



Meeting Minutes  
FBHCP Steering Committee meeting  
19 May 2015  
Tallahassee

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**Steering Committee members present:** Thomas Eason, Fred Aschauer, Brett Moore, Julie Wraithmell, Gary Appelson, Jeff Gore

**Others present:** Jimmy Sellers, Ashleigh Blackford, Robbin Trindell, Brian Powell, Rick Herren, Dave Mills, Niki Desjardin, Gary Appelson, Jennifer McGee, Tom Ostertag, Gene Chalecki, Kim Colstad, Rebecca Pfaller, Mike Flaxman, Bob Ernest (phone), Robert Hardy (phone), Sally Davenport, Jeff Gore, Heather Hillard

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**STAFF UPDATES**

Contracting

JM I apologize for not getting the last meeting's minutes out to you sooner. Since we just got them to you yesterday, I think we should hold off on approving them. As far as the minutes go, looking at the agenda for today, there's not a lot that's contingent on discussions from the last meeting, because we've been on hold. So hopefully that won't be a big deal.

As far as the agenda goes, everything we have before the break is really a breakdown of the topics that we'd like to discuss, but it'll really just be a big discussion. Does anybody have any comments or questions on the agenda?

TE Hearing none, we'll move forward with the agenda as proposed.

JM We've been on a bit of a hiatus. The contract between FWC and DEP is still not signed, so the subcontractors have not been able to do any work for almost four months now. Our year 7 contract does go until June 2015, and we're in the process of extending that until the end of December. So we do have a couple of agenda items left on the year 7 contract, however because of the interrelatedness of some of the topics – mainly mitigation, minimization, implementation, adaptive management – there were some things that were slated for the year 8 grant that need to be completed before we can complete the tasks in the year 7 grant. So we are sort of on hold right now until the year

8 contract is executed. Fortunately, we did still have one Steering Committee meeting left under year 7 because we had to cancel the February one, so that's why we are able to meet today. We also have one face-to-face Work Group meeting left under year 7, and we'll be having that this afternoon. As far as our regular, every other week Work Group meetings, we've used all of those up for year 7, so we've been calling in on a voluntary basis for just brief updates. The agency staff can still get together, but the subcontractors are on a voluntary basis. The agency staff have been trying to do what we can on the agency level during this hiatus – mainly minimization measures and things we'll talk about later on in this meeting.

JW What is the cause of the delay?

JM Well one of the causes is that the contract was submitted to DEP right at the time they were having a lot of turnover. So there were a lot of new staff coming on who needed to be brought up to speed with the HCP. So we met with Fred and Betsey Hewitt to try to brief them on the last eight years of work on the HCP.

TE I wanted to add that a lot of us have been working on the HCP for eight or so years now and we had a big turnover, you know the governor was re-elected and there's always a little shifting that happens with that. So I think DEP has actually done a great job with getting up to speed fairly quickly for state government, and just the fact that Fred is here – he had a conflict but rearranged his schedule. So it's been a little bit of getting our feet back underneath us and just taking another good look at all of this. I just want to be clear that I don't view the delay as a disaster, obviously we want to get our contractors back up and moving forward with things, but it's better to do that with everyone feeling comfortable with everything.

JG Are we looking at a continued delay or is this just a little bump in the road?

FA Truth be told, I had the contract sitting on my desk when I showed up on March 2, and it had been sitting there for a few weeks as Mark was on his way out and he didn't want to sign it with new leadership on board. There are a few of us that just came on board, and we're all lawyers so we think like lawyers, and to sign something with implications of hundreds of thousands of dollars, I wanted to know what I was signing. If the HCP was the only thing I was tasked with when I showed up, then you'd have an answer by now, but in reality where we're at is there were a couple of things in the contract that I asked FWC to reword in the scope of work. Our respective general counsel offices are working on that now. So that's kind of where we're at; it hasn't been for a want of effort, I can assure you.

JW Well I'm glad to hear you're treating it with a sense of urgency. There is a lot of momentum behind this, and it's a behemoth, it's like a cruise ship. And it takes a lot of distance to slow down a cruise ship and then get it back up and running, so I would hate to see us lose any more of that momentum.

- TE Any other questions or comments on where we are with contracting? I want to summarize to make sure I'm clear. We're finishing off year 7, but there are things that we feel we can't fully finish in the year 7 contract until we get some things in the year 8 contract underway, which isn't yet executed. So we're in a little bit of an overlap. The year 8 contract is ready to go and as soon as we can get the language right, we sign it and then we're up and running.
- JM Fred, do you know if the attorneys have had a chance to look over the latest changes?
- FA They have. And FWCs general counsel provided some changes and we looked at those and sent back suggestions. So it should be back in FWCs general counsel office.
- JW Are there substantive issues with the language?
- FA The only thing we're looking at really has to do with legislation. As it was drafted, it required DEP to go to the Legislature, and it's not just our statutes that would be amended, but also FWCs. So I wanted to make it clear that it would be both organizations that would be going to the Legislature.
- TE And we're good with that, it's just getting the language right so that everybody's happy.
- JM So that's where we are right now. With that, the next agenda item is a continuation of staff reports. As you now know, we've had this delay, so we are going to have to push back some of the deliverables. Jimmy will go over that with you and show you the updated Gantt chart. I also wanted to mention that we submitted the year 9 grant, and we indicated that that would be our final year. The way it was written, we have it going until March of 2017 with the idea that we would have a final draft of the HCP at the end of 2016. With this six month delay, that may have to change a bit. We're still going to aim for that timeline, but it's just something to keep in mind.

#### Gantt chart

- JS We have a project Gantt chart that we've had since Coastal Tech came on board that's pretty extensive. We try to identify every task. What I normally do is condense it all into the main tasks, which we'll go over real quick. And then I want to review our 2015 tasks, which we're ready to do once we get the contracts executed.

So this has about 15 or so main tasks. One thing I'll say is that the percentages are somewhat misleading, just because they're the percentage of subtask and the subtasks don't necessarily correlate to work complete, so those may be a little misleading. The scheduling, however, is accurate. By following this line down to line 35, you can see where we plan on finishing up our take estimates. We have the minimization measures slated to be finished by the fourth quarter of this year. Really, the main focus of upcoming work is mitigation. Tied into that, once we get a handle on mitigation structure, we'll have to develop an adaptive management plan to complement that if mitigation proves to not be working. Lastly, an effort that will take us well into 2016 is

our implementation strategy. So those are the main tasks that we're going to be working on. As you can see, we've spent a lot of time finishing up the take, which has been quite a bear of a task. This just gives you an overall view. The back page shows chapter by chapter our progress and schedule. So these chapters here that are completed, those drafts are all up on the website. Any questions so far?

TE Relative to where we want to be, what are we ahead on, on schedule, or behind on?

JS Because of the work delay, we wanted to have the draft mitigation completed by the end of June and now we're looking at the end of September. That does push us back into May. Now, that's not to say we've completely given up on the end of 2016 goal. We still need to really sit down and crunch our numbers and discuss whether or not we can realistically reach that goal. But in terms of adjusting everything because of the delay, that's what the end result looks like.

GA The reason we were trying to hit the end of 2016 was because we wanted to go to the 2017 Legislature and we wanted to have a plan that the Legislature could actually see. So if there's any way to maintain that schedule, that would be very important. Because if we can't, then we'll be going to the Legislature without a document.

JW For our contractors, is Coastal Tech's funding stream stable enough to withstand this delay? I get worried about folks getting pulled off work to focus on something else and then you guys not being able to come back to this.

JS That hasn't happened yet for us. I guess we didn't really talk about when the contract is actually going to be executed, but if it happens in the next month, we'll be ready to jump right back in.

JW But more than a month could be an issue?

JS I don't want to say that, but it may become a bit more stressful.

MF I'm squirming a little bit at this point in that we haven't really had this conversation within the Work Group. I have a very small business – I have three people – and I've completely redone everything about my business to cover this contingency in the last six months. But because of the huge uncertainty level, I can't turn on a dime exactly. So while I appreciate that everyone wants to get to the 2016 Legislature, I think realistically we may miss that. And also the difficulty of getting the biologists in the middle of their field seasons and a little bit of our turnaround time to get back in gear. We'll do what we can, but it's very challenging for a small business to turn on a dime. I now have accepted and am working on other contracts and I can't just turn the next week over. Given a month's lead time I can reorganize, but it's been very difficult to plan for. So I just don't want to create false expectations that we can just work double hard and get it done. We'll try, but we have other things we've had to take on in the meantime.

JW Is Ecological Associates in the same position?

- BE No, we're good on that, because a lot of the things that we've been working on are now completed. I think Mike's the one that really has the brunt of the work. I mean, we'll have to prepare the mitigation chapter, but a lot of the computer modeling and other things that go into that will fall on someone other than us.
- JM FNAI is the other one we'll have to take into consideration because they're working with Mike on lot of this. Also, a lot of Mike and FNAIs work is needed for Stratus to move forward with the economic analysis.
- TE So my perspective on this is that obviously when we have a hiatus, there are going to be impacts. FWC is in this for the long haul. I don't want us to cut off our nose to spite our face trying to meet a deadline that's just not doable. Having said that, I think the Work Group is getting clear guidance from the Steering Committee to do everything possible to do that without harming the effort. And in reality it may take a couple of go's at the Legislature to get this, so we'll just have to see how all of that comes about. I have a lot of confidence in our contractors and we'll work with you to try to figure out how to bring this all together. Beyond that, I don't know that we can do much more at the Steering Committee level, unless someone else wants to chime in with additional perspective or guidance.
- JM The only thing I'd add is it's difficult to project the rest of the year's work without knowing when the year 8 contract will be executed. And once we have the FWC/DEP contract in place, Coastal Tech will then need to execute their contract with DEP, and then their contracts with the other subcontractors.
- FA I think the U.S. Fish and Wildlife Service calls this the largest HCP in the eastern part of the U.S., so I'm not going to apologize for taking time to look at it and I'm sorry that it may put you a little behind. But I need to make sure from the state's perspective that this is the right thing for DEP, and I think we're there, but we just need to get some details figured out. And Jimmy, as an attorney, I have lots of questions, and I don't want to turn this into your deposition in front of everybody, but can I get your contact information so that I can call you with questions?
- JS Absolutely.
- TE I would add to that, Fred, that we can get anybody to come meet with you, so don't at all feel uncomfortable about asking questions. The Work Group is here to give us what we need so that we can give good direction.
- JS We started back in December and it took us until the middle of January to get our work plan together for the first half of 2015, or year 8. When we did that, we set it up with our first deliverables due March through June. What I've done for our discussion purposes today is taken that work and made the assumption that deliverables due in March would now be due in June, assuming that the contract will be executed before the end of May. So I just wanted you to know that assumption as we're looking at this. There are two

ways to look at the deliverables. The first is to look at which ones are due per month, but I really think that can create some confusion because we have multiple tasks going on at the same time. As we're developing the mitigation plan, we want to be thinking about the adaptive management to cover the mitigation plan. Also, at the same time we want to be talking to DEP staff to make sure this is logistically reasonable.

The other way to look at it is to show the deliverables by which broader, main task they fall under. So in terms of take, we're getting very close to wrapping this up. We have a full chapter drafted, but there is some tweaking that Mike is working on and we'll have to go back in and revise accordingly. But once that's done, we'll be bringing that chapter to the Steering Committee for review. The next deliverable under take I originally had under mitigation but then realized it's related to take, and that has to do with what we're calling a negative incentive in terms of how the mitigation plan may affect the calculation of take for activities in the future.

Minimization – the Work Group has drafted a minimization chapter and BMPs and has handed them off to FWC for internal review. So in terms of the contractors' work on minimization, I don't think there's that much left to do except to incorporate the feedback from FWC. Once we do that, minimization will be pretty much wrapped up.

Mitigation is really the big push. Over the last year and a half or so we have been conceptually working on mitigation, but haven't yet gotten to the fine details. So now is when we're embarking on that. The first deliverable, which we were going to do in March, was to review the habitat quality indices with species experts, because those will form the foundation with how we calculate mitigation. In July we'll take the first stab at a mitigation credit system, and Mike will be working on that. We'll also be coming up with a detailed mitigation list, where we'll be going county to county and contacting local land managers and coastal staff and really identifying which projects on the ground we want to include as mitigation. Concurrent with that, we feel it'll be a good time to update the adaptive management chapter to reflect where we are in the mitigation plan. In August, Mike will be marrying the mitigation projects list with the mitigation credit system in his GIS system. In September we'll do another update of the adaptive management chapter. We'll try to come up with a draft final mitigation plan and take that to the species experts for their input. So that's how we see the mitigation plan coming together. And just to back up for a moment, in terms of the 2015, or year 8, budget, these deliverables are covering about half the budget. So there's still a lot that we haven't budgeted out yet that will follow up from this work plan.

The other big push comes from Stratus in terms of how we can fund the HCP. One first step that Stratus has requested we do is change Mike's system from decadal activity estimates to annual. So supporting the funding plan, Stratus has done some work on the current funding and started thinking about how the funding framework would work for the HCP. And then the next task – a no-HCP scenario – is really a feed into the cost-benefit analysis, which is something the Steering Committee has brought up several times. In terms of demonstrating the economic benefits, it's important to take a look at the

economics without the HCP. Also, Stratus will help with developing a mitigation fee system.

Lastly – implementation – as we’re going through mitigation and funding we want to be meeting with agency staff to make sure we’re not planning to do anything that just can’t be done. So that’s really the focus of our implementation efforts over this six month period.

So that’s a quick summary of our scope of work for the first half of 2015.

DM For the economic analysis we’ll certainly be looking for some guidance from DEP and the Service on any constraints in how funding can be managed.

TE Jimmy, I have to ask, what’s the perverse incentive that we’re fixing around indirect effects?

MF The short version is when we did some of the first drafts of mitigation simulation we found that if the HCP improved habitat quality on your beach and you conducted activities on that beach, then you would then be impacting higher quality habitat, therefore we’d be scoring it as a bad thing. And that took some untangling, basically, because it meant we needed to separate direct and indirect impacts. Basically, if you’re putting pavement on top of habitat, that’s a direct impact and nothing you can do for management is really affecting that. But for a lot of the other HCP impacts, they’re actually improved by general improvement on the beach. So if you do all the rest of the management well, then the indirect effects from lighting, for example, are going to be better because you’re going to have someone walking on the beach making sure that the management is working as intended. So it’s largely a scoring issue, but it forced us to go back a step. We initially bundled direct and indirect effects, because from a take standpoint you can but from a mitigation standpoint you can’t.

TE Is there a specific example other than lighting?

MF I have a deliverable to come up with examples, but I don’t have an illustration yet. It’s something we identified in November, and we haven’t had a chance to go back and fix it.

GA I just wanted to revisit the discussion we had on where we’re going with statutory authority and what issues needed to be changed statutorily. In particular, I wanted to talk more about how DEP receives statutory authority to address all the other species in the HCP. Given the fact that we’ve had all these delays and people haven’t really had a chance to review the minutes from the last meeting, I’m not sure how productive this discussion will be. But when we (STC) started to look at the legislative changes that are necessary, we said let’s look at these changes that are required in a streamlined way. Let’s not ask the Legislature to do anything that we don’t absolutely have to do; let’s make it as simple as possible. So in trying to look at that we looked at the main issue which is DEP’s authority only for sea turtles, and how are you going to get authority for

these other species. When you go back and look at the constitutional amendment that established FWC as a constitutional agency, it gives it the exclusive authority over all wildlife in Florida with the exception of some marine species. And that constitutional authority is somewhat proprietary when you look at that language. So it made us wonder, when you go the Legislature to ask them to expand DEPs authority for these other species, is that even possible. Does the Legislature even have the authority to do that, because of the way the constitutional amendment was originally crafted? So I wanted us to discuss that more and give DEP and FWC and their legal staff something else to be thinking about and looking at.

TE The short, non-lawyer answer is that as long as it's in aid of our constitutional authority, then yes the Legislature can pass statutes that may otherwise be under FWCs proprietary ownership. That's where I think it's a good catch to strengthen the contracting language to make it clear that we're going to come at this as partners and present this to the Legislature and others as a package that works for both agencies.

GA So if the Legislature is doing something to further the mission of FWC, you're saying that that would be acceptable and allow some kind of authority to be given to DEP to regulate for these species.

TE That's my interpretation, again as a non-lawyer, but I think it's already happened before.

JW Audubon has always felt that statutory changes would not be necessary because FWC has constitutional authority over wildlife and has the ability to enlist other state agencies, local governments, private landowners under that authority. Now DEP has always expressed that they would have greater comfort if that were clarified statutorily by the Legislature. But I agree with Gary. I think the authority already exists constitutionally to make this move forward, and in the event that we're not able to secure the Legislative support, I think that we really would need to take a hard look at that because this HCP is something that Florida needs to protect itself.

GA And don't need to keep moving forward and then have roadblocks that slow us down. So that's why I wanted to have this discussion – to make sure everyone's aware of that. But Fred and Thomas both seem to be okay with this concept of granting this authority to DEP under the umbrella that it's facilitating FWCs mission. If that's possible, then that's great. I just wanted to make sure we don't get way down the road and then have to back up and look at another strategy.

FA I want to make sure I understand the authority that would be given to DEP. I have never envisioned that DEP would be stepping in FWCs shoes; they will still fill the role that they fill with us for turtles, they'll just expand the species. So our authority is to consider their ultimate conclusions on the impact to additional species. So on our end I see that as a simpler fix, if you will, because it's really just taking the provision that we look to FWC for turtle impacts and then you add a comma and then the additional species.

## COVERED SPECIES AND STATUTORY AUTHORITY

- GA That's always been my thought that the easiest fix would be to just put those commas and additional species in there. I just wondered if the Legislature can actually do that.
- FA And I don't know the answer to that.
- TE Again, legally I can't answer your question. But in practice, we're in the process of modifying massive statutes on alligators, and alligators are clearly core FWC constitutional authority, and we've had those statutes on the books and we're revising them and minimizing them, but there are still going to be alligator statutes. It doesn't give authority away or take it from anyone. To me it's more important for the DEP to have clear direction from the Legislature that says you have the authority to work with FWC in these ways, instead of FWC basically forcing a sister agency to do something that they feel like they don't have the clear direction or ability to do.
- GA And Kipp mentioned this at the last meeting. So that was another reason I wanted to bring it up and make sure we understood it completely. Again, the issue is DEP is going to be asked to somewhat regulate for these other species, and that's the complicated part of it. I just wanted to make sure that's okay before we go to the Legislature and find out that they can't give that authority to DEP.
- JW Again, the reason it may not be necessary is the fact that private property owners are subject FWCs authority over wildlife. Local governments, corporations and others are too. So it seems exceptional for another state agency to have a higher standard. I mean, the Legislature doesn't have to tell you what needs to be considered; it's the law regardless if you're another state agency or a private entity. So while I think statutory authority may help clarify it for DEP, I think DEP may already be subject to comply with FWC as a partner.
- GA I think what Fred expressed earlier – bringing DEP and FWC into partnership as you go to the Legislature – is probably a good thing and may help alleviate some of these nebulous areas.
- MF How did sea turtles originally get included in DEPs statutes? My assumption as a non-lawyer is that if you can get sea turtles included, you should be able to include these other species.
- TE Historically, sea turtles were in DEP – a statutory agency – so sea turtles and manatees, there's a whole statutory history with them. When FWC was created, there was somewhat nebulous language that was heavily scrutinized and it was decided that a suite of marine species would stay statutorily governed that are not within that constitutional authority.
- GA When the constitutional amendment was passed, it said that only those species that are in the jurisdiction of marine fisheries commission are transferred to the wildlife

commission. And the marine species that were not in the marine species commission, which was in DEP – turtles, manatees, right whales and sturgeon – didn't get transferred because a specific exclusion with the marine fisheries commission was written into the constitution. So that's why turtles are still with DEP.

- TE I agree that we could probably move forward just the way we are, but if I were in DEPs shoes I would be very nervous and probably would not do it. The challenge is DEP is in a heavy regulatory mode on the beaches and it has direction from the Legislature to do that, and to expand that regulatory presence without clear direction would make me very nervous as a partner, and I'm not even issuing their permit. So I think that's where FWC sees the strong need to be in sync with DEP and go to the Legislature as partners and move in the strongest way possible.
- BM To follow up with Julie and Gary's comments, it sounds like you feel that Legislative changes aren't needed because they have authority through FWCs authority over these species. I can understand that, but I strongly disagree with it. Based on the history of the program, they've always done a pretty clear assessment of impacts based on their statutory authority, and now they're looking at assessing impacts to certain types of habitat and other species that are not specifically listed under their individual tasks. And I don't think they currently have the ability to require mitigation and require certain minimization strategies. So when you say if this doesn't work out then we'll be okay, I think that's wishful thinking.
- JW I think we will need statutory guidance on setting fees and other permitting structure issues, because even FWC can't set their own fees without Legislative approval.
- BM If I submitted an application and I was told I'm not going to be able to do this because there's this certain type of habitat – well when did we start reviewing this habitat? It's not saying that the project shouldn't be sensitive to it, but under the control line program I just don't think they'd have that clear authority to review these things.
- JW I guess FWC has the authority. Their imperiled species rule now includes take of habitat. So in my mind rolling them together is better customer service to the applicant, rather than having to secure a permit from the state and a permit from the feds and a permit from the CCCL program. It should all be streamlined by packaging it together. And that way the elements of them don't work at odds with each other, because that's a very real risk.
- FA What I'm hearing is the difference between our ability as a regulatory agency to act and the Commission's ability to have their police show up and stop something. And DEP is a legislatively created agency. So we are a creature of the Legislature and we derive our power from the Legislature, so for me in a regulatory role to consider these additional species I need my general counsel's office to agree, and quite frankly I need the statutory authority to do that. Now, if I don't have that authority, the Commission can in its position go to a specific project and under its authority do something separate.

GA And the rub between exclusivity of FWCs authority over these species sort of goes away because FWC is granting you authority over them.

TE I wouldn't word it that way. I think it's much more about what Julie was saying in how do we make government work better for people, and that's why the HCP is so attractive. We can take FWC and our responsibilities and authority, we can take DEP and their authority and responsibility, and the Service and ESA for this subset of species and say, boom here's the process. And we can do it at scale because the state has intervened. So my point is that it's not about authority or giving authority so much as it's about how do we ensure that everyone up through their authorities has the right authorization and ability to come together like this. For FWS, it's the ESA and everything they have to meet with that. For FWC, it's an interesting mix between our constitutional authority and our statutory authority. And for DEP it's clearly their statutory authority. We need to make sure all those authorities are aligning.

GA Some time ago the Steering Committee asked for updates from whoever's looking at these legal issues, and I would reiterate that request. If all these discussion are happening behind the scenes with all the lawyers and upper staff on where we're going legislatively, we should be updated.

#### **FINAL TAKE ESTIMATES AND LIGHTING**

MF I just want to run through this to bring everyone back up to speed on the methods we used and some of the decisions made along the way on computing incidental take. So going all the way back, we have a set of methods that simulate alternative futures that include a number of things that will occur on Florida's beaches. And those include broadly spoken things that are not at all FWC or DEPs responsibility, but these are things that are going to happen or might happen. These are things that we're going to need to simulate into the future, some of which are not direct responsibility of the agencies, some of them are. And then we need a set of methods for addressing the impacts, which are split into direct and indirect impacts.

From this we get a set of results that can be parsed out in many different directions – you can think about it regionally, by species, by cause – and all of those are useful ways of looking at the impacts which will all be used in the mitigation planning. But within the HCP you have some flexibility, so you can mitigate for some activity occurring in one location in another location. In general, we simulated future beach conditions. Then we simulated future permitted activities. And then we did the impact assessment on the combination.

The approach on beach conditions was to account for expected changes or shifts in a moderately bad case scenario so that we're covered for a lot of things that are likely. Under erosion and accretion, Coastal Tech did a set of estimates at the range monument level, and they basically have measures at that level of the amount of erosion and accretion that has

occurred and they've projected that into the future. The oddity there is that in some locations there's beach re-nourishment going on, so we had to account for that.

We took on a bit of simulation of beach migration and yet we're not sediment modelers so we used basic GIS tools. We used two main assumptions: unconstrained beaches will migrate landward to reach erosion rates; and constrained beaches either narrow or disappear to match erosion rates. So we didn't simulate where the sand comes from and we didn't simulate shore-parallel transport.

On sea level rise we used the work that our group and others had done for the Peninsular Florida LCC. And that underlying method is based on 15m LIDAR terrain elevation data that's been tidally adjusted. Similar methods are being used by the Department of Transportation around the state.

Storm surge was handled by Coastal Tech. It used a methodology that's pretty established in DEP and it's based on the SBEACH model from the USACE. So in general we've got a fair bit of complexity, and in those four models there is no treatment of storms. So the treatment of storms is intended to be done and will be written up under the unforeseen circumstances chapter. So basically we're looking for long term steady changes in this work that are predictable or somewhat predictable, but we can't predict hurricanes obviously. We used a single sea level rise scenario that was based on USACE guidance, which at the time was based on the IPCC AR4.

In terms of the direct simulation of things that are triggering incidental take computations, we're fortunate to have a 30 year permitting history in DEPs databases. So we mined those databases and got lat/longs for all of those permit locations. There are about 100 different permit types and about 30,000 permits. That gives us a pretty good idea of what kinds of permits get issued where. The spatial side, however, is a little rough. This was a pre-GPS program when it was designed. The database has gotten better over time, but the earlier stuff you can't guarantee that you've got the right parcel underneath it.

We segmented the entire plan area that Amy and FNAI had mapped and identified by the range monuments. That is still arbitrary relative to coastal geography, but it is uniform and well known and has a survey bench mark in the middle of each zone, so they're roughly 1000 ft. long beach segments and we've got about 4000 of them over the entire plan area. And that gives us reasonable management units for the plan which I'll show you. We classified parcels by land use type, size and armoring status. We analyzed the historic permit rate and found there was a big bifurcation we had to take into account. Basically vacant parcels, as you would expect, when they're developed they get tons of permits for all of the different activities associated with new development. However we also found very extensive redevelopment in Florida – about half of the permits were for redevelopment – and that has a very different rate and nature. We projected future permit rates at the r zone level. And then we simulated the future permit locations as points. It's important to realize that these points, the best model we had was random locations within the parcel for the detailed permit points. So these are not site plans, we can't do site design on 30,000 parcels throughout the state. They are based on typical measured

distances. So we did a stratified sampling subproject with Coastal Tech where we measured from everything you can see from aerial photos across our regions – what the average distances to MHW were and what the average sized were.

In terms of assessing incidental take, we refined the approach – we recognized two components of incidental take. Legally, this doesn't matter in terms of the incidental take final number, because take is take in our set-up. But we do simulate it now and you'll see different graphics of this but our method now is to do two circular buffers from a simulated permit point, one of which will represent the direct take and the other will represent the indirect take. We have gone through the literature and gotten species expert input on disturbance buffer distances and some nuances of habitat. So we've basically gotten a good level of internal review on impact distances. They represent often some point taken directly from the literature and then sometimes expert review group biological opinion. We take these buffers and intersect them with habitat maps – that's done once per species group. Some are actually subspecies, some are groups of species and some are individual species. We have colonial nesting shorebirds and then we have Anastasia island beach mice, and each of those counts as one thing and you can get incidental take computations for each of those. So the total amount taken can be larger than the habitat area, but we are counting take basically per area.

We are including within these take estimates the minimization measures of the HCP. So we're not doing worst case; we're actually assuming that we're going to get the minimization that we've asked for. The other thing is that all take is absolute – take is take and there is no in between. Legally, that's very useful but it's difficult when talking with the biologist. So we came up with some guidance where people have a probability estimate or certain data in their head, we said use regular science there and base their decisions on capturing 95-99% of a continuous distribution. Also, the other issue with kind of the legalism of take is that a particular area cannot be taken twice for the same species group. In biological terms, with a bunch of different kinds of permits, there are a hundred ways you could be hurting a sea turtle. You could simultaneously be shining a light on it and putting concrete over its nest and trampling it, etc. But we attribute a single unique cause, which is basically the largest cause of take occurring. You could also have shared responsibility with the neighbors. We attribute the take to the nearest neighbor. The other important detail is that we are recognizing historic take in our simulations and estimates, but we're not counting it.

AB I understand that if it's only happening one time that if you have multiple activities you are only allotting it one time. The CCCL program has a number of different activities, so if you have a special event in front of a seawall, how are we teasing those two things apart? Because they each could be affecting a different suite of species.

MF The effect on different suites of species is handled by counting take for different suites of species.

AB So only one activity is being counted for take?

MF Per species, per location. And, by the way, as we're doing mitigation if you peel away those activities you might not get as much benefit as you think because there might be some underlying activity that you're not accounting for. So as you peel stuff back, it refers to the next biggest impact and then the next biggest impact. So in mitigation planning that will be important because you spend a lot of money mitigation one activity and if there's other stuff going on it means it's not good habitat anyway.

I want to run you through examples of an online system we've built internally – ISIAS. Basically we have a scenario pull down, a list of the species groups, and a list of permitted activity types. And we can turn on all of the bells and whistles or you can pull them apart.

BM So these are all based on projected activities, right?

MF Yes. And it's over the term of the permit, but once we run it through Dave we'll be able to get at it annually. The caveat is that the estimation of development activity is not really that precise because I don't have any modeling for future recessions or anything like that. So as it is now, it should be pretty close on average per year, but it will be wrong in each year because the economy will boom or bust, etc. We have fairly high confidence, because there aren't many beach parcels left in Florida, of the overall development trajectory. And we have fairly high confidence of the redevelopment rates, but both of those things are tied to the economy. So on a short term, yearly basis the reality will play out a little differently. That will make the accounting for this, as the plan rolls out, challenging.

Here's a summary of everything by everything. On the map you can see that the panhandle has the most take, but the Tampa Bay area has significant take as well. And roughly spoken all over Florida, because this is largely driven by single-family residential, it's driven by where the single-families are going to go over the next 25 years. The drilldown spatially is we go from county at the top level to beach management regions, and we found it useful to summarize. And then down at the finest scale that we're going to represent publicly or run statistics on are the r zones.

FA The red I see on the bottom – it looks like an undeveloped parcel. So you're assuming that that parcel will be developed and there will be take associated with that development. So do you assume that every parcel will result in take?

MF Every parcel that's developed, yes.

TE It also includes the minimization and avoidance, so there may be a set of lots that end up with not much take or any take at all.

MF Correct.

TE And that's where if we had stronger avoidance and minimization rules, there would be no take. The challenge is that we have to find that balance point for society in trying to adjust for competing priorities.

MF Right. And there's a paradox in showing you this work. I'm showing you under the covers under how the mechanism works, but we're not calling take on an individual permit on an individual house. So this is not site design or a permit that's coming in and wanting to put in a building. This model is accurate over dozens or hundreds of these permits, but not for any individual permit. It's only designed for statistical aggregation.

TE So when you get down to the core dynamic, at some point the state of Florida will submit to USFWS an application for an ITP and will lump all of these species together and ask for this amount of take. And then assuming we get through all the ESA hurdles, there's a BO and an ITP that says Florida is authorized to incidentally take all of this, however it's measured. And then as we move forward, each individual lot will get developed or redeveloped or something will happen and we'll measure it at that micro-scale and we'll be slowly depleting that bank of incidental take and doing mitigation to offset it at the statewide scale. And then at some point we start doing some analysis to see what reality looks like over some period of time versus what you've modeled. And then part of our adaptive approach would be to revisit it or call it good.

MF That's an accurate summary. So here you can see that single-family residential is largely driving the impact we're seeing, even though individually, commercial has a bigger footprint or more intense activities.

As a summary of where we ended up with lighting, we looked pretty carefully at many different approaches of doing lighting within incidental take. We were able to simulate lighting on the beaches – we went out with some of the species experts and measured lighting. We can do that and it provides many future options, however the bottom line is that all of the quantitative approaches that we were able to come up with either require additional research or resources or are beyond the scope of the HCP. The basic problem was that there is no agreed measure of the biological impacts that is practical at scale. There are agreed measures on a site level, but the experts were not comfortable with us using those data on the scale that we wanted to. We do have strong suggestive evidence that the minimization measures we've come up with for lighting will be effective. So bottom line for the Steering Committee is that we are expecting that the implementation of the HCP and the lighting measures we have in there will result in no take from lighting. That presumption will have to be met and validated over time. But as things stand, we basically are kicking light out of the incidental take column; we're relying on the minimization.

So, in summary, as I've shown you the take is widely distributed across the state. It's largely driven by single-family and medium size residential. In our mitigation planning we're looking to mitigate about 6000 acres of incidental take in total – that's basically 1/5 of our plan area. If you're going to mitigate for all of that within the plan area, you're going to mitigate in 20% of the plan area. And that's all I can really say for now because that

mitigation ratio is really dependent on the peer review of the habitat quality numbers. But our intent as we move forward is that if you account for habitat quality, and you take something that's currently terrible habitat and turn it into great habitat then you can get a lot of credit for that. But the bottom line is it's a lot of mitigation. Bear in mind a fraction of that is going to come from lighting and beach cleaning mitigation, but that seems to be the most spatially extensive. But there are still a lot of choices to be determined.

FA We're assuming for purposes of this analysis that every single property qualifies for an ITP and that doesn't reflect the reality of how things are going today. So how is this all going to be perceived? Because we're going to have to take it to the Legislature and that's something they're going to want to know. I know it because as a regulator I hear this: if the neighbor to the north (who built their place years ago) doesn't have to do all this, then why do I have to do it (on my new construction)?

MF There are absolutely those questions. Part of it is in the formulation of the HCP. So if your neighbor developed their lot last year and the HCP takes effect this year, the rules are just different and the HCP prohibits us from historical fairness, if you want to call it that.

FA I'm suspecting I'm not going to get positive reactions from that answer.

TE There are creative answers to that and the challenge is that not many, if any, are popular. We could share the burden of mitigation across existing and new homes. I don't think that would get very far, personally. But my point is let's think creatively and openly and turn over every stone or rock to figure out how we move forward. To me it's a challenge, but if we can do it better it'll make sense, it'll be streamlined, it'll be smoother and easier, and if not for each individual, collectively you'll get less calls griping. Because the challenge right now is we're kind of playing roulette or musical chairs and development's going and going and we have to make calls individually because 12 years ago I sent law enforcement out on a beach mouse issue and then now it affects people there. But ultimately we're going to get to the point where, likely, FWC and USFWS are going to have a harder and harder time saying you're not directly hitting the ESA or our state listing rules, and then by sharing the burden now I think we can get it to work better. But I agree, there's no getting around the fact that there's going to be people who are going to question why they have to do it but their neighbors didn't.

DM But you're also setting up a framework where their project can be evaluated and they can go back and redesign to minimize that take. So you're creating that incentive, if they're really worried about that, they can look at their plans and modify.

AB So even though you're making those assumptions, there is that flexibility for someone to come in and design their plan with the maximum minimization measures that could possible get them to that point where there is no take. So in that scenario, is that individual homeowner still required to do some portion of mitigation based on the larger plan?

MF You're asking a good question that we haven't fully resolved. We've opened that discussion already and the presumption was that there would be some base level fees that everyone is paying into to cover the basic plan administration, and then there's a second tier of fees that are more impact based. But that's just our presumption at this point; we still need to look at that more thoroughly, but there needs to be some balance between those concerns.

Back to Fred's question, we're not exactly saying that you have to get an ITP for every single-family residential development, but in a way you'd have to answer to FWC for everything you're doing at an individual review level. That's not necessarily an ITP, but they're still certainly responsible for those impacts. We haven't formalized this package, but on the benefits side you have regulatory certainty. If you choose to opt into this package deal, then you get the regulatory certainty. If you opt out, and you go through an individual impact assessment, as far as I know USFWS isn't easily handing out individual permits. So we're not saying that this is without impact, and there are equity issues that will come up. We haven't completed the economic assessment so we haven't said what the rules and fee structure will be, but the part that I'm showing you was very much driven by regulation and regulatory authority. The flip side of that, to be absolutely clear, is that when you get to mitigation things get less absolute – more complicated but more flexible. So it's not that we're saying you can't do that because it's causing incidental take; we're actually saying that you're permitted to do that but you're also compensating for it.

BP Fred, you're going to get those calls from people saying their neighbor didn't have to do this stuff that I now have to do. And it's not so much that the rules are changing, it's just that at this point in time they're not being applied as they should be. So, at the Service we're not getting the opportunity to at times address the impacts that are occurring so as we talked yesterday about a sort of interim plan on how to address these projects that are occurring now until the HCP is implemented, that's maybe where we try to ease the pain, so to speak, when the HCP comes online. So as we're working through it now, some of those existing property owners might experience a different level permitting requirements as they are today or last year, and those individuals will begin to experience the idea of having to come and individually work with the Service, see what those timeframes are, and then appreciate the expedited timeframe that results from the Beaches HCP.

AB Part of the goal will be to demonstrate what the efficiencies are, the good government of having it at a one-stop shop, the streamlining and having the certainties involved. Someone always has the choice to say they don't want to follow the rules of the HCP. I don't envision that we're going to say someone is required to follow the HCP.

JW But in that scenario would it be just the applicant that's liable, or would it be DEP also?

AB It would be status quo of where we are right now.

- BP But if DEP has the HCP, then it has the process in place. I feel like their risk wouldn't be there because they're offering the applicant a way to handle it.
- TE Currently, the tradeoffs are in time. People are paying their dues because sometimes it takes years to get the development done. And then there's the risk or chance of either a challenge or some sort of retroactive action. To me, that's part of some of the intangibles that are hard to quantify, but certainty of the regulatory, and then time and introduction of third party challenges are the things that could really challenge you. That's just where it's hard and that's just looking forward, because we have what's happening now, which we could have a long discussion about if it's good, bad, effective or efficient. I keep coming back to the way I think about this and what we gain collectively outweighs what an individual would bear.
- GA As we all know the beach is very dynamic. And developing the beach is very complicated, and it's getting more and more intense all the time. The HCP tried to bring some balance to all that. I think it's incumbent upon all the agencies to work out the way to sell the HCP and they stand behind it as the best way to manage such a complicated system with such rapid development on this complicated and dynamic system. And I think we'll be able to do that. It is a balancing effort that's extremely complicated and I think the people that was the right and privilege to develop on Florida beaches should understand that.
- JM We touched on the issue of calling a new homeowner on take when a couple of years ago their neighbor wasn't called on take. I think the beach being such a dynamic system is a key factor. But with the HCP there are legal certainties so they'll be covered, the permit process will be expedited, and there will be the ability for self-certification under certain circumstances. Also, under the HCP there will be certain allowances for some activities during parts of nesting season, so that will offer some more flexibility than what is currently allowed.
- BM Mike, when you were projecting mitigation needs on the order of 6000 acres, that's based on activities in different areas over the life of the permit. I know a lot of emotion in this program is driven through coastal armoring, but there are going to be activities that once they're completed, they'll be done for that section. So I think it'll be very important how this whole program transitions through adaptive management and that it's updated periodically. So that in five years we can see how well these projections are. There may be certain areas of the coastline where you say that's just a lot of single-family homes, and usually they're not torn down every five years after they're built. And I don't know how it's considered at this point. Is it projected based on the past?
- MF It's mostly based on the past, but partially based on the zoning. But zoning can change over time. And the erosion projection and sediment transport stuff can easily be wrong; we don't know the interaction of a lot of the stuff that's going on right now. So we are acutely aware of the limitations of what we can project today. We think we've done better than other HCPs we've seen, however we're faced with the difficult circumstance of a dynamic, huge territory.

- BM Another example is single-family homes being redeveloped can biased projections for impact. Thinking of homes that were built 20 or 30 years ago, redeveloping them was more or less updating them, but nowadays you see people tearing down \$10 million homes and redeveloping them. So there's going to be those kinds of trends and I don't know how that's going to be recognized; maybe it'll just be through monitoring those permits.
- MF I think redevelopment is one of those sensitive things. There's a lot of culture and other things that goes into redevelopment. When we had an economic boom there was a ton of redevelopment, especially when it was just more economical to tear a place down and rebuild. But you're right, over time the redevelopment rate could change. As more and more baby boomers retire, and there's fairly cheap properties in the panhandle, so there's still a fair amount of redevelopment potential. That would be one of those numbers I watch. Rezoning is another one I'd watch. A lot of Florida's databases are not historic, so the parcel data and the zoning data are not historic. All we have is the current time slice and date stamp on a parcel, so that's been a fundamental challenge with redevelopment projections. Because everything has gone digital over the last several years, as this plan moves forward we'll be able to have those data.
- AB It's okay to overestimate your take. If you think it's going to happen really rapidly and it turns out it's not happening, you're just going to keep your balance sheet tracking along. So it doesn't matter a lot doesn't get developed, because you're not going to have people paying double up front to make sure it happens ahead. So it doesn't matter if you don't need all that take.
- BM I couldn't agree with you more, other than what is that property owner going to be assessed for doing what the other five people in either direction have done. If it's not going to be a huge number, then it's okay.
- FA But isn't the bank defining the cost? So isn't the cost going to be driven by the size of the bank?
- DM Yes.
- FA So if we overestimate, then the bank will be full of take credits that we don't use, but will have to be paying for up front. Is that the way we envision it?
- TE I think some of it. The take creates the total need to mitigate, and that can be in many forms. But if we do it right, the take and the mitigation are going to be tracking each other.
- AB The idea is to identify what that total amount is that you need so that you have enough activities and management to equate that if it should happen.

- TE The way I visualize it is there's x number of activities, and there's going to be an assessment around each of those activities, so if there's nothing happening, then there's no assessment against them. So we just have to make sure that balances right for the mitigation and the take to be relatively in sync with each other.
- DM It's some level of that, because the scale of the take will affect the management cost and the budget cost over time.
- FA So the larger the number of take, the more mitigation, which to the person paying for it is a dollar and cents issue.
- DM That'll all come down to the mitigation projects that are identified.
- GA Mike, so in some ways the estimate for take will be conservative because you're not calculating take from lighting. You know it's causing take, but you just can't quantify it.
- MF We think that the mitigation will be effective and at scale will be effective, however there's no way of knowing 100%. Over time we'll monitor that, but the problem right now is that we don't have anything that we can hang our hat on.
- GA So in the HCP we can still require minimization and mitigation for uncalculated take from lighting.
- MF *Inaudible*
- GA By disorientation data going down and things like that.
- MF Yes. And we'll have to work with Robbin to design monitoring protocols.
- TE To me that highlights the need for our monitoring and adaptive management chapter, and that's where we'll address all those things and make sure we've got all the right pieces in place.
- JG You have the 6000 acres of take that you're projecting, so if you have one or more of those species you'll need an incidental take permit. And we don't have enough land to go on a one to one mitigation basis for each species group impacted.
- MF There's no way we could with that 40% average.
- JG But for the birds, mice and turtles we're going to address mitigation differently.
- MF In general, we're not talking much about habitat acquisition, but the beach mouse is probably the exception to that. If it's 75 acres of take we're talking about here, we can probably find 75 acres to mitigate and that may be the most appropriate strategy.

- JG So if someone is in beach mouse habitat, they may have to do quite a bit more than somebody down the road who's only in sea turtle habitat.
- MF Yeah, that's clearly true with beach mice because the options for mitigation are so much more limited.
- JW But ultimately, beach mice have habitat landward of the CCCL. So when you're talking about the percentage of the affected area that would need to be used for mitigation, the denominator of that fraction is actually bigger because are you looking beyond the CCCL?
- MF There's actually a policy decision in there that we have not made, just to be clear. So we haven't decided whether or not we're going to try to mitigate outside the plan area.
- JW Well it may make sense biologically but also it may make sense giving them the maximum alternatives that may provide cost saving going landward.
- MF I think for the gopher tortoise it's a no-brainer; there are many more opportunities inland and the land is a lot cheaper. Personally, I think for those species where there are opportunities outside the plan area, then yes we should mitigate there, but again we haven't made that decision yet.
- TE I liken the current situation to that game Don't Break the Ice. And from my vantage point there aren't many moves left before you're breaking through the ice. So the idea behind the HCP is to create a collective strategy so we don't break the ice. With that I would remind everyone as we move into minimization and mitigation let's think creatively. One whole different way of doing it is maybe the Legislature and the Governor want to take a different approach where all Floridians or all tourists pay into some sort of fund for mitigation. So let's not get stuck with tunnel vision. It's likely we'll all end up where there are fees for landowners, but I think at a minimum there will be a menu of options that I think should include going outside of the direct plan area where it makes sense for different species.
- AB For those who may not be completely familiar with the HCP process, we do go out for public comment. So there is an opportunity for the public to look at our plan or what we're proposing, and if they collectively have another choice or option that they want to present to us to consider, they'll have that opportunity. We also have the ability to do public scoping meetings where we can ask some of these specific questions. So it shouldn't come out of the blue sky as a shock to anybody.

## **MINIMIZATION UPDATES**

- JM As I mentioned earlier, with the contract on hold we only been able to work internally on the HCP. We started going through the minimization measures, which we initially referred to as BMPs, but we've kind of strayed away from that and now refer to them as

conservation measures or best conservation practices. We started to go to the CCCL staff and go through the conservation measures with them, but each time there was such a large group which was difficult to schedule, and when we could get everyone together we were only able to get through one or two conservation measures so we weren't getting very far very quickly. Then there were some FWC permitting folks and some of our species experts that had some concerns and wanted more internal review before bringing them back to the CCCL staff. So we pulled back and met with FWC staff – sea turtle people, beach mice, and shore birds – and everyone got a chance to comment on them. We're still working on incorporating those comments, and the plan is to then take it back to the CCCL staff to flesh out the language. We're also trying to align the measures with other projects that are happening in FWC – for example the work that the Coastal Wildlife Conservation Team is doing to address beach raking.

RT It's been really useful to be working through a lot of the questions and issues on how best to move forward with trying to get buy-in to the plan. Thomas had a good analogy that there have been good strong plans with regard to sea turtles that DEP has implemented over the years, and at the basic core of the minimization measures, we took recommendations from FWC that were developed for DEP for those programs. We've tweaked them a bit and tried to add the other species. So our approach was to go back to our species experts and make sure that those things we've used for years are going to be appropriate. The next step is to go to DEP and include your compliance enforcement staff. That's one thing we've learned in commenting is that we're biologists, and we need to make sure that once we've addressed the concerns of the species experts that the compliance enforcement staff are comfortable with it and can actually enforce them. I think we spent more time on it than we initially envisioned, but I think the end product is one that has gone through several layers of review by the species experts and the regulators.

JM And the minimization measures are going to be a key part in the permits in general, because if people adhere to all of the minimization that's being put forth then it will minimize take to the maximum extent practicable and in some cases may even eliminate take. So we're really trying to take a good hard look at this to make sure we get it right.

RT Our goal is really trying to figure out how to make it as easy as possible and as comfortable as possible. Yes, we have this community that's important for both people and animals in this dynamic habitat and what this plan can do is really draw those parts together. In doing this for 19 years we've seen a lot of pressure on the habitat and we've seen changes in the way the state reviews things like coastal armoring. We've seen development of TDPs and things that really look at their beach as an economic engine; they want to do more there. So I think there are ways to message this to say that we're really trying to respond to the pressures we've seen.

TE So my take home message on minimization is it's been more work than we originally thought but we've had good review and the Work Group thinks we're in a pretty good place with minimization.

JM That pretty much sums it up. Our next step is to send out the incorporated comments to the species experts for a quick review, then start scheduling meetings with DEP staff.

## MITIGATION

TO There are three things here with mitigation: Dave needs concrete projects that he can put dollar amounts to for the economic analysis; the second thing is it's a bit foolhardy to think we're going to get this mitigation bank set up and we're going to buy land – there won't be enough money to buy much land; and the third thing is we're not going to be able to create new staff structure at FWC or DEP. So we had the subject matter experts come in and prioritize the conservation measures that they felt would be best for their respective species group. For example, what came out of the beach mouse experts was predation control, dune restoration and translocation. So Robbin, Jennifer and I have met and we think why try to reinvent the wheel when there are counties out there that have programs in place that may not be hitting the mark we want them to. Say they have someone who goes out and collects trash but they only collect every other day, and we want them to collect every day and also get predator proof cans. So what we're looking at is trying to hook into what's in the landscape and either helping a county put in a light program or predator control program or ramp up what they're already doing. So we sent out an email to our subject matter experts to give us the top priority areas in the state where we could implement those priority conservation actions, where would we get the most bang for our buck? So that's kind of where we're at right now; we're waiting to get those recommendations back from our experts.

FA What's predator control?

TO Say you have garbage cans out on the beach, and they attract raccoons, feral cats and dogs and other predators. Those predators will eat the trash, but they also might go after beach mice or chicks. So you'd like to get to a point where you don't have that initial attractant from the trash, and trash pick-up may be one way to deal with that or predator proof garbage cans. And to Jeff's point, we're not saying that land acquisition is off the table, but we think the majority of mitigation will be through action.

FA What about house cats?

TO That may be where you partner with animal control. Most counties have leash laws.

JW Some level of predation is natural and normal for these species, but there's kind of two categories where there are problems: one is non-native predators – things like coyotes or feral cats; the other category is artificially inflated populations – things like raccoons which are a huge problem. You can imagine a small number of raccoons naturally occurring in one location, but because there's so much human food and trash available on beaches, they're really successful and they have lots and lots of babies who then have lots and lots of babies. So what predator control does is it removes those invasive exotic species that shouldn't occur there naturally, and it also reduces those amplified

populations of naturally occurring predators. It sometimes involves trapping and it sometimes involves removing the attractant that draws predators in there. So I think that's what Tom is getting at – that there's a lot we can do with recurring management that's not just a one-time acquisition.

- GA Another example is you can have a barrier island with a state park, and you have the local population bring pigs over so that they can hunt pigs on the state park at night when nobody's there. And this happens. People will put ten pigs on there and then before you know it you've got a hundred pigs predating turtle nests. You can go to places all over Florida and go to a beach side restaurant and find totally open trash receptacles behind the restaurant and you can count 50 raccoons. And you can see on either side of that what's called a predation hotspot where the background predation rate is 10%, but in that hotspot it's elevated to 60-80%. So predation control is education, trash cans, removal; it's the gamut of things to bring predation down from those high levels down to what the science says is a normal background predation rate.
- TE Has the Work Group had any thoughts about – I know Perdido Key ended up there even though it wasn't popular – annual payments as opposed to a full lump sum? That's a way to generate resources through time without having a big hit all at once.
- JS I think that question ties back to an issue we've discussed about the nature of CCCL permits and that they don't have an operational phase. I think that may be a more realistic option if it had an operational component. Maybe for that reason we haven't considered it.
- BM Tom, I think that's a really good idea to look at ongoing local programs that lend themselves to being a collaborative part of mitigation. Maybe if those programs could get some financial support from the HCP then it could provide good mitigation.
- TO Jennifer and I have done some targeted outreach in several counties and that's the one thing that they brought up repeatedly. They're interested and on board with the HCP, but they aren't going to be able to throw additional resources at it, but some sort of support would help them increase their efforts.
- TE I'm hearing the Work Group say that there are lots of opportunities that don't necessarily revolve around buying expensive land, and that's a relief to me. I would personally recommend that the Work Group not completely throw acquisition off the table. I think we need to really look at are there core areas where it makes sense to do easements or downright acquisition. In my mind, that's kind of a fundamental framework that we can be creative about how we get there, and it's not 6000 acres but we need to look at that.
- JW Another element of that is this plan could influence other projects or programs that are looking for mitigation or other conservation priorities, which would provide added lift for the HCP. So even if it doesn't get chosen, just having that identified could be beneficial.

RT I think less than fee options are going to be a big discussion. Easements for lighting or other types of conservation easements, that's certainly still on the table.

TE Particularly with all the heavy duty GIS work we're doing, we have an opportunity to set a vision for what this looks like. And we don't have to mitigate everything through this program, but this is an opportunity at scale to say this is what conservation looks like on the beach. I just don't want us to confuse where we end up or what comes out of this specific HCP program with the ability to set a vision for what conservation looks like. And there's no guarantee on any of this. The reality of the political reality is not very conducive to regulatory programs, but having said all that I'm optimistic that we can continue to move forward. I would prefer to turn over all those stones and look at it as a well-articulated path that we've all agreed to.

#### **PROGRAM FUNDING COSTS/FUNDING PLAN REVIEW**

DM What I'm going to talk about is the funding plan, which is really the operating costs – plan management and where mitigation fees will be pointed to offset those mitigation projects. We talked with Gene just to get an idea of how the CCCL program is running now. The take home is that using data from 2012-2013 and 2013-2014, the revenue that the CCCL program is receiving through permit applications is around \$1.4 million. Costs for the program based on data from 2014-2015 is around \$2.9 million. That's not good or bad, it's just where they are right now. What we plan to do moving forward is use Mike's take estimates in terms of number of projects over time to come up with a conservative annual average. We have to get a little bit into the detail in terms of how those projects are coded to come up with a series of future assumptions.

At the top of page 2 of the memo we lay out some different options of how the project can be evaluated, given the HCP is in place. If it's determined that take will occur, then the applicant will have a series of options to reduce or eliminate that take. Or they could pay some sort of mitigation fee that's proportional to the amount of take that's occurring. They can also opt out of the HCP and pursue an individual ITP. Lastly, they can drop the project altogether. So that's how we're approaching it moving forward.

BM Gene, when you all initially put together your fee structure for CCCL permits, was that intended to cover the cost of the program?

GC I would say not entirely. I would say it was an attempt to put a better bound between single-family fees and multi-family fees. I'll note that prior to 2004 the CCCL program fees collected probably matched 80-90% of their operational cost. With the 2004-2005 hurricane season, a lot of contracting got filled into the program. And also in 2007-2008 was the collapse of the condo market, so you had a huge drop in fee collection and a large increase in operational.

BM The other comment I have is between level one and two – it seems the Control Line review would push you toward level one, rather than allowing you to simply buy some

amount of take. In other words, I don't want to minimize so I'll just pay the big bucks because I can. Is that right?

JG And to follow up, can you do a little bit of minimization, but not all of it, and just reduce the mitigation fee?

DM In my mind the mitigation fee will have to relate to take, and it'll account for a mix of species.

TE My understanding of the assumptions are there are a suite of minimization measures that everyone has to meet. So from my perspective, as long as the landowner has met that minimum, if they want to pay more to impact more then we'll allow that. So the idea is that there's a framework of avoidance and minimization measures in place, but ideally everyone is developing their project knowing that so that when they come to us there isn't this back and forth of RAIs and three of going back and forth trying to find the balance point.

JG So there will be some sort of standardization. If you have turtles, mice and birds then you'll be paying more mitigation.

TE Yeah, and you might have a different set of minimization measures.

MF I should've shown this, but we did segment those r zones out into which species are present in the habitat maps. And yes, if you're in habitat of more than one species group, then you will be subject to higher mitigation fees. What we haven't talked about is the ability to peel back layers and say, I'm going to follow your minimization measures for the beach mouse, but I'm going to fight you on the sea turtles. We haven't talked about parsing between those two items there and I guess there is room for figuring out how we want that to work administratively.

JW If you want to start unbundling, that prohibition on additional staffing really needs to be revisited, because I don't know how you provide that type of detailed computation on a project-by-project basis with only the existing staff.

MF I was wondering about the cost of technology. We haven't really had the discussion with DEP if they have existing structures that things can be adapted to. We've laid out a pretty specific vision of what we want the technology to be able to do to make this one-stop shopping as well as biologically trackable and all that. This is mostly new stuff and I don't know yet of what that means to DEP in the cost structure.

GA Will there be different fees for different species impacts?

DM If you're impacting more than one species group then your mitigation fee would be higher.

- GA So if you're applying for a CCCL permit, the difficulty in determining the siting or design or how much RAIs are required, that's not figured into a CCCL permit. If you're applying for a permit to build a home, it doesn't matter how complicated it is to build that home.
- GC Right, in terms of the fee structure; it's just broken out into two different sizes of homes.
- GA The same is true with coastal armoring. So my question is why do we do this differently? Why not just have an HCP fee?
- JW Are we talking mitigation fee or application fee?
- DM Right. From what I've heard there is very little appetite to revise the application fee structure, which gets into the idea of what you want to roll in as costs for mitigation.
- GC I think what everyone is waiting for is to know what the mitigation fee is going to be, and I think there will be a lot of conversation after that. Are we talking about very small dollars or are we talking about very large dollars? And if we're talking about large dollars, are we actually going to charge the same fee across the board for all single-families? I hope not.
- AB You could do just what you said, Gary, and set up a very simple structure, but the value of having all these species layers is that you can explain to your constituents that they are building in this area with these species and your neighbor one county up is only addressing this one species. And you could subsidize your costs through the tourists. Keep one simple HCP fee, and then subsidize the rest with your tourists. There's lots of ways to do it, but what we have here is a good system because we can justify decisions should we choose to.
- DM To me, the application fee ties back to what you're doing, square feet, etc. The mitigation fee is directly tied to how much impact you're causing.
- MF I think we discovered a nuance in Dave's hierarchy, which is we're ambiguous in that framework whether we're charging for permits that are more difficult to review in that regardless of their impact, they're just harder to assess versus something that we know up front is going to have a big impact. I don't know which side of the ledger that should fall on. I just wanted to put that out there as a question mark.
- TE I would encourage the Work Group to think about current implementation of CCCL and then additive things that will come from what we've been talking about here. And if we need 8 more staff, then I want the cost associated with that. If we have to take that out later that's fine, but we need to think about it from every angle.
- GC I would just say that when you look at cost of the program, you have cost of the program and then compliance monitoring cost. An attorney might look at the statute and argue

that the only cost the Legislature is allowing you to charge for is the program cost, not the compliance enforcement cost.

JW The other element is DEPs devotion to quick turnaround time on permits. I see following the complexity of permits, number of staff and the amount of time they have to turnaround a permit as be interrelated variables.

GC But there's other solutions other than additional staff.

JW Yeah, well what I'm saying is one of the solutions may be giving a little more time on the permit clock.

TE I think we're winding down. Any comments from the public?

(None)

Meeting adjourned 12:55pm