

## Jamie Eckenswiller

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**From:** MR [REDACTED]  
**Sent:** September 13, 2023 3:30 PM  
**To:** Jamie Eckenswiller; Mayor WESTGREY; Tom Hutchinson; Doug Hutchinson; Geoffrey Shea; Doug Townsend; Scott Foerster; Joyce Nuhn; Laura Johnston  
**Cc:** chris palmer  
**Subject:** Let's Make West Grey a Dark Sky Friendly Community

Clerk Eckenswiller, Please include this email under communications requiring action in the Council agenda.

Dear Mayor Eccles, Deputy Mayor Hutchinson, Members of Council and West Grey Staff,

Thank you for your support this year in my efforts to promote dark skies and a naturally lit night time environment in West Grey. I've had many great conversations with residents and found that there was a great deal of positive support for keeping our nights free of light pollution.

In the course of determining an appropriate site for the dark sky event Bringing Back the Night Sky I took the opportunity to drive around West Grey after dark and was very disturbed by the amount of light pollution generated by exterior lighting on Municipal buildings and other Municipal outdoor lighting at night.

In particular I would like to express my complete dismay at the decorative lighting chosen for the new Garafraxa bridge. These lights do not meet even the absolute minimum requirements for Dark Sky compliance - no uplight and a CCT of 3000K or less, and to meet the true spirit of dark sky lighting compliance more than that is required. The CCT is greater than 3000K, they are clearly a blue-white light that attracts swarms of insects. They do not have any shielding to prevent the light from trespassing back into the natural area, river, banks and trees, behind and below the bridge. They are over bright (too high wattage), the light is so bright down on the riverbanks I'm sure you could read a book or play cards. And the circle of light on the sidewalk is so bright that the shorter blue-white wavelengths will be reflecting and scattering, reducing any benefits that uplight shielding at the source provides thus adding to skyglow, light trespass and glare.

This choice of lighting is most disappointing for a number of reasons:

1. In 2015 West Grey acknowledged light pollution as an environmental issue and formed a Dark Sky Committee
2. In 2016 West Grey passed the Dark Sky Friendly Community proclamation (162-16). I was there, and as I remember it was either Councillor Cutting or Councillor Lawrence, probably both, that said if we were going to pass this resolution we should be prepared to act on it, not ignore it.
3. Since this lighting has only gone up in the last year or 2 I'm pretty sure it was ordered after 2016.
4. Since 2015 I have made several presentations to Council and the Committee of the Whole clearly defining what actually constitutes dark sky compliant lighting and have repeated those requirements at every opportunity e.g. Comment Period and Public Meetings. And there will likely be written communications, including those relating to the Official Plan Amendment.
5. I was present in Council when these lights came up in discussion and I did point out the need for a CCT of 3000K or less and the need to ensure that the light did not spill back into the natural area. And it is my recollection that Staff assured us that the lighting would be dark sky compliant.
6. I have on many occasions offered my assistance to help Staff make the best choices in outdoor lighting. My offer has never been taken up.

In short there is no excuse for this lighting to have ever been chosen or approved for use.

I have communicated with CAO Johnston regarding my issues with these lights. I have asked that they be turned off until mitigation measures can be made to correct the situation. I have been told that they cannot be turned off and I have no reason to believe that any mitigation measures are being planned. I would like to know why can't they be turned off?

I was told that the information I provided in that email would be captured and incorporated into future design plans and engineering standards. Why hasn't this already been done considering the number of times over the years I've presented this information to Council?

I was told that Staff would be more mindful in the future. The funny thing about the future is that it is never now.

The lights on the Garafraxa Bridge aren't the only example of poor lighting choices made since 2016. I also took a look at the Heritage Walkway Bridge lights. The lights on this bridge are wall pack design and have no shielding at all, they are not CCT 3000K or less and they are likely overbright. These lights are in the Conservation area and over water, ie a sensitive natural area. Yet these lights are shining everywhere, up into the sky and trees and down (forward and sideways) onto the river and riverbanks. An area like this should be protected with fully shielded lights to ensure the light is directed only to where it is needed, specifically the bridge, and nowhere else and the minimum wattage needed for pedestrian traffic. And considering the location a CCT of 2700K or less would be more appropriate. And if you were to dredge through meeting minutes I'm pretty sure you'd find that item 5 and 6 above applies to this project as well, because I do remember speaking to this issue in Council when the bridge design and construction was on the agenda.

I would request that Council directs Staff to review both these sets of lights and any others installed in or near natural areas and either replace the lighting or install mitigation measures such as filter film to remove blue-white light, shielding and illumination reduction measures to bring these lights to a level of dark sky compliance that respects the nighttime environment in the natural areas around them. In the case of the both bridge lights discussed above, that would mean:

- a CCT of 3000K or less, I would suggest 2700K and for the Heritage Walkway Bridge one might even look at true amber LEDs of a CCT 2200K that emit almost zero blue light; consult with lighting suppliers to ensure that the LEDs produce as little blue light as possible IDA recommends a maximum of 7%
- reduced wattage - the illuminance on a pedestrian traffic area needs only be around 1 lux (the full Moon has a max of 0.26 lux but is usually about 0.1 lux). In terms of retaining the existing lights I'm not sure what else besides the installation of dimmers would reduce the illumination levels.
- and full shielding to confine the light to the pedestrian traffic area preventing trespass off the bridges into the natural areas.
- I would also ask that the lights, especially the ones on the Garafraxa Bridge, which appear to be purely decorative, be evaluated as to whether they need to be on all night or not. Could timers, dimmers or motion detectors be installed to reduce the use of the lights?

Again, my offer is extended to provide any assistance in choosing appropriate lighting for the situation.

If the argument against retrofit or mitigation arises for expense, I would argue that if the correct choices had been made in the first place it would have been less expensive. And over the long run the energy savings from using low wattage, timed and targeted lighting would save money. It's time right now, not some tomorrow that may never come, for West Grey to show that it takes the protection of our nighttime environment and dark skies seriously.

I will save my comments on older existing outdoor lighting, the unshielded wall pack lighting used on the Municipal sheds and the fact that the lighting on our Municipal Offices are set on the ground and pointed upwards for another time, and it will come.

Respectfully yours,  
Marian Ratcliffe

The 5 Principles of Outdoor Lighting are: Useful; Targeted; Low Light Levels; Controlled; Colour (<3000K)