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M I N U T E S

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SUBCOMMITTEE ON OUTDOOR LIGHTING STANDARDS

12

(PUBLIC WORKS AND TRANSPORTATION COMMITTEE)

13

Council of the County of Maui

14

Council Chamber

15

January 24, 2002

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1        CONVENE:    9:01 a.m.

2        PRESENT:   Councilmember Michael J. Molina, Chair  
3                   Councilmember Charmaine Tavares, Vice-Chair  
4                   Lee Altenberg, Member  
5                   Richard Chong, Member (In 9:10 a.m.)  
6                   Mike Maberry, Member  
7                   Warren McCord, Member

8        EXCUSED:   Hannah Bernard, Member

9        ABSENT:    None.

10       STAFF:     Gary Saldana, Legislative Analyst  
11                   Karean Zukeran, Committee Secretary  
12                   Michelle Anderson, Executive Assistant to  
13                   Councilmember Nishiki

14       ADMIN.:    Gregory J. Garneau, Deputy Corporation  
15                   Department of the Corporation Counsel  
16                   Joe Alueta, Planner VI, Department of  
17                   Howard Hanzawa, Civil Engineer IV, Land Use  
18                   Codes Administration  
19                   Greg Nakao, Electrical Engineer IV, Land Use  
20                   Codes Administration  
21                   Cary Yamashita, Assistant Engineering  
22                   Manager, Department of Public Works and  
23                   Management  
24                   Patrick Matsui, Planning and Development  
25                   Division, Department of Parks and  
26                   Kal Kobayashi, County Energy Coordinator  
27                   Captain Lawrence Hudson, Department of  
28                   Captain George Fontaine, Department of  
29                   Captain Clayton Tom, Department of Police

Counsel,  
Planning  
and  
and  
Project  
Waste  
Recreation  
Police  
Police

18 OTHERS: Steve Sutrov  
19 Bill George, Renaissance Wailea Beach Resort  
20 Rob Hoonan, Director of Engineering, Grand  
Wailea Resort; Maui Hotel Association  
Barbara Sinclair  
21 Kahu Charles K. Maxwell  
Brian Ige, Dowling and Company  
22 Kelvin Dang, Executive Director, Safe  
Community of Maui Inc.  
23 Lynne Woods, President, Maui Chamber of  
Commerce  
Randy Nakama, Maui Electric Company Inc.  
24 Randy Piltz, Piltz Electric  
Neal Shinyama, Maui Electric Company Inc.  
25 Additional attendees (4)

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1 PRESS: None.  
2 . . . . .  
3 CHAIR MOLINA: (Gavel.) Subcommittee on Outdoor  
Lighting Standards meeting for January 24th is now in  
4 session. For the record, we have in attendance  
and we welcome -- Okay. The Chair will call for a  
short recess to check on our equipment. (Gavel.)  
5 RECESS: 9:01 a.m.  
6 RECONVENE: 9:02 a.m.  
7 ITEM NO. S-OLS 1: SUBCOMMITTEE ON OUTDOOR LIGHTING  
STANDARDS (Misc.)  
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12 CHAIR MOLINA: (Gavel.) The Public Works and  
13 Transportation Subcommittee on Outdoor Lighting  
14 Standards is now back in session. For the  
record,  
15 we have in attendance and we welcome to our  
second  
16 meeting Councilmember Charmaine Tavares, who  
will be  
17 serving as the Vice-Chair. We have Dr. Lee  
18 Altenberg. Mr. Mike Maberry of the University  
of  
19 Hawaii representing the Outdoor Circle, Maui  
Branch.  
20 We have Warren McCord. Excused today is Hannah  
21 Bernard from the Maui Ocean Center. And on his  
way  
22 representing the Illuminating Engineering  
Society of  
23 America is Mr. Rick Chong.  
24 Good morning, members.  
25 COMMITTEE MEMBERS: Good morning.

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1 CHAIR MOLINA: You look all bright-eyed and  
enthusiastic,  
2 ready to take on the challenges that lay before  
us  
3 today. Before we commence, we have public

sign 4 testimony. And those wishing to testify should  
be 5 up at the secretary's desk. The testimony shall  
to 6 limited to three minutes. An additional minute  
discretion 7 conclude will be granted subject to the  
completed, 8 of the Chair. If your testimony is not  
9 an additional three minutes will be given to you  
are 10 after all others have been heard. Testifiers  
to 11 requested to state their name for the record and  
12 indicate who they are representing. And to help  
13 minimize any disturbances that may occur during  
the 14 meeting, we ask that you please turn off all  
pagers 15 and cellular phones or set them to the silent  
mode.  
for 16 So with that, let's begin our testimony  
upon 17 today. First to testify I would like to call  
18 Steve Sutrov, to be followed by Bill George.  
19 . . . BEGIN PUBLIC TESTIMONY . . .  
I am 20 MR. SUTROV: Good morning. My name is Steve Sutrov.  
21 representing myself today. And also I have been  
Group 22 working with this ordinance with the Ad Hoc  
23 for Outdoor Lighting, Maui Outdoor Lighting  
of 24 Standards. Also I'm on the Board of Directors

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lot of  
the  
of  
back  
where  
more  
for  
and  
all  
here.

1 I just have a few comments. I would just  
2 like to say that in working with this -- in  
3 researching this ordinance, we checked into a  
4 different communities and states that are doing  
5 same thing or have done similar things as far as  
6 enacting ordinances for their communities. Some  
7 them have been through a -- done because of  
8 emotional outcries for getting their night sky  
9 or their vistas of their lakes that are -- their  
10 rivers, their mountains, and very rural areas  
11 light is becoming an increasing problem with  
12 urbanization into their areas. Some were done  
13 reasons for -- to protect scientific research  
14 native habitats and endangered species.  
15 On Maui it seems to be a combination of  
16 of those. We're in a very unique situation

state 17 We have a very small community. Actually, the  
when it 18 of Hawaii is actually a very small community  
19 comes to our night sky. When we have see photos  
20 from the observatories in Mauna Kea and we can  
see 21 pollution from Kihei and we can see pollution  
from 22 Oahu in the night sky and it's a problem here.  
23 Where light has no real boundaries, it can  
travel 24 thousands -- hundreds of miles very easily.  
It's 25 not like you can designate urban and  
agricultural

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have 1 and rural into lighting districts on Maui. We  
2 a very small community here.  
3 So the concern here is a comprehensive  
4 lighting ordinance, is what we're trying to  
achieve 5 to address all types of lighting, because one  
type 6 of lighting, sports lighting in Kihei, affects  
7 another area, you know, 20 miles up the  
mountain.  
8 And it travels very easily. And so the main

9 concerns are -- in the ordinance is full cut-off  
10 lighting, which is probably our number one key  
goal.  
11 As long as all -- all fixtures, street lights  
and  
12 all parking lot lights and residential lights  
get on  
13 the same plain of a full cut-off fixture where  
light  
14 shines down and not up and not out and being a  
15 trespass problem, that's number one.  
16 Number two is low pressure sodium  
whenever  
17 you can use it to use it. For the observatories  
18 mainly who will not be able to operate without  
low  
19 pressure sodium in the future because of the  
intense  
20 white light going up into the atmosphere and  
21 polluting their instruments. Also for the  
wildlife,  
22 which the low pressure sodium, the yellowish  
light,  
23 the one-spectrum type light, that that is more  
24 acceptable for sea turtles and night-flying  
birds.  
25 It does not affect them as much as white light  
does.



1                   Those two reasons alone, Maui should  
2                   definitely, like other communities --  
3       MR. SALDANA: Three minutes.  
4       MR. SUTROV: -- in the -- as other communities in the  
same  
5                   situation with observatories and protecting  
their  
6                   wildlife, nighttime endangered species, namely,  
have  
7                   incorporated low pressure sodium. Low pressure  
8                   sodium is not an accepted -- a widely accepted  
means  
9                   of lighting because police don't like it because  
of  
10                  no color rendition and the lighting engineers  
don't  
11                  like it because they can't really do pleasing  
12                  settings for their clients. And so there's some  
13                  real adversaries there, but we need it for  
14                  observatories, for scientific, military, and for  
15                  our -- our environmental reasons for our sea  
turtles  
16                  and our night-flying birds.  
17                  Thank you very much.  
18       CHAIR MOLINA: Okay. Thank you, Mr. Sutrov.  
19                  Members, any questions for Mr. Sutrov at  
this  
20                  time? Hearing none, thank you.  
21                  Before I recognize Mr. George, I would  
like  
22                  to recognize the hardworking staff that's in  
23                  attendance today. We have the Corporation  
Counsel

24 Mr. Greg Garneau and our Legislative Analyst Mr.  
25 Gary Saldana. And taking notes today for the

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Zukeran. 1 subcommittee is Committee Secretary Karean  
George 2 Now I would like to call upon Mr. Bill  
3 to give his testimony, to be followed by Mr. Rob  
4 Hoonan.  
5 MR. GEORGE: Aloha, Chairman Molina; aloha,  
Councilmember  
6 Tavares; and aloha, subcommittee members. My  
name  
7 is Bill George. I'm speaking as a private  
citizen  
8 today. I was present at a Maui Hotel  
Association  
9 Environmental Committee meeting on Tuesday, this  
10 past Tuesday, January 22nd. The Ad Hoc  
Committee --  
11 Maui Committee for Outdoor Lighting Standards  
12 presented the proposed Outdoor Lighting  
Standards  
13 for Maui County.  
14 I agree that Maui County does have many  
poor  
15 examples of exterior lighting. I also agree  
that

better 16 our community can be better educated and do a  
17 job at our exterior lighting.  
18 International Dark Sky Association has  
been 19 promoting ordinances and codes to control  
outdoor 20 lighting pollution. A few quotes from their  
21 position on lighting ordinances.  
22 Quote: "To ensure that effective and  
well 23 written codes are adopted, we are developing a  
24 comprehensive standard code that can be used by  
any 25 agency... To ensure its universal acceptance, we  
are

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so 1 involving key organizations and industry members  
permits 2 that there is no argument that our Standard  
3 safe and effective lighting..." End quote.  
4 Quote: "In the meantime, should you plan  
to 5 participate in local code development, we  
strongly 6 recommend that you obtain technical assistance  
and

7 do not simply adopt one of the many codes that  
8 appear on our site." End quote.

9 Quote: "Another option is to wait until  
we  
10 complete our worldwide lighting standards and  
use it  
11 as a guide to do it right." End quote. This  
12 lighting standard by them is forecasted to be  
13 released in the immediate future. Last July  
they  
14 said it would be sometime at the end of 2001 or  
the  
15 early part of 2002.

16 I continue. We would not want to be in  
the  
17 position that San Diego is finding itself in  
today  
18 of possibly recanting a good, environmentally  
sound  
19 lighting standard because it did not foresee a  
few  
20 serious problems which could have been avoided  
with  
21 the involvement of, quote again, "key  
organizations  
22 and industry members..." And examples of public  
23 entities such as police departments, fire  
24 departments, et cetera.

25 I learned that the County of Maui adopted

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1 Chapter 901 Street Lighting Standards on October  
2 18th, 1999. If this standard was enforced, the  
Ad  
3 Hoc Committee at our meeting on Tuesday agreed  
that  
4 up to 80 percent of the problem would be solved.  
5 The deadline for existing lighting standards is  
6 October 18th, 2004 to be in compliance. This is  
32  
7 months away and 80 percent of the problem would  
be  
8 solved with existing administrative rules.  
9 I propose we make this 80-percent  
reduction  
10 in outdoor lighting pollution happen under  
existing  
11 Chapter 901, disseminate a brochure on exterior  
12 lighting to everyone about the problem and  
13 solutions, and this would include retailers,  
which  
14 was also a problem with the Ad Hoc Committee.  
But  
15 if we were to educate these people with a  
brochure,  
16 I'm pretty sure that a lot of people would fall  
in  
17 line if they knew the Committee -- the community  
was  
18 behind it. And all of this should be done while  
19 awaiting a worldwide model ordinance from the  
20 International Dark Sky Organization. And then  
once

the  
we  
21           we got that ordinance, we could review and make  
22           adaptations -- adaptations for Maui and I think  
23           would all as a community be better off.  
24           Mahalo for your time and patience.  
25   CHAIR MOLINA: Thank you very much, Mr. George.

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1           Questions from the Subcommittee? Mr.  
2           Maberry.  
3   MR. MABERRY: Yes, sir. Did you speak to anyone at  
Dark  
4           Sky, or did you just get your information from  
their  
5           web page?  
6   MR. GEORGE: It was off the internet, all off the  
7           internet.  
8   MR. MABERRY: Thank you.  
9   CHAIR MOLINA: Okay. Thank you.  
10           Dr. Altenberg, you had a question?  
11   MR. ALTENBERG: Not at this time.  
12   CHAIR MOLINA: Oh, okay. Thank you very much.  
13           Thank you, Mr. George.  
14           And the Chair would like to remind if --  
we

any 15 do have a couple of seats up front here open for  
today's 16 resource personnel that's been invited for  
take 17 session. We would ask that you please come and  
18 a seat up here as long as seats are open and  
19 available.

20 Next we have to testify Rob Hoonan, to be  
21 followed by Barbara Sinclair.

22 MR. HOONAN: Aloha, Chairman Molina, Councilwoman  
Tavares.

23 I'm here to speak. I am Rob Hoonan, Director of  
also a 24 Engineering at the Grand Wailea Resort. I'm  
25 member of the Maui Hotel Association's Engineers

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with 1 Environmental Group. On Tuesday we did meet  
2 the group of individuals that are putting the  
3 lighting ordinance before you. I would like to  
say 4 that, first of all, I commend them for their  
5 attention to this problem. I do agree that  
there's 6 some serious problems with types of lighting out  
7 there and the way we do lighting. I think there

to 8 needs to be, though, some common sense applied  
9 this ordinance.  
10 Frankly, I am very concerned from the  
11 security standpoint of our resorts here on the  
12 island. We have situations that oftentimes are  
13 corrected or at least deterred by lighting. We  
have 14 recently at our property redone our beach front  
15 lighting. It was permitted last year. We were  
very 16 careful in our selection of lights. In fact, I  
17 believe in a presentation that we saw the other  
day 18 that several of the lights that were actually  
19 exhibited were lights that we had put in. The  
20 concern is that at nighttime specifically at the  
21 Wailea beach in front of our property there is  
22 oftentimes gathering of individuals that,  
frankly, 23 aren't doing the right thing down there. And  
24 without light there, it's very hard to  
discourage 25 them. It's very hard to see them. It is, in  
fact,

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1 a dangerous situation.



2 I do believe that this ordinance does,  
3 frankly, reach a little too far in that it does  
4 stipulate that down lighting or lighting that  
only  
5 shines straight down can be used. That,  
frankly,  
6 won't help us at the beaches here on Maui.  
7 Extremely dangerous situation.

8 Also on our property we are very  
concerned  
9 about safety and risk management in regards to  
10 people slipping, falling, those type of  
situations.  
11 We need to be able to address those situations  
with  
12 common sense solutions that make sense from an  
13 esthetic standpoint as well as a safety  
standpoint.

14 Thank you.

15 CHAIR MOLINA: Okay. Thank you, Mr. Hoonan.

16 Questions? Mr. Maberry.

17 MR. MABERRY: Yes, sir. Am I to understand that at  
this

18 time your property is intentionally shining  
lights

19 off of your property on to public property?

20 MR. HOONAN: No, Mr. Maberry, you're -- that's  
incorrect.

21 What we do have is along our property we did put  
22 four lights out there that if there is a  
situation,

23 we may go down and turn them on. We do not turn  
24 them on every night. They're only used when  
there

25 is a situation. Frankly, there's times there's

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beach 1 several -- up to 100, maybe 200 people on the  
one 2 with certain parties. I was a young man myself  
frankly, 3 time, I enjoyed going to the beaches, but,  
4 what's happening down there sometimes is a very,  
light 5 very dangerous situation. This does shine a  
6 on it and actually correct the situation. They  
7 actually disperse at that point and illegal  
8 activities that go on down there are actually  
9 curtailed.  
still 10 MR. MABERRY: Follow-up, please, sir. So the -- you  
generated 11 are admitting, though, that light that is  
boundaries 12 from your property is falling outside the  
13 of your property; is that correct?  
14 MR. HOONAN: We do shine a light -- if there's a  
15 situation, at our discretion, we do turn a light  
on 16 to the situation, yes.  
17 MR. MABERRY: Thank you.

18 CHAIR MOLINA: All right. Thank you, Mr. Maberry.  
19 Committee members? Dr. Altenberg.  
20 MR. ALTENBERG: To follow up on that and also drawing  
upon  
21 what you were saying during the meeting with the  
22 hotel association, the -- one of your complaints  
is  
23 that there's not adequate policing provided by  
the  
24 County for the public beaches; is that correct?  
25 MR. HOONAN: No, I did not make that comment, doctor.  
I

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the 1 can't speculate on that. That is something for  
something 2 Police Department to speculate on. It is  
3 that I believe is a concern of they can't be  
4 everywhere at all times. What we, frankly, want  
to  
5 do with this lighting is at times, if we see a  
6 situation develop, we would like to discourage  
that  
7 and then turn those off as appropriate.  
8 MR. ALTENBERG: So, in other words, you find yourself  
in  
9 the situation of -- where activities on the  
public

your           10           beaches are impeding the activities of your --  
essentially   11           business and you find yourself having to  
own           12           take enforcement or deterrent actions on your  
              13           independently of the police, is that correct, in  
              14           order to protect the -- your business?  
correct.      15       MR. HOONAN: In a -- I guess your statement is  
frankly,      16           However, you know, what I want to say is,  
spoke         17           one of the assumptions that we -- that I heard  
official      18           the other day was that any good security  
crime.        19           would understand that lighting does not deter  
since         20           I find that, frankly, in -- in the business  
I'm           21           1976, I don't agree with that point. That's why  
lighting      22           here to say that I believe that -- that the  
No. I         23           does deter some crime. Will it stop it all?  
              24           don't believe it's an end-all, cure-all for  
              25           everything. However, I do believe that this

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1 ordinance, if we did not have any of those  
2 lighting -- those types of lighting down there  
that  
3 we would use on a temporary basis for my  
property  
4 specifically -- I do not speak for the others --  
I  
5 think that we, frankly, could have a liability  
issue  
6 not only on our property, but also the County  
7 possibly might on the beaches.  
8 The police are always there when we need  
them  
9 as much as they can be. I think they can  
address  
10 the -- the issue of coverage better than I can.  
11 MR. ALTENBERG: I guess I'm trying to clarify that  
what --  
12 the situation that you're describing is that  
there  
13 are occasions when the activities on public land  
you  
14 say are compelling your resort to -- to alter  
the  
15 lighting situation on the public land to  
preserve  
16 order; is that correct?  
17 MR. HOONAN: To deter. To deter illegal activities or  
18 that type of situation, yes.  
19 MR. ALTENBERG: So, in other words, because of the --  
what  
20 you would feel was an inadequate security  
management  
21 of the public beaches, the Grand Wailea is  
having to

22 take its own action with respect to the public  
23 beaches; is that correct?  
24 MR. HOONAN: I guess that's a fair statement. I would  
say  
25 that I do -- I'm not at this point criticizing  
any

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17

1 of the Maui Police Department. I believe that  
they  
2 do a terrific job. I'm just saying that this is  
a  
3 big island. Frankly, at times they can't be  
4 everywhere. And if we can deter some crime or  
some  
5 type of situation or illegal activities by a  
light  
6 being on, it sure stops it before it happens.

7 MR. ALTENBERG: Thank you very much.

8 CHAIR MOLINA: Okay. Thank you very much.

9 Members, any other questions for Mr.  
Hoonan?

10 Hearing none, thank you very much, Mr. Hoonan.

11 MR. HOONAN: Thank you.

12 CHAIR MOLINA: Next to testify we have Barbara  
Sinclair,

13 to be followed by Kahu Charles Maxwell.

14 And before we proceed with testimony, the

15 Chair would like to recognize Mr. Richard Chong,  
16 Subcommittee member. Thank you.

17 MS. SINCLAIR: I'm Barbara Sinclair. I'm representing  
18 myself. I live at 417 Liholiho Street here in  
19 Wailuku. My family moved there in 1941. It's  
20 actually up on a hill and I have got a wonderful  
21 crow's nest view of from Haiku to Wailea, all up  
the  
22 crater, et cetera. When we moved there there  
were  
23 approximately 12 twinkling lights down there  
over  
24 Kahului. So as I look out from my window now,  
it's  
25 a mass of lights. I am glad this is being

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18

1 addressed. What I see is some very bright light  
2 shining from Maui Lani driving range in the  
evening  
3 and right in front of my house some 160 huge  
white  
4 lights over a baseball field. This is baseball  
5 season, but there are no games being played  
right  
6 now. Last night, for instance, from -- at 6:00  
p.m.  
7 the lights went on. It was not dark yet. And  
they

house 8 went off at 9:00. And what I observed from my  
balls 9 was four or five players practicing hitting  
only 10 and talk story, whatever. My concern is not  
played, 11 the bright lights when no games are being  
huge 12 but the expense to us as taxpayers for these  
five 13 160 bright lights shining for a few, four or  
shots at 14 privileged people to practice a few batting  
15 night.  
so I 16 So I am sorry I missed the first meeting  
different 17 don't know what was talked about as far as  
very 18 kinds of lights, but what stands out are these  
I 19 white, bright lights. And if they're necessary,  
cost. 20 guess they're necessary, but I question the  
21 Thank you. Oh, any questions?  
22 CHAIR MOLINA: Thank you.  
Mr. 23 Members, any questions for Ms. Sinclair?  
24 Chong.  
nighttime 25 MR. CHONG: Ms. Sinclair, are you against any

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1 athletic activities?

2 MS. SINCLAIR: No, I'm not. But I wonder why four or  
five

3 people can go down there and just bat balls at,  
you

4 know, 160 bright lights shining on them. I am  
not

5 opposed to games at all, but this has been a  
problem

6 in the past, too. And sometimes people would be

7 gone at 9 o'clock and those lights would be on  
till

8 11:00 and they're very bright. And I did call  
and

9 complain. And I was told, well, there's one man  
10 that goes around and turns all the lights off.

But  
11 it has been remedied because they're not on till

12 11:00 anymore. So I just think it's a big  
expense

13 for four or five privileged people.

14 MR. CHONG: Point taken.

15 CHAIR MOLINA: Okay. Thank you.

16 Okay. Our final testifier today is Kahu

17 Charles Maxwell. If there's anybody else in the

18 gallery that would like to testify, you have an

19 opportunity now to come up and sign up at the

20 secretary's desk.

21 MR. MAXWELL: Mr. Chairman, Councilwoman Molina (sic),

22 members of this Committee, my name is Charles  
23 Kauluwehi Maxwell and I come from Pukalani. My  
24 testimony this morning would -- I would like to  
25 center it not on aesthetics, even though I agree

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20

was a 1 with some of the statements that were made. I  
2 policeman for 15 years and lighting is used as a  
3 deterrent, but there is ways to control it. But  
4 when I -- when -- I would like to tell you about  
how 5 the lights affect our spiritual and cultural  
6 workings here in Hawaii. We were brought up to  
-- 7 to feel that the darkest time of the night,  
8 pokane -- Every month there's one day --  
actually 9 two, almost two days, that there is no moon, and  
10 that night is called pokane. And historically  
this 11 is the night that the spirits walk from the top  
of 12 the mountain to the ocean and back throughout  
the 13 night period. We never used to talk about this  
14 because it was talked only amongst our families,  
but

15 even till today, people know what pokane is, Hua  
16 Hele Po is called the night marchers. And that  
is  
17 our moolelo, our stories from ancient times, and  
18 it's still spoke about today.  
19 And, in fact, as a Kahu I was asked to  
bless  
20 many houses who are non-Hawaiians who experience  
21 things that happen in the night. As a  
practitioner,  
22 I am still practicing our cultural religious --  
you  
23 know, our religious practices even though I am a  
24 Christian minister. But we -- we bury remains,  
Iwi,  
25 the bones of our ancestors at night, and we  
usually

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21

1 do this by going into the ocean to hiiwai, to  
2 cleanse ourselves. And so that is done in  
complete  
3 darkness. In fact, sometimes it's done without  
even  
4 having our clothes on. It's a cultural thing.  
We  
5 go in places where there's no light in Makena,  
if  
6 it's in Lahaina. So all of these things, I  
mean,

but 7 you know, we talk about sharks and everything,  
it's 8 when you're doing cultural religious things,  
cultural 9 not important. The focus is on a spiritual  
10 basis.  
11 So the light really affects us as Native  
we're 12 Hawaiians in practices that we have done and  
13 doing today. So --  
14 MR. SALDANA: Three minutes.  
support it 15 MR. MAXWELL: So I really admire the bill and I  
to 16 100 percent. And even the beaches does not have  
17 be lighted at night by the hotels. That's the  
18 biggest pollution, I think. And even for a --  
19 coming from a cultural side. Thank you so much.  
20 CHAIR MOLINA: Thank you, Kahu.  
21 Committee members, any questions? Dr.  
22 Altenberg.  
wondering 23 MR. ALTENBERG: Question for Kahu Maxwell. I am  
Kihei 24 for Hawaiians living in places like Kahului or  
that 25 where you can't see many of the constellations

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does 1 are part of the oral history of the Hawaiians,  
reference? 2 that have an effect in terms of cultural  
3 MR. MAXWELL: You know, you know, thank you for that  
4 question because, yeah, it does. We do burials  
5 right at Maui Lani, One Thousand Acres there,  
and 6 you know, you cannot see the constellation  
because 7 we're right in the middle of Kahului and it's  
8 obliterated. So we just got to -- by memory, we  
got 9 to know where to face, where to chant, where to  
do 10 our spiritual things, practices that we do.  
And, 11 yes, it does affect us immediately. We got to  
go -- 12 When we're in Lahaina out in the -- you know,  
past 13 the Ritz Carlton or places like that in Hana,  
it's 14 not too bad, but it does affect us immensely.  
15 CHAIR MOLINA: Okay. Thank you very much, Dr.  
Altenberg.  
for 16 Subcommittee members, any other questions  
17 Kahu Maxwell? Seeing none, thank you.  
18 Is there anybody else in the gallery who  
19 would like to testify at this time? The Chair  
sees

20 none and the Chair will close testimony  
effective at  
21 9:28. Thank you very much, members and  
testifiers.  
22 . . . END OF PUBLIC TESTIMONY . . .  
23 CHAIR MOLINA: Today we would like to focus -- if you  
turn  
24 to your draft ordinance, like to focus on  
sections  
25 .070, lamp standards; Section .080, luminaire

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23

1 standards; and Section .090, luminaire mount  
2 standards. And if time permitting, the Chair  
would  
3 like to revisit matters that we discussed at our  
4 first meeting on January 17th, and these include  
5 sections .040 on definitions, Section .050 on  
6 general exemptions, and Section .060 on Outdoor  
7 Lighting Standards Committee.  
8 Now, the Chair is under some time  
constraints  
9 today. I would like to end preferably by 11:15  
and  
10 at our -- maybe our third meeting we can have an  
11 extended or longer meeting if that is to be the  
12 case.

six 13 So with that, we did focus on the first  
I 14 sections of the draft bill back on January 17th.  
the 15 would like to first announce, before I proceed,  
from 16 Chair has invited various resource personnel  
or 17 the Public Works and Waste Management; Howard  
18 Hanzawa for the Land Use and Code Administration  
19 Director as his representative; Greg Nakao, the  
20 electrical inspections supervisor; and Cary  
21 Yamashita, Engineering for Public Works. And  
22 representing the Department of Planning we have  
Joe 23 Alueta. And from the Department of Parks and  
24 Recreation we have Mr. Pat Matsui. And from the  
25 Police Department we have Captain George  
Fontaine,

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24

Hudson. 1 Captain Clayton Tom, and Captain Lawrence  
is 2 The County Energy Specialist in attendance today  
3 Kal Kobayashi. The Chamber of Commerce  
4 representative we have up front here is Lynne  
Woods.

5                   The Chair did invite from the Maui Hotel  
Association  
6                   Terryl Vencel. I don't see her at this time. I  
know  
7                   she's a very busy lady. From the Safe Community  
of  
8                   Maui, Incorporated we have Kelvin Dang. And  
from  
9                   Maui Electric Randy Nakama. And Brian Ige from  
the  
10                  Dowling and Company, the developer's  
perspective.  
11                  From the commercial lighting industry we have  
also  
12                  invited Randy Piltz. And from the hotels and  
13                  resorts, the engineers -- lighting engineers and  
so  
14                  forth, Bill George and Rob Hoonan.  
15                  So let us proceed and commence with  
today's  
16                  review of the draft bill. And let us start  
first  
17                  with Section .070, lamp standards. At this time  
the  
18                  Chair would like to ask for some comments from  
the  
19                  Corporation Counsel first on this section. Mr.  
20                  Garneau, if you may proceed.  
21       MR. GARNEAU: Yes, thank you. When I was reviewing  
this  
22                  section, I -- I did have one comment that sort  
of  
23                  relates to another issue that we brought up in  
the  
24                  last meeting. But with regards to this section,  
I



25  
exceptions.

noted that it does include any kinds of

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25

1           And so I was -- wanted to ask the Committee  
2           generally whether they're anticipating how this  
will  
3           be implemented, whether there will be a plan  
4           reviewer, whether there's going to be any kind  
of,  
5           you know, grandfathering included here, how it  
will  
6           relate to how the Committee is expected to  
function.  
7           That was my main question on this one.  
8   CHAIR MOLINA: Okay. Again, could you clarify that  
again?  
9           This is in Section .070 under lamp standards?  
10   MR. GARNEAU: Right. You know, it says -- for  
example,  
11           under Section B it says that mercury vapor lamps  
are  
12           expressly prohibited and then it goes on to say  
that  
13           the installation, sale, offering and so forth.  
Is  
14           that -- is there plans to, for example, have any  
15           kind of grandfathering or what to do with  
existing  
16           inventories if this is implemented? Also, if

add a 17 they're expressly prohibited, are we going to  
review 18 clause that says, you know, except for upon  
talked 19 by the Committee? You know, because we had  
20 about -- briefly having the Committee be able to  
So I 21 make some exceptions where they're necessary.  
at 22 noted that's something we were going to take up  
-- 23 the next meeting. And I was going to respond to  
24 in writing to those procedures, but it kind of  
25 impacts the section, too.

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26

Mr. 1 CHAIR MOLINA: Okay. Members, are we all clear about  
on 2 Garneau's concerns with letter B? Any comments  
3 that? Mr. McCord.  
coming 4 MR. MCCORD: In the flood of paper that has been  
interesting 5 through in the last week one of the more  
6 ones was this Villosa County Land Development  
Code.

program 7 And I noticed in that that they did have a  
8 for a replacement program. And I don't see any  
9 replacement program in our draft. Obviously we  
have 10 some of these lights out there that are not in  
11 conformance with this particular program and  
there 12 has to be some sort of a replacement if we're  
going 13 to reduce their impact. I think that's -- part  
of 14 it would be rather than just allowing them a  
15 grandfather, we have to put in some kind of a  
16 replacement program be it a year, two years,  
three 17 years, whatever, to replace these as they become  
just 18 either obsolete as far as having burned out or  
19 replaced because they're offending.  
20 CHAIR MOLINA: Okay. Thank you, Mr. McCord.  
21 Dr. Altenberg.  
lighting, 22 MR. ALTENBERG: Well, in the section on existing  
23 Section 130, basically what was proposed is that  
was 24 a five year from the date of -- that the  
ordinance 25 would become effective, a five-year period in  
which

---

1           to replace existing lights that were not in  
2           compliance. So that -- it was not a program per  
se,  
3           but a -- simply a five-year time to depreciate  
the  
4           existing items. So perhaps some attention would  
5           need to be paid to, for example, existing  
6           inventories of stores, that kind of thing where  
7           that's applicable. Or some kind of language --  
8           other language could be adopted with respect to  
9           dealing with existing lights as a replacement  
that  
10          program as you mention. But we haven't got to  
11          section yet.

12       CHAIR MOLINA: Okay. Thank you, Dr. Altenberg.  
13                Mr. Garneau, does that section address  
the  
14          concerns from Section .070? Would that suffice?

15       MR. GARNEAU: Well, when we get to that section, I  
would  
16          expect then that .070 we would have to include  
some  
17          reference so that people reading that would know  
18          that there's some procedure. So I do think it's  
a  
19          good idea, though, to have some kind of program  
or  
20          procedures for implementing. And I was  
wondering  
21          if, Mr. McCord, would it be possible that you

a 22 forward to me or to the Council Committee Chair  
at 23 copy of the Villosa County example so I can look  
24 it? I mean, that would be helpful.  
25 CHAIR MOLINA: Okay. All right. Thank you, Mr.  
Garneau.

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28

any 1 At this time the Chair would like to ask  
2 other resource --  
3 MR. MABERRY: Mr. Chair.  
4 CHAIR MOLINA: Oh, I'm sorry. Go ahead, Mr. Maberry.  
on 5 MR. MABERRY: Yes, sir. I would kind of like to check  
comment, 6 something here and perhaps ask Mr. Chong to  
7 but one of the reasons I believe that the -- the  
8 Committee recommended strictly prohibiting  
mercury 9 vapor lamps is because of their poor performance  
and 10 how they continue to draw as much energy as  
their 11 output continues to decline and we felt that  
there 12 were enough other options that still provided  
the 13 same color rendition.

14 MR. CHONG: Chair, may I respond?  
15 CHAIR MOLINA: Proceed, Mr. Chong.  
16 MR. CHONG: Mercury vapor as a lamp source is  
basically  
17 not specified. In most projects today metal  
halide  
18 is a lamp of choice because of its better color  
19 rendition and it is a more efficacious source,  
20 meaning it's more energy efficient. What you  
would  
21 be dealing with here is obviously then people  
who  
22 already have mercury vapor luminaires. I'm not  
--  
23 when we get to the replacement of existing light  
24 fixtures, I'm not so sure mandating a time  
period is  
25 correct to force public to spend money. County

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29

1 maybe, public not necessarily. If you're  
talking  
2 about a mom-and-pop operation who's -- can't  
afford  
3 to buy a new floodlight and comply with the  
code,  
4 that may be asking a little bit too much.  
Something

the 5 to consider. Maybe it's grandfathered in and if  
corroded 6 luminaire has to be replaced because it's  
can 7 or whatever, then you have to comply. And we  
of 8 talk about that more when we get to that section  
9 the code.  
10 CHAIR MOLINA: Okay. Thank you, Mr. Chong.  
11 Mr. Maberry.  
12 MR. MABERRY: Thank you very much for your comments.  
I  
13 believe the intent there was along those lines  
14 and -- but in order to provide some way to  
control  
15 that, we were prohibiting the sale.  
16 MR. CHONG: Then there needs to be distinction between  
if  
17 a person has a luminaire and lamp just burns  
out,  
18 that is not a reason to make a person change the  
19 luminaire. The lamp is the least expensive  
part. I  
20 think we need to allow the retailers to sell the  
21 lamps to these people who don't have to change  
their  
22 luminaires. And, again, it's a -- there needs  
to be  
23 some referencing between this section and  
24 replacement of existing. I understand your  
intent.  
25 I am not against it. We don't specify mercury  
vapor

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30

1           luminaires. It's not an acceptable source to  
us.

2           CHAIR MOLINA: Okay. Thank you very much, Mr. Chong  
and

3           Mr. Maberry.

4           At this time the Chair would like to ask  
--

5           Oops. Sorry about that. Mr. McCord.

6           MR. MCCORD: I'm sorry, I'm a nontechnical guy when it  
7           comes to luminaires and lamp standards. Can't a  
8           mercury vapor be replaced with a low sodium  
light

9           fixture and not have to change the luminaire?

10          CHAIR MOLINA: Okay. If there's Mr. Chong or any of  
our

11          resource people who would like to respond to Mr.

12          McCord's question, I will yield the mike to you.

13          Mr. Chong.

14          MR. CHONG: Sorry. I don't expect you to be a techie.  
A

15          low pressure sodium lamp is big, long, whereas a

16          mercury vapor lamp is a small little bulb. So

17          there's no possible physical way you could take  
a

18          low pressure sodium lamp and insert it into a

19          mercury vapor luminaire. It would not fit.  
There



are 20 are very few -- there are some manufacturers who  
can 21 making metal halide replacement lamps that you  
off 22 put into a mercury vapor luminaire and even run  
there's 23 the same ballast, so there are options, but  
24 no way to go from mercury vapor to low pressure  
25 sodium.

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31

1 CHAIR MOLINA: Okay. Thank you.  
2 So, Committee members, any other  
questions at 3 this time? Mr. Altenberg.  
4 MR. ALTENBERG: I guess it seems like a lot of these  
5 questions have to do with existing lights, but,  
I 6 mean, the main purpose of this section would be  
7 dealing with future lights. So let's make sure  
we 8 don't leave any questions about that -- about  
that 9 aspect unanswered.  
10 CHAIR MOLINA: Okay. Thank you, Dr. Altenberg.  
11 Okay. All clearance from the  
Subcommittee

12 members to -- for me to proceed and ask for  
comments  
13 from our resource people on this particular  
section?  
14 Okay. At this time the Chair would like to ask  
any  
15 of our resource people if you have concerns  
about  
16 Section .070, lamp standards at this time.  
Okay.  
17 We have Mr. George.  
18 MR. GEORGE: About that Section D, instead of saying  
this  
19 permits the sale, lease or purchase of any  
mercury  
20 vapor light or lamp, in Section D could we just  
21 say -- Hello. Back can hear now? Sorry.  
22 In Section B, instead of saying that  
we're  
23 expressly prohibiting the sale, lease or  
purchase of  
24 any mercury vapor light fixture or lamp, if it  
were  
25 to just say mercury vapor light fixture, the  
lamp

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32

1 would be replaceable to these mom or pop stores  
and  
2 to help the community. Or we could always say  
that

of 3 there's -- they should look into the possibility  
like 4 retrofitting to a better bulb. But, like I --  
the 5 Mr. Chong said, that you wouldn't be able to put  
6 LPS into that fixture.  
7 CHAIR MOLINA: Okay. Members, any comments to that?  
8 MR. MCCORD: I'm kind of wondering how many --  
9 CHAIR MOLINA: Mr. McCord.  
10 MR. MCCORD: I'm sorry.  
11 CHAIR MOLINA: Go ahead.  
we're 12 MR. MCCORD: -- how many of these kinds of fixtures  
most 13 talking about? I was under the impression that  
on 14 of these high pressure mercury lamps were used  
that 15 the streets and in, you know, big parking lots,  
many 16 kind of thing. You know, I can't imagine too  
fixtures. 17 small little places having these kind of  
18 I can't imagine it being too big a problem.  
19 CHAIR MOLINA: Mr. McCord, anyone from the resource  
20 personnel would have some type of data as to how  
21 many of these mercury lamps may be out there?  
Is 22 that -- I know it's hard to keep track of that,  
but 23 it's -- is that something --  
24 MR. CHONG: I'll just make a comment.  
25 CHAIR MOLINA: Go ahead, Mr. Chong.

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1 MR. CHONG: Mercury vapor lamps are available from 100  
2 watt R-type lamps that you would find in  
landscape  
3 lighting, floodlighting, up to 400-watt big  
4 floodlights that you would see in a parking lot  
or  
5 ball field lighting. So there's -- there's a  
wide  
6 range. So it may be more in use than you --  
than  
7 you really see.  
8 CHAIR MOLINA: So, in other words, it may be hard to  
9 really calculate how much of --  
10 MR. CHONG: Yeah. I don't think anybody is going to  
have  
11 that kind of data.  
12 CHAIR MOLINA: Okay. Dr. Altenberg.  
13 MR. ALTENBERG: If I understand right from Mr. Chong,  
it  
14 is possible -- always possible to replace a  
mercury  
15 vapor lamp with a metal halide lamp when it  
burns  
16 out; is that correct?  
17 MR. CHONG: It's not always possible. Unfortunately,  
the

make 18 lighting industry makes products where they can  
for 19 money and -- and unless there's a large market  
if 20 people replacing mercury vapor lamps with metal  
21 halide lamps, you're not going to find it. And  
22 you're in that little niche that -- the small  
same 23 percentage, you change -- either you buy the  
you 24 mercury vapor lamp again if you can find it, or  
25 replace the luminaire in kind.

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34

gentlemen. 1 CHAIR MOLINA: Okay. All right. Thank you,  
2 Okay. 2 Okay. Is there any other questions or  
3 concerns regarding Section .070 at this time?  
4 Seeing none, members, we shall now move -- Oops.  
5 Excuse me, Dr. Altenberg.  
6 MR. ALTENBERG: The -- it's Section .070 is where the  
7 mention of the standard of low pressure sodium  
is 8 put into this code. So I know that that -- the  
9 Police Department has expressed concern about  
that

a 10 particular issue, so it seems like this would be  
concerns. 11 good time to hear from them about their  
Can 12 CHAIR MOLINA: Okay. Good suggestion, Dr. Altenberg.  
Department 13 I call a representative from the Police  
14 up to one of the hot seats here.  
15 We have Captain Fontaine to respond to  
your 16 question, Dr. Altenberg.  
Department 17 MR. FONTAINE: Thank you, Mr. Chairman. As the  
18 has expressed I think throughout the entire  
about 19 presentation of this ordinance is our concern  
20 color rendition as it pertains to low pressure  
21 sodium lighting. And we have made this point  
time 22 and time again that low pressure sodium lighting  
in 23 public areas has a limited color spectrum which  
has 24 been acknowledged throughout this. And because  
of 25 its limited spectrum, our -- our officers and  
our

---

1           general public will not be able to properly  
identify  
2           color in this environment. We have also made  
known  
3           that this could potentially have negative  
effects in  
4           police would not be able to identify suspects'  
5           clothing or a vehicle or potential witnesses  
giving  
6           inaccurate accounts of color during an  
7           investigation.  
8                     There is also concerns about low pressure  
9           sodium as a psychological deterrent. Obviously  
this  
10          does have uses in a limited sense where you want  
to  
11          discourage people from gathering and utilizing  
low  
12          pressure sodium lighting where people would  
13          congregate, for like a badly lit park, for  
example,  
14          but I think it's general use overall is not an  
15          appealing type of lighting to be under. And I  
16          personally experience this in cities like Long  
17          Beach, Big Island, being under -- personally  
under  
18          this type of lighting. It's not a -- it's not a  
19          pleasant light. There's been arguments that the  
20          spillover from commercial lighting will provide  
21          enough balance to the LPS lighting. I haven't  
seen  
22          any research, and please correct me if I'm  
wrong,  
23          that there has been studies to show that -- that  
the

sodium 24 spillover commercial lighting in low pressure  
color. 25 lit areas will be enough to balance out the

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36

help 1 But I think the thrust of this ordinance is to  
We're 2 eliminate this spillover commercial lighting.  
about 3 talking about light trespassing, we're talking  
doing 4 excessive commercial lighting. So if we're  
on 5 that on one hand and doing low pressure sodium  
6 the other, the argument of spillover becomes an  
that 7 issue that I just never have seen any data on  
8 whether or not there's an acceptable amount of  
this 9 spillover that we're going to allow to offset  
10 color rendition issue. So those are our basic  
11 concerns regarding LPS.  
over 12 We have contacted the Police Department  
13 in Hilo to ask them how it is and, you know,  
their 14 comment says yes, it is a problem with color



now? 15 rendition. Is it a problem with the officers  
grown up 16 Most of them have gotten used to it or have  
17 in that lighting because it's been there in  
to 18 existence for a time, have gotten used to having  
lighting. 19 deal with that as an issue of not having  
looking 20 But, you know, when all the vehicles start  
21 the same color and everybody starts looking the  
you 22 same, it becomes a real problem. Do we issue,  
23 know, color swatches to all the officers to have  
it 24 people identify color under a lighting and point  
really 25 out with identification, I don't think that

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37

1 makes sense.  
2 I can see us doing fully shielded  
lighting on 3 our high pressure sodium lights. That makes  
sense 4 and I think the Department would fully support  
that. 5 I think we fully support the whole notion of

good 6 reducing light pollution. I think this is a  
LPS 7 thing. But we really need to take a look at the  
8 side of the house.  
9 Thank you.  
10 CHAIR MOLINA: Thank you. Mr. Chong.  
11 MR. CHONG: I may be a little long. Just for your  
12 information, low pressure sodium becomes the  
13 luminaire -- or the lamp of choice -- And I'm  
going 14 to speak a little bit for the astronomers here,  
so 15 you can correct me if I'm wrong -- because low  
16 pressure sodium light is monochromatic, meaning  
it 17 has one specific wave length of visible light.  
And 18 that's why if your car or your shirt underneath  
that 19 light isn't that exact same wave length, it  
turns to 20 a shade of gray or black. And that's why the  
21 astronomers like it, is they can filter out that  
22 wave length so that it doesn't obscure their  
23 observations and leaves the rest of the visible  
24 spectrum for their viewing. And I think that's  
a 25 basic explanation of why LPS is preferred as an

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1 outdoor lighting source. You can overlight with  
2 LPS, you can light trespass with LPS. Okay.  
One  
3 point made.  
4 Low pressure sodium is the luminaire or  
lamp  
5 required in San Diego by their ordinance. And  
from  
6 what I have heard, and I may not be completely  
7 correct, they -- their Police Department and  
other  
8 people are looking to change that ordinance to  
get  
9 rid of the low pressure sodium requirement for  
the  
10 very reason you just spoke. Their -- they  
cannot  
11 tell color, so they cannot identify victims,  
crime  
12 scenes. It becomes a problem. San Diego has a  
--  
13 one of the counties that had an early on -- had  
an  
14 ordinance similar because of their Mt. Palomar  
15 proximity. Okay. Low pressure sodium, low  
pressure  
16 sodium as a bare lamp is the most efficacious  
light  
17 source that is commonly used. Not commonly, but  
18 available. It is a large lamp. When you put it  
in  
19 a light fixture or luminaire, it loses -- its

as 20 efficiency comes down drastically and it is not  
it's 21 efficient as the bare lamp number. So because  
luminaire 22 such a large source, to optically design a  
have 23 that efficiently uses it, the luminaire would  
going 24 to be very large. There are very -- again,  
products 25 back to the lighting industry only makes

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39

few 1 where there's money to be made. There are very  
2 manufacturers who make low pressure sodium  
3 luminaires because there isn't a market for it.  
dealt 4 We've -- I'm in the design community and we've  
years 5 with the Big Island ordinance for almost 20  
spaces 6 now and it is a battle to effectively light  
the 7 on the outdoors with low pressure sodium because  
least 8 lamps -- one, there aren't any luminaires, at  
developer 9 decorative luminaires. Say for the resort

aesthetic 10 who wants to put in something with some  
11 value to it, it's a historical looking light  
limit a 12 fixture, there aren't any available. So you  
13 lot of people in what they can do.  
against 14 I'm not against shielding. I'm not  
15 protecting the environment. I'm -- just make  
sure 16 everybody understands when we stick low pressure  
17 sodium into this ordinance, what the  
ramifications 18 are to everybody involved, the Police  
Department, 19 the resort people. You need to understand that.  
20 Another thing, we -- as a designer, when  
we 21 design parking lots, we like to use metal  
halide. 22 And the reason is metal halide in some studies  
23 recently because of its high color rendering and  
its 24 ability to increase visibility, quote, unquote,  
25 people, including most of your customers at like  
say

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40

metal 1 shopping centers, feel much more safe under

2 halide than they do under high pressure sodium.  
3 Same level of lighting, it's just -- it's just a  
4 comfort feel. So we have gone to that type of  
5 lighting, fully shielded. We're not using  
6 luminaires necessarily that are not -- I mean,  
Maui  
7 Mall was our project. We replaced high pressure  
8 sodium luminaires with metal halide, fully  
shielded,  
9 because of what I just said.  
10 So these are some things we need to keep  
in  
11 our back of our minds. High pressure sodium is  
12 acceptable, I mean, if that's the law, we would  
work  
13 with it, fully shielded, but I -- low pressure  
14 sodium, there's lots of issues with low pressure  
15 sodium.  
16 CHAIR MOLINA: Okay. Thank you, Mr. Chong, for giving  
us  
17 that perspective.  
18 Mr. McCord, to be followed by Dr.  
Altenberg.  
19 MR. MCCORD: Mr. Chong made an interesting point in --  
a  
20 few minutes ago. And it took me a few minutes  
to  
21 try and figure out just exactly how to use it.  
He  
22 said that these mercury vapor lights come in all  
23 wattages from 50 to 400. Obviously the whole  
24 purpose of this thing is to try and reduce the  
light

this 25 pollution, and so maybe somewhere -- and I know

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41

need 1 complicates it a little bit, but maybe what we  
much 2 to do is talk about -- you know, not worry too  
but 3 about the 50-watt high super -- high pressure,  
4 talk about the 400 watt in this thing. And we  
5 don't -- we just, you know, make a blanket  
6 statement. Maybe we need it to have some sort  
of a 7 gradation scale and work on the high wattage  
ones 8 and not worry about a little, you know, 50-  
watter at 9 some mom-and-pop store.

10 CHAIR MOLINA: Thank you.

11 Dr. Altenberg.

12 MR. ALTENBERG: A question for Mr. Chong. When we  
drafted 13 the low pressure sodium standard, we clearly  
14 recognized that it has the problem with color  
15 rendition and that there are circumstances where  
16 that would cause problems for people's  
businesses, 17 you know, in particular. So we tried to put in

18 under sections -- Section .070, No. 1 specific  
19 exemptions for the LPS requirement. Do you  
think  
20 those are adequate or properly crafted to  
ameliorate  
21 the problems where they would be most common to  
lack  
22 of color rendition?  
23 MR. CHONG: I do -- and I missed that section, I'm  
sorry.  
24 I had to leave the meeting last -- a couple  
weeks  
25 ago. I do think there needs to be more  
exceptions

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1 or when we cover specific design issues, like  
2 recreation and things like that, that a little  
more  
3 leeway be given to other lamp sources and not  
4 dictate LPS as the de facto lamp and we can't  
use  
5 it -- use anything else otherwise. That's what  
--  
6 that's the worry. I mean, we're really --  
you're  
7 going to shoe horn the entire design community  
and  
8 property owners into a very limited resource as  
far



9 as light fixtures and all the other issues of  
10 esthetics and color rendition, for example. And  
11 this is a problem with the Big Island code.  
There  
12 is no mention in any of these codes about  
lighting  
13 in pools, water features, things like that. Is  
14 there anything to be said? You need to leave  
lights  
15 on in pools for safety at night so that you can  
16 identify where that body of water is, but it  
also --  
17 it also -- if your body of water or pool is  
large  
18 enough, it provides light into the atmosphere.  
19 Nobody makes low pressure sodium pool lights,  
I'm  
20 sorry, so, you know, it -- your hands are tied.  
21 Most pool lighting is incandescent. But that's  
--  
22 that's a good example of where we need to put  
that  
23 as an exception. I don't think the property  
owners  
24 or the County want to get into the legal  
25 ramifications of telling the owners they've got  
to

1           turn off their pool lights.

2       CHAIR MOLINA:   Okay.   Thank you, Mr. Chong.

3           Members, at this time are there any  
questions

4           for Captain Fontaine from the Police Department?

5           Okay.   Mr. Maberry.

6       MR. MABERRY:   Yes, sir, but I would like to start it  
with

7           another point.   Since we are at a disadvantage  
of

8           not having Member Hannah Bernard here or Dr.  
Fern

9           Duvall to use as resources, I'm going to just  
repeat

10          what I have been told, recognizing I'm not an  
11          expert.   But my understanding is that in  
addition to

12          the benefits to astronomy, it's also beneficial  
to

13          the animals because of the way their eyes work,  
not

14          having the full spectrum of light.   So that  
leads

15          into this -- into this question regarding -- You  
16          mentioned that LPS is used as a deterrent in  
some

17          jurisdictions.   Areas where they have people  
18          congregate and they don't want them to  
congregate

19          there, they have used them.   Would that perhaps  
20          benefit say the gentleman who testified earlier  
21          regarding the resorts?   If they were to --  
instead

22          of using whatever source they may be using, if  
they

less 23 were to use LPS on the beach, which would have  
animals, 24 potential -- supposedly less impact on the  
or 25 would that -- would that provide that deterrent

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they're 1 possibly provide that deterrent factor that  
you 2 trying to achieve?  
familiar 3 MR. FONTAINE: I don't think that I could answer that,  
Wailea 4 know, specifically because I am not really  
with 5 with how their lighting setup is at the Grand  
that 6 in terms of what they're trying to accomplish  
7 the deterrence. I can speak generally, though,  
8 this particular type of lighting is suitable for  
at. 9 areas where you wish to deter people from being  
10 Whether that's appropriate for Grand Wailea, I  
done an 11 cannot really say because I haven't gone and  
whether or 12 assessment from the police perspective of

to 13 not that would be a recommendation we would make  
14 them. And if that was something that they were  
would 15 interested in having us look at, you know, we  
16 assign a community police officer to go out and  
17 do -- we do crime prevention through  
environmental 18 design assessments for anyone in the community  
where 19 we would be able to provide not only lighting  
20 recommendations, but also security access, et  
21 cetera. But in -- there are specific areas  
where it 22 might be appropriate -- if we were having a  
problem 23 of congregation of juveniles or et cetera, that  
it 24 would be appropriate.  
25 MR. MABERRY: Okay. To follow up, sir.

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1 CHAIR MOLINA: Go ahead, Mr. Maberry.  
2 MR. MABERRY: Could you please provide -- I mean, I  
have 3 spoken to you before on this issue and there are  
4 certain things that happen -- or visually happen  
to

underneath 5 individuals when they look at each other

6 this light that may assist in that type of a

7 deterrent.

used 8 MR. FONTAINE: In the jurisdictions of -- where they

in 9 it, like -- for example, like Van Nuys Boulevard

10 Los Angeles, they're having a problem with kids

specific 11 cruising on the street and hanging out at

12 areas where they utilized it. And it was very

because 13 effective in deterring the kids from there

14 basically all the cars looked alike and, of

course, 15 the kids were cruising, so, you know, it's

always 16 nice to have your hot rod car look better than

the 17 next guy's. Well, all the cars looked alike

18 essentially because of the color. Women's red

like, 19 lipstick turned black. Women basically looked

20 you know, vampires, Night of the Living Dead

kind of 21 stuff, so no woman wants to be under low

pressure 22 sodium lighting. And in those particular

23 circumstances they tend to move off and go into

24 areas which are more appealing lighting and

would go 25 there or dissipate. But in that limited sense

it's

1           very effective for that.

2       CHAIR MOLINA:   Okay.

3       MR. MABERRY:   Separate question, sir.   You've had a  
little

4           more opportunity since the first time we met to  
look

5           at this -- at this proposed ordinance, if --  
Just

6           out of curiosity, if it wasn't for the low  
pressure

7           sodium issue, are there any other major law  
8           enforcement issues that you see with this  
particular

9           proposed ordinance?

10       MR. FONTAINE:   In its entirety, we also have concerns  
11           about the limitations on the security lighting  
as it

12           intends to utilize sensor technologies to turn  
on

13           security lighting as needed and it seemed to be  
14           somewhat restrictive in that sense.   And adding  
15           sensors to security lighting system as we view  
it as

16           another point of failure in a security lighting  
17           system.   So although I think that the bill would  
be

18           appropriate in encouraging people to utilize  
sensor

19 technologies, understanding that motion sensors  
20 typically have to be maintained and cleaned.  
21 There's also problems with misalignment on  
motion  
22 sensor type of technology lighting, and  
sensitivity  
23 issues where the light just doesn't come on  
because  
24 it's not properly tuned or it's too sensitive  
and  
25 comes on every time a bird flies by or a cat  
walks

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1 by on a driveway or whatever.  
2 And, finally, with the bill which has  
been a  
3 concern which I don't know if it has been  
4 addressed -- I've been assigned to Molokai so I  
5 didn't come to your other meeting and they have  
6 asked me to come back on this one to speak --  
was  
7 the issue of how the penalties for the -- and  
the  
8 violations on these ordinances would be  
enforced.  
9 So who is going to police this? Is the Police  
10 Department going to be doing that? Are we going  
to

go 11 set up a separate light police that's going to  
12 around and issue citations? And how is that  
13 enforcement issue going to be addressed  
specifically 14 as to who is going to enforce this bill?  
15 CHAIR MOLINA: Okay. Mr. Maberry, I know you have a  
16 couple more questions. Can I --  
17 MR. MABERRY: No, sir.  
18 CHAIR MOLINA: Oh, that is it?  
19 MR. MABERRY: Thank you.  
20 CHAIR MOLINA: Okay. Let me ask Vice-Chair Tavares if  
she 21 has any comments at this point.  
22 VICE-CHAIR TAVARES: Yeah. I heard on the radio this  
23 morning what the police concerns were and one of  
the 24 things you didn't mention was the turning off of  
25 lights after business hours. It somehow got

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1 filtered in there as a concern that the Police  
2 Department had. Have you had a chance to think  
3 about that, that one, or was that an original  
4 concern of yours? Turning off lights -- I think  
it



were 5           was interior lights, wasn't it, when businesses  
6           closed.  
ours. 7   MR. FONTAINE: Well, that is obviously a concern of  
8           I didn't make that specific suggestion and I'm  
not 9           sure of whether or not perhaps maybe the chief  
had 10          added that one in as a concern.  
11   VICE-CHAIR TAVARES: Okay.  
this 12   MR. FONTAINE: I came in from Molokai and I grabbed  
13          file from him and didn't really have a chance to  
14          discuss that with him specifically this morning.  
15          But obviously interior lighting and lighting of  
16          establishments inside is also a concern. You  
know, 17          lighting is a very good way for us to be able to  
18          identify when people are not supposed to be in  
19          stores or if we have an ongoing burglary in  
progress 20          and this type of thing or we have congregating  
21          occurring behind buildings, you know. I even  
speak 22          of the situation being new to Molokai, for  
example, 23          one of the parks up there in Maunaloa has an  
ongoing 24          issue with juveniles that are congregating in  
that 25          park up there. And, you know, the decision of,

kids                   1               well, we should just turn off the lights so the  
makes                   2               don't go and hang out there, you know, that  
                          3               sense. No, that's not the right answer. The  
want                   4               lighting -- Darkness is a friend to people who  
and                    5               to do naughty things in the dark like drinking  
So,                    6               smoking dope and doing all kinds of bad stuff.  
things                 7               you know, we like to have lighting and have  
for                    8               lit up because it's good for our officers, it's  
                          9               their safety as well as the general public.

10       VICE-CHAIR TAVARES: Thank you.

11       CHAIR MOLINA: Okay. Thank you, Vice-Chair Tavares.

the                   12              Before proceeding with any more questions from  
                         13              police, the Chair again would like to remind the  
particular           14              Subcommittee to keep our focus on this  
                         15              section, .070. The discussion has been  
would                16              enlightening, no pun intended, but however I  
                         17              like to --

18       VICE-CHAIR TAVARES: Not.

continue           19       CHAIR MOLINA: -- keep our focus here. We can

We 20 with our discussion, you know, with the police.  
area 21 are -- seem to be straying out into a different  
our 22 at this point. So, again, I would like to keep  
may 23 questions focused just to Section .070, which  
within 24 relate to the mercury vapor lamps or roadways  
25 the rural or agricultural areas and so forth.

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at 1 Again, if there is any questions or no questions  
.080. 2 this point, I would like to maybe move on to  
3 Mr. Chong.  
me 4 MR. CHONG: And I'm sure Hannah will correct us. Let  
by 5 get this straight. The turtles are not affected  
6 low pressure sodium?  
7 CHAIR MOLINA: Has anybody --  
low 8 MR. CHONG: I mean, if I took -- if I took a slew of  
9 pressure sodium lamps and lit this beach up so I  
10 could have a barbecue and a concert, the turtles  
11 would still come and mate?

respond 12 CHAIR MOLINA: Is there anybody who would like to  
13 to Mr. Chong's inquiry?  
14 MR. MABERRY: I would like to -- simply just to state  
saying 15 that's not exactly what I meant. What I was  
16 is that obviously if you -- with too much light  
it 17 is too much light.  
18 MR. CHONG: Well, yeah.  
19 MR. SUTROV: But I was saying that type -- from what I  
20 understand, that type -- and, again, I hope  
somebody 21 over the next couple of meetings comes and  
22 straightens this out, I'm sure she will, it was  
my 23 understanding that that was an acceptable light  
24 source as compared to the others because of the  
--  
25 the stars are, of course, the full spectrum of  
light

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out 1 and what the hatchlings look for is the stars  
And 2 over the ocean and they go out into the water.

the 3 the foam, I think there's something to do with

4 reflection on the foam. And if I remember this

the 5 correctly, maybe someone else knows better, but

is 6 LPS was better from that standpoint because it

7 not the full spectrum of light.

keep 8 MR. CHONG: But I think ideally she would prefer to

9 the beach dark?

her 10 MR. SUTROV: Totally dark. I'm sure that would make

11 happy, yeah. Make the turtles happy.

12 MR. CHONG: We have to be careful here.

13 CHAIR MOLINA: Thank you, Mr. Chong.

14 Mr. McCord, any questions on .070?

Hoonan, 15 MR. MCCORD: Right. I was just wondering if Rob

the 16 couldn't you do your security situation without

this 17 high sodium and use the low sodium thing for

18 deterrent that you're talking about?

19 MR. HOONAN: Yes, we could. I think that that's an

20 option.

up to 21 CHAIR MOLINA: Excuse me, Mr. Hoonan, could you come

question. 22 the lectern and respond to Mr. McCord's

embrace 23 MR. HOONAN: The answer is yes. We're happy to

24 any technologies and have as a -- as they have

would. 25 emerged. And we would work that way, yes, we

1 CHAIR MOLINA: Okay. Thank you, Mr. McCord.

2 At this point, members, before I  
recognize

3 Dr. Altenberg, I would like to take down your

4 recommendations for any changes to this  
particular

5 section to help our staff with compiling this

6 information. So with that, Dr. Altenberg.

7 MR. ALTENBERG: Clearly lack of color rendition you  
can

8 imagine a lot of scenarios in law enforcement  
where

9 you're trying to identify things by color where  
you

10 could imagine it would be a problem. But the

11 question of, you know, in actual practice, in  
the

12 whole scope of law enforcement activities, what

13 fraction would that -- of those activities would  
be

14 impinged by the lack of color rendition? So  
I've

15 been trying to find out what the experience of

16 police departments that have been operating  
under

17 environments where low pressure sodium has been.

ten 18 And so two communities that have had it for over  
19 years are Tucson, Arizona and San Diego,  
California.  
20 So I -- in this past week I contacted Sergeant  
Mark  
21 Delasoti of the San Diego Police Department  
22 Community Relations Department and -- to try to  
find  
23 out if there were any reports that the Police  
24 Department had issued in the current -- because  
the  
25 City Council is currently considering a proposal  
by

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1 the Mayor to revert back to metal halide acorn  
2 lighting for the city. And what Sergeant  
Delasoti  
3 sent me, the most recent report that has been  
issued  
4 by the Police Department was from the original  
5 assessment of the low pressure sodium question  
back  
6 in 1982 in which the effect of low pressure  
sodium  
7 street lighting on law enforcement was  
summarized as  
8 follows: "With regard to the effects of low

consensus 9 pressure sodium on law enforcement, the  
either 10 was that there is no conclusive evidence that  
negative 11 high or low pressure sodium lighting has a  
pressure 12 impact on law enforcement. Most indicated that  
13 colors were more difficult to see with low  
14 sodium, but that did not pose a major problem,  
you 15 especially after a period of adjustment." So,  
didn't 16 know, I -- I regret that their -- that they  
seems 17 provide a more recent report on that, but this  
18 to be what the police are making available in  
is 19 regards to this issue. So I am wondering if it  
20 conceivable to Lieutenant Fontaine that some of  
hypothetical 21 these, you know, imagined difficulties,  
not 22 problems of law enforcement might in practice  
23 have a major effect based on what other police  
24 departments are reporting.  
25 CHAIR MOLINA: Captain Fontaine.

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the 1 MR. FONTAINE: I haven't had an opportunity to look at  
2 study or report that you have, nor had an  
3 opportunity to speak with the same individual.  
You 4 know, we police in a different kind of  
geographical 5 type of scenario. Our cities are made up  
6 differently than in that, so, you know, we're  
not 7 comparing apples to apples. I am not sure on  
their 8 lighting standards whether or not they allow  
more 9 commercial lighting, perhaps, in theirs. I saw  
some 10 pictures in one of your presentations showing,  
you 11 know, commercial lighting that was offset or  
12 spilling over into the low pressure sodium that  
was 13 providing, I guess, a limited amount of  
rendition 14 from that spillover type of scenario. So I  
really 15 can't say for certain whether or not that would  
be, 16 but I pose this question: We go to this great  
17 expense and we do this and it is a problem. And  
we 18 already know that the color rendition is a  
problem 19 with this type of lighting, you know. And one  
of 20 our officers gets hurts or it becomes an issue  
with

knowing 21 the public because we have gone into this  
22 full well that the color rendition is a problem.  
23 Are we going to accept that liability? And are  
we 24 really doing a service to the community by doing  
so? 25 I mean, you know, we put our hand in the fire,  
maybe

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that 1 we get burned, maybe we don't. We already know  
I 2 the fire is hot. You know, do we do that? And  
3 think that's a question that the community and  
us, 4 this -- and everyone else here will decide, not  
5 certainly not me. But I bring this to your  
6 attention so that you're well aware of that fact  
it 7 that it may be. And I can't say for certain if  
8 is going to be a major impact or not. Maybe it  
9 won't and we'll be lucky, but we do know that  
this 10 is an issue.  
11 CHAIR MOLINA: Okay. Thank you, Captain Fontaine.  
12 Members, at this time the Chair would  
like to

13 call for a short break. In the meantime, please  
14 write down or if you can respond when we come  
back  
15 from the break your suggested recommendations  
for  
16 Section .070. We shall reconvene at 10:20.  
17 (Gavel.)  
18 RECESS: 10:11 a.m.  
19 RECONVENE: 10:23 a.m.  
20 CHAIR MOLINA: (Gavel.) Public Works and  
Transportation  
21 Subcommittee on Outdoor Lighting is now back in  
22 session. Thank you, members, for your  
indulgence  
23 today, and resource personnel.  
24 The Chair would like to recognize Mr.  
Randy  
25 Piltz, who will be representing the commercial

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1 lighting industry as a resource person. And I  
don't  
2 know if we have -- I guess we have a seat  
available.  
3 Mr. Piltz, we are asking all the resource people  
to  
4 come up to the front to make you more accessible  
to  
5 our Subcommittee members.

to 6 Members, we left off on Section .070 and  
-- 7 get your recommendations for any changes to the  
we 8 this section of the bill. Before that -- before  
9 broke there was a comment or concern from Mr.  
10 George, so I shall yield the microphone to Mr.  
11 George.  
12 MR. GEORGE: Yes, in the paragraph one --  
13 CHAIR MOLINA: Mr. George, could you turn the -- Okay.  
14 MR. GEORGE: Paragraph one, I was -- my recommendation  
15 would be to maintain a light safety and security  
as 16 an E, adding E in there, light safety and  
security. 17 This would solve a lot of concerns about people,  
for 18 example, outside the hospital, able to put in  
color 19 rendition and life safety and security to the  
20 ambulance, et cetera, et cetera.  
is: 21 And the other question that I would have  
you 22 In reading outdoor sales and eating areas, if  
grounds 23 were to talk about a resort area, the whole  
24 is almost an eating area at times. Would this  
25 exempt the hotel grounds under that -- As an

---

right 1 example, Outrigger Hotel has a luau function  
it's 2 on the ocean right there on their property, and  
third 3 a fairly large area, probably about two and a  
exactly 4 acres. Maybe Steve would be able to tell  
up, 5 how big it is. But that's a question that comes  
could 6 is that included in there? And if not, you  
information, 7 recommend something for that type of reasoning.  
8 CHAIR MOLINA: Okay. Staff, did you get the  
to 9 all the information from Mr. George with regards  
10 his recommendations?  
over 11 Okay. Mr. George, again, could you go  
said 12 again just in brief synopsis of what you just  
13 so our staff can record that.  
14 MR. GEORGE: Adding E to that paragraph, having a life  
15 safety and security concerns section. And also  
the 16 question to the Committee would be does outdoor  
17 sales and eating areas include resort areas,  
hotels, 18 restaurants, et cetera.  
19 CHAIR MOLINA: Okay. Thank you.

good 20 Before the Chair proceeds, there is a  
want or 21 suggestion made by our Vice-Chair, should we  
the 22 choose to, we would like to ask the people with  
to 23 so-called technical expertise if they would like  
that 24 meet prior to our next session to come up with  
25 additional changes or recommendations. I think

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1 would be helpful to this Committee in expediting  
2 matters as far as other recommended changes  
because 3 many of us who are nontechnical are like, you  
know, 4 just somewhat in another world, you know. I  
mean, 5 you folks know the nuts and bolts of the lights  
and 6 itself. So if maybe say Mr. Chong, Mr. George,  
7 maybe Mr. Piltz and whoever else --  
8 ?: Dr. Altenberg.  
9 CHAIR MOLINA: -- who are technically inclined would  
like 10 to meet prior to the next meeting and maybe give  
11 your recommendations to Captain Fontaine or his

believe 12 local group before the next meeting, that I  
13 may be helpful. So this is something for you to  
these 14 take into consideration after we go on with  
15 proceedings here.  
16 And we had a question. I believe, Mr.  
17 McCord, you had your hand up?  
18 MR. MCCORD: No.  
19 CHAIR MOLINA: Or was it Dr. Altenberg?  
20 VICE-CHAIR TAVARES: No, Mr. Chair, I was trying to  
21 include the doctor and --  
the 22 CHAIR MOLINA: Oh, yes. Of course. And a member of  
23 Ad Hoc Committee, Dr. Altenberg, yes.  
work 24 VICE-CHAIR TAVARES: As part of that group that would  
25 separately to really refine this part -- this

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the 1 section. Kind of bearing in mind what some of  
of 2 concerns were that were raised. Instead of all  
3 us trying to put our input, you know, let the  
stuff 4 technical people kind of work on some of this  
5 and then present it to Captain Fontaine for his

their 6 comments and then to the Committee members for  
meeting 7 comments, also, you know, prior to the next  
talk 8 so that we could really act on it. And then  
9 with our attorney, too, Corp. Counsel about the  
would 10 write-up of it for presentation. I think that  
11 help speed the Subcommittee's work along.  
12 CHAIR MOLINA: Okay. Thank you, Vice-Chair Tavares.  
from 13 We had a request from Mr. Howard Hanzawa  
Hanzawa. 14 Land Use for comments on Section .070. Mr.  
15 MR. HANZAWA: Thank you, Mr. Chairman. As a  
16 representative of the Department of Public Works  
--  
you 17 CHAIR MOLINA: You have the mike cover there. There  
18 go. We're low on resources here so we're  
19 conserving.  
20 MR. HANZAWA: Thank you, Captain Fontaine.  
21 Yeah. As a representative of the  
Department  
22 of Public Works, I would like to ask the  
Committee  
23 how the maximum wattages for the intersections  
were  
24 derived. And I would be concerned that these  
25 maximum wattages may not allow enough lighting  
of



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and 1 intersections. I'm referring to sections .07 C  
2 D. So I would like to pose that question to the  
3 Committee.  
4 CHAIR MOLINA: Okay. Thank you, Mr. Hanzawa.  
5 Dr. Altenberg, your response.  
those 6 MR. ALTENBERG: Yeah, I was the one who came up with  
7 numbers and that was based on the efficiency  
8 improvements of the two features. One going  
from 9 high pressure sodium to low pressure sodium,  
which 10 is -- uses 70 -- only 70 percent of the wattage,  
as 11 a conservative estimate, to provide the same  
amount 12 of lumens coming out of the bulb. And then  
going 13 from the current unshielded luminaires to fully  
14 shielded luminaires, which also provide a --  
require 15 only 70 percent of the -- of the wattage because  
16 you're not sending light up into the sky. Those  
are 17 the efficiency values from the International  
Dark 18 Sky Association which they obtained from  
engineers. 19 So that's the source of these numbers. So these

20 wattages are to provide the same amount of  
21 illumination as is currently provided once these  
22 efficiency improvements are made. So the intent  
is  
23 not to diminish the light on the ground from  
what is  
24 currently being used for street lights, but with  
the  
25 efficiency improvements, these wattage  
limitations

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1 will basically preserve the same amount of light  
on  
2 the ground.  
3 CHAIR MOLINA: Okay. Mr. Hanzawa.  
4 MR. HANZAWA: Yes. Not having any experience in  
5 illuminating engineering, what are the  
corresponding  
6 values as far as wattages between, you know,  
what's  
7 used now and LPS? I do know like a 60-watt bulb  
is  
8 just sufficient for me to read by, but if it  
calls  
9 for 50-watt LPS at an intersection, would that  
be  
10 really sufficient enough to light up that  
11 intersection? Maybe this should be posed to Mr.

12 Chong.

13 CHAIR MOLINA: Okay. You must have read my mind, Mr.

14 Hanzawa. Okay. Mr. Chong.

15 MR. CHONG: Let's take a step back. When you design

16 lighting for highways and streets and

intersections,

17 there are specific guidelines for that, Highway

18 standards, County standards, of min to max, min

19 average foot candle readings, et cetera, et

cetera.

20 And that should always be your target, no matter

21 what the light source you're going to use,

whether

22 it's low pressure sodium, high pressure sodium,

23 mercury vapor. And using -- if you're going to

say

24 low pressure sodium this wattage is equal to

that

25 wattage high pressure sodium, an exercise should

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1 have been done to see if those target values can

be

2 met with equipment that is readily available

from

3 the manufacturers. I made a statement earlier

that

at 4 low pressure sodium as the bare lamp is looked  
there's 5 raw lumens coming out of the lamp, you know,  
out 6 total amount of light for the nontechies coming  
7 of the light bulb is the most efficacious light  
8 source compared to all the other standard light  
you 9 sources. But once you take that bare lamp and  
go 10 put it in a luminaire housing, the efficiencies  
11 out the door. So if you're going to compare and  
efficiencies, 12 just use raw lamp lumen percentages as  
13 that's rather incorrect. And an exercise in  
14 calculation should be done to take the luminaire  
the 15 performance included, everything included, and  
sodium 16 luminaire, and do a comparison high pressure  
low 17 which you use in an intersection compared to a  
and 18 pressure sodium luminaire that would replace it  
as 19 see if you can meet the target values for safety  
exercise 20 required by Highway standards. That's the  
21 that should be done to avoid any, again, legal  
22 ramifications, some lawyer coming out -- I mean,  
23 whenever there's a car accident, we get the call  
need 24 from the lawyer that says, hey, can you -- we  
some 25 an expert witness. Can you come out and take

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light           1           light readings for us? And they're looking at  
the           2           levels and max and mins and things like that in  
to           3           area. So you need to make sure that -- we need  
             4           make sure as a Committee and the County needs to  
just do       5           make sure that whatever -- if we're going to  
             6           a cookbook thing here, we better be sure that it  
by           7           will provide the light levels that are required  
             8           Highway standards and County standards.

9       CHAIR MOLINA: Okay. Thank you, Mr. Chong and Mr.  
10           Hanzawa.

11                   Members, first of all, any recommended  
Hanzawa,   12           changes to Mr. Hanzawa's concerns or, Mr.  
at           13           do you have any recommendations for this section  
             14           this time?

15       MR. HANZAWA: Mr. Chairman, I -- we have a  
representative

16           from our Engineering Division here, Cary  
Yamashita,

17           and maybe Cary would like to come up and maybe

18           have -- if you have any comments on this matter.  
19   CHAIR MOLINA: Okay. At this time, as we await Mr.  
20           Yamashita to come up, I saw Mr. Piltz's hand go  
up.  
21           I believe you wanted to comment on the  
discussion  
22           between Mr. Chong and Mr. Hanzawa. Proceed, Mr.  
23           Piltz.  
24   MR. PILTZ: I just concur with Mr. Chong's comment  
that  
25           every -- Okay. Can you hear me now? Okay. All  
I'm

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1           saying is that I concur with him and that every  
2           light fixture manufacturer produces -- there's a  
3           photometric that's come out with each fixture.  
And  
4           this photometric is how the light source reaches  
the  
5           ground level. And I think we have to be sure  
that  
6           the light levels that are obtained and within  
the  
7           IAS standards. So I think we should also make  
sure  
8           that when we go from one fixture to another,  
that  
9           the photometrics concur and the light levels are

10                   obtained.

11           CHAIR MOLINA: Thank you, Mr. Piltz. Before I go to  
Kahu

12                   Maxwell, Mr. Yamashita, your comments.

13           MR. YAMASHITA: Yes. We also do agree that some  
studies

14                   should be done to -- to actually determine what  
kind

15                   of illumination we do get at the ground level.

16                   Yeah, we may be pressed with some litigation if  
we

17                   do have accidents in the evenings hours and we  
do

18                   fully agree with that, also.

19           CHAIR MOLINA: Thank you, Mr. Yamashita.

20                   Kahu Maxwell, proceed. To be followed by  
Dr.

21                   Altenberg.

22           MR. MAXWELL: Yeah. I wanted to add in that from a

23                   nontechnical standpoint and the amendment for  
the

24                   areas color rendition is needed to preserve the

25                   effectiveness of the activity, I think we're all

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1                   here and why this Committee and why this  
ordinance

2                   was -- was formulated was to control light that  
is

- 3 not used for the activity. It is like the old -  
they 4 like the hotels having activities by the ocean,  
5 illuminate the whole entire beach front and that  
6 goes out to the sea and that affects the animals  
7 within. Well, Mr. Maberry, Member Mike Maberry  
8 showed me during the break a stadium that was  
9 concentrated, the light was concentrated in the  
proper. 10 stadium proper and it did not go out of the  
11 And I think if we can find ways -- We're worried  
12 about different types of lights. If we can find  
emitting 13 ways to shade the lights, the lights, the  
14 the lights, I think then we would solve the  
problem 15 of illuminating everything except the activity  
that 16 it was meant for.  
17 CHAIR MOLINA: Thank you, Kahu Maxwell.  
18 Dr. Altenberg.  
19 MR. ALTENBERG: To follow up on -- I'm sorry, I forget  
20 your name.  
21 CHAIR MOLINA: Cary Yamashita.  
22 MR. ALTENBERG: Cary?  
23 MR. YAMASHITA: Yes.  
24 MR. ALTENBERG: His comment. Well, the question is:  
Do 25 we have to create -- do this experiment  
ourselves?



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the                   1           I would imagine that it's already been done for  
sodium               2           vendors that are selling these low pressure  
be                    3           street lights that surely we must -- there must  
produced,           4           documentation out there as to the wattages  
ground,             5           what levels of foot candles or lumens on the  
to                   6           et cetera. And I suggest that we should attempt  
the                   7           get ahold of that documentation.  
                     8   CHAIR MOLINA: Mr. Yamashita, can you provide that for  
                     9           Committee?  
to                   10          MR. YAMASHITA: Yes. We'll do some research and try  
                     11          get that information.  
                     12          CHAIR MOLINA: Okay. Thank you.  
                     13                   Vice-Chair Tavares, to be followed by Mr.  
                     14          McCord.  
to                   15          VICE-CHAIR TAVARES: Yeah. I think only when it comes  
two,                 16          this road -- the roadways and the -- yeah, the  
looking             17          sections C and D, that perhaps we should be

rather 18 at the foot candles requirements on the areas  
that 19 than looking at the wattage of the bulbs. So  
required, 20 if you specify the foot candles that is  
that 21 minimum or max, then whoever the engineers are  
22 are designing it can design it properly with the  
done 23 equivalent. And I'm sure these tests have been  
lighting? 24 already. You know, what do I know about  
sports 25 The most I know about lighting has to do with

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1 lighting. As Parks Director I was charged with  
2 improving lighting at the football stadium, the  
3 baseball stadium, the gymnasium and the swimming  
that 4 pools. And I did manage to contact some folks  
sports 5 I had met at a conference to come in who were  
the 6 lighting specialists. And I think that might be  
7 one that designed the -- the field that you were  
8 talking about where there's such a high concern  
now 9 about light -- spill lighting, you know, in

like 10 neighborhoods where there are fields and things  
11 that and things that that lady was talking about  
12 earlier. There are foot candle requirements by  
the 13 different types of play. Recreation has one  
level, 14 high school has another level, college has  
another 15 level, pros have another level. Our gymnasium,  
for 16 example, was lit all the way to pro, but it's  
not 17 when you turn the lights on that happens. We  
have 18 different lighting levels in that gym so that  
you 19 can light it appropriately for whatever the use.  
also 20 But it always was focussed on foot candles and  
efficiency 21 realizing that lights will diminish in  
it 22 over time so that you have got to be able to hit  
23 so that at its least efficient mode, it's still  
24 meeting the minimum requirement for the foot  
the 25 candles. So, you know, maybe we should look at

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the 1 foot candles being the requirement rather than  
2 wattage or the size of something, volts or  
3 luminaires.  
4 CHAIR MOLINA: Okay. Thank you, Vice-Chair Tavares.  
5 Mr. McCord.  
6 MR. MCCORD: In the spirit of this withhold ordinance  
I 7 really would like to see a graduation standard  
8 placed into and as we leave .07, let's talk  
about 9 .130 for a second and put something in there on  
the 10 graduation standards. Mike has made a comment -  
- I 11 said something about let's not worry about the  
12 little 50-watters, that they weren't as  
important. 13 He says, well, yeah, they'll put in one 50-  
watter 14 and if that doesn't do it, they'll put in 2 up  
to 15 50. So we need to have some graduation scale as  
to 16 the wattage that these things create so that we  
can 17 put a graduation scale that meets the spirit of  
the 18 law without infringing on the rights of the  
small 19 businesses or even the big businesses. So I  
would 20 like to see .130 expanded. That's a heads up  
for 21 later on.

22 CHAIR MOLINA: So noted, Mr. McCord. Thank you.  
23 Mr. Chong.  
24 MR. CHONG: Councilmember Tavares, you know quite a  
bit  
25 about lighting, so don't downgrade your  
experiences.

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Dr. 1 Going -- and expounding on what he just said,  
the 2 Altenberg and I discussed a little bit out in  
addressed 3 hallway that some of our concerns can be  
areas 4 with expanding exceptions or in the specific  
going to 5 where we don't worry about, like you said, the  
6 50-watters or there's a -- so I think we're  
lumens 7 be moving towards that in the later sections,  
8 allowing a light per tree or "x" amount of  
the 9 per acre or something like that to give -- give  
wattage 10 community a little more leeway using small  
11 lamp sources. So that's just -- it's something  
12 already in the back of our mind.  
up, 13 CHAIR MOLINA: I think it's a good concern to bring

start 14 especially when the holidays approach and we  
15 to see a lot more lights all over the place.  
16 Okay. Any other suggestions or  
17 recommendations for Section .070 at this time?  
to 18 Okay. Hearing none, again, I would like  
19 ask that Mr. Chong and any of our other  
technical 20 experts, if they can get together prior to the  
next 21 meeting to come up with additional  
recommendations 22 or changes, I think this will be helpful to the  
23 Committee's goal of expediting matters and again  
24 getting involved a member of the Ad Hoc  
Committee 25 and also Captain Fontaine or a police

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1 representative. So with that --  
2 VICE-CHAIR TAVARES: Mr. Chair.  
Tavares. 3 CHAIR MOLINA: Yes sir. I'm sorry, Madam. Ms.  
4 VICE-CHAIR TAVARES: Perhaps you could -- if any of us  
5 think of something later on, after the meeting,  
we 6 could send that concern or that comment to Mr.

I 7 Saldana and then he could get it to -- you know,  
Committee, 8 would be willing to meet with this other  
9 kind of coordinate that as a subcommittee of the  
10 Subcommittee.  
11 CHAIR MOLINA: The Chair would be most grateful if you  
12 would. Thank you.  
13 VICE-CHAIR TAVARES: A subcommittee of the  
Subcommittee  
14 and see if we can work these sections out in  
light  
15 of what has been discussed. And then if Mr.  
Saldana  
16 can get that information to me, and then when we  
17 meet, we can hash it out, you know, amongst  
18 ourselves and come up with something that we  
could  
19 present to the Committee.  
20 CHAIR MOLINA: Okay. The Chair is very receptive to  
that.  
21 Okay. Thank you.  
22 Okay. Let's move on to our next section,  
23 .08 -- I'm sorry. Mr. Hanzawa.  
24 MR. HANZAWA: One last comment -- one other comment  
before  
25 we leave .070. I'm sorry. I would like to ask

State 1 whether this proposed ordinance would apply to  
2 roadways, also, or State highways?  
comment 3 CHAIR MOLINA: Dr. Altenberg, if you would like to  
4 on that.  
all 5 MR. ALTENBERG: It was the hope that it would apply to  
6 lights within the boundaries of Maui County from  
with -- 7 whatever jurisdiction. So I am not familiar  
in 8 I don't know if these are constitutional issues  
the 9 terms of the powers of County regulations and  
10 State, so I defer.  
11 CHAIR MOLINA: Okay. Mr. Garneau, would you like to  
12 comment?  
does 13 MR. GARNEAU: I would like to. Yeah, it certainly  
14 raise constitutional issues and so -- Sorry --  
that 15 might be one thing that perhaps the Committee  
Chair 16 can transmit to me to look up as well because  
I'm 17 certain it impacts -- you know, any time that a  
18 County passes any ordinance that affects State's  
do 19 rights, you have to have explicit authority to  
whether 20 that. So I would have to look at and see  
that 21 the State has promulgated any rules or statutes



probably 22 cover this already. And if they have, it  
23 preempts our local ordinance.  
that, 24 CHAIR MOLINA: The Chair will definitely look into  
25 Mr. Garneau. Thank you.

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1 Mr. Maberry.  
2 MR. MABERRY: Just to follow up on that, I'm kind of  
and 3 curious, we have a street lighting standard now  
4 it seems like I have seen on State highways that  
the 5 they are doing the Band-Aid approach of some of  
is 6 shielding. Is that something that Maui County  
the -- 7 paying for on the State luminaires, or what's  
level. 8 This must have been addressed already at some  
9 Can anyone respond?  
Maberry's 10 CHAIR MOLINA: Anybody care to comment on Mr.  
11 question? Mr. Yamashita.  
12 MR. YAMASHITA: Yes. We do have a Street Lighting  
13 Committee that reviews requests by the public to

And 14 either shield -- install shields or add lights.  
meet 15 we've been doing that within the Committee. We  
review 16 once a month. And we do go out as a group to  
17 requests made by the public.  
18 CHAIR MOLINA: Proceed, Mr. Maberry.  
okay, I 19 MR. MABERRY: To follow up, I guess my concern is,  
20 recognize that you're doing that, are you taking  
21 action on street lights on State highways that  
was 22 installed supposedly by funds that were provided  
23 through the State?  
24 MR. YAMASHITA: No. No. Just within the County  
25 jurisdiction.

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Dr. 1 CHAIR MOLINA: Okay. I see a hand first coming from  
there's no 2 Altenberg. And, Subcommittee members, if  
3 objections, we have Mr. Sutrov from the Ad Hoc  
after 4 Committee who would like to lend his expertise  
that? 5 Dr. Altenberg. Are there any objections to  
6 Okay. Dr. Altenberg, followed by Mr. Sutrov.

question, 7 MR. ALTENBERG: Just to make more precise the  
on 8 who paid for the little aluminum skirts that are  
Kekaulike 9 the highway -- Kula Highway near the King  
those 10 School? That is, I guess, State highway and  
11 lights there are mandated by the State Highway  
12 Department. Somebody put those skirts on there.  
on? 13 What -- who put them on and why were they put  
14 Does anybody know?  
15 CHAIR MOLINA: Mr. Yamashita or Mr. Hanzawa.  
16 MR. HANZAWA: No.  
17 CHAIR MOLINA: Anybody? Kahu Maxwell?  
the 18 MR. MAXWELL: That was put in by Everett Dowling at  
19 request of the Kula 200 people.  
the 20 MR. ALTENBERG: So Everett Dowling was able to change  
21 State street lamps -- I mean, the highway street  
22 lamps?  
that 23 MR. MAXWELL: Well, I think -- I know I was privy to  
asked 24 meeting when the Kula Community Association  
25 for -- or it was a meeting that we met, I think,

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tone 1 with the Kula 200 people and they asked him to  
2 it down. It was really bright over there.  
3 CHAIR MOLINA: Gentlemen, I would like to give Mr. Ige  
a 4 chance to respond as a representative of the  
Dowling 5 Company.  
6 MR. IGE: Let me just clarify the situation. Those  
street 7 lights were required by State Highways. When we  
did 8 get some complaints from some community members,  
we 9 called State Highways and they, in turn, called  
Maui 10 Electric to put in those shields.  
11 MR. ALTENBERG: Thank you.  
12 CHAIR MOLINA: So Maui Electric. So Mr. Nakama would  
like 13 to comment on that or confirm that for the  
record? 14 MR. NAKAMA: Okay. What Mr. Ige said was true.  
15 CHAIR MOLINA: Okay. All right.  
16 MR. IGE: Thank you.  
17 CHAIR MOLINA: Just want to make sure all our bases  
are 18 covered, everything has been shielded.  
19 All righty. Mr. Hanzawa, have your  
concerns 20 been answered to this point?  
21 MR. HANZAWA: Yeah. Well, after we get Mr. Garneau's

does 22 decision on this after his research, and if it  
suggest 23 cover State Highways, then I would like to  
24 that the Committee invite State Highways to this  
25 meeting.

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1 CHAIR MOLINA: Okay. Good suggestion.  
2 And, Mr. Sutrov, if you could come up to  
the 3 podium, please.  
4 MR. SUTROV: Yeah. My name is Steve Sutrov. In the  
5 research I was doing in relation to the State of  
6 what their responsibility would be is that their  
--  
7 when they get an order like, let's say, from  
Dowling 8 Company, a request for street lights for their  
area,  
9 the State puts -- tells them what is required by  
10 Federal and State standards as far as what kind  
of  
11 lighting is needed, but that just pertains to  
the  
12 type of lighting, like Mr. Chong was saying,  
that  
13 hits the ground. The type of fixtures that are

as 14 being used can be mandated by the County as far  
height. 15 luminaires -- poles, luminaires, and lamp  
State 16 All the requirements pertaining to as far as  
17 and Federal standards, I understand, is how much  
18 light has to be in a certain area of the certain  
19 stretch of roadway.  
the 20 And also in regards to the lighting up at  
in by 21 Dowling project, I think that was actually put  
22 Mr. Dowling, required by State, and paid for by  
23 Kamehameha School, so -- and shields were put on  
by  
24 Maui Electric by concerns of the citizens that  
were  
25 being impacted by the lighting.

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for 1 CHAIR MOLINA: Okay. Thank you very much, Mr. Sutrov,  
2 your insight on that matter.  
3 Members, any other final questions  
regarding 4 Section .70. Okay. And, again, for the record,  
5 Vice-Chair Tavares will organize a meeting  
between

6 all the techies to give us additional  
7 recommendations for this section, and the Chair  
most  
8 definitely appreciates your efforts in that  
area.  
9 Okay. Moving on to Section .080. Okay.  
10 Starting with Section A, Nos. 1, 2 and 3, Mr.  
11 Garneau, do you have any comments?  
12 MR. GARNEAU: No, I don't on this section.  
13 CHAIR MOLINA: Okay. Hearing no comments from Mr.  
14 Garneau, any of the resource personnel have  
comments  
15 thus far? If it's the resource people's  
preference,  
16 would you like a minute or two to review the  
item?  
17 We could take a brief recess to give you a  
chance to  
18 look over this section.  
19 Subcommittee members, I assume you have  
gone  
20 through this section prior to the meeting.  
Okay.  
21 Okay. Mr. Alueta.  
22 MR. ALUETA: All the sections?  
23 CHAIR MOLINA: No, just from sections 1, 2 and 3.  
Yeah.  
24 On -- for letter A. Section A, numbers 1, 2 and  
3.  
25 Okay. We have no comments from the

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1 Corporation Counsel. I see Mr. Piltz's hand up  
2 followed by Mr. George. Proceed, Mr. Piltz.  
3 MR. PILTZ: This Item No. 3, point 3, on the sensor  
4 activated lighting, that's kind of nebulous  
because  
5 when you say sensor, most people think of  
sensors  
6 being motion sensors, but most of the sensors  
used  
7 in the roadway lighting and street lighting are  
8 photocells which are on at dusk and off at dawn.  
So  
9 we should -- if we want to be specific, we need  
to  
10 identify that more specifically.  
11 CHAIR MOLINA: Okay. So you're suggesting we need  
more  
12 specific language with regards to sensor.  
13 MR. PILTZ: Well, that would be, you know, either  
14 photocells for on/off day and evening, evening  
and  
15 morning.  
16 CHAIR MOLINA: Okay. Committee Member Maberry, do you  
17 have a comment or response to Mr. Piltz?  
18 MR. MABERRY: I'm just curious. You understand that  
this  
19 is a comprehensive lighting ordinance, public  
and  
20 private, and I think -- I understand that you're  
21 saying be more specific, but I just wanted to be



22 clear that you did understand that.  
23 MR. PILTZ: That's correct.  
24 MR. MABERRY: Okay.  
25 MR. PILTZ: But when you're talking sensor, you can --  
you

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1 have got to be a little bit more specific than  
that.  
2 MR. MABERRY: Okay. Thank you, Chair.  
3 CHAIR MOLINA: Okay. Dr. Altenberg. And Vice-Chair,  
a  
4 response to Mr. Piltz? Okay. Dr. Altenberg,  
5 proceed.  
6 MR. ALTENBERG: I guess the provision that the light  
only  
7 go on five minutes after being activated by the  
8 sensor would make it clear that it was a motion  
9 sensor that was being envisioned, so -- but I  
10 welcome the suggestion for more specific  
language on  
11 that.  
12 CHAIR MOLINA: Okay. Vice-Chair Tavares.  
13 VICE-CHAIR TAVARES: Yeah. My comment was that the  
sensor  
14 activated lighting should be shielded, also. I

my 15 mean, we have got sensor-activated lighting at  
lights 16 mom's house that activates floodlights that  
17 up the entire driveway out to the road. So, you  
18 know, rather than be talking about how the light  
19 comes on and off, you know, focus the attention  
qualities 20 specifically on the light itself and the  
it's 21 of that light, where it's going more than how  
- 22 turned on and off. I mean, I don't -- I don't -  
behind 23 maybe I don't understand what was behind --  
24 this part.  
like 25 CHAIR MOLINA: Okay. I believe Dr. Altenberg would

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1 to respond to that question.  
any 2 MR. ALTENBERG: The reason that this was exempted from  
sensor 3 shielding requirements was that because the  
of 4 lighting is not on for an appreciable fraction  
5 the nighttime under expect -- you know, expected  
sky 6 conditions, the -- the absolute contribution to

7 glow would be negligible. However, there is the  
8 concern about light trespass, so, I mean, if  
9 somebody's sensor lighting goes on and your next  
10 door neighbor and the light, every time it -- a  
cat  
11 goes by your neighbor's house, suddenly their  
light  
12 is shining in your bedroom window, clearly  
that's --  
13 that is a problem of light trespass, so that --  
14 VICE-CHAIR TAVARES: It's covered somewhere else.  
15 MR. ALTENBERG: Well, the additional language there of  
16 provided it is located in such a manner as to  
17 prevent direct glare and lighting into  
properties of  
18 others or into public right-of-way. So, in  
other  
19 words, you don't have to have an absolute  
shielding  
20 requirement which has to do with the geometry of  
the  
21 fixture beyond the issue of actual light  
trespass  
22 itself. And I don't know if that's -- addresses  
23 your question.  
24 VICE-CHAIR TAVARES: Yeah. If that's not a concern,  
like  
25 you're saying, what's contributing to the glow,  
you

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1 know, I can see that. But just understand that  
2 there are -- there are lights that will go on  
that  
3 will shine directly, you know, up in the sky.  
Some  
4 people don't bother to aim their stuff well or  
they  
5 don't maintain it so that when the bracket  
starts to  
6 wear out, the lights, you know, change position.  
7 And, you know, if we wanted to continue to  
monitor  
8 what's going up in the sky, then maybe even  
9 something as small as this should also come  
under,  
10 you know, some kind of shielding standards.  
That  
11 was just my concern. But if -- you know, here's  
the  
12 experts here, so I would defer to you folks.  
13 CHAIR MOLINA: Okay. So noted, Ms. Tavares.  
14 Okay. We had Mr. George who had a  
comment.  
15 Proceed.  
16 MR. GEORGE: In that same section --  
17 CHAIR MOLINA: Mr. George, could you use the  
microphone.  
18 Thank you.  
19 MR. GEORGE: Yes. Under that same paragraph, No. 3,  
the  
20 last sentence on the first -- on page 5, it  
says, as

recommend 21 to prevent direct glare. I would try and  
22 that we change that terminology to direct  
that 23 illumination and/or glare. The reason being is  
and I 24 I tried to find a definition for direct glare  
25 could not find any. So I would say direct

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1 illumination and/or glare.  
up 2 CHAIR MOLINA: That's a good point. You brought that  
do 3 at our last meeting that was a concern as to how  
4 we define what glare is. Thank you.  
5 Members, any other questions or comments,  
and 6 recommendations for subsection A, numbers 1, 2  
7 3? Okay. Mr. Chong.  
shielded 8 MR. CHONG: Dr. Altenberg, on paragraph A, fully  
lighting? 9 luminaires, does that apply to ball field  
10 MR. ALTENBERG: That was the intent, yes, and I think  
it 11 would as the code is written.  
12 MR. CHONG: Clarify for me, then, if we were to do a  
park

13 job for Maui County, would we be able to use the  
14 same type of luminaire that currently light the  
15 parks that Vice-Chair used in her projects when  
she  
16 was head of the Department of Parks and Rec.?  
In  
17 other words, these are metal halide floodlights  
that  
18 can be aimed and have to be aimed -- understand  
in  
19 sports lighting it's not just horizontal  
20 illumination that's important. Just as  
important is  
21 vertical illumination. You cannot see a moving  
22 ball, especially a hardball like a baseball, if  
you  
23 do not have vertical illumination, and somebody  
will  
24 get hurt. And there are distinct standards from  
the  
25 Sports Lighting Committee, from the Illuminating

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1 Engineering Society on lighting for ball fields  
and  
2 every type of outdoor activity out there,  
including  
3 driving ranges and whatnot. So I'm just wanting  
to

ourselves 4 make sure we're not going to be limiting  
5 here.  
6 CHAIR MOLINA: Okay. Dr. Altenberg.  
7 MR. ALTENBERG: In the -- the --  
8 MR. CHONG: They are fully shielded. They look like -  
-  
9 (inaudible).  
10 MR. ALTENBERG: Application of the luminaire standards  
to  
11 sports fields was done with -- having learned  
about  
12 the -- There's a company called Soft Lighting  
13 Systems that installs sports fields that are  
fully  
14 shielded. So that it is certainly something  
that  
15 can be done and can be -- we could -- we could  
16 contract to do it right now. And typically they  
use  
17 for Little League fields poles that would be 65-  
feet  
18 high to get the vertical illumination that you  
were  
19 asking about. For larger fields, the poles go  
up to  
20 85-feet high. But these are all fully shielded  
and  
21 there's very little light trespass outside of  
the  
22 park itself. Now, that's something that  
23 floodlights, no matter how you aim them other  
than  
24 straight down, they will cause up light. And so  
the  
25 intent is to basically it would not allow

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1 floodlights to be used for field lighting, but  
2 require the most up-to-date technology, which  
can  
3 provide field lighting to be fully shielded.  
4 MR. CHONG: I'm looking at Mike Maberry's pretty  
picture  
5 here and I'm sorry you folks can't see it. I'll  
6 turn it around so you can kind of see it. This  
is  
7 an example of I guess a baseball field that is  
8 illuminated with fully shielded luminaires.  
Having  
9 done a fair share of outdoor lighting  
facilities,  
10 I -- this is possible given the size of the  
park. I  
11 think if you start to get to larger parks, let's  
say  
12 Maui War Memorial Stadium for football, that you  
13 wouldn't be able to get the proper light output  
or  
14 pattern of light out from a fully shielded  
luminaire  
15 to properly light that field. So I would think  
that  
16 there would -- there's going to be a limitation.



League 17 This is a smaller field, more like a Little  
to 18 field, where the poles can be relatively close  
19 all the action. But you start to put stands and  
20 everything else in the way and there's  
limitation 21 when a luminaire is fully shielded. There's  
just so 22 much light you can get out past that horizontal  
23 plain. The optics just -- I mean, unless you  
start 24 hanging the lamp below the luminaire and then  
it's 25 not a fully shielded luminaire anymore. And  
that's

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1 why we take floodlights, like in the other  
picture, 2 traditional floodlights, and they're aimed up at  
an 3 angle to not only cover the vertical  
illumination, 4 but also cover areas across on the other side of  
the 5 field to give you that vertical illumination and  
6 cross lighting so you have depth perception and  
7 things like that.  
8 CHAIR MOLINA: Okay. Thank you, Mr. Chong.

I 9 MR. CHONG: I don't -- you know, this is obvious, but  
10 think there are going to be limitations if we  
11 regulate it completely to fully shielded  
lighting.  
12 CHAIR MOLINA: Okay. Dr. Altenberg.  
13 MR. ALTENBERG: In my conversations with a  
representative  
14 of Soft Lighting Systems they said they -- they  
have  
15 had jobs for what they called a Babe Ruth  
stadium.  
16 Is that a technical term that you're familiar  
with?  
17 MR. CHONG: Babe Ruth is Little League.  
18 MR. ALTENBERG: Babe Ruth is Little League.  
19 MR. CHONG: Basically. It's a level of age that the  
kids  
20 play in.  
21 MR. ALTENBERG: Uh-huh. So I did not ask specifically  
are  
22 there fields that you are unable to -- to  
contract  
23 for because of their size, but I think that's a  
24 question that we should pose to find out if  
there  
25 are limitations about what currently is  
available.

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1 CHAIR MOLINA: Thank you, Dr. Altenberg.

2 Mr. George.

3 MR. GEORGE: When I did talk to people in San Diego,  
the  
4 question that I put before the Subcommittee is  
5 simply was Jack Murphy Stadium -- how I can say,  
an  
6 exemption to the rules that they had there and  
what  
7 kind of illumination do they have there right  
now  
8 presently?

9 CHAIR MOLINA: Okay.

10 MR. ALTENBERG: Excuse me. Was that a question for  
me?

11 MR. GEORGE: Yeah. The San Diego Jack Murphy Stadium  
12 where the San Diego --

13 CHAIR MOLINA: Chargers.

14 MR. GEORGE: -- football teams used to be.

15 CHAIR MOLINA: I think it's called --

16 ?: It's not called the --

17 MR. GEORGE: Yeah, you're right. Anyway, the San  
Diego  
18 professional football field, what kind of  
lighting  
19 do they still have there and were they an  
exception,  
20 were they made an exception for that level of  
play?  
21 MR. ALTENBERG: I have no idea. You would have to  
find  
22 that out.

think 23 CHAIR MOLINA: Could we get information on that? I  
24 that would be helpful.  
25 Mr. Chong.

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lights 1 MR. CHONG: Another comment. The Big Island ordinance  
2 does not restrict the usage of these types of  
3 or unshielded floodlighting for sports lighting.  
4 They limit the amount of time that the lights  
are 5 on. And I guess there -- the observatory's  
there 6 compromise was if the lights are off by 10:00  
p.m. 7 or 11:00 p.m., that's when they're doing -- and  
I 8 am -- you can correct me if I'm wrong, but  
that's 9 when they feel they can do most of their  
10 observations, after that time. And it wouldn't  
11 restrict their work on the top of the mountain  
if 12 the sporting event was allowed to occur no  
matter 13 what type of lighting was used as long as,  
again, 14 the lights are off by a specific set of time.  
And I

than 15 would think that might be a better compromise  
we 16 saying -- and it's another exception thing where  
17 say completely unshielded lights are not allowed  
18 over a certain wattage.  
19 CHAIR MOLINA: Okay. Thank you, Mr. Chong.  
20 Mr. Maberry, followed by Dr. Altenberg.  
the 21 MR. MABERRY: Just a point of information. Just for  
22 record, it was a compromise. As soon as it gets  
too 23 dark the astronomers start working until it gets  
24 bright in the morning for them to work anymore.  
25 CHAIR MOLINA: Okay. Dr. Altenberg.

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a 1 MR. ALTENBERG: I guess I would just add that there's  
about 2 lot of people have come to me and complained  
3 light trespass from the sports fields into their  
so 4 homes. People that live within a half mile or  
the 5 of, for example, Kalama Park. And so I think  
6 light trespass issue coming from public sports

7 fields is also a concern and that becomes a  
problem  
8 as, you know, before the lights out at the  
sports  
9 field. So that's why the shielding issue was  
10 raised, you know.  
11 MR. CHONG: I understand. I understand. But I think  
12 there's -- there's lots of people in the  
community  
13 that benefit from park usage at night, and we  
cannot  
14 deny that.  
15 CHAIR MOLINA: Okay. Mr. Maberry, followed by Dr.  
16 Altenberg.  
17 MR. MABERRY: I absolutely agree. And I don't think  
that  
18 Lee is suggesting is that the people not be  
allowed  
19 to utilize the facilities at night. I think  
what  
20 he's suggesting is that probably what we need to  
try  
21 to move toward is staying up on current  
technology  
22 and having some incentive to utilize that new  
23 technology to reduce the impact instead of just  
24 going by the status quo or what we put up at  
such  
25 and such park five years ago or ten years ago.  
I

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you  
impact.  
from

1 think that's sort of what he's moving toward,  
2 know, ultimately, is trying to reduce the  
3 And I shouldn't speak for him, but, you know,  
4 what we have shared.  
5 CHAIR MOLINA: Okay. Thank you.  
6 Dr. Altenberg.

the  
up,  
and  
--  
to  
people  
a

7 MR. ALTENBERG: I've heard numerous complaints about  
8 light trespass from say King Kekaulike School.  
9 These were just put up a couple years ago, these  
10 lights. Instead of the current way they set it  
11 we could have contracted with it -- this company  
12 they would have put in fully shielded lights and  
13 nobody would be complaining. So the question is  
14 these are avoidable problems and that we failed  
15 avoid. We could have avoided it just with the  
16 proper choice of contractor, but we didn't. So  
17 clearly something needs to be done so that we  
18 utilize the technology that's there so that  
19 can have sports lighting at night and it not be  
20 problem for people that are not on the field.  
21 CHAIR MOLINA: Okay. Thank you, Dr. Altenberg.

the 22 The Chair would ask for any comments from  
23 Parks Department on this.  
the 24 MR. MATSUI: Yeah. We agree with the concerns about  
for 25 light pollution to neighboring properties. And

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gotten 1 our newer projects, I guess the industry has  
that, 2 a lot better and so we've been using fixtures  
ways 3 you know, don't spill out so much. One of the  
-- 4 is getting taller light poles so the angle gets  
than 5 you know, you're pointing more straight down  
when 6 horizontally. One of my concerns is, you know,  
facilities 7 you pass the ordinance, we have a lot of  
10 8 that were designed or built 20 years ago or even  
be 9 years ago and the cost for complying is going to  
10 really high.  
-- 11 CHAIR MOLINA: Mr. Matsui, rest assured before we even  
12 this ordinance even passes, we'll address those



13 concerns along the way. Thank you.

14 Members, the Chair did state earlier he

15 wanted to complete today's proceedings at 11:15,

so

16 at this point I would like to ask the

Corporation

17 Counsel, now, we had discussed about a

subcommittee

18 to a subcommittee. Is there concerns regarding

the

19 Sunshine law on that if there's more than two or

20 three members meeting?

21 VICE-CHAIR TAVARES: It's a working group.

22 CHAIR MOLINA: Meeting outside of, you know --

23 MR. GARNEAU: The point is just to transmit what you

have

24 come up with today and to talk about certain

things.

25 At the next meeting it will all be considered?

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1 VICE-CHAIR TAVARES: Right.

2 MR. GARNEAU: Kind of -- yeah, I think that would be

okay.

3 You're not doing much different than what you

have

4 already been doing, which is communicating your

5 concerns prior, which become part of the binder,

6                   so --

7           CHAIR MOLINA: Okay. I just bring that up because we  
have

8                   potentially three subcommittee members meeting

9                   resource personnel. And, of course, as you  
with

10                  with the Sunshine law anything more than two  
know,

11                  concerns are raised about that. So thank you  
people,

12                  your clarification on that.  
for

13                         Members -- and, oh, speaking of which, I

14                  would like to ask the Vice -- before I let you  
have

15                  your say, would you mind taking on subsection  
.80.

16           VICE-CHAIR TAVARES: If this was related, I was going  
to

17                   suggest that we devote section --

18           CHAIR MOLINA: I didn't mean to add more work to

19                   your Committee, but if you could do that as a  
favor

20                  to me, I would appreciate it.

21           VICE-CHAIR TAVARES: Yeah. I think that makes sense.  
The

22                   other thing I was going to ask if anybody had

23                   contacted Musco Lighting, M-U-S-C-O, who's the

24                   sports lighting company specialist in sports

25                   lighting? Because they have lit some of those

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project 1 professional stadiums and they also did one  
2 in Japan, they lit a raceway, you know, an oval  
people 3 track, and in the middle of someplace where  
4 were screaming about spill lighting. So I think  
We 5 they have got some experience in this area, too.  
6 might ask them for some help with some of the  
the 7 questions. They're the ones we worked with at  
8 Parks Department when I was there. They were  
very, 9 very helpful.  
10 CHAIR MOLINA: Okay. Musco Lighting. And this is a  
11 company that's from --  
12 VICE-CHAIR TAVARES: It's in Iowa.  
13 CHAIR MOLINA: Iowa. Okay. All righty.  
14 VICE-CHAIR TAVARES: Mr. Matsui has the contact  
numbers or 15 address.  
16 CHAIR MOLINA: Okay. All right. I think that's a  
17 perfectly good suggestion that we can take into  
18 consideration.  
19 Mr. Garneau.  
20 MR. GARNEAU: Yes, thank you. I just want to ask, Ms.  
21 Tavares, with regards to the working meeting,  
are

with 22           you anticipating that you are going to come up  
be 23           some recommended changes to the draft that will  
24           presented to the Subcommittee?  
25   VICE-CHAIR TAVARES: I think so.

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1   MR. GARNEAU: So since I was the one that was asked to  
2           prepare this, is it possible that I be included  
3           then?  
4   VICE-CHAIR TAVARES: Oh, yes.  
5   MR. GARNEAU: Yeah, okay.  
6   VICE-CHAIR TAVARES: I thought you understood that.  
7   ?: She was volunteering you.  
8   CHAIR MOLINA: All right. Just for the record, this  
9           subcommittee working group will be made of --  
made 10           up of Vice-Clair Tavares, Subcommittee Member  
Chong, 11           and Subcommittee Member Altenberg. And resource  
12           personnel Mr. George, Mr. Piltz -- Is there  
anybody 13           else I should be including? Captain Fontaine.  
14           Maybe is there anybody from, say, Maui Electric  
who 15           would be interested? Are you available for  
that,

this 16 Mr. Nakama -- or I'll just leave that open at  
group 17 time. Okay. I think we have a good working  
18 as it is.  
19 Go ahead, Captain Fontaine.  
that 20 MR. FONTAINE: I would love to participate, but being  
21 I am assigned to the Molokai District, it may be  
22 difficult for me to come back and attend those  
County 23 meetings and put an additional expense on the  
24 to do that.  
25 CHAIR MOLINA: Okay. Is there anybody --  
recommendations

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1 for somebody from here that could be a  
2 representative from the Police Department to  
this 3 working group?  
4 MR. FONTAINE: I hate to speak on behalf of the Chief  
of 5 who -- which representative he would want to  
send. 6  
participation 7 Maybe a letter addressed to -- asking  
8 from a representative and then he could decide

Chief 8 either the other two captains or the Assistant  
9 would be willing to be involved with that.  
10 CHAIR MOLINA: Okay. So noted. Thank you, Captain.  
of 11 Okay. So for the record, these are the members  
12 the working group. If there's any other -- Dr.  
13 Altenberg.  
14 MR. ALTENBERG: I seem to recall that Mike Maberry was  
15 mentioned originally. Is that correct?  
16 VICE-CHAIR TAVARES: Yeah.  
17 CHAIR MOLINA: Was he? Sorry.  
18 VICE-CHAIR TAVARES: You did.  
one, 19 CHAIR MOLINA: I don't recall, but that would make  
20 two, three, four Subcommittee members.  
21 ?: I won't go.  
here 22 MR. MABERRY: Well, keep in mind I still have to fly  
23 in, so -- I'm not a Maui resident, sorry.  
24 CHAIR MOLINA: So maybe Mike could be a --  
25 VICE-CHAIR TAVARES: Where are you?

1 MR. MABERRY: Honolulu.  
2 VICE-CHAIR TAVARES: On Honolulu.

3 CHAIR MOLINA: All right. That's a -- no objections  
to  
4 the body, Mike, and no objections to you, would  
you  
5 like to be a member of this working subcommittee  
6 group? I presume your availability is okay on  
this?  
7 Okay. So for the record, let's add Mr. Maberry  
to  
8 the working subcommittee group.  
9 All right, members, for your information,  
the  
10 next meeting is scheduled for Wednesday,  
February  
11 6th at 10:00 a.m. right back here in the same  
place.  
12 The Chair is looking for an extended meeting.  
We're  
13 scheduled to go at 10:00 and the break time for  
14 lunch for staff normal time is 12 o'clock. The  
15 Chair would like to feel the Committee out here  
as  
16 to maybe going up to 2 o'clock that day. We'll  
go  
17 to 10 to 12:00 and then come back at 1:00 to  
2:00 or  
18 1:00 to 3:00. Feedback from the members as to  
your  
19 availability? Mr. McCord.  
20 MR. MCCORD: I like the 9 o'clock, if it -- or does  
that  
21 not work?  
22 CHAIR MOLINA: I know in the papers we did publish the  
23 meeting time at 10 o'clock. Am I correct, Mr.  
24 Saldana?

25 MR. SALDANA: Yes, we did, but we still have plenty of

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1 time to post and, you know, we can modify that.  
2 CHAIR MOLINA: Okay. So we could modify that.  
Members,  
3 any comments on that?  
4 ?: I agree. 9:00 is better.  
5 CHAIR MOLINA: Everybody would like 9:00?  
6 ?: Yeah. I have to get back to Oahu.  
7 ?: Fine by me. And the afternoon.  
8 CHAIR MOLINA: Okay. We'll go to start time of 9:00  
for  
9 Wednesday, February 6th.  
10 Now, as far as the time for the meeting,  
any  
11 interest or concerns about going up till 2:00  
that  
12 day? Mr. Maberry.  
13 MR. MABERRY: No, sir, but if I may, before we get too  
14 far, I would like to ask the Chair's permission,  
I  
15 would like to invite Professor Wainscoat, who is  
an  
16 astronomer, to serve as a resource person at the  
17 next meeting. I'll bring him in from the Big  
18 Island, if that's all right, sir.



19 CHAIR MOLINA: Okay. Professor Wainscoat.  
20 MR. MABERRY: Wainscoat.  
21 CHAIR MOLINA: And he is an astronomer at which  
22 observatory?  
23 MR. MABERRY: At the University of Hawaii 2.2 meter.  
Last  
24 name is spelled W-A-I-N-S-C-O-A-T, first name  
25 Richard.

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1 CHAIR MOLINA: Okay. Do you have a contact number  
that  
2 staff can --  
3 MR. MABERRY: I provided the staff the information  
4 already, sir.  
5 CHAIR MOLINA: Oh, you did. Okay. Thank you.  
6 And also we will be inviting somebody  
from  
7 the -- I think was it the DOT that one of the  
8 members mentioned earlier?  
9 ? : Yes. State Highways.  
10 CHAIR MOLINA: State Highways. Okay. All righty.  
11 So does 2 o'clock sound okay for the  
12 Committee on -- from 9:00 till 2:00? Any  
13 objections? Any members have to leave early  
that

14 day?  
15 ? : I may, depending on flight schedules.  
16 CHAIR MOLINA: Okay. So, again, the Chair is looking  
at a  
17 meeting time from 9:00 to 12:00 and reconvening  
at 1  
18 o'clock, if needed, till 2:00. I would like to  
put  
19 in a little bit more time for this next meeting.  
20 Okay. So with that, are there any  
21 announcements? Vice-Chair Tavares.  
22 VICE-CHAIR TAVARES: Yeah, I have an announcement. I  
know  
23 we were talking about getting something prepared  
for  
24 the next meeting, but I don't think I'll be able  
to  
25 have a meeting prior to the February 6th meeting

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1 with the working group. We go into our Council  
2 meeting next week so that shoots the whole week.  
3 But if you're going to continue on in the  
ordinance,  
4 then it wouldn't be necessary for us to have our  
5 stuff finished before you can go on to the next  
6 section. So if, you know, if I can get together  
7 with the other folks on the Committee and try to

so 8 find a time that we all can meet and then not be  
9 worried about getting it forward at the next  
10 meeting, if that's all right with you.  
11 CHAIR MOLINA: Yeah, I see. From the Chair's  
perspective,  
12 I see no problems with that. Okay. Is that  
clear  
13 to all the working subcommittee group members?  
14 Okay. Any other announcements? Hearing  
15 none, the Chair thanks you all for your  
16 participation. This meeting is adjourned.  
(Gavel.)  
17 ACTION: DEFER  
18 ADJOURN: 11:18 a.m.  
19  
20  
21  
22  
23  
24  
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3 ) SS.

4 CITY AND COUNTY OF MAUI )

5

6 I, Sandra J. Gran, Certified Shorthand  
7 Reporter for the State of Hawaii, hereby certify  
8 that the proceedings were taken down by me in  
9 machine shorthand and was thereafter reduced to  
10 typewritten form under my supervision; that the  
11 foregoing represents to the best of my ability,  
12 true and correct transcript of the proceedings  
13 in the foregoing matter.

a

had

14 I further certify that I am not attorney  
15 any of the parties hereto, nor in any way  
16 with the cause.

for

concerned

17 DATED this 11th day of March, 2002, in  
18 Hawaii.

Maui,

19

20

21

22 Sandra J. Gran  
23 Hawaii CSR 424  
24 Notary Public for Hawaii  
My Commission Expires: 5/14/04

25