

GAME MANAGEMENT ADVISORY COMMISSION MEETING

DATE: December 10, 2018

TIME: 11:00 AM

PLACE: DLNR Board Room, Kalanimoku Building, 1151 Punchbowl Street, Honolulu, HI 96813

PURPOSE: Game Management Advisory Commission Meeting (#9)

DRAFT MINUTES

ITEM 1. Call to order, introductions of members, staff, and visitors; request for move-ups on the agenda.

COMMISSIONERS PRESENT:

Lori Buchanan—Molokai (Chair)
Robert Cremer—Kauai
Josiah Jury—Oahu
Ryan Kohatsu—East Hawaii
Robert Masuda—Representative of the Chair of DLNR
Stanley Ruidas—Lanai
Nancy Timko—Oahu

COMMISSIONERS ABSENT:

Glennon Gingo —West Hawaii

STAFF (DOFAW):

Jim Cogswell
Ian Cole
Dr. Shaya Honarvar
Lindsey Ibara
Thomas Kaiakapu
Shane De Mattos
John Medeiros
Jason Misaki
Dietra Myers-Tremblay
Kanalū Sproat
Kathryn Stanaway
Nicholas Vargas
Sarah Way
Emma Yuen

VISITORS:

Dr. Melissa Price
Derek Risch
Doug Young

ITEM 2: Action Required: Approval of minutes from September 24, 2018 GMAC meeting.

Comm. Buchanan: Approval of the minutes from September 24, 2018 GMAC meeting. I trust you all got a copy from Shaya. Are there any amendments to the minutes, and please notice that Shaya send out both versions? The reason why we had both versions was because of the discussion verbatim vs a summary. So take note, because in 2019 we're going to revisit the whole minutes thing again and probably take a vote on whether we want shortened or verbatim notes to continue.

Comm. Masuda: Glennon made an interesting point, chair. Minutes generally are not hours, so minutes mean the short version. I thought that was an interesting observation. And by the way, Glennon sends his regrets. He was called as an expert witness in a legal case for court, so he's not here.

Comm. Buchanan: Okay. We're into almost 2019, I'm sure we'll have a Maui Commissioner by then, or at least the Boards and Commissions went through their applications.

Shaya Honarvar: I haven't heard of anyone applying for that position.

Comm. Masuda: I thought we had someone applying for Maui, no? He was waiting... I told him to apply.

Shaya Honarvar: We had Jeff Saito who was interested, however he has not applied.

Shane De Mattos: There were two others that were interested.

Comm. Masuda: Can you guys ask them to apply?

Comm. Buchanan: They might have applied. We have to check with Boards and Commissions, then we'll let you know. Well, we're off our subject. Going back to the approval of the minutes, if there are no amendments or corrections, is there a move to approve it?

Comm. Cremer: Move to approve.

Comm. Timko: I'll second it.

Comm. Buchanan: Okay, all those in favor raise their right hand. Okay, motion carried.

ALL COMMISSIONERS VOTE IN FAVOR OF THE MOTION.

Shaya Honarvar: And this is the verbatim that has been approved.

Comm. Buchanan: Yes.

ITEM 3. Presentation on Pig distribution models for wildlife conservation and recreational hunting on Oahu and Maui by Dr. Melissa Price (University of Hawai'i at Mānoa, Assistant Professor).

Dr. Melissa Price: Thank you so much for having me today, I really appreciate it. In 2015 I sat down with Jason Misaki here at Oahu DOFAW to chat about what was needed on Oahu for research, and one of the things he brought up is that it would be really useful to have distribution maps for Oahu that he could take to the state legislature to talk about how to increase access for hunters to areas that currently people don't have access to. So that's what this project came out of, seeing how can we have some distribution models of pigs on Oahu. We don't have numbers, but if we want to determine population numbers of pigs, it's actually much harder. You have to do a lot of catch and release, where you mark, release them, catch them again, mark, release, and catch them again, and that's a little bit more

difficult, so we started with distribution models. I'm going to present that study to you today. So, across the islands, you're aware that we have many different ungulate species that have been introduced, mostly for hunting and provisioning purposes, so people brought them here so they could have recreational hunting or provisioning of these species. And this varies depending on island which species are going to show up. So on Oahu we have pigs and some goats, we have Axis deer, Black-tailed deer, even feral cattle as well as Mouflon sheep on other islands as well. In this study, we focused just on feral pigs, so if you want to optimize for some of those other species, you have to change a little bit the angle of the camera that you put up, so we do capture other species on our cameras, but the models do the best job with pigs. So those are the data that I'm going to present to you today. So, pigs, as you're well aware in this room, DOFAW is assigned to manage pigs for two purposes: one, to maintain populations for recreational hunting purposes, and then also to minimize pig damage to ecosystems native and endangered species. And so that is a fundamentally contradicting concept if you're trying to do those two things in the same place, you physically can't both maintain a population and simultaneously decrease that population. And so, a lot of the controversies that take place in this particular room with these discussions happen because those two things in the same place are fundamentally opposed. If we're going to have discussions about how to manage pigs, it's really useful if we actually are dealing with real data having to do with where they are. And so that's what I'm going to show you.

We had three questions. The first one is very simple, with no layering of values or interests or anything, just seeing where are pigs on Oahu and Maui. what is the distribution of pigs on Oahu and Maui? We started with Oahu because it's really easy to get grad students who are here out to Oahu, and we moved to Maui as the next place. We were planning on also doing Kauai in the same year, and instead realized that we needed some seasonal differentiation. And so we decided to do two seasons within the same year on Maui. We're hoping to expand this to the other islands so we can provide you with the same data. So first of all, how are pigs distributed across Maui and Oahu. Secondly, doing some layering on of where the hunter-accessible areas are to see what is the relationship between pig distribution and hunter access, and then third layering on to see where are the things we need to protect, that DOFAW is mandated to protect, so what is the relationship between pig distribution and endangered species. Those are the three things that framed our study. So, the basic idea as far as deciding where to sample. Intuitively, you'd go 'I want to put my cameras where the pigs are.' But if you only put the cameras where the pigs are, you're going to get inflated numbers as far as how many pigs there are and where they are at. So you actually want to sample across the full distribution of where they are not as well as where they are most abundant, and then over some sort of environmental predictor that we can then use to model where pigs are going to be without literally sampling every square foot of the island. So you want to sample across an environmental gradient such as temperature, precipitation, in our islands usually that's correlated with elevation. So as long as you sample evenly across elevation, you usually have good representation, you can get statistically significant models of predicting where things are with some confidence. On Maui, this is what that looked like as far as the distribution, so we first looked at where do we have access and then took just those areas where we had access and asked the computer program to select sample sites randomly across areas to which we had access, making sure we had even distribution across those gradients. So that's what that looks like when you do that for Maui, and then this is what that looks like when you do it for Oahu. We did not sample in urban areas. Your environmental predictors don't work so well in the lowland urban areas because human food supplementation tends to change where the pigs go apart from temperature, precipitation, and those things we can use to predict. And so the predictions don't hold well if you sample in the urban areas, but

I want to be clear that that is an assumption or missing piece from our model, that we did not sample urban areas. Okay, so our methods were that we put out six cameras per randomly selected site, we used a rectangular or linear array. This is because I want my grad student to stay alive throughout the course of this study, and as you know from hiking around in these mountains, there are some places where if you try to do a grid you'd be off the side of a cliff. So in places where it was a ridgeline and it wouldn't be safe for him to set out a rectangular grid, we did a linear array, otherwise we always did a rectangular grid where the points were 50 m apart. One other thing I should have mentioned in our site selection, we made sure all points were no less than 500 m apart, since that's what previous research had shown was the approximate home range of a pig, so we wanted to minimize oversampling of a single pig. Those cameras were deployed for two weeks at approximately waist height, which other research has shown was most likely to trigger the motion activated cameras, and on the trigger it takes two consecutive photos with a three second reset, so it takes two consecutive photos and then after three seconds, if they walk back across again it will capture them again. And then we also at the same time we set out the cameras and at the time the cameras were picked up, we did sign surveys. So those were done four quadrats, so they're each 100 m², per camera. So about a 20x20 m square around each camera, you sample the disturbance at the time of putting out the cameras and the time of picking up the cameras. That lets you know not only where are pigs and how many are there, but how much disturbance are they causing in that area. You can think of it this way: I could have 200 pigs pass through an area and not stop, just use the trail and go straight on through, you're not going to have much sign that they were there. But you can have one pig that moves back and forth in front of your camera the whole time and digs up the whole area, digs up roots, eats the fruit, does a lot of stuff in that area, you're going to see a lot of impact but it's a single pig. So you want to capture the full range of those two possibilities by doing both the sign surveys and the detections. Okay, so people in this room are fairly familiar with what sign looks like, so track or trail, scat, bedding areas, digging, those are all captured. And then we're able to look at just where did we see nothing, where did we see camera detections but no sign, where did we see sign without camera detections, and finally where did we see both. So the red dots are where you see both camera detections and sign, blue is where you see just sign, yellow is just camera detection, and white is you don't see camera detections or sign. We then used those, along with those environmental predictors, to then produce models of where pigs would be expected to be on the island. Keep in mind that if you're seeing on the next things that I'm going to show you pigs being predicted in places where you know there are fences, it's because it's a prediction of where they would be. So these are not actual detections inside fences, these are predictions of where pigs would be without fences. So this is predicted distribution simply based on camera detections ranging from... we had the highest number of detections, actually 2000 detections in one of the locations, but modeling comes out to an average of about 300. The dark green is where you see the highest number of detections, the light pink is where you see the lowest number of detections predicted. And when I'm done with the presentation, I'm sure particularly if this is your island and you want to stare at this for a lot longer, we can come back to any particular images that you want to stare at a little bit longer. Secondly, predicted distribution based on disturbance, so I'll toggle back and forth between those briefly. It's the same scale as far as low is light pink and high is dark green. So if we go back and forth between those you can see slight differences. There's a couple of reasons for that on Maui. In the areas where you're seeing green on the disturbance detections but not the detections is areas where we were dropped off by a helicopter to do sampling because they're really low access sites with really dense vegetation, meaning that the cameras are probably not picking up all of the pigs that

were there, but there was a lot of sign. So the cameras probably don't do as good a job of picking up detections and estimating abundance in those locations as sign surveys. Then, if we do a combined data set, so a couple of pieces of information on here. One is the combined data set of both camera detections plus sign, it's a combined model of where you'd expect there to be pigs. And then secondly, we've put on top of here in blue the ungulate fences to our knowledge of where they currently are, and then secondly hunting designated areas. I'm going to layer on a couple of things now to show you what that looks like if we're looking at areas that we might want to increase hunter access versus areas where we really might be concerned about protecting things. So the dark blue are areas that have a relatively low number of endangered species but are predicted to have a high concentration of pigs. And depending on the location, there are always nuances to these places, you might see that these would be areas that might be excellent to increase hunter access. There's a lot of pigs and not a lot of stuff you want to protect, why shouldn't you have a ton of hunting in that area? It would be a high success rate hunting area. In this darker blue area in particular, notice that some of that is right next to a hunting area, but there is some of it within the hunting area but it's right adjacent to it. Secondly, these are areas with a relatively high number of endangered species also predicted to have a high number of pigs. One thing that's interesting to me looking at this is we see that inside these blue lines, the fenced areas, they actually would be predicted to have a high number of pigs as well as a high impact on endangered species, so those fences are keeping pigs away from things where they would have a high impact, and otherwise there would be a high concentration of pigs. Again, it's useful to have these things particularly for seeing these areas that are outside of fences but they actually have things from both a conservation and hunting perspective you would say 'how can we increase hunter access to remove pigs in these areas?' Because you have a lot of things threatened by pigs in those areas, and you have a lot of pigs there that someone might want to hunt out. And so that could be a win-win solution potentially. For Oahu, same data types. Notice that in contrast to Maui, where detections ranged from 0-2000 at a single site, on Oahu it ranged from about 0-300. Much different range of detections. Again you can see where there were no detections, camera only detections, sign only detections, or both. That results in a model that looks something like this for camera detections, with green being the highest number of predicted detection areas and light pink being the lowest number of predicted detections. We can then see what that looks like if we base the model on sign, and if I toggle back and forth between these, they're not that different, in contrast to Maui where you saw some bright green areas pop up between the two. So in other words, the cameras are doing a pretty good job of detecting the disturbance and activity of the pigs in these areas. If we then do the same thing and combine the two models so we get a predictive distribution based on both sign and camera detections, and then layer on the reserves, so state lands as well as hunting areas, so the colors mean something a little bit different there, the hunting areas are outlined in black here. I'll make this a little easier by pointing toward areas with a relatively low number of endangered species predicted to have a high concentration of pigs, so in other words these are kind of no-brainer areas to increase access for hunting, you see this kind of low to mid elevation band around the Ko'olaus and then up kind of toward mid to high elevation around the Waianaes. And then if we look at areas with a relatively high number of endangered species predicted to have a high concentration of pigs, it's just a little bit up of the other one. So one of the interesting things about Oahu is that we've lost most of our native vegetation up to a certain elevation due to cattle ranching and other activities that took place that cleared off a lot of that vegetation. So at the low to mid elevations we have a lot of invasive forest. So from a plant perspective, there's not a lot to protect in that area. Just above that though, you have still a high concentration of pigs predicted and a lot of

stuff to protect. So it's kind of that mid-elevation band you've got areas with high number of pigs not much to protect, and right above it high number of pigs and lots of stuff to protect. A lot of that is outside of fenced areas and the hunting reserves stretch over some of them. One final thing I want to point out, and I should take these numbers off because they're not super meaningful in comparison here, but it's just that difference in number of detections. So when I'm showing you the relative scales between these, keep in mind the highest number of detections on Maui was 2000 at a site. The highest number of detections on Oahu was about 200 at a site, 200-300, and so very different kinds of numbers that we're talking about between Oahu and Maui. My guess is- but you're the experts in the room- is that it's probably similar to the fishing situation where it's just a matter of how many people you have pulling stuff out. Oahu has much higher hunting pressure, I would assume, than on Maui. That's my assumption, but please correct me if you think there are other interpretations of these data. There are some management questions, at the end of the day I can provide you with these data that show you where pigs are, or are predicted to be, I can show you how that overlaps with things we might want to protect from a conservation perspective, but at the end of the day you guys have the hard job of saying how do we sort out the decisions on this. And so the management decisions that hopefully these data can help improve discussions on have to do with how can we increase hunter access to areas without fences that are predicted to have high pig abundance, and/or high impact from pigs. We have a lot of areas that are landlocked from private lands and so people can't legally cross that land to access these high pig abundance areas. So how can we work with the legislature or other means to increase access to those areas for hunters? Hopefully those maps provide you something to go and say 'hey, these areas have high pigs, how can we get people to them?' Secondly, I know a lot of our discussion centered around what's the best way to protect areas that are most at risk from impact from pigs, and so those are two different potential implications for this study, but the hard work of making a decision on this comes to the people in this room as far as how do we use this information to make the best management decisions possible to meet the needs of hunters as well as the needs of conservation, that they have the tough work of making decisions for both. So with that I want to acknowledge all of the people that helped us with access on Oahu and Maui, I want to particularly thank these two people over here: Derek and Sarah have spent many hours hauling very heavy cameras and cables and everything into very high elevation places to produce this data, there's a reason it's taken us three years to get here. It's a lot of work to get to all these sites, get the cameras up, and then process all the data. And also to the people who helped us- as those of you who work with cameras know, cameras trigger sometimes with a blade of grass going back and forth 30,000 times, and so it takes a lot of help from former undergraduate students to sort through all those photos for ones that actually contain something that we want. And then our non-state partners as well, who provided access, we're very grateful for that because it expanded what we can say about these islands. So with that, I'll take any questions, I can go back to any maps that you would like to spend some more time looking at, and thank you so much again for the opportunity to present this to you.

Comm. Kohatsu: You know the one that was the distribution of the endangered species maps?

Dr. Melissa Price: Those were combined actually, so they don't show the location of the endangered species, they show the overlap of where there is high pig abundance or impact potential and there's endangered species.

Comm. Kohatsu: Didn't you have a map that just had the layer of endangered species?

Dr. Melissa Price: I don't have that, that's a layer we definitely have and for the sake of time I only showed the combined maps.

Comm. Kohatsu: I'm just curious, how are the layers made? Is it a physical individual survey, or is it a elevation habitat area?

Dr. Melissa Price: That's a good question. It took us about a year and a half to get the data we needed to make that because obviously, particularly with the Plant Extinction Prevention Program, with good reason they protect that data because there are people that go and steal plants, and so they didn't want to give it to researchers... Eventually they gave us a degraded version which had kind of a buffer zone with randomized buffers around it, and we were able to use those to produce distribution models of endangered species, and then we used that as a layer in here.

Comm. Kohatsu: I'm curious, there was one with Maui on it, and it had all the fence units on Maui, and it had a high number of endangered species and high concentration of pigs. So if it had low concentration of pigs, it would show white, is that what this map shows?

Dr. Melissa Price: Correct. This is saying high-high, correct.

Comm. Kohatsu: What would high-low look like? Would it just be a lighter color? Say high endangered species, low pigs.

Dr. Melissa Price: Either way, it should show lighter than the others. Derek, do you want to speak to the nuance of that a bit?

Derek Risch: Yes, so this could include, there was a lot of pigs in lower Kula where it blows up blue there, and then the next map which is the threat to endangered species, that all but disappears because there's not very many endangered species down there, but there are a lot of pigs. So it shows lighter if it's high pigs, low endangered species.

Dr. Melissa Price: I appreciate that question, because that's where some of the nuanced discussion comes in. Because the PEP Program might come in and say 'yeah, but that's the only place this one plant exists, it's the only place we can protect it, so it matters even if there's not that many of them.' So that's where those nuanced discussions take place. We can show you general trends, but at the end of the day it takes real people looking at real data to make decisions.

John Medeiros: So that whiter section in the middle of this, that's the crater. That's Haleakala, the national park, that's why it's white.

Dr. Melissa Price: I should mention too that we didn't have cameras at Haleakala in the crater. Those super high elevation areas that are pretty dry, if they weren't represented by other points in our sampling, then the potential for pigs was not captured by our study. That's something that so much of the high elevation places on Maui are fenced, that was just a restriction we had to deal with. There weren't too many high elevation places that we could sample to capture that that weren't fenced.

John Medeiros: It would be interesting for us too that ever since HC&S closed down, now the animals are moving down and there's a lot of pigs in that area. It would be interesting to sample there.

Dr. Melissa Price: So we're hearing that, we're also hearing that about deer and some other ungulates, so we have worked in this second season, we're hoping to expand access to some places that we didn't have access to for the first portion of the study into some of those lands.

Derek Risch: We're working with Haleakala Ranch, and they have some lower pastures into bordering lands of HC&S...

John Medeiros: If you want anything to do with HC&S, I can talk to them.

Dr. Melissa Price: I don't want to overstay my time, so if there are other questions I'm happy to take them, but I'm also interested in knowing if there are ways that we can improve our presentation of this so that it's more useful to decision-making.

Comm. Masuda: What would be helpful for me with the Oahu one would be to overlay that with this map that Shaya gave me that shows all the game areas.

Thomas Kaiakapu: I'm from Kauai. Kauai's situation is similar to this area, where you have public land reserves open to hunting adjacent to a private landowner that is closed to hunting. So although we have our areas open to hunting year-round, the higher hunting pressure, hunters are hunting from the bottom working their way up, so you see animal, pig concentration at the higher elevation because hunting pressure starts from the bottom and they work their way up, keeping the animals up there. So that's the issue with access, trying to get them up to the top. The other issue is that private landowner area is closed to hunting, no trespassing. Pigs build up. They only have a few hunters that go in, which is friends or employees they get to hunt, nobody else gets to go. So the animal numbers build up because there's not enough hunting pressure on the private land side. So what happens is animals move out of the private land area into the public land area and then hunters hunt, they chase the pig back into the private land side because that pig is from private land. So that hunter's dogs chase the pig onto private land side, now they're trespassing. Okay, the animal runs down into the valley, dogs barking, and the hunter has to go down and get their dog, otherwise their dog will get killed and they would never get their dog back, now they're trespassing! A lot of times they say that by the time they get there, the dogs have killed the pig, but they have to get down there because they don't want their dogs getting killed. Because if they don't get it there, depending on what kind of animals they might get killed. So now they've killed the pig. The hunters that went down there, you think they're going to leave the pig? No, they're going to take it back. So now they're poaching, they've become lawbreakers, when all they're trying to do is hunt. So now this is the situation that's been happening on Kauai.

Comm. Masuda: And you're saying Kauai and Maui are similar?

So we're only seeing part of the picture of pig distribution, hunting, and everything. This is only part of the picture and you need to see the whole picture of what's going on Kauai.

Comm. Masuda: So maybe at the next meeting you can make a presentation on Kauai, showing us what you just explained, similar kind of thing.

John Medeiros: Can we go back to the Maui maps? Yeah, even like the blue here, I would say is from the hunters pressuring the pigs out into private land, so that's a good example of the pressure of hunting.

Comm. Jury: My question is kind of what you began with: where do we go from here? I understand that the pigs are in that area and this is what was requested from Professor Price, but what is the next step?

We know where the pigs are based on this data, so what is the Department going to be doing to take advantage of the areas where we can increase hunter access.

Comm. Masuda: Well I think the whole point of having information and this kind of reconnaissance could lead to us having a discussion such as Thomas is giving maybe around Oahu, and you can tell us all the issues around the dispersal versus endangered species versus accessibility, and then lead towards a discussion that results in hopefully maybe some recommendations on how to gain better accessibility or where we need accessibility, and we then would look at how we would negotiate that accessibility.

Comm. Jury: would it be the Access and Acquisition position that would adopt this and run with it as a point to plead the case of accessibility?

Jim Cogswell: Currently there is nobody specifically in this position like what you're talking about, David Penn's old position.

Comm. Jury: Yeah, when we first started as a commission like two years ago it was vacant.

Jim Cogswell: Right. It's still vacant because UH is not allowing that position to be hired through UH so we need to have a Leg approved position for that.

Comm. Jury: I'm asking who's going to run with this next.

Comm. Masuda: Let me finish answering your question if you don't mind. I think, as I said, that we need to have a discussion around all of this with the advantage of ground level guys like Thomas is saying and you Josiah, with Waianae, that should result in our getting better information, better assessment of how you can have accessible game management or hunting areas etc. and if it's not currently accessible, then it's up to the staff to determine a way in which we can make it accessible, like what I'm trying to do with Kauai right now in getting that area where Robert tells me is primo area, so we're trying to work on identifying unencumbered state land so we can trade with DHHL for example. So all of those kinds of options are open, it's up to you guys to help us understand what the issues are, what the desirable outcome is. The desirable outcome should also include protecting endangered species etc. And then we work together towards achieving that. Does that make sense to you? Is that acceptable to you, that process? Or do you have a better way?

Comm. Jury: I agree with you, and that's what I was getting at. I just wanted to know from the Department's side who would have to work it, but...

Comm. Masuda: I would depend on you guys to let us know what the desirable outcome is from a hunting point of view, then we'll get the forestry guys helping us understand the endangered species side, and we need to work together to find how to get the best access. For me, the desirable outcome is that we have happy hunters and protect the endangered species. That's the desirable outcome.

Comm. Jury: I have been working closely with Jason and with Ryan and with Marigold, and we have been looking at this map, I've worked with Professor Price, and we've been in discussion and I've brought up this map, and through the discussion with Marigold and them we've helped to increase the hunting area on Oahu by 40%. I've talked to Kamehameha schools and gotten ROEs with them and other people, I'm saying that I'm doing this...With all that we're doing and working together, there's only so much that I can call them after I'm pau my 9 to 5, so I'm looking at who is it who could really invest their time utilizing this data... I mean, I'm able to utilize it but it's after pau hana or on the weekend, and...

Comm. Masuda: When you do all that work with our wildlife staff, and you guys come up with some good recommendation, call Jim, call me, call Shaya, and let's hear that plan here, and then let's have a discussion so I clearly understand where you want to go, and you guys shouldn't be talking on the Department's behalf with Kamehameha Schools or whoever the private owners are.

Comm. Jury: I'm not.

Comm. Masuda: Well, what I'm saying is you shouldn't be, and if you are shame on you. You guys should let us know and let us carry the ball there and see how well we can deliver for you. That's what teamwork is, and that's what I'm trying to get to. So we use the best information from our scientists, and if there's science processes that need to be tweaked by the ground level hunter guys, you guys should be sharing that with the scientists, and then work together like you are with Ryan and Jason and them and pull together some of this stuff. That's what we need to get to. And it's okay, we should argue all the time, I like arguing with you. It's challenging.

Comm. Buchanan: Well, we were instructed to work with our wildlife managers per island, so I'm really impressed with the work that you guys have done, and I never heard that you guys increased by 40% because Legacy Lands put out a lot of money into purchasing Poamoho and other areas with instructions that they should focus on moving hunting within those lower areas that Melissa's report just brought up, and while I felt that some of that was anecdotal based on the model used and the analysis of how you got your final maps, one thing you said was about the numbers, and I underlined it- does Oahu have a higher amount of hunting pressure versus urbanization and loss of habitat versus Maui not having the same issues with loss of habitat, and so I don't think anybody has quantified based on hunter check in stations or whatever metrics you want to use to quantify what is the hunter pressure actually per island. I don't know how you're going to collect that data, you know? Whether it is relevant or not is another issue.

Thomas Kaiakapu: This had to do with this issue you're trying to solve, two things: endangered species and then public hunting, work toward that goal. In order for this group to do that, we need the private landowners involved too, because you see right now it's just the public lands and the NARS areas, we're not talking about private land. They need to be part of this issue of keeping pigs under control, which is what we want to do. The watershed alliance is established on every island, but when we talk about feral pig control on their lands they're going to say 'no I'm sorry, keep out,' that's what they're going to say.

Comm. Masuda: Why do they say that?

Thomas Kaiakapu: The main reason is liability. But we have private lands on Lanai, Lanai hunting, and that is a good example of how the state and private owner works together for hunting and to protect the watershed. So, I cannot see why we cannot apply that same management scheme to the watershed. Because our hunting areas are open year-round, we maximize hunting in some areas, but our adjacent landowners are private land. Our hunters don't want to trespass, they want to hunt pigs, but a lot of times the dogs chase and end up going on the private lands, and this is a big problem on Kauai.

Comm. Masuda: So Thomas, one of the things I'm learning from what you just said, and I'm glad that because of what Josiah's questions were it brings up this kind of issue which is good, the whole business of on one hand we have watershed partnership and they're intended to protect the watershed and protect endangered species, all this kind of stuff. Pigs are a liability to that, and it makes more sense to

reduce the stress of pigs on that kind of watershed area, so the thing that's hanging up the accessibility is liability. So the problem becomes how do we as public servants work with the private people in addressing the liability issue so that it can be addressed with hunter responsibility and hunter involvement. So that becomes a challenge that I think we should take on. So Jim, you and Shaya put that on our agenda as a question on how we address that, and if we can do that in a reasonable productive kind of way and play win-win with the private landowners, then we move the ball for the hunters too. We want to protect endangered species, we want to protect our watershed, and we want to have the fun and accessibility for sustainable hunting as well as recreational hunting etc. and apply that kind of energy and passion towards protecting the watershed. To me, we just have to connect the dots in the right sequence and the right way so everybody sees the results as a win-win.

Thomas Kaiakapu: But on Kauai the situation has gotten even more intense with the addition of watershed fences on public land. Fencing off traditional hunting areas. On Kauai, there's a lot of big fences and there are more to come, so when an area is fenced and ungulates removed, it's a loss to public hunting. In many public hunting areas are getting smaller.

Comm. Masuda: Kauai is 90% open to public hunting right now, right? Only 10% is not open. So I'm not sure what you're talking about...

Comm. Cremer: I can explain and I can reiterate what he's saying Bob. You cannot consider a fenced area a hunting area that is successful, because they kill every ungulate within that fence. So you can get 90,000 acres, and only 5,000 have animals on top of them. Now, with the private lands going on and the food source being taken away and areas getting fenced, the pigs are now on the side of the main highway on Kauai. Everybody thinks we have a big pig population. I'm fortunate enough to go hunt on private lands, almost every private land on the island because I have good friends there and I have a good relationship with many people. Other people don't have that opportunity like me, and that's why I sit at this table today. It's not about me. I can get meat every single day, I can call off island and get deer meat, whatever I like, because I've got a good relationship with people. But you can put all that data down and no offense to you, but if you go in the lower areas and you look at the data for the private sections like he was saying, we're overpopulated I agree with you guys. But I can tell you right now, I hunt from when I was seven years old, I saw what pig trails were before in Alakai area, Camp 7, 8, 10. The trails were wide open with pigs when I was growing up. Very seldom do you see trails open. During the fruiting season is when they come there. Back in the day, non-fruiting season, the trails were still wide open. So the population for people who do studies now like you, and I appreciate what you're doing, is not accurate like my status, straight up. Because population difference from when I was there growing up to what it is now is different, so you guys looking at the population saying oh it's this much, but what it was in 2000, in 1999, 1980's, 1970's. The fenced areas you cannot count as a hunting area, straight up. Later on we're going to talk about Unit G as an example. I've got numbers in my phone about Unit G and the population from one certain time to one certain time. Like they say in 2000, 1999 versus the numbers that the people with the plants want, you know how I mean that?

Comm. Masuda: I'm not exactly sure, but I think I'm getting it. Robert has a lot of ground knowledge and I respect that, but if we could get Melissa's team for example to do something like this for Kauai and Big Island, and then we use the same process of looking at current hunting areas, what the accessibility to those, what the pig, endangered species relationships are, where based on the actual recon that you guys do is a good place, a desirable place for hunting and why is it not available now and we ask all those

questions, eventually if we persist in this we should be able to hopefully end up with protecting endangered plant and critter species, improving the watershed, having hunters have sustainable hunting more accessibility, everybody come back having scored rather than whitewash. I don't know what you guys call it when you go out with your gun and come back with nothing, when I used to go out with my spear and come back with nothing we referred to that as whitewash. Anyway, if we can have that kind of stuff, then these kind of studies can be useful and very applicable, and what do you think Jim?

Jim Cogswell: Yeah.

Comm. Masuda: Let us look at a public policy kind of approach to how we can work with the watershed partnerships etc. and the private landowners and try to create a win-win kind of situation.

Dr. Melissa Price: I think one of the things that the exchange, the conversation between you and Josiah explains something that I'm trying to tell my students all the time. You know, I teach science, and we spend 16 years trying to teach them how to do scientific method, no one teaches anyone how to make a decision. So it's one thing to have good scientific data, it's another thing to make a good decision. And I can provide you good information so you can have a discussion about reality and not argue about 'well I see a ton of pigs here all the time' and people are saying 'no, I don't think so' or 'yes, I think so,' this can provide the answer for that, where pigs are predicted to be, it can't tell you how to make your decision for policy, for access. That's something that you guys have to sort out. So I want to be clear where my data ends and where decision making begins, but yes we are happy to provide you with good data.

Comm. Cremer: When you come to Kauai and need assistance, I can help you. I can give you... and Thomas and Lindsey too, they know.

Dr. Melissa Price: Thank you. I think because of funding reasons, my understanding is that it will be delayed until maybe 2020...

Comm. Cremer: Well, when the time comes up, whether I'm on this commission or not I'm willing to help. Second thing is, the position that was open, the Access and Acquisition, sometimes we don't need really go ahead and get the land buying them. Maybe we can work out a deal where we can lease hunting rights. Just an idea, lease hunting rights from the private landowner.

Jim Cogswell: Where possible, we'll be looking at those options.

Comm. Buchanan: Well, Commissioners, just a reminder that even when Administrator Smith was here, he said the same thing. Because the Department of DOFAW is, I would say complex, in the layers, it always comes down to discussion of really place based and project based on the arguments for hunters about places just what Thomas brought up. We understand all of the pressure, you know, hunt over here and pressure over there. Really fast, a couple of things besides what Dave and Deputy say is always right. Get to the meat of where, and then at that point let Deputy massage and see how he can work stuff out, and then if not that will let us get to bigger policy type of actions. I was wondering where the funding came from, Melissa? If staff knows.

Shaya Honarvar: Pittman-Robertson.

Comm. Buchanan: You know why I ask, it was a trick question, yeah? And last question, what is the relationship between the distribution of pigs and endangered species, and so when I have that kind of question, I wonder where the pot of money came from, because you already have a prerequisite of

what you're looking for, while you're still answering that question... that's why I said that to me it was kind of subjective and anecdotal. Because he just told me 'pigs stay on the private land because we push them over there, and pigs stay high because we start from the bottom and never work down,' common sense. We have common sense stuff already, same on Molokai. The point is, if we can get back to common sense and project based, I think this commission and their constituents or the people we represent, we can have small successes along the way with...

Comm. Masuda: Yeah, I think that's what we're trying to do. But common sense as we all know is very uncommon and so we can use common sense to the extent we can find it, but we also should use scientific method where we are able to get it, and put everything together. Use every source, and that's where I would agree with... to me, the knowledge that our hunters bring is what I would refer to as common sense, it's practical, pragmatic, etc. I also think that when we have data collection scientifically analyzed kind of methods it always helps to make a case clear and easy to understand. So I think we have to work out plans to how we can continue this, extend it into the island of Hawaii and Kauai.

Comm. Buchanan: That would be awesome.

Shaya Honarvar: Another interesting thing is to look at other species as well. It worked really well on pigs, but I think if we changed the methodology, then we can look at Axis deer, or goats or whatever other species as well so that we know where they are in relation to the hunting units, and in relation to everything else. The funding part of it becomes a little tricky, but we're doing our best.

Comm. Masuda: Yes. So you'll been working with Melissa also for Big Island and Kauai?

Shaya Honarvar: Yeah, that was the plan, however we just got some budget cuts on the Pittman-Robertson. People are not buying enough guns and ammo.

Comm. Masuda: They're not? We've got plenty of guns being bought in this state. Well let me know how I can help.

Dr. Melissa Price: I will mention that we also have funding through McIntire-Stennis and funds through the University through CTahr for a hunter focused study, so we have interviews going on to get the hunter perspective on things. We've tried to create complementary sets of data to cover all different angles.

Comm. Masuda: Thank you so much, Melissa, we appreciate it.

ITEM 4. Presentation on HCP in Pu'u wa'awa'a by Kanalu Sproat, (DOFAW, District Wildlife Manager-West Hawai'i).

Kanalu Sproat: Thanks for having me. So, basically what I'm going to do is brief presentation. Last time we were here, Shane gave a presentation about what they're trying to do on Maui to create the hunting area, and in that meeting Shane became a hero, because he's fighting for the hunters, it's awesome. Now I want to show you guys that we're doing a similar process to what Shane is doing, but we're fifteen years in the future from where he is right now, and somebody fifteen years ago wanted to be a hero and here we are fifteen years later maybe he's a ghost rather than a hero, I don't know. We'll go ahead. We're trying to do an HCP, a Habitat Conservation Plan, at Pu'u Wa'awa'a and Pu'u Anahulu in north Kona. I'll explain a little bit more about what that is, but first I wanted to give an overview of what we're going to talk story about. First, a brief introduction and history of the area. The goals of the

objective and the plan. In the area, there are several endangered species, so we'll just talk briefly about what those species are, and how come we're having a hard time fifteen years later to move this forward. But the things that we think we need to do to move it forward, next steps. So this is the area in north Kona, that's the two areas combined, and the next map is a bit better... so Pu'u Wa'awa'a FR and Pu'u Anahulu GMA, the total area makes up about 104,000 acres. So, brief history: back in the 1860's, maybe even before that, the area was leased for grazing goats, or Pu'u Wa'awa'a was, and Pu'u Anahulu was leased for cattle, then in 1917-2000 it was about six leases in that time for cattle grazing in that whole area of 105,000 acres. A long-term lease was signed in 1940 to Dillingham Ranch, and then 1972, so a few years later, that was transferred over to Noah Bohnett. Then in 1984, a large portion, pretty much that Pu'u Anahulu GMA was taken away from Bohnett because of illegal activities that he was doing, and so he was left basically with just a portion of Pu'u Wa'awa'a for grazing. Then in 2000 his lease ended, and in 2002 land management transferred Pu'u Wa'awa'a and Pu'u Anahulu to the DOFAW, and then a portion down makai to state parks. Also in 2002 with this land transfer, there was a creation of a Pu'u Wa'awa'a advisory council, which was comprised of ohana and local residents from the area and also some DOFAW employees, and their objective was to create an integrated management plan for the area. At the same time, we started to do surveys for endangered species in the area. In 2005, that advisory council took their plan to the Board, and it was a ten-year plan, so from 2005 to 2015, the plan was taken to the Board and approved by the Board, but approved in concept, because it didn't have an Environmental Assessment accompanying it, so it didn't have the compliance document to go with it. So because we had the plan but it was without an EA, in the plan, they had several objectives, but their objectives were not as detailed. They were basically 'we would like to see this,' so creating the HCP after that was supposed to give the details, the extra information for those objectives, and the EA, to then be able to carry it out.

Here is the history about grazing and fire, so this is from 1975 to 2011, all this red are places that have burned in that area. I don't know how many fires that is. I started in 2014, and from 2014 to now there have been five fires there. One of them was the 18,000 acre fire at Waikoloa that burned into this side, so a couple thousand acre fires just in the four and a half years I've been there, we've had 5 fires, pretty big. I guess I show this with the grazing and the fires to show you guys that much of that area is severely degraded. A lot of fountain grass, the ranch side of Pu'u Wa'awa'a was a ranch for 150 years, so there is kikuyu, so it's not the most pristine habitat, so you would think ideally, great place to go manage game. Just for your information, current rules what the hunting is like over there in Pu'u Wa'awa'a we only have hunting in the makai section, and it's an archery season that starts at the beginning of August and runs for four weekends. Those are your bag limits: three goats, one non-typical ram, one pig. And then right after the archery ends we do a muzzleloader, that's then a new season with a new bag limit, same as the one before but if you hunted in both seasons you could get six goats, two non-typical rams... We have a special youth and disabled hunt that's above the subdivision, those are those bag limits, they run basically for the month of August, weekends and state holidays. And then Pu'u Anahulu is from the beginning of March to the end of June weekends and state holidays, bag limits: two goats, one ram-- it's any ram, so it doesn't have to be non-typical-- and it's one pig.

So, Pu'u Wa'awa'a advisory council that got together in 2002 and they had their meetings and they created this management plan, their basic objective, now they have a lot. I got to like objective 30-something and there were a lot more, because there were recreation objectives. I didn't even read those, I was just reading the hunting and protect endangered species. The basic thing they wanted to do

was fence and protect the most pristine areas that remained because the area is degraded, but go to those areas where it was really good, fence that off, remove animals from within that, and then outside of those fences manage for hunting. All the stuff you guys talk about every time here, food plots, counting animals, making sure we get access, all that stuff they wanted to do outside the fenced areas.

So going back, there are fifteen plants that are federally listed currently on the endangered species list, and then one moth, *Manduca*, the Blackburn's Sphinx Moth. Those are the plants, all fifteen of them, I know most of them but I don't know them all. So back in 2002, again, this was kind of the idea of where they wanted to put the fences, the green. I like this one better than the next one, but just so you guys can get a visual, the new fences are above 4,000 acres. This forest bird sanctuary, there's a wildlife sanctuary is already fenced, and it's 3,000+ acres, so we're about doubling the number of fences in the area. In red, those are the fences that have already been built, so some of these fences were proposed in 2002 and even though we don't have our HCP completed for game, we still moved forward with those mitigating actions, which I think is appropriate, we still built those fences. This **Henahena** fence is mostly done, just a little more. The Aiea fence next to it is done and it's closed off, it's going to be about 8,000 acres in the fences, which is about 8% of the total area. There's another map I'll show you, that 8,000 acres is going to protect 80% of the known listed plants, so quite a bit of the plants that we know are there will be within those fenced units. Spend a little bit of time on these mandates that are contradicting, that make it difficult for us to do the game part of it. The first is that we're mandated to manage the wildlife. The second is that we're supposed to provide hunting as a state, you guys already know that, and then we can adopt rule and provide areas for that purpose. But Chapter 195 basically defines what take is of an endangered species and it's been-- I have not seen this written specifically, but maybe you guys can support me-- it is understood that the presence of a game mammal, just the animal being there, is considered take. So already you're taking that plant whether it's eating it or not, that constitutes take.

These are the activities that we're planning to cover through our actions with the HCP, so we're going to go in and build fences. Part of building fences we might have some take of endangered species along the fence line. Maintaining roads and access, clearing the fence line, all of that stuff there could be some take of endangered species, and so this HCP should cover us should that take happen. I didn't explain what an HCP is in great detail, but I'll try my best now. A Habitat Conservation Plan is a plan that's supposed to mitigate for any take of an endangered species depending on the actions that you do, and the state will then, based on your plan if it's appropriate, issue a license or a permit that allows you to take those endangered species if your actions mitigate for it appropriately. The State is then trying to issue ourselves an incidental take permit or license with this HCP, which is complicated as well. But these are all the actions in our plan that we're saying basically we're allowed to do, because with building these fences and outplanting and protecting and putting more plants into the fenced areas, it's enough to offset the take outside of the fences and probably more, the goal is a net benefit. I won't go into too much technical detail about this stuff, but they spent years and a lot of man hours on them, and very quality scientific study design to survey for endangered plants and the moth. Those are the areas that they surveyed- this is just for plants. Obviously, they can't survey the whole area, and so with their survey method they developed a predictive model for where we know plants are here based on all of this stuff we think they're also in these other areas.' And based on that information is where they decided to put their fences. So all of these dots are endangered species, it's not all of them but you it's like I said, those fences have 80% of the known plants within the fence, and it makes sense. It should

make sense, it should be simple, 'okay, where's the plant, let's go protect that area.' And then with all of our actions and all of the things that we do, there should be more plants after than there were before, and outside of those fenced areas we should be able to enhance and improve for game so it's a net benefit.

This is just a little bit of a timeline: 0-10 years we're going to build all of our fences, ideally. We're doing this at this time, we're doing that at that time... any game enhancement we were waiting until phase one is complete, so until all of the fences or at least a majority of the fences, we won't do anything to enhance or improve game. We'll just let them build their fences, and after that we'll go at it, that's what we're supposed to do. Those are some of the goals for how many plants we want to outplant and mitigate for. Clean it up those years, and then maintain, that's basically what it is. Okay, part of this process for us to get the HCP is that we need to go to the ESRC and then that committee reviews the plan and if appropriate to them they'll suggest to the Board that they approve the plan and give us the incidental take license. So the ESRC are kind of like you guys, right? Advising the Board for endangered species recovery. I wanted to read just a few comments from people on the ESRC so you guys get an idea of what we're up against. I'm not going to name anybody... *"The purpose of this HCP seems incorrect. The purpose is not for enhancement above and beyond existing game programs. Take is already occurring and has occurred for decades as a result of ongoing DOFAW management practices. The purpose should be to allow for ongoing land management operations into the future, which include but are not limited to game management, fencing, road management, and fire management in these areas."* Basically, we should not be allowed to make more game. So this is a comment from the ESRC. Before we went to the ESRC, we had meetings in which members of the conservation community and hunting community, and these people in the Pu'u Wa'awa'a association agreed with each other 'yeah, let's fence the good areas, have hunting on site, manage within that. So we already have some people from different sides of the spectrum that agree with each other, but then we go to the ESRC and the ESRC says 'no, you cannot have more game. You can only have what's there,' which is contradicting what the Pu'u Wa'awa'a Advisory Council had suggested. This is not unique to one person on this committee or even within these agencies, just so you know. This is very common thought. There were also comments about we need to cover for fire because increasing access for hunters into the area is going to increase fires so we have to do more stuff for fire, which the plan already has fire stuff in it but it's not enough. Compensatory mitigation for these actions will need to occur in perpetuity. The plan is not to recover the endangered species. The plan only to protect what's left and enhance it a little bit, but not full recovery if that makes sense. That's never what this HCP was meant to be. But members of the ESRC want it to be a full recovery plan. So they want even more endangered species outplanted, they want much more area protected than the fences that we've already proposed, basically it's not enough.

Comm. Masuda: Are you saying that from the original HCP 15 years ago, the original management plan, since that time, comments are coming in that we need to restore rather than conserve?

Kanalu Sproat: Yes. And I will say the ESRC has changed in who's sitting on that committee several times within that 15 years. And that's another issue. When we went in in 2015, they approved that we go to public review, and I'm sorry I didn't talk about it. We went to public review in this plan, and public review we had not many comments, less than 20, and we had an 80-90% supporting the plan. Then we go back to the ESRC, there are new people on the ESRC, they don't like the plan, it's not enough, after we already went to public review. So we're kind of in a bind right now, which is part of the reason I'm

here for you guys. We have had internal discussions of how to proceed forward with this plan. We are not abandoning the HCP, but we think there might be a way to not go around, but not have to deal with the ESRC so much by maybe instead of calling it an HCP calling it a general management plan. That is, basically the same plan, and we're going to brief the Board on this plan in the first quarter of next year to get their insights on how we can do it, does it have to be an HCP or can we proceed with it as a General Management Plan without having to do all this stuff. We do need still an Environmental Assessment. We had one that we drafted the first time, but I guess game actions were not included in it, it had everything else that we did, all the fence building, but game was not in that first EA so now we need to go and basically amend that first EA to include game management portions of it. So we hope that's happening in the next month or two, that we solicit probably some outside agency to write it for us, we'll contract that out. So we're going to go to the Board first quarter next year to get advice on how to proceed, does it have to be and HCP or can we do it not as an HCP, then we need to do our EA, and then after that point if it's still an HCP we have to get it approved by the ESRC and if it's not then we go to the Board, Like I said, this is a 15+ year process, something that to me seems to make sense 'okay, let's protect the good stuff and outside where it's degraded, fire, all that stuff, managed for and increase game,' but there are many people that don't feel that way like I was reading. I would say maybe something you guys could do is review the plan and make suggestions according to your belief to the Board on how we should proceed with the plan, I don't know. But that's basically all I have. Do you guys have any other questions?

Comm. Masuda: I sat in on a recent meeting that included DOFAW staff representing various sides of the spectrum, and I thought I was hearing the whole group have a consensus that we can resolve the challenges to holding back anything and begin to move forward, and that's what you're referring to about going to the Board to determine whether this can just be a general management plan or has to go through the HCP process. And part of the rationale is not having to go through an HCP process, because we're not talking about a NARS or pristine area, we're talking about areas that have a history of having been abused, misused, overused for the last 150 years.

Kanalū Sproat: Yeah, actually you and I had conversations about maybe this should be a different land designation, in that Pu'u Wa'awa'a management plan from 2005, that was like number 2 on the list was create a new land designation for the area that's appropriate for the condition of the land. Unfortunately, managers at the time decided not to take that course for whatever reason. They made it a forest reserve instead of something else, I don't know if that's still an option.

Comm. Masuda: The Board can still make a decision to take it out of its current standing and put it into another standing. Is that correct?

Kanalū Sproat: I would think yes, that's their prerogative.

Comm. Masuda: So that's one of the options. So through that option there can be a more active hunting area, not limited to only muzzleloaders and bow and arrows or whatever.

Kanalū Sproat: Ryan is very familiar with this project.

Comm. Buchanan: That's why I wanted to hear from Ryan.

Comm. Kohatsu: I think Bob mentioned the re-designating it because it's degraded, that's one thing, but I think the key takeaway for seeking a different process is because you're hitting a specific committee

that won't move forward on that has a lot of consensus from staff and a lot of years of works. That's the key takeaway. This is just one plan...

Comm. Masuda: We're not taking anything away.

Comm. Kohatsu: No, I'm saying that's the moral of why you're changing your path.

Comm. Masuda: No, we're reconsidering the most appropriate way to handle this issue. Which is different from taking it away from somebody because we disagree with them.

Comm. Kohatsu: It's not disagreeing, what I'm saying that they've gone through this lengthy and expensive process that they've gone to all the stakeholders, they've done a lot of things, but it hits a point where a certain few can stop the whole thing. Whether that's right or wrong is not for me to decide, all I'm saying is that in light of that there must be another way to move forward, and that's what you're looking at. So I didn't specifically ask this agenda item for the agenda item itself, I did ask this agenda item more for a clarification of every commission member on this commission because this is the same challenge that every mammal management plan will face if you go down this road. And what it needs and we talked about this in the last commission meeting, is leadership to move it forward, and I'm hoping that that change in leadership is sitting here. Because we can actually bring this up and talk about it...

Comm. Masuda: And that's why we convened the DOFAW working group representing all areas and achieved a consensus that we would go forward to our land Board and recommend that they reconsider its designation and move forward with a new designation. That's the way I understand it being presented.

Comm. Kohatsu: That sounds fine, it's just unfortunate that you spent all this time and money, and you do all this great planning and just hit a wall. It is what it is.

Comm. Masuda: The elements of a great plan will remain, and we're not disregarding the thinking that's gone into it. I think it's because of the good thinking and the feeling that we should support the good thinking that can be operationalized, and move forward, that we're taking this position.

Comm. Kohatsu: Yeah, and I just for the record want to reiterate that I have people that sat on there a long time and they've been through the process for the 2013 draft EA comments from the consulting Garcia & Associates, I have the plan, I have all this history of it, they were sitting patiently all this time, and in that time they see phase one happening, you know fences getting built and this and that, but there was no approved plan on the back end. So they're saying 'okay, we're doing all this great stuff- oh, we still don't have a plan, no one wants to pass it.' Pretty soon, and this is not an action item, I'm just saying it for the record-- pretty soon they look around and see all the fences that everybody else wanted done, and then their interest was never approved for the plan at the end, while perhaps even funding and monies for getting that plan done was a justification for getting the money to build everybody else's stuff, while the main reason for the plan was never done at the end.

Comm. Masuda: So what I'm hearing is that you're in favor of the direction we're taking now.

Comm. Kohatsu: I'm in favor of moving any, something forward. What I foresee, and this is just a guess, you take it to the Board and hopefully the Board has people that want it and you move forward. I can name a few people on the Board that would probably say 'no, you should go through the HCP process,'

and now we're stuck, right? Same place as square one. But you've been through all of that, I do think, and I'm not speak for the Department, the Department has taken the prerogative to build these things, and I believe they have the prerogative to issue themselves the plans or license, whichever one it is. You just need them to take that.

Comm. Masuda: My understanding, Ryan, is that if the Board determines that a more appropriate overall designation of the area is determined to be correct, and supported, then that new designation would not require an HCP. But the elements of the HCP's deliberation could be taken under advisement in helping to make the general plan a beneficial one. So you agree with that?

Comm. Kohatsu: I do agree with that, yeah. I mean, just... when?

Comm. Masuda: As soon as Kanalu and his working group gets the proposal ready for the Board, which is in the first quarter of next year.

Comm. Kohatsu: And moving forward with that, I believe one of the statutory obligations of this commission is that we are able to advise the Board on plans and those things, so when that's ready and moving forward, as a commission, and I speak to all of the representatives, I would like the commission hopefully to support and move that forward, in a letter or whatever.

Comm. Masuda: I guess I would say for the record that I would be terribly disappointed if you weren't totally involved in generating that plan and recommendation.

Comm. Kohatsu: Yeah, it's just... fifteen years, you get kind of bored, you know?

Comm. Masuda: Well, you're a young man, you have another fifteen years, but I don't expect it to go that far. So you agree that you will be involved with Kanalu in helping with this commission to be involved in looking at this proposal and recommendation to re-designate this whole area.

Comm. Jury: So that Forest Reserve side, Kanalu, is what we're talking about?

Kanalu Sproat: The whole thing is in the plan. I do have these slides, but I didn't show them... basically all of the Forest Reserve side is critical habitat for something. This side is not designated critical habitat as much. But the whole area we're trying to do those actions to enhance game, if that answers your question.

Comm. Jury: My next question is, I know that that's the process that Ryan and them are working, but in the Forest Reserve, are you still able to issue a special use permit, because it's critical habitat on the basis of nuisance to allow more...

Kanalu Sproat: You mean special use hunting permits?

Comm. Jury: Yeah, according to nuisance or crop damage, being as that it's a critical habitat.

Kanalu Sproat: So I didn't include that, we've basically done it every year that I've been here, but our main purpose for that was to remove polled rams. The sheep numbers for both areas are very low from what they've been in the past. Right now, we put camera traps and estimated for everything mauka of... so this is Mamalahoa highway, between Kona and Waimea. We put cameras along the whole upper part between the two sides, we did it two years, and our estimates are between 700-900 sheep. We were only looking at sheep- there are not a lot of goats mauka, goats are mostly makai of the road. Our roles

as managers is to increase that, there used to be a lot more sheep than that. Little more history I guess I should have included, PTA used to have a lot of sheep but there's a big fence on this boundary. When I first started it was 1,200 sheep that were shot out of a PTA helicopter, so movement between the areas has been cut off and removed animals that were there, so numbers are really low. So for me I would like to see those numbers increase so that we can have more hunting opportunities. So I have not been issuing those permits in the Forest Reserve side, only to remove polled rams to remove or lower that gene if we can. But it's a possibility, yes.

Comm. Kohatsu: They're just trying to maintain what hunting is there and make it what it used to be to some degree. But in the current state that it is in right now, say you have to eradicate Mauna Kea, that's federal court order. Say I want to not kill the sheep there and I want to put that sheep in Pu'u Anahulu GMA, that would be illegal. So I'm trying to establish the legal resistance to them being there, as that testimony that he referenced, there are certain legal types that feel like just the existence of sheep there that you're trying to keep for at least hunting to some degree, just that existence is against the law. That's how they feel, right?

Comm. Masuda: But that's not the law. That's an emotion.

Comm. Kohatsu: It's interpretive, right? So what they're trying to do is find a way that it's okay, and I mean any reasonable person that's been there knows that it's okay, a lot of it is grazed, a lot of it is not even native habitat anymore, but there are obstructions to...

Comm. Masuda: Do you and Kanalu work with Pu'u Wa'awa'a and Pu'u Anahulu advisory council?

Comm. Kohatsu: Not entirely. So we used to have hunter positions that are on there, I think Bob is still in but Alan is kind of whatever.

Comm. Masuda: Well you have to talk to Alan and get him back in.

Comm. Kohatsu: Fifteen. Years. Like I said, they went through this whole process and have seen all of these things pie-in-the-sky stuff. But they just know the obstacle is hit and then what's the reason of continuing on, so they leave.

Comm. Masuda: All I can council is, why don't we look at this as a new challenge and an opportunity to restore and reinvigorate an area into a productive kind of land management use

Kanalu Sproat: We are going to the Board. We can come back after that meeting, hopefully you guys are there when we present to the Board or at least have a presence.

Comm. Buchanan: Okay, so let us know when you guys go to the Board. We'll schedule a meeting the day before or the day after or something like that.

Comm. Kohatsu: And to your credit Bob, this is years ago, and past administrations would never want us to go to the Board and change this stuff, so different time.

Comm. Masuda: I have made a commitment to work with Kanalu and the working group including all of the sides of DOFAW and we will go together to the Board to make this recommendation. So I expect for you guys to do your part and get all the people for and against on one side to recognize the new way of looking at this in a productive, useful way. No sense spinning the same record.

Comm. Buchanan: But Deputy, you cannot use the same analysis. If I listen to Ryan, he says 'all these people wanted this, and a handful of people never liked this but they win,' and just earlier we talked about and I'll cite the CBSFA, same thing, that all these people like this and then this small group of people never like this, so it just depends on what side of the fence you stay. You can use that justification but...All I'm saying is that you cannot dismiss the frustration by practitioners.

Comm. Masuda: Oh, absolutely. And I totally am not dismissing it. I'm an old guy, I don't have 15 more years, so I intend to work on this and address it within this next term, and have it done within this next term.

Comm. Ruidas: I have one question. Can we go back to... What does that mean? So the HRS, that's a statute, that's the law.

Dietra Myers-Tremblay: That's the endangered species law.

Comm. Masuda: Hey, we recognize that they are endangered species that we want to protect with fences around, a fifty yard fence or whatever it is, not a 10,000 acre fence.

Comm. Buchanan: And that's separate from restoration.

Comm. Kohatsu: Some people want to fence the whole place.

Comm. Masuda: We don't have enough money to fence the whole thing. We have enough money to protect the endangered species, that's what we intend to do. I'm practical, if we have some endangered species we have to protect them now, or yesterday, not fifteen years from now. So we're working on doing both.

ITEM 5. Discussion on Hunting/Game Management Guidelines.

Jim Cogswell: I believe everybody has copies of the map of Oahu, and also the hunting management guidelines. This is an example of something that Dave Smith recently sent out to everyone. These hunting management guidelines are part of the Division's complete management guidelines. We have hunting management guidelines as well as forest product management guidelines, conservation resource management guidelines, that is natural species habitat and water resources, recreation management guidelines, vegetation resource overlays... So these are all map overlays that we have for our managed lands, and what we did was we divided each one of these management objectives for DLNR DOFAW into these categories, and then each category we broke it down into four major management class definitions and tried to define management strategies associated with each class. So in hunting we have H1, areas where we'll focus active hunting management defined as: public hunting is the high priority for this particular unit, areas are suited for a high degree of management for public hunting, and management area is designed to provide maximum sustained yield of game animals. Some management strategies we could use in areas with that designation, that hunting objective H1, are: hunting regulations for that area will provide maximum sustained yield while minimizing environmental impacts, a high degree of management to maintain hunting programs and infrastructure, habitat is managed to maintain or increase game animal carrying capacity while maintaining a healthy vegetative cover, and proper range management and erosion control. Those are some of the management strategies we would use in that area. I could read every single one, but you all have the paper right in front of you, so just give a contrast. H4 would be an area where hunting is not managed for. These are

areas not suitable for public hunting due to environmental sensitivity, access issues, or hunter safety. No active management for public hunting will be done in these areas. Public hunting may be used for damage control on permit basis, where public hunting is not the primary management objective. So these areas wouldn't be open to public hunting, and animal control could be conducted by staff or by permitted hunts from the public. So those are the two extremes. And we've got those management classifications again for forestry products, conservation resources, and recreation management, so I can pass those out to you. Again, these were given to us by David Smith, our administrator, for soft release, so the reason for these, they're living documents. They can change, they're somewhat flexible.

Comm. Buchanan: So not to be distributed to the public, for internal use only.

Jim Cogswell: Yes, and this is to inform the public about the scope of things that we have to consider when we're doing landscape discussions. So I can give you all these other...

Comm. Buchanan: Tell Dave I said thank you. I wish I had these two years ago.

Jim Cogswell: It's been in the works for years, but now we feel comfortable enough to... To give an idea of what that would look like, for hunting only we gave you all the Oahu map, with the game designations. The H1 zones are dark green, H2 moderate hunting management is in lighter green, low intensity etc., no hunting, in those pink areas. Now as you'll notice here, game designation in the map, so you'll look at our legend and we have mammal units, mammal and bird units, as well as safety zones. The reason we split up mammal and bird units is because there could be different hunting priority in those areas. One particular area could have a high bird potential where we're able to really focus on sustainable game bird management where perhaps ungulates would be less desirable, a lower priority. So game birds could be an H1 in that area whereas mammals could be an H2. So not as high management for mammals potentially, but it could be the other way around in some areas. So this is just to give the public and you an idea of the complexity and considerations we do. So imagine these hunting management units overlaid over the conservation management unit for example, and if we would see somewhere where we've designated H1, active hunting management for mammals, and you see H2 or a high conservation priority area overlapping, we know there could be a potential problem with management activities, because we've got two overlapping and conflicting management priorities in that unit. So this will give use also a way of seeing all of our different management strategies from the different programs and how they fit together to ensure they fit together with some kind of intelligent management goals.

Comm. Buchanan: Can I ask a question? Strategically, does the Department get together with the other agencies within the Department, does a GIS person come to these meetings and you sit down and put the layers on the map of the different management strategies that go on in order to give you guys direction in how you can move like 'this is critical habitat for bats, there's absolutely zero, move on.' You guys do that?

Jim Cogswell: Yes. And that's mainly done per district, the district sits down. This is how they develop their strategies for each of these areas that we manage, and how we balance our priorities, whether they be forest products or hunting, recreation, whatnot.

Comm. Buchanan: So Shane, I'd like to put in an order for a map and a presentation for me on how the layers on Molokai would work. Something like this with the DLNR's priorities...

Shane De Mattos: I believe we already have one.

Comm. Buchanan: So maybe just the polygons, the shapes and points and stuff from a GIS perspective are going to change then. Like 'here's the Forest Reserve, within the Forest Reserve here's this other whatever...' That would be helpful for me for management.

Jim Cogswell: I think each district, they've got those plans and they can sit down with each of you and go over this.

Comm. Masuda: It would be interesting to see the map that she showed with density and look at this...You guys can look over with your staff from the related districts and see where on Melissa's map it showed desirable hunting areas, where there were lots of animals and not so many endangered species, and tell me what the access issues are, and what we need to or could do to open up those areas. Because when you look at this, I'm surprised to see only Josiah's area has active hunting management. That's the only dark green area.

Comm. Jury: Yeah, that was one of my questions. What was the matrix behind coming up with this?

Jim Cogswell: They're based on our current hunting rules. And if you look at the current hunting rules and the degree of management that we do in each one of those units, it should correlate with the hunting management objectives at those areas.

Comm. Masuda: So if we look at those maps, and even if it's only one or two more places that she's identified with high animals, low endangered species, and then it is already a hunting area, let's see if we could do something to help make it more accessible. That should help.

Jim Cogswell: If you remember, her maps had quite a large area, she did island-wide going over private and public land, so these areas... We only have management control over our public lands. So it's...

Comm. Masuda: So look for low-hanging fruit, which of the areas that we control has high animals...

Jim Cogswell: But it also shows us which partners are most important to get in touch with and start working on the district level.

Comm. Masuda: So if you can get your staff to look at that and come up with a brief overview for maybe the next meeting, and I can help you guys facilitate that accessibility stuff, I mean, we must have some ability to negotiate some of those things. We will find some.

Comm. Buchanan: So, commissioners, do you have questions for Jim?

Comm. Kohatsu: You said this was a living document, but where does it go from a living document? Does it stay based on the administrator or does it go to a Board review or something like that?

Jim Cogswell: We're probably going to present it to the Board as this is our strategy so they understand, and we'll use it more and more in public meetings, because I think it allows us to better explain some of the complexities and why we choose the management strategies we use in these areas.

Comm. Kohatsu: It used to exist in the five year plan, they used to have A1, A2, etc.

Jim Cogswell: Yes, this comes out of that, it's a continuation, reanimation of that plan.

Comm. Masuda: And if there are any areas based on the presentation we saw this morning and the areas where there are endangered species and it's in a hunting, let's take a look at that too, pull it out maybe. We need to protect that too.

Jim Cogswell: That's why we're doing these maps. And then also, this will provide us, to link it to your training this morning on the process of rulemaking, we're just beginning the rulemaking process for the hunting rules, so based on these guidelines, the conservation overlays over this, the forestry utilization overlays, we'll be using all that and be able to integrate all that into any modification of the hunting rules that we think is appropriate.

Comm. Masuda: I suspect Chair Lori is very happy with all this information coming in.

Jim Cogswell: So those will help us work with you all to make sure those are the best they can be.

Comm. Buchanan: I have a question that's semi-related because of designation and drawing circles on a map. How is the priorities of the Natural Area Reserve... you guys meet with them and go through these mapping exercises? So for Kanalu's presentation earlier that I missed, but I know he was touching on critical habitat, so Section 6 in the federal law is the Endangered Species Act. For due process for us practitioners and hunters, whatever, when the Board meets I know it's a public meeting, anyone can attend a public meeting, right? When they look at potential habitat and they talk about whether they're going to protect something in situ or ex situ or do restoration, or they're going to build up critical habitat, how does the Department handle that kind of discussion?

Comm. Buchanan: I'm talking about the Endangered Species Act, think Haleakala. You said we have to save our native species, I agree, we look for potential habitat to outplant. And then once we outplant in critical habitat, because a big issue on big Island, I don't know if Ryan can chime in on this, is Pu'u Maka'ala. They extended Pu'u Maka'ala with the intent that they would do outplantings of endangered species, which they did. But then the hunters got really upset because they were taking habitat that did not have endangered species on it, but research and science said that it would be appropriate to outplant endangered species there. So that got people really upset, at least with the hunters I was talking to in Hilo. So how does that discussion happen at your level? Where you would say 'well we've got a high use by hunters now' and you want to move that habitat and change that designation. Is there a point where the public can come out and be a part of that process, or us?

Jim Cogswell: Yes. I mean, whenever NARS Commission makes their proposition, NARS Commission meetings are open and that's an opportunity for the public to comment on that. The new plans are proposed... when we do rule changes, that's another opportunity. Rules are based on what we would do in these areas for if it's NAR rules...

Comm. Buchanan: Okay. Would Shaya be aware of those proposed changes or discussions that she could share to us by email?

Jim Cogswell: Yes. There shouldn't be any big surprises, because the conservation management strategies that are outlined here and that are then put into those overlays, those basically spell out what the conservation and native habitat folks want to do in those areas. So we can look at those on the map with this tool right here that we're just putting out, and this list was only prepared like two or three weeks ago...

Comm. Buchanan: So I guess what I always get back to because Ryan's always hounding me on this, but if we get back to the Act it says you're taking, you've got to give. You take, you give. So we're talking about the highest taking from our perspective, and you guys are just the reverse of that. I'm just advocating for hunters, I'm sorry if you're not following me. But if you're taking critical habitat, you're doing ex situ types of planting because the habitat is well suited, whether it's Mauna Kea or whatever, at the same point I'm wondering if the Department is looking to replace those potential habitat lands that are taken for endangered species and replacing it like how the Deputy is saying, like 'oh, let's use the data, look for low hanging fruit,' if we can put that on the hurry up list.

Emma Yuen: I wanted to add something. I'm Emma Yuen with the Native Ecosystem Manager. I would just want to offer to any commissioners or any member of the public if they are interested in getting more information or seeing all the proposed fences in one place, what's out there, they're all in these plans but if they want to see it all together, I'd be very willing to set up a meeting with anyone to go over that, and also as far as adding new areas, almost all of DOFAW's land is a public hunting area, so it's very hard for us to add more areas because it's already designated that way. So the main way that we're trying to improve public hunting opportunities is through getting access to landlocked areas, acquiring new lands that we can add to the public hunting area, because that seems to be the most promising way to expand hunter opportunities.

Jim Cogswell: And also working with private landowners to give access, because again on Oahu, the land that we manage is a small fraction of what's actually out there, so the more we can get access to other...

Comm. Masuda: Emma, in this morning's session there was a discussion about how even on the private side so many of them are concerned and very active with our watershed partnership, and through that they're concerned about endangered species and watershed protection, and so we're committed to help be a point of discussion with private people and our watershed partners, I just want you to know that I committed you and me for that.

Comm. Buchanan: So Emma and Jim, is this available for NAR? Am I to understand that the map would be different as well as the spreadsheet objectives?

Emma Yuen: Yes, it's actually called the conservation, not just NARS, it's all of conservation.

Jim Cogswell: Page three. So C1 are the high conservation areas, which would probably be most of the NARS. Some of the NARS might fall into the medium conservation areas...

Comm. Buchanan: Is that reflected on the map?

Jim Cogswell: This particular overlay is only for the hunting, but there is a separate overlay for the conservation resources and she can provide that.

Comm. Buchanan: That would be helpful to see that.

Comm. Masuda: We'll get you the map and have all of these together.

Jim Cogswell: But like I said, we just got the green light from David to start working with this, so I think it's in the works, each district is putting that together for you and it will be available.

Comm. Buchanan: I like it, it's easy to read.

Comm. Masuda: We're working as good partners between the two sites.

Jim Cogswell: That will give us a good idea of where our conflicts could potentially be and where we can help each other out by focusing hunting on one area.

Emma Yuen: And we have to remember that critical habitat is a federal designation.

Jim Cogswell: Yes, that too. Because we don't worry about critical habitat so much on the state side because it's not our designation, it only causes us problems too.

Comm. Buchanan: Commissioners, do you guys have questions for Emma or Jim on the designations? Ryan, you have a question?

Comm. Kohatsu: No question. I know you wanted a comment on the NARS stuff. Personally, I know the language of the NARS, it's eradication, so I kind of just give up on that, I feel like that's the no touch area. I don't know what to say toward your comment on that.

Emma Yuen: I think that we're actually looking at it more broadly because there are certain NARS that because of the way it was designated does include kind of junk forest that's very invaded and doesn't warrant further protection or doesn't have endangered species. NARS is a legal designation but it doesn't mean necessarily that we're going to fence all of the NARS. And so in certain of those areas we are making public hunting as liberal as possible and aren't planning on fencing a lot of that landscape. That being said, we want to look at native ecosystems holistically, not just within NARS but if there's a neighboring land that is really important bird habitat and watershed that is being really impacted by pigs, we might want to fence it. So that's why it's important to look into the management guidelines as opposed to the NARS or Forest Reserve designations, because this is more fluid as to what the actual land resources are.

Jim Cogswell: Right. So areas like she's talking about where maybe within NARS but are more degraded, we would perhaps be issuing an H3 for that, so low intensity hunting management with hunting season bag limits, and other hunting liberalization to maximize the opportunities in those areas, so we're working together and looking at these maps and overlays to see where we can do that and push for more of that.

Comm. Cremer: So what is the gain for the hunter or gatherer by you opening up the bag limits, there's no gain. The only opportunity you're giving us is to kill what we want to have on our table. Not today, not tomorrow, not next week, for the future generations. You guys never know what might happen some day, we might need to sustain ourselves with food that we're not going to get from the United States, and that's what I look at. So it's a hard issue, especially for me to swallow, when you guys say you're giving us better hunting opportunities. Opening up the game area for seven days a week, letting guys just take three deer, five goats, whatever pigs. Enforcement doesn't enforce anymore like they're supposed to because it's not worth it for them, honestly. You guys may think I'm rattling on and telling you guys this- until I'm off this commission you guys are going to hear the same thing over and over from me, because it's not about me. Like I said, I can hunt in every private land almost on my island, except for Robinson, I don't need to go to the state land to gather. But I worry about the guys that I know and have to listen to and see at the shopping center or when I go to a tournament. My question is, when is designation of critical habitat going to stop? How much would you guys like to save, the whole

island? The whole state? You know who is critical? Critical habitat is us too. I'm sorry, I'm just voicing myself, that's how I feel.

Comm. Buchanan: Or like Ryan always brings up, sustained hunting. We hear it all the time.

Comm. Kohatsu: Just to clarify, I was agreeing with them. I know the language of the NARS and I kind of see that as not the place I need to work on given what my constituency is asking for. Because the language is kind of hard, but with the Forest Reserves, GMAs, I feel like there's more flexibility, and I'm just saying that I acknowledge that, I understand there's a huge difference. Some people may disagree with me, but once I see the NARS I kind of don't worry about that area, it's gone at least as far as a hunting interest. And I know those guys are upset, but that's a whole other issue to tackle and I have other fish to worry about.

Comm. Masuda: You have a very practical point of view, but I would say that never say never is also a good thing to keep in mind. We need to work together to keep improving. The point of NARS is to protect our most pristine native Hawaiian forest of various types, that's the whole point, and if there's a better way to protect it I think we're going to be open to ideas. The point is to protect that and make sure that we have for future generations the ability to study those areas also and be familiar with them. I understand what Robert's saying.

Jim Cogswell: But I think these map overlays will help to shed light on that also because you'll see that there are not that many lands that are C1 or high conservation priority, even C2, and we'll also be able to see the open, other folks lands that are potentially available to...

Comm. Masuda: I continue to encourage our staff to share all of this kind of stuff and to openly engage with all our interested parties, especially those that are appointed to all our Department's commissions and stuff like that. We need to constantly engage in this kind of dialogue.

Jim Cogswell: And we have the same arguments internally and the same strong feelings within the Division itself.

Comm. Masuda: And that's why we have the people here who are here, because they are passionate about their areas of interest. Likewise with those who have to protect our watersheds and our endangered species and our fisheries and whatever. And we have a good Department, we want to keep it vibrant by encouraging that interaction. Thank you for bringing this up, and we'll get you the NARS maps too.

Comm. Buchanan: Yeah. I just think about if I start throwing all the military stuff on here, oh my goodness. You know? They're impacting, so it's hard. Oahu, you guys have a hard time, but we all have a hard time. Thanks you, any more questions? If not, we're going to thank Jim for bringing this forward to us. I liked it a lot, it's easy to read and understand.

ITEM 6. Discussion on Kaua'i Unit G ungulate control.

Emma Yuen: I actually just wanted to ask the commission if they had any specific questions, because I wasn't sure what you guys wanted on that.

Comm. Cremer: I've got a handful of questions for you. First of all the site and the reason for the shooting. Second of all, the population and pre-shoot data that justifies the shooting. Third, was it aerial or was it ground? Was it because of Watershed or NARS? Why was there no salvage if it was from the ground, which is what I understand? Can we have a post shooting report? Is there a hunter/gatherer on the NARS commission? There should be. And why was no communication with island staff ever made or with anyone besides you guys?

Shaya Honarvar: It might be useful to give some background on where this is coming from, because I'm not sure all commissioners are aware of what this is.

Emma Yuen: Sure. The background of the project was that on the Na Pali coast, here's the trailhead at the end of the road on Ke'e Beach, and it's 11 mile hike to Kalalau. And Unit G is this area in orange. We're planning on fencing this area in Hono O Na Pali NAR, but that actually goes all the way to the coast, the NAR designation does, but the fence is supposed to tie off to some strategic barriers up here and it's already fenced and completed in the Alakai Swamp Trail area, so this has been on the books for a long time. The strategic fences up here area where we think goats might be able to access into the unit, but there are going to be areas where its just impossible for us to create a complete fence because it's just these sheer cliffs. So what we're doing is using strategic barriers like these sheer cliffs that would prevent goats from entering this area. One of the main missions for that trip was to do some scouting of lower down where the animal movements are and where the goat populations exist, where there are pig populations, and the likelihood of where goats would be able to get into these upper watershed areas in the plateau, above the Pali about 4,000 ft high in elevation. The other purpose, this area is entirely both a NAR and the Na Pali Wilderness State Park, and there has been a lot of community feedback that is concerned about the goats toppling the archaeological sites of the area as well as there are efforts in Nu'alolo Kai, for instance, to do native plant restoration for the cultural interpretive signs and trails, and so they have also come up with a lot of complaints to the State Park folks that there are way too many goats in this area. Kalalau Beach has actually been very impacted by rockfalls and the barren areas that have been caused by goats, and so goats are continuously kicking down rocks onto the beach or campers below, as well as onto the trail. So the current status of Unit G is that it's open daily year round for hunters to do archery. I think the State Parks doesn't want to allow firearms because they're concerned that because it's such a popular trail, there's a likelihood that people might get shot if they have both hunters and hikers in the same area, but that's something we continuously talk to the State Park folks about.

Comm. Cremer: You did it before, I was part of that crew. On raffle, on lottery, and right now would be the perfect time. You guys went in there and did them when we could have done them as the hunters. That is the gripe the hunters are coming to me with right now. And from what I understand, I talked to Thomas and Lindsey, they were in the process of talking with State Parks to try to set up something and get this thing done sometime during the year, during this kind of time when the water is rough. You see, Hawaii is on coconut wireless, you guys can't hide things. Sooner or later it's going to come out. I have pictures of the NARS guy from Big Island on my phone from the first time you guys went, and then you guys went back again. You guys went twice.

Emma Yuen: No, we didn't.

Comm. Cremer: Well, somebody went. About the parks thing, the problem that I have is that if you guys want to go to State Parks and shoot the goats, why weren't the hunters allowed. That is the biggest

downfall to it all. And if you guys could shoot from the ground, that means the goats were able to be salvaged. All that meat got wasted, yeah?

Emma Yuen: No, the goats can't be salvaged, because first of all there's no way to get the goats to a place that's available for the hunters to get those animals, because there's been no access for this area since the April floods. So how would we get the animals to hunters?

Comm. Cremer: Drag them to a net, throw them in the net, and bring them to the closest place somebody could get them. They've done that on the Big Island, they've done that on Maui. It's just that I can't see them getting wasted, I understand it's NARS Emma, but the secret part about you guys doing things is what bothers me, it's what makes us have a lack of trust of this administration, and it's why I sit on this GMAC today, because of the lack of trust.

Emma Yuen: Just to share with you, it's part of the DOFAW's routine management to do animal control, and while we do provide public notice and are legally required to provide public notice for when we do aerial shooting, we do not need to provide public notice for every time we go out and on the ground remove animals for conservation purposes. So while you might perceive this as us hiding this from you and other hunters, if you had asked us what we are doing, we would tell you what we're doing. It's not something that we're hiding, it's just not something that we're also continuously telling the public. We don't have any press releases that we do for this. And so I just think that you have an expectation that we give some sort of press release to folks every time we do something, but I'm just letting you know that we're doing this as a routine measure and don't necessarily publicize these kinds of things, it's just part of our management. We just kind of go, and we're killing weeds all the time, we're killing all sorts of things, we're planting trees, just because we don't tell folks every time we do it doesn't mean we're trying to hide it.

Comm. Cremer: You planting the trees is not affecting our gathering, and the peoples' gathering.

Emma Yuen: But I think it's a good point that we should work together and using this opportunity that the park is closed, create more of those hunter public access trips to go and try to remove as many of these goats and pigs.

Comm. Masuda: You have a great volunteer crew right now for this kind of thing.

Emma Yuen: Yes, I'm glad that you're working with Thomas about that.

Comm. Cremer: The other thing is you said it was not aerial shooting, then why were there people boarding the aircraft with their rifles not in a case?

Emma Yuen: There was no aerial shooting.

Comm. Cremer: No, I'm just asking you, if there was no aerial shooting, then why was it necessary for them to board the aircraft with rifles in their hands and slinged.

Emma Yuen: So their rifles were?

Comm. Cremer: From my understanding.

Emma Yuen: I don't think that's right.

Comm. Cremer: I'm not saying it's 100% sure because I never saw it with my own eyes, but it's what I was told.

Emma Yuen: We didn't do any aerial shooting, and our standard operating procedure would never have been to have a rifle just out in our hands while we flew. We'd always have it in a case.

Comm. Cremer: Unless you were going to do an aerial.

Emma Yuen: But we didn't.

Comm. Cremer: No, I'm just asking, unless you were going to do an aerial, okay. You're going to board the aircraft with a rifle in your hand if you're going to do an aerial, if you're not in the case. That's why I asked her, if it was a ground shooting, why were the weapons not in the case?

Emma Yuen: And I'm saying they were in the case.

Comm. Masuda: Well, if there is a complaint and if it's true that someone was boarding the aircraft with an uncased weapon, if that was made known then we would talk with that person and review the protocol.

Comm. Cremer: Well if he's trained to aerial shoot, then he's allowed to board the aircraft with a rifle, but if he's not trained then he's not allowed. It's got to be in a case, because I went in an aircraft to go into Na Pali to do a special hunt, our weapons had to be in a case, they couldn't be out in the open, locked until we reached the site there. So that's why my question is, if it wasn't an aerial shooting, then why were the weapons present as they boarded the aircraft.

Emma Yuen: But you don't even know that, you're just hearing it from someone, so what I'm saying is that my understanding is that they put their weapons in the case.

Comm. Cremer: Okay, so you guys shoot the ungulates in State Parks then.

Emma Yuen: Yes, we concentrated our control efforts...

Comm. Cremer: Mahiki Flats, yeah?

Emma Yuen: Where is that?

Comm. Cremer: Right there going into Kalalau.

Emma Yuen: Yeah, Red hill area.

Comm. Cremer: Yeah, I know exactly where. Somebody was watching.

Emma Yuen: As far as your question, there is a hunter on the NARS commission.

Comm. Cremer: And who would that be?

Emma Yuen: His name is Jeffrey Saito. He is on Maui. But I guess the overall concern that we have is that this area is incredibly important for endangered species, and there was actually another native Hawaiian plant *Hibiscadelphus woodii* that just went extinct because goats ate it and it was right on the cliffs of Kalalau, and there are just dozens more similar species in this area that are about to go extinct if we don't do anything to control them. So it is really a problem to have these large populations of goats

roaming the landscape there, causing erosion and toppling archaeological sites, so I really hope that you do see the balance of the need to efficiently remove goats and augment the work that the public hunters are also doing in the area.

Comm. Cremer: I handed out a stat sheet from 2001 to now, if you guys think the populations of the goats from then to now, you look at the population and the count. That's from DOFAW. So you guys are saying that the population is that high in the sky? They had 100 goats on Mahiki flat, the guys that counted them a few weeks before you guys went there, 100 goats. What is a sustainable level for you guys, zero then? In Kalalau, which is State Parks? The NARS I can understand is zero, like Ryan said, but when you talk about State Parks as an archery area, that area had so many goats before, people don't even feel like going anymore because it's totally down to the limit. The last time we went in there for the special hunt, all we found was bones, and bones that were piled up five, six, seven in a general area, we know what had happened.

Emma Yuen: What had happened?

Comm. Cremer: You guys went and shot them.

Emma Yuen: When?

Comm. Cremer: When was that special hunt? Lindsey, do you remember? It happened.

Emma Yuen: What this is showing is the number of trips and animals harvested, which seems to be decreasing since early 2000's, and what I'm concerned about is that this isn't necessarily a population census of how many goats there are, there might be just fewer hunters going out and getting these animals.

Comm. Cremer: So you're saying the population is still the same as 2001?

Emma Yuen: Well, what I'm saying is that it doesn't necessarily say that there's a declining number of goats, and we can have large quantities of goats as one variable, but the variable that we care about is whether endangered species are going extinct, is whether there are large amounts of erosion happening, and whether there are archaeological sites being destroyed and all those sort of things, and so that's what I and the Native Ecosystem program monitors, and when we see unsustainable amounts of damage to these resources, that's our trigger to say 'hey, the number of goats is probably too much and the area can't sustain it' rather than strict population numbers.

Comm. Masuda: I think one of the things I'm hearing Robert say, Emma, is that when there's a perceived population growth that would trigger a hunt, that we might coordinate a reduction program with the hunters involved, and they could use them as volunteers. Like now when we have Kalalau and that whole area kind of closed off is a great time to...

Comm. Cremer: You guys worry about the goats, you guys have to worry about how many pigs are in Kalalau right now.

Emma Yuen: Yeah, we are worried about that.

Comm. Cremer: Because the goats are nothing compared to the pigs that are inside Kalalau.

Emma Yuen: They're really messing up the archaeological sites, trampling all the lo'i.

Comm. Cremer: The populations of the pigs are three more times than the goats.

Comm. Masuda: So Robert, if we put a call out to hunters to help out over there...

Comm. Cremer: They would be glad to go.

Emma Yuen: Is that something that you guys are working on?

Lindsey Ibara: We have three dates booked for the summer of 2019 for Kalalau for rifle hunting, they're closing the state park.

Comm. Masuda: Well now that it's closed why don't you guys go in right now for pigs and goats?

Emma Yuen: There's no access right now because it's winter time, we have to wait until the summer.

Comm. Cremer: No, they flew us in cages.

Emma Yuen: But we can't fly anymore, that's a policy with DOFAW, we can't fly volunteer hunters.

Comm. Masuda: Even for a planned eradication by the Department?

Emma Yuen: Yes.

Comm. Cremer: When did that take place?

Emma Yuen: I think it's been maybe five years now.

Comm. Masuda: What's the rationale behind it?

Emma Yuen: I think there was a concern for a couple things. One is that when hunters bring in dogs, a lot of times they lose the dogs and then they want to go back and use flight time to find the dogs, which always creates a problem. The other is liability, and I would like to have our administrator Dave Smith provide more of the rationale but that's just my understanding.

Comm. Masuda: Sure, let's talk to Dave and see.

Comm. Cremer: My question is, is the trail inaccessible to hike in as a hunter? As a hunter now, not a hiker or tourist.

Emma Yuen: Well, I actually hiked the Kalalau trail the day after the flood happened, I happened to be camping in the valley, and it was okay for me to get out, there's a few landslides. You can't drive all the way to Ke'e though, so that's a big barrier. The only way you would be able to get there feasibly...

Comm. Cremer: Why can't you drive to Ke'e?

Emma Yuen: Because the road is closed.

Comm. Cremer: But there's caravans that drive in and out that the state allows.

Emma Yuen: But don't you have to be a resident?

Comm. Masuda: Let's put it this way. The limitation right now is for local residents to have access, because we don't want the whole place going in when it's not the best. But if we were to sponsor an eradication program and the hunters that are going in are signed up, signed off all the waivers and

liability stuff, well let's talk to Dave and see. Because if the pigs are messing up too much right now maybe we shouldn't wait until spring.

Emma Yuen: I do want to just let you know that the purpose of our mission wasn't solely to try to remove as many goats as possible. Our staff were doing a lot of reconnaissance to plan these fenced areas and find out where the animal damage is, so it's not something that we could have just relied on the hunters to do because we needed all of our staff to go out there, and this was kind of an additional thing they did while they were out there.

Comm. Masuda: My comment was not on that trip, I'm just responding to the comment now, that while the place is closed we can always arrange for accessibility for a particular kind of thing, especially for a Department sponsored eradication program, if populations are creating a problem maybe we should go in and get them all down.

Emma Yuen: So do you think that there's an ability to access the Ke'e trailhead for folks and do the trail?

Comm. Cremer: If people are signed up, there's people that live right there on the north shore that would go in with their dogs. They're sneaking in there right now anyway, so if you tell them 'it's fair game, go,' they're going to go.

Emma Yuen: So we should work with them and authorize them, give them permits, and that's something that State Parks needs to finally sign off on, but we can advocate with them to try to allow that.

Lindsey Ibara: It's ultimately State Parks' jurisdiction, so they're going to have to sign off on it. We're already working with them, but at Nu'alolo Kai, I have a meeting with Ellie Carpenter [indiscernible], they kind of okayed a rifle hunt in Nu'alolo Kai.

Comm. Masuda: What I'm suggesting we do is we talk with them about an organized thing using our state game management advisory commission as a resource for Kauai hunters to sign up for a state sponsored eradication program, they sign their waivers etc. and get State Parks to sign off on us or Forestry helping them through the Game Management Commission and having Kauai hunters go in.

Emma Yuen: I think that would be great, especially if we could allow firearms and dogs, because then we would not be interfacing with the rest of the hikers because the trail is closed.

Comm. Masuda: And hunters are a different breed from hikers as we all know. These are local guys, we're not asking people from the mainland or anyplace else like Oahu to come over for this hunt. This is for local guys to go get some food.

Emma Yuen: So what you're envisioning is we allow permits for folks to camp along the Kalalau trail and use firearms and dogs and that sort of thing.

Comm. Cremer: For me, I like sustainable yield on animals, and I understand NARS is a great thing that we cannot fight like Ryan said. But when you guys go in there and shoot things and leave them there, that's the kind of stuff that bothers me. So, I'm saying, anything that will make it better than where it is right now, I'm satisfied.

Emma Yuen: Great, let's work on that.

Comm. Masuda: But you would be willing to help us organize, promote, and get local hunters to help us reduce the population?

Comm. Cremer: Guarantee.

Comm. Masuda: And this is something that we would encourage and approve, you can let Alan and [indiscernible] know that I support that.

Emma Yuen: Okay, sounds good.

Comm. Masuda: We need to get this kind of partnership going. This is not inviting everybody and their uncle to go, this is inviting Kauai residents who are hunters, no adventurers.

Comm. Cremer: And if they come they have to sign a permit like usual, so many groups per time.

Comm. Masuda: They have to sign a waiver, they're responsible.

Emma Yuen: They know that the trail is all busted up.

Comm. Cremer: Probably between the seventh and the tenth mile is where it's going to be the worst.

Comm. Masuda: I would trust their judgment, they know how to survive. Robert, is this okay with you? We'll get your help on getting this going?

Comm. Cremer: Yeah. Like I said, I don't like the shooting but I'd rather the hunters go get them and no waste.

Emma Yuen: We prefer the hunters get them too.

Comm. Buchanan: Emma, is that an open system? Where is the fencing in that area right now?

Emma Yuen: It is an open system. The fences right now area long this area, we're building a fence here, and then we're going to have some strategic fences in certain areas around here. But Unit G itself on this whole coast is open, there's no fences along that, and goats can go basically everywhere.

Comm. Masuda: Emma, the thing I talked with you about, can I just bring it up and share the idea? Recently, we have some mitigation things where we have two different cases where they have to put in so much money to help protect the birds.

Comm. Buchanan: Because they're killing bats, and you're taking the bat mitigation money?

Comm. Masuda: No, not the bat money, the bird money. Seabirds, with DOT... Instead of having two separate projects with funds to put up fences to protect seabirds in two different areas, I'm suggesting that our folks may want to consider putting the two things together and make one seabird sanctuary with a bigger area than two smaller areas. And so that kind of idea would then, instead of creating pockets of fencing all over the place, would create one good seabird sanctuary in the right place for the seabirds, and do a good fence. That's my idea. I hope it's a smart idea and not a stupid idea.

Comm. Buchanan: Just wondering. If I was a bird, maybe I'd like to live at Ka'ena Point and not Kalalau Valley. I'm just asking.

Comm. Masuda: Well, this is designated for Kauai birds. We want to pick a place where the birds won't be affected by lights.

Comm. Buchanan: Can you please tell the Department of Transportation Airports Division not to put lights at Kalaupapa with the new improvements, because they plan to do that. We're opposing that.

Comm. Cremer: How many goats did you guys kill, Emma?

Emma Yuen: The number... 100ish maybe? I'm not sure of the exact number.

Comm. Buchanan: Emma, do you guys have exclosures for the native species, or is it all open?

Emma Yuen: There are about three or four really small, like quarter of an acre type, fences along the coast. And then this whole area we're planning to fence. And this is where a lot of the seabirds are nesting currently. So we found in pigs' guts seabird remains, so they're actively eating ground nesting birds.

Comm. Buchanan: That's all state land?

Emma Yuen: Yes. But not all that much protection for the coastal and the cliff areas.

Comm. Buchanan: Who would get the liability if you do this operation within Parks? Is it just the state that has liability that would cover your volunteers?

Emma Yuen: When we have our volunteer trips, we usually have some sort of waiver we have them sign.

Comm. Masuda: People have their own general liability covering themselves.

Comm. Cremer: But our hunting license covers that already. Anyone who has a hunting license cannot sue the state for any type of injuries, it's part of our contract on the license. So that would affect anything to do with hunting.

Comm. Buchanan: No Robert, I was getting to the point of our earlier discussion where we were asking Shaya and Jim to expand hunting onto private property, and then it came up that liability was an issue. However I know the state of Hawaii has a waiver for public spaces and state parks, and just like the rock fall where those people died at the waterfall, whether you're swimming and you eat it at Sandy Beach, or you just happen to be washed away in Kalalau and they turn around and sue the state and whatever. All I was getting at was the same type of liability coverage could be extended to private landowners, even like they have when you have forestry stewardship plans and stuff like that.

Comm. Masuda: We're going to have our AG's office explore that, because the personal liability thing is a little different from the state's self-insured model.

Emma Yuen: What do they do on Lanai? Because it's a Cooperative Game Management Area on private land.

John Medeiros: We lease the land. We lease it out.

Emma Yuen: So by leasing it that somehow protects them...

Shane De Mattos: We also have them sign a waiver [when they check in].

Jim Cogswell: So there's an additional waiver as well as the one on the hunting license. But also on private land there's not just the issue of the hunter getting hurt but the hunter hurting something of the property owner, like leaving a gate open and his cattle go running out and then he's got to go herd them up again. Who's going to pay for that damage, because you don't know which hunter, you know? So there are issues like that as well when you get into the private. Liability for the hunter yes, but also for the private landowner, who's going to compensate for that.

Comm. Buchanan: Okay, thank you. Anybody else have questions for Emma?

Comm. Masuda: Thanks for this presentation.

Comm. Buchanan: Thank you Emma, this is a nice map. I think you need to get rid of the other invasive species that walks on the beach with two legs.

ITEM 7. Reporting: Permitted Interaction Group (PIG) will report on suggested internal policies, practices and procedures for state GMAC.

Shaya Honarvar: The PIG is a Permitted Interaction Group, there were four people invited to do this from the commission, and I believe it was Lori, Ryan, Josiah, and Stan. It happens in three settings, so the first meeting is to basically come up with the number of people who are going to be in the PIG, and those people in that group are going to meet together at a different time and talk about internal policies and rules that the commission wants to create for the commission itself. At the second meeting, which was today, that's why it's on the agenda, they will report on their meeting. So you guys met this morning, so all we have to do right now is to report what you guys talked about and what the consensus is, and there's no discussion to take place, so you're just reporting, not discussing this until the next meeting. Then at the next GMAC meeting when we put it on the agenda you can discuss it etc., and by next meeting it would be nice to have a document ready of the findings of the reporting that you are doing now so the commissioners can see it before coming to the meeting so you can discuss it and just go from there.

Comm. Buchanan: Okay, so we're doing a short report on our meeting this morning. Well, I wanted to thank Dietra who gave us [this packet]. No need to reinvent the wheel, we're going to look at other boards and commissions that have practices and procedures, simple stuff like attendance, what is quorum, all those housekeeping boring kinds of stuff, that's what we're going to do. I also submitted examples of PIGs and rules and practices and procedures from the planning commission on Maui, and so the homework is for us to take it home, all the commissioners, and take a look at it and take what looks really great from these and then we're going to try and create our own, and I think that's going to give this commission more standing, it's going to make us better to answer to legislative inquiries, just that we've got our act together and this is what we do if we get questions. Right now we don't have a vice chair, guess what? Let's create a vice chair. That's it, that's the report.

Comm. Cremer: Thank you for your report.

ITEM 8. A short report by each commissioner summarizing their meetings with DOFAW staff on the island that they represent.

Comm. Cremer: The lease for DHHL is six months, we're trying to work on something better but doesn't look like it, it looks like we're going to try to do a land trade.

Comm. Masuda: I just checked something, we're meeting with Jobie and William this Wednesday, I will keep you posted.

Comm. Cremer: And then the next thing is Sleeping Giant, the archery hunt. We didn't get as many pigs as expected but I think it was a success, no complaints. Lindsey gave me the report, there were three different check stations at the front, back and side. The front is in the front towards Wailua house lots toward the ocean side, then the back is the mountain side toward the homestead, and the side is by Opaeka'a Falls, I don't know if you all understand, but on the front side there were 11 trips and 1 boar was taken, the side had 18 trips and 1 boar and 1 sow were taken, then the back, 28 trips were taken, and 5 boars and 5 sows were taken. So a total of 13 pigs on 57 trips. This was a six month period from May 21st, a six month period. Looked like might be able to open it up permanently, wait, they have one more trial. At least people can do archery on the East side. Lindsey and Thomas are looking at opening up other areas that could be accessible. The GMA which is only bird now, they're going to see if they can open it up to archery hunting.

Emma Yuen: Which unit?

Comm. Cremer: Wailua, Kondo Gate. I don't know about the other side, the [indiscernible] station side, we might be working on a land trade for that.

Lindsey Ibara: Oh, that's one of the parcels you guys are getting land?

Comm. Masuda: I only know about the DHHL one.

Comm. Cremer: That's the one I mean, trading for that.

Comm. Masuda: I'm just checking, I want to make sure I'm not hooked into something I don't know about.

Comm. Cremer: Yeah, the DHHL. Thomas can report to you.

Lindsey Ibara: Is that half of Unit I? From Kondo Gate going up?

Comm. Cremer: No, the other piece towards Kuilau trail. That's it.

Comm. Jury: Things have been pretty good lately here on Oahu. Like I mentioned earlier, 40% of the land we're hunting on actually increased through permitting, we're working with the Department, the Pig Hunting Association, and of course this commission, working with other landowners, attacking the liability issue within our association by requiring our own liability insurance through the NRA for all our members so that way we can approach private landowners and doing that we're able to write ROEs working with Bayer, we got an ROE with a landowner in Honouliuli, KS is on board because they see the organization of the Association, so looking at the data that's been provided as well and using that, of course working with the Department, Poamoho hunting area which is the largest hunting area on Oahu to find an additional access area as well as not only weekend hunts but weekday hunts, which turns into 240 extra hunting days in the largest hunting area on Oahu. Working alongside Nick, we just worked with some hunters this weekend to begin to open up a new parking area there so we can minimize the impact on the community and not park on the roads. So collaborating with the State, partnering up with

them and connecting Nick and the DOFAW to other agencies in Hawaii, other people, hunters, communities of hunters, and also addressing the bow hunting, allowing the state to issue a permit in Waimanalo and open up 1,600 more acres for permitted hunting for archery only, which is a good area location-wise because it kind of reaches us out to the guys on the East side of Oahu which also includes our military service men and women, which I would say we're trying to work with the Navy and we're in talks with the base commander to try and allow additional access over there for hunting to get guys in. We understand they contract out their stuff for agricultural things, so we get the agricultural committee involved and the State Department and some of the senators, and we're trying to get some talks going, and we're looking pretty good with that. We're still awaiting the land lease agreement by Board of Water Supply with the State Department for Makaha, we understand that the state did meet to talk about the management plan that Chair Case did write, and did say that the Department is going to complete prior to further aerial control work being done in that area. I know they met, so we're waiting for the land lease wording to be complete in terms of allowing additional public hunting in Makaha for the goat and feral pigs. Lastly, there is a proposal for an area at Kuaokala to be a missile defense, and there was a public meeting that they came down in Kuaokala, and if the military does go forward with that, it's the only public hunting area and also the only GMA on Oahu and according to this live map the only H1 hunting unit on Oahu, and that would potentially eliminate about 160 acres which is what I'm quoting off of their meeting that was held in Waianae. 160 acres of GMA hunting bird area, and mammal, but the bird guys really like that one on Oahu, so that's an issue that's being brought up and I'm sure she's going to talk about it. I guess one issue that was brought up too was that unfortunately because of how the cards fell there were no birds that were released this year, but Nick spoke to a lot of guys and they're happy to see that the birds from last year are really thriving out there. So we've got some good things going on Oahu, working well with a lot of people.

Comm. Masuda: What kind of birds are they mainly releasing?

Nicholas Vargas: From the last season, we released Ring-necked Pheasants and Melanistic Blue Pheasants. They're thriving to a certain extent. Hunters are taking birds that we recognize are from our previous season. From a current report from one of the guys that I know, he was saying that not this past weekend but the one before was when he went out, he said it's getting a little slow. Some hunters are still pulling out pheasants, but even I'm noticing that it's going slow.

Comm. Masuda: Where is your breeding area?

Nicholas Vargas: Last season that we were raising birds, we had them at the Helemano area that we just acquired. The reason we didn't have that for this year is that there were ownership issues during the time that we were acquiring the land, and so in order to be in compliance with everybody we had to pull our project out of there.

Comm. Masuda: So now you have the whole place.

Nicholas Vargas: Yeah, we'll see what we can do over there. We're trying to pull up the program again for this coming season, 2019.

Comm. Ruidas: Can I ask a question? Are you guys bringing them in or breeding them at that site?

Nicholas Vargas: We brought the chicks in from the mainland, and then my friend Gordon Lau had the part time brooder at his house and then we brought it to the Helemano Ranch.

Comm. Cremer: It's volunteer, everything is volunteer just like Kauai. We raised a batch one year.

Comm. Ruidas: I used to raise birds before, it's costly to bring them in. If the state can have a place to start raising them from brood stock, it would be cheaper and easier to get.

Comm. Cremer: How much do you guys bring in, Lindsey?

Lindsey Ibara: 600 and 150.

Comm. Cremer: So 750 total they bring in, chicks.

Comm. Masuda: How much is each one?

Lindsey Ibara: \$2, so with shipping it comes to just about \$2400.

Comm. Ruidas: And then growth, growth is 6 weeks. So how much is the total for that.

Lindsey Ibara: Yeah, we brood them 6 weeks, but I'd have to look up that.

Comm. Ruidas: So it comes out to like \$15-20 a bird. It would be much cheaper if the state could raise their own, and you'd have a job...

Comm. Masuda: Maybe you can write a project for Helemano as far as how many acres you need, the economics versus importing over time, and share it with Jim and Dave.

Comm. Ruidas: The reason I ask is that we were so worried about the West Nile virus and the bird flu coming to the state, you don't want to take that chance in bringing the bird in, so you would raise your own and you wouldn't have to deal with that.

John Medeiros: I kind of laugh about that because we did it in the past at the Old Maui High School. And we hired state people and bought the birds and raised and released them, and we banded the birds, and then when you get the return, we calculate what the return is based on the feed, and it was like \$50-60 a bird, so we got aced on it.

Comm. Ruidas: So you would not release the birds, the brood stock, but you would release the babies of the brood stock, and then you have to have good practices of raising them. What's that club on Maui, they raise birds?

John Medeiros: Well before we used to have a couple of guys like Pat Fisher that raised them, and then the prices started to go higher and higher and we're paying like \$27-30 a bird.

Comm. Masuda: We're suggesting that if we have our own breeding stock in place, maybe we can keep the prices lower.

John Medeiros: The feed is the killer too, and staffing for year round.

Comm. Masuda: See if there's a bird lovers group...

Comm. Buchanan: There are plenty of bird lovers, the funding is from bird lovers.

Comm. Masuda: I'm talking about the hunting.

Comm. Buchanan: I know, and you're talking about that and I'm think in of birds eating [indiscernible] and spreading them to my native forest. Molokai has too many problems right now. We got a new DOCARE hire, so we have one more person! Please train him, he has not gotten legal training yet. Archery guys are still going strong, and you know because they've got the same type of ROE where they lease large swathes of land with Molokai Ranch they're happy because they've got a place to go. So they're good, the association is good. Because we don't have the same type of issues, nobody is really complaining a lot right now, right Shane? We're all busy with other big environmental issues going on right now. Kalaupapa is a big issue for Molokai people right now, it does involve game management too and the Navy, the Navy is going to take our fish resources in nearshore waters. We're supposed to address that here too, but nothing. But we're doing that right now. Right now Molokai Lanai Soil Water Conservation is kind of a flat tire, they were trying to organize hunting and stuff because everybody is being impacted by deer, but maybe because there is plenty of grass right now they're not cruising into other people's backyards. Not too bad, if we get something earth shattering I'll let you guys know.

Comm. Timko: I didn't meet with Jason, I met with Marigold Zoll regarding the Missile Radar Defense Station proposed for Unit A. Basically because this map is wonderful, you can see how small the hunting area on Oahu is. And the feds want to take 160 acres, so my question was if they're taking 160 acres of our game management area, what are they giving back to us? And she said they're talking to the state, they want to give money. Well money is going to go into the general fund and we're not going to see a dime of it, so that doesn't fly with me. I want to see 160 acres of federal land in exchange for the state land, it's only fair! And it has to be huntable.

Comm. Buchanan: There's no more land.

Comm. Timko: Well, the military has got plenty of land. So that was my concern.

Comm. Masuda: We will exact a fair exchange. And remember, the thing is for protecting us.

Comm. Timko: The people at the missile defense radar were very evasive and nobody was really open about anything except that that was their preferred site, Unit A.

Comm. Masuda: I think it's a great site rather than the other sites. Just to give you a quick overview, this particular technology is set up so that it can detect simultaneous multi launches across the ocean, and it will determine on launch while it's still getting off the ramp, which ones are the real ones and which are the fake ones and communicate everything to our subs in the Pacific so they can pick them off before they start leveling out. Just as a general description that's the technology level, and so in terms of long term nuclear defense kind of thing, it's outstanding technology, I have great confidence in these guys, I read studies on some of these things. It's for our protection. And I do get your point so we will work on getting some good exchange.

Comm. Buchanan: Okay, so that's not good enough. Because I'm well aware of the land encumbrances for the US Military on the island of Oahu, and so to take the only area that has the highest active hunting management unit on the island of Oahu, the only place where people can actually drive with a permit past guards to get up to breed is not acceptable. So either you guys can fix them up now or you're going to get a bad time. Just saying.

Comm. Ruidas: How much money is the state going to get from that?

Comm. Masuda: I'm not free to discuss the details, but we're not going to have to pay for it. This is multibillion dollar technology.

Comm. Ruidas: What did we get Barking Sands for?

Comm. Masuda: Barking Sands is a research site, it's not a defense site.

Comm. Buchanan: Same as Kahuku, same as Marine Corps Base, same as Pohakuloa, same as Bellows, same as all the kine. I don't know what the alternatives are, Nancy do you know the alternatives that were offered?

Comm. Masuda: Kahuku, Pupukea. The Kahuku training area is more problematic I think.

Comm. Buchanan: The great thing is they're going to give you buffer monies and so you can extend all of you protections at Ka'ena Point. But where people are going to drive and breed, that's all I care about, and if you put your money at Poamoho or Pupukea then maybe we can talk about it.

Comm. Masuda: It may be a slight inconvenience for some of the hunting area but we can always expand the hunting area hopefully. Considering all the other things they do for the public and interface, and security, and accessibility, and all that, that's really... I have gone through the review of all the alternate sites and this really is in our interests, in my opinion, the best possible option.

Comm. Buchanan: And that's fine and we can support that as long as you guys know in the scoping process that you should already by designating something to pacify the loss.

Comm. Masuda: I am working on it.

Comm. Buchanan: Well I don't live on Oahu and I don't hunt on Oahu, but the reason why Legacy Lands gave money to DLNR to expand Poamoho and Pupukea and the rest of the NARS was to provide recreational space.

Comm. Kohatsu: I met with Joey and Kanalu, I don't remember what date, and we talked about the whole HCP, you guys got the history on that, and then the other topic was we did have that 16 Mile Marker shooting range that opened up, and it got kind of trashed as expected to some degree, so DOCARE reached out to us about getting a public notice out so folks could clean it up so we don't have to close it down, and some outstanding folks in the community went out, filled up their pickup trucks with trash and took it to the dump, so they were able to keep it open, and they also talked about bettering the range, increasing the berm and things like that.

Comm. Masuda: We've asked our Hawaii district office guys to go take the bulldozer up there and go define the shooting range with the berms a little bit better and just find some money, maybe from Pittman-Robertson, to put a shooting platform, maybe even asphalt or whatever, then we can put 4x4 and [indiscernible] on top as a shelter thing. Right now they're putting tents all right next to each other and guys are shooting out of tents in the rain. It's not a really safe thing. And as a bonafide certified national NRA shooting range safety officer, I can make that statement. You'd never know it.

Comm. Ruidas: I met with John and Shane. We've been working with the landowner Pulama Lanai to get the road fixed which was flooded from February, it still hasn't drained out. The management plan is going forward at the cost of a million dollars, so Bob we need a million dollars. And then we have the Axis deer hunt coming up, our drawing is in Maui on Friday January 11. That's for the three does, and I'd

like to say again that if you guys have any friends or family coming over they'd better make reservations really quickly.

Comm. Masuda: How many deer are there on Lanai? What's the population?

Comm. Ruidas: On the GMA it's 2,737. On the private side, they don't know.

Shaya Honarvar: May I add something? Stan had emailed me to look up hunter informational surveys that we put online every year, and he asked me for the results and I informed him that Sarah is working to put together the results for the informational survey. Just a heads up, so I'm going to send that report out hopefully sometime this week or next week and then we can discuss it at next meeting, maybe. In 2016 we had only 450-ish people submit the survey, but we just put out a survey this year asking questions about 2017, and about 1,200 people submitted their comments, and that's a really good number because if we have 12,000 registered hunters a year who buy licenses, and 10% of them are actually doing the surveys, that's pretty good. So I do feel confident that we can now use this data in the conversations that we have. You are all aware of what type of questions we're asking. So I will send it to you, and if you have other questions you want to be added, or comments or anything, please just get it to me as soon as you can so I can put the new survey up again in January or February.

Comm. Ruidas: Can you put that on the agenda for next round?

Shaya Honarvar: Yes. Then I have one more thing that I may add. We have had conversations with the staff about going forward with the 122 and 123 rule change, and we're having meetings about that where we are going through every line in 122 and 123 and trying to make changes as we see is appropriate, so we just wanted the GMAC to be aware of that, and once we have our comments from all of the staff and managers from the islands ready, we can get a copy to you guys the GMAC and probably DOCARE and get your comments on it and move forward from there. This morning you guys had a workshop that explained the process, so this is like the first box in Dietra's presentation. I just wanted you guys to be aware that we're moving forward with that as well.

Jim Cogswell: I'd like to add onto that a lot of the rule changes that are being proposed by the district biologists are changes they heard from the last rule change we did, we didn't put in all the changes that everybody was suggesting from all their public meetings, but those are now on the table again and hopefully we'll be to resolve some of those lingering requests. Not all of them, but hopefully we can address some of them.

Comm. Buchanan: So this is bigger than just consistency and housekeeping, this is policy and big items that never were incorporated from before.

Jim Cogswell: Some of them, yeah. And like shaya said, well give those amendments to you and you can make your comments, see if we missed something...

Shaya Honarvar: And I envision that you all will meet with the managers or biologist from you island to go through this document in a meeting and then get your comments to them, so it's not like we will sit here and discuss all the comments, it will just be between each island and their GMAC representative.

Comm. Buchanan: Thomas, I know earlier you wanted to say something and I said hang on and then I forgot. You had something you wanted to raise?

Thomas Kaiakapu: We were talking about the management areas guidelines. Those guidelines were first started in the 90's. I was there when we first started. Kauai was the first district that drafted the first draft. There were four components: The forest component, which was the vegetative type, the hunting, forest products, and recreation. And then over the years we tried to get other districts to jump on because we saw on Kauai what was happening with USFWS proposing for critical habitat. So we took the step to get these management guidelines in to show how DLNR was managing its resources. Fast forward about 2005 or so, a fifth component came in, conservation came in, that kind of threw everything off wack, because now administration from NARS and other programs thought to change the language or the guidelines, and those guidelines there are different than they were in the 90's! So now when we saw it they flipped everything, they changed everything. Now they're going back to the district and trying to force us to agree to those changes. The thing about the guidelines is that the critical habitat designation keeps changing, and a lot of those overlays has a lot to do with the critical habitat designations on the island. So if USFWS propose for more acreage, we have to change the map, change everything that is affected by critical habitats and that is why that document is a working document, it keeps changing. So it's still in draft, but of course our admin says 'finish it, finish it.' So this is where we are right now, so just letting you know it's still a working draft, it's not concrete. But admin keeps changing it. We put something there, they scratch it out and put something else. This doesn't make sense! We put in the effort and admin changes it again. I just wanted to let you know what we're at right now. It's getting harder for us to manage hunting, there's so much emphasis on the protections side. There's no balancing act.

Comm. Buchanan: So I think we echo the same thing that you guys are feeling. Thank you, because you have institutional knowledge from working in the Department for a long time. So have the people behind you, they've been there for a long time too, and we know that stuff starts from the top and works its way down that way, so I understand that the priorities are changing.

Comm. Kohatsu: I did ask Jim with that document if there was a future for it, perhaps seeing the Board or something like that which would go from perhaps a living document to codifying it so to speak, so I did hope for that, and it seems that going from this flexible thing is something that has been pretty challenging, so I would like to see that happen.

Thomas Kaiakapu: The other thing I want to add to, about the guidelines are so important, is that if and when the Board signs off on those guidelines, if you've got a good environmental lawyer, they can take that form and go word for word, if they're against ungulates and they say 'no, you have to get rid of them,' they can look at that document... every word has to be perfect. Otherwise you might as well rip it up and the hunting program would be down the hole.

Comm. Masuda: I don't think that would happen though, Thomas. We'll continue to support wildlife and hunting as well as forestry, watershed, NARS, you know.

Comm. Cremer: I think that for hunting too, Bob. You're giving me a promise that I think you cannot keep because with the designation of critical habitat getting bigger and bigger, they're going to fence Honopu'u, is that true Emma?

Emma Yuen: We're hoping to, yeah.

Comm. Cremer: See? One other hunting area done. Anything to do with a fence is not living anymore.

Comm. Masuda: Well we want to protect the seabirds.

Comm. Cremer: Seabirds have thousands and millions of them in the ocean. They better go do their surveys 12 miles out in the ocean, not on the cliffs.

Comm. Masuda: Anyway, I don't know what promise you heard, but I was promising that we will support all of these and nurture all of them.

Comm. Cremer: But cannot.

Comm. Masuda: Well, we'll see. You're welcome to grumble, because you also do other things. And I understand what Thomas is saying and the frustration sometimes. I'm not even here that long and I can be frustrated too, but we're moving along. And we have a total balance approach, I think we need to look at all of these things. What's passionate for one person may be the opposite here and vice versa, so we need to get together, and we have good people so I think we'll manage. I think the Department is coming along well. And we have a good big boss and he actually cares about the environment and understands climate change.

Comm. Buchanan: The only thing I know is the federal government works two ways for funding. You get money from bills or from doing the work, so start up there, work your way down as to how that money is going to be challenged and funneled.

ITEM 9. Set future meeting schedule and potential Agenda items.

NEXT MEETING PLANNED FOR JANUARY 15, MEETING LEGISLATORS ON JANUARY 16.

Comm. Buchanan: It would be my preference to come the day before to review the submissions by the Big Island GMAC to the legislature. To also put that on the agenda for review. They're asking for this GMAC to support their request to the legislature. I haven't seen it yet and I haven't brought it up because it's not on the agenda, but it should be on the agenda for the 15th.

ITEM 11. Adjournment.