

**City of Fort Lauderdale
Infrastructure Task Force Committee
October 7, 2019
2:00pm to 5:00pm
Fort Lauderdale City Hall
100 N. Andrews Avenue
8th Floor Conference Room
Fort Lauderdale, FL 33301**

MEMBERS		PRESENT	ABSENT
Marilyn Mammano	P	28	1
Ralph Zeltman	P	28	1
Peter Partington	P	8	1
Roosevelt Walters	A	25	4
Fred Stresau	P	24	5
Norm Ostrau	P	26	1
Jacquelyn Scott	A	11	3
Gerald Angeli	P	5	0

Staff Present

Dean J. Trantalis, Mayor
 Rob Hernandez, Deputy City Manager
 Paul Berg, Director- Public Works
 Aneisha Daniel, Deputy Director- Public Works
 Dr. Nancy Gassman, Assistant Public Works Director-Sustainability
 Omar Castellon, Chief Engineer
 Jill Prizlee, Chief Engineer
 Fred Harris, Sr. Technology Strategist
 Meredith Shuster, Senior Administrative Assistant

Roll was called at 2:00 p.m. and a quorum was established.

1. **Call to Order:**
 - Roll Call

2. **Approval of Agenda**
Motion to approve the October 7, 2019 Agenda made by Mr. Partington and seconded by Mr. Zeltman.
 Item 6. A. is advanced to the first order of business.

Motion to approve the agenda approved unanimously by voice vote

3. **Motion to approve the September 5th Meeting Minutes made by Mr. Stresau and seconded by Mr. Angeli.**

Motion to approve the agenda approved unanimously by voice vote

4. **General Discussion and Comments by Committee Members**

Mr. Ostrau asked if there was more to the water break on the Isles and the precautionary boil water notice. Mr. Berg explained there was a failed valve. The repair was done as soon as low tide occurred. Follow up bacteria sampling needs to meet the State regulated criteria for 48 hours prior to lifting the precautionary boil water notice.

Mr. Berg continued; the isles are predominantly “dead-end” main situations creating a problem when trying to flush the main for bacteria sampling. All new project designs replacing mains are removing these dead-end situations. It is a major undertaking. It will require updating the model for the entire water system. More on this issue will be heard of over the next few years.

Mr. Partington asked if there could be an assignment of a crew to monitor and just work the Isles to try and mitigate the problems that area is enduring. Mr. Berg responded that the City had engaged the services of a consultant to assist the City with figuring out the most effective way to flush these mains and shorten the time. It is being worked on and will involve capital projects.

In response to Mr. Stresau who did not receive any Code Red about the boil water, it was explained. The message does not go out to the whole city. Code Reds can be isolated to the affected area only.

Mr. Zeltman expressed that the Fiveash Plant construction is solid. He stated that it may be a sound business decision to maintain the current building and location of Fiveash because of all the water mains and transmission mains coming/going from that location.

Mr. Berg explained that the consultant was hired to do two things. One was the evaluation of the Granulated Activated Carbon (GAC) process to see if it would resolve the City’s water issues including color. It was hoped that would be a short term fix. It determined that the process would cost \$100 Million per year. Therefore, GAC isn’t a feasible process for consideration. The second thing was to determine if rehabilitating or rebuilding the Fiveash plant would be the better option. The answer has been given that it will recommend building a new plant. The report due in December will include the estimated cost +/- 15% and viable locations.

The infrastructure presentation given to the City Commission at the October 2nd meeting mentions the wellfield property west of the airport as a viable location. The consultant also is working through 18 different processes to determine which will give the City the water results it is seeking. It is down to three final processes and will recommend the process that will give the best results.

Additionally, the City is currently using the Biscayne Aquifer as its water source. It is generally known that allocations are capped. The report will also include alternate water sources such as the Floridan Aquifer and the C-51 Reservoir. The process and source will help determine the design of the plant.

Mr. Ostrau asked whether the City had a plan in the case of a catastrophic situation. Mr. Berg explained that part of the reason for replacing Fiveash was there were too many situations where one event could shut down the system; however, the City has been proactive in mitigating those situations by upgrading electrical systems and adding generator capacity. He pointed out that during Hurricane Irma, Fiveash didn’t lose pressure and continued to function throughout. Worst

case scenario would be the loss of many mains in the distribution system draining the water and creating a loss of pressure.

It was asked if the Fiveash Reliability Project was rebid. It was confirmed that Procurement will be putting the bid out this week.

The Chairperson reminded the Committee that it had decided to not second guess the Fiveash report. Once it is issued, the Committee will be proactive in reviewing the funding sources.

Mr. Partington felt that in the “court of public opinion” the City has failed. Ms. Mammano expressed that she attends many meetings and is regularly being asked about infrastructure. She felt that there is a sense from the public that movement is being made and things are not as “dark” as 2 years ago. Mr. Angeli reiterated the Mayor’s thoughts that movement forward needs to happen more quickly and more prominently so people know what is happening. Ms. Mammano agreed. She thought the newsletter *Go Big Go Fast* had value and asked if it would continue. Mr. Berg stated that the newsletter would not be weekly but that the City was working on a perhaps quarterly report that would inform the Public on the progress, costs and challenges facing infrastructure.

Mr. Partington asked about a letter from FDEP. Mr. Berg stated the letter had two concerns. One had to do with the watermain break in July and the other with the vault that our meters reside in serving the Port. The vault issue was resolved. Public Works has a meeting scheduled in the next two weeks with FDEP to discuss the watermain break.

Mr. Berg explained the process usually begins with a notice from FDEP. Sometimes a fine is assessed. Usually the fine is not punitive but more of a call to action to remedy the situation and to apply resources to fix the specific problem. When responding to a notice or meeting with FDEP, the City comes prepared with what it is doing to remedy the situation.

5. Old Business - None

6. New Business

A. Meeting with the Mayor

Mayor Trantalis expressed that the City is embarking on new projects and will continue to benefit from the review and advice of an infrastructure board. The initial expectation of this Task Force was to advise the Commission and express the view of the Public on infrastructure issues mainly due to the Consent Order and the 30” forcemain break that occurred in 2017. Now, the City is more proactive in its approach to infrastructure and looking forward to redesigning/rebuilding the water plant, improvements in the wastewater system, a new police station (public safety building) and possibly a joint venture with the County for a new government center.

In his recent trip to Washington D.C., the Mayor met with federal officials to explore funding for major projects facing the City. He spoke with the Department of Commerce and was informed that there were monies available. The Mayor is continuing to follow-up.

The Commission has laid out its priorities. He has met with Israeli companies, Poseidon and Suez. Both companies want to forward a P3 proposal regarding the water plant. The Mayor expressed that the knowledge and talent of the Infrastructure Task Force would be advantageous.

City staff and the Commission are determining the best way to move forward. He is asking the Committee to be the conduit to the Public, be informed of the forward movement of infrastructure issues and to advise/guide the Commission on aspects of these major projects.

When asked by Mr. Partington, the Mayor responded that at this time it isn't known specifically how the process of using a P3 approach will work with competitive job bidding. The Committee is looking to gather background information and discover how/if this approach has worked for other municipalities in order to add value to the process.

The Mayor expressed when the private sector gets involved, projects get done much quicker. He used Lockhart Stadium as an example. He expressed that the water, wastewater and water plant systems were more complicated and broader reaching but he would like to explore the P3 approach to these projects as well.

The Mayor felt the Public is understanding of the situation and would like to see action especially with the recent breaks and boil water notices. He expressed the technology is of interest and although expensive, it will be effective in the long run. His concern was the discovery of "what we didn't know we didn't know."

When asked if a maintenance team similar to the one disbanded in 2008 would be reinstated. Mr. Hernandez expressed the City is moving forward with current resources and will propose additional funding and staffing in FY 2021.

Mr. Berg explained that within the confines of the resources available everything that can be done is being explored and implemented. There is a survey crew and a meter crew that are actively locating valves as well as watermains etc. Even without a specific team or capital project, all that can be done is being done. There may be an opportunity for a midyear budget amendment.

Ms. Mammano expressed in her experience, P3's are effective when there is mutual benefit. She urged the City to maintain control of the resource. The Mayor agreed and expressed his concern about the fresh water supply and saltwater intrusion. He wants to look into other water resources including the C-51 reservoir. It is an expensive resource but needs action as other cities are also turning toward that resource.

Mr. Stresau referenced the way the Committee members were assigned. The four members that represent the Budget Advisory Board, Planning and Zoning, Chamber of Commerce and the Civic Associations are subject to dismissal from the Infrastructure Task Force if s/he terminates the active status with the underlying board. The amount of research and learning curve needed makes it difficult for a new member to come "on board" midstream. Its recommendation to the Commission [April 16th] proposed choosing persons with appropriate background, experience and education for an ongoing infrastructure advisory board. By expanding the field of selection and eliminating the requirement that the person be a member of another organization would eliminate unnecessary turnover. Infrastructure review benefits from the institutional knowledge obtained from serving over a period of time.

Ms. Mammano also expressed the Committee requested the permission to opine on the Comprehensive Plan as a group. Ms. Mammano felt it would be beneficial as a group to formally

make some observations on the issues being addressed in the Comp Plan that relate to infrastructure.

7. Informational Items

A. FY 19-24 Water Utilities Action Plan

Ms. Mammano stated the presentation was excellent in showing how much progress has been made in the last couple of years. She suggested all members see the presentation and that this Commission understands infrastructure. The presentation summarized the progress being made and infrastructure initiatives underway. Ms. Mammano spoke in support of the information in the presentation and raised the value of I/I (Inflow/Infiltration) at the Commission meeting. She commended this Committee on the emphasis it placed on I/I and the elimination of the ROI.

Mr. Berg summarized that 36 miles of sewers have been lined and about the same amount will be lined by September 2020. There will be about \$33 Million spent repairing the worst mains in the city. Forty-three miles have been smoke tested. The Utilities Master Plan pointed out that as much as 25% of capacity may be I/I. Mr. Zeltman and Ms. Mammano agreed that there are multiple savings by reducing I/I. Mr. Berg mentioned some of the biggest savings is the avoidance of having to add capacity improvements. Saving the capital cost of putting in a new injection well for example, along with the operational expense of maintaining it is a huge savings.

In the presentation given to the Commission, 43 milestones of the Consent Order are completed with 15 done ahead of schedule. Once all of the forcemains are assessed, there will be more projects and repairs. There are many big projects. A lot is being done.

Ms. Mammano asked about the Asset Management Program. Mr. Berg explained that the project was started about 2 years ago. The City spent almost a year exploring different software and systems. The City decided it would use "Cityworks." Mr. Fred Harris was hired to head this program. He worked with this software in Tallahassee.

The software takes information such as the age, condition and construction of the asset from the GIS system. The system assesses the asset to give the best estimate of maintenance requirements and life cycle. It also will connect it to the budget and financial programs to assist in prioritizing resources. It can be applied to all the city assets but for now the focus is on water, wastewater and stormwater. The program is working with frontline staff to upload the information into the system. This is a major undertaking that needs time to complete. It will need additional people hired.

Ms. Daniel explained there was a kickoff with the consultants Hazen & Sawyer about 6 months ago. There have been three configuration meetings with frontline staff assuring that the equipment and asset information is being properly assessed and placed in the system. Every laptop and computer needs to be configured. Meetings are held biweekly for status and for management decisions to be made. IT, GIS staff, customer service and billing departments are included to ensure that all the systems interface properly. The process is being planned up front to assure that the information provided is good data.

GIS and as-builts are being used to provide the best information we have. The wastewater side is near completion as part of the Consent Order. The design work for the stormwater system is ready to be placed in the software. The water system is about twice the size of wastewater and will be added.

Over the next few years serious money will need to be budgeted to complete the program.

When asked where this money appears in the budget, Ms. Daniel explained there is a CIP project for the asset management software. Dr. Gassman explained that the majority of the program to assess the asset and establish the maintenance schedules and condition of the asset is operational. It isn't purchasing new assets but maintaining the assets we have. There are line items in the various budgets to develop better and better inventory in the system. It will take years to generate an accurate system.

There is already a line item in the stormwater budget for the next five years to develop this asset management system and the Consent Agreement assures the wastewater side. City staff is dedicated to the gravity mains and there is a focus on the water distribution system.

Ms. Mammano asked if there was a set amount of funding needed and what percentage has been completed and how much more do we have to go. Mr. Berg explained that within the rate structures being formulated the amount for maintenance and asset management is included. The City is essentially starting at ground zero. She stated that one way for the Committee to assist is to keep the pressure on the Commission to ensure funding continues for asset management in amongst the many budget requests for funding. Mr. Stresau agreed and encouraged staff to keep the Committee informed of budget needs so it can advocate on its behalf.

The stormwater designs for the seven neighborhoods were completed in January 2018 and are "shovel" ready. Mr. Partington asked if there were alternative means of beginning the construction prior to securing the bond money to expedite the work "sitting in a drawer". Dr. Gassman explained that funding must be in place prior to going out to bid. The delay in securing the funding was not anticipated to take this amount of time; however, what the city is doing with the rate structure is advanced. Adjustments to ensure equity and still meet the bond repayment obligation have slowed the process. Once the rate structure has been verified, bonds can be obtained and construction can begin. It was reminded that even had it all been done quicker, there is only so much of the city that can be under construction at any given time.

Mr. Berg explained in order to expedite the process; one contract was issued instead of dealing with multiple contracts. It only took 15 months. The rate structure was started concurrently with the idea, that it would be completed in the same timeframe. However, once the rate structure is validated and funding approved, the same approach of keeping one large project with one or two contracts will be used again to help expedite the work.

Mr. Partington expressed there did not seem to be a sense of urgency. Dr. Gassman assured the Committee staff has worked very diligently to expedite whatever has been needed to move the process forward but there are many steps in the process outside the control of Public Works.

Mr. Zeltman asked about a program that maintains the exfiltration structures. Dr. Gassman explained that the asset management program is designed to help maintain the asset. It will look at the 10 major drainage basins and determine what conditions warrant what level of service, budget and resources. Depending on existing factors, one basin may need to be reviewed more or less frequently than another.

In the course of conversation it was asked why a community without certain assets has to pay for those assets. As explanation, the City is providing a service that is for the betterment of the community. Whether one directly or indirectly experiences that asset, there is benefit experienced.

Mr. Zeltman complimented City staff that he has interacted with, calling them “top notch”. Mr. Berg stated the City continues to be more reactive as these breaks are being experienced but are doing a much better job in handling these situations quickly and efficiently. The goal is to become proactive and fix it before it breaks. As it gets to that point, maintenance will be more predictable, prices more competitive and timing more desirable.

The Committee will continue to advocate for a certain percentage of the General Fund to be committed to infrastructure.

The use of Zonar technology is dependent on the data in the asset management program and GIS. That will be another advantage once the asset management program is effective. The amount of information to be loaded into the system is long term over a span of years.

The stormwater rate structure was further discussed. The issue of rate structure and the equity of how it is set is very sensitive. When one pays for water whether used for drinking or for irrigation, there is a sewer charge unless a separate meter for irrigation is installed. The discussion centered around the fairness of paying for sewer when it was not impacting the sewer system vs. the decrease in rates if it is removed and how does that affect the ability to fund the operations and maintenance of the system. Further discussion ensued on the program aiding people to use less consumption and or paying for the overconsumption especially when not complying with the lawn watering regulations.

The City Manager has agreed that Stantec would run a scenario for offsetting the sewer rate from irrigation fees. The study is moving ahead. Mr. Berg stated there are regulations requiring that rates be progressive to encourage conservation. The Consumptive Use permit requires a person to pay more when consumption goes up. The conflict is between encouraging people to use less water (sewer rates added to irrigation charges) vs. only paying for what one uses at the risk that overconsumption will occur. The impact of any additional cuts must be analyzed. The rate structure was designed to support the bond issue(s). Any cut will have consequences.

Mr. Berg reminded the Committee that early in the next calendar year the replacing of water meters with digital meters will begin. Consumers can obtain an hour by hour usage and an easier explanation on why the bill is what it is and where the consumption is being used. For those irrigating everyday it will be an education issue.

Mr. Berg explained there were around 50 meters that were tested. Nine had to be replaced. One had a major malfunction where the problem was on the first cylinder and easy to explain. As meters are replaced bills will go up due to more accurate readings. Again Members were encouraged to watch the presentation given to the Commission.

Clarification on terms: There are seven neighborhoods (approximately 20% of the city area) in the initial \$200 Million stormwater improvements designed and partially permitted. There are 10 watershed basins. A city model was completed identifying the seven neighborhoods with the worst stormwater issues. Once that is underway, a new city model will be done to identify the next areas for consideration. Already another 7-10 neighborhoods are identified. Melrose Park is in the 2nd tier.

Melrose Manors also in the 2nd tier has more challenges. It was pointed out that the money will not be evenly divided between the assigned neighborhoods but will depend on the needs of each area. For example, in the first seven, Edgewood and River Oaks only have swales and will need larger amounts spent compared to areas with infrastructure already in place.

Once the Commission approves the rate study, the next step is to validate the rate structure through the court. The stormwater utility has never been bonded against as it is only 5 years old. The methodology is not moving slowly due to lack of effort. The first seven neighborhoods are: Durrs, Dorsey-Riverbend, Victoria Park, SE Isles including Las Olas and Rio Vista, Edgewood, River Oaks and Progresso.

Mr. Partington had the understanding that tidal valves involved a lot of maintenance and asked Dr. Gassman what her experience is. She explained it takes a team of 3 persons approximately 1 ½ hours to inspect a valve once during low tide and once again during high tide. Each valve is inspected four times a year or essentially 8 inspections per year. The process includes cleaning the catch basins in order to inspect the valve. The initial 100 valves were being maintained and inspected with the staff on hand. Since then, an entire dedicated crew for maintenance and another crew dedicated to maintaining the catch basins have been added to maintain the current number of valves. Per the Master Plan an additional 129 valves should be added. It is anticipated to add another two crews to maintain the tidal valves.

A general rule for estimating maintenance costs is to take the cost of the project and add 10%. As the \$200 Million in projects are completed, the rate will be adjusted to include the bond costs and the maintenance. Currently, valves cost between \$1,000 - \$24,000 each depending on the size of the valve just for purchase. Installation and maintenance is not included in that price. Valves have absolutely been successful however they are not perfect. When it rains and there is high tide, there can be more inundation because the valves cannot open.

Both Dr. Gassman and Paul explained that sea level rise has been implemented in all of the City masterplans and projects for the past 6 or so years. It is not considered as a separate issue. When the new water plant is designed, sea level rise will be factored into that process as well.

8. Public Comments None

**9. Adjournment –Chair Ms. Mammano adjourned the meeting at 4:07 p.m.
Next Regular Meeting November 4, 2019**