

DRAFT

**MAG Dark Sky Stakeholders Group (DSSG)
Draft Meeting Notes**

January 18, 2011

Heidi Bickart welcomed the group to the January DSSG meeting. Introductions were made.

Heidi Bickart recapped the November 2010 meeting and asked for corrections to the meeting notes. No comments were provided.

Heidi Bickart stated that MAG staff has been providing regular updates to the Intergovernmental Representatives of MAG member agencies to ensure they are informed about the Dark Sky project.

Due to many concerns with the draft Pattern Outdoor Lighting Code (POLC), a draft alternatives table was created. The table was included with the agenda packet and made available on the MAG web site's Dark Sky project page. Heidi Bickart explained the table. The left column contains a list of the concerns from all stakeholders and the next 3 columns include alternatives to these concerns. Alternative A is a more friendly option for the astronomy community or a "darker" option, Alternative C is a more friendly option for the business community or a "brighter" option and Alternative B represents the middle ground. All options allow good lighting to be designed to meet the recommendations of the Illuminating Engineering Society of North America (IESNA). The goal is to use the stakeholders group to work through each concern and reach a compromise.

Heidi Bickart discussed the purpose of the Stakeholders Group. She said it was to collect information on outdoor light pollution, review best practices in lighting codes, and develop a draft Pattern Outdoor Lighting Code (POLC) for MAG member agencies.

Heidi Bickart provided background on the Dark Sky initiative. The November 2010 meeting notes contain the background. She encouraged all new participants to review materials on the MAG Dark Sky web site.

Heidi Bickart said member agencies will be encouraged to adopt the POLC either in whole or in part. She noted that MAG created a POLC for the cities and towns within the Maricopa County region to use as is or with changes to best fit their jurisdictional needs. She said the draft alternatives table is a way to create options for various sections of the code so that a city or town has choices when crafting their own outdoor lighting ordinance.

Trish Hart said she is very concerned with the proposed POLC. She provided 5 letters on behalf of business. Ms. Hart said that the business community representatives need to talk to their constituents in order to provide input in this process. She noted that she hopes there is lengthy and thorough conversation on the POLC.

DRAFT

Heidi Bickart proceeded to explain the first concern listed in the table, Section 3, Applicability. After discussion the 3 alternatives proposed were: Alternative A 25 percent, Alternative B 50 percent, and Alternative C 75 percent. Representative from shopping centers explained that in practice city planners use discretion with the percentages in Section 3. City of Avondale said this may be true but the standard varies to fairly accommodate each unique proposal. Queen Creek said the POLC is a guidance document, it is not written with shall or shall not, so he thinks it is fair to have various percentages and leave it up to each jurisdiction to choose the percent that best meets their needs.

Table 4.1 is Luminaire Shielding Standards for all nonexempt outdoor lighting fixtures. Table 4.1 was listed as a concern. This concern was explained and the alternatives were presented. It was noted that the classes of lighting were removed from the POLC to simplify it and lighting zones were added to the POLC as most member agencies use lighting zones. The lumens level was increased after discussion with a professional lighting designer and scientist.

There is a typical suburban shopping center in North Peoria where one lamp fixture is 80000 lumens and that falls within Peoria's code.

Chris Luginbuhl said 80,000 lumen lamps are permitted in the POLC. There is no brightness limit in the code. The 2,000 or 3,000 lumens in Table 4.1 only applies to whether a lamp has to be fully shielded or not. Lights that are greater than the lumens limit identified in Table 4.1 need to be shielded and directed toward the ground.

City of Glendale does have a dark sky ordinance and parking lots lights are required to be fully shielded which means that no light is allowed to go above the horizontal horizon. The POLC has a clear definition of fully shielded fixture. The POLC would allow uniformity in lighting codes among jurisdictions within Maricopa County.

Trish Hart said their big concern is sign curfew and lighting in parking lots due to safety for their employees. She said she would need to take the draft alternatives table back to her lighting designer in order to get constructive feedback on the table.

Mark Grenawalt said the POLC is intended to have responsible lighting that is directed where it is needed and not up into the sky where it is not needed. For landscape or architectural lighting that is purposely directed upwards, the POLC provides a lumens/lamp limit for light directed up.

Elizabeth Alvarez noted that it is critical to educate participants on lighting, glare, visibility, etc.

In response to comments regarding purported increased property values, Gordon Keig said in most instances, the shopping center owner is responsible for upgrading lighting in a shopping center parking lot and pays the cost to upgrade the lights. If there are reduced

DRAFT

energy costs due to the upgrade, the tenants receive the benefit. The point being that there is no economic incentive for a shopping center owner to revise their lighting design. The owner gets stuck with the cost, and the tenants get the benefit at no cost to them, said Gordon Keig.

Richard Hubbard asked if the POLC is necessary if each jurisdiction is going to create their own outdoor lighting code using any combination of the 3 alternatives. He asked if this is a priority for MAG since this was first brought forward to MAG in 2008. Nathan Pryor said this is still a priority to MAG since Management Committee in October 2010 directed us to go back and work on the POLC.

MAG Regional Council placed enough value on the Dark Sky project to have MAG staff work on it. Arizona is one of the 3 leading places in the world for astronomy and light pollution in Maricopa County is impacting the world class observatories north and south of the Maricopa County. The purpose of the POLC was provided from Section 1 of the POLC.

Paul Blyer requested to know what existing MAG member agencies outdoor lighting ordinances are ineffective. MAG staff informed that this evaluation is not a part of the POLC development process and would happen at the jurisdictional level.

Attendees were encouraged to provide to MAG staff the economic impacts of the POLC to astronomy and to business. This information would be shared.

MAG staff said the next meeting is set for February 15, 2011 at 1:30pm in the MAG Saguaro room. Future meetings are scheduled for third Tuesday of every month at 1:30pm.

MAG staff requested to please let them know of other stakeholders not represented that should be at the table. MAG is encouraged to see everyone here and hopes that all participants will continue to participate.

Action Items for Future Meeting

- Provide presentation on dark sky
- Provide information on Outdoor Lighting Codes and their purpose and benefits
- Provide rationale and data for each alternative and figure listed in the Draft Alternatives Table and the MAG POLC
- Mark Grenawalt offered to give a presentation on good parking lot lighting in a shopping center if that would be helpful to the DSSG.