

1. 4:00 P.M. Agenda

Documents:

[2020-12-01 Planning Commission Work Session Agenda.pdf](#)

2. Meeting Materials

Documents:

[ORD 368 Draft Lighting Ordinance.pdf](#)
[Topics Lighting Ordinance.pdf](#)
[Berdie Letter.pdf](#)
[Vaaler Comments For Hazard Mitigation.pdf](#)
[Danos - Consequences Of Artificial Light .Pdf](#)
[Danos - Dark Sky Tourism.pdf](#)
[Danos - Response To Adobe.pdf](#)
[JGD Lighting Notes 2020-12-01.Pdf](#)
[Danos - Lighting Guidelines.pdf](#)
[Danos - Article Abstract.pdf](#)
[Conner Ex 4.Jpeg](#)
[Conner Ex 2.Jpeg](#)
[Conner Ex 1.Jpeg](#)
[Conner Ex 3.Jpeg](#)
[Letters Conner 11-28-2020.Pdf](#)
[Berdie Letter \(002\).Pdf](#)
[Adobe Letter.pdf](#)

3. Meeting Summary, Transcription And Chat

Documents:

[2020-12-01 Planning Commission WS Summary-Transcription.pdf](#)
[2020-12-01 Planning-C.pdf](#)



CITY OF YACHATS
PLANNING COMMISSION MEETING
ZOOM MEETING - Yachats OR
Tuesday, December 1, 2020 at 4:00 pm
Public Meeting

Join Zoom Meeting

<https://us02web.zoom.us/j/86547299004?pwd=WEJYeXNudDdJMDJMc0czdkl4SGpLZz09>

Meeting ID: 865 4729 9004

Passcode: 745385

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Meeting ID: 865 4729 9004

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WORK SESSION AGENDA

- I. Revise Lighting Ordinance
- II. Review Berdie Letter for Hazard Mitigation Updates

Commission meets the third Tuesday of each month. This meeting is open to the public and all interested persons are invited to attend. This meeting will be audio taped. All items to be considered by the Commission must be submitted to City Hall no later than one week prior to the meeting. Minutes of all public meetings are available for review at City Hall, or on the City website at www.yachatsoregon.org . In accordance with ORS 192.630, City of Yachats will make a good faith effort to provide accommodations for any person desiring to attend a public meeting, if the request is made at least 48 hours in advance of the meeting time. The meeting room is physically accessible to persons with mobility devices; a sign language or foreign language interpreter may be available, with advance notice. Call City Hall at 541- 547-3565 or Oregon Relay 1- 800-735-2900 (TDD) two days in advance. Posted 11/23/20

**CITY OF YACHATS
ORDINANCE NO. 368**

**AN ORDINANCE AMENDING THE YACHATS MUNICIPAL CODE
CHAPTERS 9.04 – DEFINITIONS AND 9.42 LIGHTING.**

WHEREAS, pursuant to ORS 197.610, the City provided DLCD with Form 1 notice of these proposed YMC Title 9, Chapter 9.54, text changes on September 13, 2020;

WHEREAS, notice of the proposed amendments were provided in accordance with procedures established in the Yachats Municipal code and Oregon Revised Statutes;

WHEREAS, the Planning Commission held a work session multiple work sessions in 2020, to provide an open forum for discussion of the amendments;

WHEREAS, the Planning Commission and City Council held a work session, to provide an open forum for discussion of the amendments;

WHEREAS, the Planning Commission held a public hearing on October 20, 2020 for the proposed amendments;

WHEREAS, the Planning Commission public hearing was continued to October 28, 2020 for the proposed amendments;

WHEREAS, the Planning Commission followed the text amendment procedures under YMC 9.84.020 and has provided a report to the City Council along with its recommendation to consider the proposed text changes;

WHEREAS, the City Council held a public hearing on these proposed text changes on November 18, 2020;

NOW THEREFORE, the City of Yachats ordains as follows:

Section 1. Yachats Municipal Code Chapter 9.04 and Definitions

CHAPTER 9.04.030 – Definitions

- A. Cutoff Angle (of a luminaire): The angle, measured from the lowest point between a vertical line from the center of the lamp extended to the ground and the first line of sight at which the bare source is not visible.
- B. Exterior Lighting: Lighting relating to the outside of a building or structure.
- C. Fixture (also called a luminaire or light fixture): A complete lighting unit including the light source (bulb), mounting, and shielding.
- D. Floodlight: A light that produces up to one thousand eight hundred (1,800) lumens and is designed to “flood” a well-defined area with light.

- E. Foot-candle: A measure of luminance or a measure of how bright a light appears to the eye. One foot-candle is equal to one lumen per square foot. As an example, a 60-watt incandescent light (800 lumens) produces an illuminance of one-tenth (0.1) foot candle at a distance of about twenty-five (25) feet.
- F. Glare: Light that causes a visual impairment sensation due to excessive brightness from the light source and can interfere with one's ability to see. See Figures 2 and 3 in 9.42.020.
- G. Hardscape: Permanent hard landscape improvements to the site including parking lots, drives, entrances, curbs, ramps, stairs, steps, medians, walkways and non-vegetated landscaping that is ten (10) feet or less in width. Materials may include concrete, asphalt, stone, gravel, etc.
- H. High Intensity Lighting: Lamps which produce visible light directly by the electrical heating or excitation of a gas. Examples of such lighting include, but are not limited to, metal halide, high-pressure sodium, low-pressure sodium and mercury vapor.
- I. Individual Lamp Limit: Limit on output of any individual light source as enumerated in Section 9.42.040.C
- J. Individual Lot Limit: The maximum for the sum of all exterior individual light sources on a given property as enumerated in 9.42.050.A and 9.42.050.C.
- K. Light Trespass/Trespass Lighting: Any light emitted from an outdoor luminaire that either shines directly beyond the property on which the luminaire is installed or indirectly shines beyond the property on which the luminaire is installed at a brightness that exceeds one-tenth (0.1) foot candle at twenty five (25) feet from the light source or at the property line, whichever is more restrictive. See Figure 4 in 9.42.020.
- L. Lighting Source Height: The distance from finished grade to the top most portion of any light emitting source (e.g., lamp, surface or lens).
- M. Luminaire: See definition for “fixture”.
- N. Marine Lighting: Bright light fixtures pointed at the ocean and coastal tide pools.
- O. Outdoor Lighting Fixture: A luminaire outside of an enclosed building or structure, or any luminaire directed such that it primarily illuminates outdoor areas.
- P. Security Lighting: Minimal lighting for personal and building security and safety after hours.
- Q. Shielding: An opaque covering for an Outdoor Lighting Fixture such that no light rays are emitted above the horizontal plane running through the lowest point of the fixture. Shielding can be extended downward to prevent “Light Trespass” as defined above. See examples in Section 9.42.080.D.
- R. Uplighting: Lighting that is directed in such a manner as to shine light rays above the horizontal plane.

Section 2. Yachats Municipal Code Chapter 9.42 Lighting

9.42.010 Purpose

The purpose of this Ordinance is to provide regulations for outdoor lighting that will accomplish the following goals:

- A. Permit the use of outdoor lighting that promotes health, safety, security, and productivity.
- B. Protect shoreline natural resources and wildlife.
- C. Enhance the view of the dark sky.
- D. Minimize the adverse effects of bright, outdoor lighting including “light trespass” and “glare”.

9.42.020 Definitions

Types of light are defined in part by their intended use and impact. Full definitions are in 9.04.030.

9.42.030 General Lighting Requirements

- A. Conformance with all applicable codes. All outdoor lighting shall be installed in conformance with the provisions of this ordinance, applicable Electrical and Energy codes, and applicable sections of the City, County and State building codes.
- B. Applicability. Except as described below, all outdoor lighting installed after the date of this ordinance shall comply with the requirements specified in section 9.42. This includes, but is not limited to, new lighting, replacement lighting, or any other lighting whether attached to structures, poles, the earth, or any other location, including lighting installed by any third party.
- C. Exemptions. The following are not regulated by this Ordinance:
 - 1. Lighting within the public right-of-way or easement for the principle purpose of illuminating streets or roads.
 - 2. Lighting for public monuments and statuary.
 - 3. Lighting solely for signs (Covered in Chapter 9.44).
 - 4. Repairs to existing luminaires not exceeding twenty-five percent (25%) of the total replacement value of the luminaire.
 - 5. Temporary lighting for theatrical, musical, and other performance areas and construction sites.
 - 6. Underwater lighting in swimming pools.
 - 7. Temporary, seasonal lighting provided that individual lights are less than ten (10) lumens.
 - 8. Lighting that is only used under emergency conditions.
 - 9. Lighting identified and approved in a specific use permit.
 - 10. Lighting required by County, State, or Federal government.

9.42.40 General Standards

- A. Outdoor lighting fixtures and accent lighting must be shielded and aimed downward, and it must be installed at the minimum height necessary so that the cutoff angle does not allow direct lighting of an adjacent property at a level exceeding one-tenth (0.1) foot-candles at twenty-five (25) feet from the light source. See examples in Section 9.42.080.

- B. All trespass lighting/light trespass that exceeds one-tenth (0.1) foot-candles at twenty-five (25) feet from the light source or at the property line is prohibited.
- C. Motion activated security lights must not be triggered by motion on adjacent properties or streets. These lights must be shielded so that they do not shine onto adjacent properties in excess of one-tenth (0.1) foot-candles at the property line.
- D. Marine lighting is prohibited.
- E. Mercury vapor lamps, metal halide lamps, and low-pressure sodium lamps are prohibited.
- F. Uplighting of building and landscaping is prohibited.
- G. Lighting on buildings shall not be placed above the eaves.

9.42.050 Standards Based on Use

A. Residential Uses

- 1. Individual light sources on residential properties are limited to an output of eight hundred (800) lumens each. An eight hundred (800) lumen output is approximately equivalent to:
 - a. One (1) standard incandescent sixty (60) watt bulb
 - b. One (1) compact fluorescent fifteen (15) watt bulb
 - c. One (1) LED eight (8) watt bulb
- 2. Individual Lot Limit. The sum of the output of all outdoor lighting sources shall not exceed:
 - a. Five thousand six hundred (5,600) lumens on lots greater than zero-point-three (0.3) acres
 - b. Three thousand two hundred (3,200) lumens on lots less than zero-point-three (0.3) acres
- 3. Residential light sources shall be less than a color temperature of three thousand (3,000) Kelvin.
- 4. Lights on free standing poles higher than four (4) feet are prohibited.

B. Multi-Family Uses

- 1. Individual lamps on multi-family properties are limited an output of one thousand two hundred (1,200) lumens each, except for parking areas which may be two thousand (2,000) lumens each.
- 2. Individual Lot Limit. The sum of the output of all light sources shall not exceed two and one-half (2.5) lumens per square foot of hardscape.
- 3. A Requirement of a to-scale Area of Illumination Plan. A to-scale Area of Illumination Plan shall include:
 - a. To-scale plans that accurately indicate the location, type, intensity, and height of luminaires including both building-mounted and ground-mounted fixtures;
 - b. A description of the luminaires, including lamps, poles or other supports and shielding devices, which may be provided as catalogue illustrations from the manufacturer;
 - c. Photometric data, such as that furnished by the manufacturer superimposed over a copy of the site plan, showing the angle of light emission and the foot-candles on the ground; and

- d. Additional information as may be required by the city in order to determine compliance with this chapter.
 - 4. Poles for luminaires shall be limited to:
 - a. Sixteen (16) feet in height for parking areas.
 - b. Ten (10) feet in height for walkways and pedestrian facilities.
- C. Commercial Uses
 - 1. Commercial lots, when developed for commercial uses, shall not exceed limits on trespass lighting as specified in 9.42.040.B.
 - 2. Except for security lighting for pathways and building doors, outdoor lighting fixtures for commercial properties must be turned off when the business is not open. When businesses are closed, residential lighting requirements apply.
 - 3. Individual Lot Limit. The sum of the output of all light sources shall not exceed two and one-half (2.5) lumens per square foot of hardscape.
 - 4. Requirements of a to-scale Area of Illumination Plan
 - a. New developments for commercial uses shall provide an Area of Illumination Plan drawn to scale as part of the Site Plan.
 - b. An Area of Illumination Plan drawn to scale shall be required with a change of commercial use or transfer of property for existing commercial uses.
 - c. An Area of Illumination Plan drawn to scale shall include:
 - i. The location, type, intensity, and height of luminaires including both building- and ground-mounted fixtures;
 - ii. A description of the luminaires, including lamps, poles or other supports and shielding devices, which may be provided as catalogue illustrations from the manufacturer;
 - iii. Photometric data, such as that furnished by the manufacturer, superimposed over a copy of the site plan, showing the angle of light emission and the foot-candles on the ground; and
 - iv. Additional information as may be required by the city in order to determine compliance with this chapter.
 - 5. High intensity lights shall be limited to two thousand four hundred (2,400) lumens per luminaire. Due to their high energy efficiency, long life, and spectral characteristics, narrow-spectrum amber LED's are the preferred illumination source.
 - 6. Poles for luminaires shall be limited to:
 - a. Sixteen (16) feet in height for parking lots.
 - b. Ten (10) feet in height for walkways and pedestrian facilities.
- D. Pedestrian Ways and Parks
 - 1. Illumination: Light shall be directed in such a manner that any changes in elevation of the walkway (e.g., steps or curbs) shall be illuminated such that said features are clearly discernible (without shadow).
 - 2. Fixture Type: Pedestrian walkway light fixtures can be a combination of freestanding pole, bollard, in-place step or building-mounted fixtures. For building mounted fixtures, the Planning Director shall ensure that the proposed fixture type will be in scale with the building elevation on which it is to be

installed. The Planning Director may refer this latter determination to the Planning Commission.

3. Fixture Heights: Light fixtures shall not exceed the following height provisions:
 - a. Freestanding pole - Not greater than fourteen (14) feet as measured from finished grade to the bottom of the light fixture.
 - b. Building-mounted - Shall be located below the roof's eave or up to a height of fourteen (14) feet, whichever is less.
 - c. Bollard - Said fixture type shall not exceed a height of forty-two (42) inches as measured from finished grade to the top of the fixture.
- E. Public Right-of-Ways 1. Shielding for street lights other than those on Highway 101 may be requested from the public utility provider.

9.42.060 Variances

To provide for reasonable interpretation of this Chapter, and in certain instances where this Chapter will produce a hardship, a property owner may apply for a variance pursuant to Chapter 9.80 of this Code

9.42.070 Time to Become Compliant

- A. The General Standards described in 9.42.030 and 9.42.040 require compliance within one year after the passage of this Ordinance.
 1. When violations of 9.42.040 are cited by the enforcement officer and if the violation can be corrected by replacing an existing bulb with a lower intensity bulb, this corrective action is required to be implemented within forty-eight (48) hours after the citation. Other corrective actions are required to be implemented within thirty (30) days after the citation.
 2. Marine lighting existing previous to the enactment of this ordinance must be:
 - a. Turned off no later than 10:00 PM each night, and
 - b. Removed within one year of the enactment of this ordinance.
- B. Compliance based on extent of modification:
 1. New uses and buildings. For all proposed new land uses, developments, buildings, and structures that require a permit, all outdoor lighting installations shall meet the requirements of this Code.
 2. Additions and modifications. All building additions or modifications exceeding twenty-five (25) percent in terms of additional dwelling units, gross floor area, or parking spaces, and that require a permit, either with a single addition or cumulative additions, shall invoke the requirements of this Code. This requirement shall hold for the entire property, including both previously installed and any new outdoor lighting.
 3. If replacement or repair is required to an outdoor lighting fixture due to weather damage, accident, vandalism, or other unforeseen event, the outdoor lighting fixture may be replaced as it was previously built. Compliance to section 9.42 requirements is not required. However, if the design is changed in any way then compliance is required.
- C. Resumption of use following abandonment. If a property or use with non-conforming lighting is abandoned, all outdoor lighting shall be reviewed and

brought into compliance with this Code before the use is resumed.

Section 3. Severability. Any provision of this Ordinance which proves to be invalid, void, or illegal shall in no way affect, impair or invalidate any other provision of this Ordinance, and the remaining provisions of this Ordinance shall remain in full force and effect.

Section 4. Effective Date. This ordinance shall take effect on the 30th day after its adoption.

Passed and adopted by the Yachats City Council this ____ day of ____, 20__

	YES	NO	NOT PRESENT
John Moore, Mayor	☐	☐	☐
Max Glenn	☐	☐	☐
Mary Ellen O'Shaughnessey	☐	☐	☐
Jim Tooke	☐	☐	☐
Leslie Vaaler	☐	☐	☐

W. John Moore, Mayor

Attest by:

Shannon Beaucaire, City Manager

Topics for review of Lighting Ordinance
For 12/01/2020

1. section 9.04.030 S. (New Definition) Temporary Seasonal Lighting: Exterior lighting specifically directed at a holiday season such as Christmas, Halloween, and others. This will consist of small, low wattage bulbs of less than ten lumens.

It was also brought up that we may want to put a limit on how long these may be lit, both curfew and number of days/weeks/months.

2. section 9.42.040 D. Marine Lighting prohibited or curfew or alternative lights?

3. section 9.42.050A 2 b Lots less than or equal to

4. section 9.42.050 B 1 Should we further justify, or change the higher lumen limits for Multi-family housing?

5. section 9.42.060 Mary Ellen was concerned about liability issues. Perhaps we should expand on the variance section to say that if compliance produces a (such as cost), or a concern about liability for inadequate lighting, a property owner may apply...

6. section 9.42.070 A 1 The requirement for compliance within 48 hours/30 days was suggested to be lengthened to 14 days/60 days because of the time required to order items on line.

7. section 9.42.070 B 3 It was suggested that the last sentence may have more detail (However, if the design is changed in any way then compliance is required.)

From: Craig Berdie <cberdie@gmail.com>

Sent: Tuesday, November 17, 2020 4:53 PM

To: Shannon Beaucaire <citymanager@YachatsMail.org>; Mayor <Mayor@YachatsMail.org>

Subject: Concern with Revision to Chapter 9.52.050

I am writing to express a concern with a limitation of proposed CHAPTER 9.52.050 – Geologic Hazard Overlay Zone. It is possible that I misunderstand the scope of the change, but feel that I must raise this issue.

Section H, Erosion Control Measures does not address "downhill" concerns.

I believe that a section should be added that addresses mitigation costs to downstream neighbors and the city carrying capacity as part of erosion control.

While the Chapter comprehensively addresses control of on-side effects, it does not clarify limits or controls with water that must run off the site. There are no water detention requirements nor mitigation requirements for increased flow downstream from the property.

As an example, the home developed uphill from our house required the removal of a large tree that was absorbing the water from a natural spring, has a large roof footprint, a large concrete parking area and driveway. I estimate 70% of the lot is now impervious. While it complies with the suggested requirements in the Chapter, all that water goes somewhere at high rate. This causes downstream erosion (not on-site erosion) with costs for downhill residents and the city.

Apologies for this last minute comment after all the hard work done by the Planning Commission.

Craig Berdie

319 E. Third Street

Yachats, Or 97498

The ADOBE RESORT

P.O. Box 219
Yachats, Oregon 97498
Telephone (541) 547-3141 • 1-800-522-3623

COPY

November 16, 2020



John Moore, Mayor
Yachats City Council Members
City of Yachats
P.O. Box 345
Yachats, Oregon 97498

RE: Proposed Amendments to the City Lighting Code – Title 9.42

Dear Mayor Moore and Yachats City Council Members,

I am writing in an effort to inform the city of our concerns with safety at our property, specifically regarding the proposed removal of marine lighting. The Adobe Resort currently has lights that illuminate the rocky coastline directly in front of The Adobe. The Adobe has been allowed to illuminate this area for the last forty plus years and is an added attraction for our guests to be able to watch the waves from our Restaurant/Lounge, their room and our webcam. Removal of this lighting would hurt our business.

I listened to the commission's discussion during its work session of October 27, 2020. In that discussion, a member of the commission asserted that "most people" in Yachats do not want "marine lighting", but did not cite any surveys, petition or other indicators of public sentiment. I would appreciate more information about the **sources and scope** of those opinions.

I also was struck by the lack of any distinction during the commission's discussion between "marine lighting" (also referred to by one member as "lighting up the ocean") and "surf lighting". "Surf lighting," like that provided at the Adobe Resort, is much less intrusive on marine life and does not affect breeding areas or the life cycles of local species. I respectfully request that the council and commission give this distinction more study and discussion before adopting a blanket ban of our lighting practices under the heading of "marine lighting" **using a code template that was developed for other, different circumstances.**

Our lights provide more than just a view at night. The Adobe Resort welcomes around fifty thousand hotel guests a year. The first priority is to keep our guests safe and to avoid circumstances, which could turn into life and death situations for people on our property. These dangers can range from slips and falls to predators confronting guests. Other hotels have dealt with such dangers and applying steps to prevent these things from happening is our main priority. At the Adobe Resort we care about our guests and staff and take these issues seriously.

COPIES

The Adobe Resort logo features the word "The" in a small, stylized font, followed by "ADOBE" in a large, ornate, serif font. Below "ADOBE" is the word "RESORT" in a smaller, simpler, sans-serif font.

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P.O. Box 219
Yachats, Oregon 97498
Telephone (541) 547-3141 • 1-800-522-3623

Without adequate lighting outside our business, more problems will arise. For example, the ocean's cliff is jagged and dangerous to those walking. If people are not able to see the cliff, it is possible they could be seriously hurt by slipping and falling. The rocks on the ocean's edge are uneven and unsafe, especially when you cannot see them clearly. Taking away our lights would be taking away a precaution we have set in place to protect our guests. Contrary to the statements of one planning commission member, "ambient lighting" would be insufficient to provide this protection.

The check-in time for the Adobe is at 4pm and with the sun setting so early in the winter time, our natural light is gone quicker than usual. Nature is something we cannot change, but we can help compensate for the loss of natural light. The Adobe does not have a defined trail in front of our property, but we have allowed guests and people from town to walk across our bluff. People enjoy watching the waves, the gorgeous sunsets, and make use of our benches. Lights help show the coastline and guide people back to where they need to go. An increased worry for our guests and others making use of our property occurs if we do not have lights in place to help guide them. As you know, coastal winds are very strong. The lights we currently have in place are stable and perform the job required, unlike other types of lighting.

The safety of our guests in their rooms presents another problem. The resort has 26 ground floor guest rooms that open toward the ocean. These rooms would lose all security lighting if this proposal is implemented. Along with our lights we have a webcam, cameras and security that roam the area throughout the night. The truth is, lights and added security are never a 100% guarantee of safety and being crime free. Yet, we do those precautions to try and protect ourselves. Our goal as a business is to protect our guests the best we can.

I also noted the planning commission's discussion of the increased safety concerns for multi-family housing parking areas. That illustrates the need for the commission to also consider the safety concerns for our parking lot. In addition, our parking lot is not in a residential neighborhood.

While working in my six years so far as general manager at The Adobe, I can confirm that we have had crime occur. Such as stolen goods and belongings out of cars or ground floor rooms. These are realities as a business that we are faced with and have to prevent on a daily basis the best way possible. With less lighting in these areas, those problems would only increase.

If this amendment is passed and our lighting is removed, the bluff area will have to become an area reserved only for hotel guests. Guests would be required to sign a waiver when checking-in, stating that they recognize climbing on the rocks and being out in the dark is not recommended for their safety. I will also be recommending a fence and gate with guest key access only. In order to protect our guests, non-guests would no longer have access to our property. Many currently walk across our property to access the 804 Trail. Sadly, this new amendment would force us to take these actions. Access to the 804 Trail from Smelt Sands via Highway 101 will remain.



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P.O. Box 219
Yachats, Oregon 97498
Telephone (541) 547-3141 • 1-800-522-3623

For the past forty+ years The Adobe Resort has been able to illuminate its coastline and parking lot to provide the extra safety and security to our guests and staff. I highly recommend that the city think about the points I have made and ask for support in our goal to keep our lighting status quo. Thank you for reading and listening to our concerns about this new city lighting code.

Sincerely,

Anthony Muirhead
Adobe Resort
General Manager

Vaaler Comments for Hazard Mitigation Sent 11/22/2020

GOAL A:

Policy 4; replace "in or affecting" by "that affect"

Policy 8, Question the addition of

"The inclusion of additional commercial forest lands within the UGB shall occur only upon finding that the land is needed for urban development."

Proposed action (f) "view shed" should be "view-shed"

Proposed action (g) replace "replacing wood burning stoves with electric ones" with "replacing inefficient wood-burning stoves" (COUNCIL CONCURRED)

Policy 12, insert "through" following the word "ordinance"

GOAL B:

Policy 9 replace "with" by "by"

GOAL D: This is just labeled "Goals" ; correct to read "Goal D"

GOAL E: Policy 1, line 1, insert comma following "possible" on the third line

Policy 11 Insert commas before and after "as able"

Policy 12 Suggestion: "reduce the risk" on line 4 to "hopefully mitigate the cost" or to "reduce the financial risk"

Policy 14 insert commas before and after "as necessary"

Add line space between policies 21 and 22

Proposed actions relating to drought hazards:

(c) add commas before and after "on a regular basis"

(e) delete "annual" prior to "public outreach campaigns", as needed but at least annually??? (Council discussed, and I believe we agreed on something along these lines)

GOAL L Beaches :

Policy 4 Add "as appropriate" at end so it reads

"Accept donations and dedications of land and easements for public access, open space, and habitat protection as appropriate"

(COUNCIL CONCURRED)

I also include a couple of comments I brought up in the council meeting.

In the discussion of the geological hazards permit, reference is made to the fee for a Geological Hazard permit in section 9.88.050. There currently is no such fee. There is an allowance for actual costs beyond the fees listed. This section, with fee amounts, was last modified by Ord 252 in 4/2005. It may be wise to take a look at it soon.

Note that there is some question whether the items listed as policies are actually policies or goals.

Note that no time frame is given for accomplishing most of these, but staff and volunteer time constraints suggest that we will not get to them all any time soon.

I wonder whether the list should be pared down or prioritized. Too long a list of goals takes away from them being meaningful.

I hope this is helpful. I do believe that the hazard mitigation ordinance was sent back mainly for consideration of Craig Berdie's query.



Mapping the consequences of artificial light at night for intertidal ecosystems

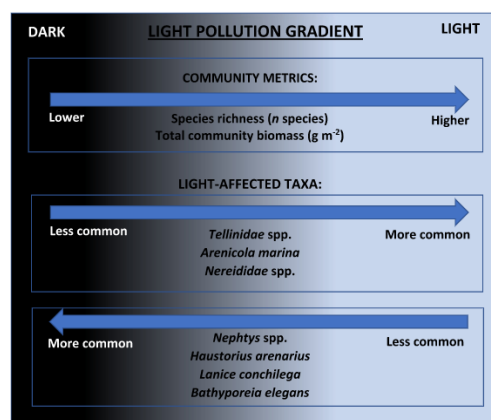
Matthew J. Garratt, Stuart R. Jenkins, Thomas W. Davies *

School of Ocean Sciences, Bangor University, Menai Bridge LL59 5AB, UK

HIGHLIGHTS

- Our coasts are increasingly polluted by artificial light at night (ALAN).
- We studied the potential effects of ALAN in an intertidal sandy shore ecosystem.
- Macrofaunal community structure significantly changed across a gradient in ALAN.
- 47% of non-rare taxa displayed significant relationships to illuminance.
- Relationships with key environmental drivers were accounted for.

GRAPHICAL ABSTRACT



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Community structure

ABSTRACT

Widespread coastal urbanization has resulted in artificial light pollution encroaching into intertidal habitats, which are highly valued by society for ecosystem services including coastal protection, climate regulation and recreation. While the impacts of artificial light at night in terrestrial and riparian ecosystems are increasingly well documented, those on organisms that reside in coastal intertidal habitats are less well explored. The distribution of artificial light at night from seaside promenade lighting was mapped across a sandy shore, and its consequences for macroinvertebrate community structure quantified accounting for other collinear environmental variables known to shape biodiversity in intertidal ecosystems (shore height, wave exposure and organic matter content). Macroinvertebrate community composition significantly changed along artificial light gradients. Greater numbers of species and total community biomass were observed with increasing illumination, a relationship that was more pronounced (increased effects size) with increasing organic matter availability. Individual taxa exhibited different relationships with artificial light illuminance; the abundances of 27% of non-rare taxa [including amphipods (*Amphipoda*), catworms (*Nephtys* spp.), and sand mason worms (*Lanice conchilega*)] decreased with increasing illumination, while 20% [including tellins (*Tellinidae* spp.), lugworms (*Arenicola marina*) and ragworms (*Nereididae* spp.)] increased. Possible causes of these relationships are discussed, including direct effects of artificial light on macroinvertebrate behaviour and indirect effects via trophic interactions. With increasing light pollution in coastal zones around the world, larger scale changes in intertidal ecosystems could be occurring.

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1. Introduction

Today around a quarter of the Earth's surface is polluted by artificial light at night (Falchi et al., 2016), originating from industry, residential areas and transportation networks (Bennie et al., 2014; Gaston et al., 2015). A wide range of ecological impacts of this pollution have been identified, including effects on physiology (Navara and Nelson, 2007; Dominoni et al., 2013), navigation (Tuxbury and Salmon, 2005; Rodríguez et al., 2012), reproductive behaviour (Jokiel et al., 1985; van Geffen et al., 2015), predation success (Santos et al., 2010; Underwood et al., 2017), community structure (Davies et al., 2012; Bolton et al., 2017) and ecosystem services (Lyytimäki, 2013).

With widespread coastal urbanization, the impact of artificial light at night on marine ecosystems has become a topic of increasing concern (Becker et al., 2013; Davies et al., 2014; Davies et al., 2016; Bolton et al., 2017). 75% of the world's megacities (populations >10 million) are now located in coastal regions (Luijendijk et al., 2018), and >22% of shorelines worldwide are light-polluted (Davies et al., 2014). The effects of artificial light on shallow marine species, including fish (Becker et al., 2013), amphipods (Navarro-Barranco and Hughes, 2015) and sessile invertebrates (Davies et al., 2015), have been documented in recent years. The consequences of lighting intertidal habitats – which provide valuable ecosystem services globally (Costanza et al., 1997; Barbier et al., 2011) and are likely most exposed among marine ecosystems to light pollution – have more recently become a focus for research (Luarte et al., 2016; Duarte et al., 2019).

Daily, monthly and seasonal natural light cycles play an important role in intertidal ecosystems, synchronising mass spawning and hatching events, partitioning feeding and swimming activity, and regulating migrations (Jansson and Källander, 1968; Forward, 1986; Robles et al., 1989; Naylor, 2001). Species interactions across trophic levels are also guided by light availability, determining the timing and success of predatory activity and the ability of prey to avoid predation (Viherluoto and Viitasalo, 2001; Santos et al., 2010; Underwood et al., 2017). Perhaps most importantly, intertidal invertebrate larvae are guided by light during settlement site selection, which determines subsequent survival and reproductive success (Thorson, 1964; Davies et al., 2014). These key ecological processes that shape intertidal ecosystems are likely affected by light pollution from streets, promenades, piers, jetties, harbours and marinas (Davies et al., 2014). Recent data has demonstrated strong evidence of artificial light impacts including reduced activity and growth rates on individual species that reside in sandy shores (Luarte et al., 2016; Duarte et al., 2019), which are the most widespread of intertidal ecosystems (Brown and McLachlan, 2002), with potential larger scale implications for macroinvertebrate assemblages. The consequences of artificially lighting beaches for the structure and composition of intertidal macroinvertebrate communities, however, remain unquantified.

We mapped the exposure of intertidal organisms in a sandy shore ecosystem to artificial light from High Pressure Sodium promenade lighting, and demonstrate for the first time its consequences for intertidal macroinvertebrate community composition and structure.

2. Methods

2.1. Summary

Ground level night-time artificial illuminance (Lux) was measured across Llandudno West Shore beach in North-West Wales, UK (53.320°N, 3.846°W) and the data used to produce a 6 m resolution light map. Macroinvertebrate communities, sediment grain size (a good proxy of wave exposure [Burt et al., 2010]), and organic matter content were sampled at low, mid and high shore elevations across a gradient in illumination parallel to the shoreline. The relationships between response variables (macroinvertebrate community composition, species richness, species dominance, the total number of individuals, total community biomass, and the presence of individual taxa) and

artificial light exposure were quantified accounting for potentially collinear gradients in shore height, median grain size and organic matter concentration.

2.2. Study site

This study was conducted at Llandudno West Shore Beach, a west-facing, macrotidal, sandy beach on the North Wales coast. The northern half of the shore is illuminated by adjacent High Pressure Sodium promenade lighting such that gradients of decreasing illumination are established from high to low shore, and north to south (Fig. 1). The site contains two fish-tail groynes, the larger of which (Gogarth Breakwater) brackets the northern limit of the shore.

2.3. Light mapping

Ground level illuminance was mapped at night at 6 m resolution across 4 transects parallel to the shore (at approximately 0, 40, 100 and 200 m from the sea wall) using a Skye® LUX sensor logging every 5 s. Measures were GPS linked so that a prediction surface map of illuminance could be interpolated from the data using an exponential kriging model in ArcGIS. The light data was collected between 12:30 and 2:30 am on the 11th of June 2018 during a new moon to avoid moonlight interference.

2.4. Shore sampling

One macroinvertebrate and two sediment samples were extracted from 54 sampling stations across the measured illumination gradient along horizontal transects (approximately 900 m in length) at three shore heights representative of the full gradient of zonation (Fig. 1). Each transect occupied a 50 cm elevation zone, relative to Ordnance Datum Newlyn: high shore (1 to 1.5 m), middle shore (−0.25 to 0.25 m) and low shore (−1.5 to −1 m); and contained 18 sampling stations positioned randomly within 40 m intervals along the transect. Sampling was undertaken either side of the smaller groyne to control for effects of potentially collinear variables known to influence community composition (grain size and organic matter content) (Bull et al., 1998; French and Livesey, 2000; Walker et al., 2008; Fanini et al., 2009). 89% of the samples (16 stations on each transect) were collected over 3 consecutive days (20th–22nd June 2018), with the final 11% collected 10 days later on a day with comparable weather conditions, using the same equipment and consistent methods. All sampling was undertaken at low/retreating tide.

At each station a macroinvertebrate sample (0.1 m² to 0.2 m depth) was dug and wet sieved through a 1 mm mesh, and two small sediment cores (0.008 m² to 0.2 m depth) were extracted for grain size and organic matter content analysis. Macroinvertebrate samples were preserved in 70% Industrial Methylated Spirit with rose bengal pending lab analysis, and all specimens were identified to the lowest practicable taxonomic resolution, counted and weighed. One sediment sample from each station, after washing and drying, was shaken for 15 min through a stack of brass sieves with decreasing mesh sizes (4 mm, 2 mm, 1 mm, 500 µm, 250 µm, 125 µm, 63 µm). The remaining sediment in each sieve was weighed, and median grain size was calculated using GRADISTAT v 8.0 (Blott and Pye, 2001). The remaining sediment samples were dried and then heated in a muffle furnace at 450 °C for 4 h to burn off any organic matter, with the resulting differences in the weights of the samples used to calculate organic matter concentrations (Cambardella et al., 2001).

2.5. Statistical analysis

Data analysis was performed using R statistical software. The relationship between macroinvertebrate community composition and artificial light exposure (ground-level illuminance) was examined using a

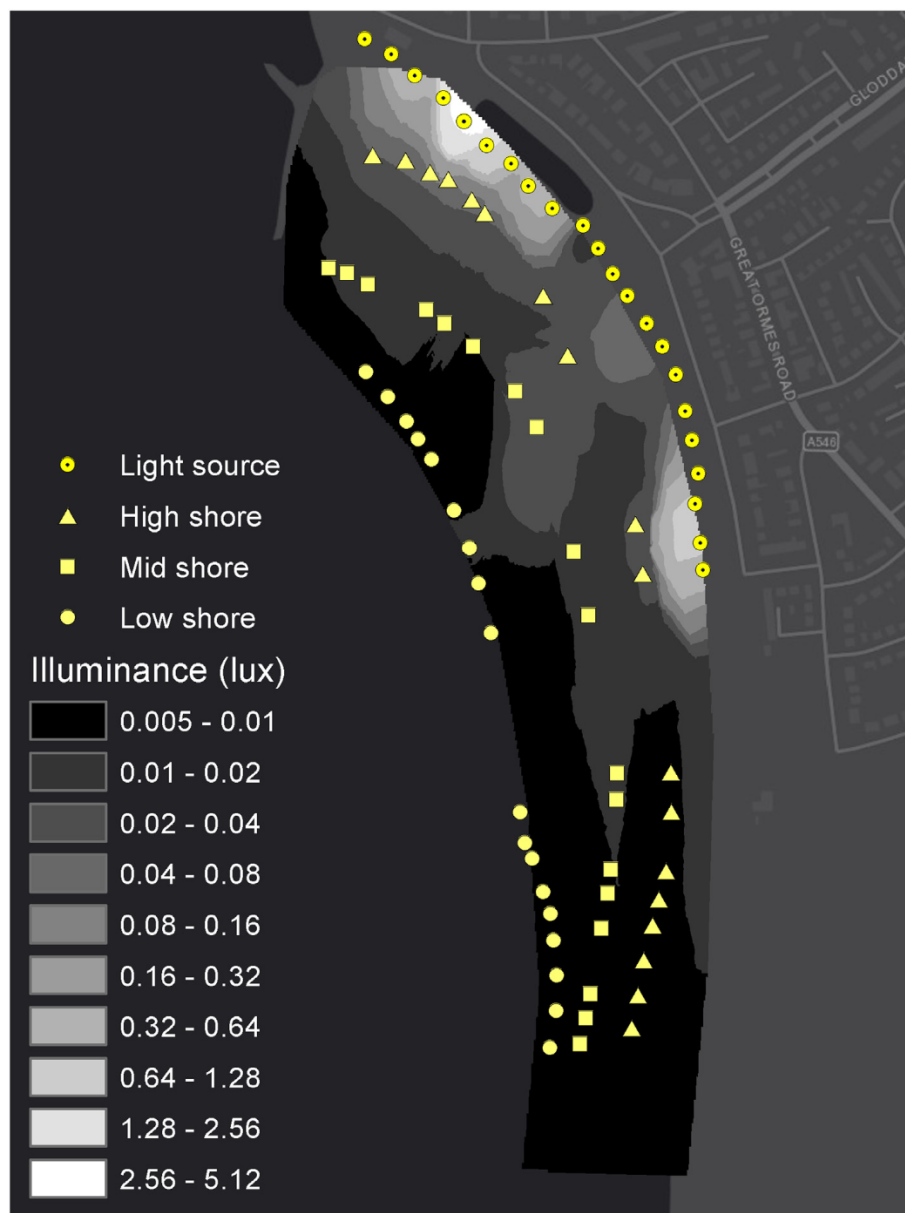


Fig. 1. The distribution of artificial light at night from High Pressure Sodium promenade lighting across Llandudno West Shore Beach, North Wales.

permutational multivariate analysis of variance (adonis, CRAN: [vegan](#)), performed on Bray-Curtis dissimilarity matrices calculated from log-transformed species abundance and biomass, accounting for shore height, particle size and organic matter. All first order effects and second order interactions with light were included in the model.

The relationships between macroinvertebrate community metrics (total number of individuals [$n\ m^{-2}$], total biomass [$g\ m^{-2}$], species richness [species count] and species dominance [$1 - \text{Pielou's evenness}$]) and environmental variables (artificial illuminance, shore height, particle size, organic matter) were quantified using multiple regression models fitted using either spatially autocorrelated mixed effects models (corrHLfit, CRAN: [spaMM](#)) or generalised linear models with appropriate error distributions where spatial autocorrelation was not identified in the response variable of interest (determined using Mantel tests).

Model selection (model.sel, CRAN: [MuMIn](#)) was used to compare the small-sample-size corrected values of Akaike's Information Criterion (AIC) of a series of candidate regression models, including the global model ($\sim \text{illuminance} * \text{shore height} + \text{illuminance} * \text{particle size} + \text{illuminance} * \text{organic matter}$), all possible nested models of the

global model, and a null ($\sim \text{intercept only}$) model (Table 2). The most parsimonious models were tested for significance by comparing to a null model using a likelihood ratio test. Where the most parsimonious models were significantly different from the null, and included the illuminance predictor variable, the significance of this variable was further tested using a likelihood ratio test comparing the model with a nested model in which the illuminance variable was omitted. If the model included a second order effect of illuminance, the significance of the effect was determined by testing the model against itself but with the interaction removed.

The relationships between the abundances of individual macroinvertebrate species and environmental variables were also examined using multiple regression model selection, as previously described, identifying the most parsimonious model for each species and testing the significance of illuminance when present as a predictor variable. The abundances of rarer species were summed by genus or family (Table 3) to reduce zero inflation. Analyses were performed on numerical abundance data for taxa present in >50% of samples, and presence-absence data for taxa present in <50% of samples, with appropriate error

distributions fitted in each case. Any taxa that were present in <10% of the samples were deemed too rare to be reliably incorporated in the analysis.

3. Results

The light data displayed an exponentially decreasing gradient in illuminance from high to low shore adjacent to the lamp-posts (Fig. 1), ranging from 5 lx on the promenade, equivalent to a typical residential side street (Gaston et al., 2013), to 0.006 lx, with the lowest values found in the far south and on the low shore directly next to Gogarth Breakwater. Median grain size on the intertidal shore ranged from 142 to 169 μm (fine sand), with the organic matter concentration of the sediment between 0.3 and 0.9%. Gradients in grain size and organic matter were not collinear with illuminance (variance inflation factor [VIF] values <3).

The beach contained an abundance of intertidal macroinvertebrates (median: 180 $n\text{ m}^{-2}$), with a total of 1984 individuals collected, representing 45 species and 26 families. The macroinvertebrate assemblages on the shore predominately consisted of crustaceans (70%), polychaetes (26%) and bivalves (3%) [percentages by abundance]. There was no significant difference in the structure of the community sampled between different survey days, with regard to abundance ($F_{(3,50)} = 1.29$, $p = 0.29$), biomass ($F_{(3,50)} = 0.84$, $p = 0.48$), species richness ($F_{(3,50)} = 1.84$, $p = 0.15$) or species dominance ($F_{(3,48)} = 0.94$, $p = 0.43$).

Macroinvertebrate community composition across the shore was significantly related to the degree of exposure to artificial light at night, accounting for other environmental variables (shore height, particle size and organic matter), and regardless of whether abundance or biomass was used (n individuals m^{-2} : $F_{(44,53)} = 2.26$, $p < 0.05$; g m^{-2} : $F_{(44,53)} = 2.52$, $p < 0.01$; Table 1).

Artificial illuminance (lux) was included in the most parsimonious models describing the species richness and total community biomass of macroinvertebrates (Table 2). The relationship between light and these responses was modulated by organic matter content (Species richness: $\chi^2 = 46.90$, $p < 0.01$; Biomass: $\chi^2 = 8.42$, $p < 0.01$). The selected model (Lux * Organic) described significantly more of the variability in these responses compared to a null (~intercept only) model (Species richness: $\chi^2 = 81.56$, $p < 0.01$; Biomass: $\chi^2 = 2.72$, $p < 0.001$). Species richness and biomass (Fig. 2) increased with increasing illuminance; relationships that became more positive with increasing organic matter availability (Fig. 3). The cumulative abundance and species dominance of the macroinvertebrate community were not strongly related to artificial light exposure, with the illuminance model (~Lux) describing no more variation in the responses than the null model (Abundance: $\chi^2 = 0.56$, $p = 0.11$; Dominance: $\chi^2 = 0.01$, $p = 0.67$).

Out of the 15 common taxa of macroinvertebrates found on the shore, the abundances of 7 taxa (47%) displayed significant

Table 2

Selection of the most parsimonious models describing how macroinvertebrate abundance ($n\text{ m}^{-2}$), biomass (g m^{-2}), species richness (species count) and species dominance (1 - J') vary with exposure to High Pressure Sodium promenade lighting, and other physical variables in a sandy shore ecosystem. AICc values of the most parsimonious models are underlined and bold.

Model	AICc			
	Abundance ^a	Biomass ^a	Richness ^b	Dominance ^c
Lux * Shore height + Lux * D50 + Lux * Organic	67.8	58.5	269.4	−24.4
Lux * Shore height + Lux * Organic	63.0	55.8	266.5	−20.4
Lux * D50 + Lux * Organic	74.6	50.2	259.9	−21.9
Lux * Shore height + Lux * D50	63.4	60.3	267.8	−25.3
Lux * Shore height	59.6	61.3	267.4	−16.8
Lux * D50	78.4	53.2	262.0	−17.2
Lux * Organic	70.8	49.5	256.8	−17.7
Lux	76.5	54.4	260.2	−9.8
Shore height + D50 + Organic	58.0	60.4	264.2	−26.7
Shore height + D50	59.3	59.2	261.7	−23.3
Shore height + Organic	55.5	62.5	265.5	−26.1
Shore height	56.9	62.3	263.1	−21.3
D50 + Organic	72.6	62.9	266.4	−24.1
D50	75.5	61.3	264.3	−19.6
Organic	72.1	62.3	265.0	−19.0
Null	76.8	61.6	262.9	−11.6

^a Gaussian GLM performed on $\log_{10}(x + 1)$ transformed data.

^b Gaussian GLM performed on raw data.

^c Poisson GLM performed on raw data.

relationships with artificial light exposure accounting for other environmental variables (Table 3). Four of these taxa decreased in either abundance or probability of occurrence with increasing illuminance, including amphipods (*Bathyporeia elegans* and *Haustorius arenarius*), catworms (*Nephtys* spp.) and sand mason worms (*Lanice conchilega*), while the remaining 3 taxa increased in probability of occurrence with increasing illuminance: *Tellinidae* spp., *Arenicola marina* and *Nereididae* spp. (Fig. 4).

4. Discussion

Macroinvertebrate community composition is known to be affected by artificial light at night in a variety of ecosystems, including terrestrial ground-dwelling communities (Davies et al., 2012; Davies et al., 2017; Manfrin et al., 2017), sessile marine epifaunal communities (Davies et al., 2015; Bolton et al., 2017) and riparian ecosystems (Meyer and Sullivan, 2013). To our knowledge the results presented here represent the first evidence of artificial light altering macroinvertebrate community structure and composition in a sandy shore ecosystem. Macroinvertebrate assemblages in sandy shore habitats - which make up around 75% of the world's ice-free coastlines (Brown and McLachlan, 2002) - are critical to ecosystem functioning and connectivity. They contribute to sediment aeration, facilitating organic matter mineralisation and nutrient cycling, form planktonic linkages between distant habitats, and provide important resources for top consumers such as birds and fish (Brauns, 2008; Schlacher et al., 2008).

Our study found changes in the community composition, species richness and cumulative biomass of macroinvertebrates that were related to the level of exposure to artificial light pollution from adjacent High Pressure Sodium promenade lighting with illuminances equivalent to residential side streets (Gaston et al., 2013). While our study was limited to one shore line, the relationships between macroinvertebrate community descriptors and artificial illumination were quantified accounting for key structural drivers in intertidal ecosystems (shore elevation, and wave exposure), which are also strongly linked with groyne proximity, hence we are confident that the results presented constitute evidence of artificial light impacts in the focal study system.

The effects of anthropogenic structures such as groynes on sandy shore ecosystems are well established (French and Livesey, 2000;

Table 1

The relationship between macroinvertebrate community composition and artificial light exposure from High Pressure Sodium promenade lighting in a sandy shore ecosystem. Permutational multivariate analysis of variance was performed on Bray-Curtis dissimilarity matrices calculated from log-transformed species abundance and biomass data. The tested model included first order effects of all physical variables, and interactions with illuminance. Results that are significant at the 95% confidence level or greater are underlined.

Predictor	Community composition response			
	Abundance		Biomass	
	$F_{(44,53)}$	p	$F_{(44,53)}$	p
Illuminance (lux)	2.26	<0.05	2.52	<0.01
Shore height	5.97	<0.001	3.71	<0.001
D50 (μm)	1.90	0.089	1.98	<0.05
Organic matter (%)	3.10	<0.01	2.33	<0.01
Lux:Shore height	1.50	0.120	1.35	0.117
Lux:D50	0.74	0.589	1.39	0.139
Lux:Organic	1.23	0.321	1.62	0.076

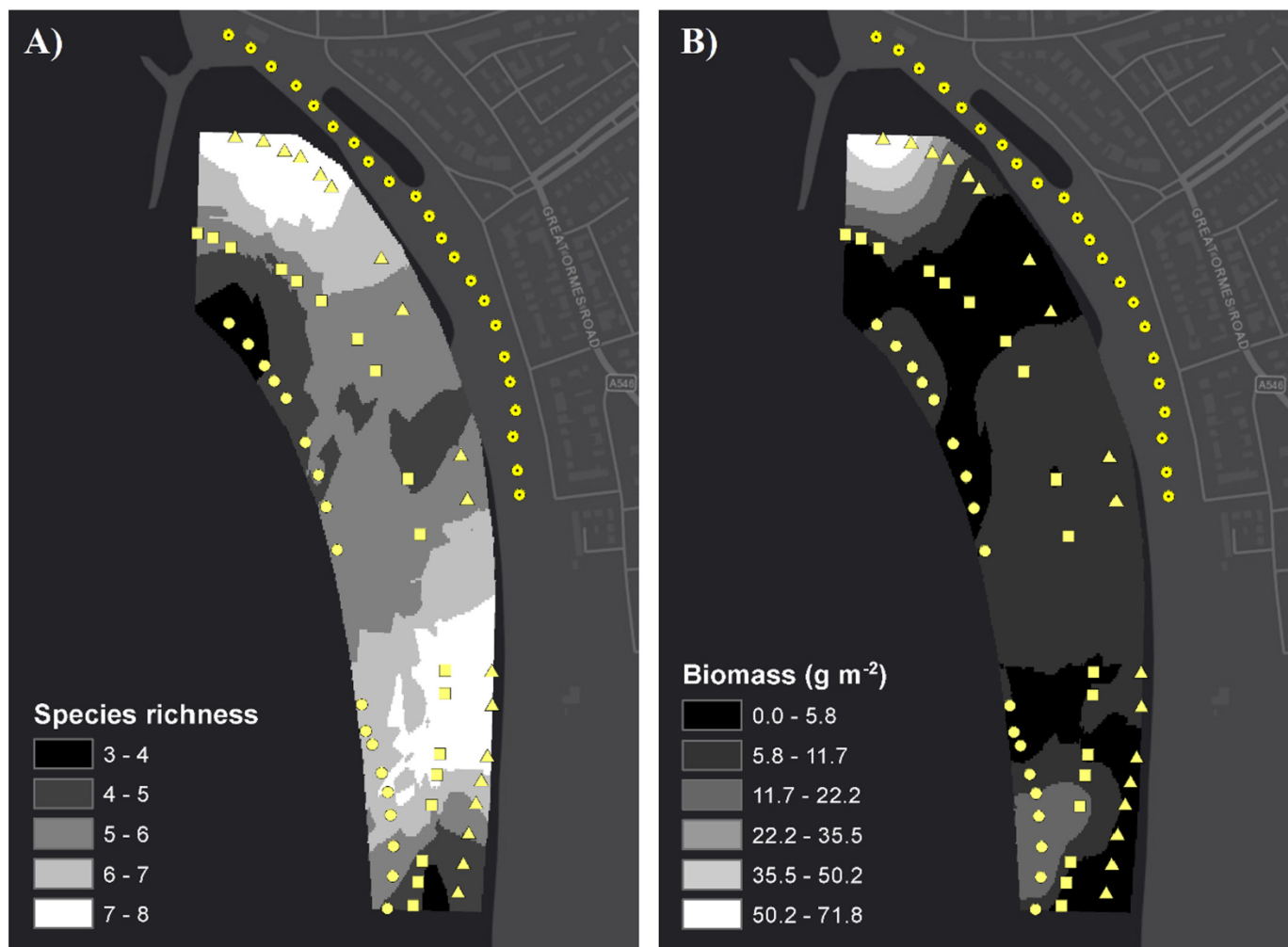


Fig. 2. Macroinvertebrate community structure metrics that were significantly related to artificial light exposure from High Pressure Sodium promenade lighting: A) species richness (species count); B) cumulative biomass (g m^{-2}).

Martin et al., 2005; Walker et al., 2008; Fanini et al., 2009). Reduced wave exposure on the intertidal shore due to sheltering by anthropogenic structures often leads to changes in the sediment characteristics of the beach with regard to particle sizes and organic content, which in turn drive changes in macroinvertebrate assemblages (Martin et al., 2005; Rodil et al., 2007; Walker et al., 2008). These effects were given careful consideration during study design, and controlled for by sampling either side of the groyne structures, and in the analysis by including median grain size and organic matter content as candidate variables during the model selection procedure. We are therefore confident that the results reported here are not artefacts of groyne effects.

47% of non-rare taxa were individually found to either increase or decrease in abundance (or the probability of occurrence) with increasing illumination, accounting for shore height and sediment characteristics, including common intertidal species such as polychaetes (*Nephtys* spp., *Janice conchilega*, *Arenicola marina*, *Nereididae* spp.), amphipods (*Bathyporeia elegans*, *Haustorius arenarius*) and bivalves (*Tellinidae* spp.). Although the mechanisms responsible for these relationships are uncertain, there are a range of possible explanations based on the known influences of light in intertidal systems, which encompass direct effects of artificial light on macroinvertebrate life cycles, and indirect effects due to trophic interactions.

Multiple aspects of marine macroinvertebrate reproductive biology are guided by natural light cues, including synchronised broadcast spawning, larval phototaxis, and recruitment (Thorson, 1964; Bentley et al., 2001; Naylor, 2001). The adult stages of mobile marine

macroinvertebrates can also be highly photosensitive with taxa displaying both positive and negative phototaxis (Tranter et al., 1981; Del Portillo and Dimock Jr, 1982; Adams, 2001). Marine amphipods, for example, are known to be strongly attracted to artificial lights (Meekan et al., 2001; Hughes and Ah Yong, 2016), with assemblages of subtidal amphipods aggregating in halogen light traps with intensities equivalent to average levels of coastal light pollution (Navarro-Barranco and Hughes, 2015). As is the case for many taxa displaying this aggregation response (for example Lepidoptera, Araneae and Coleoptera), the mechanism of disruption remains unclear. Orientation using the lunar and solar compass is, however, common in some intertidal amphipod species (Ugolini et al., 2005; Ugolini et al., 2012), and artificial light disruption of this compass is plausible.

As with many other groups (Rydell, 1992; Becker et al., 2013), aggregation in illuminated areas will increase the vulnerability of intertidal macroinvertebrates to predation. Increases in the abundance of predators as a result of artificial light has been previously reported in a variety of ecosystems and species, from coastal fish (Becker et al., 2013) to bats (Rydell and Racey, 1995) and ground-dwelling insects and arachnids (Davies et al., 2012), and can lead to significant changes in the composition of prey communities within illuminated areas (Bolton et al., 2017). In the same manner that bats target moths and other flying insects around streetlights (Rydell, 1992; Acharya and Fenton, 1999; Minnaar et al., 2015), wading birds are attracted to the nocturnal foraging opportunity posed by light-polluted intertidal shores (Santos et al., 2010). Taking advantage of artificial illumination, these birds alter

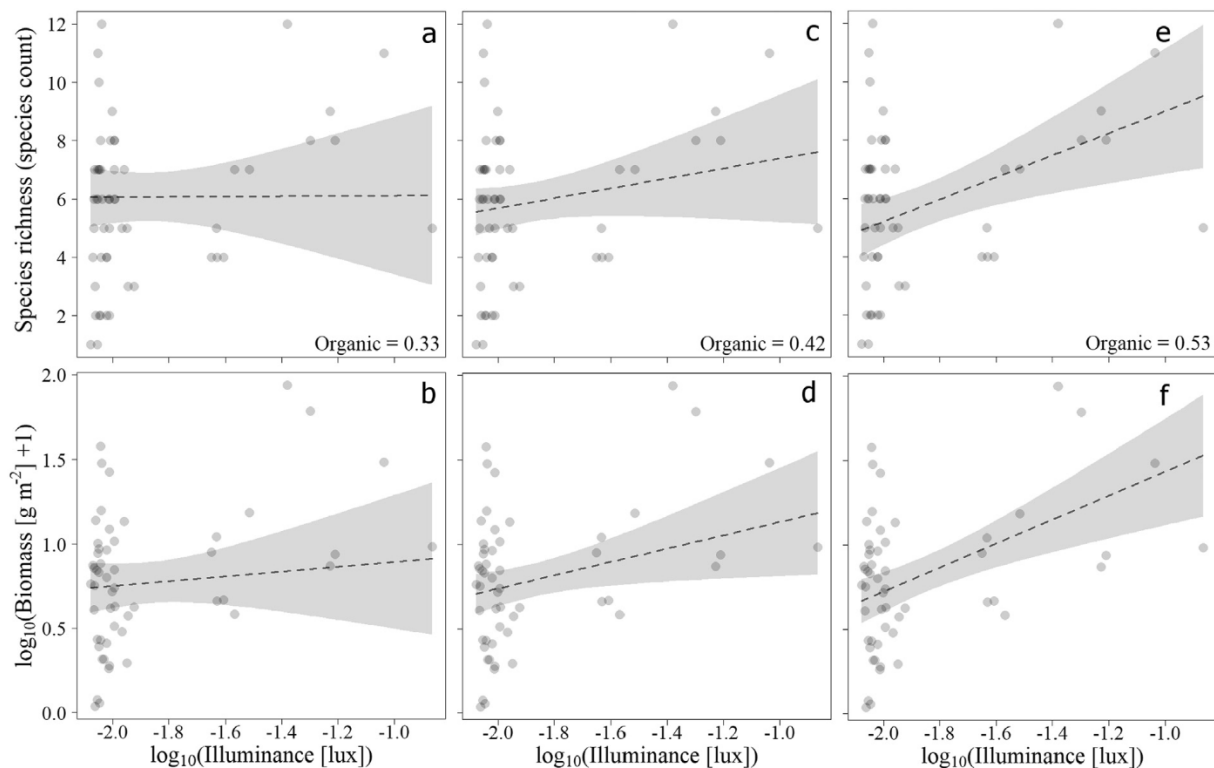


Fig. 3. The effects of artificial light at night from High Pressure Sodium lighting on macroinvertebrate species richness and biomass at high (a–b), medium (c–d), and low (e–f) organic matter content in a sandy shore ecosystem. Relationships (dashed lines) are presented from the most parsimonious generalised linear models (Table 2) which included artificial light exposure and were significantly different from a null (intercept only) model. A significant interaction between artificial light exposure and organic matter content was present in both cases, presented here using the lower quartile, median and upper quartile values of organic matter concentration (%). Grey regions indicate the 95% confidence intervals of these relationships.

their feeding strategy from tactile to sight-based foraging (Dwyer et al., 2013), displaying increased intake rates of macroinvertebrate prey compared to non-illuminated regions (Santos et al., 2010).

The negative effect of artificial light exposure on the prevalence of amphipods (*Bathyporeia elegans* and *Haustorius arenarius*) in the current study, which constitute the prey of wading birds (Goss-Custard and Jones, 1976; Evans et al., 1980), could be due to light-attracted aggregations being targeted by foragers. Similarly, two polychaete taxa

also displayed negative relationships to artificial illuminance: catworms (*Nephtys* spp.) and sand mason worms (*Lanice conchilega*), which are two of the most common prey groups in the diet of intertidal foraging birds (Goss-Custard and Jones, 1976; Yates et al., 1993; Petersen and Klaus-Michael, 1999).

Intertidal macroinvertebrates are known to be threatened by a variety of anthropogenic pressures, such as coastal development, pollution discharge and climate change (Brown and McLachlan, 2002; Schlacher

Table 3

Examining the relationships between the abundances of common macroinvertebrate taxa and exposure to High Pressure Sodium promenade lighting in a sandy shore ecosystem. Commonality is defined as the percentage of samples individual taxa were found in. The percentage contribution of each taxon to the total abundance and biomass of the macroinvertebrate community is also displayed, along with the formula of the most parsimonious model describing those predictor variables which shaped either the abundance or presence of each taxon. Taxa affected by artificial light underlined.

Taxon	Proportion of samples (%)	Proportion of abundance (%)	Proportion of biomass (%)	Model formula
<i>Nephtys</i> spp. ^a	70.4	8.7	9.9	Lux * Organic + D50
<i>Bathyporeia pilosa</i> ^a	66.7	49.9	4.0	Shore height
<i>Spionidae</i> spp. ^b	50.0	4.8	3.6	Shore height
<i>Orbiniidae</i> spp. ^b	37.0	2.4	7.5	Null
<i>Crangon crangon</i> ^b	35.2	2.6	1.5	Organic
<i>Tellinidae</i> spp. ^b	35.2	2.3	14.3	Lux * Organic + D50
<i>Lanice conchilega</i> ^b	33.3	6.4	4.8	Lux + Organic
<i>Bathyporeia elegans</i> ^b	25.9	3.8	0.2	Lux + Shore height
<i>Haustorius arenarius</i> ^b	24.1	2.7	2.8	Lux * Organic
<i>Phyllodoctidae</i> spp. ^b	22.2	0.8	0.04	Shore height
<i>Eurydice pulchra</i> ^c	18.5	10.5	1.2	Shore height
<i>Cerastoderma edule</i> ^b	14.8	0.7	34.1	Null
<i>Arenicola marina</i> ^b	13.0	0.5	11.9	Lux
<i>Nereididae</i> spp. ^b	13.0	1.2	1.7	Lux
<i>Semellidae</i> spp. ^b	11.1	0.4	0.01	Null
Sum	NA	97.6	97.6	NA

^a Poisson GLM performed on raw abundance ($n\ m^{-2}$) data.

^b Binomial GLM performed on presence/absence data.

^c Spatially autocorrelated binomial model (corrHLfit) performed on presence/absence data.

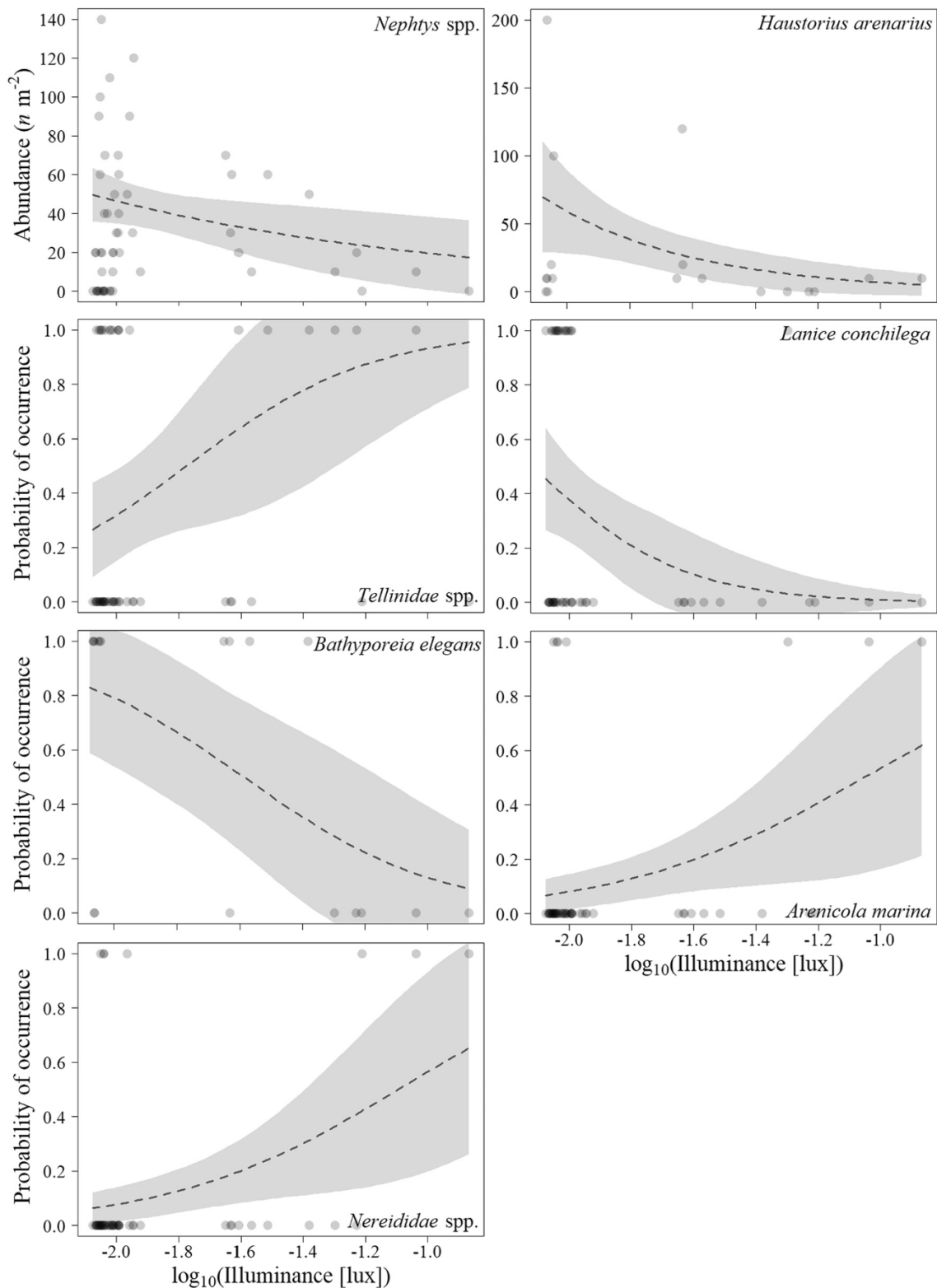


Fig. 4. Intertidal macroinvertebrate taxa with abundances or occurrences significantly related to artificial light at night from High Pressure Sodium promenade lighting in a sandy shore ecosystem. The relationship between artificial light exposure and each abundance measure (dashed lines) were identified as the most parsimonious generalised linear models that were significantly different from a null (intercept only) model. Grey regions indicate the 95% confidence intervals of these relationships. *Nephtys* spp. and *Haustorius arenarius* were analysed using Poisson GLMs performed on abundance data, while binomial GLMs performed on presence/absence data were used for the remaining taxa.

et al., 2007; Defeo et al., 2009). However the impact of artificial light pollution remained unconsidered until recent years (Luarte et al., 2016; Duarte et al., 2019). This study demonstrates that artificial light pollution can alter intertidal macroinfaunal communities in sandy beach

ecosystems. With 75% of the world's megacities located near coastlines (Luijendijk et al., 2018), the potential for widespread artificial light at night in coastal regions (Davies et al., 2014) to alter the biogeographical distributions of intertidal organisms is clear. It may prove possible to

reduce these impacts by limiting the period, intensity and dispersal of lighting, as well as altering the types of lights used and their spectral composition (Gaston et al., 2012; Rajkhowa, 2012).

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CRediT author statement

Matthew J. Garratt: Methodology, Formal Analysis, Investigation, Writing-Original Draft, Visualisation. **Stuart R. Jenkins:** Writing-Review & Editing, Supervision, Project Administration, Funding Acquisition. **Thomas W. Davies:** Conceptualization, Methodology, Formal Analysis, Writing-Review & Editing, Visualisation, Supervision, Project Administration, Funding Acquisition.

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Environment • Planet Earth

Why Dark Sky Tourism Is Catching On

By [Michael d'Estries](#) Updated December 16, 2019



An individual silhouetted against a backdrop of stars in Queensland, Australia. (Photo: [Dualiti Photos \[CC by 2.0\]](#)/Flickr)



In the fight to protect natural wonders around the world from pollution, development and other man-made byproducts of our modern world, it's an overlooked fact that we're on the verge of losing one of our most enchanting. Even more ironic, it's not something that requires travel or tickets to experience. The



There are, however, efforts underway to protect what vestiges of the unspoiled night remain.

Organizations like the [International Dark-Sky Association \(IDA\)](#), which works with land owners and municipalities to protect vast areas under pristine dark skies for future generations, has to date designated 15 dark sky reserves around the world. The IDA has also designated over 65 smaller, but still impressive, [dark sky parks throughout the United States](#). As interest in astrotourism has increased, communities have also embraced their fortunate settings under starlight to offer stargazing tours, events around spectacles like solar eclipses and even rocket launch viewing parties.

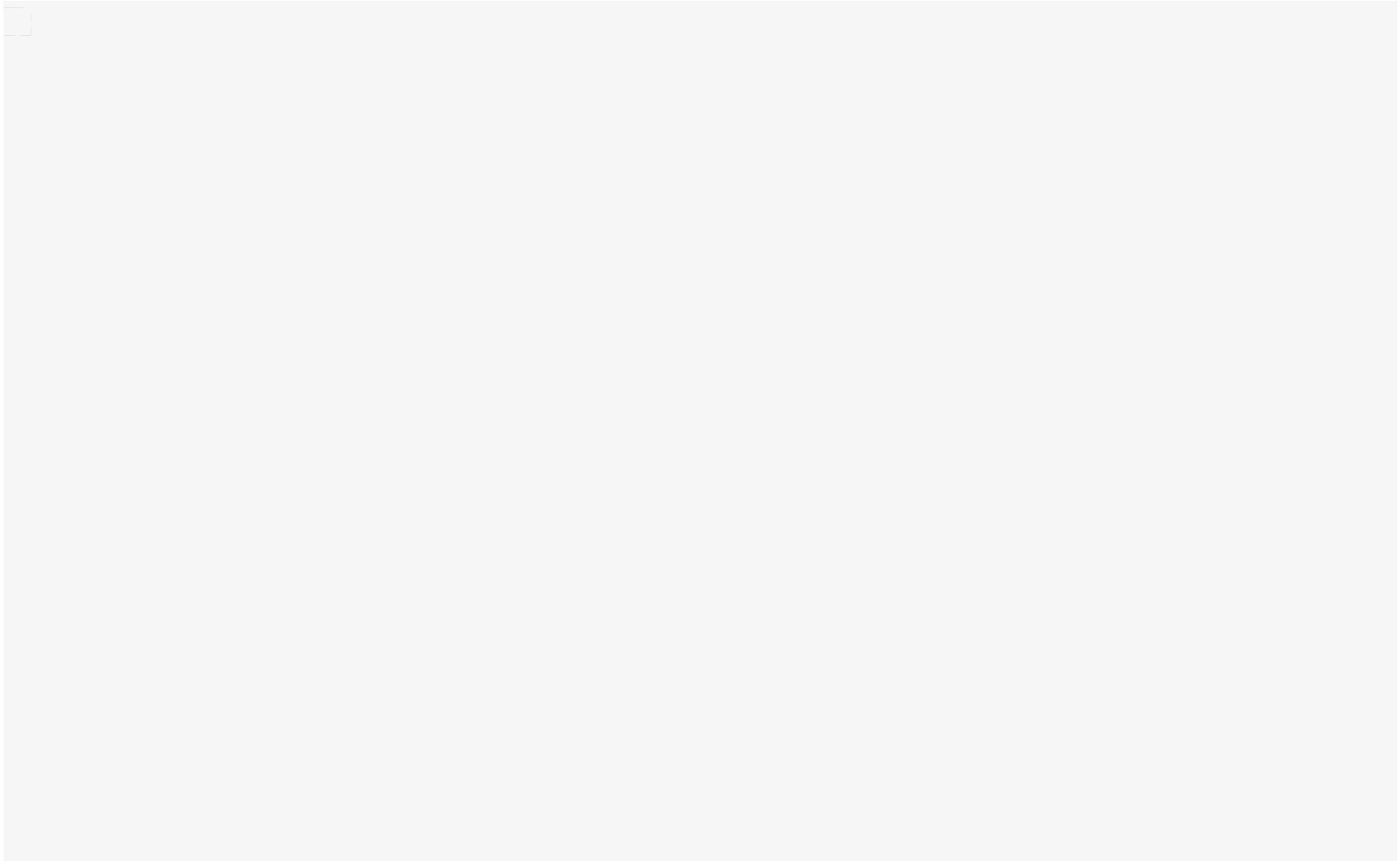
And now, thanks to travel writer and astrotourism guide Valerie Stimac, we have a single catalog of the opportunities available to look up in wonder at the heavens above. Her new book "[Dark Skies: A Practical Guide to Astrotourism](#)," not only features 35 of the darkest stargazing places around the world, but also highlights annual spectacles like meteor showers, the best place to catch the northern (or southern) lights, rocket launch sightseeing and even details on the major eclipses of the next decade and where to watch them.



The new Lonely Planet book 'Dark Skies,' by Valerie Stimac, offers an in-depth guide to the world of astrotourism.
(Photo: Valerie Stimac/Lonely Planet)



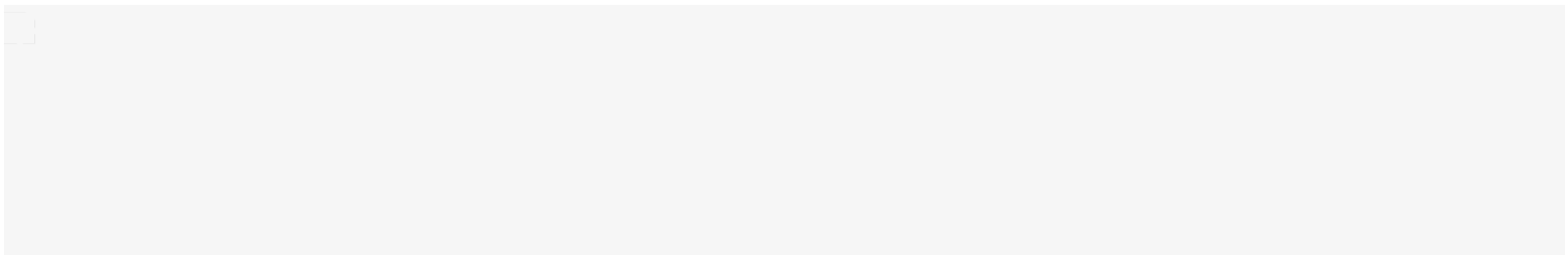
able to tackle the list of topics quickly to decide where we wanted to include and how to organize the book. After that, it was a lot of researching, writing, and working with sources around the globe!"



Valerie Stimac under a starry night sky. (Photo: Valerie Stimac)

Stimac, who chronicles her travels around the globe (and offers tips for those looking to do the same) through her site [Valerie & Valise](#), said she's deeply encouraged by interest across a lot of the different types of astrotourism.

"Obviously seeing rockets and the northern lights have always been popular; eclipse-chasing has grown more since the 2017 total solar eclipse too," she added. "Traveling for dark sky experiences is probably among the newest 'type' of astrotourism, and the International Dark-Sky Association has done a great job of generating excitement and interest in these locations – and showing how astrotourism is often a great complimentary activity for travel to spots that are also great natural destinations during the day."





Arches National Park, one of over 65 dark sky parks in the U.S. as designated by the International Dark-Sky Association, is a popular attraction for stargazers. (Photo: By Jun Su/Shutterstock)

While Stimac praised organizations like the IDA for doing a fantastic job of helping to protect pristine regions from encroaching light pollution, one of the biggest challenges faced is that astrotourism is still a young industry. "Not everyone is interested and/or willing to travel for these experiences," she shared.

Worse still, some areas lack both the financial and organizational resources to attract potential stargazers.

"Personally, I think the most endangered dark sky locations are those where there's no tourism infrastructure in place," she said. "For example, Wadi Rum in Jordan is a spectacular stargazing spot, but there's no CVB/DMO (Convention and Visitors Bureau/Destination Marketing Organization) there to help petition for dark sky designation status, so it's unlikely that development there will be done in a way that reduces light pollution.... and that will hurt the destination in the long run."

Joshua Tree National Park, California





The Milky Way rising over the rugged and rocky terrain of Joshua Tree National Park. (Photo: By Saptashaw Chakraborty/Shutterstock)

Designated a Dark Sky Park by the IDA in 2017, [Joshua Tree National Park](#) is a popular attraction for stargazers living on the west coast. Despite encroaching light pollution on its western borders from Coachella Valley cities, its relative isolation from major cities in the east (with Phoenix being the closest metropolitan area some 300 miles away), provides it with some of the darkest skies in California.

"While Joshua Tree National Park has an unfortunate amount of light pollution in the larger region, it's dark enough and such an otherworldly landscape that it's still an [unforgettable place to go stargazing](#)," Stimac said of the 790,000-acre park. "There's also a really low development footprint within the park so it's very quiet and isolated – totally like another planet or moon!"

Elqui Valley, Chile





A long exposure shot of the beautiful night sky above the Elqui Valley in Chile. (Photo: By Pung/Shutterstock)

A popular wine region centered on the Elqui River in northern Chile, the [Elqui Valley](#) also offers ideal conditions (high-altitude, low-population, limited cloud cover) for uncorking a bottle and toasting the heavens above. Spanning some 90,000 acres, the region has the distinction of being named the first-ever Dark Sky Sanctuary by the International Astronomical Union in 2015. It's also home to nearly a dozen observatories, boutique stargazing hotels and a large variety of tours that cover both cosmic and daytime spectacles.

"This was the first place I saw the southern night sky, and was amazed by how different the Milky Way and constellations look," said Stimac. "It was also a treat to see the Magellanic Clouds for the first time."

Wadi Rum, Jordan

The Milky Way in Wadi Rum, Jordan. (Photo: By Zaid Abu Taha/Shutterstock)



been nicknamed "Mars on Earth."

"I'm partial to [Jordan](#) because I'm [leading a tour group here in March!](#)," said Stimac. "Wadi Rum is an incredible landscape too (used for a lot of sci-fi movies like 'Prometheus,' 'Rogue One' and 'The Martian') and it's one of the dark places where you can just sit and look up at the wonder of the night sky with very little interruption."

Environment

The World's 11 Certified Dark Sky Reserves, Where the Stars Run Riot

Space

19 Dark Sky Parks Where the Heavens Steal the Show

Outdoors

3 New Dark Sky Parks Reveal Wonders of the Night Sky

Space

The First Dark Sky Reserve in the U.S. Is a Stargazer's Paradise



Pollution

Why Dark Skies Matter

Pollution

5 Ways You Can Reduce Light Pollution

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**Stunning Photo Project Explores Our
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**These 2 Towns Have Dimmed Their Lights
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**Welcome to Niue, the First Country
Recognized as a Dark Sky Place**



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International Dark Sky Park Opens in Michigan; Only 9 Others in the World

Pollution

England's 'Cosmic Census' Reveals Scale of Light Pollution

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To Planning Commission for discussion – JGD Response to the Adobe letter:

Community input:

At the recent public meeting on the Lighting Ordinance there seemed to be many more people who wanted marine lighting regulated or disallowed. There have been letters as well. There has also been an overwhelmingly positive response to creating a lighting ordinance in general due to the interest in eliminating excess sky glow and allowing night sky viewing in general. One newly elected council member specified during the campaign wanting Yachats to adopt a dark sky ordinance which would definitely disallow the marine lighting currently in use.

Examples Ecological effects:

From: *APRIL 28, 2015*

Coastal light pollution disturbs marine animals, new study shows

by University of Exeter

Dr Stuart Jenkins of the School of Ocean Sciences at Bangor University said: "This is an important first step in developing understanding of the way artificial light may be affecting marine coastal assemblages. Our research showed that levels of artificial light, commonly found in urbanized and developed coastal areas, can have important effects on the development of communities inhabiting hard surfaces in shallow water."

Dr Thomas Davies from the University of Exeter highlighted how historically overlooked the impacts of light pollution on coastal ecosystems has been, saying: "There has been a surge of research into the impacts of artificial lighting on land animals and plants over the last six years, but the influence on coastal animals of lights from harbors, marinas, piers and promenades has received very little attention. Understanding how to manage ecosystems to improve biodiversity gains is as important in the built marine environment as it is in our city parks, gardens, streets, rivers and canals. This study highlights that night-time lighting in coastal cities can impact biodiversity on rocky shores popular with beachgoers that enjoy the diversity of life they offer year round."

Safety along the 804 and pathways:

Just as was discussed with the Fireside and Overleaf, pathway lights would do a better job lighting the path for people walking without creating sky glow for the rest of the community. There is no need for flood lights. There are options available and there will be a year's time to switch them out.

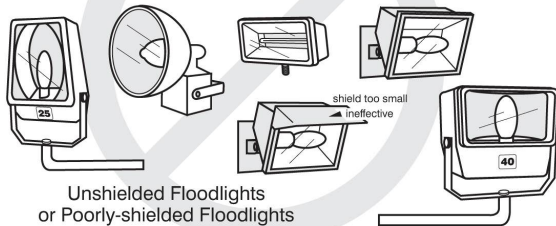
If it is decided that these properties are allowed to continue the lighting we should give specific types of lights to be used rather than simply allowing the continued use of existing flood lights. Here is a link for one example: <http://www.csbg.ca/>



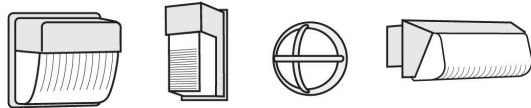
Examples of Acceptable / Unacceptable Lighting Fixtures

Unacceptable / Discouraged

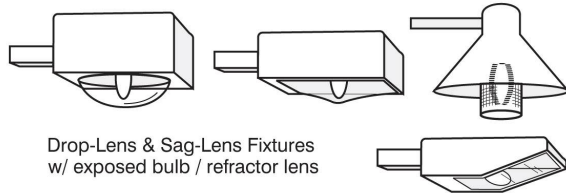
Fixtures that produce glare and light trespass



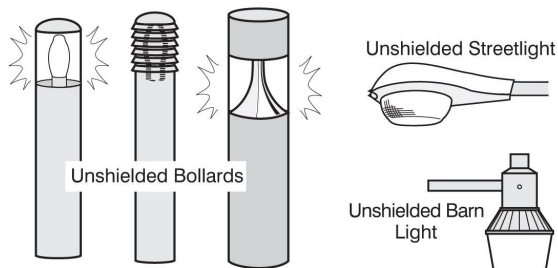
Unshielded Floodlights or Poorly-shielded Floodlights



Unshielded Wallpacks & Unshielded or Poorly-shielded Wall Mount Fixtures



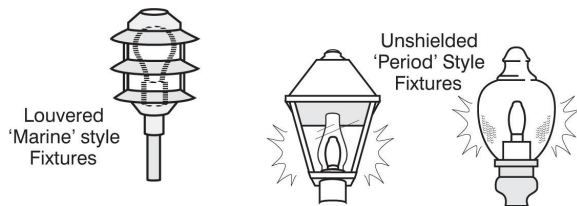
Drop-Lens & Sag-Lens Fixtures w/ exposed bulb / refractor lens



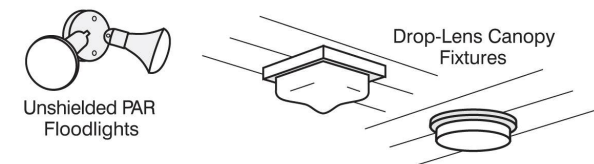
Unshielded Bollards



Unshielded Barn Light



Unshielded 'Period' Style Fixtures



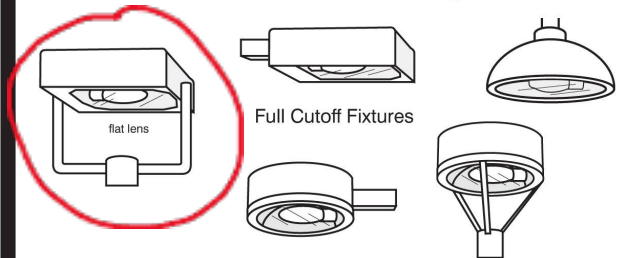
Drop-Lens Canopy Fixtures



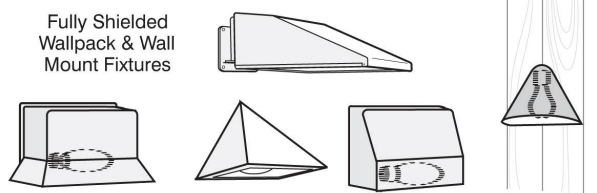
Unshielded PAR Floodlights

Acceptable

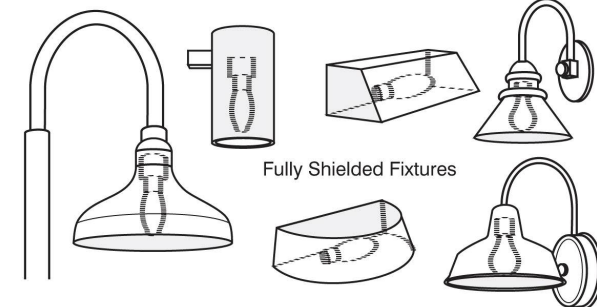
Fixtures that shield the light source to minimize glare and light trespass and to facilitate better vision at night



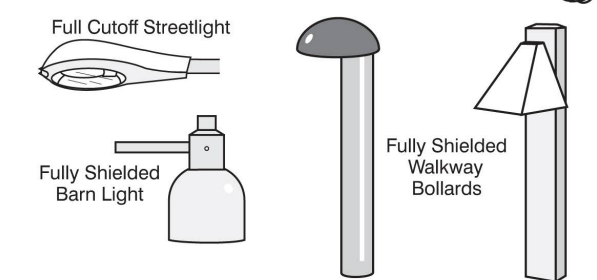
Full Cutoff Fixtures



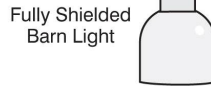
Fully Shielded Wallpack & Wall Mount Fixtures



Fully Shielded Fixtures



Full Cutoff Streetlight



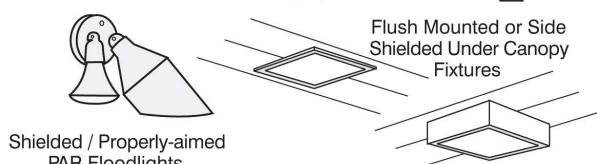
Fully Shielded Barn Light

Fully Shielded Walkway Bollards



Fully Shielded Decorative Fixtures

Fully Shielded 'Period' Style Fixtures



Shielded / Properly-aimed PAR Floodlights

Flush Mounted or Side Shielded Under Canopy Fixtures

This from the Canadian Scotobiology (the study of darkness on biology) group:

On a Budget?

You do not have to spend a lot of money to reduce your impact on the night. Here are a few tips, and why they work.

Cover pathways with white crushed stone (limestone or dolomite)

We see the ground with the light it reflects. If you use asphalt, less than 10% of the light is reflected. If it's a dirt path, then the soil will reflect about 20% of the light - about the same as grass. But crushed stone reflects about 80%. So, you can use much less light for the same visibility. In addition to using less light, a stone surface is easily repaired, and rainwater will drain through rather than forming puddles.

White paint on woodwork.

There are a few critical features that we NEED to see: steps and handrails - so make them obvious. White paint reflects almost all the incident light. So paint the edges of the step and sides of the railing. They will be much more prominent with only a small flashlight. You can also paint the edges of stone steps. You will be able to notice them under starlight.

Retro-reflective materials

This is similar to the idea of white paint. We can mount retro reflective materials in isolated places: posts, trees, rocks, etc. to mark their location. They will appear to “glow” when illuminated by a small flashlight and will stand out against the darker background.

Use “Bug Lights”

Bug Lights get their name because they don't attract flying insects as much as white light. You can get these in the form of incandescent, CFL or LED bulbs. They don't emit much blue light, which makes the light look amber. However the CFL and LED bulbs may be “too bright”, so although the illuminated path won't attract bugs, the brightness of the lamp will. To reduce this, the lamps should be shielded so the glare won't attract the insects. You may still be able to get some low wattage incandescent bulbs (<25W).

Filter the white light

White light is the mix of all colours, but the blue component is the “ecological disruptor”. To make a white lamp acceptable, block the blue light with a filter. I show how well one filter works here. This Roscolux #15 Deep Straw filter can be purchased from [BH Photovideo](#). I am sure there are others, but this is the one I found first.

Phosphorescent materials

These materials store up the light energy during the day and re-emit it at night. If the material is thick enough (5 mm) it may glow for the entire night. It has a slight greenish colour. This material is also used as escape lighting along the floor of aircraft, but it is quite thin and doesn't glow for very long. I have seen these at the Mont-Mégantic Observatory and AstroLab facility (Quebec). They are formed into small “pucks” about 4cm in diameter, and help delineate the roadway. They work very well but may be hard to find commercially.

Leave it dark

As strange as it may seem, it may be safer to leave an area dark. Light attracts attention and raises curiosity. If there is a place where you don't want people to go at night - keep it dark. Most animals know that anonymity is the best security.

Mark a spot?

What is it you would like to do? Marking a spot or location doesn't need a flood light. A VERY small low-power lamp will work. This will be enough for you to get your bearings. Consider the “morning”, or “evening” star. It appears as a brilliant “spark” in the sky. It's actually the planet Venus, but my point is that it is VERY easy to see. Its “luminance” is 1 cd/m², which doesn't mean much for most people. But a single LED powered by only a few milliwatts will produce this light. You DON'T need a 10W commercial light fixture.

Illuminate an area

If you want to illuminate an area like a patio then you will need more light. A good way to select the right fixture is by using the power it consumes. A typical LED light fixture produces (very roughly) 100-lumens of light per watt. A CFL bulb produces about 80-lumens per watt. You need only 1-watt to illuminate a 10m² patio (~10-feet x 10-feet) to 10-lux with an LED. To put this into perspective, you can read at 2-3 lux. You DON'T need a 10W commercial light fixture unless you want your patio to be brighter than your living room, which will also attract all the bugs in the neighborhood.

Simply shield

If you do not want to buy an expensive lamp with a good shield, you can make your own for your current light. If you have a low power (<15W) LED or CFL bulb, you can even use cardboard. If you have an incandescent bulb then you should use metal, because most of the power goes into producing heat, which can char or burn a cardboard shield. [Here](#) and [here](#) are links to a couple of examples. I paint the cardboard and metal shields with white outdoor metal paint. It will protect the material for many years. These are also nice craft projects for your children and grandchildren, and will get them thinking about the environment and how to protect it.

12-01-2020

JGD

Planning Commission Special Work Session: Lighting Ordinance

Purpose of the ordinance:

Why do we develop and put into effect ordinances such as the current lighting ordinance under discussion? In my humble opinion, it is in order to set in place rules and parameters around which a community develops in the hopes of maintaining the values and desires of the residents of the City. The municipal code was put in place as a mechanism to help our citizens to be able to easily understand what is allowed and what is not allowed within the built environment. I think that we all agree that our ordinances are not enacted to punish existing homeowners or businesses. The proposed lighting ordinance is being enacted in large part to protect rather than punish residents and so that new and remodelled construction projects now have parameters by which to design outdoor lighting.

Yachats doesn't differ from any developed small American town. Walking and driving around Yachats with John, who has 30 years in electrical lighting design and construction experience and who has offered to assist this commission, at least 85% of existing exterior light fixtures will not meet the requirements of our proposed ordinance. Should we pass the Ordinance, that does not mean that the code enforcement officer will be canvassing the community giving out notices of non-conformity. What the Ordinance will provide is a mechanism that the residents can cite to lodge a complaint about any light fixtures that are a nuisance. If a neighbor, whether it is a resident or a business, has a light shining into someone's home this ordinance will give teeth to helping alleviate the situation. Enacting the ordinance doesn't mean that suddenly every homeowner and business needs to change out every outdoor light fixture. Practically speaking, if the lighting isn't bothering anyone it will not need to be changed.

section 9.42.040 D. Marine Lighting prohibited or curfew or alternative lights?

By definition, "marine lighting" means exactly that - marine lighting. Whether the lights shine far out onto the ocean or in close on the rocky shore the stated purpose of marine lighting is to light the natural environment. Any light fixture that is directed off of the coastline is marine lighting, does nothing with regards to safety and should not be allowed. Attached are a few examples of the scientific data regarding artificial light at night and the marine environment, including near shore shallow waters.

The ***Yachats Vision Statement*** begins with "***Our village is a place where natural resources are valued and protected, ...***". Decades of research has shown how harmful artificial light is for the natural environment on land and is now beginning to find evidence of the harm done along the shorelines as well. If Yachats truly believes in the Vision Statement, then marine lighting needs to be disallowed.

In response to the use of flood lights that are used as both marine , pathway lighting and for safety :

If clear paths for safe walking are the issue then the best lighting, as well as the least intrusive, are low pathway lights that illuminate the pathway rather than everything else around it. At night human beings' eyes have evolved to adjust to the lower level of light from moonlight. Human visual abilities degrade starting at about the age of 40 so bright white light causes glare and difficulty seeing. Bright lights cause shadows that can create hazards rather than alleviating them. Brightly lighting an area also gives a false sense of security which leads people to walk where they might not otherwise go, such as too close to an edge, thinking they can see much better than they actually can. Lighting the pathway itself, and only the pathway, will help keep people from wandering off into more dangerous areas.

If safety is related to crime prevention, then once again too much light and glare creates places where people might feel much safer than they actually are. Shadows where criminals can hide become an issue. Bright lights also spotlight a possible target giving a criminal someone to interfere with and then

run off into the shadows. Cameras do nothing unless they are constantly monitored. Again, a false feeling of safety.

So much of the planet suffers from light pollution that most children have never seen the Milky Way. This has led to a tourism boom in night sky viewing. Rather than continuing to cater to a single element of the tourism industry it would benefit our community to reach out to this new tourist and turn off the marine lights, which are damaging, and encourage people to visit Yachats for the chance to enjoy the night sky.

section 9.42.050 B 1 Should we further justify, or change the higher lumen limits for Multi-family housing?

A separation of types of residential light, for the purpose of this ordinance, could be that single family residential and duplex developments (R-1, R-2 & R-3) meet the same requirements and multifamily (R-4) developments have a slightly higher lumen allowance because they will most likely share common walkways and areas.

section 9.42.060 Mary Ellen was concerned about liability issues. Perhaps we should expand on the variance section to say that if compliance producers a (such as cost), or a concern about liability for inadequate lighting, a property owner may apply...

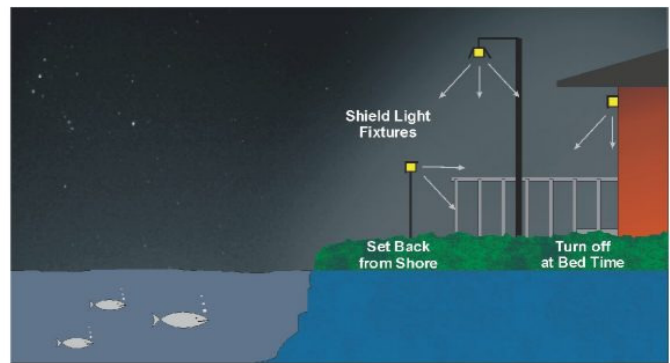
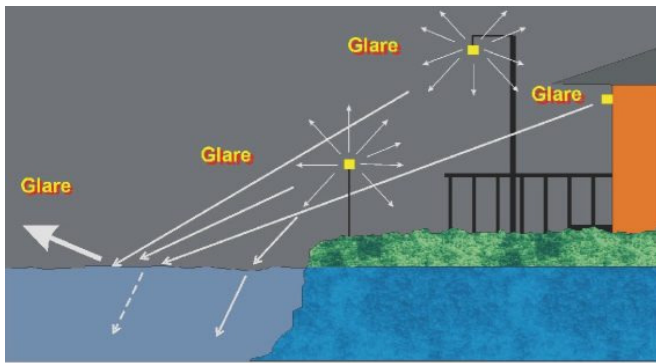
This ordinance does not limit lighting to such an extent that liability issues would arise. Safety has been discussed throughout the development of this ordinance. In actuality there are times when too much light can be a liability as well. The safety of guests is the responsibility of the business. If a business believes that their customers require lighting to navigate their property, we certainly allow that; we simply have parameters around what those lights should be in order to avoid trespass, glare, and sky glow. Navigating pathways, parking lots and marine lighting are different kinds of illumination challenges with different kinds of needs, safety parameters and liabilities.

section 9.42.070 A 1 The requirement for compliance within 48 hours/30 days was suggested to be lengthened to 14 days/60 days because of the time required to order items on line.

That's fine. A *slight* extension seems reasonable.

Costs associated with compliance:

If the council believes that due to the pandemic our businesses need more time to comply with the ordinance, we would recommend extending the deadline and have the complaint mechanism be the way to reach compliance of existing lighting upon enacting the ordinance. If a resident or business receives a complaint regarding trespass lighting, glare or excessive sky glow and it is deemed an actionable complaint, then the lighting will need to be brought into compliance within the 60-day(?) period.



The Bad and the Good
Shoreline Lighting



White Stone on Pathway
and Shielded Bollard

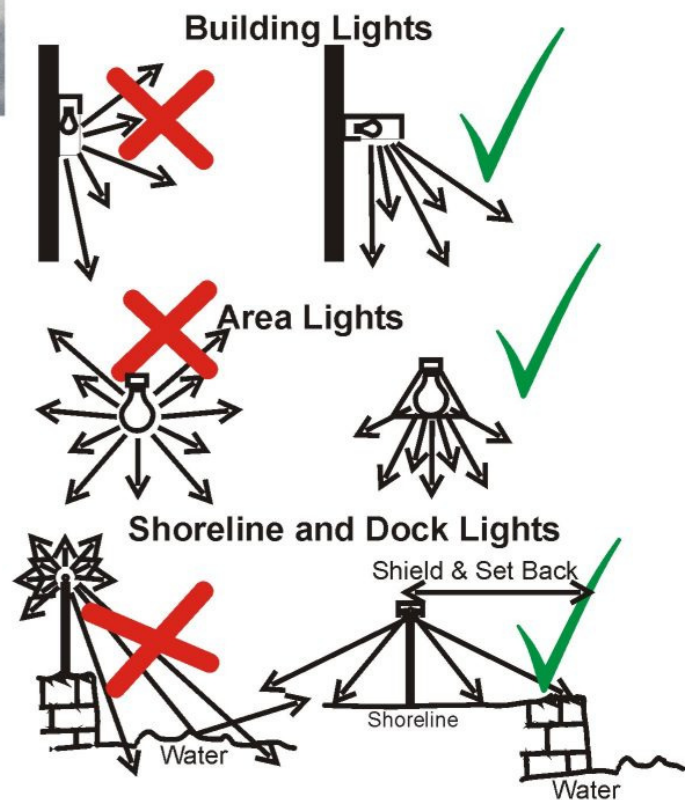
Use “Warm Light”
- not white light

Use Timers

- on at sunset
- off 2-hours later

Use Motion Sensors

- lights on only
when needed



Scientific information regarding the affects of artificial light at night on coastal biological ecosystems:

<https://www.sciencedirect.com/science/article/abs/pii/S0269749118335656>

Abstract

*The increase of global light emissions in recent years has highlighted the need for urgent evaluation of their impacts on the behaviour, ecology and physiology of organisms. Numerous species exhibit daily cycles or strong scototaxic behaviours that could potentially be influenced if natural lighting conditions or cycles are disrupted. Artificial Light Pollution at Night (ALAN) stands for situations where artificial light alters natural light-dark cycles, as well as light intensities and wavelengths. ALAN is increasingly recognized as a potential threat to biodiversity, mainly because a growing number of studies are demonstrating its influence on animal behaviour, migration, reproduction and biological interactions. Most of these studies have focused on terrestrial organisms and ecosystems with studies on the effects of ALAN on marine ecosystems being more occasional. However, with the increasing human use and development of the coastal zone, organisms that inhabit shallow coastal or intertidal systems could be at increasing risk from ALAN. In this study we measured the levels of artificial light intensity in the field and used these levels to conduct experimental trials to determine the impact of ALAN on an intertidal fish. Specifically, we measured ALAN effects on physiological performance (oxygen consumption) and behaviour (activity patterns) of "Baunco" the rockfish *Girella laevis*, one of the most abundant and ecologically important intertidal fish in the Southeastern Pacific littoral. Our results indicated that individuals exposed to ALAN exhibited increased oxygen consumption and activity when compared with control animals. Moreover, those fish exposed to ALAN stopped displaying the natural (circatidal and circadian) activity cycles that were observed in control fish throughout the experiment. These changes in physiological function and behaviour could have serious implications for the long-term sustainability of fish populations and indirect impacts on intertidal communities in areas affected by ALAN.*

<https://www.annualreviews.org/doi/10.1146/annurev-ecolsys-110316-022745#:~:text=Artificial%20nighttime%20lighting%20can%20influence,wavelength%20light%3B%20West%20et%20al.>

Annual Review of Ecology, Evolution, and Systematics

Vol. 48:49-68 (Volume publication date November 2017)

<https://doi.org/10.1146/annurev-ecolsys-110316-022745>

Abstract

The use of artificial lighting to illuminate the night has provided substantial benefits to humankind. It has also disrupted natural daily, seasonal, and lunar light cycles as experienced by a diversity of organisms, and hence it has also altered cues for the timings of many biological activities. Here we review the evidence for impacts of artificial nighttime lighting on these timings. Although the examples are scattered, concerning a wide variety of species and environments, the breadth of such impacts is compelling. Indeed, it seems reasonable to conclude that the vast majority of impacts of artificial nighttime lighting stem from effects on biological timings. This adds support to arguments that artificial nighttime lighting has a quite pervasive and marked impact on ecological systems, that the rapid expansion in the global extent of both direct illuminance and skyglow is thus of significant concern, and that a widespread implementation of mitigation measures is required.



Skyglow from the Overleaf marine light





The Overleaf marine light from the 804 Trail



Skyglow & glare from the Adobe marine lights

Received 11/28/2020

Dear Planning Commission,

Thank you for your hard work on the new lighting ordinance. The proposed ordinance establishes standards for the respectful use of external lights in our community.

It is ironic that those who have been violating our health and safety ordinance (Yachats Municipal Code 5.08.165) for the past 15 years claim to be doing so for safety. And the Yachats City Council, whose obligation it is to enforce that code, is now facilitating “a compromise.” Color me skeptical.

I don't know if the council has been presented with the results of the Planning Commission's public survey, but the people who responded, overwhelmingly oppose the “marine lights.” The commission knows this because it specifically asked them that question.

Perhaps another survey might be in order, but the City Council and the hospitality industry should understand that the sampling done by the Planning Commission is unambiguous – the sampled community opposes these lights by a pretty wide margin.

Compromise isn't actually a land use policy, and the community isn't obligated to do so. Land use Goal C, Policy #2 obligates the city to mitigate adverse effects upon water quality and fish and wildlife habitat resulting from the use of shore lands.

There is clear evidence that these lights attract insects, which dramatically skews their natural distribution. Species of bats that tolerate light will gorge themselves on the clouds of congregated insects, while those that are “light-shy” will go hungry. How does compromise mitigate this adverse effect?

The giant orange domes of glare that reach high into the night sky above the 804 Trail are the single biggest source of light pollution in Yachats. These giant, high-intensity, focused beam lights are obviously for the aesthetic enjoyment of shoreline views from inside the buildings, and are not intended for exterior security or safety purposes. Sitting in the restaurant, or in your room, enjoying the illuminated surf is the entire point. The Yelp reviews, that even bother to mention the lights at all, enjoyed them from inside the building.

However, upon stepping outside of the building, these bright lights ruin one's night vision and actually make walking the 804 Trail dangerous. For the same reason that shining a bright light directly into your eyes doesn't help you see better in the dark, these high intensity lights create a very high contrast condition of blinding glare, surrounded by inky darkness. Additionally, illuminating the rocky bluff at night, serves as an implicit invitation to explore the bluffs at night. Clearly a bad idea.

The assumption that visitors would prefer an artificially illuminated, Disneyesque experience, rather than the unspoiled darkness, and unobstructed view of the deep sky is highly questionable, and even a little old fashioned, in my opinion. In today's highly light-polluted world, dark skies are marketable, and some of the best viewing occurs during the winter months when thermal eddies are minimal.

Just imagine, the Milky Way Galaxy illuminating our dark southern sky. Imagine the bluff, busy with people setting up tripods for telescopes, deep-sky binoculars and cameras. Imagine renown

astro-photographers (not to mention our really fine local photographers) coming to Yachats to photograph the Andromeda Galaxy, or the Great Orion Nebula, both of which, are visible through binoculars on a moonless night.

Imagine kids being able to see, for the first time, the moons of Jupiter, and the rings of Saturn. Imagine the benefit of dark skies, coupled with our unimpeded views of the western horizon, when the next comet makes its trip to our sunset. Yes, it rains a lot, but we get stretches of clear winter skies in January and February that are absolutely perfect for deep sky enthusiasts.

Perhaps rather than using threats and coercion to force a compromise, the hospitality industry, and the City Council, should consider respecting the opinion of the community and our land-use policies. Let's turn the lights off, and find ways to capture the economic benefits that a dark sky has to offer.

Douglas Conner
Yachats

From: Craig Berdie <cberdie@gmail.com>

Sent: Tuesday, November 17, 2020 4:53 PM

To: Shannon Beaucaire <citymanager@YachatsMail.org>; Mayor <Mayor@YachatsMail.org>

Subject: Concern with Revision to Chapter 9.52.050

I am writing to express a concern with a limitation of proposed CHAPTER 9.52.050 – Geologic Hazard Overlay Zone. It is possible that I misunderstand the scope of the change, but feel that I must raise this issue.

Section H, Erosion Control Measures does not address "downhill" concerns.

I believe that a section should be added that addresses mitigation costs to downstream neighbors and the city carrying capacity as part of erosion control.

While the Chapter comprehensively addresses control of on-side effects, it does not clarify limits or controls with water that must run off the site. There are no water detention requirements nor mitigation requirements for increased flow downstream from the property.

As an example, the home developed uphill from our house required the removal of a large tree that was absorbing the water from a natural spring, has a large roof footprint, a large concrete parking area and driveway. I estimate 70% of the lot is now impervious. While it complies with the suggested requirements in the Chapter, all that water goes somewhere at high rate. This causes downstream erosion (not on-site erosion) with costs for downhill residents and the city.

Apologies for this last minute comment after all the hard work done by the Planning Commission.

Craig Berdie

319 E. Third Street

Yachats, Or 97498

The ADOBE RESORT

P.O. Box 219
Yachats, Oregon 97498
Telephone (541) 547-3141 • 1-800-522-3623

COPY

November 16, 2020



John Moore, Mayor
Yachats City Council Members
City of Yachats
P.O. Box 345
Yachats, Oregon 97498

RE: Proposed Amendments to the City Lighting Code – Title 9.42

Dear Mayor Moore and Yachats City Council Members,

I am writing in an effort to inform the city of our concerns with safety at our property, specifically regarding the proposed removal of marine lighting. The Adobe Resort currently has lights that illuminate the rocky coastline directly in front of The Adobe. The Adobe has been allowed to illuminate this area for the last forty plus years and is an added attraction for our guests to be able to watch the waves from our Restaurant/Lounge, their room and our webcam. Removal of this lighting would hurt our business.

I listened to the commission's discussion during its work session of October 27, 2020. In that discussion, a member of the commission asserted that "most people" in Yachats do not want "marine lighting", but did not cite any surveys, petition or other indicators of public sentiment. I would appreciate more information about the **sources and scope** of those opinions.

I also was struck by the lack of any distinction during the commission's discussion between "marine lighting" (also referred to by one member as "lighting up the ocean") and "surf lighting". "Surf lighting," like that provided at the Adobe Resort, is much less intrusive on marine life and does not affect breeding areas or the life cycles of local species. I respectfully request that the council and commission give this distinction more study and discussion before adopting a blanket ban of our lighting practices under the heading of "marine lighting" **using a code template that was developed for other, different circumstances.**

Our lights provide more than just a view at night. The Adobe Resort welcomes around fifty thousand hotel guests a year. The first priority is to keep our guests safe and to avoid circumstances, which could turn into life and death situations for people on our property. These dangers can range from slips and falls to predators confronting guests. Other hotels have dealt with such dangers and applying steps to prevent these things from happening is our main priority. At the Adobe Resort we care about our guests and staff and take these issues seriously.

COPIES

The Adobe Resort logo features the word "The" in a small, stylized font, followed by "ADOBE" in a large, ornate, serif font. Below "ADOBE" is the word "RESORT" in a smaller, simpler, sans-serif font.

2 of 3

P.O. Box 219
Yachats, Oregon 97498
Telephone (541) 547-3141 • 1-800-522-3623

Without adequate lighting outside our business, more problems will arise. For example, the ocean's cliff is jagged and dangerous to those walking. If people are not able to see the cliff, it is possible they could be seriously hurt by slipping and falling. The rocks on the ocean's edge are uneven and unsafe, especially when you cannot see them clearly. Taking away our lights would be taking away a precaution we have set in place to protect our guests. Contrary to the statements of one planning commission member, "ambient lighting" would be insufficient to provide this protection.

The check-in time for the Adobe is at 4pm and with the sun setting so early in the winter time, our natural light is gone quicker than usual. Nature is something we cannot change, but we can help compensate for the loss of natural light. The Adobe does not have a defined trail in front of our property, but we have allowed guests and people from town to walk across our bluff. People enjoy watching the waves, the gorgeous sunsets, and make use of our benches. Lights help show the coastline and guide people back to where they need to go. An increased worry for our guests and others making use of our property occurs if we do not have lights in place to help guide them. As you know, coastal winds are very strong. The lights we currently have in place are stable and perform the job required, unlike other types of lighting.

The safety of our guests in their rooms presents another problem. The resort has 26 ground floor guest rooms that open toward the ocean. These rooms would lose all security lighting if this proposal is implemented. Along with our lights we have a webcam, cameras and security that roam the area throughout the night. The truth is, lights and added security are never a 100% guarantee of safety and being crime free. Yet, we do those precautions to try and protect ourselves. Our goal as a business is to protect our guests the best we can.

I also noted the planning commission's discussion of the increased safety concerns for multi-family housing parking areas. That illustrates the need for the commission to also consider the safety concerns for our parking lot. In addition, our parking lot is not in a residential neighborhood.

While working in my six years so far as general manager at The Adobe, I can confirm that we have had crime occur. Such as stolen goods and belongings out of cars or ground floor rooms. These are realities as a business that we are faced with and have to prevent on a daily basis the best way possible. With less lighting in these areas, those problems would only increase.

If this amendment is passed and our lighting is removed, the bluff area will have to become an area reserved only for hotel guests. Guests would be required to sign a waiver when checking-in, stating that they recognize climbing on the rocks and being out in the dark is not recommended for their safety. I will also be recommending a fence and gate with guest key access only. In order to protect our guests, non-guests would no longer have access to our property. Many currently walk across our property to access the 804 Trail. Sadly, this new amendment would force us to take these actions. Access to the 804 Trail from Smelt Sands via Highway 101 will remain.



3 of 3

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For the past forty+ years The Adobe Resort has been able to illuminate its coastline and parking lot to provide the extra safety and security to our guests and staff. I highly recommend that the city think about the points I have made and ask for support in our goal to keep our lighting status quo. Thank you for reading and listening to our concerns about this new city lighting code.

Sincerely,

Anthony Muirhead
Adobe Resort
General Manager

The ADOBE RESORT

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November 16, 2020



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The safety of our guests in their rooms presents another problem. The resort has 26 ground floor guest rooms that open toward the ocean. These rooms would lose all security lighting if this proposal is implemented. Along with our lights we have a webcam, cameras and security that roam the area throughout the night. The truth is, lights and added security are never a 100% guarantee of safety and being crime free. Yet, we do those precautions to try and protect ourselves. Our goal as a business is to protect our guests the best we can.

I also noted the planning commission's discussion of the increased safety concerns for multi-family housing parking areas. That illustrates the need for the commission to also consider the safety concerns for our parking lot. In addition, our parking lot is not in a residential neighborhood.

While working in my six years so far as general manager at The Adobe, I can confirm that we have had crime occur. Such as stolen goods and belongings out of cars or ground floor rooms. These are realities as a business that we are faced with and have to prevent on a daily basis the best way possible. With less lighting in these areas, those problems would only increase.

If this amendment is passed and our lighting is removed, the bluff area will have to become an area reserved only for hotel guests. Guests would be required to sign a waiver when checking-in, stating that they recognize climbing on the rocks and being out in the dark is not recommended for their safety. I will also be recommending a fence and gate with guest key access only. In order to protect our guests, non-guests would no longer have access to our property. Many currently walk across our property to access the 804 Trail. Sadly, this new amendment would force us to take these actions. Access to the 804 Trail from Smelt Sands via Highway 101 will remain.



3 of 3

P.O. Box 219
Yachats, Oregon 97498
Telephone (541) 547-3141 • 1-800-522-3623

For the past forty+ years The Adobe Resort has been able to illuminate its coastline and parking lot to provide the extra safety and security to our guests and staff. I highly recommend that the city think about the points I have made and ask for support in our goal to keep our lighting status quo. Thank you for reading and listening to our concerns about this new city lighting code.

Sincerely,

Anthony Muirhead
Adobe Resort
General Manager



CITY OF YACHATS
PLANNING COMMISSION WORK SESSION MEETING

Date: December 1, 2020 at 4:00pm
Meeting Summary & Transcription
Audio will be uploaded for review of entire meeting

Meeting Call to Order

Members Present or Absent

Mayor/Chair: Lance Bloch called the (date)December 1, 2020 (time)4:00pm

Council/Commission/Committee members present:

- | | |
|-----------------------------|-------------------|
| 1. <u>Bloch, Vice Chair</u> | 4. <u>Danos</u> |
| 2. <u>Anderson, Chair</u> | 5. <u>Carlson</u> |
| 3. <u>Dickinson</u> | 6. _____ |

Absent:

- | | |
|-------------------|----------|
| 1. <u>Orchard</u> | 3. _____ |
| 2. _____ | 4. _____ |

Staff present:

- | | |
|------------------------------------|------------------------|
| 1. <u>Justin Peterson, Planner</u> | 4. <u>Sites, Admin</u> |
| 2. <u>Jackson, Deputy Recorder</u> | 5. _____ |
| 3. <u>Megan Reed, DCLD</u> | 6. _____ |

Audience: 16

SPECIAL WORK SESSION MEETING

Public Hearing

Bloch, Co-Chair called the meeting to order at 6:01pm

Items:

- 00:05:27, Page 2 - Review Berdie letter for Hazard Mitigation and other updates
- 00: 34:27, Page 13 - Revise Lighting Ordinance

Action Steps to be taken:

- Peterson will prepare the motion on Hazard Mitigation to be voted on to pass on to City Council at the next Planning Commission Meeting on 12/15/20
- Peterson, to prepare the Ordinance with the seven changes and grammatical errors to forward to City Council

Motion to pass:

- Aye:
- Nay: None
- Absent: None

Bloch adjourned the meeting at pm.

PREPARED BY:

Kimie Jackson, Deputy Recorder

Date: _____

2020-12-01 Planning Commission Work Session at 4:00 pm

Speaker 1 ([00:02:44](#)):

[Inaudible] light.

Speaker 2 ([00:03:01](#)):

Well, I show it's four Oh one on December 1st, 2020. And Kimmy, if you could go ahead and start the tape we'll bring the session that this work session for the planning commission on December 1st, 2020, I show it appears that in addition to myself, Lance block, there's Helen Anderson, Lauren Dickinson Jacqueline Danos and Ariana Carlson. And we have Meg Reed from S DLCD and our planner, Justin Peterson, and Kimmy from the staff and Mary Ellen from the city council and several others who are sitting in Christina, Christine orchard is not going to make it to today's meeting. And who else are we missing? That's it. That's it. Okay. now we have two main categories of items on the work session agenda, and the two main categories of items are two categories of items that have been our agendas for quite a bit during the past year. The hazard mitigation ordinance changes and the Whiting ordinance changes. And since I see Meg Reed here, I was thinking it might be good to go ahead and do the hazard mitigation first. It might be shorter and I don't want to force Meg to stay through the entire meeting. So, Meg, are you available and have you had a chance to take a look at the documents that have been attached to the meeting?

Speaker 3 ([00:05:27](#)):

I don't think I, I got the meeting documents, but I have the geologic hazard overlay zone 9.52050. And the, and I did attend the city council hearing the last month. And I think the, it sounded like to me, the biggest comment was about offsite erosion control which was a comment that was submitted. So, I've done a little bit of research on that and I can, I can talk a bit about it if you want, but okay.

Speaker 2 ([00:05:59](#)):

Yeah. This is based on a letter from Craig birdie. Go ahead, Meg.

Speaker 3 ([00:06:05](#)):

Sure. So, I think there are within the ordinance as it already exists right now. There is the section H erosion control measures and a few of them do try to address offsite impacts of storm, water, and erosion. So, I think that to some extent that comment is already being addressed through the existing measures. I think there's a couple other things potentially additional that you could think about. Sort of, I think there were a couple of things that came up in that comment. One was offsite erosion, but also the amount of impervious surface. And, and that is something that you could address, but it might be better to address that elsewhere in the code because this section is only applying to areas that are in the high or very high land side susceptibility or rapidly moving land side areas.

Speaker 3 ([00:07:07](#)):

And so, it might be if, if impervious surface is of concern to the city, it might be a like a bigger issue to think about and address for, for other types of development as well. The other things are potentially trying to keep existing vegetation. There's kind of some about that, but just like being more explicit about keeping vegetation on the property. And then there were a couple of provisions that I noticed in the city of Newport's code that you could add that further address that I sent it to Justin, and I don't have it open on my own screen, but if you give me a few minutes, I will, I'll be able to talk more about that. But those are sort of the first things that came to my mind, but I don't know if other people had thoughts or, or concerns.

Speaker 2 ([00:08:01](#)):

I had a chance to look through the 9.52 section of code. And I noticed that in a little further down in the one 89.5, 2.180, that there were references to hazard mitigation and erosion control. And that it appears to put it in general terms kind of at the foot of the city planner to address issues such as that as the plan for a property that's being developed is developed. Was, was that similar to the things that you were finding in the code mag?

Speaker 3 ([00:08:52](#)):

I'm not sure I'm know exactly where referring to. I'm sorry. Could you say that reference again?

Speaker 2 ([00:08:59](#)):

Excuse me. 9.5 2.180180.

Speaker 3 ([00:09:05](#)):

Okay.

Speaker 2 ([00:09:06](#)):

And specifically, S D item seven and eight.

Speaker 3 ([00:09:12](#)):

Okay. I'll have to look that back up. Sorry. Was that, is that the Shoreland setbacks section? No.

Speaker 2 ([00:09:25](#)):

No, that was further on, further on down. Okay.

Speaker 4 ([00:09:31](#)):

Nine five two one eight. Oh, is removal and fill dirt definition. Oh yeah. Yeah.

Speaker 3 ([00:09:38](#)):

So, sorry, say the question again.

Speaker 2 ([00:09:43](#)):

I was wondering if, if that section doesn't seem to put it at the foot of the city planner to, to evaluate erosion concerns as a property uphill is being developed.

Speaker 3 ([00:10:00](#)):

Yes. I think you're right. Yeah,

Speaker 4 ([00:10:03](#)):

But that's for the development of the property. That's not necessarily affecting what happens down the road,

Speaker 2 ([00:10:11](#)):

But wasn't, Craig's complaint more about the development of an uphill property causing damage downhill.

Speaker 4 ([00:10:22](#)):

Well, my understanding of what he was saying, Oh, it was just during the construction phase.

Speaker 5 ([00:10:28](#)):

Yeah, I don't think so. I thought it was broader Jeff. It was, it went beyond just construction that there, you know, the idea that we're pulling out trees and that we're allowing, like he said, 70% of impervious paving, that what happens to all the water that sheds off that property after it's even been developed.

Speaker 4 ([00:10:49](#)):

And I agree with, with Jacquelyn on that, that this is a big issue for that hillside. If all those properties are 70% impervious, you're going to lose so much of the structure. That's holding the dirt on top of it.

Speaker 5 ([00:11:07](#)):

But now I have, I thought, and I'm not looking at anything, so correct me if I'm wrong. But I thought within our, our code, we don't allow 70% of a site to be developed within pervious pavement. I don't, we already have that. But

Speaker 4 ([00:11:21](#)):

What happens is the code is written to say like lock coverage, 40%, whatever, but not all of it gets counted, like people will pay and they don't count that as impervious surface. So, it's, it's really more of how the city calculates that than the actual code. So, like when you, so, okay. Like on the, like

Speaker 5 ([00:11:54](#)):

Up on Hanley or radar that some of those houses, the driveway on the list does a switch back in the front yard. So, it's taking up a great percentage of the front area. But that's not counted as impervious surface and what our code regulates. Oh, well then we probably should write that part of our code probably needs to be corrected and updated. I had a question.

Speaker 6 ([00:12:23](#)):

Yeah. So, I can clarify that too real quick before you move on, sorry, Jacqueline. A lot coverage, our definition and the city of Yachats has code. It says structures, including, but not limited to buildings, porches and decks shall not occupied 30%. So, in that definition paved street is not included in there. So, driveway it says buildings, porches decks are included in the block and that's in each of the residential code sections. There's a section on lock cover for our one, I believe it's 30% and then the other zones are slightly different. But that, that's what the code definition currently is.

Speaker 7 ([00:13:14](#)):

So, Justin, if I'm understanding you correctly, that's 30% of the total square footage of the lot, correct?

Speaker 6 ([00:13:22](#)):

Yeah. That's how you would calculate it building over.

Speaker 7 ([00:13:26](#)):

So, I'm sure that everyone in this meeting as well aware that there aren't many properties in town that meet that standard. Right. Okay.

Speaker 5 ([00:13:39](#)):

Hence the reason we probably need to revisit some of this. I've got another question about runoff though. A while back I had asked and John and I both asked the city about, you know, how, when you've got your gutters and there's a downspout and almost all of this, the houses seem to have a dance about, they go into like a tube into the ground. And I had asked, does anyone know where all that water goes? Is there a mapping is as it goes to the sewer system, what does it, what happens to it? And nobody knew, and I'm, I don't know construction well enough, but when you've got all these roofs with how water coming off the roof down, going downspouts, going under the ground, does that cause erosion as well? Are we not regulating where all that water is going? Those, those pipes are supposed to go to the nearest storm drain ditch. For, for our house. For instance, we have those tubes coming down off of our house and they go West out to the front of the property and into a storm drain ditch, which then goes underground out to the ocean or to a street that has a green,

Speaker 6 ([00:14:52](#)):

Either one.

Speaker 2 ([00:14:53](#)):

That's what they're supposed to do now, whether that's what's happening. I am, I am sure there is not a map of all those individual pipes.

Speaker 4 ([00:15:05](#)):

Oh, there's absolutely isn't and they're not supposed to go into storm drains. That would be bad, really bad storm drains to sewer.

Speaker 2 ([00:15:17](#)):

No, they're not going into storm drains. Yeah.

Speaker 6 ([00:15:21](#)):

In fact, taking them through the sewers per year.

Speaker 4 ([00:15:24](#)):

Right. So,

Speaker 5 ([00:15:28](#)):

Okay. That answers my, I mean, so we, we don't know where a lot of these are leading to basically right now, there's what we know where there's supposed to be leading to, but we don't know where a lot of them are leaving.

Speaker 4 ([00:15:38](#)):

I suspect some of them were maybe installed properly where they went into a culvert than you know, alongside the road. But over time, those have filled in and who knows where it goes. So,

Speaker 5 ([00:15:52](#)):

So, with regards to this particular hazard mitigation ordinance, if we're talking about runoff, we're talking about landslide areas, shouldn't this be addressed somehow somewhere. Because if people are just putting tubes in the ground and the water is just kind of going, we're going to have a problem, right. It's going to undermine the slide area or correct me if I'm wrong, Meg.

Speaker 2 ([00:16:17](#)):

Well, theoretically the tubes are completely enclosed, so they're not going to cause erosion until the water gets out of the tube and, and where they're supposed to go out is into a storm drain. So, you know, theoretically that process should work, but you know, like we've said, we don't have a map of all those where all those tubes are, where they're going, where they perhaps shouldn't be going and coming up with a map of those at this point in time is nearly impossible. Yeah.

Speaker 4 ([00:16:57](#)):

Justin, do people have to provide information in their building plans about how they're directing the water runoff?

Speaker 6 ([00:17:07](#)):

I think historically at this point, the policy some, I think some buildings, new homes will come with drainage plans. But I don't know if that's historically something that we've actually required them to provide.

Speaker 5 ([00:17:23](#)):

So is that something we could, we, it doesn't make sense to add it to this particular work that we're doing now and, and make sure that when people are bringing their plans and they're doing a site plan that that's part of the site plan.

Speaker 4 ([00:17:38](#)):

That's a good idea. Right.

Speaker 6 ([00:17:40](#)):

I agree with that a hundred percent

Speaker 4 ([00:17:44](#)):

As well.

Speaker 6 ([00:17:47](#)):

Yeah. If it, if it's in the geohazard section, then it would only apply to those properties. If it was in another section, it could apply to haul properties within the city in terms of new development. So that's kind of a question of which section ultimately that should go in,

Speaker 5 ([00:18:07](#)):

Well, right now we've got landslide. So maybe we work right now and make sure it's in this section. And then as we move forward, if we're going to talk about pervious pain, you know, paving and in other areas, then we can discuss adding it to that down the line. The really important one right now to me is the landslide issue and, and what we're doing right now,

Speaker 8 ([00:18:30](#)):

If, if we add it to this section, is, are Justin, is there any conflict? If we go back to the other ordinances and, and make those changes within that being conflicting with what we would be doing here

Speaker 6 ([00:18:48](#)):

I mean, it'll depend on that ultimate that language there, but I think it could be written in a way where they don't conflict.

Speaker 8 ([00:18:57](#)):

I would suggest that we do it.

Speaker 2 ([00:19:02](#)):

Can we get back to Craig Birdie's original topic and one, one particular thing that Meg Reed had referred to, she said that the city of Newport had some additions to their city code that might address some of the issues that Craig brought up and she passed those along to you. Justin, do you have those or recall that?

Speaker 6 ([00:19:32](#)):

Yeah. Mike had just sent that today. I was unfortunately in an all-day training. So, I just pulled them up. But I can share my screen if I think I'm not able to yet, but if Kimmy lets me, I can share my screen.

Speaker 9 ([00:19:57](#)):

I think I highlighted the wrong

Speaker 5 ([00:19:58](#)):

Section two just in them looking at, I think I had the wrong one.

Speaker 6 ([00:20:02](#)):

Okay. Yeah. If you let me know which section, then I can scroll it out.

Speaker 2 ([00:20:07](#)):

Sure. It's 14.2,

Speaker 5 ([00:20:10](#)):

1.100 storm water retention facilities required. Okay, perfect.

Speaker 9 ([00:20:21](#)):

I like the title.

Speaker 6 ([00:20:29](#)):

Can everyone see the PDF there?

Speaker 8 ([00:20:33](#)):

Yes. Yes.

Speaker 9 ([00:20:35](#)):

Okay. Well that sounds like a good start.

Speaker 5 ([00:21:03](#)):

And this is for, you know, forever, right? This is not just during construction, this isn't retention just during the,

Speaker 8 ([00:21:09](#)):

That is correct. Yeah. These I can, I can tell you that these types of ordinances are quite common in, on almost every municipality that I ever did business in and they're intended to be, long-term not short-term

Speaker 9 ([00:21:25](#)):

Okay.

Speaker 5 ([00:21:28](#)):

I think that would probably address at least Craig Birdie's particular. It might help if, I don't know if it makes sense, but it says for structures, does that, would that include the runoff off of the roofs?

Speaker 9 ([00:21:43](#)):

Yes,

Speaker 8 ([00:21:45](#)):

Usually. Does it glutes all the runoff that is usually generated onsite?

Speaker 5 ([00:21:54](#)):

Well that then this would kind of kill two birds with one stone, so to speak

Speaker 9 ([00:22:01](#)):

Probably

Speaker 5 ([00:22:02](#)):

Right, Justin. Well, we may be a correct assumption.

Speaker 9 ([00:22:07](#)):

Yeah. I, I am reading that this is the first time I read this now. But reading through it, it appears to address his comments and address that we were just talking about, about draining that drain. Cool.

Speaker 8 ([00:22:27](#)):

You know, all of us should be advised though that the types of thing that is being called for here is usually prepared by a civil engineer. And so, any residential areas would have to have and employ the services of civil engineer, adequately designed what is being described here. I don't know if it makes any difference or not, but it's, it's something that civil engineers do all the time.

Speaker 5 ([00:22:53](#)):

Well, and don't, if you have an architect doing your house, don't you normally have civil engineer, the architect works with

Speaker 8 ([00:22:59](#)):

No, not for residential work for commercial work. Yes, but residential work, not always, but as the steepness of the, of a site as we move into the higher hazard areas, I think somewhere else we had called for some civil engineering design. If I remember right

Speaker 9 ([00:23:19](#)):

Now, here are the referring to it as a city engineer.

Speaker 8 ([00:23:24](#)):

This is the city engineer is the one that is tasked with reviewing the information that's provided.

Speaker 9 ([00:23:34](#)):

Mm.

Speaker 8 ([00:23:37](#)):

So, they would, there would be an enforcement question here, I think too is how, if we, if we write this, the ordinance

Speaker 6 ([00:23:46](#)):

Who is going to be enforcing it and how?

Speaker 5 ([00:23:53](#)):

Oh, yeah. I'm city planner.

Speaker 6 ([00:23:56](#)):

Yeah. So, it, normally it would be the planner.

Speaker 9 ([00:24:02](#)):

What if we said here that that when specified by an engineer and reviewed by the city planner?

Speaker 6 ([00:24:18](#)):

That's probably a good substitution for the word city engineer

Speaker 5 ([00:24:23](#)):

Or just by the city

Speaker 6 ([00:24:25](#)):

For the city. Right? Why the city, I'm sorry. Yeah. By, by the city might be better just because in terms of expertise, I would probably have to work with, you have to probably have to work with Dave at this point on some of that gives the city more options. So, I think,

Speaker 5 ([00:24:42](#)):

Yeah. Right. We're not designating a specific person. The city is going to review is going to review it.

Speaker 9 ([00:24:48](#)):

Okay. Justin, do you see any problem with pulling something like that into our code, into section 9.52?

Speaker 6 ([00:25:04](#)):

No, but basically it just be this paragraph, but clarifying from not city engineer, but city reading through it. I don't see an issue of adding it. I'd have to review to see what, what our numbering would be and where we put it in the code. Yeah.

Speaker 9 ([00:25:26](#)):

Well, we can figure that out it at a later date, but it would, it would go, I would assume it would go into the hazard in 9.52 somewhere. Yeah.

Speaker 5 ([00:25:46](#)):

And then Justin 14.2, 1.150 is the other one that might be of interest to that one. Yeah.

Speaker 9 ([00:25:59](#)):

Mr. Soundbite

Speaker 5 ([00:26:21](#)):

Two equal condition prior. Isn't that just replanting, but I'm thinking of like the birdie example, they removed a big tree. What would be the equivalent of restoring that I'm assuming we are planting, but they just can't plant the same size, but I mean, replanting a native tree of some kind, but if they take out the tree to put in a

Speaker 9 ([00:26:57](#)):

Building, you can't put it back. Well, I would look at, it is not necessarily planting a tree, but planting some kind of plants that have an adequate root system to hold the ground in place.

Speaker 5 ([00:27:13](#)):

Cause it says or equal original or equal condition. So, whatever's going to hold in the dirt. Whatever's going to keep it from sliding is what they need to put in, you know, and this kind of touches on what was brought up, I think at the council meeting as well as tree ordinances. Right. So, you know, a lot of these kind of, kind of domino into one another one after another. Right.

Speaker 8 ([00:27:40](#)):

Well the weight, the way that I read this is the sedimentation is talking about water runoff rather than the sediment itself running off. Is that not the way you take a look at it, Justin?

Speaker 6 ([00:28:01](#)):

Yeah. Sorry. I was actually just reading through the current code that we had to make, to see if we already covered some of this. Can you repeat your question real quick?

Speaker 8 ([00:28:13](#)):

Yeah. It's the way that I read this is the word sedimentation is in reference to the water that runs off the site rather than the dirt itself that would be, could be moving off site. In other words, they're saying that if there's a crystal-clear Creek right next to you and your construction causes sedimentation of that water, then you have to mitigate that. That's the way I read this paragraph,

Speaker 5 ([00:28:49](#)):

The suspended particulate in the

Speaker 8 ([00:28:50](#)):

Water. That's correct. Yes,

Speaker 5 ([00:28:52](#)):

But it was mud and yeah.

Speaker 6 ([00:28:57](#)):

Yeah, I think so. And maybe you can chime in if you want to,

Speaker 5 ([00:29:03](#)):

It also makes sense if you have this, because let alone the other surfaces, but drainage systems, if they've caused, you know, a buildup of sediment in the drainage systems, that's a problem. So, adding this I think is probably a good idea.

Speaker 9 ([00:29:21](#)):

I agree. Justin, do you see any problem with adding that perhaps right after the prior section that we talked about adding?

Speaker 6 ([00:29:33](#)):

Yeah. I don't see an issue with adding both sections. [inaudible]

Speaker 2 ([00:29:44](#)):

Okay. Why don't we go forward with adding those two sections with the slight changes that we mentioned for the first one into the city code. And I think that, I think that goes a long way toward dealing with some of Craig's objections, how to some of the other commissioners feel. I agree with that.

Speaker 9 ([00:30:11](#)):

Okay.

Speaker 2 ([00:30:16](#)):

Jacqueline, Ariana, sorry. I stepped away for one sec. Yes, I do agree.

Speaker 9 ([00:30:25](#)):

I do as well.

Speaker 2 ([00:30:27](#)):

Okay. Let's do that. Okay. There was another group of issues that were brought up by the mayor elect Leslie Vaaler and there was a, a separate attachment in our packet. Did all the commissioners get a chance to take a look at the comments that Leslie Vaaler made concerning the hazard mitigation?

Speaker 8 ([00:31:00](#)):

Let's see. Yes, I did. Okay.

Speaker 2 ([00:31:03](#)):

Most of them were small. Some of them were simply grammatical errors. And I found that as I read through them, that I agreed with all the items that she said that anybody read through those and see any that they felt they had a problem with.

Speaker 8 ([00:31:30](#)):

I'm rereading it right now just to make sure I remember it correctly. I think it was mostly grammatical. It was, yeah,

Speaker 2 ([00:31:40](#)):

There were some general comments down at the bottom, but, but not in specific suggestions, but things that we could deal with at a later date.

Speaker 8 ([00:31:50](#)):

Yeah. Well, there was one thing about a fee being charged, which I don't think we have any responsibility for. Correct. Yeah. Right now, I think most of them, the way I see it, most of them are just grammatical and I think somebody should take a look at them and confirm that they are appropriate.

Speaker 9 ([00:32:13](#)):

Okay.

Speaker 2 ([00:32:15](#)):

Has anybody looked through those and seen any, any problems with just implementing all of those suggestions? Okay. Okay. Then, unless there's any other specific issues that came up with hazard mitigation we go onto the lighting issues. Is there anything else that people, the commissioners had some issue with relating to hazard mitigation? Nope. Then, then Meg, if you don't want to stay on your, thank you for coming. Thank you for joining our meeting. It was helpful. Why would you not want to stay? But if you wish, Hey, well, thank you very much. It was nice to see you all and take care. Thank you.

Speaker 6 ([00:33:16](#)):

Okay. So, in terms of process here, I can talk to Ellen specifically, but for the, the question of official motion so we can get this on the next, the hazard portion, at least that we just finished on the next meeting.

Speaker 4 ([00:33:34](#)):

Yeah, we'll make we'll make a motion on it at the next meeting to add those two sections and incorporate the grammatical corrections from both.

Speaker 6 ([00:33:46](#)):

Yeah. And I will, I'll put together a document that has those two sections added. Yeah. And then we can note those in the motion when it becomes official. And they, then it would be looked at by council, I would guess in January.

Speaker 4 ([00:34:04](#)):

Well, actually they can look at it at the next, their meeting in December is right after us having this meeting was they would have it by their December meeting.

Speaker 6 ([00:34:18](#)):

Okay. yeah, I'll probably have to double check with Shannon, but okay. That sounds good.

Speaker 2 ([00:34:27](#)):

Okay. On lighting. Well, I put together seven items that I sent out as an or actually that I sent to Helen and Helen sent out is items that were brought up in the previous city council meeting related to the lighting ordinance and questions or problems that city councilors had with various sections of the

lighting ordinance. Did everybody get a chance to take a look at that at that document that Helen sent out? Yes. Yeah. Why don't we just go down in order from one to seven? Does that sound like a simple approach with it? Yes. The first one was a recommendation that we add a new definition for temporary seasonal lighting. And I exterior lighting specifically directed at a holiday season, such as Christmas, Halloween and others. This will consist of small, low wattage bulbs of less than two, the 10 lumens. Anybody have any problems with that suggestion or when it changed the wording or was fine. Yeah. And then that refers the 10 lumens refers to the limit that we put on in the lighting measure already now on how many strings of lights is 10 lumens?

Speaker 2 ([00:36:30](#)):

Hmm.

Speaker 10 ([00:36:32](#)):

Well, it says bulbs of less than 10 lumens, so not the individual fault. So, I might be able to answer that Illumina is the equivalent of a foot candle and the foot candle is the light of a candle, a foot away. So, it's not much at all. Yeah. Yeah. It sounds John, it sounds like it's about right. For a normal Christmas lights wouldn't you think? Yeah, yeah. Yeah.

Speaker 2 ([00:37:07](#)):

I don't see a problem with that.

Speaker 10 ([00:37:11](#)):

We want to get specific, you know, go for it.

Speaker 2 ([00:37:14](#)):

Okay. Well now on a little more fun topic, item two is Marine lighting and there are, there are two sections in the lighting ordinance that I want to refer you to. One is 9.4 2.040 D and 9.4 2.07082. And those are the two sections where we dealt with Marine lighting. The first one it's we currently are saying Marine lighting, excuse me, is this seven? Oh, no, that's the second one. Sorry. Number two. Yeah, Marine lighting is prohibited. That was simple and straightforward. And the second one is the 9.4 2.07 a two, which is Marine lighting existing previous to the enactment of this board. And this must be a turned off no later than 10:00 PM each night and be removed within one year of the enactment of this ordinance. Now there is concern brought up first from Anthony of the Adobe, the manager, the Adobe and you've probably had a chance to look at his letter and perhaps with sometime in the city council meeting. But they have concerns with that prohibition. When I just open it up at that point for comments

Speaker 4 ([00:39:31](#)):

I've been talking to a lot of people about this. I think the moving towards that idea and will be supportive. I do think its kind of extreme to ask two of our major tax bases of our operational budget to do this in a year. The Adobe has a long history of using

Speaker 8 ([00:40:15](#)):

You're breaking up pretty bad. Yeah.

Speaker 4 ([00:40:18](#)):

Oh, I can't, I don't know what to do there. Basically, I would like to see this done over several years three years, five years to give them a chance to remark it themselves as pristine night skies, as opposed to watch the waves while you eat. I think that would be more fair. That's just my opinion.

Speaker 8 ([00:40:53](#)):

I would, I would concur that. I think we can be flexible perhaps on the timeline, but I do not see after rereading it and looking back over all of the public inputs that we have before the, the citizens, the majority of the citizens definitely want Marine lighting not to occur. And I look at our, our timelines for a curfew as being very realistic, whether we could adjust it, you know, an hour, one way or the other, I think is realistic. But I think as a temporary measure, the imposition of a curfew is still very reasonable if we give them enough time, but we still have the effect of removing it from the timeline where it doesn't affect safety, but it does affect the, how the Marine environment reacts. Yeah.

Speaker 4 ([00:41:54](#)):

I think if we have a curfew, it, citizens will see what it's like without those lights on at night. And that my compel more people to speak up and say, yeah, we really want this dark sky. And encourage, put pressure on the hotels to move towards a different way of marketing themselves. And I know the visitor center is looking at advertising the city on some of these nights sky issues and perhaps they could work together and make their marketing dollars go further. So, I, I liked the idea of keeping the curfew temporarily with moving towards not having them at all. Several years.

Speaker 8 ([00:42:49](#)):

Yeah. Some of the diagrams that John and Jacqueline put four or five, I thought were quite relevant that you know, what is good and bad about major flood lighting. And I think there were some examples in there of how it could be accomplished to promote the safety of the people where it doesn't shine know it's like our trespass ordinance, that, that it doesn't shine into the Marine section, but it shines on the pathway that's out in front. And those, those fixtures could probably be a range that are existing on the hotels to, to accomplish some of that. And, and so the other thing that disturbed me greatly is that the Adobe's primary surf light is not doesn't come anywhere near shining, you know, on the pathway. It's not a safety issue. It is clearly intended to shine in the Marine section. And so I think the curfew would, would help alleviate them. I've got a couple of questions on, we're going to, if we're going to go in this direction, I've got a couple of questions. One is anything that's on the edge of the sea. The coast that's literally pointing off of a rock on the edge of the coast line is, has nothing to do with safety. It is purely Marine lighting. We also have in our code that we can't have any lights above the eaves of a building. Some of these lights are on the top of the building, siting brightly across a wide area of territory.

Speaker 11 ([00:44:32](#)):

If we say, we're going to let them go on for a year or two years or whatever you guys want to talk about here, a few questions, how do we deal with private homes that have Marine lighting and say the same thing that a, well, it's a safety thing. We want to light up this whole area with a flood light because we have guests and, Oh, we might be liable that they going to fall somewhere. The other thing is, if it's on top of the roof, are we saying, we're going to allow that to continue? Is that a light that's on top of a roof lighting up a whole large area? There was some really good photos. I got to say that we're in the Yahoo news and that Doug Conner was nice enough to submit that really showed just how egregious some of these lights are. If we have a timeline and we say, if we want to extend it, because we're saying the

pandemic has caused economic difficulties, I can understand that extended for an extra year if we'd like to. But if we have residents that have some of these lights that are shining right now in their homes and bothering them, are we going to have those lights have to meet our changeover? You know, we have that. If you have a complaint, it has to be rectified.

Speaker 4 ([00:45:50](#)):

Justin, can, can we let's just say we, we let, let the Marine lights, they stay for three years. Can we ask them to follow the other regulations such as moving it below the EAs?

Speaker 6 ([00:46:15](#)):

So typically, with this is where I've struggled with the lighting ordinance. Typically, with land use ordinances, they would be, the remaining use would be illegal. Non-Conforming use at the, if it existed at the passage of the ordinance, and we have the Marine right now, we have it as Marine lighting prohibitive, which we're discussing now in terms of a time limit. I believe on the eaves section. Which section is that in? It's. Is it in Five-O? Is it [inaudible]? Yeah, well I five Oh three B okay. Five. Oh, yeah. Cause right now, in terms of the time to be compliant we're listing three O and four O within one year. So those would be the sections that would have to be required clients within a year. And then the others are compliance-based on modification, which we have that section and that would apply to Five-O. So new uses and buildings or additions

Speaker 8 ([00:47:30](#)):

And modifications.

Speaker 4 ([00:47:31](#)):

We had that, that language currently in the code. Okay, Kenny do you happen to know how much the Adobe and overleaf contribute to and tax annual taxes for lodging taxes? Yeah, I do a significant part of our operational budget. It is it's huge. I mean, like 60%, right? 50. So the issue I have is I am all for moving towards getting rid of this, but we're asking it's not about safety, but we're asking to enormous businesses to our operations to change their business model in a year. And I don't think that's fair.

Speaker 8 ([00:48:28](#)):

Well, I, I agreed with you that we, we could extend that out. Right? I think that if we extended it out coupled with a timeline for a curfew, I think we're at least addressing the challenge right now.

Speaker 11 ([00:48:45](#)):

And that's, what are we going to do when it comes to the houses that have the Marine lighting?

Speaker 8 ([00:48:51](#)):

Well, there, there are old auto houses out there that have Marine lights on them. You walk up and down eight Oh four and there are a number of them. And I see them as fitting into the same category as a,

Speaker 4 ([00:49:08](#)):

So they follow the same rules. Yes.

Speaker 11 ([00:49:10](#)):

I like that. The house that's for sale, for instance, on the eight Oh four, this looks like a big fish tank with all the glass. They thought a huge, bright, light and shine from the roof of that house. We're saying, we're going to allow that for two years.

Speaker 8 ([00:49:24](#)):

Oh, you mean to allow it to not change? I don't see an answer. This there's no way that we could discriminate between a commercial business and a private residence. Is there that would be discrimination.

Speaker 11 ([00:49:41](#)):

I can ask again, though, if we've got somebody who's got one of these lights and you've got a house that's across the Bay, or if you're living near there and that light is shining into your property, are we going to hold them to having to do the corrective measure like that? We have, if you've got a house that has, is causing trespass, because we can't, you know, if, if we're saying that you're going to have to get rid of this light, if it's trespassing, it's causing a nuisance in somebody's house, does that, is that going to hold for these lights as well?

Speaker 4 ([00:50:13](#)):

I think, I think lighting should hold to these lights in terms of is that the hotel's lighting is trespass lighting to hold the homeowners to one of

Speaker 7 ([00:50:28](#)):

Having to take these corrective measures, not the business.

Speaker 4 ([00:50:34](#)):

No, I have to not trespass. So, an adjacent property, if you have more than the 0.1, whatever it is coming across, I think we can enforce that.

Speaker 7 ([00:50:50](#)):

Whether it's a hotel or private home,

Speaker 4 ([00:50:53](#)):

It has to be the same for all of them.

Speaker 2 ([00:50:55](#)):

Okay. Let me summarize it. We've got, we've got at least three components of the lighting ordinance that we're now talking about. One, one is just Marine lighting in general. The other is lighting mounted on the roof of the building. And the third one is trespass lighting. Now the pictures that Connor showed us well show real clearly that the Adobes whites are exhibiting trespass, lighting,

Speaker 4 ([00:51:30](#)):

Sky glow,

Speaker 2 ([00:51:32](#)):

Well sky glow, and onto your,

Speaker 4 ([00:51:37](#)):

As you stand at the property line and you see how much light is coming across.

Speaker 2 ([00:51:44](#)):

Is there anything that it's more than one-foot candle?

Speaker 4 ([00:51:47](#)):

Well, I don't know what it is. I don't remember what it is.

Speaker 2 ([00:51:50](#)):

Wait, we haven't gotten a white meter out there to measure it, but if you looked at those pictures, I'm sure you can agree that it's more than one-foot candle.

Speaker 7 ([00:52:01](#)):

Yeah. Across the highway. And I probably like several football fields away from the Adobe and their Marine lighting shines into some of our bedroom windows.

Speaker 2 ([00:52:13](#)):

So, so we have multiple areas here now. Helen brought up a very good point and, and Lauren brought up this also and, and Jacquelyn that whatever measures that we have that affect the Adobe have to also affect individual single-family houses that that have the same kind of lighting. So, we, we need to think about, we need to think about it in those terms. Now one of the considerations that Helen has brought up, and I think it's an important one is that with, you know, with some of our commercial enterprises, such as the Adobe and in particular here, we're talking about the restaurant and bar they need, I think, some time to adjust the way that they are promoting themselves. And one year may not be adequate to do that.

Speaker 4 ([00:53:20](#)):

It's definitely not adequate. You can't change that in one year. So perhaps

Speaker 12 ([00:53:26](#)):

A longer period of time to come into compliance in in concert with a curfew for the lights might be inappropriate. It's way to look at it. Now that would have to be the same rules that were, that we're giving to single family houses. If we do it that way, it jumped for sales. Had his hand up for a while. Yeah. John.

Speaker 10 ([00:53:57](#)):

So, a couple things correct me if I'm wrong, the ordinance is going to limit the lumens on commercial buildings. Is that correct?

Speaker 12 ([00:54:11](#)):

Yes. Commercial, commercial as well as residential. Yes.

Speaker 10 ([00:54:17](#)):

Okay. So, one suggestion would be to have them comply with the lumen or part of the ordinance within a year, and then comply with the full ordinance within three that's reasonable.

Speaker 12 ([00:54:41](#)):

What kind of,

Speaker 10 ([00:54:44](#)):

I'm sorry, Helen, you started

Speaker 12 ([00:54:47](#)):

Like, do you have any idea of the lumens, those things produce?

Speaker 10 ([00:54:52](#)):

Yeah. And that's why I brought it out there. They're blasting out on a light and, and, and once another suggestion, and I know we want to move past this thing, but it would really behoove commission to do a site visit to do a site visit on, you know, residential lighting certainly to the Adobe take a light meter out there. Lighting is extremely tricky if there isn't any other light out there a lower lumen lamp will appear very bright if it's a full moon it's going to be affected. So that would be a suggestion if we don't have time for that then maybe my idea has merit

Speaker 12 ([00:55:52](#)):

And can the lumens on those kinds of lights be low or are there lamps that would lower lumens for those kinds of lights that they're currently using?

Speaker 10 ([00:56:01](#)):

Depends on the type of lamp that they have up there. I think that it, it would depend on the fixture. There are so many different types of fixtures out there. I, you know, I drove around, and I walked around town and just so you all know, and I am not exaggerating. I don't think that I think 95% of the homes in Yamaha would not comply with our lighting ordinance. That's just a fact it's a great idea. It's, it's going to be wonderful in 20 years or in 30 years, but it's unreasonable to expect that you're going to have the entire city change out all of their fixtures and have a better idea might be to utilize what's the purpose of the ordinance it's to protect the citizens, right? So if you get a complaint, enforce the ordinance against the, the errant home, if you don't have a complaint, then the, the, the, the building code is going to take care of ultimately everything is going to have to be replaced one way or another, and ultimately it'll all get solved and, you know, 20, 30 years seriously,

Speaker 11 ([00:57:38](#)):

That's what we are doing.

Speaker 2 ([00:57:40](#)):

John. I think the expectation on the part of the commission was that first, first of all, you know, the planning commission doesn't do the enforcement, but second of all, what enforcement is done will probably be done on a complaint on a reactive complaint basis. And you know, if nobody complains about a house whether they're in compliance or not is not going to be an issue. So, I think, I think we

already kind of assumed that the two fronts that we're going to approach, or one new construction we'll catch those up front. And the rest will come on a complaint only basis, not a proactive going out and finding all the places that are in violation that would just be frankly, more enforcement than we have the capability to do. Anyway.

Speaker 11 ([00:58:41](#)):

I got, I want to go back to the idea of, of something if those lamps, okay. If, if, cause it sounds like there's several of the people on the planning want to allow this Marine lighting for a certain period of time. So if those lamps can go down, have lower level lumens, okay. If we can lower the, that the, the ally output of them and had the curfew, it's going to be less likely that they're going to be so egregious that there's going to be any complaints lodged against them. See what, what, I'm, why I keep going back to this is what I, what, what I'm concerned with is we're going to we're to bend over backwards and say, okay, you guys can keep it for two years, cause we feel for you and you've got to change all this. And then you're going to have citizens complaining about those existing lights, and then you're going to have, well, we, we were told we can keep up. And then it's going to end up being antagonistic back and forth once again, because some of those lights, I would probably bet that some of those lights are going to issue compliant. Some of those lights are going to cause complaints to be issued.

Speaker 4 ([00:59:53](#)):

Well, that gets to that question of do those lights, Justin, you had said if, if, if Helen you're breaking up again, who were temporary curfew and so, okay. Did those become confirmed? Oh, why is my interconnect connection under stable? The, the question is can peep, if they're non-conforming can other aspects of the info ordinance be enforced on them? I think if they're non-conforming you can't Justin, can you help me on that? Do you know?

Speaker 6 ([01:00:46](#)):

Yeah. So I guess a better example is just so say there's a, a new old house built in like the thirties. It other than a chance that it doesn't meet a current building setback and the ordinance, because the setback ordinance was passed afterwards, it doesn't require that building to now meet those setbacks. It's illegal. Non-Conforming that can stay in this, in this case, we have some standards, the general standards which we were allowing this is 9.4, two Oh four Oh general standards. We were allowing the one year to come into compliance. And then after that year, these were the, this is the section that now could be enforced how the current code reads. So we have the, the shielded the trespass lighting motion activated, and then Marine lining is also in that section. So these are the section. The, that section is what, how it's currently written in a year could come into compliance. But as you said, in terms of enforcement for shielding, if someone complained about a light that was shining and it was trespassed light or needed to be shielded. And after that year period then the code enforcement officer could suggest the shielding to correct, correct that after does that of answer

Speaker 9 ([01:02:20](#)):

Your question?

Speaker 4 ([01:02:23](#)):

So the like shielding would apply after a year, but if we, if we gave Marine lighting two years, so the maroon lighting could stay, but they would have to shield it. Is that what you're saying?

Speaker 9 ([01:02:42](#)):

I'm trying to think how well do that? I don't think that's practical for Marine lighting. Yeah. John, John, you have a comment.

Speaker 13 ([01:02:53](#)):

Yeah. It's probably going to be a lot easier to shield a fixture then to down lamp the fixture, because a lot of those fixtures are ballasted fixtures and you don't need to get into all that, but a shield can be fabricated. And so I think shielding is probably going to be an option you guys should think about

Speaker 9 ([01:03:21](#)):

[Inaudible] shielding for Marine lighting. I'm not sure what that would look like.

Speaker 13 ([01:03:26](#)):

Well it would, you know I think it, it seems to me that the shielding is an aspect that you're trying to protect a citizen. I don't care what it looks like. And, and if it can't be effectively shielded to protect the citizen, then the fixtures got to go away. Pretty simple.

Speaker 9 ([01:03:56](#)):

I I'm trying to get a picture of how you can light the ocean, but shield the light you

Speaker 4 ([01:04:07](#)):

Can shield it left to right

Speaker 9 ([01:04:11](#)):

Left to. Right.

Speaker 4 ([01:04:12](#)):

So we had blocked some of the, of the like person.

Speaker 9 ([01:04:21](#)):

Yeah.

Speaker 4 ([01:04:21](#)):

No direction. So you can shield for some of that direction.

Speaker 13 ([01:04:25](#)):

And again, what, what are we trying to do here? We're trying to protect the citizens. If a fixture can be, if it's a Marine fixture and it is if it's on ocean view drive and, and it's, and it's disturbing a neighbor then one look at to see if we're going to allow it. And it sounds like we are for, for, for a year, for two years, whatever, then see if that fixture could be shielded to protect the neighbor. If it can't be shielded, then I think that the, that the ordinance should protect the neighbor and that fixture should be disallowed

Speaker 4 ([01:05:11](#)):

60% of the city's operational budget. That's, what's paying Kimmy salary.

Speaker 2 ([01:05:20](#)):

60% of that is worth one neighbor.

Speaker 10 ([01:05:26](#)):

I am hard pressed to believe I've walked the Adobe every day. Those fixtures that are out on the coast, Helen, what houses that shining in. They're not those fixtures on the coast, don't shine into anybody's bedroom.

Speaker 2 ([01:05:46](#)):

So John, have you taken a look at the pictures that Doug put in our packet?

Speaker 10 ([01:05:57](#)):

Yeah, I did.

Speaker 2 ([01:05:59](#)):

Those, there, there are five lights that the Adobe has. They were talking about only four of them are actually working right at the moment, but two of them are on the roof and three of them are on the cliff edge

Speaker 10 ([01:06:15](#)):

Disagreed the, the ones on the roof, those aren't Marine lights, those are security lights. And, and by the way, I was going to ask, have you guys defined,

Speaker 2 ([01:06:27](#)):

Okay, okay. Now we have, we have a definition because those lights on the roof are pointing at the ocean. And I, and I'm, I'm thinking of those as I'm talking about Marine lights.

Speaker 10 ([01:06:41](#)):

Yeah. But they're not, I mean, and one thing again, you guys really need to define what a Marine light is and what a Marine light is, is it's a light that shines on the ocean. I hate the ones that are up on the roof, but Anthony's got a valid point. So does Jacqueline, I don't think that they should be above the eaves. I think they should be changed out. Nevertheless, they aluminate a pathway that is, that's a security light, but the ones on the coast, the ones download that shine out. Those are Marine lights and, and, and if, and, you know, glad that I'm glad this came up, because I think we all need to get on the same page as to what we're talking about with regards to what is a Marine life.

Speaker 2 ([01:07:27](#)):

Well, then by that definition, the only, the only place where we have Marine lights, by your definition, John is the Adobe because everybody else's are coming from the roof. So I'm looking, I'm looking at all. I'm looking at all of those lights that are shining, directed at the ocean as Marine lighting and those lights on the roof of the Adobe, the light on the roof of the overleaf, the light on the roof of the glass front house, they're on the roof and they're shining on the ocean and I call that Marine lighting. And I tend to agree. I tend to agree with you. I think, I think what's happening and correct me if I'm wrong, but I think

Speaker 11 ([01:08:16](#)):

What's happening is those, those likes on the private home or purely their light bulb light the ocean, that it has nothing to do with safety or pathway or anything else. I think the lights that are on the roof of the Adobe and on the overlay, they're crossing, they're crossing things. So there, you're using lights that are situated in the roof that they're pointing out on the ocean, but that are lighting so much everywhere else around them. But they're now also calling those safety. So I think that's where you've got Mo muddy lines getting blurred with some of these lights.

Speaker 7 ([01:08:55](#)):

Can I just, can I point something out really quickly, please? The lights are going to be on until 10:00 PM. It's not like we're saying they can't ever be on. Right. Am I wrong here?

Speaker 2 ([01:09:09](#)):

Well, one of the issues is curfew. One of the issues is whether they're allowed at all and even within the allowed at all, it's on the roof and do they trespass onto other people's property?

Speaker 7 ([01:09:25](#)):

Okay. So I'm, I'm going to state my personal opinion and then I'm going to suggest something from my position as a commissioner in my personal opinion, I don't think that there needs to be any Marine lighting at all after 10:00 PM. There's there. There's just not a reason for it. Security lighting, fine lighting paths, fine, but there's no reason to be lighting up the ocean with flood lamps that disturbed the wildlife and the citizens all night long. There's just not a reason for it. So, like I said, that's my personal opinion now from my position as a commissioner, what if we did something to work with the hotels where maybe they didn't have to take those lights? And I think this is what Lauren said. They don't have to take the lights down for another year or two, and then they have them on until 10:00 PM. What, what's the, what's the problem with that? Is it because then we would have to require homeowners to, there would be essentially an exemption from home homeowners for the Marine lighting also?

Speaker 2 ([01:10:36](#)):

No, actually the, the measure, the lighting measure actually is written exactly to meet those qualifications right now. The discussion is whether we need to change that.

Speaker 7 ([01:10:50](#)):

So, so Y Y I I'm, I'm hearing the discussion that I'm hearing all of that, but what, what is the, what is the thought behind needing to change it or extend it?

Speaker 2 ([01:11:02](#)):

Well, Anthony the manager at the Adobe wrote a letter indicating that he had,

Speaker 7 ([01:11:09](#)):

Yeah, I got the letter and I was at the city council meeting too.

Speaker 4 ([01:11:14](#)):

Okay. Then I assume, you know what his problem is. He, he considers those Marine lights to be essential to his business.

Speaker 7 ([01:11:25](#)):

Okay. So then my question is the more taxes you pay the, the more privileges you have,

Speaker 4 ([01:11:35](#)):

Some ways, yes.

Speaker 7 ([01:11:40](#)):

He's essentially forcing our hand

Speaker 4 ([01:11:44](#)):

Threatening us. Yes. I don't think we have to balance the interest of business where we want to take it. And this is a state going in the right direction.

Speaker 7 ([01:11:56](#)):

I've been a business owner for over a decade. I agree that we should work with them. I do, but him trying to say that it's security lighting is just not accurate.

Speaker 4 ([01:12:06](#)):

I'm dropping the security. I don't, I'm not even going to use the word security. This is about his business. His business model

Speaker 7 ([01:12:14](#)):

Two years is plenty to change your marketing. And like somebody else said, you know, if, if the lights, if the Marine lighting is going to be on until 10:00 PM anyway, that's pretty late at night. You know, what's the average age of the tourists who go to the Adobe probably 60 or 70 years old. They're probably in bed by nine or 10 o'clock at night.

Speaker 4 ([01:12:38](#)):

Okay. But then there's the other thing to think about is we're reducing the amount of time that those lights are on by eight hours a night by this step. This is the first step let's reduce it to being on for anywhere from two to four hours, depending on the time of year.

Speaker 7 ([01:13:00](#)):

I don't think people are going to be grumpy about seeing the stars instead of the waves.

Speaker 11 ([01:13:06](#)):

Again, I'm going to I'm going to go back again. I'm going to roll this all back again. We are only discussing Marine life. So we're only discussing Marine lining. Then I'm going to assume that we're only discussing the lights that are literally on the edge of the edge of the coastline pointing directly at the water that we're using that as our, our definition of Marine lighting, then giving them the extra time to redo their business model is not, it's not that big a deal. And, and we want to do that and have the curfew that makes sense. The lights that are the biggest issue are those big flood lights that are sitting on people's roofs. Like at the, of DOSO, if we're going to move on to another topic, because this is the whole lighting

orders we're talking about, then the lights, those flood lights that are sitting up on top of not only the Adobe and the, and, and the overlay, but private homes, are we discussing? That's

Speaker 12 ([01:14:12](#)):

The next level of lighting that we need to discuss, right? So if we're going to say they are the business plan, we are understanding they need more time. We're going to let them have the Marine lighting for an extra year and slowly work that out. That's one thing, but then we've got the other lights that we still need to discuss, which other Lauren has set his hand up. Lauren,

Speaker 8 ([01:14:38](#)):

I don't, I don't think that we can consider that the lights that are at the Bluffs edge that are lower level are, are the sole Marine lighting. I don't need those lights I happen to know were installed relatively recently within the last few years I believe all of the hotels originally installed the lights that are now above the roof as Marine lighting. So I, we cannot discriminate that a Marine light is a light at the edges of the bluff. I think that the intent of those original lights above the roof were to flood the Marine environment am. And that's prevalent with all of the houses up and down the coast there that you see, they can install their own Marine lighting. And it shines out into the ocean. The hotels are not the only violators of that. And I don't think we can discriminate.

Speaker 8 ([01:15:39](#)):

We need to treat those lights that are above the roof, not as solely security lighting, but as Marine lighting. I agree with John, I think there's is a lot of things that you can do with the fixture. And most of those fixtures have an adjustment, not only to shield from side to side, but you can tilt the fixture so that if, if the fixture now shines in the Marine environment, you can possibly tilt it down more to S to sheet, to show the safety area without shining appreciably onto the ocean. And I think that's fixable

Speaker 12 ([01:16:25](#)):

Exactly what I'm saying. That's why did you have your hand up,

Speaker 8 ([01:16:33](#)):

Mary Ellen?

Speaker 12 ([01:16:39](#)):

Am I supposed to speak Doug Connor? Yes, you should. You should. We can hear you now. Okay. this is such an interesting discussion. First of all, I think a field trip has warranted. I've gone over there two mornings. I, I stay up until nine, so there's no going over at night. But I think going over there, the last two mornings is certainly that illuminating no pun intended. But it has been interesting to look at the lights and see what they're there for. It does light up a great deal of their

Speaker 5 ([01:17:10](#)):

Let's call it their beach front, their front yard, except at the North end and the South end there, you know, it doesn't extend that far, but you know, we've talked a lot in this city about the dark skies, and I think it's an incredible idea. I think Doug's letter really did a good job of stating what that could do for us, but we need to transition. And so is there a way whether it's a year or two years, we will work in this community somehow to put together so that the dark city concept is why people want to come here.

Because Anthony's argument is they come here for the lights on the ocean. I don't know if that's true or not. It is beautiful. I'm going to knit. I like to look at them. You know, I'm a sinner, I guess. But I think it's an exciting thing is this community could come together and really do the dark sky thing, but it's going to take some citizen involvement to work with those businesses.

Speaker 5 ([01:18:00](#)):

I may be wrong, but I think there are two of the biggest employers in this city. Are they not? And I think that has to be taken into consideration quite honestly. I don't think we can ignore that. And I think they're good citizens for the most part. So I think if we can work with them again in your all much smarter than I am when it comes to the sliding thing that my field, but if we can work together to come up with a plan that while we're leaving something behind, we're building something for the future that they can use in terms of marketing their facilities, it's all I have to say, John. And then Helen,

Speaker 13 ([01:18:37](#)):

How about best for suggest for a solution. So I understand your points about Marine lighting and, and roof mounted, flood lights were installed to aluminate everything, including the ground and including the ocean. So you give them a year to shield the rooftop fixtures so that the light that they're claiming is security doesn't fall on the ocean, no longer Marine lighting. And then give them another couple of year. I mean, all they're doing then is they're providing a shield or if the if they can simply be adjusted as depends on the fixture, you know, tilted down. But eliminate, you know, I would, I would suggest one, you guys define what Marine lighting is. Okay. put that into the into the ordinance because the reality is, is if you go to a lighting designer, the Marine lighting is a light that shines out that illuminates the Marine environment.

Speaker 13 ([01:19:55](#)):

We're, we're mixing words. So define Marine lighting, give them a year to shield it so that we're not illuminating the ocean by shielding. You're also going to be preventing a light from disbursing up. So you're going to be creating a darker sky, working towards the ultimate goal and then utilize the code as you're wisely doing, to protect the citizens so that the people that have, you know, have to put a tent over their bed, have some place to fall back and get some, some real delays. That's my suggestion. I agree. I agree with that a hundred percent, just so you know, John, the, the way that we define Marine lighting, it says bright light fixtures pointed at the ocean and coastal tide pools. That's the way we currently define it. And I'm not sure that's adequate. Well, you know what, Allison, you had your hand up.

Speaker 4 ([01:21:01](#)):

I'm actually hearing, we were agreeing on a lot. We're agreeing we want eventually Marie lighting phased out where moving towards a brain that within a year, we should start seeing some kind of shielding on these lights to minimize how much I think we've implicitly agreed that in the meantime, we definitely have a curfew. So I how, how we, you know, if we just say it's a high intensity, light focused on the ocean

Speaker 11 ([01:21:52](#)):

Jacqueline. Yeah. Cause when I, I think what I was trying to explain earlier is exactly what John and Lauren just described. The Marine lights that, that are not a problem are the ones that are on the edge of the water Marine, the lighting, the tongue, the rooftops. If we, if they can be tilted, if they can be

tilted down, that's no longer a Marine life. So that's a different lighting. That's what I'm trying to explain. If we're going to say you're allowed to keep the Marine lighting for, you know, an extra year, because we're so concerned about our businesses and their business model, then those are Marine lines, the ones that are shining specifically on the ocean those are Marine lights, anything else needs to, because if we're going to allow them for a little while to have those bright floods, which I don't agree that we should let them, but if we're going to let them do it, that we do have private homes that have those lights, they have to be, they've got to be shielded and they've got to be pointed down to what they're claiming is a pathway. And what they're claiming is for security in front of their house or wherever it may be. Those are different things. If you have a light that's on your roof, that's on the ocean. It's Marine, can't do that from the roof camp. Do you know? But if you're going to say that that light is our pathway light and you're going to have to seal it lower the lumen level and shield it.

Speaker 13 ([01:23:18](#)):

Lauren, I concur with that. I, you know, I, I go back to the fact that the ones that are above the roof actually serve a dual purpose. And if you, by adjusting them can make them serve only one purpose and that's security lighting or pathway lighting where they do not shine into the ocean. Then they do not even meet the definition of Marine lighting. So there it makes, go ahead, John,

Speaker 11 ([01:23:50](#)):

The owners had his hand up for a while now. Yeah.

Speaker 13 ([01:23:55](#)):

Yeah, I just wanted to mention the nuisance code on external lighting. Again, it doesn't allow directing focus, beam, lights onto state property. So even if you allow them to leave the fixtures on the building, if they turn them on and they create a beam of light onto the ocean, they're violating our nuisance cut. That's all I have to say. I think the other thing you guys have another great tool to use and that's the lumen limit that you're putting on or that the code will incorporate for commercial buildings. So if you can get the fixture shielded directed and the lumen and the luminescence cut down and have the ability to protect the citizens, you guys got it. That's what you really want.

Speaker 11 ([01:24:56](#)):

Well, I've got a question they're not Marine lives, then they would have to be below the eaves, correct? Yup, yup. I mean that, that, and this is where we're having problems with or we're going to start making allowances.

Speaker 2 ([01:25:13](#)):

Well, there's, there's a bunch of issues coming, coming together here. I agree with Helen that there is some consistency, some cohesion of the points that are being made by people. However the points about those lights on the roof of the Adobe, on the roof of the overleaf, on the roof of that glass friended house and several other houses we have to, we have made the points before that we, we are prohibiting whites above a roof line. We are prohibiting high pressure sodium lights. That's what they are. We are prohibiting, you know, we're prohibiting trespass lighting. And as Doug pointed out, we've prohibited from years ago, we've prohibited whites focused off the property. Now, even, even if we shielded those lights that are on the roof of the Adobe, they're still breaking at least three regulations, at least three, you know, pushing what you you're, you're, you're moving a step forward.

Speaker 2 ([01:26:35](#)):

If you shield them and you adjust them, that's a step forward. What if we, what if we set a curfew that we could agree on in the commission first in the city council later, what if we set a curfew for the lights and we extended the time period for coming up with a better form of lighting to two or three years and recommended initiating discussions with those who had the lighting so that we could come up with a solution that met the lighting ordinance, how would that meet all of our needs? I think that would work.

Speaker 7 ([01:27:26](#)):

Yeah. I personally having been in a digital model

Speaker 2 ([01:27:33](#)):

You're muted, you went to mute.

Speaker 7 ([01:27:38](#)):

So I, I was previously in digital marketing and you know, I think two years is ample time to come up with the new marketing plan for the hotels. You know, they're probably in the midst of coming up with some new marketing because of COVID anyway. So, you know, but two years for a business of that size to come up with a new, a new marketing planning strategy, seems to me like to be plenty of time

Speaker 4 ([01:28:08](#)):

To do a strategy. Yes, I totally disagree on getting it implemented. I think, I think you're really looking at three to five years to have it be effective at this level based on my 25 years in marketing.

Speaker 7 ([01:28:27](#)):

No, no, I will. Sure. No, I know that I know that Helen, but I mean, I mean specifically, like, like what, what things do you think would take that long for them to do,

Speaker 4 ([01:28:38](#)):

To buy into it, to, to come up with something they can take depending on how excited they are. They can do it in a couple months. They can do it in a year to get a new strategy, and then you have to start advertising, implementing. And depending on the media they're using that can take a year two to start getting a grip in the marketplace.

Speaker 7 ([01:29:06](#)):

Well in traction does take longer than a year or two. That is correct. That's the point?

Speaker 4 ([01:29:13](#)):

Yeah, I think, I mean, they can get a strip down in no time, but it, it will take, if they put a lot of money into it, it can go a lot faster, but realistically they aren't.

Speaker 7 ([01:29:26](#)):

Right. Okay. So you and I were saying the same thing. I was just talking about the strategy portion and the market portion. Okay. Okay.

Speaker 4 ([01:29:35](#)):

Jacqueline.

Speaker 11 ([01:29:38](#)):

Well, I just, I'm getting a headache. Maybe it's really hard something that hasn't come into play. Okay. We're talking about the hotels and their marketing and helping them. And they're so big and they're so important and everything else, but we've also got almost no input from the people who live here. Majority of people that have come forward have said they want, they'd like the lighting ordinance. I'd like to see them, that lighting ordinance implemented. Majority of the people have. There's got to be some way that we can, because I can understand why things don't happen overnight. I'm not expecting them to happen.

Speaker 7 ([01:30:35](#)):

Like what I'm saying in two years,

Speaker 11 ([01:30:43](#)):

We went out again.

Speaker 4 ([01:30:46](#)):

I understand why you, we we've gotten input. We're working towards getting rid of them. If we can get rid of them in two years, I think we've done a fabulous job, but we have to, we can't do it overnight. And that's where I don't know. I

Speaker 7 ([01:31:05](#)):

It's going

Speaker 4 ([01:31:06](#)):

To be better than it is because if we have a curfew that's [inaudible]

Speaker 11 ([01:31:12](#)):

I got to ask Justin a question. Is Justin still here? Because I don't see him. Oh, there you are. Yeah, I got it. I got a question though, because I just, it seems like we're really muddying this entire thing that it's going to be really hard to implement. What we're, what we're sitting here saying is my concern.

Speaker 4 ([01:31:32](#)):

You going to implement any of this? We don't have code enforcement. The best we can do is come up with a plan that we can be reasonable about why we're doing it. But I mean, Shannon told us six months ago, we're not going to have code enforcement board on this. It's all going to be complaint-driven and some of it won't be addressed.

Speaker 11 ([01:31:54](#)):

And I understand that, but if we're sitting here, never mind.

Speaker 2 ([01:32:00](#)):

Okay. Let me break in at this point. I think we've had really good discussion of a lot of the points here and we're not going to come to a hundred percent consensus on this tonight. I suggested this particular item on the lighting ordinance where the leave for further discussion at our 15th of the month planning meeting give us a couple of weeks to think about it and maybe even write up sample ordinance wording that we could use, and then we can discuss it again and we'll have a regular session on the 15th and we could put it into an ordinance and actually vote on it at that point. So John Purcell suggested a field trip to look at some of the violations we've been discussing. That's something that I would be interested in doing. If any other commissioners are interested in that I'll send out an email and maybe we can get something scheduled. Okay.

Speaker 6 ([01:33:12](#)):

Okay. And can I just note on that? I think it should be done individually cause we, this, we don't want to have a public hearing outside the public hearing format that that can be done individually, but you don't want to be having discussions outside the public format. Good point, Justin, Laura.

Speaker 8 ([01:33:35](#)):

Yeah, I'd be interested in doing that too. But I would, I would like to get some feedback from the hotels as to what is their objection when it comes to a moratorium, because he's the gentleman from the Adobe obviously is, is disagreeing with the moratorium as well. Not a moratorium, I mean, a curfew. So I would like to hear from them. Why, why would you object to a curfew? I don't know. I'm curious.

Speaker 2 ([01:34:09](#)):

Yeah, I don't, I don't think they're, I don't think they're objecting to a curfew, if that is the compromise that we come up with.

Speaker 8 ([01:34:18](#)):

Well, if it was all within that same paragraph and that's why I assumed it was a part of that. The other thing that, that disturbs me greatly is the threat of cutting off the cert the eight Oh four. That was, that disturbed me quite. And you all know I'm involved with the trails and yet, you know, he made a threat about cutting off the eight Oh four. So my concern is to come up with something and mediate with them where they won't carry out that threat because that you talk about safety. If they were ever to do that, the safety of that eight Oh four

Speaker 10 ([01:34:58](#)):

And the Pacific coast trail would be in jeopardy. And I think we have a really do everything we can do to work with these people.

Speaker 2 ([01:35:07](#)):

I think I agree that a negotiation with both Anthony, Andrew would, could be very valuable and at some point has to happen. But let's put this one off for now and we'll discuss it again at the meeting on the 15th, let's go to some of the easier ones. What I, what I think are going to be easier ones. Item three on the topics for review for the lighting ordinance was simply 9.4 2.050 a two B. And that was just a comment actually coming from Leslie Valor that we should change the wording so that we're differentiating between lots that are 0.3 acres and over 0.3 acres. And we didn't put in Watts that are less than or equal to three acres. And I think we just need to change the wording on that. Yes. Okay. And

item four should be to further justify or change the higher limit limits for multifamily housing. That's 9.4 2.050 B one.

Speaker 10 ([01:36:34](#)):

Personally. I'd like to hear from John on now. So you, what he thinks about those. So my, my take is single-family and duplex should be the same multi-family you can increase, but there's no reason to differentiate between single-family and duplex. That's my opinion. Yeah.

Speaker 2 ([01:37:00](#)):

Well, one of the reasons that we came up with at the time that we wrote this was the lighting of common areas, like parking lots and sidewalks between buildings and apartment complexes. The perhaps we could have something along the lines of that the lighting of common areas could be increased to that higher limit. The lighting of individual entryways to the homes should follow the same women's as single-family residential.

Speaker 10 ([01:37:42](#)):

I think it probably, yeah, I think be getting things you know, keep it simple. I like the single family duplex as one category multifamily

Speaker 4 ([01:37:56](#)):

You're going to end up with probably common areas and the increased luminescence would be justified. And you don't have to carry it any further than that.

Speaker 12 ([01:38:05](#)):

I've got a question. Where does R three fit in with those? I would personally lump it, Justin. I'm sorry.

Speaker 4 ([01:38:16](#)):

Hey, hello.

Speaker 12 ([01:38:20](#)):

I think Helen's are trying to say something, but she's breaking up. Go ahead, Jacqueline. I was just wondering if we put our one, two and three in one group and multifamily and another does that make sense? And I've got a question we, ours was being very specific on lumen limits on individual lamps. RP, what would happen if we just increase the number of the amount of lumens on the site, but keeping the lumen limit on the lamp itself lower? Does that make sense? Well, the trouble is, there's so many different types, different sizes of sites. There's like at the end of Aqua Vista, there's a five apartment site that has a common parking lot and common sidewalks. So what sort of wording would you have that covered all those different sizes of sites? The larger site have a higher lumen limit on the site, which we already have. But cause I'm just thinking in, like, we even have talked about brighter lumens by brighter lights themselves is not necessarily safer. So you know, just making up saying your lamplight will be necessarily the answer. I see. One of the things we've done in the past was a lumen limit per, per acre.

Speaker 4 ([01:40:06](#)):

I don't when we went away from that.

Speaker 12 ([01:40:10](#)):

Yeah, we did. No, I thought we still have it in there.

Speaker 4 ([01:40:14](#)):

Justin, can we distinguish single family duplex or do we have to go by our zones, like are two or three or four?

Speaker 6 ([01:40:27](#)):

Well, right now we have it residential uses and then multifamily uses. We do define in the code single family, then we call it a two family dwelling and then we have multifamily dwelling, which would be three or more. So the current definitions have single two and then three or more. So what John was going for. Yeah. The question where does the two family or duplex fall? If it's under A, which, or if it's under B, which is multi-family,

Speaker 4 ([01:41:03](#)):

It seems to make sense under A cause usually they don't have

Speaker 2 ([01:41:07](#)):

What we have right now under multifamily uses. We have well in 9.4, 2.050 B to individual lot owners, the sum of the output of all light sources shall not exceed two- and one-half lumens per square foot of hardscape. Okay. So we're,

Speaker 4 ([01:41:35](#)):

I'm getting a little concerned here because we put a lot of time in to come up with these numbers and they were based on relative to other numbers. So when we start going and changing these little numbers here and there, it makes me nervous that we're losing the vision we had of why we did it in the first place. So I don't have an issue with saying duplexes, go with [inaudible]. And the rest are multi-family, but I don't know if we want to get breaking it down any further than that. I think,

Speaker 2 ([01:42:12](#)):

Well, I think what was being busted, I think, well, it was being suggested by John and perhaps Jacqueline was that under multi-family uses, we take away the individual light limits and just keep the individual watt limits, which are now

Speaker 10 ([01:42:37](#)):

Don't go watch, don't go watch only talk about lemons.

Speaker 2 ([01:42:43](#)):

No, I'm sorry. It is, it is in lumens. It's in, it's in lumens. This is B one and two individual lamps on multifamily properties are limited put up 1,200 lumens. Perhaps we could drop one and just go straight to two individual lot limits the sum of the output of all lights. White sources shall not exceed 200, one half lumens per square foot of hardscape, just eliminate number one. And then we eliminate the, the bright lights the bright, brighter whites, but we still have a lot limit.

Speaker 10 ([01:43:30](#)):

I'm not a big fan of the, of the lumens per square foot of hardscape. I would S I would certainly support lumens per property. I thought that's what we had square foot of hardscape

Speaker 4 ([01:43:52](#)):

Came from dark sky stuff.

Speaker 5 ([01:43:54](#)):

Yeah. And John, I just have a question. I think this kind of goes to what we were talking about walking around because I don't know brightness very well, and I'm just learning brightness because I don't know this business. Well, I came up was we had had 800, 800 lumen limit per fixture on single family residential. And we jumped to a very high individual lumen limit allotment for multi-family and we dropped it down to 1200 per, per fixture. Is that reasonable amount or is 800, an 800-lumen limit reasonable, even for multi-family considering the lot size is going to have a larger number of lights to begin with. That was basically where I was trying to go with that, right. As 1200.

Speaker 13 ([01:44:51](#)):

So, I think everything's relative. I, it seems to me a multifamily property has different needs than a re than, than a S single family dwelling and a duplex. I support the, the lowering of the max lumen per fixture, but again, I think I wouldn't go too crazy on that because multi-family dwellings have typically had common areas, common areas. You're not going to want to restrict the lighting to the lighting like we have on our house, which are low lumen and a lot of them I don't think it's reasonable, so lower it like you've done. I think that makes sense. Don't go too crazy because a multifamily has a different use.

Speaker 5 ([01:45:37](#)):

That makes sense. Then that was my question.

Speaker 13 ([01:45:40](#)):

Yeah. Could we solve that by under 9.4, 2.05? Oh. Instead of just saying residential, say residential and duplex uses, and down, down under B multifamily uses, then put in like in print. So you say three or more units. Okay. John, what you were your, your concern is I like it. I like it.

Speaker 4 ([01:46:12](#)):

Does, can you have a duplex on a commercial property?

Speaker 13 ([01:46:18](#)):

Yeah, but we're, we don't, we, we discriminate based on its use, not at so many district residential uses or multifamily use. And so whether it's on a commercial property or not, it wouldn't make any difference

Speaker 4 ([01:46:34](#)):

Where I'm lost is residential. You're implying it's single family and duplexes because they're all residential multifamily are still residential. So it, maybe we should say single family and duplex rather than

Speaker 2 ([01:46:50](#)):

Single-Family and duplex residences, that would work. Okay. Okay. So the titles 9.4 2.0508 would be single-family and duplex uses, and B would be three or more units multifamily, or three or more units,

Speaker 6 ([01:47:17](#)):

Or you might want to just say two family dwelling because that's currently just how it's defined in the definitions. Yeah,

Speaker 2 ([01:47:25](#)):

Single family. Okay.

Speaker 6 ([01:47:26](#)):

Which is, it means the same as duplex. It's just two family dwelling is currently how we have it defined in our definition section. Okay. Okay. But either way we can work on tracking the titles.

Speaker 2 ([01:47:41](#)):

Okay. the next one was about liability issues, perhaps, and I'm suggesting perhaps we should expand on the burying section to say that if compliance produces a hardship such as cost or liability issues for inadequate lighting, the property owner may apply for a variance. But I don't know, it would be the liability issue is kind of a difficult one to grasp because I mean, people sue for every sort of little tiny thing that you can think of and some of the things that we would never think of. So I'm not sure how we deal with liability issues.

Speaker 5 ([01:48:43](#)):

I was looking up and other cities and stuff, and basically, you know, cities that have lighting ordinances. We're not asking for too little light. We're not saying you can't light where you are. And there has not, from what I could tell, I did do tons of research, but no city has been found liable for in a case like that, because we're not denying someone, the ability to have to have lighting, and we're not denying some of the ability to light their paths or have I have a light outside their door or anything like that. Coral hotels to have lights in front of their bedrooms, you know, their, their rooms. So the liability issue doesn't seem like something we really need to be worrying and concerned about.

Speaker 2 ([01:49:25](#)):

Okay. Any other comments? Okay. item six, the requirement for compliance within 48 hours and 30 days was suggested to be lengthened to 14 days and 60 days, 14 with the simple items like changing a bulb 60 days for more complex or more expensive items. Any other comments about how long those periods should be?

Speaker 8 ([01:50:01](#)):

I think those even little extended periods of reasonable, that's my personal

Speaker 2 ([01:50:08](#)):

14 days for the simple items and 60 days for the more complex.

Speaker 8 ([01:50:14](#)):

Yeah. And, you know, we have a lot of non-residing homeowners here. And so having to do it takes a little longer. So the 60 days wouldn't be a real problem. I think that's my opinion. I don't know how the rest of them feel. Okay.

Speaker 5 ([01:50:34](#)):

It seems reasonable. I, I still feel bad for people that would have, you know, have horrible lighting shining in their houses, having to last for that long, but I understand it makes it, I understand why we need to, why would you request it to expend it

Speaker 8 ([01:50:51](#)):

Or we could, we can mediate and go 45 days.

Speaker 4 ([01:50:58](#)):

I think 60 is fine. Okay.

Speaker 2 ([01:51:03](#)):

Okay. Okay. Item seven, this one is a sneaky one. It has more to it than it sounds like. It was suggested that the last sentence in section 9.4, 2.070 B three have more detail. And that sentence is if the design has changed in any way, then compliance is required. Now, one of, if you read that section 9.4 2.070 B there's, there's a little bit of confusion, maybe more than a little bit there's some confusion about what lighting changes are being required to be changed and which ones are potentially being grandfathered in. There's an implication, I think in that zero seven zero that we're grandfathering in some now, is anybody else seeing that confusion or is it just, just me? That's getting confused at this point.

Speaker 5 ([01:52:31](#)):

I got; I'm trying to find it again.

Speaker 4 ([01:52:33](#)):

I think, well, it's the we're saying, if you have something unforeseen accident, weather vandalism, you can

Speaker 12 ([01:52:46](#)):

Fix it as it was. But if you're changing

Speaker 9 ([01:52:51](#)):

The fix, then you have to be compliant.

Speaker 12 ([01:52:54](#)):

Now that statement implies that the lighting fixture is already in non-compliance and doesn't. And is it required to become compliant?

Speaker 8 ([01:53:13](#)):

Well, if you replace it as it, as it was, you're very likely won't be compliant. Some of these houses have really old light fixtures on them.

Speaker 9 ([01:53:30](#)):

Well,

Speaker 12 ([01:53:31](#)):

Okay. Why don't I read the whole section if replacement or repair is required to an outdoor lighting fixture due to weather, damage accident, vandalism or other unforeseen event, the outdoor lighting fixture may be replaced as it was previously built compliance to section 9.4, two requirements is not required.

Speaker 12 ([01:54:01](#)):

However, if the design is changed in any way, then compliance is required, right? So basically, let me see if I understand this, right? You have a non-compliant light fixture on the outside of your house. When comes, knocks it off, it's now loose. Then you've got to replace it. It's non-compliant, it's one fixture on your house. You can replace it with the same exact kind of fixture, but if you can't find that same kind of fixture and you're designing the whole thing, you've got to go find another fixture. It's got a new fixture. It's a completely new fixture. That doesn't, isn't what you had before it has to comply. That's the way I read it. That's the way I read it. Okay. So that means that presumably regardless of 9.42 zero four zero three zero one zero four G zero, an unshielded light is not required to be changed unless you get a complaint and the enforcement officer visit you, is that correct?

Speaker 12 ([01:55:14](#)):

Well, basically, because if we required every unshielded light to be changed out and become compliant tomorrow, that would require a code enforcement officer to walk around this town. Oh, I know how I'm practical. That is, I'm just wondering how we're intending the law to be interpreted. Well, yeah, I mean, basically what we're saying is if you're not a nuisance, if you don't have a light, that's a problem. You might not be compliant tomorrow. Okay. Your light not be a compliant. Light might not be shielded. It might, but it's not bothering anyone. We're going to leave you alone. We don't expect you to change it. We don't expect you to do anything with it. But if you're, if you're not a good neighbor and you've got a bad light, that's a problem. That's a nuisance. And you, you're just not being a good community member that light shining in your neighbor's house, you're going to get a complaint lodged and you're going to have to become compliant. Does that make sense?

Speaker 2 ([01:56:12](#)):

Yes, I understand it. I understand it. And I guess I'm just asking is that our intent is, is what we're saying here. That basically, if nobody, you know, if nobody's complained and you want to put up a non-compliant fixture and your reason is your previous noncompliant, fixture is now being replaced and you're putting up another noncompliant fixture. That's okay.

Speaker 12 ([01:56:47](#)):

If it's exactly the same fixtures you have, and if it's an actual,

Speaker 2 ([01:56:50](#)):

This is like this isn't in general, this is like, right. So that wasn't our intent.

Speaker 12 ([01:56:59](#)):

Yeah. Like, but he runs into your light. That was not your, you weren't deciding to redesign the outside lighting of your hat.

Speaker 2 ([01:57:10](#)):

Okay. Okay. I just wanted to clarify because it, it appeared to me like we were grandfathering in noncompliant fixtures and even on replacement.

Speaker 13 ([01:57:24](#)):

No, only on replacement, not even on replacement, only if they're damaged

Speaker 2 ([01:57:36](#)):

Well, but the previous light fixture was non-compliant.

Speaker 13 ([01:57:40](#)):

That's correct. You guys, the reality is, is, is it's going to, they're, they're going to be grandfathered in any way, because they're going to exist anyway. The, what you have is a tool to protect the citizens. And that's what, you know, I think that's your intent and that's what you're doing. Interpretation is for the courts. I think you guys are doing great.

Speaker 2 ([01:58:08](#)):

Okay. Then the conclusion is item three, there we leave worded exactly as it is. Okay.

Speaker 13 ([01:58:20](#)):

Yes. That would be my recommendation.

Speaker 2 ([01:58:28](#)):

Well,

Speaker 12 ([01:58:31](#)):

Lands in what, give me, why, what is the example that you find that this would be a problem with?

Speaker 9 ([01:58:55](#)):

Okay. You know, I mean, there,

Speaker 4 ([01:59:01](#)):

Keep in mind let's this, this was, we were talking about like lights in a parking lot, and a car runs over one of the poles of the parking lot. We're saying you can put that back without having to make that particular, the whole lot compliant that you can fix that if it's an accident or an unforeseen thing.

Speaker 8 ([01:59:28](#)):

It's okay. You guys got it now. Well, let's look in the converse that, that if you were required to replace a broken fixture, damaged fixture with a compliant fixture in your end of design of the lighting on your house, it was dependent upon several fixtures being exactly the same. Then you'd have one fixture that

would be standing out and not, not looking the same. That's just an oversimplification. But I think, you know, that that comes into play here also.

Speaker 9 ([02:00:00](#)):

Okay. Okay. I'm good with that. Okay. Well, that's all those items, except we're going to pass the item to the Marine lighting on to the next meeting. So, well, give me a heads up. It's honor got to be on our agenda for the 15th, but so it is now five 59. And John, last comment.

Speaker 8 ([02:00:33](#)):

Yeah. I've got one more question in this form. How did he, what are we having for dinner tonight? I'm having pizza for about 10 minutes here in a minute. Are you serving us all? Okay. This is, this is this is a tough thing that you're doing. You're doing it well, hang in there. You're going to get it done. So good job. Appreciate it.

Speaker 4 ([02:01:04](#)):

All of you, your opinions and your passion in it. I, I think we had a really good discussion and we'll come to something that we can all live with.

Speaker 8 ([02:01:13](#)):

Yeah. That's basically on what I was going to say is I appreciate John's professional comments and his input.

Speaker 9 ([02:01:22](#)):

Okay. Yeah. It's going to be nice to have meetings in person again, it's some, some day that'll happen, right?

Speaker 8 ([02:01:29](#)):

Yeah. We'll get there. Maybe, hopefully,

Speaker 9 ([02:01:32](#)):

Hopefully sometime in 2021, I'm going to be optimistic and say sometime in 21, we're going to do

Speaker 2 ([02:01:40](#)):

That,

Speaker 7 ([02:01:41](#)):

But gimme, you can go home now. [inaudible]

Speaker 2 ([02:01:49](#)):

Of our planning commission work session. Thank you all.

Speaker 7 ([02:01:54](#)):

Hi guys. Take care. Stay safe, stay healthy.

00:48:50 Bob Barrett: couldn't they turn them off in a year and be given longer to remove?

01:10:25 Bob Barrett: I'm not convinced people will stop coming to yachats because there aren't lights shining in the ocean. a year seems reasonable to me. we didn't say to bars and restaurants, we'll give you 3 years to stop smoking in your restaurants because it might effect your business.

01:11:05 Ariana: good points, Bob - especially if the lights are on until 10pm anyway

01:13:17 Bob Barrett: so the more money you contribute, the more you can get away with?

01:16:54 Bob Barrett: what is the primary concern? lights shining in a neighbors house? lights harming marine life? lights washing out the night sky?

01:18:28 Bob Barrett: could the city help with cost of retro refitting lighting on hotels? with cost of marketing?

01:22:32 Bob Barrett: at some point all lighting needs to be addressed. we've got a light in church raking lot that shines in neighbors house (mine) it's not our light. we've called PUD, they won't fix it. Now the city hall is occupied, and those lights are also very bright, overpowering...

01:24:53 Ariana: what about having a curfew for the marine lighting but not having a remove-by date? that would help both the hotels and the people whose property the marine lighting is trespassing upon

01:26:37 Bob Barrett: I simply can't imagine people are coming for the lights, or won't come if there aren't lights

01:38:30 Ariana: from Bob Barrett - there is literally nothing on adobes website about night time lighting... how much are they marketing that???

01:42:04 Bob Barrett: I like Anthony, and I think the city should do what it can to work. with him. the taxes they pay have to be considered, but cannot drive what is the best thing to do

02:06:55 Bob Barrett: could the wording be changed to say compliance with current ordinance is encouraged, but not mandatory?