



# LIGHTING ORDINANCES

Presented by

Pennsylvania Outdoor Lighting Council

Pennsylvania Section of the International Dark-Sky Association

# TOPICS

- **Why** a lighting ordinance?
- **What** are the attributes and elements of an effective lighting ordinance?
- **How** to get a lighting ordinance started, enacted and enforced

# WHY AN ORDINANCE?

## Truths

If a municipality doesn't have an effective lighting ordinance and doesn't think it will need one, they had better think again.

# WHY AN ORDINANCE?

“Oh, we have an effective ordinance.”

“Lighting shall be arranged so that it does not reflect towards any public street or residential zoning district.”

# WHY AN ORDINANCE?

## Truths

- If a municipality doesn't have an effective lighting ordinance, they can hope for the best but **be prepared for the worst.**
- If the municipality waits to create and pass an ordinance until they discover they really need it, **it will be too late.**

# ORDINANCE BENEFITS

## **A good lighting ordinance:**

- Prevents excessive and under lighting
- Protects citizens, drivers, the environment and the night sky from glare and light pollution
- Puts the municipality on record that bad lighting will not be tolerated.
- Prevents unpleasant lighting surprises

# Avoid Nasty Surprises

What you envisioned



What you got



# ORDINANCE BENEFITS

Continued

- Ordinance compliance and suitability can be fully judged up front by requiring that developers provide complete information about proposed lighting,.
- Gives municipality power to correct existing bad lighting



# Correct Existing Problems



# ORDINANCE ATTRIBUTES

- Results vs. How to get There
  - Establish minimum standards
  - Leave room for innovation but not abuse
    - e.g., require full cutoff fixtures but wattage and lamp type up to designer/developer
  - Some subjectivity/flexibility is appropriate

# ORDINANCE ATTRIBUTES

- Clear, understandable
  - Use language all understand.
  - Define technical terms
- Tailor to the municipality's needs
  - e.g., rural vs. urban, commercial vs. residential

# ORDINANCE ATTRIBUTES

Continued

- Make it legally sound
  - Health, safety and welfare – plus
- Deal with the main issues
  - You can't cover every eventuality

# ORDINANCE ELEMENTS

- Purpose, Scope and Exemptions
  - e.g., seasonal lighting
- Requirements for:
  - Fixture types, i.e., full cutoff





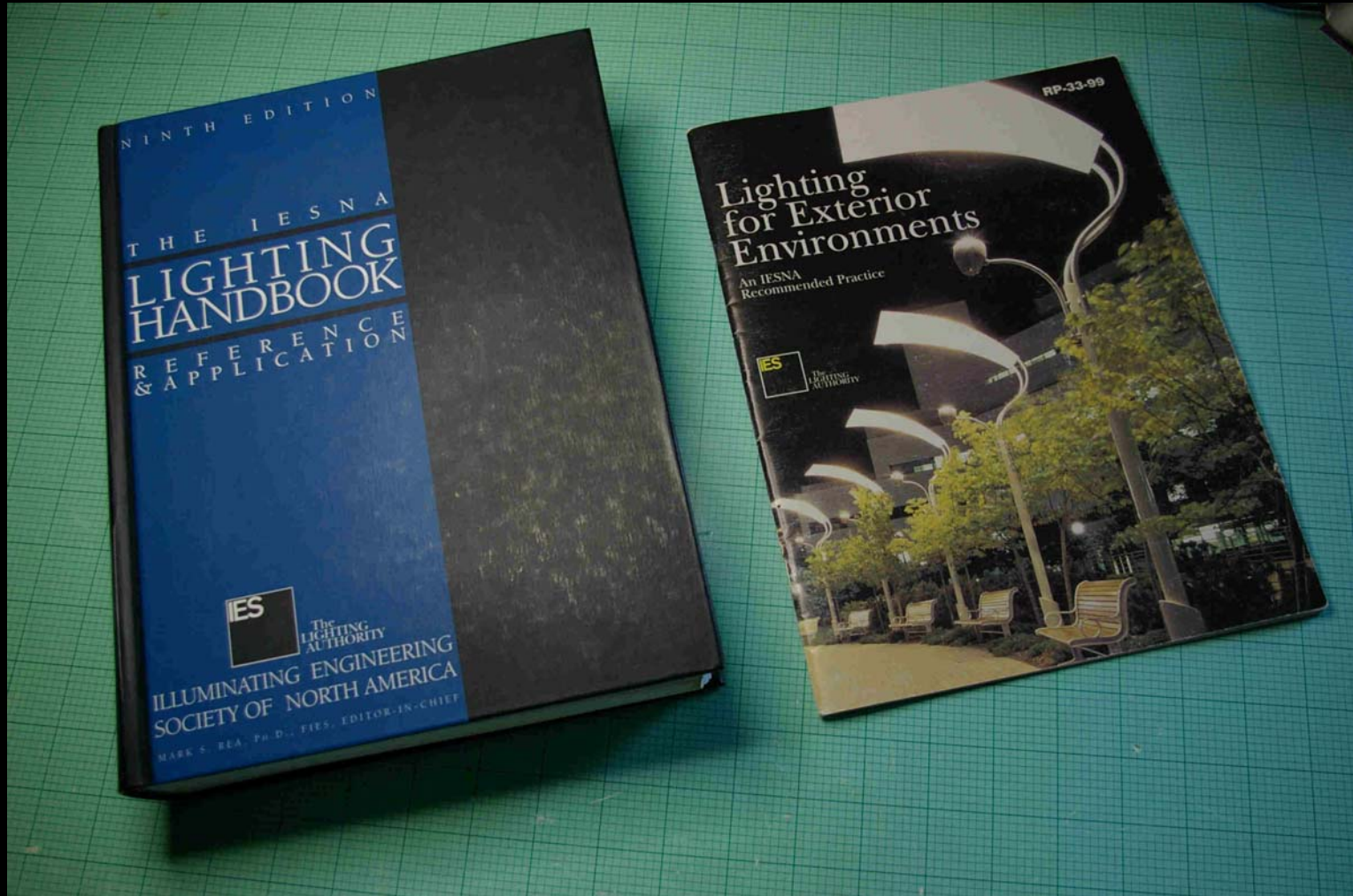
# ORDINANCE ELEMENTS

- Requirements for:
  - Glare control, e.g., aiming, shielding, light trespass



# IESNA

## Illuminance levels and uniformities per IESNA



# ORDINANCE ELEMENTS

Continued

- Max. allowed mounting heights
- Shut-off hours/Security lighting
- Pole protection behind parking spaces
- Plan submission content





# ORDINANCE ELEMENTS

Continued

- Dealing with post approval substitutions
- Compliance verification/monitoring
- Dealing with non-conforming lighting  
i.e. Sunset clause and grandfathering

# GETTING STARTED

- Find a champion to shepherd process.
  - Most important step
- Don't start from scratch. Start with proven ordinance model, tailor to municipality's needs.
- Seek technical help where needed

# GETTING STARTED

## Optional Steps to Consider

- Convene group, get buy-in. Include elected officials, planning, EAC, zoning, police, municipal engineer, citizens
- Take field trips to find good and bad examples



# GETTING STARTED

CONTINUED

## Where to place the ordinance?

In SLDO?

- Covers subdivision and land development applications but not all renovations, retrofits and many small projects, e.g., gas stations.
- ZHB and Code Enforcement don't use

# GETTING STARTED

CONTINUED

## Where to place the ordinance?

### In Zoning?

- ZHB/Code Enforcement Officer know and use every day.
- Covers renovations and residential too
- Supervisors do not have jurisdiction except in Conditional Use.

# GETTING STARTED

CONTINUED

Where to place the ordinance?

As a Stand-Alone Document?

- Gets lost, goes unused.
- Nobody owns, keeps it current, can find
- Circumvents county review and public hearing process.

**Not typically recommended**

# GETTING STARTED

CONTINUED

## Best Choice

- Put parts appropriate to land development in SLDO and parts appropriate to zoning in ZO. Naturally there will be some duplication.

## Second best choice

- Put in ZO and cross-reference in SLDO

# GETTING STARTED

CONTINUED

## Where in the ordinance?

- Sprinkle in each zoning district section or create a stand-alone lighting section?
- Create a separate lighting section
- For very unique requirements, put them in zoning district section



# GETTING IT PASSED

- Get county review and hold public hearings
- Strive to hold the line but be prepared for compromise (half a loaf)
- Educate and convince *before* compromise
- Don't let the process die – can take up to a year.

# ENFORCEMENT

- An unenforced ordinance is valueless
- Arrange for training of key players
- Have tools available, e.g., light meter and IESNA standards
- Seek commitment of responsible parties, e.g., code enforcement officer and municipality's engineer

# ENFORCEMENT

- Don't forget Building Permit Reviews
- CEOs and engineers often miss lighting details on architectural.



# ENFORCEMENT

- Make it clear to the developer up front that there will be charges for complete construction surveillance.
- Section 509 of the MPC provides authority for municipalities to establish a financial security agreement with the developer.
- Have the right talent available on the job site to monitor activities during critical phases.

# ENFORCEMENT

- Municipalities that do not adequately monitor construction may gain a reputation for being lax and therefore become targets for developers who don't want to follow approved plans.
- Undiscovered mistakes made during construction often come back to haunt a municipality later on.

# CONCLUSIONS

- Get started now, don't wait for an unpleasant lighting surprise
- Assign the task to someone who cares and will see it through
- Get competent technical help
- Drive to completion
- Use it and enforce it!

# Don't let this happen in your municipality!





# Or This





# Or This





# Or This



# POLC Can Help You Craft an Effective Lighting Ordinance



# POLC

- We are a non-profit group of volunteers that has helped over 30 municipalities and planners create effective lighting ordinances in Bucks, Berks, Chester, Montgomery, and other Counties.
- We stand ready to help tailor an ordinance to your municipality's specific needs



# Contact Information

- Talk to us after the program
- Call us at 610 326-1402
- E-mail us at [POLCouncil@cs.com](mailto:POLCouncil@cs.com)
- Visit our website: [www.POLCouncil.org](http://www.POLCouncil.org)

The website has helpful information, including model lighting ordinances that can be used to get you started and tailored to meet your needs.

# Contact Information

- Visit the International Dark-Sky website at [www.darksky.org](http://www.darksky.org) for:
  - Lists of approved lighting fixtures
  - Educational materials
  - Light pollution research
  - A library of light-pollution resources
- Visit the IESNA website at [www.iesna.org](http://www.iesna.org) to obtain lighting technical resources

# THANK YOU!



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