Dark Sky Workshop Summary

In October of 2026, Washoe County held a series of workshops related to the Dark Sky project, an initiative to update outdoor lighting standards. Approximately 75 citizens participated in two in-person workshops and one online webinar. The focus of the workshops was to discuss the importance of dark skies, share results of the community dark sky survey, and seek input on regulatory approaches for different types of lighting. This input will help inform the draft amendments to be shared in a future neighborhood meeting. For a full project schedule, see the timeline below.

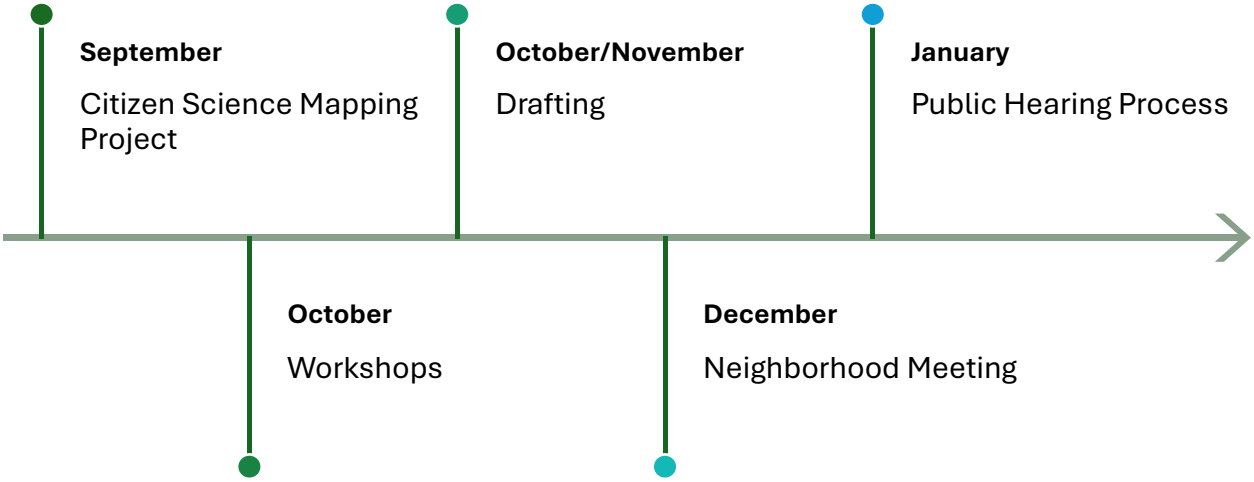


Figure 1 Dark Sky Project Timeline

Approximately 35 citizens attended in-person events and 40 the digital workshop. All three workshops started with a presentation about the project and the importance of dark skies then progressed to a conversation structured around the following topics: residential lighting, commercial/industrial lighting, decorative lighting, and darker places. Comments were recorded on sticky notes placed on posters. Attendees also had the opportunity to write comments on comment cards.

After the completion of public outreach, all comments were transcribed by staff and sorted by topic. The input received related to each topic is summarized below. Comment transcriptions are attached to this document as Exhibit B.

All Lighting

Many comments were relevant to all types of lighting, including residential, commercial, and other lighting types. In general, workshop attendees were supportive of regulations addressing the five principles of responsible outdoor lighting from DarkSky International (image below). Furthermore, participants in all workshops emphasized the importance of education both in spreading awareness of the importance of responsible lighting and in providing detailed guidance about lighting design. Specific regulatory measures mentioned include:

- Limits on cool lighting colors and establishing a maximum Kelvin, which is a measure of the light's color
- Requirements for downshielding
- Prohibitions on light trespass
- Lower lighting heights



Figure 2 Five Principles for Responsible Outdoor Lighting

Residential

Participants discussed a number of existing challenges with residential lighting and potential solutions. Prominent topics included light trespass (aka light directly crossing property lines), light color, excessively bright lights, and lights on when not in use. Discussed regulatory solutions included:

- Supporting timers and/or motion sensors for lights
- Requiring downshielding on lighting fixtures
- Lighting color restrictions
- Specific and clear light trespass prohibition

In general, attendees would prefer that lights are confined to residential properties with downshielding and are off when not needed. Many participants also emphasized the importance of education before people buy/install lights and creating resources that make it easier for people to talk to their neighbors about lighting. Additionally, several attendees commented on the importance of effective code enforcement.

Commercial/Industrial

Many of the comments related to residential lighting apply to commercial and industrial lighting, but participants also mentioned several other considerations. Commercial and industrial sites can have more lights than a typical residential site, and so overall lighting strength on the site can be important. Participants supported minimizing light by focusing on only having lights where needed and by using mechanisms like timers and motion sensors to dim or turn off lights when not in use. Many commentors also emphasized the importance of warmer colors, particularly on commercial and industrial properties.

Several specific lighting scenarios were discussed related to commercial and industrial properties, including lights on signs, night skiing lights, lighting for rural operations such as mines, and mini-storage interior lighting that is visible from the outside. Additionally, some commentors mentioned that it was important to consider the type of adjacent development. In cases where commercial or industrial land adjoins open space, stronger regulations were suggested.

Decorative

Discussion of decorative lights focused on a few specific lighting types: colored soffit/eave lights, string lights, solar path lights, and landscape uplighting. In general, attendees were not interested in having such lighting types on their properties and varied in opinion on how they should be regulated. Some would prefer stricter prohibitions on certain types of decorative lighting, and some acknowledged that other residents may want such lighting

but supported limiting the times in which it could be illuminated. Most participants supported allowances for solar path lights and string lights without additional restrictions. For eave lights and landscape uplighting, most participants supported a limitation on how late the lights can be on, referencing 10:00 or 11:00 p.m. Some supported limiting the time of year in which colored festive lights can be illuminated. For landscape uplighting, commentors mentioned the importance of limiting the strength of such lights and directing them towards trees, rather than into the sky or across property lines.

Streetlights

Though they were not one of the lighting types asked about, participants commented on streetlights in all workshops. Specifically, those who lived near streetlights commented that they can be bright and, in some cases, angled and unshielded such as to cast light outside of the right-of-way. Furthermore, commentors discussed tall streetlights having a large impact in residential zones. Currently, streetlights generally fall outside of the purview of the Washoe County Development Code and are not required by the code.

Darker Places

As part of the workshops, staff presented the results of the night sky quality survey and asked if those areas that are uniquely dark—specifically the northernmost parts of Washoe County—should be treated differently. While participants agreed that protecting dark skies was important throughout the County, they also agreed that especially dark areas merit extra protection. Participants also mentioned the importance of considering mining, geothermal, and natural resource development uses in the context of rural lighting regulation.

Other Topics

The previous sections summarize discussion on the most prominent topics but are not comprehensive. Other topics of comment or discussion included the BUG rating system for light quality, the economic benefits of dark sky lighting, coordination with NV Energy in education efforts, lighting in truck bays, incentivizing dark sky businesses, illuminated model homes, and more. All transcribed comments can be viewed in Exhibit B.

Exhibits

Exhibit A – Workshop Presentation

Exhibit B – Transcriptions of Received Comments

Exhibit A

Workshop

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Night Sky Quality Survey

October 7, 2026

Background

- Developing Dark Skies regulations identified as a high-priority action in Envision Washoe 2040
  - Priority policy for 9 of 12 planning areas
- Washoe County home to some of the darkest skies in the world
- Washoe County Development Code (e.g. zoning regulation) contains lighting standards for development
  - Dark Skies project focused on updating those regulations to pursue community goals

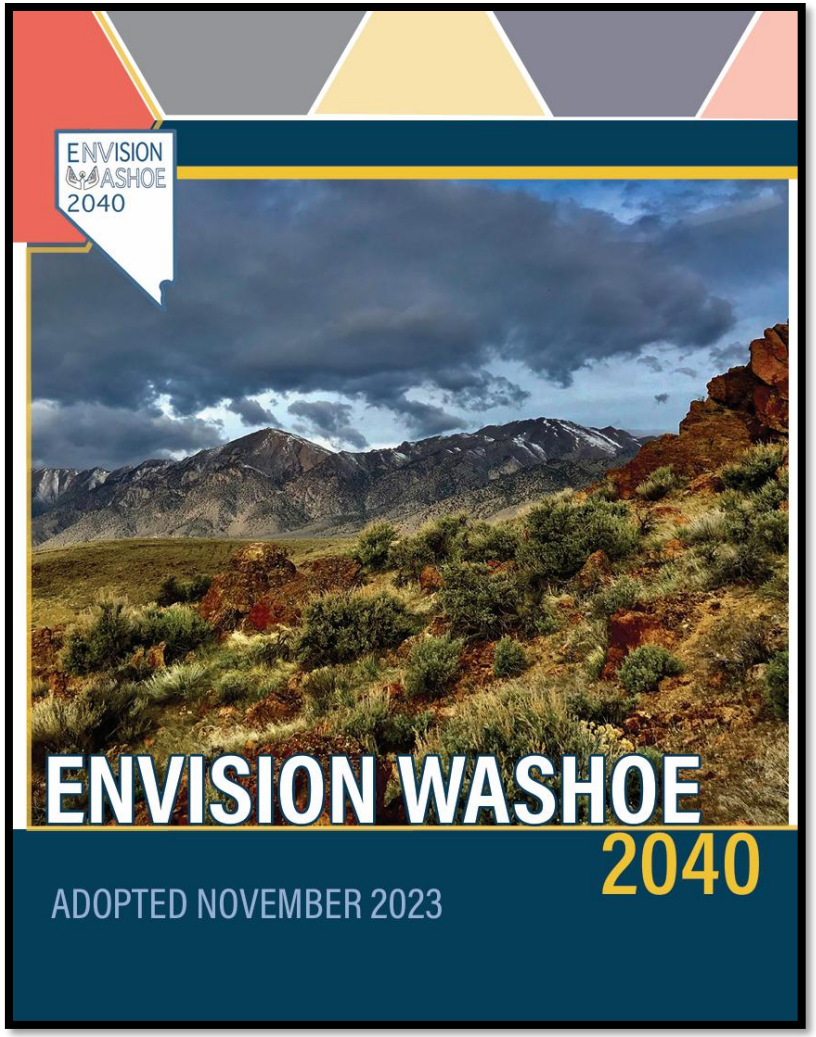
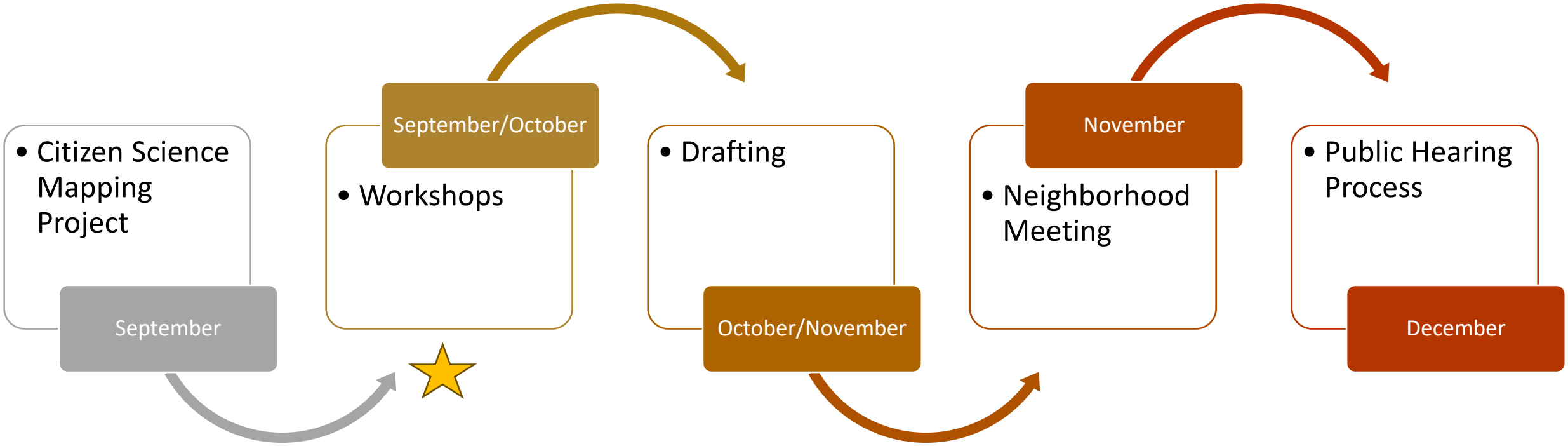


Image 1: Envision Washoe 2040 Cover

Dark Skies Project

COMMUNITY SERVICES DEPARTMENT



Goals Today

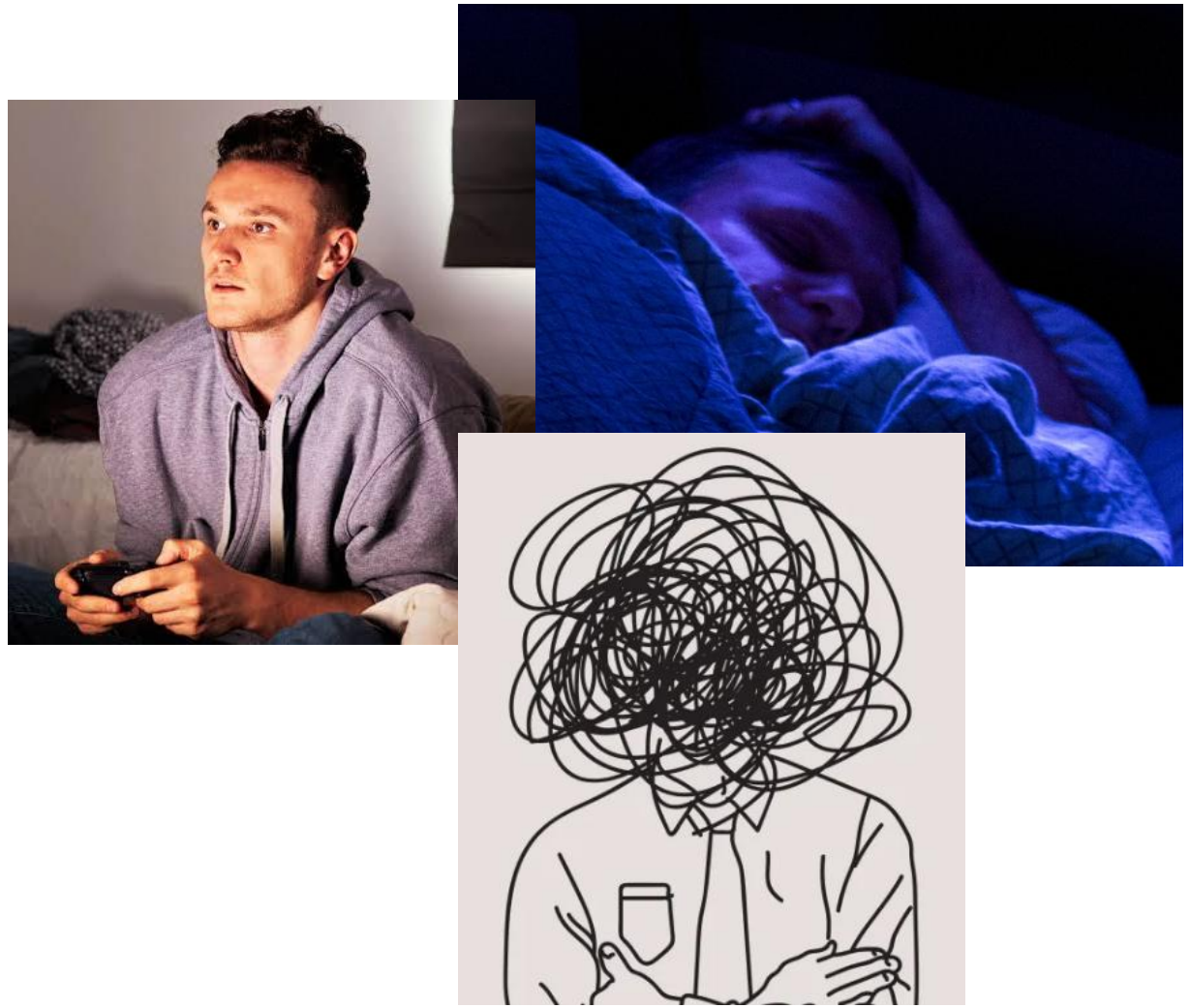
- Understanding of the impact and importance of dark skies
- Understanding of ways to regulate lighting
- Feedback on regulations for different types of lighting



Image 2: Visualization of light pollution in the United States

Importance to People

- Darkness and circadian rhythms
  - Exposure to lights after dark delays melatonin release and contributes to trouble sleeping
  - Poor sleep contributes to obesity, poor metabolism, diabetes and cardiovascular disease.
  - Darker nights associated with better moods & reduced stress



Importance to Wildlife

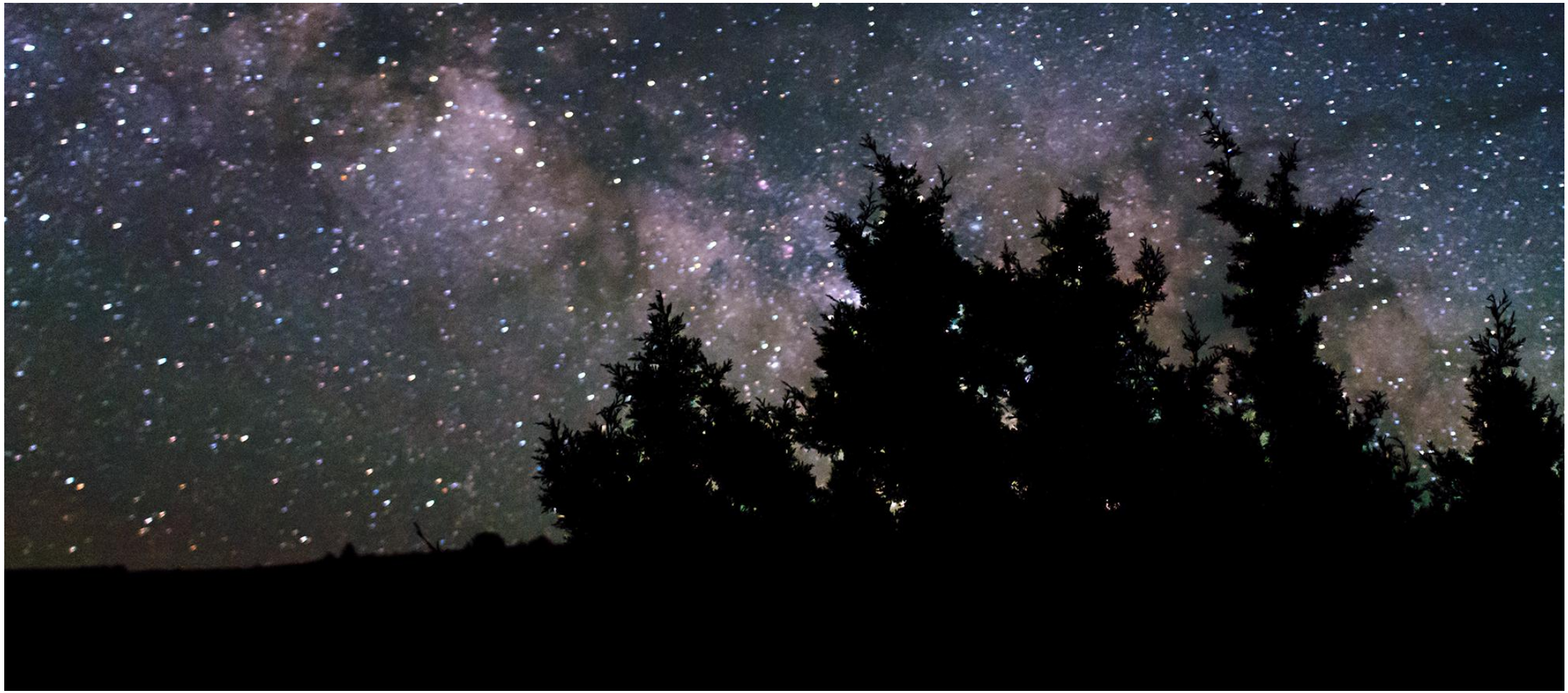
- 2/3 of animals are nocturnal
- 80% of migratory birds travel in dark
- High mortality from collisions with illuminated buildings and windows
- Disrupted pollination and lower insect populations in brighter areas.
- UNR study: House sparrows sleep less, feed their chicks less, chicks born underweight, lower survival rates.



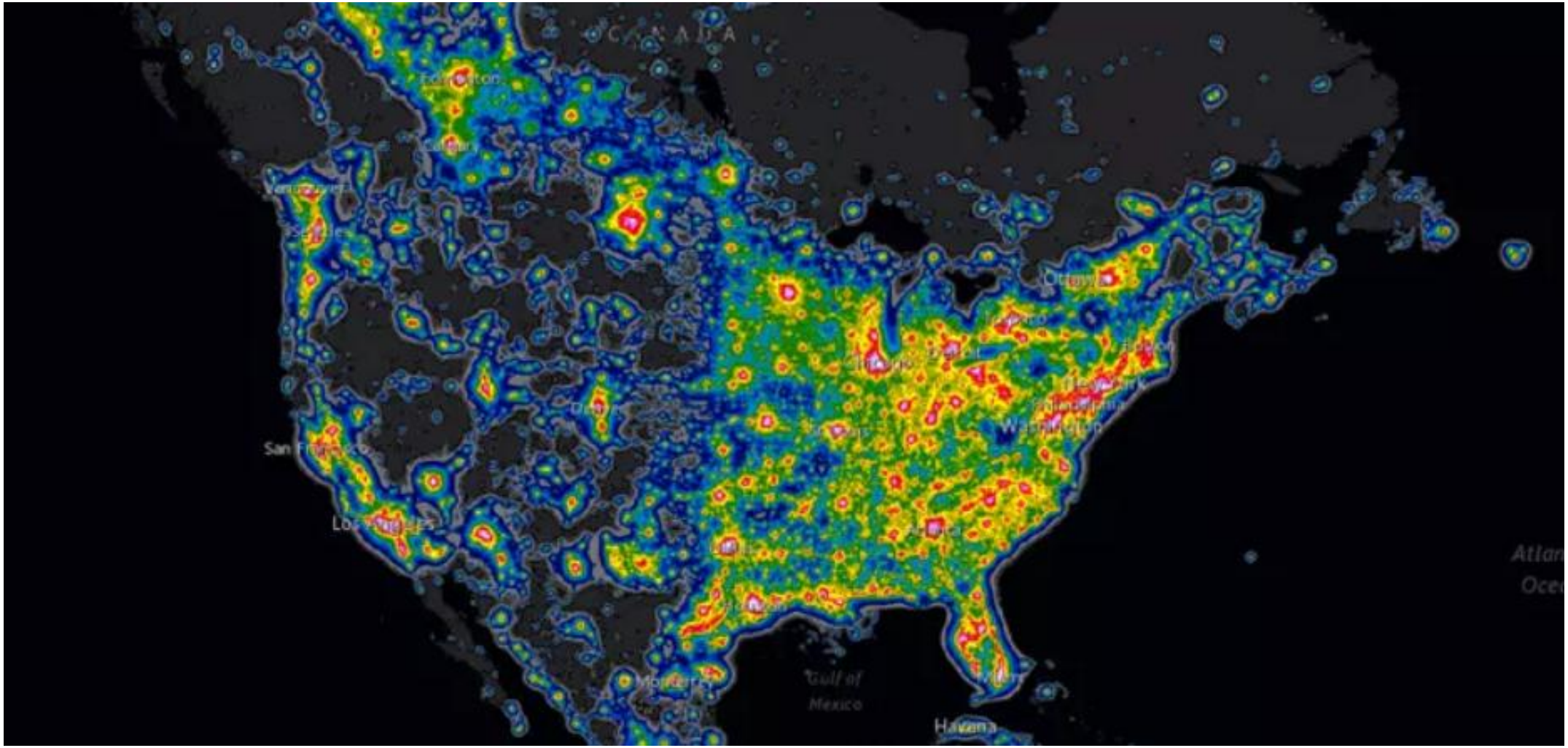




Awe and the Economy



Awe and the Economy



Light and Safety

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- No conclusive evidence that lighting increases safety
  - Some evidence that it either has no impact or a negative impact
  - Lighting glare can also increase shadows and cause issues for drivers
- Sometimes lights are needed—design matters





Light and Energy

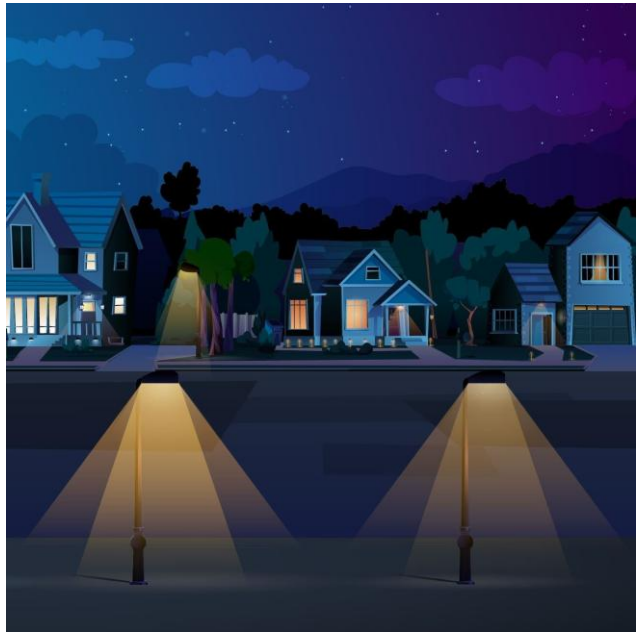
- Lights use energy and money
- DarkSky estimates that 30% of all outdoor lighting in the U.S. is wasted
  - $3.3 billion a year in unnecessary energy use
  - 21 million tons of CO2



Dark Skies in Cities

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- Flagstaff, Arizona
  - The Milky Way is visible downtown
  - City is Bortles 4-6
- Reducing light pollution is possible





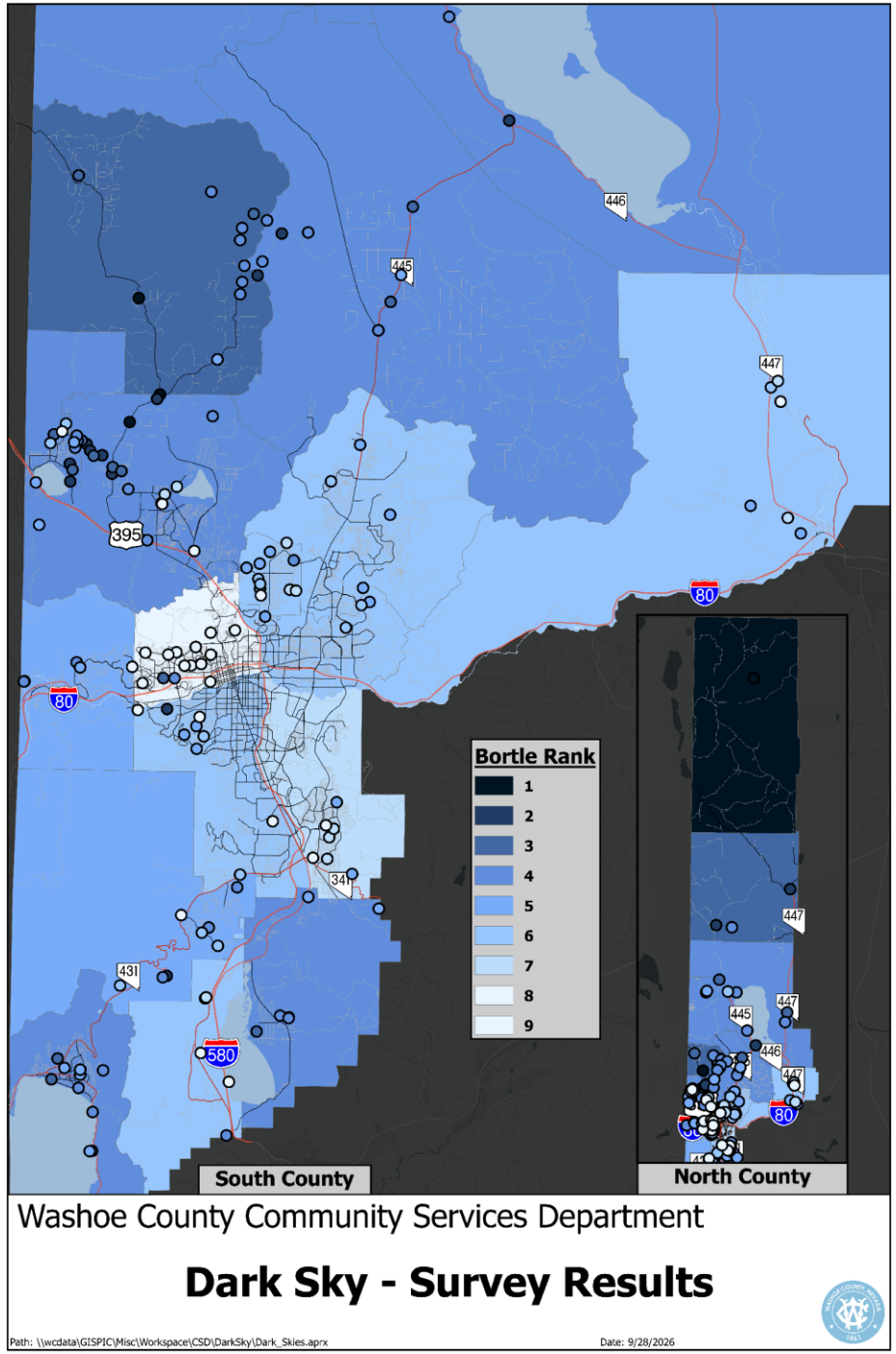
Workshop Process

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- Review dark sky survey results
- Review ways to regulate lighting
- Discuss lighting types
  - Residential
  - Commercial/Industrial
  - Decorative
- Discuss especially dark areas

Dark Sky Survey Results

- Static map
- Interactive map to be posted



Five Lighting Principles for Responsible Outdoor Lighting

DarkSky

Illuminating Engineering Society

Responsible outdoor lighting is

1 Useful

Use light only if it is needed

All light should have a clear purpose. Consider how the use of light will impact the area, including wildlife and their habitats.



2 Targeted

Direct light so it falls only where it is needed

Use shielding and careful aiming to target the direction of the light beam so that it points downward and does not spill beyond where it is needed.



3 Low Level

Light should be no brighter than necessary

Use the lowest light level required. Be mindful of surface conditions, as some surfaces may reflect more light into the night sky than intended.



4 Controlled

Use light only when it is needed

Use controls such as timers or motion detectors to ensure that light is available when it is needed, dimmed when possible, and turned off when not needed.



5 Warm-colored

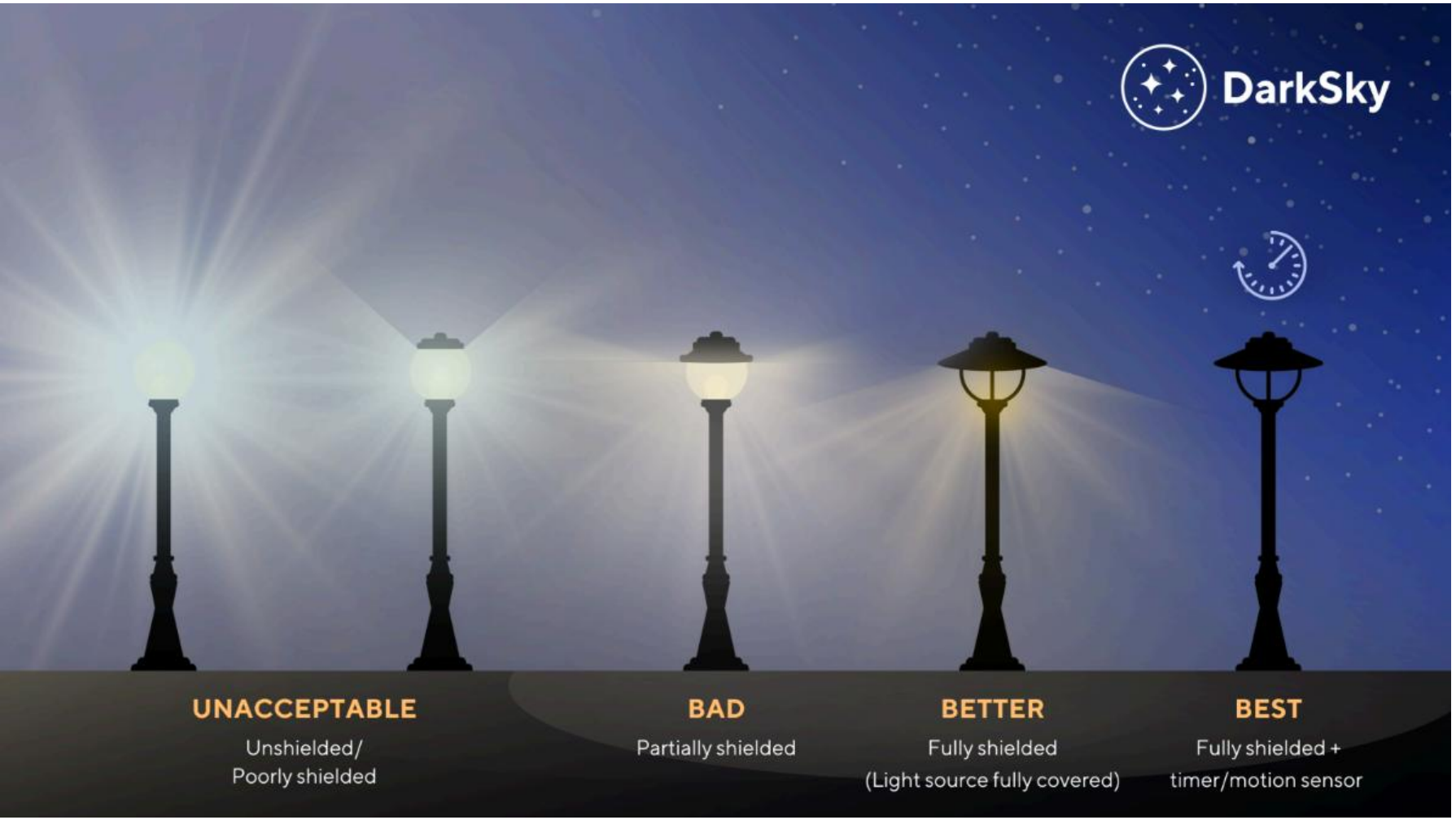
Use warmer color lights where possible

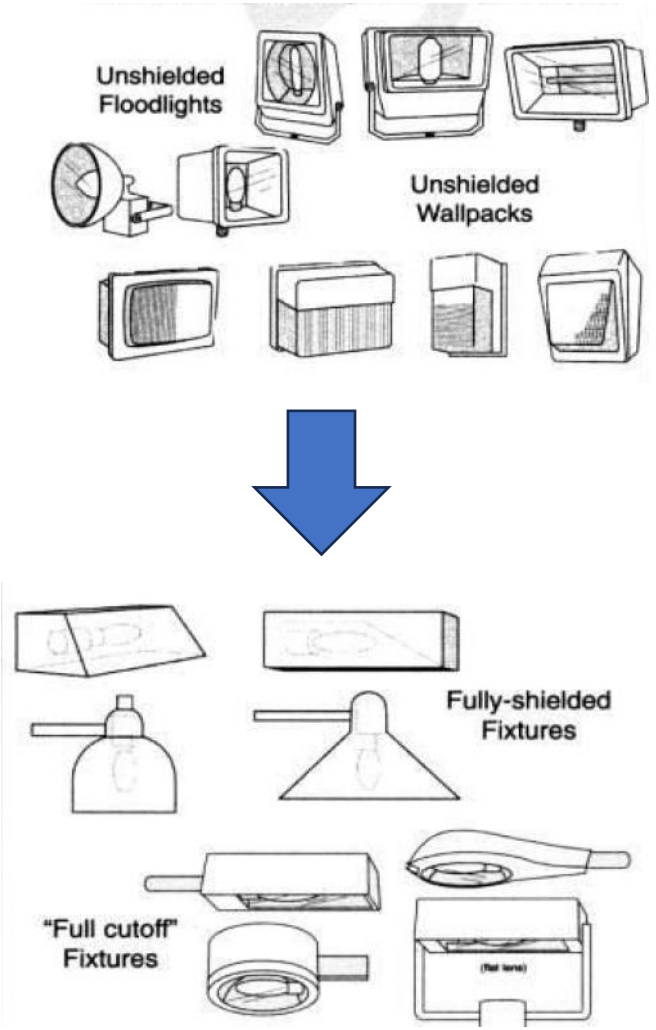
Limit the amount of shorter wavelength (blue-violet) light to the least amount needed.



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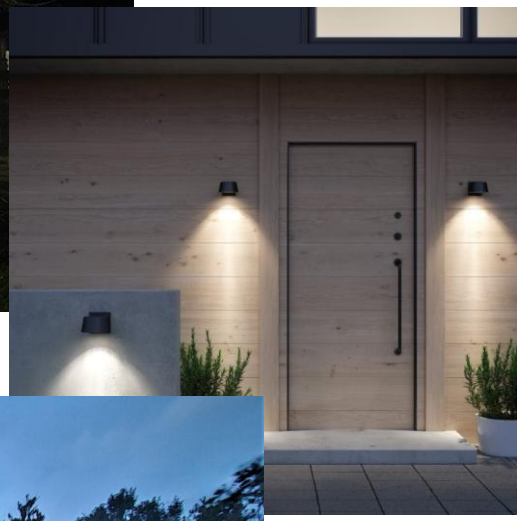
Lighting Fixture Types





Residential Lighting

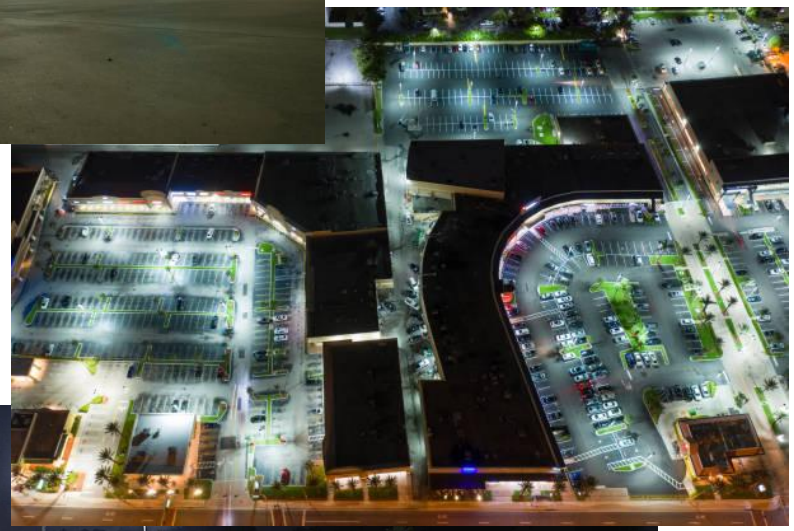






Commercial/Industrial Lighting







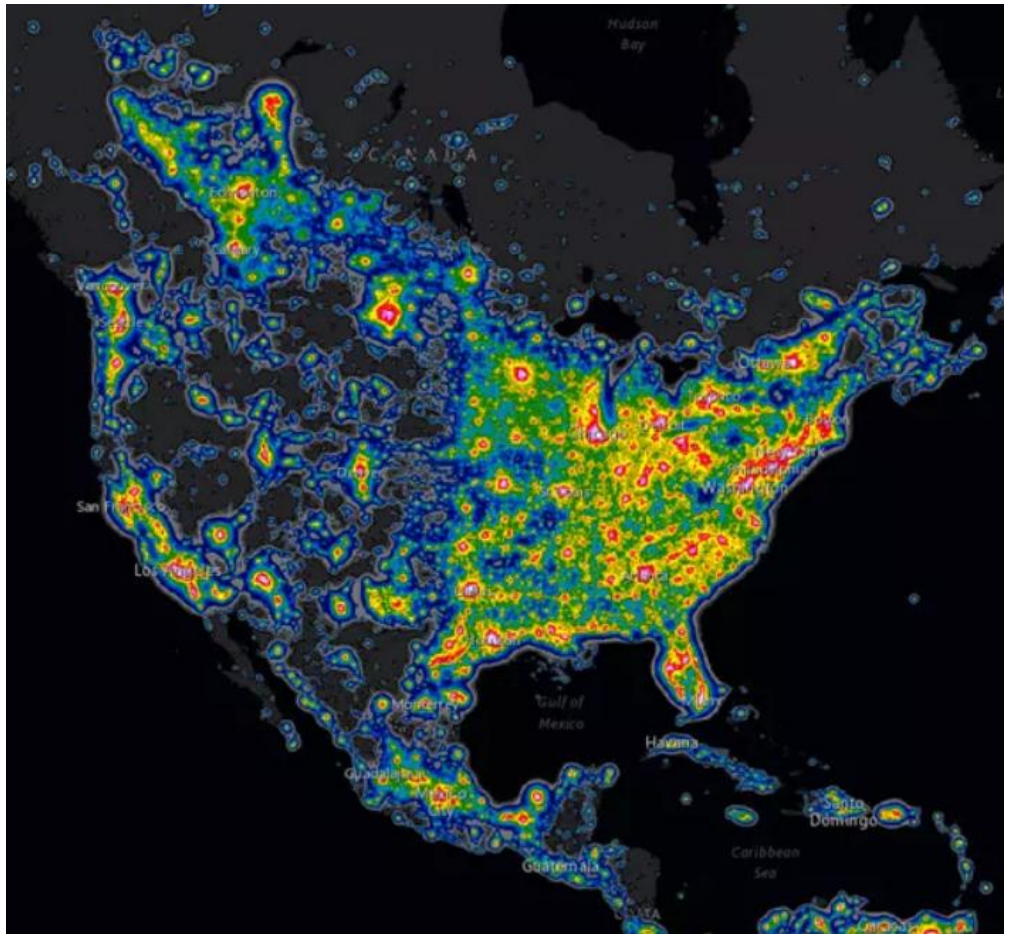
Decorative Lighting







Darker Areas



Thank you

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Exhibit B

Lighting Type	Comment
All	Support for warm lighs in all contexts
All	Rating system for light quality (BUG rating)
All	Concise, clear regulations that follow the dark sky 5 principles will benefit Washoe County. Washoe County can benefit financially from following the dark sky agenda/guidelines. More tourists, more [illegible]!
All	Thank you for holding this meeting. Those of us who are bothered by excessive lighting and who prefer to follow the dark sky 5 principles cann find some hope from the prospect of new Washoe County lighting regulations
All	Suggestion: coordination with NV Energy for educational brochures, web pages for (especially) new customers. Illustrations of "down" lighting shielded lighting, etc.
Commercial/Industrial	Look at sign lights
Commercial/Industrial	step dimming motion sensors
Commercial/Industrial	encourage motion sensors outside of business hours
Commercial/Industrial	color
Commercial/Industrial	short poles and downshielding
Commercial/Industrial	minimize lights
Commercial/Industrial	Marketing - signs (video billboards)
Commercial/Industrial	night skiing lights
Commercial/Industrial	LED/shielded headlights (not zoning)
streetlights	street lighting can be too bright/cause glare/shadow
Commercial/Industrial	color temperature very important
Commercial/Industrial	overall amount--lighting per square footage limits?
Commercial/Industrial	proximity to open space, maybe stronger regulations?
Commercial/Industrial	Industrial lights on timing when not open? (applicable to truck bays too?)
Commercial/Industrial	mini-storage--lights from the inside through windows
Commercial/Industrial	Incentive for having dark sky business/facility
Commercial/Industrial	Limiting time on architectural accent/decorative lighting
Commercial/Industrial	rural business lighting has big impact--downlighting also important there
Commercial/Industrial	Mining operations in rural area--could also be downward directed
Commercial/Industrial	mini-storage internal lighting visible exterior
Commercial/Industrial	motion-sensors good
Commercial/Industrial	color
Commercial/Industrial	dimming
Commercial/Industrial	regulate by Kelvin maximum (and recommendation)
Dark Areas	protect dark areas
Dark Areas	limiting light growth in built areas
Darker Areas	Good to have regulations htroughout the county
Darker Areas	Good to protect dark skies areas and preserve them--treat them like you would protect other parts of nature (buffer zone? Protect it more)

Darker Areas	Industrial development encroaches into dark/less developed areas (geothermal, mining)
Darker Areas	protect dark areas
Decorative	Decorative lights better on a timer
Decorative	Some of them flash
Decorative	Landscape uplighting--soft and timer (10:00 or 11:00 pm)
Decorative	solar path lights fine
Decorative	string lights - fine
Decorative	Tree uplighting contributing to light pollution--have it aimed properly at canopy (impacts planes) and limit strength of light
Decorative	balancing letting people do what they want with limiting impact
Decorative	Limited period for festive lights
Decorative	Eave lights--limit use seasonally? Limit strength of light/quantity
Decorative	Limiting eave lights
Decorative	Time limit in terms of lateness for decorative lights
Decorative	not eave lights all day all year
Decorative	10:00 p.m. shutoff
Decorative	dark skies in CC&Rs
Decorative	no landscape uplighting/will deirected and no tresspass
Residential	Educate people before they buy lights
Residential	Education on why would be good re: residential lights
Residential	motion sensors
Residential	Timers good
Residential	stock lighting letter
Residential	enforcement gap
Residential	Dowlighting on buildings--shielding
Residential	Some people in townhouse/condos may not control lights--limit uncontrolled lights/allow control (HOAs may have control instead)
Residential	Downward facing and motion detection
Residential	Color can be impactful (easy change)
Residential	Bright does not equal safe--support for motion detection (education component)
Residential	Topography imapcts light trespass/impact (height increase impact)
Residential	Timers/motion sensors good
Residential	What exactly does it mean to be shielded? (not frosted bulb)
Residential	Dark sky fixtures may not have replaceable bulbs (cost can be high)
Residential	Guidance on bulb temperature/color good (3000 Kelvin)
Residential	Time limits (lights off if no need)
Residential	no light tresspass
Residential	illuminated model homes
Residential	people lighting streets with bright LED lights
Residential	education important

Residential	I'm on upper Mt. Rose Hwy at [address]. My neighbor [name] at [address] next door to me is committing "light tresspass." Evidently Washoe County Building and Planning Dept have approved via a light survey, the design of lighting is not approve by WC Building AKA intrusive glare lighting via sconces not down lighted and soffet lighting glare via white stucco siding. We live in rural WC that should be adhered to.
Residential	who do I call to file a complaint against a light on 20' pole bright white dusk to dawn
Residential	I live right next to the Ascente development. This is an example of how differetn these new developments are compared to the areas nearby that existed previously. The car lights on their main new street mean we have direct lights and shadows in our dining room and living room. It is disruptive while watching an evening movie. The developer said they would plant trees early to block this from happening. Two years later one whopping tree was planted. The model homes are lit up outside and from inside, all night, no curtains or shades. It is so disruptive. I hope new developments will be required to change their lighting to be more neighborly, courteous, and be considerate of others. And comply with hopefully new upcoming dark sky requirements.
streetlights	glare shields
streetlights	streetlights lighting out of ROW
streetlights	traffic safety lighting important
streetlights	Minimizing streetlights (focusing on intersections)
streetlights	streetlights angled out
streetlights	tall streetlights in residential zone impactful