Conservation Advisory Council | City of Newburgh, New York
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The Conservation Advisory Council has received several citizen comments and complaints about the new lighting that is being installed at various locations around the City. The CAC is submitting this information for your information and consideration to benefit the citizens and the environment of the city.

Dark Skies Newburgh

Darkness is a key factor in human health and well-being and the health and well-being of wildlife and plant life. Quality of urban life is affected by lighting.

Research suggests that artificial light can affect:

Human health by increasing stress rates and breast, prostate cancers, obesity, diabetes, depression, sleep disorders and depress melatonin levels.

Wildlife and Ecosystems, especially nocturnal animals which use light for hunting or shadows for cover and migratory animals like birds, insects and reptiles who mistake artificial lights for moon or starlight which they normally use for navigation. Many plants use lighting as cues for growth or dormancy and therefore are affected by artificial light which can lengthen their growing season and then put them at risk for frost damage or lose the opportunity to be pollinated due to being out of sync with pollinators.

Increase energy use and carbon pollution: About 30% of artificial lighting outdoors is wasted.

Shows little or no effect on crime and negatively effects safety. Lower crime rates are not necessarily correlated to artificial lighting, studies are not conclusive or don't apply to Newburgh conditions which are generally more risky than most of the urban study areas. Safety is negatively affected by poorly designed streetlights whose glare blinds motorists, bicyclists and pedestrians and then causes accidents and increases light pollution. Well-designed lighting is an important component to urban living but not all light choices are good policy choices.

Good policy choices include:

Lights that are shielded. Shielded lights direct light downward and don't cause glare and sky glow that is bad for humans and wildlife.

Lights that are longer wavelength, long wavelength lights (Yellows and Oranges) don't disrupt natural conditions as much because they are closer in color to sunsets and moonlight. Shorter wavelength lights (Blues and Whites) are rare in the dark of night, exceptions are lightning bolts which have a duration that is measured in milliseconds, causing very brief events, unlike artificial lighting that can be on for many hours and disrupt natural condition for as long as they are illuminated. Another way to measure lighting is in Kelvins. Lights that are less than 2700K are the best possible choice for healthy communities.

Lights that are closer to the ground. Lights that are closer to the ground or below the tree canopy use less energy than lights that are above the tree canopy. Lights above the tree canopy need to use more energy to illuminate the same area.

Here is a list of resources for lighting policy and lighting manufacturers:
Darksky Fixture Seal of Approval
http://www.darksky.org/fsa/
Policy information:
http://www.darksky.org/lighting/policy-makers/

Model Lighting Ordinance
IDA and the Illuminating Engineering Society of North America have developed a Model Lighting Ordinance to address the need for strong, consistent outdoor lighting regulation in North America. Developed jointly over a period of seven years, the MLO encourages communities to adopt comprehensive outdoor lighting ordinances without devoting extensive staff time and resources to their development.
The MLO outdoor lighting template is designed to help municipalities develop outdoor lighting standards that reduce glare, light trespass and skyglow. The MLO offers several innovations to outdoor lighting regulation, including

- The use of five lighting zones to classify land use with appropriate lighting levels for each. Zones range from LZ0, designed for pristine natural environments and limited outdoor lighting, to LZ4, for limited application in areas of extensive development in the largest cities
- Limits on the amount of light used for each property
- Use of the IES's TM-15-11 "BUG" (Backlight, Uplight and Glare) classification of outdoor lighting fixtures to ensure that only well-shielded fixtures are used. No uplight for area and street lighting is allowed in any zone

The MLO will be revised periodically to include new information, feedback from municipalities and changes to IES standards.
Please download and distribute.

- Model Lighting Ordinance (MLO) PDF

Model ordinance:
http://www.darksky.org/our-work/public-policy/mlo/
Based in International Dark-Sky Association Research and Resources: http://www.darksky.org/

Thank you for your consideration

Chuck Thomas, Chair

Cc: CAC Members
City Council