

Meeting Minutes
Florida Beaches Habitat Conservation Plan
Steering Committee
Quarterly Meeting

Wednesday, June 19, 2013
9:00am - 2:00pm
Florida Fish and Wildlife Conservation Commission
Bryant Building Conference Room 272

Chair: Thomas Eason, FWC
Co- Chair: Danielle Fondren, DEP

Steering Committee members present: Kipp Frohlich (FWC; designee for Thomas Eason), Julie Wraithmell (Audubon), Brett Moore (Humiston and Moore), Tamara Pigott (Lee County), Blair Witherington (FWC; via phone); Stephen James (Assoc. of Counties; via phone)

Others present: Kat Diersen, Gene Chalecki, Fritz Wettstein, Sally Davenport, Kelly Roberts, Carol Knox, Brian Powell, Lisa Robertson, Rebecca Pfaller, Tom Ostertag, Kim Colstad, Amy Knight, Mike Flaxman, Elizabeth Fleming (via phone)

Minutes

[December quarterly meeting minutes approved]

BM In the February meeting minutes, we talked about a meeting with the Control Line group at DEP and the FWC commenting folks. Do you have a summary of those meetings?

KD We'll get those to you.

KF Can you give a timeframe for those?

KD We'll try for two weeks, and I'll leave that to Kim and Rebecca to work on.

[February minutes approved]

KF Any other items to add to the agenda?

[no comment]

Staff update

KD A tremendous amount of the team effort this year has been targeted toward drafting, refining, revising and publishing chapters. We are really approaching the finish line on many things. From the last meeting, Chapters 1, 2, 4 and 9 went live onto the web in the

spring. Those chapters are the Introduction, Biological Goals and Objectives, description of the Coastal Construction Control Line (CCCL) program, and the Alternatives Analysis. This week we've added chapters 6 and 7. As you probably recall, chapter 6 is the Plan Area and is, by far, the largest chapter we've put out so far. It was an enormous job to get this chapter peer reviewed, because it covered so many diverse topics, and we really had to reach out to the right folks to contribute on that. Chapter 7 is the Threats Analysis, and this is the chapter that you guys suggested a fairly substantial reorganization. So we went in and did that, vetted it again with you guys last time and got it all cleaned up and on the web, as well. Hopefully we'll start to get feedback from the broader public soon.

Chapters 5 and 14 are some of the other ones that we've been working on for a while now. Chapter 5 is the combined species accounts. You guys, I'm sure, remember how extensive the peer review process was for chapter 5. We got so many comments on the individual species account that we decided once we collated everything, that it would be best to do a second round of peer review. So chapter 5 is just about ready to go back out for that second round of peer review. Chapter 14 is Changed and Unforeseen Circumstances. It's a fairly pro forma chapter, and it basically describes what actions DEP and the Service will take in the event of an emergency. We did not feel that this chapter warranted peer review, especially, but we do of course want you guys to see it. We've just finished our internal review of these chapters and we'd like to host another WebEx, probably in late July or early August, 2 hours, to discuss and get feedback from you. We'll send it out to you well in advance so that you have time to go through it before the WebEx. Chapters 5 and 14 both need that last round of high level revision and then they'll be ready to go on the web hopefully in fall.

We're hoping that the last two chapters that are slated for development this year are chapters 8 and 10. Chapter 8 is the Take chapter. You guys know how much we've struggled with take for the last several years, and it's in great thanks to Mike that we are where we are with it. Basically, the large remaining steps with take are we need to get out there and have continued vetting of Mike's take model with the broader universe of experts, and then the process of getting all the work that Mike's done down descriptively and formatting it into a written chapter of the HCP. Chapter 10 is Minimization, we'll get into a little more detail later in the meeting. We've spent a lot of time working on that lately. So that will be 10 out of our 15 chapters going out by the end of the year.

JW When you say they're now live on the web and available for public comment, how are you advertising for that, and have you received any comments yet?

KD We actually just revamped the website in the last couple of months. The only thing that I've been doing to announce these updates is post an update in the updates section on the webpage to alert folks to that. We have a feedback page where people can submit their comments. We've been talking recently about as we expect more public comments to come in, and to be a little more specific to what everybody's been reading, it would be better for us for tracking purposes if we were able to get a little more information from

them on the front end. So I think we'll end up revamping this page and add some drop down boxes and give people the option if they want to provide contact information and things like that. We have not had a tremendous amount of comments so far.

JW So people would have to visit the website to know there are things to review.

KD Right. The only exception to that is each year we do an annual stakeholder outreach WebEx and I announce it there. But I see where you're driving, and even though we had a stakeholder WebEx this year, we definitely had fewer callers than we've had in past years..

JW It's definitely something to wrestle with, because I don't know that I'm necessarily advocating for giant press release campaigns of each chapter, just because that may be exhaustive or confusing. But at the same time, I wonder if there are stakeholders who are going to need some time to digest the whole thing, and invariably it'll go out for public comment once it's all complete.

KD And that's why we wanted to roll this out in pieces, because it is so big and complex and we wanted to give people time to digest it. I agree with you, though. It's my perception that in the last year or so stakeholder interest has dropped off a little bit. I think there's a couple of things behind that, probably the obvious one is that this has been going on for over five years, and there gets to be a little bit of fatigue. Also, the stage that we're in right now is kind of a boring stage where we're just behind the scenes cranking out a lot of materials. I will say the interest from the professional community, the people we've been bringing in to help build a better product, they get very interested and they stay interested and continue to want to help and provide us feedback.

JW And that may be serving the function. I guess the only other element that I think of in that is potentially affected parties. For the city and county folks, have you been communicating to your memberships about these as they become available? Is there a way that we can better ensure that your members are getting insight into these things? I've been sharing it with key chapters who are very engaged in coastal management issues.

GA When you first began, you had a major outreach effort. Did that generate some kid of list that you could communicate with?

KD Yes. It's a massive list and not well parsed out in terms of who's the person on the street who happened to wander in vs. truly relevantly engaged stakeholder.

GA But is that something that you could work with? Something you could polish up and send out an email? I share Julie's concern as well. You don't want to get to the end and then everyone starts complaining for whatever reason. So it would be nice to have some ongoing communication with all those stakeholders that you interacted with.

- KD I do an annual update with that whole list, which is about 800 people. I would say I do a very long extensive update and that may not be sufficient.
- JW I wonder if when there's an update on the web, if just sending it out to that list to just tickle them and say there's something new out there that you may want to review or take a look at. Some of it's just that people don't like to be taken by surprise.
- KF FWC staff, it seems like we have a new tool where we're using social media more to push out and people can self-identify whatever it is that they're interested in hearing about. Maybe we can make note to talk to folks in community relations and look into that.
- KD We've been talking about this internally lately, because we've noticed a drop off. We want to balance our concerns about stakeholder fatigue with making sure we get the right information out to the right people at the appropriate time. We've got some things coming down the pipeline that people are going to want to see. We've got the take chapter getting ready to be rolled out, and the regulated community in particular is going to want to be looking at those numbers. And hot on the heels of that will be the mitigation strategy.
- JW And it may solicit some interesting external ideas for solutions, too.
- KD Absolutely. And on top of that, we're at the stage now where we're starting to try and figure out what is this thing going to look like on the ground. We foresee that we're absolutely going to have to partner with local governments on that, which means we're going to have to collaborate and strategize with these local governments. So that's going to take tremendous amount of outreach and collaboration with folks at the county and city level. So it's on our radar screen and we hear you loud and clear.
- SD We did update the stakeholder outreach list last year.
- CK It's called GovDelivery – the social media tool.
- MF Another good example is the South Atlantic LCC did really nice job with public outreach via the web. So if we're looking for ideas on how to pull that off, when we're ready, it's extremely well done. they've taken very large documents, like we have, and broken them down into smaller digestible bits with comments, just to generate discussion that way.
- KF I think staff has heard you on that and I think we'll report back at the next meeting on the GovDelivery. Just FYI, we are increasing our staff resources for community relations within the Division of Habitat and Species Conservation. We're going to double our efforts in our Division just on this topic about getting word out and communicating with Floridians and others. So I think we may have some tools that maybe we can report back to the Steering Committee on how they might interface, and I think your points are well taken that we need to keep at it.

JW And it's not a criticism. To be fair, I don't know what the solution is. I kind of view it as shared adversity.

KD So the next item I usually report on there's not a whole lot to report. Grants and contracts – we had already submitted the grant for year 7 as of the last meeting, and we remain confident that the grant will remain funded. We've been assured by the Service that due to the high level priority of this HCP, as well as the sheer volume of funding that's already gone into it, we will not be affected by the sequester. We had some contracting delays early on, but all that's been worked out, and everyone is safely under contract.

Other business – the next meeting will be September 12. We had a heck of a time rescheduling this meeting today, so please go back and check and make sure you're still good for September 12 and let us know.

There have been some other changes on staff in recent months. Lisa Robertson, who has replaced Jackie Larson will talk a little later about where she lives in DEP. And then Brian Powell who took over for Trish Adams. Brian, can you just introduce yourself?

BP I picked up where Trish left off, and those are some mighty big shoes to fill. I don't have near the experience that Trish does with HCP's. I've only been with the Service for the last three and a half years, and I've filled many different roles within the Vero Beach office. The last year and a half years, I've sort of shadowed Trish with a number of different HCP projects. I have been to our national training center and taken the HCP course. One of my previous roles within the Service was in our Section 7 Consultation Division. It's very similar in evaluating and conducting a consultation. The HCP is obviously different in process. My background is before working with the Service, for the previous 12 years I was an environmental consultant. In those 12 years I worked on a variety of projects from private and public sectors. So I have pretty broad experience. I have a very strong support group in Vero – Craig Aubrey, who was the supervisor for our Trust Resources Division, which is where Section 10 and HCP world is housed. He's now our Assistant Field Supervisor. So he's still there and has committed to making himself available for any type of guidance that I may need. He's very familiar with HCPs – worked on some in California and been plugged into very large HCPs that are similar to the Beaches. So I've got direct contact with him for resources. Trish has gone on to be the National HCP Coordinator, so she's plugged into headquarters and is going to be very aware of what the national policy on HCPs will be for the Service. So Trish and I have a really good working relationship and she's promised to make herself readily available to me for any new issues that may come up. I've made a promise to the working group that I'm not coming in to put my stamp of approval on things. I respect all the work these folks have done and know that everything they've done are right in line with what needs to be done. I'm here to provide support in things that are needed.

KD Brian has managed to get answers in timely fashion, get people in the regional office to roll quickly on grant and contract issues.

- TO Brian's being very modest. I work with him on several other HCPs and he's doing an excellent job.
- GA Thanks, Brian. It's really good to know that there's this continuing support at the Vero office. And that Trish is now the National Coordinator and still plugged in. And you have all these resources and there's a continuity of leadership through you. Knowing that is comforting. Thanks for explaining how that's working.
- BP I think the effectiveness that Trish had was directly related to her strong belief that HCPs in the southeast are the best tool to gain benefits to species while providing regulatory assurance to regulated community, and I wholeheartedly share that belief. It's a way to achieve broad scale conservation.
- KF The good news there is if Trish is still in that position when this gets ready to go, she may be more helpful as the National HCP Coordinator, because there's only so much you can do as the regional coordinator.
- KD I just have one last thing before I pass it off to Sally. You guys are aware that I'm leaving, and tomorrow is actually my last day. We are well into the interview process for candidates to replace me. We only have one more interview to go. I want to reassure you that we had a really good crop of applicants. I'm very comfortable and confident that I can walk away from here and leave it in the hands of a very capable person who will do a great job. Everyone on the working group has already volunteered to step up and pick up the slack until my replacement gets fully up to speed. I don't foresee this even as registering as a blip on the screen.

DEP Reorganization

- LR As some of you may know, the Division of Water Resource Management (WRM) went through a proposed reorganization at the end of last year; we're still working through getting all the final approvals. Under the old structure we had different Bureaus within WRM, and the Bureau of Beaches and Coastal Systems was one of them. Within those Bureaus there were a number of different Sections, which were based on the types of activities that staff performed for that Bureau, one being the Coastal Construction Control Line (CCCL). What you see on the screen is the new overall structure for WRM. We've divided the Division into three main areas, one being the industrial wastewater portion, which deals with all the permitting and regulatory issues related to industrial wastewater activities. The next on is the portion of the Division that deals with all the permitting related to beaches and coastal systems, ERP, as well as mining and mitigation banking, and all that is under Danielle Irwin (formerly Danielle Fondren). Then there is a third arm of our Division called Shared Services, and this deals with legislative issues that would impact all the different portions of the Division, as well as streamlining, process improvement, initiatives, and those sorts of activities.

So what you see here is the new structure under Danielle. What the new administration wanted to do is flatten the organization, and take away a lot of the middle management.

KF Can you provide us with copies of this?

LR Actually, this is up on the DEP website, but I can send you a link to where it's housed on the website.

So, like I was saying, the new administration wanted to flatten the organization so there weren't so many levels of management. So they eliminated all the Bureaus, and they now have program areas, which are divided up by the types of activities that the staff perform. Under Danielle there are a total of eight program areas. The Beaches, Inlets and Ports program area used to be the JCP Section. The Beaches, Mining, and ERP Support Program is the Program I'm in. The Beaches Field Services Program is the Program that Gene Chalecki is the Administrator for. And the CCCL Program, which Tony McNeal is the Administrator for. So those are the Programs that I think are most relevant to the HCP. The Beaches Mining and ERP Support Program, we provide support to all the programs under Danielle, and that includes biological monitoring, GIS, and special projects, which is why the HCP falls under this. As I've mentioned before, I am the point of contact for the Beaches HCP, and what that means is I keep in contact with the FWC contract manager as well as technical and programmatic staff, like Fritz and Gene, and try to keep all the right people together so there's a clear line of communication between DEP, FWC and the Service. Gene, do you want to go into more detail about the changes to the BBCS?

GC I'll just start by talking about the beach program, and noting that most of the elements of beach program are under Danielle, except for one. Under shared services is the beach erosion control program. And although that's not terribly relevant to this HCP process, I do want to note that one arm of the beach management program is under someone other than Danielle.

LR And the reason for that is because under both beaches and the former bureau of mining there was a contract, or in-kind reimbursement, type program. So when the new administration looked at it from the outside view, they saw that those were both similar types of functions, so they decided that all the contracting would be housed under the shared services arm of the Division. And that is also where the contract manager for the HCP is located.

GA A while ago I saw a schematic like this that had HCP listed. Is that schematic still available?

LR On the first page of this, under the Beaches, Mining, and ERP Support Program, HCP is listed out under that.

- GC But I would caution, yes the contracting is occurring under that program, but when the HCP is implemented and the incidental take permit is issued, the responsibilities associated with that may or may not be housed under that. The administration may elect to house it somewhere else. It could fall under shared services. It could fall under my group. There are several possibilities.
- KF The beach erosion control program – I'm not clear on what that program is. Is that renourishment?
- GC That is the grants program where the beach program partners with local governments in identifying and developing projects to address beach erosion throughout the state. So these are the beach restoration projects where state money is leveraged with local and federal dollars to actually construct.
- KF So the Beach Management Agreement program, is that no longer under Danielle?
- LR That's actually in the program I'm in – the Beaches, Mining, and ERP Support Program. And this program is probably the newest as far as concept goes. Most of the others were existing sections within the former Bureaus.
- GA Gene, when you said earlier don't assume where the HCP will reside... it will still be associated with the CCCL program. It wouldn't be in shared services where you're not addressing CCCL activities, right?
- GC Well, certainly once there's an ITP issued, there's going to be a great deal of monitoring associated with that. So, should that monitoring fall under compliance enforcement? Is it a special project? There are several options out there. That's all I'm suggesting.
- GA Okay, thank you.
- GC So going back to the page we were on. Under Danielle we have beaches, ERP program, and mines. So, for example, the engineering function now lies under the Engineering, Hydrology and Geology Program. On the next page – Tony McNeal is the administrator of the CCCL program, that being the permitting program. Under Tony are permit managers. What are no longer there are field inspectors. Under Gene we have the surveying component of the beach program, compliance enforcement (for CCCL and JCP). The field inspectors were transferred to the district offices. The concept behind that is that since field inspectors are located regionally, that it made sense to locate them within the districts. The hope with this transfer is that in addition to the field inspector, there would be cross training with other staff so that the duties and responsibilities of the inspector would become the duties and responsibilities of the district. So you have additional resources available to you, particularly following a storm event. And I think that's as far as we need to go, as long as nobody has any questions.

JW Lisa, could you just tell us a little about your background and where you were before the reorganization?

LR Prior to the reorganization I was in the Bureau of Mining and Minerals Regulation. So, I wasn't part of BBCS. My background is quite diverse. I'm a biologist and I've been with DEP almost ten years. I held a number of positions within the Bureau of Mining and Minerals Regulation. I started off as a permitter for the phosphate activities. From there I moved into more planning and restoration; I was project manager and contract manager for a restoration project that we worked closely with FWC on. And then I moved into an administrative position within the Bureau, similar to what Jackie Larson did within BBCS, where I oversaw the reimbursement incentive program that we had for non-mandatory phosphate mining activities. And along with that I did GIS, assisting with data collection and monitoring, outreach. So that was my role prior to the reorganization. Now I am the program manager in the Beaches, Mining and ERP Support program.

JW Thank you.

MF We had a discussion in the work group about the desire for a fairly elaborate web tool over time to actually implement this. How would that be implemented within DEP? Is that a kind of overarching support function? Or would that be done within the CCCL program directly?

GC I'd envision that the support program would be a player, but I would think that anything related to IT, we'd want to engage OTIS and submit an IT project to ensure consistency with the standard.

KF I just wanted to mention that Lisa has been working with Tom and Kat on the hiring of a replacement for Kat. So it's not just an FWC process; we appreciate Lisa's work and going through that process.

KD One additional change with this hiring process is that we have planned for the new position, especially with the ramping up of involvement of folks in the CCCL permitting realm, we are planning on having the new person split their physical presence between FWC and DEP offices. We think that'll help them come up the learning curve and have better interaction with CCCL permitting staff.

Gantt chart

SD If you'll turn to page 4, where the chart is laid out by chapters. What we're doing right now at Coastal Tech is working with our subcontractors, FNAI and Geodesign, to determine what we're going to be doing in phase II of year 6. And it might be easier if I have Amy tell you what FNAI will be doing in the next 6 months, and then Mike can tell you what Geodesign has planned.

- AK Our scope of work is to really get the final sign off on the habitat maps that inform take. So that involves another round of expert review. We had those workshops this past year, and we've made revisions to those habitat maps based on the feedback we received at the workshops, and now we'd like to get a final round of vetting on that. And then a bulk of our work will be developing a set of additional maps that relate to threats to species and then habitat quality, which will feed into suitability maps that will inform mitigation.
- MF I'll show you some of this later on in the meeting, but essentially we need to incorporate some new data. Most of the work we've been doing this quarter is incorporating new data, and we have one new data piece left, which is sea level rise. We did a little of that last year, but it was only for peninsular Florida. There are now much better statewide datasets available, so we will be incorporating those. The other thing we'll be doing is taking what Coastal Tech is working on currently on measured activities off of the maps, and I'll have visuals on this later. But basically we have point data from DEP on historic permit activities, and ideally we'd have area polygons that measure size and setbacks. So we did a sampling approach to look at particular activities in particular places and basically measure them. So those are the two data elements that will come in, and then the balance is working with Amy and expert groups to workshop the incidental take methods and numbers, and to start to implement the minimization measures that we've been hashing through this quarter. And again, working with FNAI, setting up the mitigation plan, initially with some suitability modeling, and then getting expert feedback on what areas are best for what kinds of mitigation activities. Last but not least, a huge amount of writing. We have to write the take chapter, which might make some of these earlier chapters look like light reading.
- SD I'd also like to point out that Bob, who's not here today, and EAI will be drafting the take chapter and minimization chapter and the mitigation chapter. So he's working very closely with FNAI and Mike's group.
- Implementation strategy – we've done a lot of work on that lately. We've been looking at rule changes that DEP is drafting to make with the CCCL program. Gene, when do you think those proposed changes will be available to the public?
- GC That is undetermined. That requires a dialogue at the Secretary level before we can proceed with those edits. With regard to 62B.33 we've been in draft mode for a 2-3 year timeframe. The direction from above has been confused. There was a meeting within the last 3 weeks at the Division level where a strategy was laid out with regard to how to proceed forward. One of the things that came out of that meeting was an agreement by the Division Director that for us to proceed we needed much clearer guidance from senior management. So when will that be complete? I don't know.
- GA You're just talking about 33?
- GC Right.

- GA Which has direct relevance to the HCP, because it's regulatory, and some of the activities that are impacting the beaches.
- KD Basically what Sally is saying is that part of Coastal Tech's task is to stay on top of that, follow the changes, be analyzing what the changes could potentially mean for us.
- BM Page 3 under proposed plan approval and implementation. It seems like the required legislative changes that need to come about in order to implement this should be pushed pretty far off into the future.
- KD Well one thing that's important to note we don't have to have those changes in place prior to submission of this plan. The Service can issue their Biological Opinion contingent upon the successful completion of that portion of it. So right now, the way we're looking at it is we really can't approach the legislature until we have a complete package. We can begin priming the right members, but we can't approach them until we have a complete package until fairly near the end. The objective at this point is to figure out the changes we're going to request, devise and vet the approach, both within FWC and DEP in terms of our own legislative staff, and work with them to figure out the right individuals to approach. But basically we want to begin moving that approach toward that eventual submission to the legislature date, but we don't anticipate submitting it to the legislature prior to submitting the HCP.
- BM I remember Trish a long time ago saying that the HCP and ITP can be approved contingent upon implementation of or approval of statutory changes. It just seems to be that it's an awful lot of money being spent on this program. So what if you don't get the legislative change you need to implement this?
- KD That is an absolutely enormous question mark. Now I will say that part of our responsibility is to address those kinds of what-ifs in our adaptive management plan, so we are going to have to look at that and start getting creative, but right now the approach is let's do it right so that they want to make the changes for us.
- BM Why do you have to have completed plan to get the legislative change to be able to look at these issues?
- KD I wouldn't say it has to be complete from start to finish, but we at least have to know specifically the changes we're going to request and back them up with the strong why's.
- GA I'm confused – we don't need legislative approval to have the ITP approved by the Service and DEP to be under the ITP and the HCP. What we need legislative approval for are certain elements to implement the HCP. So the difficulties that Brett is mentioning, while realistic, if those things can't be met, we pull back in and we still implement the things we can without legislative approval. So there could be creative ways to move the implementation of the HCP forward in ways that don't require

legislative approval that we're likely not to get. It's not a deal breaker is what I'm saying.

- KD You're right. The changes we'd be proposing to statute and rule would open up the rule and give DEP more flexibility to regulate in a way that they're not currently regulating. There's nothing in the statute right now that says, thou shall not do x, y, and z for species conservation. It just doesn't specifically authorize DEP to do those things, and so what we're trying to do is give DEP the flexibility in rule to authorize them to do those things very specifically, and really it can give them the freedom that they previously didn't feel that they had. So can we implement the HCP? There are many components of the HCP that we can implement that won't be impacted by this. There are other ones that it will be trickier to do because it is not expressly written in there that DEP can do them right now, and they like that kind of assurance.
- JW I think we talked about this in a previous meeting and it's in those minutes, but I think the Legislature, they will be motivated to pass legislation if it will help to secure the assurity to the state that the ITP will provide. The idea is that it's providing some safety for the state under the regulatory process. But they're going to want to know what that looks like. So I agree that we're going to have to have something that's a little more robust for them to review. The flip side is the Service may not want to completely authorize something if they don't have assurance that that legislation will be passed. I think Trish said there may be some sort of conditional approval that would give the legislators the assurity that what they're dealing with the be the ultimate product, but will also give the Service assurity of not giving their formal approval before they've gotten legislative changes.
- KD That has always been my understanding of how it'll go. For what it's worth, though, what I foresee with the legislature, I'm not expecting to bring them something that they won't be perfectly happy to see. I have maintained from day one and continue to maintain that this is a win win win for everybody. It'll save the state money, it'll streamline the permitting process, it gives the state regulatory assurances. I am very confident that it is an attractive program. It's just the intricacies and timelines of the legislative process that we have to be prepared to navigate.
- KF As we've said we could make a while meeting about this. I want to make Sure Sally has enough time to finish her update of the Gantt chart.
- SD I'm done, unless there are any questions.
- GA How do you respond to Brett's concern that this be pushed way out for legislative approval? And is there a way or a need to move it the other way?
- SD This is something we've discussed from the beginning – when to go to the legislature with at least a one page program summary. We just don't have some of those answers yet. They'll want to know what statutory authority DEP is going to need, and we know

some of those, but not all. And what we don't have is the mitigation that will need to happen, and they'll need that to do a cost-benefit analysis.

KD To me, this is a lot like the conundrum we face with outreach in general. You have to strike that balance between getting in there too early and creating fatigue, versus getting in there too late and not giving the appropriate folks enough time to work with and absorb the material, and coming in with just the right amount of material. What I can say is that we're not ready now.

BM I understand that. The point was that the HCP was to be approved by DEP early 2014, and we're not even starting the legislative effort until almost two and a half years later.

KD It should be 2015, not 2014.

KF I think there's more to talk about, and I'd like to suggest that we agenda some time during a future meeting to talk about, because there's also the two year USFWS approval process, but to talk about the end game – both why it takes two years for the approval process on the federal side as well as maybe we should start things while we're doing that and run things concurrently.

BM I'd certainly agree with that.

Critical nesting habitat for loggerheads

KD The USFWS has proposed critical nesting habitat (CNH) for loggerhead sea turtles in Florida. We were curious as to whether or not the establishment of this CNH would have any impact on the Beaches HCP. So we got Ann Marie Lauritsen from the Service to come speak to the working group about this to help us come up the curve on the process and understand it a little better. So I'm just going to report back to you the results of that discussion.

What critical habitat means in specific is that there are areas within the geographical area occupied by a species in which are found physical or biological features that are essential to the conservation of the species, and which may – not do, but may – require special management considerations or protection. And specific areas outside the geographical area can also be considered if it's determined that they're essential to the conservation of the species.

When we say geographical area occupied by the species, examples include migratory corridors, seasonal habitats, and habitats used periodically. So in the case of our sea turtles, we're talking about nesting habitat.

When we say physical or biological features, what we're referring to are the features that support the life history needs of the species. That can be anything from prey to water characteristics, symbiotic species, and actually it's not just limited to that. So for the

loggerhead, what's especially relevant are sites for breeding, reproduction or development of offspring, and then habitats that are protected from disturbance or are representative of the historical, geographic and ecological distribution of the species.

So what are the primary constituent elements of the physical or biological features? In the case of the loggerhead, as we've said, suitable nesting beach habitat, relatively unimpeded by nearshore access and located above mean high water to avoid being inundated by high tide. So there is a descriptive component to this as well as an actual geographical delineation, which is mean high water. How convenient for us, because that is also the Beaches HCP line. Additional primary constituent elements are sand quality and light quality, or I suppose you'd say darkness quality.

Some of these definitions are not super relevant for loggerheads, but special management considerations or protection basically means the methods that are used to protect the features that are essential to the conservation of the species. So here we're not talking about protection of the species, but rather protection of the features that have been determined to be critical to the species.

Basically there is not a definition for the term 'essential to the conservation of the species.'

BP So how we look at it is the habitat needed to see the species to recovered status. So when you look at the habitat needs, these are areas that we've defined as being necessary to achieve the recovery goals for that species.

KD Thanks, Brian. So in determining what areas would be considered for designating critical habitat for loggerheads, these are some of the criteria that were used. So we're talking about dry sandy beaches from the mean high water line to the toe of the secondary dune. And that decision was made basically in order to cast a wide net over potential habitat of the species. So even though loggerheads tend not to nest as far up the beach as, say, greens, biologically speaking they wanted to cast a fairly wide net, so they're going all the way over the primary dune and to the toe of the secondary dune. Also it has to be capable of supporting a high density of nests, or serving as an expansion area for a high density of nests.

Here's a table to give you an idea of what critical habitat is actually going to look like. There are 47 units in Florida, which total 451 miles of shoreline. Eighty-one of those miles are federal lands, 81 are in state lands, and 289 miles are private holdings or other. This last number is state total by percent of all proposed critical habitat, so of all the critical habitat being proposed in the southeastern U.S., 61 percent of that is in Florida. There are four distinct recovery units, of which three contain portions of Florida.

In addition to the biological needs, there are other considerations that have to be taken into account. The Secretary also has to consider the economic impact, impact on national security, and any other relevant impact of specifying any particular area as critical

habitat. In general, the Secretary can exclude any area from critical habitat designation where the benefits of exclusion outweigh the benefits of inclusion. One example of that, which we'll get to, could be the existence of an HCP in such place, but in general when we're talking about that, what we're really looking at is would the economic impact be so severe in an area that it would outweigh the benefits of conservation of the species.

BP And that exclusion, the thing that is used most often for that exclusion are things like for plants and butterflies, where private collection of those species is known to be a threat, and by providing critical habitat you're basically telling these collectors where those populations are. So by exempting critical habitat, you're basically keeping those areas a secret, so to speak.

KF How about the national security?

BP I haven't come across that to know how that would come into play.

KD I actually have an example of that. I used to work on Camp Lejeun, and there is piping plover critical habitat in other parts of North Carolina, and while a military installation has the same obligations as any other area under the ESA to protect piping plovers, if critical habitat were to be established, it would have precluded certain training and other activities that are absolutely essential to military training, which would obviously impact national security.

This is a chart that outlines the process of designating critical habitat. Where we are right now in the process is the public comments and peer review stage. So this is not a done deal. I know the next step in the process, the economic analysis, has also been initiated but not completed.

MF Kat, do you know who's doing the economic analysis?

KD I cannot remember the name of the contractor.

MF The reason I ask is that would be a really useful process for us to follow.

KD Not only that, but just to have knowledge of the specific firms out there that have the experience with doing this very unique type of environment impact economic analysis, because we have one of those as a requirement of the HCP.

So how would adding critical habitat designation harm or enhance the HCP process? What's really important to understand is that Section 10 of the ESA process doesn't change at all regardless of whether critical habitat is designated. Critical habitat designation occurs under Section 7 of the ESA, which is a completely different consultation process. When you are consulting on species under Section 10, you are still required to calculate take, avoid, minimize and mitigate whether or not that take occurs in critical habitat. So from a take perspective, there is absolutely no difference.

The only difference that we can so far come up with is there is one area in Florida statute [62B.410055(4)] that says, ‘coastal armoring structures shall not be constructed in Federally-designated critical habitat for marine turtles or between the northernmost and southernmost boundaries of the Archie Carr National Wildlife Refuge.’ So there is a possibility that the designation of critical habitat could impact one of our CCCL permitted activities. It could go one of two ways: we could see a drop off in coastal armoring in those areas, which would cause a reduction in take, and subsequently a reduction in the need for mitigation. I suppose the other side of that is that because this particular statute hasn’t been tested yet, we could also not see any change in behavior in those areas in terms of armoring, and we could be presented with an enforcement issue.

GC I guess I’m confused because that’s a rule and it pertains to the Joint Coastal Permitting program (JCP), and that’s not part of the HCP process.

KD Robbin pointed this out to me, and basically she was curious as to whether or not – and I’m sorry, you’re right it’s rule, not statute – but she was curious as to whether or not even though it’s in place for the JCP process, if attention would be drawn to it as a result of this, and therefore have some bleed-over into it. And the only answer I gave her was we’ll have to look into it.

GC It would only be actuated if the coastal armoring was proposed below mean high water, which is highly unlikely.

KF Kat, as I recall, while it relates to the HCP, one of our fundamental questions stepping back from this was the impacts of the critical habitat designation would be, separate from this team, separate from this process, the world as we know it now. And the question was because of that rule, the designation of critical habitat, which would be much larger than when that rule was written, would change the ability to have coastal armoring. So I think some of our questions from FWC and coordinating with DEP and the Service is not so much relevant to this Steering Committee for the development of the HCP, but to the relevance of designation of critical habitat and how unintended consequences with state rule would cause some changes to potential abilities to have armoring.

KD Another question that was raised is has a critical habitat designation been exempted due to the presence of an HCP in the past? The answer is yes. It has happened that critical habitat was being considered in an area with an HCP, and it was determined that the presence of the HCP negated the need for critical habitat. However, it’s not an automatic exclusion. The Service has to be able to say with certainty that the presence of the HCP provides such sufficient protection that it precludes the need for the critical habitat at all. The other thing is that this only applies to existing HCPs, and the critical habitat designation is going to get put into place long before this HCP is implemented.

The final question we raised was what would be the differences in mitigation and sea turtle protection under the ESA for HCPs vs. critical habitat? Ann Marie’s answer was,

again, regardless of critical habitat designation, the loggerhead is a protected species and it's protected wherever it occurs. So as far as we can tell, critical habitat designation is not going to appreciably impact the way the CCCL program does business, and consequently it won't appreciably impact the way we do business. The absolute biggest potential difference is you could see some tightening up of the types of things that are authorized in those areas and a consequent reduction in take, which is a net positive.

BP The only thing that I'd like to add is that I spoke with Ann Marie and they have evaluated the effects of this critical habitat designation on projects like ours and her comment to me was that because of BMPs that are in place already and conservation measures that are a standard condition to a lot of permitted activities, like beach renourishment and dune restoration, they do not anticipate those projects being an adverse modification to critical habitat. So those types of activities will still be able to occur within critical habitat. So I don't anticipate the activities of the CCCL program will be limited because of critical habitat designation. And the other thing that I think will benefit us is that when critical habitat is designated, those will be the areas where we'll focus our mitigation.

MF In terms of that weird geographic boundary difference between the toe of the second dune and the vegetation line that we've been using, how should we think about that? And presumably they're mapping that, right?

KD I don't think they're mapping that. I think they're outlining the broad geographical area, and then anywhere within that area that possesses those characteristics counts. I also think there are places where there will be critical habitat where there are not in fact secondary dunes.

AK I think the question is, would the Service consider take in the secondary dune just because it's mapped in the critical habitat? That's where we would have to consider whether we include that as well. And the way Ann Marie explained it, they're mapping linear.

BP So you're referring to that secondary dune that would be outside our plan area.

AK It would be outside of what we've mapped based on our habitat definition, which currently stops at the primary dune.

BP That's going to be a but for type of situation. It's going to mirror the issue we're working through with the beach mouse. So the CCCL program isn't necessarily permitting activities within that secondary dune...

AK But actually it could be within our plan area.

BP Well, if it's in our plan area, then we'll have to identify that as critical habitat and potential effects to it. And really with critical habitat, it's not the same as identifying take for the species; there is no take of critical habitat. It's simply an evaluation of whether or

not there is adverse modification, and the adverse modification is the same as determining jeopardy on a species.

- KD To me, there's a couple of layers here. There's the CCCL jurisdiction layer. Then there's the secondary layer of what are we calling habitat within that, and therein lies the rub. We're saying it's the toe of the primary dune and they're saying it's the toe of the secondary dune. To me, what it comes down to is we've defined habitat differently than they have, and we have submitted that definition to the authorities to some extent, and it's going to be up to the broader universe of those experts to tell us if we've adequately captured that habitat for the purposes of these activities.
- GA Why does it matter? I don't see where it matters at all. Critical habitat is one thing. The HCP is another. Critical habitat is federal activities. The HCP is state activities.
- KF Are there any Steering Committee members that have disagreement with that? Any last burning questions or comments?
- BW I agree with Gary's assessment, but I will point out there's a parallel effort to designate critical habitat in the water. NOAA is spearheading that effort, and the potential critical habitat would include migratory corridors and nearshore reproductive habitat, places where sea turtles on the beach spend their time between nests and also foraging habitat, which might be very close to shore. And those habitats could be affected by dredge and fill operations. But as Gary points out, it's a federal nexus and not necessarily a state, so either way I think it's not so important for the HCP effort.
- KD The only thing I could conceive of being an issue is there could be recognition that we have defined habitat for loggerheads differently than the federal agencies have. But we can strongly back up our decisions and I think it'll be fine.
- BP And it is something that we have to define. It's not something that we need to get down in the weeds in this meeting, and Gary what you said is true to a point, however there is a federal action that is going to be tied to the HCP and that is the issuance of the ITP. So through that action the Service has to do a consultation with itself on that federal action, and we will have to evaluate and address the potential impacts to critical habitat through that process. So if we don't address that situation now, it could get to a point where we say there's adverse modification and therefore we cannot issue that ITP.

Minimization

- KD I wanted to spend some time talking about the development of the minimization strategy for the Beaches HCP. We'll back track a bit and talk about the relationship between threats and minimization. I'll take you through a timeline of the steps we've taken to get to where we are now. I'll outline our proposal for a new CCCL permitting process. Then I'll talk a little bit about specific minimization measures, not so much the measures but what our approach will be. And finally I'll wrap up with some next steps.

As you recall, chapter 7, which is now on the web, describes the threats to covered species. When we talk about threats, what we mean is for any given activity there's a whole range of impacts that can occur to a species as a result of one of our permitted activities. Chapter 7 describes these in detail.

Chapter 8 is take, and this quantifies the amount of impact that occurs as a result of the threats actually being carried out.

Chapter 10 is the minimization chapter. Minimization directly correlates to threats. If there are threats that could occur as a result from an activity, you minimize those threats.

Chapter 11 is mitigation. Mitigation is what you do when you have minimized the threats to the extent possible, and you must now mitigate for the take that occurs from whatever threats that remain.

So chapters 7 and 10 go together – threats and minimization. And chapters 8 and 11 go together – take and mitigation.

You've seen this chart before. At the top are each of our 8 CCCL activity groups, and down the side is an array of much more specific threats. So what this chart shows is a corollary between each of our covered activities, which of these threats might result from them. A good example is beach cleaning. What threats will be present with beach cleaning? You have vehicle operations and ground disturbance. One threat that won't result from beach cleaning is filling, for example. So for each of our 8 activities we have tried to enumerate what are the specific things that can happen to species on the ground as a result of that activity.

So we took this chart and looked at each activity and each threat that could occur as a result of that activity, and said what actions need to be taken to minimize these threats to the maximum extent practicable. So here are the major questions we had to ask ourselves. Which activities result in which threats? How do we know when a threat is actually occurring at the site of a permitted activity? How do we know which minimization measures are the appropriate ones to effectively reduce the threat? How do we ensure that the permittee is taking appropriate steps to minimize the threats?

You may remember from our last meeting in February that we told you that we met in mid-December to begin diving in on this. We used those guiding questions as a way to focus our approach, and the first strategy that we devised as a way to answer those overarching questions was to require a Biological Assessment, which is an in-depth, lengthy on-site assessment of each permitted project as it currently exists. We thought if we could get this Biological Assessment prior to application on the front end we can get access to some of the specific site level data that we need to determine where the appropriate minimization measures. So we spent a long time going around and around on what would a Biological Assessment look like, what information do we need, when

should it be conducted. There were so many discrete components of the concept that we basically just kept spinning our wheels over it, and ultimately backed off from that approach. One thing that came out of all that, though, is we realized that there are a lot of pre-components to the CCCL program as it exists now that we really didn't know much about.

So we decided we needed to meet with permitting staff from both DEP and FWC in order to get a clearer explanation and understanding of what the permitting process looks like from within those agencies, where the gaps are, what the individual processor does on a day to day basis and what would they need to know in order to make these assessments.

We met with DEP staff first – Fritz and Tony. And once we had a better understanding of what these folks do already, we felt like we had a better framework to get moving forward in terms of what we need to get them that they didn't currently have. What we realized we didn't have in place that was going to be a necessary pre-condition to devising a minimization strategy was a revamped process for submitting and reviewing and implementing CCCL permits. What we've spent the vast majority of our time this spring and summer is not so much coming up with very specific minimization measures, but devising a new process that may or may not end up in the minimization chapter. We kind of think it might end up in the implementation chapter, because essentially what we've suggested now is a largely altered process for authorizing CCCL permits.

So here's little bit about how we think the new process is going to look. There's a key feature of it that's not currently in place. Basically, what we envision is a web portal that would be housed within OTIS, but obviously supported by other sections within DEP, that would be the first stop for permit applicants. So instead of an applicant pulling together their materials in a vacuum or going straight to the DEP permitting staff with a request for consultation, there will now be a one stop shop on the web with information and a permit application process for applicants to go through, possibly without the need for consultation. Some of the things we envision this portal will be capable of are, on the front end, providing basic information about the HCP and the CCCL permitting process, guidelines about why the process exists, what are the steps in obtaining a permit, and is your activity eligible for a permit. Some of the thinking behind this was as we are going to increase the workload that permit processors need to undertake in order to look at these permits for endangered species issues, we're going to also reduce the workload they need to undertake by having better information available to potential applicants on the web that can kind of cut off the need for early stage consultation and hopefully getting questions answered more readily without using the time and resources of the permit staff.

The way we hope that this will work is an applicant will go to the CCCL permit portal and there will be a guided process that will help them determine, first of all, whether or not their activity is even eligible for a permit. We are planning on having a GIS supported map with aerial photography that helps the applicant find their parcel on a map, overlay it with the occurrence of plan covered species, and lays out other boundaries such as general permit line, CCCL line to help the applicant get an idea of

where their project is situated before they get a consultation with permitting staff. Another thing we'd like the site to be able to do is make generic recommendations for project modification that might preclude an applicant from the need to get a CCCL permit. So we're hoping to make this site interactive enough that it will give the applicant the power and knowledge to modify their project coming in, at least the smaller, lower impact ones in such a way that they may never even need to reach the stage of consultation.

Another idea we came up with is we think it's feasible for some low impact projects to be eligible for a self certification permit. This is similar to some other permit processes that currently exists in other state agencies – the FWC gopher tortoise permit, for example. The notion here is we're trying to streamline the process for applicants, we're trying to make as little work for them as possible. We're also trying to reduce workload on staff. The way a permit process like this necessarily has to work is whatever minimization measures are required will have to be enshrined as conditions within the permit that's printed out. It's going to have to be very clear. The applicant to going to have to be able to understand exactly what they're committing to. This is a bit of an arbitrary number, but we were proposing that 20% of all self-certified permits would randomly be given site inspections.

The next three slides are a list of activities that may qualify for self certification. I'll just go through a few examples. Some of these are activities that are currently given field permits. One is temporary structure for special event. Sea grape trimming. Repair of structures that fall within certain criteria. Fences and privacy walls, sidewalks, irrigation wells. This is not a final list. We're still looking at all of this, so this is just a first hash of ideas. And I want to reiterate that, yes, there is a level of trust here with self-certified permits, but they do have to sign it when they print it off and there is a legal obligation to abide by the conditions, and 20% will be inspected.

Back to the web portal. Once you have shown what the project is going to be, there will be a question by question decision tree that will filter your project down into what type of permit you'll need – general or standard. Our thoughts on this don't deviate from the process as it currently exists in terms of general and standard permits. One of the things the portal would do, though, is help an applicant by having checklists of materials required for different types of permits so that they can come to DEP a little bit more prepared. So we hope this will reduce the amount of time needed for consultation with DEP, and it should reduce the need for RAIs.

Another thing we want the site to do, and this is being a little preemptive, but we do anticipate there will be mitigation fees associated with impacts to species. We plan to correlate those fees very specifically with the degree of impact, but because we plan to have a structure in place for that, there's no reason we can't give the applicant information about that up front.

Next is sort of the back side of the portal process. We wanted to look at what permit reviewers do now in terms of processing applications and what kinds of tools and resources we could give them access to that would make transitioning to this process a little easier. Again, we go back to this GIS web-based tool. There will be a front end user side of it and then a back end, permit processor side of it. The goal is to have it updated with the most current aerial imagery, as well as current species distribution and critical habitat and any other decision features that we can build into that in a visual way. We want to have a database of all of our minimization measures and when they should be inserted for which activities. Also a flow chart, similar to the one on the front end, that will help processors in knowing which measures are appropriate to use in each individual circumstance. Part of this is about making their life easier, another part of it is about standardization.

We envision that bringing permit staff up to speed on processing applications in light of endangered species issues will require a bit of a learning curve, so we're planning on implementing a training process and creating additional training materials. On-site inspections that occur for general permits are not going away, they'll be the same, but will need to be trained on identifying impacts to plan species.

In the interest of time, I'm just going to try to quickly go through the high points from here on. Basically, we envision minimization measures coming in the form of BMPs. These are specific recommendations that are relevant to species in the context of a given activity. And these are the types of recommendations that DEP permitting staff has absolutely no experience working with.

KF Is there an opening for the Steering Committee to steer on this topic? I think what the working group is putting together is a framework, and I'd be interested to hear if anyone has any thoughts on that broader framework.

KD I'd like to just say a couple more things about the framework that I think are important. One of the issues that we've realized has been an issue within DEP and could potentially be increased because of the much broader array of things that are going to have to be regulated after this is that permit compliance monitoring is going to be hugely important. We're going to have to build it in and do a better job than what has previously been done. DEP's philosophy on permit compliance is one that we still agree with, which is basically when non-compliance is documented the first step should always be to work with the applicant to correct the deficiency. They have other means at their disposal for compliance monitoring, and we're not wiping those off the table, but they almost never occur. And we don't want them to occur. We want to create a system that makes it easy for applicants to know what they're supposed to do and easier for them to do it. So part of the streamlining is to make it easier to have compliance and enforcement.

The flip side of that is we feel it will be impossible to do this fully under the auspices of DEP. We absolutely know we're going to have to partner with County and local government to assist in compliance monitoring, to assist in the facilitation of information

for applicants. There's a lot of overlap with FWC permits, local permits, lighting codes. There's a lot of regulatory overlap there that we can work more closely with counties to a) get our regulations more in line and b) cooperate on enforcement of an applicant being in compliance. I won't go into detail about it now, but we've put a lot of thought into what these collaborations will look like. We have an idea of starting a pilot program prior to submission of the HCP with maybe five counties that are already really forward thinking on coastal issues and have some of their own really solid regulations in place and might be a good nexus for creating some of these MOUs, working with counties that have lighting plans that aren't up to state standards, perhaps funneling some of the mitigation fees from the HCP to the counties to fund coordinators. We have a lot of ideas about how these collaborations could work.

KF Do you have an idea of the counties you'd like to do the pilot program with?

KD I know we talked about Volusia. I think we talked about Sarasota, and maybe Lee. I think Palm Beach, and Escambia too.

BP The counties that we were talking about were counties that we knew already had regulations that are at least on par with the state and/or even above the state standards.

JW You may look at some select cities also. I know when you were talking about beach raking being a possible self certified activity it kind of gives me the chills, but there may be opportunities to kind of parse that activity. You know, there's a spectrum in beach raking. There's beach cleaning where they drag this box and scoop everything up and sift it so that sand come out, and everything else is removed from the beach. And then there's beach grooming, which is dragging something behind, which makes pretty designs and redistributes material, but it doesn't necessarily remove it from the beach. You can just imagine how the impacts from those two activities differ. But what I'm saying is Ft. Myers beach, for example, recently adopted a new ordinance related to beach grooming, which I feel is very progressive. So there may be some local government on a smaller scale that you could partner with.

KD A lot of what we're doing now seems like it should fall under implementation, and is not as clearly cut a minimization activity as one would think of it. But not for the first time in this process we've really realized that you can't know what you need to know before you know it. So even though we had to back way off of coming up with concrete specific BMPs, we feel like the time we've spent has a) given us a big jump start on implementation ahead of schedule, and b) it was a really necessary precursor to devising BMPs that make sense and are practical. That being said, now that we've done all this, we have started on the specific BMPs. At our last face to face meeting we brought in some of our species experts, had them look at the structure and give feedback on what's practical. And they are out there now chewing on some of the specific recommendations, and we're hoping to start piling all the actual BMPs into this process that we've started.

KF So one of the things you had the structural change of how DEP does its business, and they've got web portals in this vision. When we change things about how we issue permits, you go through rule making, because it's already prescribed how it's supposed to work. So the question is, when you envision the new way of doing it, does that require DEP to go through some type of rule making?

LR I think one thing to clarify is that this isn't going to apply to all types of permit applications. Self-certification is currently handled through field permits, so that's a little different. And as far as general permits or standard permits, there will be a lot of interaction between the permitting staff and the applicant. This tool is going to be primarily for the applicant so they know up front what is going to be expected of them, what materials they'll need in order to apply for that permit. So there really won't be any change as far as the overarching permitting process. It'll just be another resource or avenue for applicants to acquire the information that they need to submit a sufficient application.

And there's a lot of activity going on in our department to streamline the permitting process, more public outreach, more information on the web for the public.

GC What is being removed from rule is language that requires paper. Not that you can't submit with paper, but it's not required.

Incidental Take model updates

MF We've accomplished a few things over the quarter that I want to talk to you about, all of which are refinements or upgrades to what we showed in December. We've extended the simulation data statewide, improved our future habitat depictions, updates habitat and expanded species coverage, and revised our incidental take buffers.

So statewide data. We had to get all the parcels data, and reorganize the state with the latest information. With that, for conservation, it turns out to be really useful to use a complementary database, also done by FNAI under a different project. They have a conservation lands database which turns out to be much more accurate in terms of whether a parcel is likely developable than the Department of Revenue. The Department of Revenue does not track conservation very well at all. So here's what it boils down to. There are 9,059,545 parcels in the state. About 71,000 of those intersect our plan area. 23,000 of those are unbuilt. Of those, 5,600 are classified by the Department of Revenue as vacant residential parcels, and another 471 are classified as unbuilt commercial, industrial or parking lots. Those numbers are a little bigger than prior analyses. I don't know yet if that's from subdivisions of properties or having a finer filter. There is some noisiness in the parcels data as well, in terms of the treatment of condominiums. But basically we needed to reinject the 2012 state parcels and reenter codes with our modified plan area definition.

Then we had a lot of work from FNAI to update. As a reminder, these came from changes from the expert review panels and adjusted to the seaward side to our new uniform mean high water line. So both of those revisions needed to be accounted for. The differences were very small for beach mice, much more significant for sea turtles, and most of that comes from moving the mean high water line, but there were a lot of narrowing edits in the panhandle. So here's an example, and in purple is the current revised habitat definition and in gray stripe was the original. Amy adjusted those based on a lot of additional mapping, and the dune line is now using elevation information as a supplementary to defining the habitat. In the panhandle that narrows things down. So in general, reduction of sea turtle habitat, but some addition in the everglades and southeast and keys.

Coastal Tech worked on the revision of beach mouse habitat that looks at subtracting out predicted losses from storm surge. It's not a real significant change in terms of the proportion of total habitat. We did this as due diligence.

So the third thing, talking about future habitat. Why? Because not only do we need to consider current habitat, but we're doing a 25 year plan and therefore we need to pay attention to some major drivers in shoreline change since these indirectly affect incidental take. Previously, what I presented last year, I used the 25-year storm surge line to estimate that future habitat, and based on guidance from the Steering Committee we went back and did a more thorough analysis of coastal erosion directly based on the survey data. And so Coastal Tech again was responsible for the first component of this. They took the survey benchmark history of the coastline and for every single R monument in the plan area created a trend line for historic coastal erosion trends. And the earlier work had indicated that that's likely much more significant in the short term, but sea level rise will get us in the long term. But when we did the initial numbers as of last year, the coastal erosion was within the 25 year time period. So basically we repeated the analysis done previously, called shift and clip, which basically is a simplification of beach dynamics that says that the ocean edge of the beach moves following historic rates, and the landward edge moves the same distance, unless it's restrained by armoring.

Here's a good example of the new 2010 mean high water line that went into this. And basically the good news is we have uniform coverage across the state, and the limitation is still that it measured all the R monuments, so if you squint you can see little inflection points based on where the transect for the R monument hit. And that will always cut off things like spits and points where the R monuments don't happen to hit part of the spit. So as a consequence of scale we have to get FNAI to do some refinement work on that 2010 shoreline. So now we're overall pretty comfortable with our 2010 shoreline definition.

And as mentioned, Coastal Tech then projected forward erosion or accretion rates at the R monument level, and that was mostly erosion.

GA Does DEP use this kind of data? In the strategic plan that comes out every year.

GC No.

GA So you have a different set of data than this?

GC Let me clarify something. The historic erosion rate that Coastal Tech is using comes from a reference document that we do not necessarily use.

GA That's what I was wondering.

MF So in terms of the big picture view, we currently have some level of purchase on storm surge, coastal erosion and sea level rise. Storm surge has been done by Coastal Tech based on Sbeach. Coastal erosion was just described. And the sea level rise, I haven't redone at the statewide extent, but I did bring up a question for the Steering Committee which is the original PFLCC scenarios we based our work on were in turn based on the IPCC 2007 projections, and those did not take into account glacial ice melt, and were in some circles widely criticized for that. The 2013 numbers have been unofficially leaked, so they now call it a draft. So IPCC is going to have a major revision in 2014 of their sea level rise numbers, and indications are that their likely to be about a third higher, largely because they do incorporate ice sheet melting. So the question for the Steering Committee is if and when to consider 2014 numbers. It's all the same to me and it's easily enough done. But there's advantages and disadvantages to jumping ahead on IPCC. The disadvantage is you get criticized for not incorporating a whole ice sheet melting, and the advantage is you're sticking with the best available published scientific research. And so the position I've always stuck to, especially with controversial sea level rise, is give me something that's in peer reviewed literature that a stakeholder group has approved. So unless further instructed, I'll proceed with the 2007 IPCC numbers we have been using.

Another out on the table issue, and this is more for your information than I have a solution for it, but we're accounting for three different processes separately, that in the real world do co-occur and influence each other. We're treating coastal erosion and storm surge as if they're independent from sea level rise. In reality, we expect interactions. There is some preliminary work, not even published yet, by Paul Zwick at University of Florida. He's done some HAZZUS modeling as part of the PFLCC work in coastal counties, and he's looking at some big and pretty scary multiplicative effects for storm surge atop sea level rise. So if you put the same 25 year storm we've been using on top of three extra feet of storm surge, the storm surge doesn't just go an additional three feet, it goes much further inland. So that's proposed, but it exceeds the limits of best available data in published science as we speak.

BW Are there some areas in the panhandle where subsidence is an important factor, and are there some data to turn to to guide the estimation of shoreline?

MF There are such numbers being gathered for the everglades and the keys, and I know an NSF project is collecting accretion numbers in the southwest, but in the panhandle I do not know. Are you aware of a potential source for those?

BW No, I just know it's an issue for Louisiana and Alabama, and I didn't know how much of an issue that was in the panhandle.

MF It's a good question, but I don't have a good answer. Unfortunately, the modeling that's done with SLAMM requires those accretion rates, and so there are projects around the state that have either measured or estimated those, and there's at least one statewide project, but other than that I do not know a source for those rates. But I could go back and look for the panhandle whether those rates have or haven't been published.

So we basically updated the r-zones – the zones within our plan area. We used that to simulate our line of construction. Basically we had to do that because the plan area had shifted and the mean high water line had shifted. So as a reminder, same method as previously, the r-zones are centered on the R monuments and run halfway to the nearest neighbor, seaward to the mean high water line, and landward to the CCCL. For purposes of this round, we wanted to come up with a proxy to the line of construction, which has come up a lot in the minimization conversation. We needed an estimate, I did a GIS based estimate, but Coastal Tech is in the process right now of doing a sample based measurement of particular activities as actually occur. So I used FNAI's moderate to high density residential and urban classes and looked at the urban edge from that class, and it's an imperfect measure but it's the best we have.

So the other thing that we did in terms of incorporating new data is start bringing in some information from the literature review that was done by Coastal Tech looking for spatial distances relevant to setting incidental take buffers by species and activity, individually and in combination. They found some very specific things and some very general things. So the intention is to use these to set up reasonable defaults for our expert groups to work within. We found four different kinds of numbers, conceptually. So, for some species, like birds you have flushing distances. For others we have management recommendations, some really well documented. And then there are roving and dispersal distances.

As a reminder, our original work in 2012 assumed one distance per species for all activities. We did do a sensitivity test for beach mice, and the numbers we generated at the time were based on a 100 meter default. So in this last round we set up the ability to consider species/activity pairs individually. We also refined by activity subgroups. So what we used for simulation purposes this round were basically 4 activities that are kind of subtypes of coastal development. We broke it into larger structures, medium structures, large cover conversions and small cover conversions. The most numerous category by far were the small cover changes. The second important category to mention is earthworks.

So we are taking a buffer distance, but where one permit is within 200 meters of the next we don't overlap those two and we don't count them twice. We just bump them halfway to the nearest neighbor. So that's for large activities. For medium sized activities and single family, we use a 100 meter buffer. 15 meter is the smallest size buffer we have in the database. So if you imagine these three variable buffer distances together, and then you superimpose habitat, you have a way of computing take.

JW So I'm looking at the way that you're buffering and saying if there are two applicants near each other you're splitting the difference, so you're not double counting. When we actually put that into practice, though, those two applicants may be separated temporally. So they may occur years apart. So when the 2nd neighbor comes two years later and applies, has the take already been computed and mitigated for?

MF I think there are at least two sub issues there. One, I'm showing you this to explain the mechanism, but it's not intended that we would publish these kind of maps. But there are two sub issues to bring up, one is the temporal one, so there are particular activities we might choose to treat as transient. And we're simulating decadal cycles here. On the other hand for structures, we have been calling take initially and really literally setting it up to call it only at the moment that this plan comes into effect. So for three neighbors that built their structure five years before, those don't have take called on them, but the next thing that happens after the plan goes into effect, those have take called. So we're only responsible to accounting for take that occurs after the initiation of the plan. So to come up with a quick answer, right now what we did was we simulated earthworks only as being temporal, and have some questions remaining on reveg and dune reconstruction. Specific to an individual permit probably we would do the full buffer in that case. The other subject that comes up is you can have an activity occurring in the plan area that causes take just outside of the plan area, and we're treating everything landward of the CCCL as if it's permanently static, so we're taking responsibility for all the take that's taking place across that landward edge.

So one way of bounding the problem that we haven't talked about that we did for seeing how much potential habitat is out there, specifically to take those buffers and look at them in a species independent way, and say how much white sand beach within the plan area is near the simulated number of future points. It's sort of a first step toward a revised habitat take estimate. And the reason for breaking it out this way is that for instance in the panhandle the take we estimated occurring in the 15m buffers, there were 449 of them, but they totaled 94 acres. Meanwhile, there's about the same number of family residential impacts counted with a 100m buffer, and those have 1,500 acres of take. And there's half as many 200m activities, and those have about 700 acres of take. So this is just to again show that single family is still driving the system. So if you started putting back 100m buffers on every small activity, you'd get double the take amount. So this is just to try to give you a feel for the sensitivity of the analysis.

So basically in comparison to the prior incidental take numbers, one part didn't really change that much, because we have literature support for our prior take buffer distances.

But, we have a question that's now going to go to our expert groups of how do we treat the small permits and fill and underground activity permits. So those 60% of those activities, if you back those down to no or 15m impact, that causes a significant change in incidental take computation.

So, in summary, we've accomplished four major things in the last quarter. We extended the simulation data statewide. We updated the habitat and species coverage. We improved the future habitat depictions. And we revised the incidental take buffers. Our intention is in July start workshopping with expert groups the incidental take buffer distances

Any questions?

BW You've certainly done a really great job at tackling this really difficult task. Every method like this requires assumptions, and one of the assumptions that you made and Julie brought this up is that you used the buffers around the individual items causing take. And it might be that the buffer technique is good for some species, but perhaps not others. I wondered what your thoughts would be on addressing other ways to deal with the sphere of influence, so to speak, of an individual object. With sea turtles, for example, a given structure on the beach would have less of a take footprint perhaps, and more of a take shadow. Whereas a linear object that didn't have a whole lot of footprint, would have a great deal of influence depending on where on the beach it was, in that it would shadow more of the beach and prevent access of the beach, but wouldn't have a whole lot of lateral influence. My question is, do you think addressing those different sorts of techniques could be used within the model GIS you've got?

MF It's a great question. As some may be aware I've been developing a proposal to take a better crack at beach lighting in particular with some of the new data sources that are available. So what I've tried to do with this effort to date is do everything possible within the framework of best available data. And there's a bunch of stuff that falls just off the line, one of which is LIDAR, which is available but not in easily useable format. The single thing within this format that I'm the least trustable with is sea turtle lighting impacts. The technique that I'd propose to employ is called view shed analysis in GIS, which can account for shadows, it's a 3D analysis. I've been having some side conversations with several folks here about how we might accomplish that and how we might get that within a scale and timeframe that could be doable by the HCP.

BW I was actually asking about a slightly different thing, but on the subject of lighting, that's an interesting point. There might be some data that folks like the International Dark Sky Association has for average contribution of individual properties to either sky glow or light trespass. It might be a quick and dirty way to assign light contributions to individual properties based on what type of property it is and how big it is. That might have to wait for the future, I don't know.

But sorry to get you a little derailed. The question I really had was about structures that might be barriers to sea turtle nests, and how they might not have a contribution to take based on their footprint, but precisely where they're located on the beach in terms of blocking access to elevations. And those would be barriers like dune crossovers to sand fences to cabanas and various things associated with any development, like lawn chairs and things like that.

- MF So that's the other geographic torture case, and we have none of that mapped so it's challenging on a statewide scale to think of how to estimate that stuff other than take an average and put a buffer distance around it. To do it mechanistically is sort of beyond what we're able to do on a state scale.
- BW I understand that these are the sorts of fine resolution data that you can't get easily, so you might have to make some assumptions based on a few areas where you do have some fine scale data and extrapolate out to the whole state.
- GA I don't understand if you can't come up with a way to define the impact of lighting through the viewshed or something like that, does that preclude adequate minimization and mitigation for lighting?
- MF Every time I feel bad about this I go back and read the BMPs, and they give arbitrary buffer distances in the guidance. So you can criticize that or say, compliments, you've got an approach in place and that's better than nothing. So we do have a bit of a dilemma there.
- GA But if you can't come up with a way to adequately assess the take from lighting, does that mean that we can't develop minimization and mitigation for the impacts of lighting?
- KD Two things. One, you have to look at minimization and mitigation differently. If the lighting is this bad or *this* bad, the guidelines are the same. You use the same BMPs regardless of the scale. So the assumption is that whatever the scale, minimization is going to back that backwards by a certain amount. Where your problem comes in to play is that how much do you have left to mitigate for? We don't really know. Now, we have general ideas, and we have guidelines that are preexisting with the state, but the best available data is not not to tell us precisely, and our refuge in that has to be what it's always been, and that's go with the best available, and where we have time, funding and support, we create the best available. But at the end of the day, we will mitigate for what we think is out there that we cannot minimize. And what we think is out there is rough. We still know probably more about it than anybody else does.
- MF One thing Bob always reminds me is that there are practices that we can prescribe, even if we can't quantify them fully. And minimization measures that aren't quantified fully, kind of follow that category. So it shouldn't preclude us from putting in measures in this minimization just because I can't quantify them.

- KF Is there a way you treat measurable absolute take compared to possible take, and so if you put in a 10x10 concrete pad on habitat, you just took 100 sq. ft. of habitat away. You put in a light bulb, it's going to affect turtles, science says it does, it's not going to affect them every time, the area might be broader, but the potential take much less predictable. And I'm trying to understand in your calculations of quantifying take, how you treat the there's take, we can measure it vs. some nights it might be take, some nights it won't be.
- MF My assumption is once we get the measurements that Coastal Tech is doing on footprints, we can treat that as a subcategory. At that point we'll have some better measures of actual sizes of these objects that we can use for a direct estimate, or direct isn't the right word, but incontrovertible, permanent habitat extirpation vs. slightly softer categories, things that could be minimized. We haven't been in a position to quantify those differences, again, because we've been relying on DEP point data and description of area of activities. Once we have an aerial description of the activity, it's statistically defensible to say the average house size of a single family home is this, and therefore on a state scale it'll be x square feet.
- KF Next steps before we break.
- KD I'll make sure to get with the work group and divvy up responsibilities before I go. We'll get the minutes out to you. Don't forget we'll try to schedule a WebEx in July or August for chapter 14.
- KF I think both on the minimization discussion earlier, and then this take, as you mentioned earlier today these are some of the big hairy tough deals. My thought is for some of the future meetings that we should devote more time to discussion and debate if it'll help the working group on the meatier issues. Guidance from the Steering Committee may come out of those discussions. You guys have done a lot, but we need to get to the next phase of having a steering group and provide some thoughts, because a lot of these things it's not a right or wrong answer, but there needs to be an answer.
- EF Does that whole minimization, can it be assumed that people can avoid undertaking nourishment or armoring or whatever destructive or disturbing projects there would be during sea turtle nesting season or whenever the shorebirds are active, is that an underlying principle in minimization?
- KD Timing is critically important now to when projects are allowed for sea turtles, and yes it will be relevant, particularly to shorebirds as well. In fact, we're already aware that there's going to be a little bit of seasonality conflict there. So we're going to have to be strategic in looking at not only when, but also where certain activities are occurring because there may be some places where a certain time of year it's okay and others it's not. And if anyone has questions, I will make note of them and make sure that we're addressing them.

KF I would encourage anyone who has questions or comments to direct them to Tom or Lisa so that we can bring them up at the next meeting. So this brings us to the end of the meeting. We do want to keep to the schedule. Are there any questions or comments from the public on the phone?

[none]

Adjourned 2:05

DRAFT