

From <http://tinyurl.com/elbel-risk>

(originally <http://www.nightwise.org/#!/At-Risk-At-Elbel-Park/c17jj/56af56ea0cf2062bd4120643>)

# At Risk At Elbel Park

February 1, 2016

Thank you for receiving comments about [Richard Elbel Park](#). I'm not advocating for any specific use of this great resource; rather, I'm advocating for a specific practice.

Often we don't know what we've got until it's gone. Equally often, when we arrive at the point (like now) when deciding whether we'll preserve what we've got, we don't fully know what is at risk.

Each of us brings to the table a different perspective on the same landscape, just as each artist would paint the Elbel landscape differently. We see and appreciate multiple assets and varied priorities. I'd like to make you aware of what is at risk with the nighttime environment.

[Image: Simulation: The night sky overhead at 7 PM on Feb. 1, as seen from Elbel Park, South Bend, IN.]

## The Value of Night

I'm an observer of the night. Over the years I've transitioned from a casual fan of the stars to an adherent of the science of darkness. Darkness isn't merely the end of day when people hunker inside or cling to their electrical umbilical chords. *Darkness is a requisite part of life.*

Half of your life, half of the lives of all nature in and around Elbel, half of all human history has occurred between sunset and sunrise. We and all of the natural kingdom have evolved in a landscape that segues from a bright blessed day to a dark sacred night. A dark night is really that--sacred. What is at risk at Elbel is downright sacred.

Every cell in the human body has time-related functions, part of the bigger circadian system. I'm referring to science, not some woo-woo feel-good incense-laden chanting mysticism. Healthy life depends on critical functions for which the absence of light is essential. Regarding darkness, Elbel Park is an unheralded refuge.

## Three Tenets

So here's my comment for the city and its residents--not just a comment for [Elbel for Everyone](#), but a comment for *everyone*:

***What is at risk is a valuable resource called darkness. Whatever you choose for the site's future purpose, incorporate at least three tenets regarding your lighting practices:***

- 1. All outdoor lighting shall be full cutoff, or fully shielded.**
- 2. If LED lights are used, they shall have a correlated color temperature (CCT) less than 3000K.**
- 3. All lights shall minimize glare, sky glow, and light trespass.**

These same principles should be applied to every City of South Bend (or individual) lighting scheme, including Richard Elbel Park, the West Side Corridors Plan, Light Up South Bend and the Lamp Post Project. If a project requires lighting, give it lighting-- but, in making it sufficient, make it minimal and sensible.

If you'd like to encourage better municipal decision-making about these lighting projects, see my blog post [Lighting the Corridors](#) (May 14, 2015), at which I introduce the basis for the three tenets. Or visit my interim [Dark Skies page](#) and blog posts [tagged dark skies](#) at [Nightwise.org](#). A good summary of the science behind lighting and its impact on health and the environment is in the [Seeing Blue](#) paper from the International Dark-Sky Association.

### Quantify the Asset

As we determine what is at risk, it is important to quantify those assets. I compliment, for example, Steve Sass, who recently went birding in the park to count 16 species in one outing. I've been out of town much since the Elbel story became news, so I have not yet quantified the darkness at Elbel. However, I anticipate measuring the quality of the night there, and I expect it to approach 19 magnitudes per square arc-second.

For a comparison with downtown South Bend values see [Power Outage Darkness](#), in which I measured the darkness with a Sky Quality Meter (SQM) during a May 2014 power failure. During the outage, the downtown sky averaged about 17 magnitudes per square arc-second. If I've got my math right, that suggests the nighttime at Elbel may be about two magnitudes greater, or six times darker (2.5 squared).

Anecdotally, I know Elbel Park previously was a desirable location for amateur astronomers to set up telescopes, including Michiana Astronomical Society and a group from Indiana University-South Bend (IUSB). Unfortunately, regular travel to the park for stargazing ended after a vehicular accident killed a student who was en route.

**[Note:** After the Feb. 1 meeting I went to Elbel Park to measure the sky quality with a Dark Sky Meter app, which yielded an average value of **19.16** magnitudes per square arc-second. See [Quantifying the Night at Elbel](#) (<http://tinyurl.com/elbel-quantify>).]

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