be struck when specialized technical knowledge is required to address a specific issue. Such a sub working group will compromise of 1 or 2 main Committee members, only 1 of which should be a elected council member, with the balance being the subject matter experts drawn from a pool of qualified and interested residents. At the conclusion of their work, this sub-committee working group will report back to the main group and then can be either disbanded to else asked to address another issue.
- 1.4. The Committee will meet on the 3rd Monday of each month, subject to the Chair's ability to cancel meeting dates due to a lack of Agenda items to consider or to move meeting dates as necessary, in consultation with Committee members. Staff attendance at the request of the Chair is not mandatory and will be at their discretion.
- 1.5. The Committee Chair shall set the agenda items for each meeting and shall accept agenda item requests from members.

### **Purpose and Mandate**

2. The overall purpose of the Committee is to provide timely advice and recommendations to Council on matters affecting the integrity, safety, or legal/regulatory compliance of the Village's infrastructure with an intermediate to long-term (strategic) focus. With this long-term focus, the Committee shall be particularly interested and involved in infrastructure projects that span multiple council terms to ensure continuity of the project from once council to the next. Since it is a technical body, the Committee shall work within the limitations of the BC Professional Governance Act and the regulations of Engineers and Geoscientists of BC (EGBC) which define what constitutes the Practice of Engineering and who is qualified to do it. Such advice includes, but is not limited to the following:

- 2.1. Insofar as the Committee is not authorized to perform engineering activities upon which the council will make decisions, the Committee shall advise council on which activities the Council will need to retain the services of an authorized engineering organization possessing a Permit to Practice, and it shall provide cost saving and innovative inputs to, and monitoring/reviewing of any engineering activities as they progress.
  - 2.2. The Committee shall provide timely updates to Council regarding the state, condition and ongoing status of the infrastructure owned and operated by the Village of Lions Bay, namely, its physical structures, buildings, roads, bridges, water and power and related facilities and other built infrastructure owned and operated by the Village designed to serve the needs of the residents of Lions Bay. Actual inspections to identify the status of said infrastructure shall be the responsibility of Public Works Staff, although the Committee may be involved in or perform their own inspections at their discretion.
  - 2.3. At the request of Council, to research, inspect, review and assess infrastructure issues and prepare a report for submission to Council with findings, consensus opinions and / or recommendations regarding the infrastructure matter or issue referred to it. If such activities involve the practice of engineering the Committee shall recommend to Council to retain the services of an authorized professional engineering organization to perform the activities and prepare an authenticated report
  - 2.4. The Committee shall identify and recommend infrastructure items which require the development of maintenance standards, inspection regimes, management and maintenance protocols with a view to preservation of the infrastructure and the prevention of any unnecessary deterioration due to neglect or lack of proper or timely maintenance. The Committee shall recommend to Council to retain the services of an authorized professional engineering organization to perform these activities and prepare an authenticated report.
  - 2.5. The Committee shall call upon the expertise of resident volunteers or groups of resident volunteers to provide technical input to specific projects as appropriate.
3. The Committee shall immediately bring to the attention of the Council any aspect of the Village infrastructure that in the opinion of the Committee appears unsafe, non-compliant, or that is in need of urgent repair.
  4. The Committee shall review and update the Infrastructure Master Plan on a 2-year rotation basis to

remove completed tasks and add new tasks as required and re-rank all tasks in terms of priority.

5. The Committee shall have the opportunity to review all bids, tenders, RFP's and RFQ's for purpose and technical correctness before being issued to the public and shall have the opportunity to review all responses to the same for technical compliance and innovation before financial considerations are applied in the political level.
6. The Committee shall select, on an annual basis, items from the IMP priority task list to recommend to Public Works and Council to be included in the annual financial budget.
7. To develop and prepare an annual infrastructure maintenance and development plan, in cooperation with an authorized engineering organization if required, for review and consideration by Council.
8. To monitor the implementation of any Council-approved infrastructure maintenance and development plan and report to Council accordingly as the Committee sees fit.
9. The Committee will report quarterly, or as deemed appropriate to Council.

#### **Administrative support**

10. The Committee will be provided with and have access to any municipal records that may assist it in the fulfilment of its purpose and mandate.
  - 10.1. For the receipt and consideration of confidential municipal records the Committee must do so only in closed session and any related reports from the Committee to Council arising from its review of the confidential records must be received by Council in closed session only.
  - 10.2. Non-elected members are required to sign a confidentiality agreement to reinforce the confidentiality requirement. Its non-disclosure provisions will continue after they no longer serve as members of the Committee. Non-elected members shall be allowed to review the confidentiality agreement prior to agreeing to serve on the committee.
11. Staff support will be provided by the Public Works Manager who will act as the liaison to the Committee to provide information and professional advice. The participation of the Public Works Manager at the Committee would be at his/her discretion or as required/invited by the Committee, subject to approval of such participation by the CAO.

12. Administrative support that is secretarial in nature will be provided to the Committee by the Village administration.

13. The Committee may also request of Council that another member of the administration provide information to the Committee to enable or assist it in fulfilling its purpose and mandate if the Committee provides specific reasons, related to its purpose and mandate, in support of such a request.

**Adoption**

Adopted by Resolution of Council this \_\_\_\_ day of \_\_\_\_\_ 2023

Signed: \_\_\_\_\_

Mayor of Lions Bay

On the \_\_\_\_ day of \_\_\_\_\_ 2023 the original signed copy of this document was stored in the permanent file of Municipal records in the Village Office and on the \_\_\_\_\_ day of \_\_\_\_\_ 2023 the digitized copy of this document was saved and stored in the Village digital database.

Certified correct by: \_\_\_\_\_

Municipal Coordinator



### Confidentiality Agreement

This Agreement is dated and effective on the \_\_\_ day of \_\_\_\_\_ 2023. This Agreement (the "Agreement") is entered into by and between the Municipality of Lions Bay ("the Municipality") And \_\_\_\_\_, an Appointed Member (Appointed Member") of the \_\_\_\_\_ Committee ("the Committee") of the Municipality of Lions Bay. As a term and condition of my office and role and responsibilities as a member of the \_\_\_\_\_ Standing Committee of the Municipality of Lions Bay, I \_\_\_\_\_ hereby consent and agree to the terms of this Confidentiality Agreement as follows:

1. I acknowledge that my membership on the Committee means that I have entered into a confidential relationship with respect to the disclosure of certain confidential information ("Confidential Information") and that I am bound therefore to honour the terms of this Agreement accordingly.
2. For purposes of this Agreement, "Confidential Information" shall include and means all information or material that is either considered in closed meetings of the Municipal Council of Lions Bay or that forms part of the confidential financial records of the Municipality and that has not been released publicly by the Council and any and all information that pertains in any way to the security and integrity of the financial operations and records of the Municipality of Lions Bay.
3. I hereby agree that I shall hold and maintain the Confidential Information in strictest confidence for the sole and exclusive benefit of the Municipality of Lions Bay and use the confidential information only in my role as Appointed Member of the Committee. I will take all necessary steps to carefully restrict access to the Confidential Information by any unauthorized person.
4. I shall not use, benefit from, publish, copy, or otherwise disclose to others, or permit the use by others for their benefit or to the detriment of the Municipality any Confidential Information.
5. I shall return to the Municipality any and all records, notes, and other written, printed, or tangible materials that I may have in my possession pertaining to Confidential Information immediately if so requested in writing by the Municipality.
6. I agree that the nondisclosure provisions of this Agreement shall survive the termination of this Agreement and that my duty to hold Confidential Information in confidence shall remain in effect until the Confidential Information no longer qualifies as confidential or until I receive written notice from the Municipality releasing me from this Agreement, whichever occurs first. Confidentiality Agreement Municipality of Lions Bay ("the Municipality") And \_\_\_\_\_ an appointed member (Appointed Member") of the \_\_\_\_\_ Standing Committee ("the Committee") of the Municipality of Lions Bay,
7. The parties agree that any breach or violation of this Agreement by the Appointed Member may result in irreparable harm and that any breach or threatened breach entitled the Municipality to seek injunctive relief in addition to any other legal or equitable remedies available to it in any court of competent jurisdiction.

8. If a court finds any provision of this Agreement invalid or unenforceable, the remainder of this Agreement shall be interpreted so as best to effect the intent of the parties.

9. This Agreement expresses the complete understanding of the parties with respect to the subject matter and supersedes all prior proposals, agreements, representations, and understandings. This Agreement may not be amended except in a writing signed by both parties.

10. The failure to exercise any right provided in this Agreement shall not be a waiver of prior or subsequent rights. This Agreement and each party's obligations shall be binding on the representatives, assigns, and successors of such party. Each party has signed this Agreement through its authorized representative.

11. This Agreement is subject to the laws and jurisdiction of the Province of British Columbia.

Signed this \_\_\_ day of \_\_\_\_\_ 2023

\_\_\_\_\_

Name

## **Lions Bay Infrastructure Projects Priorities – Tony Greville - 0823.**

### **On-going activities that should be initiated immediately.**

Monthly educational piece from the I.C.

Technical review of all infrastructure related tenders, bids, RFQ and RFP documentation prior to issuance to ensure they are fit for purpose and meet life cycle costs and other technical policy guidelines,

Technical review of all infrastructure related tenders, bids, RFQ and RFP responses to ensure technical compliance and to evaluate any innovation offered by the proponents,

Where appropriate and requested, offer “best value” commentary on all infrastructure related tenders, bids, RFQ and RFP responses.

### **Projects that should be addressed/completed in 2024.**

Low cost impact of installing strategically placed swales on Village streets (Upper Bayview Road model) to direct stormwater into the ditches. Planning for same during winter 2023/24.

Fire Flow Water Deficiencies in general, and fire water flow during times of raw water in-take isolation. Fully quantify the problems and propose strategy to address same.

Address UVT analysis of the raw water concerns, and non-compliance with pH regulation.

Address non-compliance with turbidity regulation; VCH order for interim in-take isolation during high NTU events and fire flow consequences of same

Wastewater at Kelvin Grove; sludge removal and handling efficiency - doubling of sludge volume since 2020, review for I & I (potential collection system failure) due to nighttime flows of 1.0 L/sec, and aging out of the collection system,

### **Projects that should be initiated in 2024 for completion in 2025/26 (this Council term).**

Encroachment of ditches by residents; real surveyed impact, required immediate action steps and required 5 year action steps.

Paving of roads to allow for efficient snow removal, and proper cambering for stormwater drainage.

Enact proposed fire flow deficiency strategies developed in 2024.

Recommendation for one raw water in-take on cold stand-by at all times, coupled with the VCH requirement for in-take isolation in the absence of filtration.

Improved monitoring of chlorine residuals at the WTP and in the distribution system, recommendation on re-chlorination stations or adoption of chloramine and distribution system leakage rates (see SCADA),

**Projects that should be initiated in 2024/6 for completion in 2027/31 (next Council term).**

Test permeabilities and populate EPA's Storm Water Management Model (SWMM), Stormwater runoff disposal; combined and/or sanitary sewers etc.

Long term planning for water filtration for 2035, and modular desalination facility for 2045. Watershed Protection - VCH order to "minimise fecal contamination of the watersheds" [political question?] should be included in the discussion for a complete analysis and recommendation to Council.

Tied in with the above is the raw water in-take strategy and configurations; summer-only flowrate weirs, broad Village Hydraulic Model, for balancing and fire reserve requirements, and possibly include the option to purchase water from the GVRD. Continue with the UBC Hydrology Study.

Replacement of the PRV stations - technical perspective and recommendation.

Infrastructure communications in general – SCADA, distribution system monitoring for leakage, and remote operation of water in-take valving etc., during episodes of poor raw water quality and in-take blockage.

Power options for water supply intakes, recommendation for solar, small inline generator, or batteries for storage. Required for surveillance during heavy rains (currently by drone) and for power for hoists to clear fouled rock chambers.

**Ken Berry - Here's my quick and dirty priority list:**

**Ensure adequate water supply:**

1. Re-route/limit hiking in watershed - Protect our water source from contamination, sabotage, forest fire impacts, fecal contamination,
2. Identify Water loss and fix leaks
3. Increasing the capacity of the water system to obtain sufficient fire flow protection (I like Tony's insights to this issue);
4. Rehabilitating the water reservoirs (high priority repairs and replacements) and determining their seismic vulnerability;
5. Source an alternative water supply (Well water; pipeline)
6. Particle filtration

**Bridge Repairs/Replacements**

1. Completing the high priority bridge repairs (ie: Lions Bay Ave bridge bulkheads are failing/separating from roadway);
2. Look at planning/management alternatives to the costly Oliver Bridge fiasco.

**Watermains/PRV's:**

1. Keep PRV's underground when possible;
2. Replacing watermains that are in poor condition;

**Stormwater** (including pipes and roadside channels)

**Sanitary** (future development should transition to treatment plant when possible)

**Karl Buhr, Public Works Manager**

1. IC act as an “emeritus City Engineering Department”
2. ASOD
3. Visitor backcountry toilets
4. Permeability and drainage model using EPAs SWMM tool
5. Water
  - a. Trend: zone metering, is the growth a steady leak rate increase,
  - b. Highway Tank location: PRVs vs surge tanks
  - c. UBC Hydrology, stream metering
  - d. hydraulic model (fireflow balanced with RT),
  - e. turbid water dumps
  - f. SCADA work: leak rate, NTU shutdown, supply rebalance
  - g. Residential metering at select and volunteer users
6. Design capacity of WWTP
  - a. E coli beaches
7. Wireless comms: mini celltowers? Wi-Max? Pilot 5G?
8. Infrastructure library
9. GIS updates!!

**Lions Bay Infrastructure Projects Priorities – Neville Abbott.**

1. Project currently on hold. DWIP, CUBB,
  - a. review existing designs and SoW
  - b. consider descoping to acceptable budget for execution from Village funds
  - c. confirm priorities – waterline focus?
  - d. which projects remain in grant funding stream
2. Village wide drainage review.
  - a. Include Oceanview Drainage design – fit for purpose?
  - b. Include DWIP u/g stormwater design – fit for purpose? Should it be daylighted.
  - c. Expand for strategies and conceptual design around Village.
  - d. Consider elements for simple field fit solutions.
3. Village water metering
  - a. Zone and Branch Metering
  - b. Residential meters for water conservation.
4. Filtration Deferment
  - a. strategy to achieve avoidance permit requirements
  - b. timeline strategy and CAPEX for filtration compliance
5. Village wide redundant water tank demolition project
  - a. Highway Tank Replacement
    - i. PRV, full replacement or break tank
    - ii. reuse of area for resident benefit.
  - b. Other tank demolition priorities or re-use.
6. Conceptual design for of the PRV replacement
  - a. u/g vs a/g, pros cons, and costs
  - b. resident concerns and aesthetics.
7. Bridge replacement and Village paving projects.
8. UBC Hydrology Study.
9. Village wide Instrumentation & Controls review
  - a. SCADA, instrumentation, and communications
  - b. Valve replacement with remote actuated equipment.