October 28, 2014

Testimony RE: City of Portland 2035 Comprehensive Plan Update

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I want to focus my comments on Policy 4.28.e: Light Pollution

As an amateur astronomer, and President of the Rose City Astronomers, I am happy to see this policy being added to the Plan, but sorry to see that it is currently only an aspirational policy.

My request is that you consider adopting a more aggressive policy that would lead to implementation of lighting design standards that would ensure we are on a path to reversing the negative effects of light pollution produced in the City of Portland, such as:

Policy 4.28.e. Light pollution. <u>Encourage Require</u> lighting design <u>and encourage lighting</u> practices that reduce the negative impacts of light pollution, including sky glow, glare, energy waste, impacts to public <u>health and</u> safety, disruption of ecosystems, and hazards to wildlife.

Aside from simply turning outdoor lights off at night, a practice the City hopefully will "encourage", the single most effective step that can be taken is for all outdoor lights to be properly shielded so light is focused downward, rather scattered into the night sky.

Why should we care? For similar reasons as to why city leaders and planners recognized decades ago that smokestacks from the industrial age, and smog from automobiles, were impacting our health and obscuring our beautiful skyline.





Today, because of regulations and renewed interest and concern about the environment we live in, we take for granted the beautiful view of Mt. Hood framed by the Portland skyline on most any clear day.

The same cannot be said for another natural resource and wonder of our environment – the night sky – that is disappearing because of light pollution and sky glow.

If you live in Portland, or the metro region for that matter, you have no chance to see the Milky Way from your house or even a neighborhood park surrounded by trees blocking out nearby porch lights. Your only chance is to get away from the city, and even then, Portland's light bubble can spoil your view, from even over a hundred miles away.



Below is a map showing a scaling of darkness for the State of Oregon that clearly illustrates the impact of Portland's light bubble.



To be fair, it's more of a regional light bubble as cities surrounding Portland are each contributing polluters – but with a strong policy in Portland's Comprehensive Plan, and subsequent regulations and resources for builders and homeowners, we could begin to shrink the impact or our polluting habits, or at least keep things from getting worse.

And we should not lose sight of the fact that the impact of the light pollution Portland creates stretches well over a hundred miles in all directions – spoiling otherwise dark skies and washing out views of many of the wonders of our universe for our fellow Oregonian neighbors.

I submit to you that we can't begin to make progress in reaching those goals by only "encouraging" design and development practices and that we need to be more bold and forward-thinking to actually make a difference.

I recently built a new house in the City of Portland. I was required to use certain building materials and meet a plethora of building specifications. I was also required to sacrifice use of a portion of my private property to build a water filtration facility.

I imagine that all of those requirements were based on goals of our Comprehensive Plan. While meeting those goals added thousands of dollars to my development budget, a simple code requirement that "all outdoor lights be shielded so as direct all light downward and prevent light from being broadcast sideways or up into the sky" would not typically add to the cost of construction, as such fixtures are widely available at prices comparable to non-shielded fixtures.

In summary, I fully support a policy on reducing light pollution and urge the Commission to make it even stronger, if in fact the current language will not lead to specific design standards such as the above example of shielded light fixtures.

