

COGNASHENE COTTAGERS' ASSOCIATION
DARK SKY BYLAW COMMENT

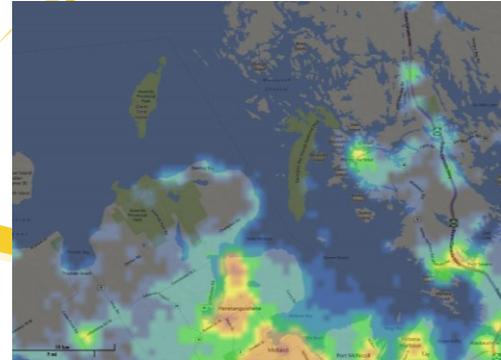
DARK SKY Bylaw 2015-37

Cognashene Cottagers' Association Comment

4/9/2015

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Southern Georgian Bay – Night Sky



Picture supplied by Robert Dick, Royal Astronomical Society of Canada

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Dark Sky Bylaw 2015-37

Our comments on the Dark Sky Bylaw are made specifically with the shoreline residential communities in mind and will look at :

- the policy direction established in the Township's Official Plan
- the opinions of the Cognashene waterfront community expressed in a short online survey
- the themes present in the comments received along with the survey
- recommendations by a leading dark sky advocate

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Official Plan

Section I.1.2 Dark Sky Lighting of the Official Plan includes the following:

- Preservation of the waterfront and rural Character shall be facilitated through the use of Dark Sky Lighting, where appropriate and where appropriate safety concerns can be addressed.
- New and existing development is encouraged to provide exterior lighting that avoids trespass and glare on neighbouring properties, and lighting should be directed downwards rather than outwards.
- Full cut off Dark Sky compliant lighting shall be required for all new development where appropriate and where not required for safety and security reasons.
- Exterior floodlighting is not permitted.
- Exterior lighting shall not interfere with water navigation.

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Official Plan – Are these policies enough?



The policy direction of the Official Plan address the issues shown in the above picture:

- the lack of preservation of Character (i.e. Dark Sky) caused by the use of flood lights
- interference with water navigation
- light trespass and glare

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Dark Sky Bylaw - Survey

To understand the needs and wants of the waterfront community of Cognashene the CCA membership was requested to complete a short four question survey on the Dark Sky Bylaw.

- there were 176 responses to the survey
- in addition 66 respondents provided written comments
- the response rate and the responses paint a very clear picture that the waterfront community is interested in "*Preservation of the waterfront and rural Character ... through the use of Dark Sky Lighting*"
- the comments raised concerns with regards to existing vs new development, night time navigation and "low wattage" deck lights

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Dark Sky Bylaw - Survey

As background for the survey a [link](#) to the draft bylaw as well as the following "what it means to residential property owners" summary was provided:

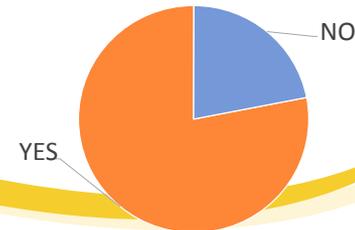
- Only applies to outdoor lighting installed after the passing of the bylaw
- Is not retroactive to existing lighting unless a light is modified, moved or changed out
- All light from new light fixtures must shine down and not up
- Exempt from the requirement that light fixtures must shine down are low wattage lights used for decoration purposes such as Christmas lighting and property ornamentation lights (this would include solar deck, dock and landscaping lights)
- Lights may be used to illuminate a property but must not cause light trespass
- Light trespass is defined as "*the shining of light produced by a luminaire beyond the boundaries of the property on which it is located*".

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Question 1

Should the Dark Sky bylaw be applied retroactively to all outdoor lights for shoreline residential and island properties?



More than 75% of respondents believe the Dark Sky bylaw should be applied retroactively.

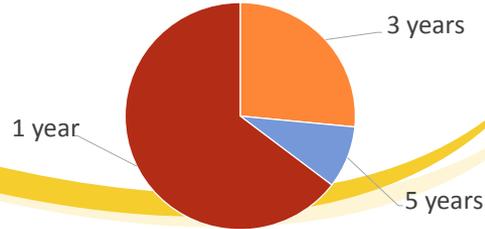
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Question 2

If the bylaw is applied retroactively to all outdoor lights for shoreline residential and island properties how long of a grace period should there be for changing non conforming lights?



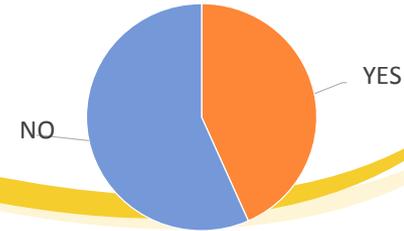
More than 60% of respondents believe that the grace period to change non conforming lights should be 1 year.

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Question 3

Should the Dark Sky Bylaw restrict the use of low wattage lights on decks, walks and docks?



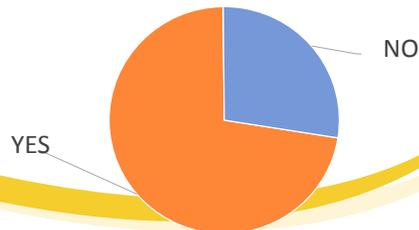
Slightly more than 50% of respondents believe the use of low wattage lights on decks, walks and docks should not be restricted.

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Question 4

Should non conforming outdoor lights be permitted only when on a switch or timer and used for safety purposes only?



More than 70% of respondents believe the use non conforming outdoor lights should be permitted only when on a switch or timer and used for safety purposes only.

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Dark Sky Bylaw Survey - Comments

The following themes were present in the comments (most frequent first):

- The Dark Sky bylaw is a welcomed initiative
- The night sky should be protected
- Lighting that shines across the water makes navigating by boat at night difficult
- Lights are required for safety (walking and docking)
- Lights should not be left on all night or when not at the cottage
- Lights on docks should be banned
- The Dark Sky bylaw is an unwelcomed initiative
- The Dark Sky bylaw will be difficult to enforce
- Reflectors on docks are adequate for boater safety
- Lumens, not wattage should be as a criteria for "low wattage"

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Dark Sky Bylaw Survey – Take Away

The survey responses and comments indicate that the community is:

- very concerned with the issue of light trespass
- leaning towards applying a bylaw retroactively but would give non conforming lights some leeway if used minimally or for safety
- split on the management of low wattage lights on decks and docks
- is concerned with the effect of lighting on navigation

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Guidelines for Outdoor Lights

The Guidelines for Outdoor Lights was developed by Robert Dick, P.Eng at the Royal Astronomical Society of Canada for Parks Canada.

A generic version is on the web at <http://www.csbg.ca/articles/GOL.PDF>

- The Guideline for Outdoor lights has three stated objectives:
 - a) *to limit glare and the adverse ecological impact of artificial lighting throughout the Park,*
 - b) *provide technical specifications for acceptable illumination levels required for safe navigation within the Park,*
 - c) *and it presents lighting policies that may be applied to urban areas beyond the Park boundaries.*

Since much of Georgian Bay Township is rural and park like, special attention to these guidelines will help maintain that environment.

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Guidelines for Outdoor Lights

The guidelines for shoreline areas (docks, jetties, lock facilities, boat launching areas, beaches, homes, cottages and undeveloped lands) includes:

- inform ... owners and users of shoreline property of the impact artificial light has on the ecology of the water and adjacent lands.
- ...shield all outdoor lighting to comply with Full Cut-off (FCO) requirements and to turn off this lighting when they go to bed.
- shoreline lighting should consist of amber or red light. Blue and white lights are not permitted.
- light fixtures should be prohibited within ten metres of a shoreline ... overhead luminaires that shine into the water are not permitted.

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Guidelines for Outdoor Lights

For "Developed" Properties (privately owned) within Park Facilities owners should be:

- informed of the impact of artificial lighting on wildlife
- encouraged to remove "dusk to dawn" lights
- replace "yard lights" with Full Cut-off (FCO) luminaires
- replace MH bulbs with either HPS, Low Pressure Sodium (LPS) fixtures or amber LED fixtures
- encouraged to turn off all exterior lighting when they are indoors and 2-hours after sunset

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Guidelines for Outdoor Lights – Take Away

The Guidelines for Outdoor Lights as developed for Parks Canada broadens the perspective on outdoor lighting in a rural or park setting with suggestions that:

- Luminaire location, fixture style, bulb type and light colour are all important in minimizing the ecological impact of lights at night
- Education of property owners on best practices such as no outdoor lights on when inside dwellings and elimination of “dusk to dawn” lights is necessary

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Dark Sky Bylaw - Recommendations

Request that Council establish a Task Force made up of residents, staff and Council members with a specific mandate and a specific time frame to:

- a) develop a Dark Sky Policy through consultation with the various communities and industry experts that can then be used to educate residents
- b) bring forward proposed revision to the draft Dark Sky law.

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