Estero Bay Agency on Bay Management

The regular meeting of the Estero Bay Agency on Bay Management met on Monday, August 10, 2020 at the 9:30 AM via GoToMeeting web service.

The minutes are as follows:

MINUTES ESTERO BAY AGENCY ON BAY MANAGEMENT

Monday, August 10, 2020 – 9:30 AM.

GoToMeeting Virtual Meeting

Call to Order – Dr. Demers called the meeting to order at 9:31 AM.

Attendance- As usual attendance was taken from the sign in sheet:

NAME	**ORGANIZATION**
Dr. Nora Demers	RGMC
Brad Cornell	Audubon Florida
Benjamin Marics	FGCU Student
Lisa Krieger	Lee County DNR
Win Everham	FGCU
Heather Stafford	EBAP
Capt. Jon Hall	Pelican Landing Com. Assoc.
Comm. Frank Mann	Lee County BOCC
Laura Miller	LWV
Pete Quasius	Angler Action; Audubon of SW Florida
Patty Whitehead	Bonita Lions Club Green Team
Kelly McNab	Conservancy
Louise Kowitch	Educator
David Ceilley	Aquatic Ecologist

Joe Micelli	ECCL

Staff in Attendance: Mackenzie Moorhouse

Guests: Director Roland Ottolini, Lee County DNR

Members of the Public: Pete Cangialosi, Conservation 20/20 n

Motion to Approve the Minutes of the July 13, 2020 meeting was made by Ms. Kowitch and seconded by Mr. Hall. Approved unanimously.

Membership Updates. No membership updates were made.

Director Roland Ottolini, Lee County DNR- *Lee Flood Mitigation Strategy*

Director Roland Ottolini provided a verbal presentation on the current status of the Lee Flood Mitigation Strategy. A recording of the August 10 meeting is available online, and the presentation begins at time signature **00:06:43**.

Director Ottolini began his presentation with a brief review of the rainfall events of 2017.Invest 92L and Hurricane Irma presented Lee County with heavy rainfall and, in some regions, back to back 100-year events. This exposed the vulnerabilities in Lee County's stormwater infrastructure and prompted a three-phase response by the County.

Phase One of the response went into effect immediately after the storm, and involved clearing obstructions and any sort of debris causing major flood issues. The County then brought in four engineering firms and divided the County into five zones to conduct detailed flood assessments of all areas. The assessments noted high-water marks as well as where obstructions occurred and caused flooding, Based on these assessments, the county prioritized the next set of work to do which primarily involved cleaning.

Extensive work was completed in the San Carlos Park area and sediment was removed from 10-Mile Canal that had deposited immediately downstream of US 41 and where the canal converged with Mullock Creek.

During the engineering assessments, survey forms were offered to the public so that property owners could document and send in information on what happened on their particular property. Over 1,000 responses were received, providing the County with valuable information.

The County used the information from the flood assessments and individual property owner surveys to begin Phase 3, which is a long-term flood mitigation plan, known now as the Southern Lee County Flood Mitigation Plan. The "southern" portion being any area south of the Caloosahatchee River.

After a competitive negotiation process, the County brought in a team consisting of AIM engineering, Johnson Engineering, and ADA and ATM. The area was also divided in order to conduct the analysis.

During a brief pause for questions, Mr. Everham asked Director Ottolini to describe how, when looking at this next phase of work, the project team anticipated what the flooding situation might be in the future especially with regard to current climate change modelling predicting more intense flooding.

Director Ottolini confirmed that the project team does have a future conditions analysis involved in their scope of work which included sea level rise projections until 2040. He also clarified that the overarching goal of this Phase 3 is not to completely flood proof the county, but to ensure that resident's homes are safe by abating current issues that are potentially man induced.

Moving forward with the presentation, Director Ottolini explained this effort involved the creation of 38 regional-scale hydrologic models as well as 3 local-scale models to determine how runoff acts during and after a rainfall event. Using these models, the team assessed the 100-year event, 25-year, and 5-year storm events. The team ran these models using the current existing conditions as well as the future conditions at the year 2040.

The next effort was project development. This included exploring culvert capacity changes to increase flow capacity while still maintaining the natural grade and gradient of the flow way. Flow way restoration was also considered to increase capacity, as well as interconnecting mine lakes to provide regional storage.

After determining what projects could potentially be carried out to mitigate flooding in the region, the team would develop a priority matrix that would help to guide the Board in selecting which projects should be invested in. Components of this priority matrix include cost/benefit, existing level of service, multiple benefits, environmental components, storage components, recreational components, land availability, the ability to acquire the proper permits, and allowable discharge rates.

In the coming weeks, Director Ottolini hopes to release the study's results and hold virtual public meetings to receive input on the projects.

A Q&A session immediately followed Director Ottolini's verbal presentation. A summary has been provided as an attachment to this document.

Future DR/GR Meeting, Letter Review. After reviewing the Conservancy letter included in the agenda packet, it was determined that a letter of that length presented to the BOCC would not be an effective way to voice the concerns of the EBABM.

Mr. Cornell suggested drafting a letter addressing Lee DNR's priority matrix and what elements the EBABM believes that the County should focus on. The letter would be submitted before the official Flood Mitigation Strategy is released.

Director Ottolini inquired as to whether wildlife corridor studies/overlays currently exist that he can use, or if this is something that his department would have to develop.

Mr. Everham suggested that in crafting a letter to Lee DNR, the EBABM try to provide any information that they can regarding the current wildlife corridor studies to assist Director Ottolini.

Mr. Cornell and Ms. McNab will draft the letter and present the draft for review at the September EBABM meeting.

Old Business. Regarding the letter to the USFWS that was to be written by Ms. Whitehead with the assistance of Mr. Everham, Ms. McNab, and Ms. Miller, it was determined that inviting someone from the USFWS to the September meeting to discuss the EBABM's concerns with the biological opinions written by the USFWS and reviewed at the July EBABM meeting would be more effective. Dr. Demers and Ms. Moorhouse will work with Ms. McNab to determine the best person to invite to a future meeting.

New Business.

No new business was discussed.

Emerging Issues.

No emerging issues were discussed.

Announcements.

Ms. Moorhouse announced that a recording of the August 10 meeting will be made available online. The recording can be found on the ABM webpage under Agendas & Minutes.

The next Meeting Time and Place, for EBABM is September 14, 2020. 9:30 A.M., SWFRPC.

Adjournment was at 11:41 A.M.

Q&A

Please refer to the meeting recording for a complete look at the questions and responses. Q&A begins at time signature 00:35:00

Q: [Ms. Kowitch] Is there any attention being paid in this study to the impact of these various potential solutions on water quality? What, if anything is being done as far as looking at the potential consequences on water quality?

A: [Director Ottolini] A lot of the projects do have a water quality component… …We have a whole other effort in terms of water quality projects the County is doing in terms of the response to the Basin Management Action Plans. So, we will fully intend on meeting those obligations and where we can incorporate those into these projects that would certainly be desirable to us.

Q: [Mr. Everham] You mentioned that some of the stormwater plans, and particularly stormwater compliance rules, are, in many cases, over 20 years out of date. And I mentioned before that we are really coming to understand more how climate change is, in fact, impacting the frequency and intensity of rain events. So you're right that we had two 100 year events, you know, that drove that last flooding, but it's really possible that 100 year events are going to happen every 25 years now. And the frequency of having two of those events may happen much more regularly than we're prepared for.

So anyway, all that was a lead into did any of the modeling look at opportunities to retrofit current stormwater systems? What might it cost us to have some of our current developments retain more water upstream as one way of dealing with downstream flooding?

A: [Director Ottolini] …If it's an existing development, and they have a footprint…
…I think the driving force would be, if that community itself has a problem, I think that's the only way you could get them to turn around and say, "Yeah, we need to do something here, because we can't put up with the flooding that we're getting in our homes. And here's an opportunity." You could do that. So, I think that would possibly be the driving force…

…We did not really go into looking at downtown type of improvements where you see a lot of what is going on in Miami where they have had to do some things with their inter-connected stormwater system. This is more of, you know, try to match hydraulic connections that existed before and where we have systems that are creating blockages or that type of effort. So, that may be something that we have to address down the road.

Q: [Mr. Cornell] 1) can you share the prioritized project matrix; 2) How does this allow for restoring flows from Lehigh back to DR/GR; 3) Concern with dry season impacts to water levels if we don't assure storage and restoration of water in wetlands; 4) Have you look at the issue of

invasive woody vegetation increasing ET and its dry season impact complicating flood management in wet season?

A: [Director Ottolini] 1) I will be able to share that once the project study is done… ….this is a work in progress… …but as soon as that is done it will be out.

2) …This effort looks at all the interconnections of flow ways. And that's what one of the projects is, is looking at SR82, consistent with the efforts that the South Florida Water Management District is doing.

3) That is a concern that we want to evaluate… …one, invert elevations won't be set where they are draining, but two, you want to make sure that the hydroperiod retains its necessary amount of water… …we are looking at large events. We would probably, before you put that project in the ground, we would probably run a continuous simulation to see how that project works over wet season, dry season… …like you said, you don't want to over-drain for something that may or may not come. You want to still function as a natural system. But having that carrying capacity, so to speak, during the large events if it was indeed carrying that amount… …you're making the culvert to carry that same amount of flow and there really shouldn't be an issue.

4) …I'm not familiar that much with the model in terms of how, if they, even modify the ET based on that emerging issue, you know, if they probably have anything they would use a representative ET for the land use that's out there now and what the future ET would be. But that is certainly a question that I can address with our consultant.

Q: [Pete Cangialosi] 1) What is the County's timeline for finishing this work? 2) When will stakeholders and the public have the opportunity to review and comment on the study? 3)Can Mr. Ottolini speak to what's been drafted so far with the Edison Farms Management Plan? It's been several years since the property's been purchase and not much info given on that plan.

A:[Director Ottolini] 1) We hoped to finish it several months ago, but as I mentioned before, the calibration validation of the existing conditions model is near and dear to us and we want to make sure that was as accurate as we could possibly get it…

2) We plan on bringing to the public in September.

3) Well, I'm somewhat familiar with what's gone there that we have basically been working on identifying uses at this stage, don't really have a plan. I know they have, obviously, they've done some mapping of the land, of the flux codes and soils and, you know, kind of background information, but so far, staff, us, parks and rec, conservation 20 20 folks. We've basically been working on… …what do we see happening out there… … But I mentioned the idea of possibly holding some water on there during the 100 Year, and some gated facilities that you could enhance the hydroperiod. Again, all those have to be ironed out… …but I know the county is expecting something really spectacular happening there… …I think they really want to make it a

wonderful, environmental, interactive place.

Q: [Mr. Ceilley] The loss of shorter hydroperiod wetlands has had many negative ecological effects over the last 20-30 years. Are there components of the plan to address restoration of sheet flow and short hydroperiod wetlands?

A: [Director Ottolini] No, again, it's a regional scale model. We do want to make those interconnections where, perhaps, water has been shifted from one place to the other due to impacts, roads, development. So, I would think, if you get the water in the right place, then those things should be enhanced… ….This is not a hydrological restoration plan… …that wasn't our over-arching goal, but getting water to its historic route, I would think there should be a benefit.

Q: [Dr. Demers] You did mention berming Edison Farms, though...How do you see that fitting with the plans?

A:[Director Ottolini] At the south end there's likely a berm already, adjacent to Citrus Park, but we're also looking at taking that, extending it, west to I-75 and then south down towards Kehl Canal, but with adequate gates structure so that you can either leave it the way it is or you could, you know, raise them a little bit if you wanted to extend the hydroperiod, or not. So again, it is conceptual.

Q:[Ms. Whitehead] It seems like there's a lot of water that has to move from the north side of Corkscrew Road as a result of The Place development talking about moving it to the south-west towards Edison Farms. You're saying the volume is pretty significant how moving it below the road and creating these underpasses, how will that conflict with large mammal crossings under the road? How do you accommodate both?

A:[Director Ottolini] We're trying to establish corridors that historically there were water connections, but obviously you need uplands for movement of wildlife as well… …These are concepts at this stage. The next stage, where you start moving into project development, those types of things have to be answered.

Q:[Dr. Demers] When or who can give us the information about the collaborations with those homeowners in restoring those historical flow ways? It was my understanding that as they were obtaining their permit and developing their proposals, that they were working with the county to restore those flow-ways. So, what would it take to learn more about those collaborations in the process behind that?

A:[Director Ottolini] …They're following the normal process. They went through comp plan amendment to zoning to development order stage, and in that case we're able to get

conditions in or zoning to create a flow way agreement… …so it's a natural progression of getting a project approved in the county.