



City of Guelph

Dark Sky Public Meetings

November 2023

The City of Guelph hosted two ninety-minute public meetings, seeking feedback from the community as it explores the need for a Dark Sky bylaw in Guelph. Dr. Rebecca Sutherns, from Sage Solutions (rebeccasutherns.com), facilitated the public sessions, which included context setting, a [presentation](#) on dark skies from City staff, followed by Q&A and a facilitated discussion.

Attendance fluctuated at the digital meeting the evening of Thursday, November 9, with a high of 50 participants (including the consultant and City staff team). 37 people provided feedback digitally through Mentimeter, which was supplemented by oral conversation.

Twelve members of the public attended the in-person meeting the morning of Tuesday, November 14 (a few of the participants also attended the digital meeting), with most of the feedback being provided through oral discussion. Three of the participants submitted input in Mentimeter. Highlights from both meetings are captured in the notes that follow.

Based on what you've heard, how big a problem is light pollution in Guelph?

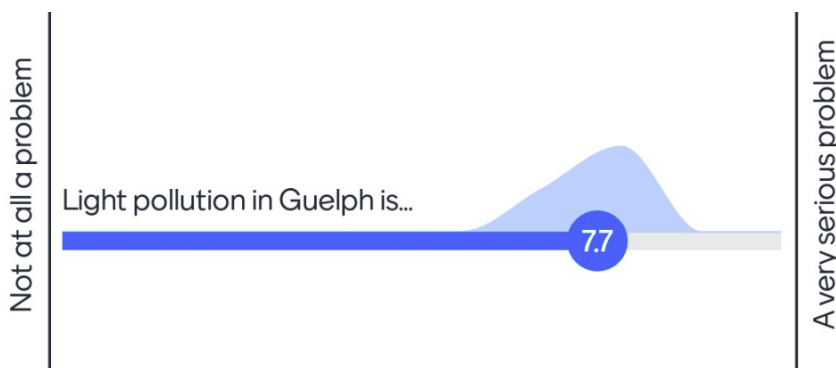
November 9 Meeting



Comments

- Big problem 10-10
- We are not in favour of a bylaw. We can turn lights down, switch to more efficient bulbs. Send or educate guidelines. I don't think light pollution in Guelph is a problem. 2/10
- Light Pollution is a growing 10% annually. It is a huge problem. Not just in Guelph
 - Reacted with 👍 (2)

November 14 Meeting



Comments

- Need awareness and then education
- Need by-law to enact implementation and compliance
- Need option 4 in Guelph as we continue to grow (Note: “option 4” refers to the City presentation that referenced an option for a strong bylaw)

What level of City involvement would be appropriate in managing light pollution?

November 9 Meeting

	Number of Votes
Strong enforceable bylaw	24
Limited enforceable bylaw	9
Optional guidelines	2
Less than the current level	1
Keep it the same	0

November 14 Meeting

	Number of Votes
Strong enforceable bylaw	1
Limited enforceable bylaw	3
Optional guidelines	0
Less than the current level	0
Keep it the same	0

To whom should regulations apply?

November 9 Meeting

	Number of Votes
Everywhere	30
All industrial and new builds	8
Same as now	1

Comments

- Everywhere
- Limited enforcement with enforcement for businesses and voluntary with education for residential
- Definitely interested in more city involvement

November 14 Meeting

	Number of Votes
Everywhere	2
All industrial and new builds	1
Same as now	0



Any other comments or advice as the City considers a Dark Sky regulation?

November 9 Meeting

Light adjustments (9)

- I also support controlling glare and light from streetlights into residential yards.
- Can the streetlights be directed down more?
- Reduce the brightness of the streetlights. I find them to be very intrusive too bright.
- Shields, fewer lights, dimmable, cooler light color
- Street lights could be focused or narrowed
- Warm lights
- Narrow street lights
- Can street lights be closer to red and still be effective?
- Warm light only please

Wildlife (8)

- I'm concerned about effects of light on wildlife (migrating birds in particular).
- My entire concern is the thriving of and growth of wildlife and birds.
- I really want to see a strong, enforceable bylaw that applies to everyone and ensures dark corridors for animals and insects. This is important for human and animal health.
- NB. To protect habitat for endangered species that inhabit the natural areas of the city.
- Firefly populations are affected by the lights at night. It contributes to population decline.
- As our cities sprawl into the surrounding land and as the countryside becomes monocultural and hostile to animals, our cities are becoming refuges for animals. Light pollution harms them as well as us.
- I'm concerned about native pollinators and other fauna everywhere in the city.
- String enforcement bylaws need to be made, for the physical and spiritual health of humans and animal residents — as well as migrating animals.

Residential (4)

- Would like to know if there could be limits on residential use of lights. There are seasons when residents use outdoor lights that are excessive. As well, some have security lights aimed at eye level.



- Existing fixtures on residential property should be grandfathered. People can't afford to change their lights, but all new builds should be required to be full cutoff.
- So many lights on houses all night is frustrating. Motion activated should be required.
- New homes are crazily lit along the eaves. We don't need all this light.

Education/resources (4)

- Education is a huge part of maintaining Dark Skies. A population who appreciates the night sky and wants to protect it will be much more willing to do so.
- There are tonnes of resources available through Dark Sky International that should be referenced. There should be stronger bylaws close to eco-sensitive areas. Streets lighting needs to be warmer.
- Educate people that excess light does NOT decrease crime
- Education and communication are important, as always. Beware the temptation of over-reaching and know what that might look like. I really would like this to succeed.

Stars (3)

- My kids should be able to see the stars.
- I want to see the stars.
- Our private yards and homes should be peaceful and dark so we can rest well. And our skies should be illuminated only by the cosmos above, so we may be humbled and awed by nature

Apply everywhere (3)

- Applicable everywhere — residential and non-residential. Both for public and private lands
- Should apply everywhere for optimal effect
- I really want to see a strong, enforceable bylaw that applies to everyone and ensures dark corridors for animals and insects. This is important for human and animal health.

Commercial/business (2)

- Industrial properties east of Victoria Road both on Elizabeth and York are both active at night, yet produce an immense amount of light. The light trespasses into our neighbourhood near Victoria and Grange
- I'd like a review of commercial business light pollution.



Other

- Always consider safety; lights activated by raised lighting with louder voices
- Many jurisdictions have found innovative approaches to this issue. It will continue to be an important issue environmentally.
- Can Guelph have an AZ-style "dark park" or three?
- I think it's a good idea
- Put the work into lowering the tax increase, not a bogus bylaw to increase revenue
- Keep Guelph progressive
- Humans need to make some sacrifices as we've feasted on this planet for so long to the detriment of our fellow living creatures
- Please no "electric" billboards like the one on highway 6 between Fergus and Guelph.

November 14 Meeting

- I think that we should have a dark sky since it will help lots of animals to have good lives and survive. It will also help people to be healthier and happier. I also think that being a child, seeing the milky way galaxy would be amazing since I've never seen it and getting to see more animals knowing that they're happy would be great too. If it helps with all this and is cheaper and better for the environment, I think that it's really important that we have bylaws for it.

November 9 Discussion Notes

- LED lights — are they blue and could they be softer?
 - 3000 Kelvin specified in Guelph — blue lights are 10,000
- Astronomers (including Royal Astronomical Society)
 - See the universe!
 - Bring out the stars
 - Don't be afraid of bylaws
 - E.g. Uniform lighting systems are better than no bylaws
 - E.g. Safer driving
 - Consider affordability of retrofits
- Bird rescuer
 - DSI advocate and lighting designer
 - "So good to do this"
 - In favour of shielded lights, dark sky lighting, not wasting energy
 - Get informed
 - 75% of birds are in decline



- Light bring birds into cities
- Getting noticeably worse
 - Streetlights
 - Headlights
 - We have bought into an idea it's supposed to be light at night
 - But we want our kids to see the night sky!
 - Inflection point now I hope
- Commercial lighting — buildings and parking lots lit even when closed?
 - Easy with timers?! Reduce this, for both existing and new builds
- Light pollution is growing $\pm 10\%$ /year
 - LEDs have revised that number upward
 - Simple to fix
 - Pervasive
 - Education problem: light as pollutant
 - Must apply to everyone — not just new, commercial
 - Parking lots
 - KW mall turns off 50% of lights now, despite initial resistance from insurance industry
 - Include billboards
 - Happy to have this discussed
- Lit up walls outside? Not necessary
- Use accurate terminology in bylaw
 - E.g. Not “wattage” — use “lumens” for trespass
- Include educational component, ensure it is ongoing to improve enforcement

November 9 Chat

- Typical of city of Guelph projects, never on schedule
- It wasn't well advertised...just learned about this few days ago
- Please consider:
 - 1. Define "excessive lighting"
 - 2. Define “problem” (concern, issue, risk) associated with "excessive lighting"
 - Solution:
 - a. More investment on renewable energy?
 - b. Replace motion/ sound triggered lighting with timers?
 - c. Your idea of solution?
 - 3. First and foremost night lighting is for safety!!!
 - i. Have police been advised for input?
 - ii. Has engineering department been consulted?



- iii. Have the public (where the lights will be turned off) at night been consulted PRIOR this meeting?
 - Solution:
 - a. End homelessness and focus on individuals off the street that may have:
 - i. mental illness
 - ii. Addictions
 - iii. suicidal tendencies
 - iv. criminal behaviour tendencies
 - b. Your solution?
 - Reacted with 👍 (4)
- Re safety: light at night is important for pedestrian and cyclist safety WRT vehicles. HOWEVER, the best studies show that light at night INCREASES crime at night but that people FEEL safer with more light. This is a false sense of security.
 - Reacted with 👍 (3)
 - Can you share the link of that study you have mentioned above?
 - [The effect of reduced street lighting on road casualties and crime in England and Wales: controlled interrupted time series analysis](#)
 - Reacted with 👍 (2)
 - Just one example
 - [Here's one example of a crime and lighting study](#). I'm the author. look at pp 113-114 I can provide more more references (I can also do a presentation at another time, if people are interested).
 - Reacted with ❤️ (1)
 - Reacted with 👍 (3)
- Safety for motorists means preventing glare from overly bright LED signs and unshielded light fixtures that can blind drivers and obscure pedestrians at night.
 - Reacted with 👍 (2)
- How much have we taxpayers paid this consultant so far? How much did this video cost?
 - Reacted with 👍 (1)
- Great, I can't wait to see a sea turtle at riverside park
 - Reacted with 🙌 (3)
 - Reacted with 👍 (3)
- A refreshing initiative, one taken up by dozens of communities across N America. Not turning the lights off necessarily, just down, within reason and



with less light trespass. We can be a lot smarter how we light our cities. I currently drive 1-2 hours from Guelph to see the Milky Way as it should be seen.

- Reacted with 👍 (6)
- I live on a narrow street with very little tree cover — the LED street lights create a huge amount of light trespass and forced me to buy blackout blinds and move my bedroom to a different room in the house.
 - Reacted with 👍 (6)
- Here's a good podcast discussing impacts of artificial light at night
<https://therationalview.podbean.com/e/alan-is-destroying-the-night-sky/>
 - Reacted with 👍 (5)
- We live near downtown and while we can see a few stars, its not good at all. We also get truly unbearable light streaming into our windows and yard at night from just one street lamp across the street. Total blackout curtains are required for bedrooms. The lights are so powerful they actually fatigue the eyes when walking at night.
 - Reacted with 🙄 (1)
 - Reacted with 👍 (4)
- Option 4 with the education component
 - Reacted with 👍 (4)
- Very informative Jamie thank you!
 - Reacted with 👍 (3)
- How much did the presentation cost so far?
 - Why are you here?
 - Reacted with 👍 (1)
 - Reacted with 🙄 (2)
 - To show what a waste of money this is. Property taxes are going up 10%, does that not concern you?
 - This isn't the correct forum to dispute that.
 - Reacted with 👍 (3)
 - Right, this is a forum for constructive feedback and to create a dialogue about this not for giving unproductive comments and for trolling the City of Guelph
 - Reacted with 👍 (1)
 - Idiot! Talk to the real Doug Ford about downloading from province to municipalities!
- Great overview I learned so much!
 - Reacted with 👍 (2)
 - Me too, we're going to get sea turtles in the Speed River



- Get a hobby
- Voluntary with an educational component concerns me. My neighbours are both educated people and they still throw paper towel in the blue bin, take-out containers (like, the entire bag, straws, napkins, food bits) in the blue bin, plastic bags in the blue bin. The truck has big words on it, educational component, but people just don't care for most of this and don't learn it.
- There are a lot cooler colour temperature than the old lights
- Dark Sky International has lots of information: <https://darksky.org/what-we-do/advancing-responsible-outdoor-lighting/>
- There's still excess blue light peak in the spectrum of 3000K LEDs
 - Reacted with 👍 (4)
- Yes — anecdotally, I can agree that the new residential lights are much colder and harsher on the eyes than the old
 - Reacted with 👍 (4)
- Old high pressure sodium lamps are around 2250K, any LEDs in normal streetlights would be much bluer. All human eyes are near sighted in blue at night, so this excess blue doesn't improve visual acuity
 - Reacted with 👍 (5)
 - Coming through with hard science!
 - LED's were likely installed for their efficiency. It's horrible to look at though.
 - It was shortsighted (so to speak!)
 - LOL
- The LEDs are also a much harder light source; notice the hard edges of shadows.
 - Reacted with 👍 (2)
- We need guidelines, not bylaw.
 - Reacted with 👍 (1)
- Bylaw enforces/requires. Much needed.
 - Reacted with 👍
- LEDs are responsible for increasing light pollution
 - That's fact/science
- This meeting has been loaded with left wing lunatics, like I said in QP
 - People who disagree with you = left wing lunatics lol okay got it
- I think stars are something in the order of 30% less visible that they were in the 1970's. Sad.
- Light trespass due to over lighting and bad fixture design is something that needs bylaw
 - Reacted with 👍 (3)



- Lower CCT/Kelvin of lights. 1800k-2200k should be max for helping to reduce light trespass. Along with strict full cutoff requirements. Outdated lighting isn't expensive to fix to make it better for the night environment.
 - Reacted with 👍 (2)
- Just pointing out that Guelph is a Nature Canada certified Bird Friendly City and one aspect of that designation is the reduction of threats to birds including the reduction of light pollution. "Municipality has a light pollution reduction strategy and supports actions to reduce light pollution, particularly during migratory seasons"
 - Reacted with 👍 (9)
- Research studies have proven that more light does not equal more safe.
 - Reacted with 👍 (4)
- We are fortunate to have astronomers here to join us, thank you from a Guelph resident.
 - Reacted with 👍 (5)
 - I agree it's great for people to experience the stars, but wow, that is still such a human-centric approach to why we should do this.
 - Reacted with 👍 (1)
- White LEDs are harsh and are not good for night vision or circadian rhythms.
 - Reacted with 👍 (4)
- The city should consider using amber LEDs instead of white in fixtures
 - Reacted with 👍 (5)
- Contrast and glare are huge problems
- I believe they're xenon headlights. Would be under provincial regulation.
 - Reacted with 👍 (1)
- I'm not sure just focusing on new builds is going to cut it. I think maybe a time limit on how long you have to change your lights would be acceptable.
 - Reacted with 👍 (5)
 - YES! Good idea!
 - great idea!
 - Reacted with 🙌 (1)
 - Yes. I believe in Muskoka they have given residents time to comply with the bylaw.
- Almost all our native species of bats are at risk btw and a city in the UK just did this: <https://www.worcestershire.gov.uk/news/more-bat-lights-worcestershire-led-streetlight-plans-rolled-out>
 - Reacted with 👍 (6)
- <https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>
 - Reacted with 👍 (1)



- Regarding electronic billboards:
https://calgary.rasc.ca/lp/Digital_Electronic_Billboards.pdf
 - Reacted with 👍 (2)
- Thank you SO MUCH for talking about this. I intend to delegate.
- If you looking for information from a Canadian Source that has developed Dark Sky preserves across the country: <https://rasc.ca/lpa>
 - Reacted with 👍 (3)
- Thank you! I hope the conversation continues! Lots of very educated people on the topic in Guelph and surrounding areas to pick their brains!
- <https://www.stateofthebirds.org/2022/tipping-point-species/> That's the report published by the American Conservancy
- I feel an education campaign would be very effective in Guelph.
 - Reacted with 👍 (7)
- Your normal consumer knows very little about light pollution, but that can change!
 - Reacted with 👍 (2)
- Thomas Edison didn't think that people needed to sleep.
- If decisions have already made, what's the point of this Zoom with 50 pp on it? Over 100K+ city, 50 ppl participating is sad
 - Reacted with 👍 (1)
 - It's a start though! Tell your friends!
 - Absolutely! Like Maya Angelou said: when you know better, you DO better!
- Cars that are idle in neighbourhoods with full headlights on are problematic as well.
 - They are the worst. Light AND noise AND air pollution. Triple threat.
 - Reacted to with 100
- As a teacher, I think engaging and educating kids would be a great way to go for the future. They take ideas home and tell their parents off. 😊
 - Reacted with 👍 (4)
 - Reacted with 😊
- Those businesses that have signage lit up after dark is an advertising thing and does not need to happen.
 - Reacted with 👍 (2)
- Yes, agree that light pollution in Guelph has gotten worse, and yes (as an amateur astronomer), as much as I miss seeing stars, my concern is more about the impact on nature.
 - Reacted with 👍 (5)



- Thank you for this opportunity to put our say! I would much love to see the Stars!
 - Reacted with 👍 (1)
- Commercial lights should be turned off after business hours. I've spoken with store owners and they are often told by lawyers that they can be sued if they turn off their parking lot lights and someone slips and falls. Can the city certify solutions for local business lighting to give owners more confidence to turn off their lights, or add motion sensors?
 - Reacted with 👍 (4)
- Would red lights be less harmful to fauna but still allow humans to see? I've used this before to be less disruptive.
 - Reacted with 👍 (1)
 - See the article I shared above about Bats!
- I love the every other light solution! This could apply to streetlights too!
- Yes dimming during non-peak hours is HUGE
 - Reacted with 👍 (2)
- Studies show that light levels in most parking lots are too high and there is no safety benefit to the excess lighting
 - Reacted with 👍 (3)
- Those electric billboards are also a SAFETY HAZARD for drivers. maybe that is what should be pushed — we live in a car society, unfortunately.
 - Reacted with 👍 (1)
- Thank you everyone and for this good presentation. Looking forward to positive results (5)
- Clear (and dark) skies!
- I came in late. Was this recorded?
- Thanks to staff for organizing this and thanks to Rebecca for facilitating
- There are many cities that have ordinances in place, I hope Guelph can learn from them.
- How do we help move this forward?
- The Responsible Outdoor Lighting at Night conference has recorded sessions and you can watch them here: <https://www.cibse.org/get-involved/societies/society-of-light-and-lighting-sll/sll-events/rolan-22-video-access-registration>
- Where I can review the questions?
- Will the results of the in-person session be made available anywhere for those who can't attend?
- Thanks to staff for using our tax dollars for this farce
- If can answer the questions online



- Yup education is KEY
- I just want to say that I am delighted that this is happening.
- We commonly refer to lights being full cutoff, but modern terminology is in 'BUG' ratings, for example

November 14 Discussion

- Curious who is at table
 - Involve developers
 - Chamber, DBA
 - Data
- Advances in lighting technology make this possible now
 - Efficient AND to the benefit of business
- Dark sky ≠ “dark night”
 - Perception management
- Speaking to the converted here
- Need to appeal to common good vs. rights and business success
- E.g. Torrance (Muskoka) — globally recognized
 - Bigger Muskoka towns under pressure
 - Willing, but a matter of enforcement
 - Needs to be regional — bigger communities shed light on big areas
- E.g. Full of cut off lighting — dark from above
 - Cities can lead by example
 - “An example of good government”
- Guelph cares about environment — could work here
- Opportunity
 - Rollout to other nearby municipalities
 - Regional issue
 - Tri-cities, GTA — be involved in advocacy
- Support for option 4
- Difficult at first — people will eventually accept it
- Local regulation with advocacy wider
 - Strengthen others’ efforts
- E.g. Calgary as an example
 - Already done there!
- Only put lights on when needed — save electricity too
 - E.g. motion detectors
 - Be innovative
- Bring groups onside — strength in numbers (e.g. Chamber of Commerce)
- Retrofitting of streetlights?



- Cost?
 - Electra does this for the City
 - LED switchover in 2017
 - Shields too?
- Focus on problem areas — higher level of regulation for commercial
 - Lighter regulation/exemption for heritage lights?
- Goal of option 4 eventually
 - Phases to get there?
- Emphasize education
 - Show possibilities
 - People will get involved
- Incentive program?
 - E.g. time limited paid retrofit
- Light trespass now?
 - No bylaw now (just zoning)
 - Could still explain, check in, invite voluntary behaviour change
 - Property standards apply if light fixtures are damaged
 - Most complaints are about commercial lighting
 - Backyards not covered now
- Community facilities covered too?
- Site plans for new builds address lighting
- Crime and light
 - Sense of safety is not the same as actual crime rate
 - Example from New York city — cost savings from LED lighting with no difference in crime
- Where are people making decisions re: lighting?
 - Retail settings
 - Educate and incentivize there
- Measure impact as policies are implemented — can we?
 - Quantify it
 - Check in on new bylaws regularly anyway, but can we be more intentional/specific here?
- People often don't notice the difference when better lighting is installed — don't expect backlash
- Added feature for tourism to be a Dark Sky community
- Pay attention to wildlife — not just birds
 - E.g. nocturnal creatures
- Leverage Clear Dark Sky for data
 - Light pollution map info

Show people the night sky and they become fans — astounding!

