Minutes

Agricultural & Natural Resources Advisory Committee
Thursday, January 13, 2022 at 9:00 am
E. Jay Carlson Building
Large Conference Room
18400 Murdock Circle
Port Charlotte, FL 33948-1094

MEMBERS PRESENT
Andy Dodd, Chairman
Nigel Morris, Vice-Chairman
Lindsay Harrington
Dan Ryals
Scott Schroeder

MEMBERS ABSENT
Joel Beverly
Joe Powell
David Kemeny

GUEST SPEAKERS
None

STAFF
Commissioner Tiseo's Admin. Assistant Morgan Cook – Commission Liaison
Shaun Cullinan, Planning & Zoning Official
Marie Valeus, Administrative Assistant II

GUESTS
Brandon Moody, Water Quality Manager

CALL TO ORDER/ROLL CALL/DETERMINATION OF QUORUM

The **January 13, 2022** the meeting of the ***Agricultural and Natural Resources Advisory Committee*** was called to order at 9:01 a.m. by ***Chairman Dodd.***

ADDITIONS/DELETIONS TO AGENDA

None

APPROVAL OF MINUTES

Chairman Dodd called for a motion on the minutes of the November 11, 2021 ANRAC Meeting. *Lindsay Harrington made a motion to approve, seconded by Scott Schroeder; the motion passed unanimously.*

NEW BUSINESS

- **Brandon Moody – Water Quality**

Brandon Moody, said he has received some emails regarding questions ANRAC has, so it has reinforced the need for me to attend this meeting to update you. He started in March of 2021. He came from the South FL Water Management District. While he was there, he was mostly involved with a combination of water quality monitoring and also working in the new community resource program. He said South FL water management district has jurisdiction over BMP program. There is a permit process those growers have to go through where they implement fairly rigorous BMP program to demonstrate monitoring. He worked with the grower's modifying the program, permits and language. Before that he worked in the State of Georgia and worked for their State environmental protection vision. He managed a staff that did water quality monitoring for the southern half of the State.

Mr. Dodd said so you indicated that there were rules to address mandatory BMP's south of Lake Okeechobee. Was that part of the B-map process?

Mr. Moody said that came about as part of the entire everglades' restoration plan. When EPA came down on Florida for failing to enforce clean water standards for waters discharging into the everglade conservation areas, ultimately what came out of it was a consent agreement between EPA and the State of Florida to implement measures to reduce phosphate discharge in the everglades. There was a lot of water discharging into the canals going south to the everglades and north into the lake from agricultural areas. The State and district paid millions for infrastructure improvements to basically redirect all the water or as much as possible south to stormwater treatment areas. Build those treatment areas and part of those agricultural operations had to pay a privilege tax, that helped fund the construction and maintenance of the stormwater treatment areas. There were programs to reduce the amount of stuff you are discharging to reduce the burden on the stormwater treatment areas. There are statutory requirements when it comes to BMP's and agricultural production in other parts of the State. Before I get into that part, I want to provide a brief overview of water in the County. How the assessment process works, how it's determined whether or not there is an impairment in a waterway, what happens when there is an impairment, who does all that. To set the stage as to where my roll and the County's roll in general intersects with the State and the whole process of environmental assessment in the State.

Briefly, we have 5 drainage areas in the County. In general, the water in the SE and eastern portion of the County drain south into the Caloosahatchee, most of the northern portion of the County turns to drain west toward the Peace River. This is actually something I would like to have more conversation about with ANRAC to make sure I am clear on that because I have done a lot of driving around the County just to put eyes on water where it goes and where it is. I know you have a lot of concentrated commercial production going on and it looks like the canal system seems to retain a lot of that water. There has to be a point of discharge when there is too much in the west, but I'm not

100% sure because it is private property. We have a sliver of the Myakka basin over to the west. A big chunk of west county drains into Lemon Bay and Sarasota Bay. The area immediately around Charlotte Harbor just goes straight into the Harbor. There are many control structures and inflow points from the Coco Palm into our canals in Port Charlotte. Florida Gulf Coast University and in conjunction with the State did some work late 2020, where they constructed hydrologic models and their models indicate that during periods of very high flow during the wet season that some water from the Caloosahatchee river can actually find its way up the east wall and get as far north as the southern part of Punta Gorda. This caught the attention of many folks. One of the things we are trying to figure out and look into are the causes of that, what might be the contributing sources. The vast majority of the water in Caloosahatchee goes where you think it does, out and up. But, during very high flow periods, during the wet season, there are occasions where the models are showing portions of the Caloosahatchee, not the entire river, just portions find its way curbing upwards and along the east wall. This was based on flow data that has been monitored for some years then they strigulated that in the models.

Mr. Moody said the way that waters are accessed in Florida, what DEP has done is they taken the State of Florida and broken it up into hundreds of water called waterbodies. Waterbodies in the county are represented by being highlighted in red. Each of these are individually assessed by the DEP provided there is data samples collected within the waterbodies. It used to be each waterbody was assessed every 5 years. As of last year, they have tweaked that. They are intending to assess all waterbodies in the State every 2 years now. He explained some of the monitoring. He explained the different colors on the map and the way the water quality standards work. There are 3 components required by Clean Water Act. Designated use, water quality criteria, and degradation of water, required by Federal Law. He said he will work with the County because they have their own drainage/basin map. Waterbody is the term used to describe an area that represents drainage for a particular surface water/creek.

Mr. Moody said he will send the committee a PDF showing the boundaries (for different roads and rivers and streams).

Mr. Harrington said there is a culvert past the old railroad bed on 74, during season, the flow from Cecil Webb to Myrtle Creek is unbelievable. It's crossing the road at times.

Mr. Moody said it's flowing north. He said he thinks this myrtle slough discharge into the creek, this is one of the area's we are doing monitoring. He said DEP created these waterbodies and the County went through the exercise of delineating the drainage areas based on their knowledge of where water moves. He said green areas are designated use of potable water, the bluish areas are considered primary use for shellfish, propagation and harvest. The yellowish and purplish are mainly for propagation maintenance of fish and wildlife. The difference between the F and the M, the purple and yellow, is F stands for freshwater and the M stands for marine. If it's primarily salt water, then it is given a marine designation. If it's freshwater, it gets a freshwater designation. He said keep in mind, they determine based on observations looking at a map. The entire Port Charlotte is considered this class 3 marine, however, we have weirs all throughout the middle of Port Charlotte that actually divide the freshwater from saltwater. In reality, this should

really be a 3 fresh, that should be a 3 marine. They are just not aware of it. These are the things I have to educate them on it. It will be great to get feedback from your committee.

He went on to explain different stages in waterbodies. He explained what the colored dots were for. These are samples collected and when/what the date is. It's the bay, the harbor and rivers. A lot of dots are evenly spaced apart. These are not in the exact locations. We help fund a monthly monitoring of Charlotte Harbor, which is conducted by the Coastal and Heartland national estuary partnership. They randomly select points in the Harbor every month to collect samples. You can clearly start to see where the gaps are and our understanding of what is going on with water quality in Charlotte County.

Scott Schroeder asked in regard to this area that has a fair amount of springs and underwater ground flow, do they pay attention to that?

Mr. Moody said there are certain areas that get a lot more attention than others. He said by the Flatwoods, there is a lot of ground water flow monitoring. SWFWMD does have ground water wells in various parts of the County, where they are taking a look at basic parameters like salinity and level. I don't know about them collecting nutrients. He said this first phase of the monitoring plan that I am proposing to folks does not include much of the groundwater monitoring yet, but I am looking for feedback to whether or not there is a strong enough push from the public to see groundwater monitoring now, then we can figure out a way to allocate funds.

Nigel Morris said there are many permits in Charlotte County that require quarterly monitoring, sometimes monthly of Chloride, phosphates and results of it.

Mr. Moody explained the process by which waterbody is assessed. It is collected and put on the map. DEP then goes through their database and they evaluate that data to determine, #1) what data they are going to use and not use, and #2) whether or not it shows if that waterbody is impaired for a particular constituent, if there is data that indicates there might be an impairment but they don't have enough data or enough supplementary information to determine it is in fact impaired, and therefore more data is needed, or if the data shows there is not an impairment. If an impairment is indicated by data, there are two paths now that the impairment can be addressed. Historically it has been through the TMDL BMP map process. Essentially, and this is what every state does when they identify there's impairment, they report to EPA and then DEP will start the process that is called the total maximum daily level (TMDL). It describes the impairment in the waterbody, the potential sources of those impairments and causes of those impairments and to what extents the impairment needs to be reduced to bring the waterbody back into compliance. Then an action plan is developed that describes what actions will be taken to achieve the reduction described by TMDL BMP. Recently another pathway was created by DEP, separate from doing this whole action plan. He explained a few different plan procedures (which DEP would have to approve).

Mr. Moody said this is a map that is based on impairments that were determined as far back as 2003. If they have sufficient data for a waterbody, they will go back and re-review it, but there are mechanisms that they can remove waterbodies from the impaired list, if they get new data that says this area is no longer impaired. Or if they get information that say the data that we actually originally used to determine it was impaired, is faulty for some reason and therefore, is no longer impaired. But, at the end of the day, once they put it on the impaired list, no matter how long ago it was, it stays on the impaired list, until either a) it is demonstrated that there is no longer impairment there; or b) actions are taken to address it through the TMDL action plan.

There was some discussion about impairments in Lee County that could have caused Charlotte County impairments (in the basins). Also discussion about E.coli and other things in the water. Today they can actually check DNA on a sample and see if it is dog, cow, bird, human, whatever.

Mr. Morris asked what is macro fits?

Mr. Moody said macro fit is related to nutrient paraments. Nutrient assessments in the state are fairly complicated. In places like the harbor and lakes, nutrient analysis is fairly straight forward. The average annual total nitrogen and concentration cannot exceed this number. Same for phosphates. There's a hard number. When you get into streams and creeks, there is not a hard number. There is a hard number for chlorophyl but then there also has to be this supporting evidence where the biology has imbalance going on. This macro fit impairment stems from vegetation surveys that DEP does, that shows a volume of exotic and nuisance plants that shows an impairment and they can potentially source the cause of that impairment to the anthropogenic activity. This will require a lot more conversation with DEP before I start talking with anyone in this area about what might be the next steps. In other areas, it's a bit more straight forward. It's about the level of actual nutrients found based on water quality samples.

He discussed bacteria in shellfish impairments and if there is a lot of bacteria, they will shut down harvesting. We have a lot of iron in the groundwater, but they said they cannot eliminate that there is anthropogenic source to the high iron in the water. Looking at the map on the power point, they discussed some of the areas with impairments.

Mr. Dodd asked about BMPs in the area they were discussing and what is biochemical oxygen?

Mr. Moody said biochemical oxygen means the samples they collected indicate that there is enough of something in the water (usually hydrogenic loads) that is causing a reduction of oxygen in the system. In other words, usually this is a situation where a lot of organics are coming in, bacteria consumed process of organics, when they do, they also consume oxygen. When you see these, the oxygen is low because there is a lot of biochemical oxygen or there is something else happening to cause the oxygen to drop.

Mr. Dodd said I can see, knowing the lay of the land in there, it would have been

considered low oxygen. There is a lot of dead end canals.

Mr. Moody said ag producers, SWFMD, and the County all got together and they agreed upon a strategy for addressing conducting TDS salinity.

Mr. Morris said they had multiple monitoring stations. Is that still going?

Mr. Moody said yes, and that was one of my questions. I did reach out to SWFMD's farms program because as I understand it, this was the genesis of the farms program where they were working with the producers in this area to cap wells. He said he is aware of a site SWFMD has, there is one in Shell Creek where Punta Gorda has to maintain surface water. Not to the extent that it was in the past. That is one of the questions I had, where does that stand? Because they used to do bio-annual reports, but the last one was 2014-2015. I was curious to see where this would end up.

They all said well capping had a lot to do with it.

Mr. Moody said he wanted to touch on what it is he plans to do. To make clear, going back to many emails, it is the State and DEP that dictates and drives the TMDL and BMP process and therefore, if ag is going to be called into having to implement BMP programs in the area as a result of what is identified on the TMDL and BMP process. That is not something I control. I can request to advocate for prioritization but that is about the extent of it. The only thing I can do in my roll, is to conduct additional sampling in areas where we feel more data is needed; to understand the source of impairments or verify that certain impairments actually still exists. If there is enough support in the community, I can engage in the reasonable assurance plans to try and address some of this stuff. I see value in trying to do the reasonable assurance process for areas that are impaired within the County and that are mostly self-contained within the County. If we can verify there is an impairment there, and it's still there, the waterway is affected directly by people within the County, then we can work together and try to figure out what to do about it. Charlotte Harbor is a different beast because their inputs and influence is way beyond our boundaries. If we go the reasonable assurance plan route for that, who would do that? Because I don't know that I have the ability to force other counties and entities north of us that could influence water quality up there, to participate in such a process. Maybe I can talk to SWFMD or other agencies to see if it is something they would be able to take on, but absent that, I am stuck into advocating for the TMDL BMP process for this because that will force all the contributors to get to the table and get involved to figure out how to address the impairments. Step 1 is to identify the sources of the impairments and also verifying some of these impairments still exists.

Scott Schroder asked if a wild hog population in the area have an effect?

Mr. Moody said yes, wild life can be a source of the impairment. That is where the DNA tracking part comes into play.

There was some discussion about algae blooms and seagrass dying, can't grow. Goes back to nutrients. Where active monitoring is going on in the county and fertilizers.

Dan Ryals asked how much of that water, which forces coming up the Caloosahatchee? The Peace River, Shell Creek and Prairie Creek are all natural rivers. Caloosahatchee is a ditch and it's falling with so much pressure coming out, from Lake Okeechobee, how much of that water is flowing north impacting Charlotte Harbor?

Mr. Moody said that is one of the questions. That was fairly new research. The Corp is redoing their operation plan for the lake. They will determine how much water they are going to discharge from different areas. Where they are sitting right now, the new plan is due the beginning of next year, they have a skeleton of it in place and they are working out the details. It should result in a reduction in the volume/frequency by which high volumes are going to get pushed down the Caloosahatchee. It will greatly reduce the frequency for which flows go out to St. Lucy, but it is at the expense of Lake elevations.

There was discussion about canals running through the EAA toward the everglades, stormwater plans and the treatment plants.

Mr. Moody said he will send a link to all the members for all these maps so they can see more detail. Green circles are indicating areas that I am proposing as high priority for monitoring. I am trying to capture what is in the water just before it goes out into the harbor. Based on our delineation of basins not DEP's. He said he would love to talk to each one of you and see how you run your farm. He discussed a little of the stormwater funds he can use for the monitoring. There is also some money from the general fund.

Mr. Moody said he will be sending the email with the links to the maps they looked over today. Also if you have any questions, you can contact him.

Old Business

- None

CORRESPONDENCE AND COMMUNICATIONS

None

PUBLIC COMMENTS

None

STAFF COMMENTS

Mr. Cullinan said on the 25th the comp plan changes to the earth moving stuff/phosphate will go to the BCC. We dropped the oil and gas stuff.

MEMBER COMMENTS

None

FUTURE MEETING TOPICS

- Try to have Joanne here again on the excavation ordinance changes

NEXT MEETING

- March 10, 2022 at 9:00 a.m. in the E. Jay Carlson Building large conference room.

ADJOURNMENT

Chair Dodd asked for a motion to adjourn. Nigel Morris motioned to adjourn; seconded by Dan Ryals; the Motion passed unanimously. The meeting was adjourned at 11:00 a.m.

Andy Dodd,
Chairman

Minutes of the Agricultural & Natural Resources Advisory Committee
Approved this 12 day of MAY 2022.