

Town of Qualicum Beach

FAQ: Street Lights

(updated October 26, 2022)

Streetlights are installed to improve safety of the roadway, especially pedestrian safety. The odds of a collision are greater at night because it is harder to see in lowlight conditions. Streetlights allow drivers to see farther ahead and more of the peripheral area that headlights don't illuminate. LED luminaires are an advancement in lighting technology that can provide superior light at greater efficiency. The installation of LED streetlights in Qualicum Beach have been met with both negative and positive feedback. While some residents have reported the lights as being too bright and requested their replacement or removal, others have praised the light quality and feel more secure while driving or walking at night.

Why were the streetlights in Qualicum Beach changed to LED?

Federal regulations require all street light ballasts containing PCB (polychlorinated biphenyls) to be removed by the end of 2025. As part of this work, in February of 2021, BC Hydro completed a retrofit of HPS lights to LED (Light Emitting Diode) lights in Qualicum Beach. LED's were selected because they use less energy, are more reliable, last longer, are more sustainable, and were the only option offered by BC Hydro. A total of 550 BC Hydro lights attached to wooden utility poles were upgraded.

Why do the new lights appear to be brighter?

The new lights appear brighter for two main reasons:

- The old lights were degraded with age, dirt, and debris and their light output was only about 55% compared to a brand-new light.
- The LED lights are new, performing at 100%, and are a more modern technology that produce light in a different spectrum that appears whiter than the old HPS lights.

Other impacts to the brightness of the lights are wattage and colour temperature. The Town selected wattage on a 'like for like' conversion, relying on BC Hydro's recommendations. The colour temperature selected has been used in all LED light installations since 2012.



LED lights on a pedestrian pathway (left) and HPS lights (right) at the south end of the Cambie Street Bridge. (City of Vancouver)

Are the new lights safer for pedestrians and drivers?

The brighter output and the selected colour temperature allows pedestrians and drivers to have better night vision and to be able to discern objects from a greater distance. Overall, the new lights do improve driver and pedestrian safety, which is their primary purpose. The City of Vancouver monitored 125 intersections and reported a 25% reduction in collisions and 65% reduction in traffic related fatalities and injuries involving pedestrians. Other BC towns such as Sidney have opted to increase the wattage of their streetlights for safety reasons.

What are residents' concerns about the lights?

At this time, 8% of the lights have generated complaints from the public about the brightness of the illumination. While there are a number of residents who are unhappy with the lights, there are many who have expressed appreciation for the benefits of increased visibility.

How were the concerns about the lights investigated?

In July 2021, Council asked for a report from Professional Illumination Engineers on the complaints received from residents about the LED street lights.

The study concluded that the new LED lights still do not meet recommended illumination of the roadway per industry standards, because the inconsistent spacing between lights causes a lack of lighting uniformity. The Illumination Engineer recommended against lowering the wattage for this reason.

How has Council responded to these concerns?

In response to resident concerns about the lights, in October 2021 Council passed a motion to negotiate with BC Hydro to allow alternate LED lights near intersections or areas where trespassing light is a concern. Another motion was passed in October 2021 for the Town to work with BC Hydro to mitigate the current locations identified by residents as being problematic by reducing wattage, davit arm reorientation, shielding, or by any other means necessary. Town staff contacted BC Hydro for a pilot using lights with different distribution patterns to mitigate light trespass but were not successful. BC Hydro will not install shielding on the lights, davit arm re-orientation is often limited by overhead wiring, and BC Hydro contends that the installation parameters are to specification.

Is BC Hydro replacing the lights?

BC Hydro may replace lights, at a cost, if Council provides such direction by resolution. Should Council wish to consider this approach, light replacement would require analysis of budget impact and risk. For example, based on the Illumination Engineer's findings, Qualicum Beach's current street lighting does not meet recommended illumination when compared to the industry standard. If the Town were to decrease the wattage in the LED lighting it would need to almost double the number of streetlamps to meet minimum safety standards. The Municipal Insurance Association has stated that if the Town were to remove the lights that provide better vision for pedestrians and drivers and replace them with a less bright light, there could be an increase in the Town's liability exposure. Increasing the number of streetlamps at municipal expense could mitigate such risk. Should the issue of BC Hydro light replacement be further advanced, given the above, Council may consider requesting staff to provide a report on budget impacts and risks.