

From: **"Mochrie, Paul"** <Paul.Mochrie@vancouver.ca>

To: **"Direct to Mayor and Council - DL"**

Date: 11/29/2021 5:46:19 PM

Subject: **Council Memo - Improving Street Lighting in Vancouver - RTS 14349**

Attachments: **ENG - Memo to Mayor Council - Response to Street Lighting Motion.pdf**

Dear Mayor and Council,

Please see the attached memo from Lon LaClaire. A short summary of the memo is as follows:

- ☐ Performed an analysis using existing reporting data (VanConnect/311/internal)
- ☐ Reviewed the 311 script and explored opportunities to streamline the telephone reporting process
- ☐ Initiated the process for a public awareness campaign (on City's outage reporting process) using social media
- ☐ Met various advisory committees to share information on current reporting means and to educate on citywide LED roll-out and benefits associated with it (including self monitoring and reporting features)

If you have any questions, please feel free to contact Lon LaClaire at 604-873-7336 or lon.laclaire@vancouver.ca.

Best,
Paul

Paul Mochrie (he/him)
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The City of Vancouver acknowledges that it is situated on the unceded traditional territories of the xʷməθkʷəy̓əm (Musqueam), Skwxwú7mesh (Squamish), and səliłwətał (Tsleil-Waututh) Nations.

MEMORANDUM

November 29, 2021

TO: Mayor and Council

CC: Paul Mochrie, City Manager
Karen Levitt, Deputy City Manager
Katrina Leckovic, City Clerk
Lynda Graves, Administration Services Manager, City Manager's Office
Maria Pontikis, Director, Civic Engagement and Communications
Anita Zaenker, Chief of Staff, Mayor's Office
Neil Monckton, Chief of Staff, Mayor's Office
Alvin Singh, Communications Director, Mayor's Office
Eric Mital, Director, Streets

FROM: Lon LaClaire
General Manager, Engineering Services

SUBJECT: Improving Street Lighting in Vancouver

RTS #: 14349

On December 8th, 2020, Council directed staff to report back on the feasibility of the following:

1. An analysis of the effectiveness of relying on 311/VanConnect to report lighting outages
2. A renewed public education campaign, based on the analysis above, to encourage citizens to report lighting outages using 311 or VanConnect (e.g., ads on social media, bus shelters, and TV/radio)
3. Encouraging 311 staff to streamline the reporting process as much as possible (i.e., do not request too much information)
4. Encouraging city crews (e.g., sanitation workers) to report outages during nightly shifts, especially in areas where citizens may be unlikely to report (e.g., commercial areas, parks, and 'dead zones' between buildings)
5. Installing new lighting in poorly lit areas, especially sidewalk-level and alleyway lighting in areas identified by residents as being at higher risk for public safety concerns; and
6. Reducing the obstruction of lighting (e.g., from overhanging tree cover).
7. Council also directed staff to consult the relevant advisory committees on these matters including the Seniors' Advisory Committee, Persons with Disabilities Advisory Committee, Active Transportation Advisory Committee, and Women's Advisory Committee.

There are approximately 54,000 streetlights in the City of Vancouver. Streetlight outages are primarily identified through reporting by the public (311 and VanConnect) and by City staff in the field. Engineering Services has a defined response time of no longer than 15-days to respond to a reported outage and most outages are addressed within a few days. In recent years, approximately 10,000 outages have been reported per year, with about 55% to 65% of those requests coming from the public and the balance from City staff. A summary of reported streetlight outage reporting is included below.

Year	311 Reports (SR)	VanConnect (SR)	Internal Reporting	Total Request
2020	2,186	2,953	2,687	7,826
2019	2,668	3,163	4,399	10,230
2018	3,330	3,525	3,203	10,058
2017	4,601	3,711	3,868	12,180
2016	4,767	1,615	3,871	10,253
2015	5,010	346	3,616	8,972
2014	4,881	0	3,385	8,266
2013	4,796	0	2,075	6,871
2012	5,616	0	2,950	8,566
2011	5,546	0	2,149	7,695
2010	600	0	195	795

Note: VanConnect – Launched in 2015

While staff track reported outages and repairs, there is presently no way to determine the actual number of outages in the system at any given time. Staff currently rely entirely on the reporting described above and are not able to quantify the effectiveness of this approach. It is possible that some outages go unreported/undiscovered for significant lengths of time.

Over the next 4-5 years, the City will be upgrading the streetlight system. These upgrades include LED fixtures, 24-hour power and a smart lighting control system. These changes will enable real-time monitoring of streetlight outages for over 80% of the streetlight system by 2025 with plans to expand these upgrades to the entire system in a subsequent project phase. These changes will dramatically increase response times to outages, reduce reliance on manual reporting and provide data to assess and monitor performance across the entire system. That being said, staff acknowledge that this is a multi-year rollout and that improvements to manual reporting are still valuable.

City crews report streetlight outages regularly and the value and importance of their efforts is communicated periodically. In response to this motion, Engineering met with 311 staff and concluded that no further streamlining of the telephone reporting process was possible (a minimum amount of information is all that is required at present). Similarly, the VanConnect reporting process is quick and unobtrusive.

Staff acknowledge that there may be opportunities to increase public awareness of the City's outage reporting channels. In response to this motion, Engineering staff are working to create a communication plan to increase public awareness of the City's outage reporting process and

response times. Staff will track outages reported during and following the implementation of this plan to determine the effectiveness of this messaging and use this data to inform future communications. Implementation is planned for January 2022.

There is an annual capital budget of \$200,000 to address requests for new “infill” lighting across the City and to address poorly lit areas. This budget is insufficient to address all of these requests, as new lighting installations typically require costly underground electrical infrastructure or other changes to the street infrastructure to accommodate. As a result, requests are generally prioritized in consultation with transportation and public space partners and where lighting issues are located near schools, community centres, health care, or other sensitive uses. The local improvement process is also available for residential lane lighting (and is 100% resident funded). Furthermore, it is expected that conversion to LED fixtures will significantly improve sidewalk and street lighting conditions and visibility (in comparison to existing high-pressure sodium fixtures) as the citywide LED upgrades project progresses.

Lighting obstructions, in particular, those created by trees, can be challenging to address. Electrical Design and Operations staff work collaboratively with Parks and address each situation on a case by case basis. Sometimes trimming trees can temporarily address lighting concerns but continued maintenance is required to sustain the improvement. In other cases, it is sometimes possible to add pedestrian level lighting to the backside of the existing pole. Another option may be installation of shorter streetlight poles to avoid conflicts with tree canopies – this is something that may work in some situations and is being reviewed by staff for selective implementation. In more extreme cases, a decision to remove a tree will be made if there is a significant safety risk.

Staff met with the following advisory committees to review the information provided in this memo (see below). Note that at the time of the Council Motion, the Advisory Committees were in a transition period and were not meeting. This report back was delayed to meet the Committee schedules.

- Accessible City Subcommittee – August 3, 2021
- Women’s Advisory Committee – September 7, 2021
- Transportation Advisory Committee Regular Meeting – September 15, 2021
- Seniors Advisory Committee (Meeting of Climate Change and Emergency Preparedness WG) – September 16, 2021

Staff plan to seek feedback from these groups again when LED upgrades are underway to collect additional feedback.

Please contact me directly if you have any further questions



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General Manager, Engineering Services

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