NORTHWEST COUNCIL OF ELECTED OFFICIALS

MEETING MINUTES
MONDAY, APRIL 8, 2019

The City of Lauderhill hosted the meeting of the Northwest Council of Elected Officials on Monday, April 8, 2019 at Lallos Restaurant, 1400 N. State Road 7, Lauderhill, FL 33313.

Elected Officials/Attendees:	**Municipality:**
Vice Mayor Sandra Welch	City of Coconut Creek
Commissioner Mikkie Belvedere	City of Coconut Creek
Mayor Scott Brook	City of Coral Springs
Commissioner Veronica Edwards Phillips	City of Lauderdale Lakes
Mayor Ken Thurston	City of Lauderhill
Vice Mayor M. Margaret Bates	City of Lauderhill
Commissioner Richard Campbell	City of Lauderhill
Commissioner Denise D. Grant	City of Lauderhill
Mayor Anthony N. Caggiano	City of Margate
Commissioner Arlene R. Schwartz	City of Margate
Commissioner Joanne Simone	City of Margate
Public Works Director Mark E. Collins	City of Margate
Vice Mayor Samson Borgelin	City of North Lauderdale
Commissioner Bob Mayersohn	City of Parkland
Commissioner Richard Walker	City of Parkland

Also Attending:

Guest Speaker Dr. Jennifer Jurado, Director of Broward County Environmental Planning and Community Resilience Division

Lauderhill Administration and Staff:

Andrea M. Anderson, City Clerk
Nadia Chin, Deputy City Clerk
J. Martin Cala, City Engineer
Danyl Noel, Assistant City Engineer

1. **<u>WELCOME</u> –** Mayor Ken Thurston welcomed attendees and called the meeting to order at 12:13 p.m. He noted the City of Lauderhill established an entertainment district that began at Sunrise Boulevard north to NW 19th Street along the 441 corridor, and businesses in the district could sell mixed drinks up to 4:00 a.m. This included restaurants such as Joy's Roti across the street. He mentioned the City was currently in the process of rebranding NW 38th Avenue, currently a warehouse district that would be turned into a Wynwood-type community. The previous Friday the City hosted a concert in an area park at which some 500 attended, so the City was happy with how things were progressing. He thanked City Clerk Anderson and other City staff for putting the present event together, including the IT staff members, whom he introduced.

2. **<u>APPROVAL OF MINUTES</u> – March 11, 2019 - City of North Lauderdale -** City of **Margate** Commissioner Schwartz moved to approve the Minutes as submitted. Seconded by City of **Margate** Mayor Caggiano. No discussion. **Minutes approved unanimously by voice vote.**

3. **<u>GUEST SPEAKER</u> –** Dr. Jennifer Jurado, Director of Broward County Environmental Planning and Community Resilience Division gave a presentation on flooding and water related issues, highlighting the following:

- She provided information on a study directly relevant to infrastructure planning in Broward cities
- The team and she were pulling together over the last several years in an effort to address flood risks in their communities, and they were at a point where they expected to deliver significant information to aid with long-term resiliency planning, to mitigate flood risks
- The general, broad water resource challenges cities faced in their communities were related to issues of climate change, specifically sea level rise
- There was a great dependency among cities across Broward County on their ability to discharge water into the tide, and this created a challenge for all municipalities
- Issues of climate brought more intense flooding in both coastal and inland communities and included increased storm intensity, salt water intrusion related to coastal water quality, and water quality itself
- She was willing to do a similar presentation in any municipality, and her PowerPoint presentation was available for interested persons
- When cities did not deal well, manage well, and treat their water well, there were downstream impacts, as evidenced by red tide, and blue-green algae
- There were significant public health and safety issues associated with both flooding and water quality, whether it was related to the presence of fecal bacteria, exposure resulting from aerosols, and the ability to get medical help being hindered by flooding
- The Broward community developed an elaborate water management system to deal with some 60 inches of rainfall the County received in a year, but the situation was becoming more problematic, as existing infrastructure was not designed to deal with today's conditions, and flood risks created other challenges
- Broward communities were recognized as not just having to deal with flood waters, but there were areas with numerous assets and large populations, and this created an exposure of people and economics

- Some examples included: in early June 2017 there was an onset of very intense rainfall that led to numerous complaints about failing public works infrastructure, etc. Throughout the year, intense rainfall continued with five to 15-inch rainfall events
- Questions of how much rainfall, how quickly and for how long needed to be answered, as cities wanted to account for a variety of conditions happening with increasing regularity, as seen by rainfall records
- Traditional rain effects were carrying more water than they used to
- Water management needed to take into account: rising sea levels, and about half of the 109 cities throughout South Florida adopted their projection as a basis for planning
- They were addressing the fact that the groundwater table was rising, and when that occurred, it meant more water was held in the soil, saturating the soil, leading the water to sit on the surface and create more standing water
- The data illustrated in tables showed rising sea levels that created a foot shift in the ground water table in the eastern parts of the County; if the ground water table continued to rise in east Broward, this meant the flow of storm water from west to east Broward would encounter a reduced gradient
- They were remodeling what the rainfall intensities were for all infrastructure, and the rainfall events were used as a basis for cities to design their drainage systems
- She added a new graphic to facilitate the understanding of primary, secondary and tertiary systems
- The tertiary system was the water management system that was usually part of a homeowners' association (HOA) and included lakes, ponds, and water quality treatment, and much of this maintenance was managed by small HOAs
- Once these systems reached capacity, they discharged into a secondary canal system, and when those reached capacity, that water was discharged to the primary system that was managed by the South Florida Water Management District (District)
- It was important to note that since it was wet all the time, and all the water management features were always full of water all the time, which should not be the case, it never seemed to decrease enough to create storage for additional rainfall
- They had a similar conversation with the District, and it was collectively understood that certain portions of the water management system could only receive so much water at the time, and it forced everyone upstream to hold onto more and more water; if everyone was discharging storm water, and everyone was full all the time, rather than three days to decrease, it took five to eight days, two weeks, maximizing the capacity of the water elements in the storm water drainage system
- On the issue of sea level rise, with numerous development and redevelopment across many cities, the metered flow of water into the system was controlled and could not be exceeded, but when the primary canals were full, there was a need to open the gates to let the excess water discharge to prevent flooding in west Broward communities
- Usually, the water upstream was higher in the west than the water downstream in east Broward, but when this was not the case, the gates were opened to discharge the water; with sea level rise, the result was downstream water elevations were the same as upstream water levels, and opening the gates of the primary canals would result in salt water coming in
- There were already times during the year when the gates could not be opened for flood protection, and this was an increasing issue with sea level rise; it was estimated by 2030, the existing structures would no longer be able to operate as intended

- It mattered for everyone in west Broward to be concerned about flood protection and what happened with the gates; as yet, there was no plan to deal with such issues; there was collaborative work with the District, the U.S. Army Corps of Engineers on the need to prioritize the matter of discussion
- Everything done in local communities was hinged on the ability to have canal gates opened, and if they could not be opened, then the involvement of pumps was needed, which required money and depended on the size of the infrastructure the cities planned
- Some communities still relied on septic tanks, and with higher ground water tables and increased rainfall, those systems operated less efficiently
- As a state, there was an appreciation that connections needed to be made
- There were challenges with drainage systems and wells, and some parking lots were not draining as well
- Considerable planning was underway over the last 15 years, including numerous hydrologic model development, working with the Army Corps of Engineers to develop models that allowed cities to look at how they managed water, etc.
- The challenge was how to translate plans into infrastructure planning, and setting priorities
- At the county level, they developed a strategy focused on integrating climate and resiliency, and changing environmental conditions into land use planning, comprehensive planning, water supply planning, transportation planning, emergency management, etc., many of which cities were already planning
- They understood they needed to look at the regulatory environment, how systems were licensed and designed to ensure there was compatibility across all infrastructure
- In 2017, the County Commission adopted the Future Conditions Map Series that was now embedded in the way city engineering departments looked at water management infrastructure
- The first map adopted in the series was one related to drainage requirements; that is, a question of how to design drainage and surface water management systems discussed; creating coastal barriers to flood waters to keep more water out of the urban areas; updating flood elevations or community flood maps
- The first map she highlighted included the areas from which attending elected officials oversaw
- They were in the process of updating seawall requirements for tidally influenced waterways; they partnered with the Army Corps of Engineers to engineer and weigh studies, and they were now accounting for the change in water levels associated with two feet of sea level rise and other conditions
- The first map was currently advancing through the Land Use Plan for the County, and coast cities would be required to adopt via ordinance an implementation of the standard
- Individual property owners would be responsible for improvements on their properties, and municipalities would be responsible for improvements on their properties
- Flooding could be occurring independent of the ordinance, but there was a need for all cities to be designed to the same level
- The second map was an update to the community flood map, and they finished floor elevations in their community based upon one of three tools: 1) the FEMA flood map; 2) a community flood map, which was the Broward Flood Map; and 3) site-specific modeling
- Finished floor elevations were based upon the highest of those numbers, and over the years they found that whenever the FEMA flood map was updated, elevations increased, but their community

flood map remained the same; the FEMA Flood Map was now pairing up with the community flood map

- Many of their communities participated in a community rating system, and residents received insurance discounts based upon the aggressiveness of a city's flood elevation measures
- As the flood maps were updated, if this was not addressed, it would be hard for cities to maintain their community rating system credits.

Lauderhill Vice Mayor Bates questioned, in determining flood insurance coverage, which map was utilized, the community or FEMA.

Dr. Jurado replied only the FEMA flood map, as it was the one used to determine current risks, and insurance rates were based solely on those risks. The County flood map did not influence insurance rates at all, except to be able to say that they built to higher standards, so their flood risk was less than estimated, so they would receive a discount. She noted the County map was only used for setting the elevation, not for setting insurance. She continued her presentation, highlighting the following:

- They were getting ready to update the community flood map to account changes in the ground water table, rainfall was more intense, and sea level rise compromised drainage infrastructure
- They held a series of community workshops throughout the County, and District representatives, public works' staff, flood managers, etc. came to the meetings and shared information on their systems, and gave feedback on the model, if there was new infrastructures, was there dredging or other culverts, etc. She said anything that could be done in the system that should be captured in the model
- They received a lot of feedback
- The 2014 model was the Broward County model, and FEMA used the community's model in the last update of the flood maps; thus, it was the same model, but they were updating it now to account for future conditions
- In that process, they were refining the datasets, and updating them to account for future conditions
- They refined land use, so it was at a more granular level and representative of changes and development and land development in the area
- It was important for city administrations to have a better ability to calculate drainage and storage across everyone's area
- They had 22 cities in Broward County participate in the community rating system; Broward County just elevated the City's position, based upon considerable flood mitigation work
- Everything they did could be utilized by the cities, an evaluate it out, as to whether or not they could help with the cities' applications
- She thought the best cities were achieving about a 20-percent reduction in their flood insurance score
- Broward County accounted for 12 percent of the policies, while the State accounted for a third of the NFIP policies
- Flood insurance was vital to mortgages, as was the affordability of insurance was vital to homeownership, so everything they could do to address this flood risk and these changing maps, with NFIP in the process of reforming, with risk rating 2.0, where they expected to present new rates more representative of individual flood risk in the community
- The more this could be addressed and communicate a reduction of that risk for these types of efforts, that would be a benefit

- It was possible to receive credits, as the current criteria allowed credits for planning, sea level rise, setting higher standards, targeted outreach; the aim was to get 500 more points through
- They did this evaluation, and they would be providing more information she thought would aid the cities, and city staff should look at this detail, and whether or not it could be integrated into the recertification
- Ten cities provided cost share in the studies, as did the District, and many cities came forward and said they wished to aid in the subject evaluation
- The presentation identified Broward County cities participating in the community rating system
- She presented illustrations of buildings built using higher flood elevation standards, mentioning the cost savings derived from such decisions.

Given potential problems between new and old structures, Dr. Jurado was asked what happened to buildings next to those built to FEMA's new flood elevation standards and if problems were addressed via the pipes. She answered yes, stating there were requirements for onsite management of water, and sometimes when a building was elevated it did not necessarily mean all the fill was elevated where the infrastructure was located. Solutions included the expansion of French drains, more drainage wells, pumps on drainage wells, more retention areas, etc. The use of cut and fill, where the dirt was mounded, was not a good strategy, as it could cause water to run off onto adjacent properties, so there were prohibitions against doing that. Some communities used the cut and fill technique, and it compromised surrounding older structures. She continued her presentation:

- The federal government just updated their cost to benefit ratio estimated for hazard mitigation all together, of which flood mitigation made up a large part; in the past, it was estimated $1.00 spent on flood mitigation saved $4.00 in impact and recovery, and that figure was now estimated at $6.00, with some savings as high as $20.00 per $1.00
- Many entities were looking at what happened with flood risks, climate resilience and communities, as this was related to bond rating; cities were asked what they were doing to address this risk
- Private insurers and financers were not just asking about individual buildings, but what communities were doing, and it had implications for property value if owners chose to address this risk or not
- Flood insurance portability, even having access to it, were part of a host of reasons, from an economic perspective, it was the right direction for cities going forward with numerous solutions before them
- It was about finding new ways in communities to artfully integrate water, and have it be more of a prominent feature, as it could be an aesthetic way of designing within landscapes
- More pumps would be needed, and some infrastructure had to be elevated
- The next step was to move forward with another study, doing an evaluation of critical infrastructure as part of the new flood map, and the intent was to do a basin-by-basin evaluation of how much flood risk could be mitigated through modified infrastructure, more active storm water management, etc.
- It would not be a municipal-level storm water plan, but it would provide the basis for the scale of types of investments needed on a basin-by-basin basis, and how much of that flood risk could be mitigated
- The new study should provide planning level cost estimates, so there could be a general rule of thumb about where infrastructure was needed; they hoped the study would be available in about

three years, and it would be the basis for targeted capital improvement investment planning across all communities.

Vice Mayor Bates noted in one of the beginning pictures of the presentation, it showed various flooding in cities, and one was in Lauderhill, stating the City had a basin problem out west, and she understood flooding occurred due to low-land elevation. In a very heavy rain event, water levels could rise to residents' doors, wondering how such a situation could be corrected.

Dr. Jurado replied, in the immediate future, it would be difficult for her to say, adding if it was possible to install water features into which the excess water could be pumped, that was one solution. The new study mentioned above would focus more on the architecture of Vice Mayor Bates' question, and with more active storm water management infiltration trenches installed, that combination of investments in whatever scale per acre or ten acres were desired could help mitigate incidents of flooding. She felt these were some of the opportunities that were lost in the past, as there was a tendency to isolate views of projects, and this led to a loss of opportunities to enhance adjacent community services through up scaling heights.

In reference to Dr. Jurado's mention of regionalization, and with the knowledge that if a city was not a coastal community, it would eventually be affected because of the water drainage issues, there came the question of what cities could do today to begin looking at mitigating that eventuality. It was possible to make alterations to new construction, but should older structures be addressed collectively and/or individually.

Dr. Jurado thought the results of the two studies would be very helpful, noting it would was very challenging to address such issues on an individual basis, when the cost to do so was unknown. She said it could be incredibly costly, particularly if a city was unaware of what the ground conditions were, and they had to make wide assumptions about what was happening in adjacent cities. As the basins had connected infrastructure, there had to be collaboration and an establishment of relationships between cities, as they needed smaller-scaled improvement plans that would be captured in such studies. She noted they did not have computing capacity, but they could give cities all of the planning level assumptions needed for explicit designs as part of the regionally connected network.

When asked if the ten cities that were cost sharing in the study were all coastal communities, or if some of them were inland communities similar to those governed by the elected officials at the present meeting, Dr. Jurado indicated that she thought Coconut Creek was already a cost share partner.

It was then clarified to mean all the cities represented at the meeting as a whole/region, as it seemed it would be helpful if they participated in the cost share.

Dr. Jurado stated she appreciated the offer, but the most recent study was already funded and underway. The next level would be the detail that would be captured in the adaptation plan, and there would be opportunities to gain economics, and in the evaluations done by cities, there would be real targeted issues to be addressed. She said there was the potential for such actions to be incorporated in a scope of work for economies.

Mayor Thurston announced the food was ready, so everyone should feel free to partake, adding Dr. Jurado would be available to answer any further questions.

4. **Old Business – None**

5. **New Business – None**

6. **Next Scheduled Meeting – Monday, May 13, 2019 – City of Coconut Creek**

7. **Adjournment -** There being no further discussion, Mayor Thurston adjourned the meeting at 12:58 p.m.

Respectfully submitted,

Andrea M. Anderson

Andrea M. Anderson, MMC
Lauderhill City Clerk