

**VERO BEACH UTILITIES COMMISSION MEETING**  
**TUESDAY, November 10, 2020 - 9:30 A.M.**  
**CITY HALL, COUNCIL CHAMBERS, VERO BEACH, FLORIDA**

**A G E N D A**

- 1. CALL TO ORDER**
- 2. APPROVAL OF MINUTES**
  - A) October 13, 2020**
- 3. PUBLIC COMMENT**
- 4. NEW BUSINESS**
- 5. OLD BUSINESS**
- 6. CHAIRMAN'S MATTERS**
- 7. MEMBER'S MATTERS**
  - A) Modeling Septic System Nutrient Impact on the Indian River Lagoon - Requested by Mrs. Judy Orcutt**
  - B) Report on the Progress Achieved on Pumpout/ Inspection for 500 Septic Systems on the Barrier Island – Requested by Mrs. Judy Orcutt**
- 8. ADJOURNMENT**

This is a Public Meeting. Should any interested party seek to appeal any decision made by the Commission with respect to any matter considered at such meeting or hearing, he will need a record of the proceedings and that, for such purpose he may need to ensure that a record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based. Anyone who needs a special accommodation for this meeting may contact the City's Americans with Disabilities Act (ADA) Coordinator at 978-4920 at least 48 hours in advance of the meeting.

**VERO BEACH UTILITIES COMMISSION MINUTES  
TUESDAY, OCTOBER 13, 2020 - 9:00 A.M.  
CITY HALL, COUNCIL CHAMBERS, VERO BEACH, FLORIDA**

**PRESENT:** Chairman, Jane Burton; Members: Judy Orcutt, John Cotugno, Mark Mucher and Bob McCabe **Also Present:** City Manager, Monte Falls; Finance Director, Cindy Lawson; City Attorney, John Turner and Deputy City Clerk, Sherri Philo

**Unexcused Absences:** John Sanders and David LoPresti

**1. CALL TO ORDER**

Today's meeting was called to order at 9:00 a.m., and the Deputy City Clerk performed the roll call.

**2. APPROVAL OF MINUTES**

**A) July 14, 2020**

**Mr. McCabe made a motion to approve the minutes of the July 14, 2020 Utilities Commission meeting. Mr. Cotugno seconded the motion and it passed unanimously.**

**3. PUBLIC COMMENT**

None

**4. NEW BUSINESS**

None

**5. OLD BUSINESS**

None

**6. CHAIRMAN'S MATTERS**

None

**7. MEMBER'S MATTERS**

**A) Basin Management Action Plan (BMAP) Video - Requested by Mrs. Judy Orcutt**

Mrs. Orcutt said that she requested this video back in July. She asked the Commission members if any of them has watched it. No one on the Commission stated that they had. Mrs. Orcutt reported that since then the purpose of this video is to be an introduction into the Basin Management Action Plan (BMPA), which is the solution from the Florida

Department of Environmental Protection (FDEP) on how we are going to resolve our water quality issues in the Indian River Lagoon.

At this time, the Commission watched the Basin Management Action Plan (BMAP) video.

Mr. Mucher questioned the septic to sewer.

Mrs. Orcutt said basically in our area, we don't have a point source of pollution. She said the only point source we might have would be a utility that has a leak or a broken pipe. But other areas might have manufacturing that throws out pollution. She explained that most of our sources of pollution are non-point sources, such as human waste, there could be some pet waste, etc. She said the human waste could come from septic tanks, from broken sewage lines, from a sewage treatment facility, a dog park, etc. She said it could be stormwater runoff from parking lots. She said stormwater also picks up sewage waste, which can be a portion of the stormwater situation. She noted that everyone who puts fertilizer on their yard is also contributing. She reported that the reason this is important right now is because the City of Vero Beach is currently in the process of the five (5) – year review. She explained that the allocations have been distributed to everyone within our portion of the Lagoon, which includes all the contributing entities. She noted that it is still in negotiations between the entities and the FDEP to come up with a hard allocation of what the City of Vero Beach is responsible for reducing, which is supposed to happen by years end. She then showed a photograph of that, which was taken yesterday at Bethel Creek that shows an Algal-Bloom (attached to the original minutes). She said it was interesting to her that she read in the newspaper today that Vero Beach hit record high temperatures on Sunday, so the combination of hot water loaded with nutrients makes this happen. She said we don't have control over the temperature so the only thing we have control over is the amount of nutrients in the water.

Mr. Mucher questioned this Algal-Bloom is occurring in spite of the aeration projects that are taking place in Bethel Creek.

Mrs. Orcutt said that she could not answer that question. She noted that she did report it to the FDEP and they are going to come out to pull a sample, which will identify whether or not it is a toxic algae.

Mr. Mucher asked with the other pollutants that are measureable, are they relying on the Ocean Research and Conservation Association's (ORCA's) monitoring or are there other monitoring sources or devices.

Mrs. Orcutt reported that Harbor Branch has monitoring, the City and the County are pulling samples, the Water Management District pulls samples, etc. She said the Clean Water Coalition (CWC) is starting to test for Enteric bacteria, which is fecal waste. She said the numbers are high in the locations where we are sampling and one (1) of the locations is right off of the Dog Park, but whether it would be dog waste or septic waste washing in, or boat waste, etc., they do not know. So, the FDEP has agreed to begin a study of our samples to determine what the DNA source of the waste is. She explained

that they will be comparing the enteric bacteria with human waste, dog waste, bird waste, and cattle waste in order to try to get an idea of the source of the enteric bacteria.

Mr. McCabe asked with all the different agencies that are doing testing, is there any coordination or any central depository of all their information.

Mrs. Orcutt said the National Estuary Program (NEP) is working hard to do that.

Mr. McCabe asked is the NEP a Federal or State agency.

Mrs. Orcutt said there is some Federal funding, but it is actually the Indian River Lagoon National Estuary Program, which is based out of Sebastian. She reported that they are funded through Federal dollars, as well as local dollars. She explained that all the counties contribute, the FDEP contributes, and both the Water Management Districts contribute.

Mr. McCabe asked is their data available to the general public.

Mrs. Orcutt said they have a Science, Technology, Engineering, and Mathematics (STEM) Committee who are working on some sort of a depository for all the research and data relevant to the Lagoon.

#### **B) ArcNLET Nitrogen Modeling Study – Requested by Mrs. Judy Orcutt**

Mrs. Orcutt said in her opinion, Senate Bill 712 is the second regulatory pressure that the City is experiencing. First there is the BMAP that is being updated and then there is Senate Bill 712, which really isn't trying to address human waste. She said when they get around to figuring out the nutrient loading and where it is coming from, if any BMAP has more than 20% of their load coming from human waste, all the utilities within that BMAP has to come up with a five year plan on how they are going to solve this problem. She said that she believes without a doubt that our area is going to meet that 20% threshold. Because of that, she thinks that the City is moving ahead full boar to try to achieve some accomplishments that Senate Bill 712 has instituted a meet the deadline of July, 2025. For example, if they have that 20% load coming from human waste, then they have to have the Sewage Treatment Plant at advanced wastewater treatment. She said the City is trying hard to get the new Water and Sewer Plant built by 2025 so that they will meet that criteria. Likewise, if you have 20% loading coming from human waste, you also have to have a five year septic system remediation plan, which she feels is something they need to address. She said a little bit of this got started when Mr. Rob Bolton, Water and Sewer Director, sent out letters to all the people on septic systems throughout the barrier island that stated they needed to have an inspection and their system pumped out every five (5) years. She said that she does not know what has happened since those letters went out, but the deadline is the end of this year. She thinks that there are going to be people connecting and she hopes the City Council will get fired up to possibly do more, such as having mandatory connections or making the barrier island septic tank free. She said they need to do more because in looking at the study and seeing where the heavy nitrogen is coming from, it is all coming from the barrier island, so the barrier island is the main area where something needs to be done. In order to get credit for their nutrient reduction, there is a modeling

program that is authorized by FDEP, which is the ArcNLET model. She explained that if you have applied this model and calibrated it in your area and have determined how much nitrogen is going into the Lagoon from all those septic tanks, you can get that much nitrogen credit on the BMAP. The only place that model has been calibrated so far has been in the Live Oak basin. She recommended that the City go ahead and calibrate that model in the other basins on the barrier island.

Mr. Mucher said it seems like they have been talking about this and monitoring it for years, but he has not heard of any forced enforcement. It seems like a lot of the people who are hooking up to the STEP System are doing so because their drain field has failed or they are being proactive. He asked if they have experienced any serial polluters and forced a correction of that problem.

Mr. Monte Falls, City Manager, reported that Mr. Bolton is on his way to Palatka to attend the St. John's River Water Management District Board meeting to discuss another project. He reported that the City had two (2) ways to connect to the STEP System when it started. They offered incentives for people who connected and there were people who took advantage of it just before it expired. He explained that the pump out and inspection program was meant to identify those systems that needed to be connected and that was the letter that was sent out to those on the barrier island and they have until the end of the year to get their system pumped out and inspected. If a system doesn't pass an inspection then they would have to connect to the STEP System. He said they do not have a mandatory requirement, but have enacted the pump out inspection program in order to catch those systems that need to be replaced. The City is also extending that to the mainland and will be working on a new Ordinance to set the limits and dates soon.

Mr. Mucher said that he received the inspection letter about two (2) weeks ago and contacted an Inspector and he was told that they have not received the procedures yet.

Mr. Falls suggested that if they have not received the procedures they could contact Mr. Bolton and he can get them whatever information they need.

Mrs. Burton asked is there any enforcement action that will be taken if someone doesn't have an inspection.

Mr. Arjuna Weragoda, Water and Sewer Project Manager/Capital Projects, said that he doesn't know if there is any type of enforcement, but so far the reception has been good. He said that he is still learning all the requirements that were put in place so he doesn't have the exact answer, but people have been complying.

Mr. Mucher asked is there a percentage of good or bad results.

Mr. Weragoda said that he does not have an answer for that, but in some of the emails that he has seen, the septic tanks have passed the inspection.

Mr. McCabe referred to the Executive Summary of the September, 2018 Study (on file in the City Clerk's office). He said it states that out of 1,473 homes on septic systems as of

the time of the report that they have converted 101 of them to the STEP System. He questioned how much progress has been made since 2018.

Mrs. Orcutt said the City has the STEP System dashboard on their website that has this information. She thought one-third of the septic systems have connected.

**C) Progress on Main Canal Project that will Create a Pipeline to John's Island and its Effect on Lagoon Water Quality – Requested by Mr. John Cotugno**

Mr. Cotugno said the next series of agenda items primarily have to do with the progress that staff has done in trying to improve the water quality of the Lagoon. He said a lot of emphasis has been on what is wrong and what they need to do to improve it, but there are a lot of things going on that are not always in front of the public and he thinks the Commission should understand what is going on. He said it is under the Commission's watch, which is why he requested these items be placed on the agenda. He said that he wanted to get some updates so that it is more exposed to the public on what is being done to improve the water quality in the Lagoon.

Mr. Falls reported that he just texted Mr. Bolton and was told that after an inspection is done they would receive a letter from the Health Department demanding that they connect and if they don't connect there would be a fine.

Mr. Falls said earlier he mentioned that Mr. Bolton was on his way to Palatka to attend a meeting regarding a project. He reported that the City was ranked fifth out of 43 projects for alternative water supply and this project that Mr. Bolton has come up with is a very important project, not only for us locally, but as a guide to other communities of what could be done. He explained that this project would take three (3) million gallons of flow per day out of the base flow of 20-million gallons from the Main Relief Canal and convert that to irrigation quality water. It will be ran through some trickling filters at the Water Treatment Plant to take some of the nutrients out of the water and then it will be placed into the new line that is proposed to go under the river and be used for irrigation quality water. What it will do is supply the demand that is already there, as well as lessen the impact on potable water that is taken out of the aquifers. He said staff has been working hand in hand with the Clean Water Coalition (CWC) and the Indian River Neighborhood Association (IRNA) on this project. He reported that they were the groups who originally opposed Indian River County's project to put a new reuse line under the river and the City has received their support and they have helped the City with some design features. City staff has also met with them on site, along with the Indian River Land Trust and they looked at environmental concerns, which they are working through. He said City staff is really excited about this project in the amount of nutrients that could be taken out of the system as we know it today. They are hopeful that this project will be one (1) of many that they have on the drawing board or what has been done already in the City. He thinks a town of our size has been very proactive. He said we don't have mandatory connections, but we do have the STEP System.

Mr. Cotugno asked Mr. Falls to explain the funding.

Mr. Falls explained that the City is trying to get grants from the SJRWMD and the FDEP. The City has also partnered with a private company, the John's Island Water Management Utility (JIWMU), which is a Utility that takes water from different sources and re-pumps it to their users and they will pay any additional costs that are not funded by the grants. Therefore, there would be very little costs to the City or the City taxpayers other than some administrative costs. The benefit to the overall community is the lessening of the groundwater that would have be used and the taking of the nutrients out of the Lagoon. He said the three (3) million gallons could equate to about 10,000 pounds of nitrogen per year so if you look at a metric of \$1,000 a pound, that would be \$10 million worth of stormwater projects that the City is basically getting with grants and assistance from the JIWMU.

Mr. Mucher asked do they have a feel of how much of the water and how much of the pollutants that comes out of the Main Relief Canal originates in the County and how much originates in the City.

Mr. Falls said if they look at the size of the watershed, it would be less than 15% that is generated inside the City.

Mr. Mucher questioned shouldn't they get some participation from the County.

Mr. Falls said other than administrative costs, there is going to be a very minimal cost to the City or to the City taxpayers. That is why he feels this is a win/win project for the overall community, particularly in the City of Vero Beach.

Mrs. Orcutt said that Mr. Falls mentioned that the City has the support of CWC and IRNA and she has to correct that because she is part of a Committee and they are still withholding their full support of this project because there are still some answers they do not have. She is not speaking for the Committee, but one (1) thing that the Utilities Commission should be thinking about is that the contract between the JIWMU and the City has not been available for review and their question is about liability. She said there is a little environmental concern about wetlands impact through the drilling process. She noted that she is speaking on her own behalf and not from the CWC or the IRNA. She felt that the nutrient reduction was a rough estimate. She said that determination about how much credit the City would get and the nutrient reduction will be made through the BMAP process. She said this is a great alternative water project and it is important to have good alternative water projects because we are going to run out of water. But, it should not replace other stormwater projects because it is not really reducing the nutrients that are leaving the City's Waste Water Treatment Plant (WWTP). She said the new Plant will do that, but in the meantime all that same amount of reuse water that is heavily laden with nutrients and currently going to John's Island will be going somewhere so it is not disappearing. She said there are a lot of canals that leave the City limits that go straight into the Lagoon, not just the Main Relief Canal so there is a lot of impact from the City that is going straight into the Lagoon. She felt that all the canals needed some attention so there is still the need for stormwater treatment.

Mrs. Burton thought part of the main reason for going with this project was to alleviate using the groundwater source for irrigation and trying to retard the salt intrusion that is happening by pulling all the irrigation water out of the groundwater instead. She felt that should not be overlooked as being a benefit for this project as well.

Mr. Falls said that is correct. He said that if he misspoke and said the City had the support of the CWC and IRNA, he didn't mean to imply that they have given the City their endorsement and gold star approval. What he was trying to convey was that the City is working as partners with them and they have given the City some great suggestions and staff is very thankful for that. In terms of liability, it will be the City's to maintain. He said the City's reclaimed water that comes out of the WWTP today will not be near the quality that will come out of the new WWTP that the City Council has committed to build and are moving forward with. He said they are looking at having that new Plant on line five (5) years from now. He said as to the other canals that discharge into the river, they have done some things to capture some of the sediment in some of those canals. However, a lot of those canals are not the City's canals. That doesn't mean that the City doesn't care about them, but the FDOT has a lot of those drainage ditches that convey water from the US1 Corridor to the river so this is a multi-prong and multi-agency approach. Funding is going to be a big factor on what they do. He said they are not saying stormwater projects are not necessary. He said increased street sweeping is one of the most cost effective things they can do in terms of phosphorous and nitrogen removal. He said staff feels like the City is doing their part and hopefully will be setting an example.

**D) New Wastewater Treatment Plant Design Update and its Effect on Lagoon Water Quality – Requested by Mr. John Cotugno**

Mr. Weragoda reported that City staff has reviewed the preliminary design report, made comments on it, and it was sent back to the consultants. Staff is currently preparing a Request for Qualifications (RFQ) for a Design Consultant to move forward with the design.

Mr. Mucher asked is it safe to say that they are moving full speed ahead on this.

Mr. Falls said the City Council directed staff to design and get a new WWTP constructed and operational five (5) years from now.

**E) Any other Stormwater Mitigation Projects being Considered that will Effect Lagoon Water Quality – Requested by Mr. John Cotugno**

Mr. Cotugno asked similar to what is being done on the pipeline, are there any other projects they might have on the drawing board that may have a positive effect.

Mr. Falls said they have all talked about the Lateral E project as a stormwater project, but they have also looked at it that it may be more advantageous to do something else, just as they discussed the increased street sweeping in that they may get more benefit from that than the brick and mortar project that you build on the mouth of the Lateral E Canal where it discharges into the main canal. He said staff is looking at all of those and will be reacting to them as they bring five (5) - year plans to the City Council.

**F) Effect of State’s Unfunded Mandates on Vero Beach’s Approach to a Stormwater Utility - – Requested by Mr. John Cotugno**

Mr. Cotugno asked if there are any updates on the State’s unfunded mandates.

Mr. Falls said that Mrs. Orcutt did a good job letting the Commission know about the BMAP, etc., but what no one has seen is any funding that came with it. At this point, there has not been any allocations.

**G) Progress on New Wastewater Treatment Funding – Requested by Mr. John Cotugno**

Ms. Cindy Lawson, Finance Director, reported that in concert with the Waste Water Treatment staff moving forward with the RFQ’s, she has been working with a consultant to develop a high level model of how the financing might work based on the preliminary cost estimates. The goal is to match the financing appropriately to the useful life of the assets they are building in order to minimize the interest rates and to minimize the issuance costs and thereby minimize the impact on rates. She is also releasing an RFQ for a Financial Advisor (FA) and that FA would take that high level finance plan and refine it to begin working with rating agencies, etc. She said they are moving forward in parallel with the engineering effort to make sure that by the time they get to the place where they have a cost and an engineer ready to begin the design work that they have the first segment of financing available.

Mr. Cotugno asked is there a rough time table on the schedule of action items.

Ms. Lawson explained that they have to have funds available of some kind or at least a notice of intent to reimburse ourselves with borrowed funds before they start the design. She said that she would like to have an FA on board by the end of this calendar year, which would mean that in the first quarter to the middle of next year they would have a better idea of how the financing might play out.

Mrs. Burton said that she remembered in presenting the information for the design or the recommendation for technology, it was indicated that when this new Plant comes on line they could probably look to have operational costs being a reduction over what they are using now based of the new technology. She said not only will they be able to increase greatly the water quality they are discharging, but they will also be able to do it more economically because they will be using technology instead of humans. She said if they continue to operate the way they are operating now, the costs are only going to escalate because of the age of the Plant. She thinks this is the step in the right direction. She said they are taking huge steps forward.

Mrs. Burton thanked the Commission members for bringing these issues forward. She said that they will always be glad to add their matters on the agenda to be discussed.

**8. ADJOURNMENT**

Today's meeting adjourned at 10:14 a.m.

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