



**INFRASTRUCTURE COMMITTEE MEETING  
OF THE VILLAGE OF LIONS BAY  
HELD ON THURSDAY, DECEMBER 14, 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

## 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 – November 16, 2023 (*page 3*)  
THAT the Infrastructure Committee Meeting Minutes of October 19, 2023 be approved as circulated.
6. **Business Arising from the Minutes**
7. **Unfinished Business**

Identifier	Description	Responsible	Status
23087	Locate previous PWM's update report to the IMP indicating the projects that are completed.	PWM	
23092	Solicit Village resident technical expertise for each working sub group.	All	
23094	Prior to the I.C. working sub groups' first meetings, schedule a meeting between main I.C. and PWM.	NTA/KB	✓
23095	Prepare a resident volunteer recruitment piece for the 01 September Village Up-date.	NTA	
23101	PWM to meet with NTA and ASG to determine the level of assistance required by the PWD from the I.C. on select PWD projects.	PWM NTA/ASG	
23111	All I.C. members will be provided with a copy of the IMP and	KB/PWM	

## Agenda – Infrastructure Committee – December 14, 2023

Village of Lions Bay

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	the enhanced Asset Management Plan.		
23112	Convene a February I.C. Round Table Meeting to focus on a 10 and 20 year horizon plan to identify the new and replacement infrastructure requirements and related expenses.	NTA/All	
23113	CAO and/or Council to be asked to allow members of the I.C. to have selective access to the PW document library.	PWM	
23114	The I.C. to solicit the Village for an individual with the relevant programming skills to assist the PWM with the OLDER initiative.	All	

## A. Public Works Manager Requests.

- i) Numerical techniques to analyse OLDER (Overnight Leakage Determination) non-summertime datasets.
- ii) Review 2022 Water Report as basis for salient points to come in the 2023 report
- iii) Conceptualise skimmer/separator for Mag Intake (or full rebuild) emulate/improve on Harvey Intake; proof of concept with full-scale model
- iv) SCADA: update, remote nodes (mostly zone water metering), UI/security
- v) Highway Tank replacement in 2024: breakhead tank or PRV?
- vi) Dates for infrastructure tour: intakes, one plant, WWTP, Yard, drainage

**8. New Business**

- A. 2024 Infrastructure Meeting Calendar (*page 9*)
- B. Karl Buhr: PW non-core needs for 2024 include (*page 10*)
- C. A. Greville: Water Use Savings
- D. BCWWA - Are Our Water Systems at Risk - receive & open for discussion.

 [BCWWA - Are Our Water Systems at Risk - 0923..pdf](#)

**9. Public Questions & Comments****10. Adjournment****11. Next Meeting – TBD**



**INFRASTRUCTURE COMMITTEE MEETING  
OF THE VILLAGE OF LIONS BAY  
HELD ON THURSDAY, NOVEMBER 16, 2023 AT 6:00 PM  
COUNCIL CHAMBERS, 400 CENTRE ROAD, LIONS BAY  
AND VIA ZOOM VIDEO CONFERENCE**

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**MINUTES**

In Attendance : Neville Abbott – Chair

Ken Berry

Anthony Greville (via Zoom)

Brian Ulrich (Via Zoom)

PWM – Karl Buhr.

Absent with regrets : Hilary Monfared

Absent : Jaime Cunliffe

**1. Call to Order**

The Infrastructure Committee Meeting was called to order at 18:09.

**2. Appointment of Recorder**

ASG was appointed recorder for this meeting.

**3. Approval of the Agenda**

THAT the agenda be approved as submitted.

**4. Public Questions & Comments**

No public comments or delegation were forthcoming.

**5. Approval of Minutes**

A. Infrastructure Committee Meeting Minutes – October 19, 2023

THAT the Infrastructure Committee Meeting Minutes of October 19, 2023 be approved as circulated.

Approved unanimously.

**6. Business Arising from the Minutes**

See Below in Unfinished Business.

## Agenda – Infrastructure Committee – October 19, 2023

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**7. Unfinished Business**

Identifier	Description	Responsible	Status
23081	Search Village records for any more recent I.C. meeting minutes.	NTA	✓
23086	All members to review the Consolidated Project List and rank in terms of priority.	All	✓
23087	Locate previous PWM's update report to the IMP indicating the projects that are completed.	PWM	
23088	Distribute the Vancouver Coastal Health Drinking Water Inspection Report.	ASG	✓
23092	Solicit Village resident technical expertise for each working sub group.	All	
23093	Determine when working sub groups' project lists are due for submission to I.C.	All	✓
23095	Prepare a resident volunteer recruitment piece for the 01 September Village Up-date.	NTA	
23101	PWM to meet with NTA and ASG to determine the level of assistance required by the PWD from the I.C. on select PWD projects.	PWM NTA/ASG	
23102	I.C. Project Coordinators accept the projects tentatively assigned to them and to source and select their teams to provide the input the PWM has requested.	All	✓
23103	PWM to distribute his presentation of 16 October, the revised IMP, the AMP (Asset Management Plan) and any other library documents he feels will assist the I.C.	PWM	✓
23104	Adjust the ToR clause 2.4, to reflect the change in date for the I.C. Meetings from the 3 <sup>rd</sup> Monday of the month to the 3 <sup>rd</sup> Thursday of the month.	NTA/KB	✓
23111	All I.C. members will be provided with a copy of the IMP and the enhanced Asset Management Plan.	KB/PWM	
23112	Convene a February I.C. Round Table Meeting to focus on a 10 and 20 year horizon plan to identify the new and replacement infrastructure requirements and related expenses.	NTA/All	
23113	CAO and/or Council to be asked to allow members of the I.C. to have selective access to the PW document library.	PWM	
23114	The I.C. to solicit the Village for an individual with the relevant programming skills to assist the PWM with the OLDER initiative.	All	

## Agenda – Infrastructure Committee – October 19, 2023

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23115	PWM to ask administration to post the 2022 Water Report and ASG to review for a discussion in February as a part of 23112.	PWM/ASG	
23116	A group tour of the Magnesia and Harvey Creek intakes to fully understand the concern and consequences of the Magnesia Creek intake pluggage is to be arranged before the end of November. Subsequent to this, the I.C. will develop a plan, and find the human resources necessary to assist the PWM.	All	
23117	BU will review the SCADA system on behalf of the I.C. and work with the PWM to up-grade the hardware and software.	BU/PWM	
23118	Assist the PWM in determining the best option for the replacement of the Highway Water Tank and to solicit the expertise to prepare an advanced hydraulic flow modeling study to focus the final decision.	All	

**NOTES:**

- 23081 NTA and MB have reviewed all possible locations and no records can be found of any recorded minutes from the I.C. meetings in question.
- 23087 The PWM will present same to Council during the 2024 budget meetings, at which time the update will become public and the I.C. will have access.
- 23088 Complete; note, the substance of the document was included in the 2022 Annual Drinking Water Quality Report.
- 23092 It was decided the best option was to determine the select group of projects the I.C. will work on and then solicit resident expertise to avoid exciting some individuals and them “putting them on the shelf” because their particular expertise is not required.
- 23095 See 23092
- 23101 PWM addressed his major requests under New Business; any outstanding issues will be addressed during the week of 27 November.
- 23102 All accepted.
- 23103 Complete.
- 23104 Complete.

**8. New Business**

- A. Revised Terms of Reference attached for reference  
Revised ToR received.

- B. Discussion on communication to residents regarding next steps.

Action Step - Delay communications with the residents until the I.C. has a definite work plan for 2024. At such time said plan can be published and resident expertise solicited for specific projects and tasks. See 23114/6/8 above and F, i, iii, & V below.

- C. Confirm member responsibilities for short and long term projects, advise status updates by members.

There being no objections by those present to the project assignments, and no communications from those absent, acceptance of project assignments is confirmed.

- D. BCWWA - Are Our Water Systems at Risk - receive & open for discussion.

It was highlighted that the I.C. has a responsibility to both assist the PWM on immediate projects, and also take a longer term view (up to 20 years) of forthcoming and necessary infrastructure needs and requirements.

Action Step - All I.C. members will be provided with a copy of the IMP and the enhanced Asset Management Plan (KB and/or PWM to distribute same) and will be expected to read and become familiar with the contents. Members are also encouraged to review the general concepts in the BCWWA paper referenced.

Action Step - In February, separate from the regular I.C. meeting, a Round Table I.C. meeting will be held to determine how the I.C. will procedurally examine the 20 year horizon and determine which infrastructure functions/areas will be the initial focus. Funding opportunities and constraints should be in the matrix.

- E. Infrastructure Committee library – update/ access / comments. KB/NTA

Action Step – The PWM is to ask the CAO and/or Council to allow members of the I.C. to have selective/restricted access to the PW document library.

- F. Public Works Manager Requests.

- i. Numerical techniques to analyse OLDER (Overnight Leakage Determination) non-summertime datasets.

The PWD has considerable data, but not enough time, nor expertise, to properly collate and determine its significance. The PWM is looking for some assistance from the I.C. in regards to data analysis and interpretation.

Action Step - The I.C. should solicit the Village for an individual with the relevant programming skills to draw the pertinent information for a significant bank of data. See 23114 and 8.B above.

- ii. Review 2022 Water Report as basis for salient points to come in the 2023 report.

The 2022 Annual Water Quality Report is yet to be posted on the Village Web site, however the PWM is looking for a review of the report with an emphasis and recommendations on DBP (both THM & HAA), pH control and alkalinity

enhancements, heavy metal contaminations and an opinion of disinfection protocol improvements.

Action Steps - PWM to ask administration to post the 2022 Water Report and ASG to review for a discussion in February as a part of 8.D above.

- iii. Conceptualise skimmer/separator for the Magnesia Creek Intake (or full rebuild) emulate/improve on Harvey Intake; proof of concept with full-scale model.

The PWM requested the I.C. assist in addressing the continual pluggage of the Magnesia Creek intake, especially with leaves and other debris, during the fall season, which can incur expensive weekend overtime expenditures to correct. Harvey Creek intake does not exhibit this problem.

Action Step – A group tour of the Magnesia and Harvey Creek intakes, to understand the exact issue, is to be arranged before the end of November. Subsequent to this, the I.C. will develop a plan, and find the human resources necessary to assist the PWM. See Items 23116 & 8.B above and 8.vi below.

- iv. SCADA : update, remote nodes (mostly zone water metering), UI/security.

The existing SCADA hardware and software is aging, and requires significant upgrades. The PWM reports he cannot find spare parts for the hardware when it fails. The system needs to be rebuilt to be far more robust and meet current Village needs and industry specifications.

Action Step – BU will review the SCADA system on behalf of the I.C. and work with the PWD to up-grade the hardware and software. See 23117 above.

- v. Highway Tank replacement in 2024: break head tank or PRV?

**The PWM highlighted the Highway Water Tank Replacement as his most immediate priority for 2024.** The Highway Tank needs to be replaced and will be replaced in 2024. The PWM voiced an opinion he would prefer the engineering company be engaged on a design-build contract basis.

The PWM suggested the tank has physically failed, and he believes it plays a significant role in the 50% water leakage the Village currently experiences. It is hoped an infrastructure renewal at this location will also alleviate the lack of fire water pressure and flow to the residences below Highway 99.

The PWM has requested assistance from the I.C. to determine if the best option will be the tank replacement with 2 underground PRV stations or if an above ground “break tank” will offer a better solution. In particular, some advanced hydraulic flow modeling will be necessary to make a decision.

The PWM indicated a first level estimate puts the cost at \$1.1 mm.

KB confirmed a \$998,000 grant from the B.C. Government under the Growing Communities’ Fund initiative, to be used solely for “unique infrastructure and amenity projects” has been received, and may be available for this project.

Action Step – The I.C. is to understand the full extent of the request from the PWM and solicit expertise from within the Village to assist the PWM with the recommendation to be forwarded to Council. See 23118 and 8.B above.

- vi. Dates for infrastructure tour: intakes, one plant, WWTP, Yard, drainage.

Action Step – To be arranged for a suitable time during the week of 27 November – 01 December. A group tour would be best, but the PWD is willing to accommodate individual tours if that is what is required.

**9. Public Questions & Comments**

No public comments or delegation were forthcoming.

**10. Adjournment**

Meeting was adjourned at 20:05.

**11. Next Meeting**

Next meeting of the Infrastructure Committee was confirmed to be 14 December, 2023.  
The first meeting of the 2024 will be held on 18 January, 2024.



January							February							March						
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27		29	30	31			24		26	27	28	29	30	29	30	31				

- Jan 1

Feb 19

Mar 29

Mar 31

Apr 1

May 1-3

May 20

June 6-9

Jul 1

Aug 5

Sep 2

Sep 16-20

Sep 30
- New Year's Day

• Family Day

• Good Friday

• Easter Sunday

• Easter Monday

Lower Mainland LGA & AMG Conference (Whistler)

Victoria Day (Many regions)

• FCM Conference (Calgary)

• Canada Day

• British Columbia Day

• Labour Day

UBCM (Vancouver)

• National Day for Truth and Reconciliation

- Oct 14

Nov 11

Dec 24

Dec 25

Dec 26

Dec 31
- Thanksgiving Day

• Remembrance Day

• Christmas Eve

• Christmas Day

• Boxing Day

• New Year's Eve
- STATS

Conferences

- Regular Meeting of Council

Committee of the Whole Meeting

LBBP Committee Meeting (approx. dates)

Climate Action Committee Meeting

Infrastructure Committee Meeting

Finance Committee Meeting (no set dates)

Board of Variance Committee (no set dates)

Tree Committee (no set dates)

Emergency Program Committee (no set dates)

PROJECT	STATUS	ALREADY FUNDED (TAXATION, DEBT, GRANT)	FUNDING NEEDED
01, 12, 57 Bayview Road Drainage & Water Improvement Project (DWIP) - Bayview Road between Stewart and Mountain Drive. (280m) [50/50 Split Roads/Water], under 40% DMAF grant application	PREDICATED ON OUTSIDE FUNDING		2,659,000
16 Survey, Design and Construction of Water Main Replacement on Creekview PI (90m) [60/40 split Water/Roads]. Inherited number seems low.	NEEDED BUT RESOURCE-CONSTRAINED	225,000	
21 Survey & Design of Water Main Replacement (includes modelling), Road Repairs, Stormwater on Highview Place [50/50 split Roads & Water]	NEEDED BUT RESOURCE-CONSTRAINED	100,000	900,000
45, 46 End-Mountain drainage	NEEDED BUT RESOURCE-CONSTRAINED		285,000
47B End-Tidewater drainage	NEEDED BUT RESOURCE-CONSTRAINED		500,000
Bridge Deck Joints	NEEDED BUT RESOURCE-CONSTRAINED	300,000	
Centre-Bayview-Bayview PI (CUBB) drainage and watermain, under 40% DMAF grant application	NEEDED BUT RESOURCE-CONSTRAINED		5,548,200
Highway Tank replacement w. 2 PRVs (\$1,000,000?)	MUST DO	100,000	1,000,000
Klatt building renovation	COMMITTED	499,000	
LBBP - floating dock and walkway. Existing log boom costs	SELF-FUNDING		50,000
Lions Bay Ave. bridge over Alberta Ck. (\$35,000)	COMMITTED		35,000
Lions Bay Ave. Connector w. wayfinding: consultation, rescope, design and completion (\$459,000 < Dec. 31, 2024).	COMMITTED	344,250	459,000
Lower Oceanview Drainage (LORD), under 40% DMAF grant application	NEEDED BUT RESOURCE-CONSTRAINED	50,000	809,000
Mag Intake rebuild same as Harvey (\$100,000?)	MUST DO		100,000
Magnesia Creek Intake Access Road (1,100 m)	NEEDED BUT RESOURCE-CONSTRAINED		335,500
Pride Trail rebuild (\$70,000, covered by MOTI)	COMMITTED	70,000	70,000
SCADA (20% sewer / 80% water)	NEEDED BUT RESOURCE-CONSTRAINED	100,000	
		1,788,250	12,750,700