



# Newsletter 10 – October '08

RASNZ DarkSkies Group



## Welcome

Welcome to the tenth newsletter of the DarkSkies Group of the RASNZ.

## Lighting Awards 2008 - (IESANZ)

The Illumination Engineering Society of Australia and New Zealand (IESANZ) held their 2008 convention in Queenstown along with the NZ Lighting Design Awards 2008 held on Friday the 10<sup>th</sup>. As in past years the RASNZ has been invited to judge for an Award for the **Royal Astronomical Society of New Zealand Dark Sky Lighting Design Award of Excellence**.

Jennie McCormick judged the entries earlier in August and I was to present the awards at the Awards Dinner on Friday night 10<sup>th</sup> October.

Ill health prevented me from attending but we were very lucky to have Mr Reg Wilson stand in for us to present the Award. Mr Wilson is the Head of the Asia Pacific Region of the International Dark-Sky Association.

Mr Wilson presented the RASNZ Dark Sky Lighting Design Award of Excellence to Mr Paul Wilson of Queenstown Lakes District Council, and Mr Andrew Wray of Modus Lighting Limited. The winning project was on the Wanaka Waterfront.

Jennie's comments on the project were:



*"A nice clean design. It has taken into account the importance of reducing light spill on the nighttime environment. The use of luminaires with full cut off flat glass optics to reduce glare and sky glow is great to see. This design is what the Royal Astronomical Society of New Zealand is looking for and we are very excited to see designs such as these. Great job, keep it up."*

See the attached Media release from QLDC.

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## National Policy Statement on Urban Design:

Thank you to those who supported this effort by making a submission.

This was a very important opportunity to make our DarkSkies opinions known to New Zealand's policy makers.

The Ministry for the Environment was seeking input into the scope of a National Policy Statement on Urban Design.

It is now a matter of waiting to see what is included in the policy statement when it is published for comment.

In the mean time.....

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## Department of Internal Affairs - Building Sustainable Urban Communities

The Department of Internal Affairs have also launched a document for discussion: **Building Sustainable Urban Communities**: A discussion document exploring place-based approaches to sustainable urban development.

This provides us with another excellent opportunity to make our concerns known.

The full link for the discussion document web page is [http://www.dia.govt.nz/diawebsite.nsf/wpg\\_URL/Resource-material-Sustainable-Urban-Development-Index?OpenDocument](http://www.dia.govt.nz/diawebsite.nsf/wpg_URL/Resource-material-Sustainable-Urban-Development-Index?OpenDocument)

They want to hear what you think about the ideas, tools and approach described in this document. They welcome further ideas and suggestions for encouraging sustainable urban development in New Zealand and dealing with existing barriers. Feedback on the discussion document will help shape recommendations to the government on policy options to support sustainable urban development in New Zealand.

The document includes questions for you to consider, and a submission form which you can download. Please email your completed submission form or comments to [sudu@dia.govt.nz](mailto:sudu@dia.govt.nz), or send to the Sustainable Urban Development Unit, Department of Internal Affairs, P.O. Box 805, Wellington 6011 **by Friday 28 November 2008**.

Newsletter #9 has a number of links that may help with background if you are preparing a submission.

Again I am happy to help you prepare a submission and would be interested in receiving a copy.

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### **Electricity Commission**

The Electricity Commission has been running programmes aimed at reducing the barriers to the uptake of efficient lighting in New Zealand. The Commission has issued a Request For Proposal (RFP) in mid October, seeking new proposals for efficient lighting programmes.

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### **Advancing New Zealand's Street Lighting Technologies**

Waitakere City Council and Modus Lighting hosted the Advancing New Zealand's Street Lighting Technologies Forum and Night Tour at the Trusts Stadium in Waitakere City on the 28<sup>th</sup> September. Over 120 people from Electricity Commission, EECA, several Local Authorities, lighting companies, consultants, tertiary training institutes, NZ Standards Association and installers attended with seven companies and RASNZ having display tables set up. Each of the displayers was given three minutes on video to make a presentation of the product or cause. These videos will be added to a DVD record of the event funded by the Electricity Commission.

I am very impressed at this initiative from Waitakere City and Modus lighting. It is the first of a series that are planned with following forums covering other aspects of outdoor lighting.

For around two hours attendees had the chance to talk with the companies and RASNZ who were manning display tables. Several of the lighting companies had working streetlights set up. There are some exciting developments coming.

Our display consisted of two posters and some brochures to hand out. Around 30 brochures were picked up. I had many interested people stopping to say they were pleased to see us there.

Several speakers addressed the gathering then a panel answered questions from the floor.

At this stage some pressure was applied to the gentleman from the Electricity Commission to remove barriers to the uptake of efficient street lighting. One of these barriers is that the way local authorities are billed for power used does not encourage efficient lighting. These practices need to be addressed to ensure incentives are real and effective.

In the evening two busloads of people travelled to two streets in Waitakere where new lighting systems have been installed. The first was supplied by Modus Lighting but designed by another person. While very impressive in terms of energy saved, and increased illumination provided compared with original lighting in nearby streets, there were some problems evident. The street appeared to be over bright and there was significant spill across the opposite street boundary with opposing houses well lit up.

It was reported that at the time of installation the lowest wattage bulb available for this new Metal Halide bulb was 60w. Modus offered to replace these with new 45w bulbs. This should help reduce the illumination levels.

The lamp poles used in this project had a 5-degree up-tilt. The bulbs were installed in the middle of 7 locations within the luminare (fitting). When the new bulbs are installed they will be fitted in to the highest location to ensure reduced spill across the street.

The visual performance of these lights is very impressive and with the further development will play a role in future street lighting in New Zealand.

The second example project had just been completed a day before we arrived. It consisted of LED Streetlights. This was a very interesting experience. All the poles were mounted on one side of the street, I think in an attempt to beautify the street. What this provided was very even illumination along the footpath on the pole side, but uneven lighting along the other side.

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Light was well directed in that it did not spill into the property behind the pole nor did it flood the house opposite. With further development LEDs will play a very important role in street lighting.

To end the evening Modus Lighting displayed a system where streetlights can be remotely controlled. They displayed a system where via a database in Paris, they were able to reduce the power supplied to a lamp in Waitakere, by 50%. Five years ago it was not possible for High Pressure Sodium, Metal Halide and Mercury Vapour Lamps to be run at anything less than their nominal power. What this new control technology now allows is for streetlighting to be varied in brightness depending on need. This means lighting does not need to be left at full brightness all night, another help for astronomers.

All in all this was a very worthwhile event. Well done Waitakere City and Modus Lighting.

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### Local Government Magazine – Urban

We have been invited to provide an editorial for this NZ Local Government magazine. This will be great opportunity to reach our target audience.

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### Great World Wide Star Count!

20<sup>th</sup> Oct to 3<sup>rd</sup> Nov 2008

In the lead up to the International Year of Astronomy 2009 here is an opportunity to build upon previous years' estimates of sky brightness around the world. For the Southern Hemisphere folk amongst us the target is Sagittarius. Charts are provided to allow an estimate of the limiting magnitude to be made. The Count takes place from 20<sup>th</sup> October to 3<sup>rd</sup> of November.

[http://www.windows.ucar.edu/citizen\\_science/star\\_count/](http://www.windows.ucar.edu/citizen_science/star_count/)

I will be reminding you again next year, IYA2009, for this and other star count projects.

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### Congratulations Dunedin Astronomical Society

Dunedin Astronomical Society has recently established a Dark Sky Group and is aiming to become a signatory to the NZ Urban Design Protocol. Welcome aboard DAS. Among their first actions will be to improve the streetlighting around the recently upgraded Beverly Begg Observatory. They were also able to host Reg Wilson of the Asia Pacific IDA, and his new wife Noni after the recent IESANZ Lighting Awards in Dunedin.

Reg moved on to Mt Cook and to Mt John where Alan and Pam made them most welcome.

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### National Geographic – November 2008

The November version of the National Geographic Magazine has a cover article: **The End of Night – Why We Need Darkness**  
<http://ngm.nationalgeographic.com/2008/11/table-of-contents>

Also see the links below.

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### Light Links

Light Pollution - Our Vanishing Night  
<http://ngm.nationalgeographic.com/2008/11/light-pollution/klinkenborg-text>

Light Pollution  
[http://ngm.nationalgeographic.com/geopedia/Light\\_Pollution](http://ngm.nationalgeographic.com/geopedia/Light_Pollution)

Star Count Goes Global  
[http://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=112446&org=NSF&from=news](http://www.nsf.gov/news/news_summ.jsp?cntn_id=112446&org=NSF&from=news)

Light pollution: An emergent threat to health and ecosystem  
<http://www.thedailystar.net/story.php?nid=58098>

NASA Maps Shed Light on Carbon Dioxide's Global Nature  
<http://www.nasa.gov/topics/earth/features/airs-20081009.html>

Hundreds of Birds Killed by School's Artificial Lights

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<http://www.usnews.com/blogs/thinking-harder/2008/10/03/hundreds-of-birds-killed-by-schools-artificial-lights.html>

City lights have birds singing the wrong song  
<http://www.suntimes.com/lifestyles/1199598.CST-NWS-night03.article>

Lights of our life are sometimes too bright  
<http://www.canada.com/vancouver/news/westcoasthomes/story.html?id=3d82e0b4-6ca0-4a89-810b-16ee324330e9>

Not to be taken lightly  
<http://www.theolivepress.es/2008/09/26/not-to-be-taken-lightly/>

Calgary to install Lumen IQ(TM) energy-saving street light technology as pilot project  
<http://www.newswire.ca/en/releases/archive/September2008/23/c7586.html>

Embrace the Darkness - the Problem of Light Pollution  
<http://www.celsias.com/article/embrace-darkness-problem-light-pollution/>

Light and Dark in the Spotlight  
<http://www.celsias.com/article/light-and-dark-in-the-spotlight/>

Street lights to dim across York  
[http://www.thepress.co.uk/news/3661371.Street\\_lights\\_to\\_dim\\_across\\_York/](http://www.thepress.co.uk/news/3661371.Street_lights_to_dim_across_York/)

Lighting Research Center Develops Framework for Assessing Light Pollution  
<http://news.rpi.edu/update.do?artcenterkey=2489>

Mortality Threat to Birds - Collisions with Buildings  
<http://www.abcbirds.org/conservationissues/threats/buildings.html>

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Thanks for your help and interest.

Best regards,

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<http://rasnz.org.nz/darkskies/>



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