



Reclaiming the Night

A Photo Exhibition on Light Pollution and Community Solutions

By Kara and Melina



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Why it matters?

Why light pollution matters?



Reason 1

Disrupts sleep and circadian rhythms



Reason 2

Obstructs our view of the night sky



Reason 3

Harms wildlife and ecosystems



Reason 4

Wastes energy and increases costs





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Process

Who is our target audience?

The Audience

- ★ Local officials in urban planning or environmental policy
- ★ We hope to:
 - Show success stories to guide local decisions
 - Support policy change, public awareness, and action
 - Provide a practical roadmap for community solutions

Our Research Product

Description

- YouTube-style documentary + digital photo exhibit
- Focused on real-world community solutions
- Includes narration, captions, and high-impact visuals
- Mockup or storyboard frame of a video segment

Goal

- Raise awareness and inspire change among local officials and communities

Literature Review

Sources Used:

- Academic articles, case studies, and the International Dark Sky Association
- Conversations with our professor and classmates
- Observations of low light pollution communities

Key Learnings:

- Light pollution harms health, wildlife, and energy efficiency
- LED lights, though efficient, can still contribute to pollution
- Successful strategies include shielded fixtures, motion sensors, and dimming policies

Photo Exhibition Development:

- Informed by images and reports from Certified Dark Sky Communities
- Highlights both **effective** and **problematic** lighting practices

Our Approach:

- Bridge science and public awareness through **visual storytelling**
- Equip local leaders with tangible, research-backed solutions

Our Research Progress

Steps:

1. Define and refine our research topic related to light pollution
2. Utilize professor-recommended DarkSky resources and websites
3. Identify cities with both high and low levels of light pollution using satellite images and data



Our Research Progress

Steps:

4. Select case study examples for each:
 - ★ Highlight successful efforts in reducing light pollution
 - ★ Analyze causes of high light pollution in other areas
 - ★ Document strategies used by low-pollution cities to improve nighttime visibility and preserve dark skies
5. Develop actionable recommendations for local officials based on proven methods



Research

Our Strategies

- ★ Use DarkSky sites for credible data and resources
- ★ View light pollution maps and satellite imagery
- ★ Compare urban vs. rural or global light levels
- ★ Study city case studies for policies and solutions
- ★ Note key design fixes like shields, LEDs, curfews
- ★ Cross-check with academic research on mitigation
- ★ Suggest local strategies based on proven models

Method

Research Sources:

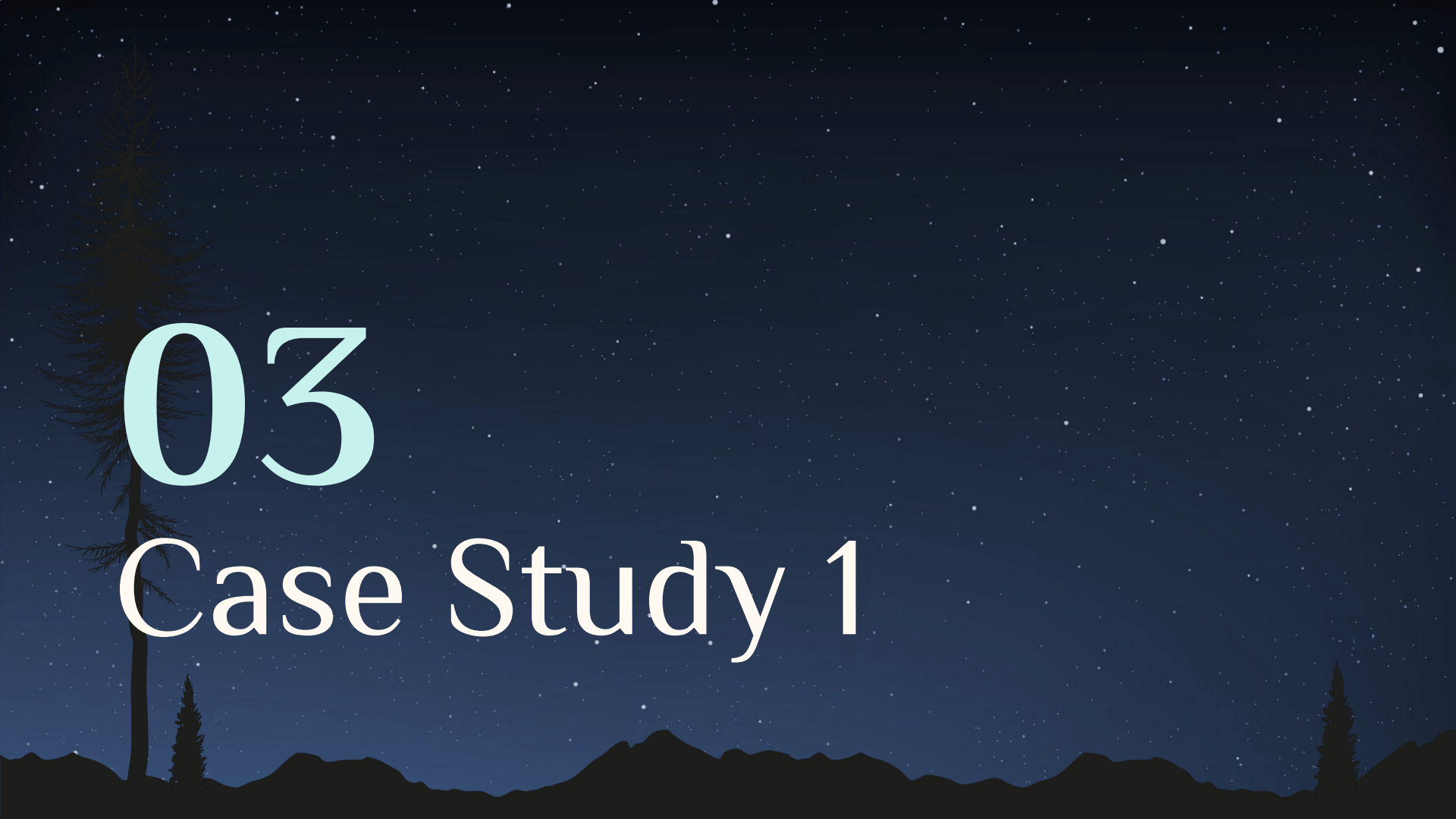
- Case studies from **DarkSky.org**
- Key readings: *BMPs for Lighting Only Where Needed*, AMA's 2016 lighting policy, etc.

Featured Communities:

- **Flagstaff, AZ** – lighting policy pioneer
- **Bluff, UT** – integrates Indigenous knowledge
- **Julian, CA; Bon Accord, AB; Blanco, TX; Ketchum, ID; Niue** – diverse implementation models

Focus Areas:

- Fixture types, spectral lighting differences, enforcement methods
- Public engagement: stargazing events, star parties, low-light community markets

The background of the slide is a dark blue night sky filled with numerous small white stars. At the bottom, there is a silhouette of a mountain range. On the left side, a tall, thin evergreen tree stands prominently. On the right side, there is a smaller evergreen tree. The overall scene is a serene nighttime landscape.

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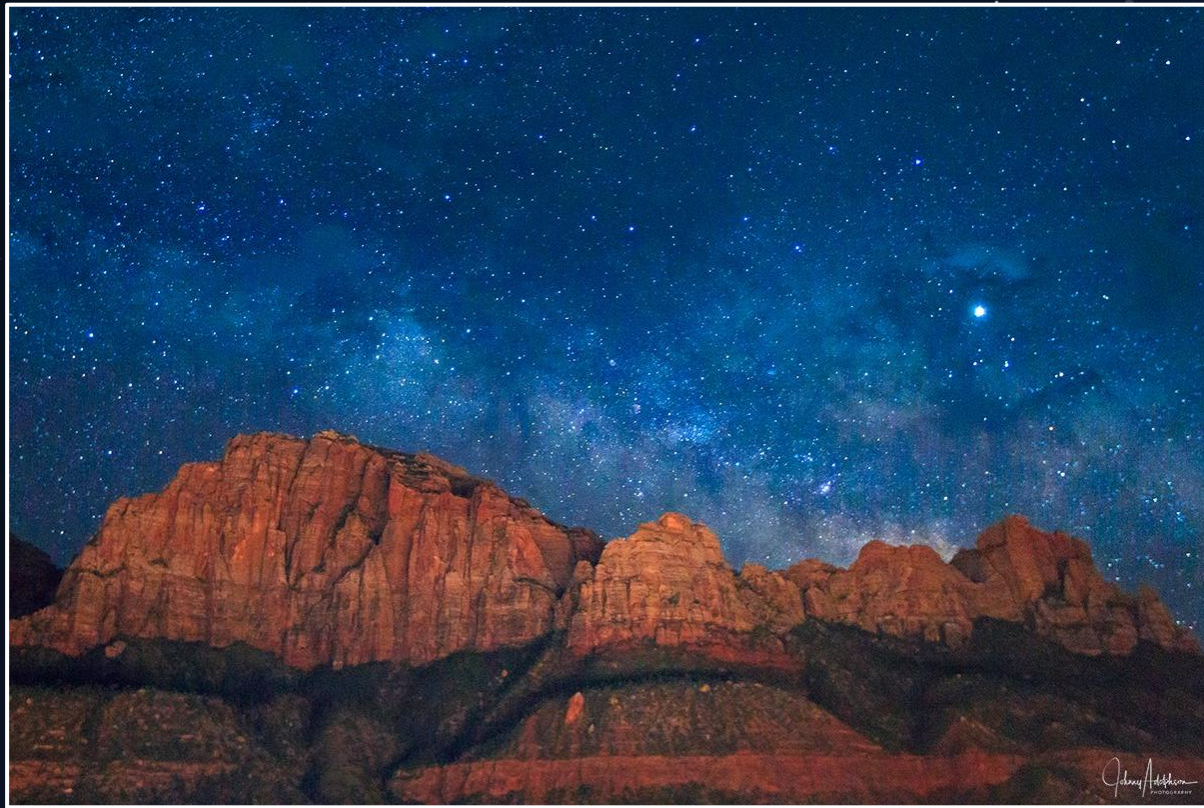
Case Study 1

Springdale, Utah (DarkSky)

Represents an
area of low light
pollution



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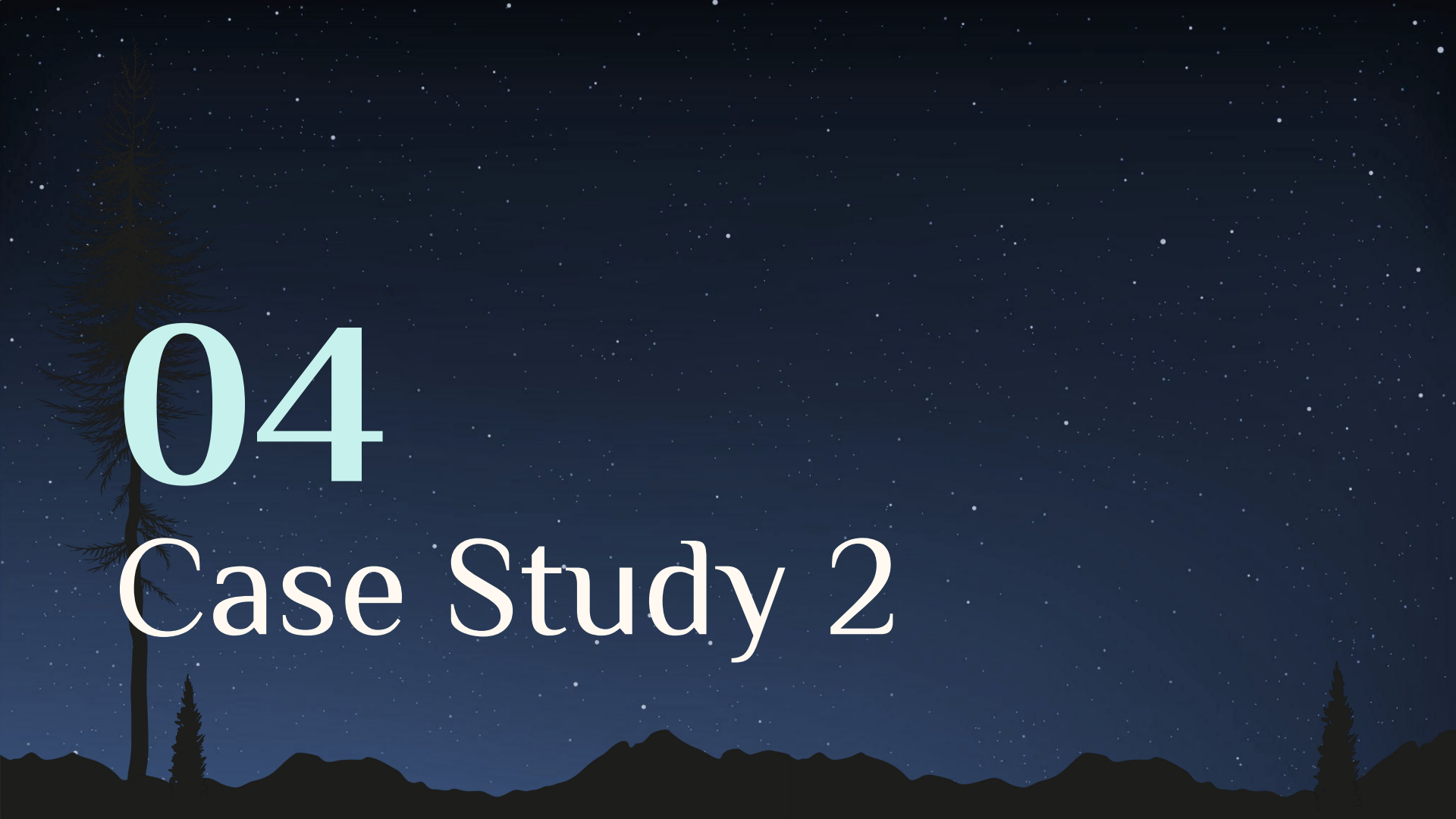


Milky Way in Springdale, Utah



How Springdale, Utah Achieved A DarkSky

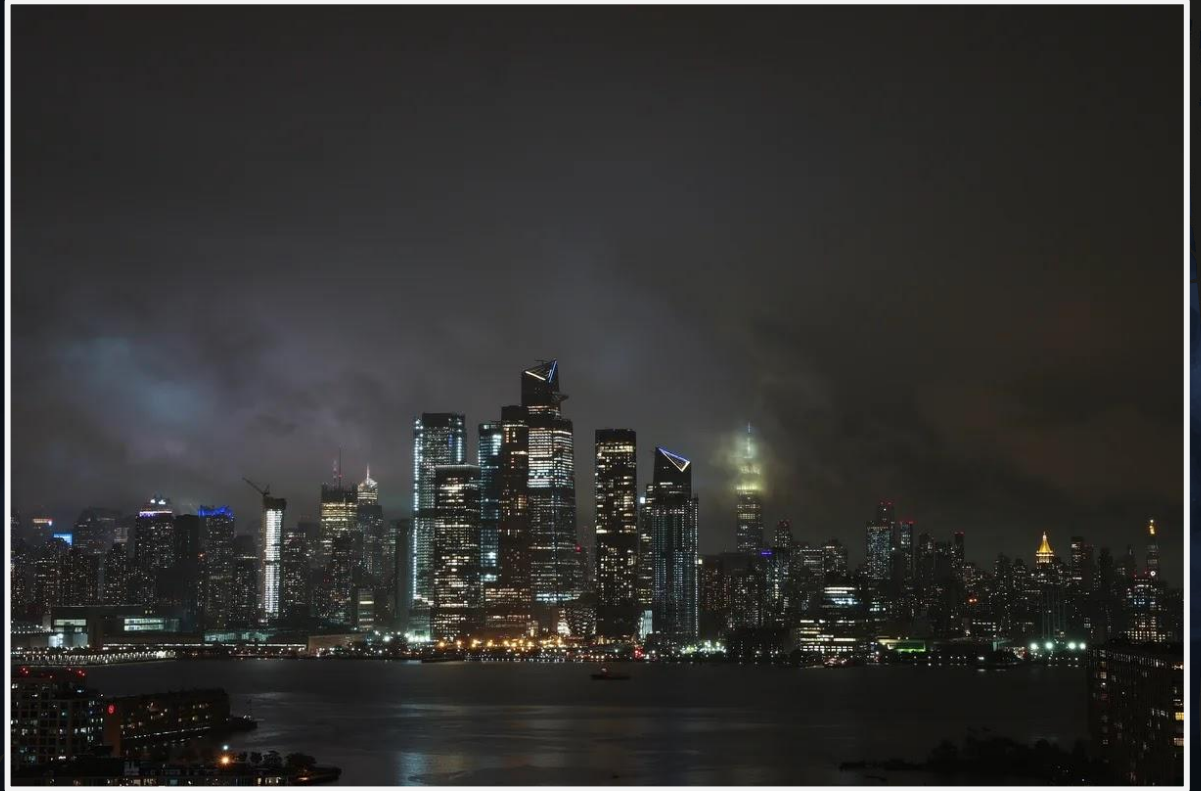
Springdale, Utah, achieved reduced light pollution through a combination of community commitment, updated outdoor lighting ordinances, and retrofitting existing streetlights. The town also actively educates residents about the importance of dark skies and partners with [Zion National Park](#) to preserve the night sky.

A nighttime landscape with a dark blue sky filled with stars. In the foreground, there are dark silhouettes of mountains and several evergreen trees. The number '04' is prominently displayed in a light blue color on the left side of the image.

04

Case Study 2

New York (DarkSky)





New York - No Light Pollution (CGI)

Ever wonder what
New York would
look like with the
lights off...

When a city never dims its lights?

As one of the brightest cities on Earth, it lacks comprehensive lighting ordinances or dark-sky initiatives. Excessive use of unshielded lighting creates intense skyglow, disrupts human sleep cycles, harms migratory birds, and wastes enormous amounts of energy. This case highlights how, without thoughtful design or regulation, artificial light can erase the night sky for millions.

Analysis/Discussion

- **Small towns can lead change** using IDSC lighting standards
- **Effective strategies:** shielded, warm-tone LEDs; motion sensors; lighting audits
- **Community engagement** (e.g., star parties, night markets) builds support
- **Myth busted:** More light $\neq$ more safety — glare and over-lighting reduce visibility
- **IDSC success** = policy + good fixtures + outreach + monitoring
- **Action step:** Visitors leave with a letter template to advocate for change locally



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Conclusions

Reflections

- Good lighting design = safety + energy efficiency
- Education plays a big role in change
- Dark-sky efforts can unite communities

What to do?

- Enact shielding ordinances for streetlights
- Require warm-colored LEDs (<3000K) when possible
- Promote light curfews in residential/commercial zones
- Engage the public

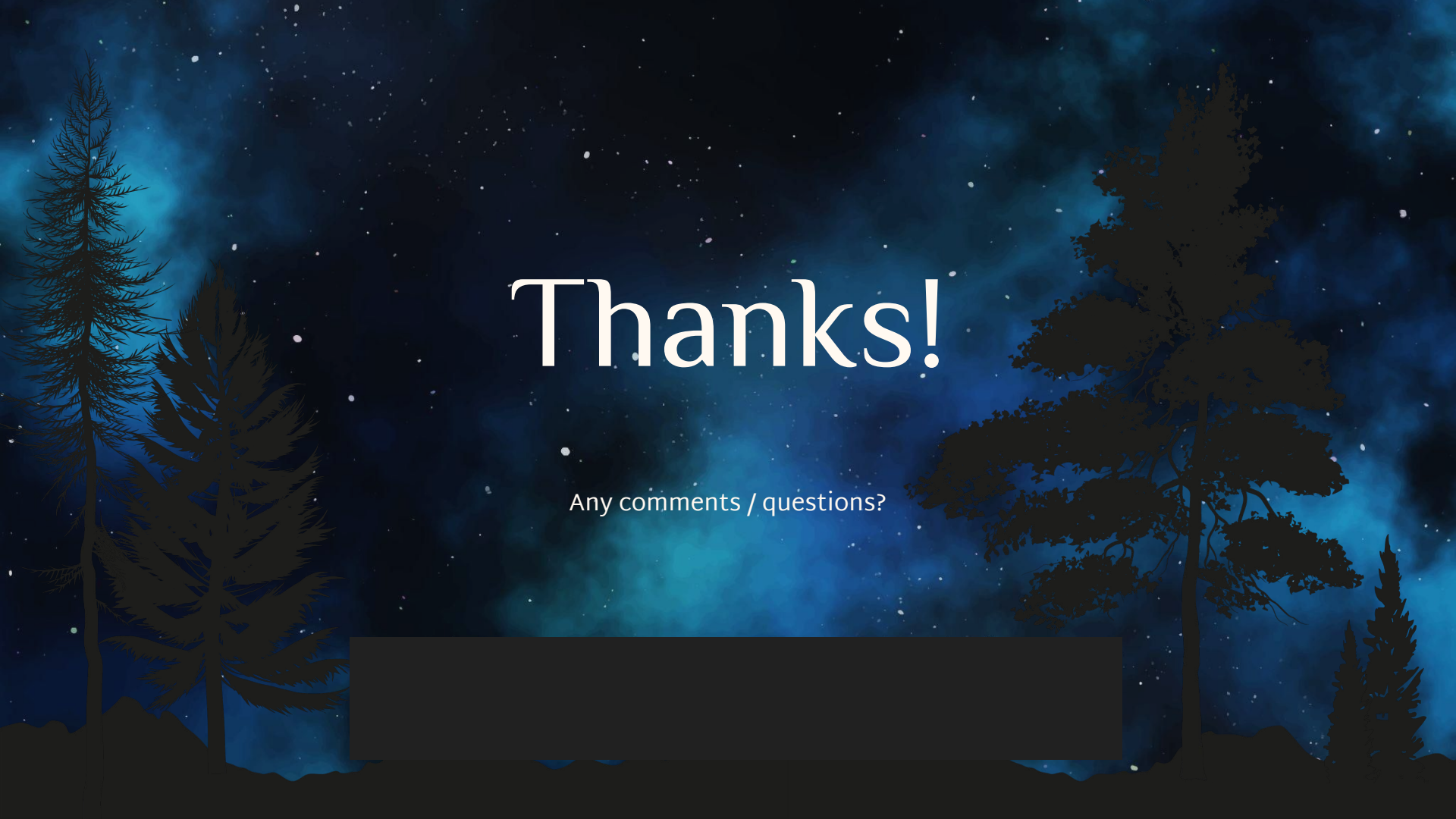
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References

Sources

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Thanks!

Any comments / questions?

