



THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

INFRASTRUCTURE COMMITTEE MEETING OF THE VILLAGE OF LIONS BAY HELD ON MONDAY, SEPTEMBER 24, 2018 at 7:00 PM COUNCIL CHAMBERS, 400 CENTRE ROAD, LIONS BAY

AGENDA

- 1. Call to Order**
- 2. Appointment of Recorder**
- 3. Approval of the Agenda**
- 4. Public Questions & Comments**
- 5. Approval of Minutes**
 - A. Infrastructure Committee Meeting – June 25, 2018 (Page 3)
 - i. Action Items from the Minutes
- 6. Business Arising from the Minutes**
- 7. Unfinished Business**
 - A. CWWF Projects
 - i. Harvey Tank Update
 - B. Magnesia Infiltration Gallery Status Update
 - C. Oceanview Road Stormwater Culvert CCTV
 - D. Primer and Review of Flow Works
 - i. Q Methodology
 - E. Revisit AECOM's Generator Capacity Report
- 8. New Business**
 - A. Investing in Canada Infrastructure Program (ICIP)
 - Application Update and Discussion
 - B. Community, Culture and Recreation Infrastructure Fund
 - i. Lions Bay Beach Park
 - ii. Only One Application
 - iii. 27% Dollars
- 9. Public Questions & Comments**
- 10. Adjournment**

Agenda – Infrastructure Committee Meeting – September 24, 2018

Village of Lions Bay

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11. Next Meeting – October 22, 2018

**LIONS BAY INFRASTRUCTURE COMMITTEE MEETING
MONDAY June 25th 2018 AT 7:00 PM
COUNCIL CHAMBERS, 400 CENTER ROAD, LIONS BAY
DRAFT MINUTES OF THE MEETING**

In Attendance:

Fred Bain – Councillor and Committee Chair
Norm Barmeier – Councillor
Karl Buhr – Mayor
Tony Greville – Resident
Naizam Jaffer – Public Works Manager
Jim Mutrie – Resident
Brain Ulrich – Resident

Regrets: Peter DeJong - CAO (Attended, however, near end of the meeting)

1. Call to Order

Meeting began at 1900hrs.

2. Appointment of Recorder

Fred Bain

3. Public Participation

No Public Questions or comments

4. Approval of the Agenda

A. Added 7.G Generator of Klatt

5. Approval of the Minutes of April 23rd, 2017

Approved as Ammended – Tony Greville changed from “Regrets” to “In Attendance”

ACTION ITEM from the minutes:

Resend Bridge report to committee - Tony to do so following day

6. Business Arising from the Minutes

A. Magnesia condition

I. plugged again

II. Creus' report in progress re using larger media in infiltration gallery

B. CCTV inspection of Oceanview plugged culvert to Rundle Creek

I. not yet done - to be done

a. discussion that the culvert plug may prohibit CCTV beyond a “broomstick” length

7. Unfinished Business

A. CWWF Projects

I. Harvey Tank Update

- a. Some members of the committee (JM, TG, BU, KB, & FB) attended the site at 1500hrs to view and to better understand the tank condition and how it was constructed in relation to the original drawings and the "As Built" drawings.
 - i. It is the opinion of the attending members that the tank was not entirely built to the original drawings and that, due to changes in the construction, the life of the tank may have been compromised.
 - The wall joint to the foundation, in particular, was not built as directed in the original plans, and as such, it appears that the lower portion of the tank wall was not able to be tensioned as needed. This appears to have allowed for premature leakage in the wall seams. The concern now is that the leakage there may be compromising the integrity of the steel tensioning cables that run in circumference of the tank at the lower level in particular.
- b. In the evening meeting there was a discussion of next steps
 - i. The question "Can the tank be saved" was asked in consideration of the high costs of construction at this time so that a new tank could be built in the near future at a lower cost to the Village
 - To determine if the tank could continue into the near future, the next step of the "staged inspection" would need to be conducted. That would include an inspection by a "materials testing" expert to determine if in fact the tensioning cables are rusting.
 - As the chlorination in the past was done with Chlorine gas, and this tends to lower the pH of the water, leaks may have allowed degradation of those cables.
 - An internal inspection should be conducted to determine if there has been any degrading of the walls that may put the structure at risk
 - If the tank is compromised then there would be no benefit if proceeding any further and a full replacement would be best for the safety of the community
 - If the tank could be safely saved for the short term as noted above, should there be an opportunity to re-engage the Oceanview tank for added capacity for fire flows?
 - The committee is not sure why the Oceanview tank was decommissioned
 - If the tank could be save for the short term, the grant monies might be used for the rest of the CWWF funding proposal such as PRVs, controls, Bayview drainage and watermain, etc.
 - ii. The IC makes the following Recommendation to Council:

“The Infrastructure Committee is concerned about the high costs of construction at this time due to the large amount of infrastructure funding in the market.

Pursuant to the Infrastructure Committee meeting of June 25th, 2018, the Infrastructure Committee (IC) recommends the following:

1. If the Harvey tank can continue to be safely used for the short term (5-15 years), monies could be more cost effectively applied to the other needed upgrades and repairs as outlined in our CWWF funding application. Such items as PRVs, controls, Bayview water main, drainage and road repairs, etc, could be done now with nothing or very little done to the tank. Then we would revisit replacement of the Harvey tank later when it would hopefully be more affordable.

2. To determine if the Harvey tank can continue to be used, we recommend proceeding to the second stage of our staged assessment plan. We believe that the tank was not built to the original design intent since the “as built” drawings indicate a departure from the original drawings.

- B. For stage two, inspection should be done by a Materials Engineer to test for degradation of both the tensioning cables and the internal surfaces of the concrete structure.
 - I. We recommend inspecting the tensioning cables first, and then the internal surfaces. If the tensioning cable inspection finds a negative outcome (unacceptable deterioration of the cables) then there is no need for any further inspection.
 - a. If the tension cables are determined to be sound we will then want to look inside the tank to determine the integrity of the concrete. It might have been compromised by low pH water over a 20 year span of high chlorine additions.
- C. The suspicion of the IC is that, with the departure from the original design intent, the lower part of the tank walls were not able to be properly tensioned allowing for seepage to occur in the joints between the wall panels. This in turn may have damaged the tensioning cables which are essential to the integrity of the structure.
 - I. If the cables are damaged, then there would be no benefit in continuing with the present Harvey tank as its integrity would be proven to be compromised and subject to future failure.

3. The IC recommends also that the current bidding preparation process for full tank replacement continue as the above assessment results may dictate the need for a new tank and there should be no further delays if the replacement tank is needed.

- For Council’s consideration.”

D. Wells

- I. Brian asked about the concept of drilling multiple wells for our water supply in light of the difficulties of our present water difficulties
 - a. Consensus was that, as most of the municipality is on septic, there could be complications of having wells nearby
 - b. It was also thought that the piping infrastructure could be complicated

 - E. Magnesia and Harvey Condition:
 - I. Harvey – as discussed above
 - II. Magnesia intake has plugged again
 - a. Staff are getting frustrated with the frequent plugging
 - b. It was agreed that we have, between Harvey and Magnesia, “Competing weir technologies” - Harvey is working reasonably well – Magnesia is not
 - c. Suggestion that we do not spend anymore on Magnesia
 - i. Replacement is preferred
- ACTION ITEM:** Nai to forward the Creus report when it comes available
- F. Bridge inspection:
 - I. Report is to be resent to members
 - G. AECOM
 - I. Dealt with in the above topics
 - H. Infiltration gallery
 - I. Dealt with above C.II.
 - I. Generator
 - I. Even after the AECOM report, the questions remain:
 - a. Do we have adequate power in the Klatt generator to power the Office and Broughton hall?
 - b. Should we turn on all the power using devices in Klatt that would be used in an emergency and see what capacity remains?
 - c. Could staff check with Hydro billing to see if there is any record of total usage of Kw?
 - d. Can we use a power logger to determine our usage under different scenarios?
 - II. The goal is to attain confidence in our emergency capacity.

8. New Business - none

9. Public Questions and Comments - none

10. Next Meeting

- A. July 23rd, 2018

11. Adjournment