



MEMORANDUM

AGENDA ITEM # 6

DATE: FEBUARY 17, 2023

TO: COUNCIL MEMBERS

FROM: STAFF

SUBJECT: JOINT COUNCIL MEETING MINUTES (MARCH 18, 2022) & SOLID WASTE MANAGEMENT JOINT CONFERENCE MEETING SUMMARY (OCT 21, 2022)

Please find herewith for your review the meeting minutes from the SFRPC / TCRPC Joint Meeting held on March 18, 2022 and meeting summary from the Solid Waste Management SFRPC / TCRPC Joint Conference held on October 21, 2022.

Recommendation

Approve the minutes and summary.



**JOINT MEETING -- MINUTES OF THE
SOUTH FLORIDA AND TREASURE COAST REGIONAL PLANNING COUNCILS
MARCH 18, 2022**

The South Florida and Treasure Coast Regional Planning Councils held a joint meeting on March 18, 2022, at the Clayton E. Hutcheson Agricultural Service Center, 559 N. Military Trail, West Palm Beach, Florida.

Agenda Item 1: Welcome & Pledge of Allegiance

Chair Townsend called the meeting to order at 10:07 a.m. and welcomed everyone. She led the pledge of allegiance.

Dr. Ronald Rice, Director, University of Florida/IFAS Extension Palm Beach County welcomed both Councils to the Agricultural Service Center.

Chair Townsend recognized in attendance Mr. Drew Bartlett from SFWMD, Ms. Evelyn Duplecly from Senator Berman's office, and Ms. Melissa Santoro from Representative Willhite's office.

Agenda Item 2: Roll Call

The following members and alternates were present from **Treasure Coast Regional Planning Council**:

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| Indian River County: | Commissioner Peter O'Bryan |
| Martin County: | Commissioner Doug Smith |
| St. Lucie County: | Commissioner Cathy Townsend
Commissioner Sean Mitchell
Councilman Anthony Bonna, City of Port St. Lucie
Councilman David Pickett, City of Port St. Lucie, Alternate |
| Palm Beach County: | Commissioner Maria Marino
Commissioner Melissa McKinlay, Alternate
Commissioner David Kerner, Alternate
Mayor Anne Gerwig, Village of Wellington
Councilman Jeff Hmara, Village of Royal Palm Beach
Vice Mayor Regina Bohlen, City of Pahokee, Alternate
Commissioner John Linden, Town of Lake Park |
| Gubernatorial Appointees: | Douglas Bournique, Indian River County |

Reece Parrish, St. Lucie County

Ex-Officios: Lois Bush, FDOT
Jason Andreotta, FDEP

Council Staff: Thomas Lanahan, Executive Director
Phyllis Castro
Kim DeLaney
Liz Gulick
Stephanie Heidt
Dana Little
Terry Ann Paulo
Jessica Seymour

Council Attorney: Keith Davis

The following members were present from **South Florida Regional Planning Council**:

Broward County: Mayor Steve Geller, SFRPC Chair
Commissioner Quentin “Beam” Furr
Mayor Greg Ross, City of Cooper City
Mayor Ana Ziade, City of North Lauderdale

Monroe County: Commissioner Michelle Coldiron

Ex-Officios: Shereen Yee Fong, FDOT, VI
Lorraine Mayers, SFWMD

Council staff: Isabel Cosio Carballo, Executive Director
Bridget Huston
Kathe Lerch
Alisha Lopez
Christina Miskis
Jason McMahon

Council Attorney: Sam Goren

Agenda Item 3: Chair’s Comments – Honorable Cathy Townsend, Chair, TCRPC; and Honorable Steve Geller, Chair, SFRPC

On behalf of the Treasure Coast Regional Planning Council (TCRPC), Chair Townsend welcomed and thanked everyone for attending today's joint meeting. On behalf of the South Florida Regional Planning Council (SFRPC), Chair Geller welcomed everyone and expressed his excitement for today's meeting.

Agenda Item 4: Agenda Approval

Council Action: Mayor Ross from the City of Cooper City moved approval of the agenda. Councilman Hmara from the Village of Royal Palm Beach seconded the motion, which carried unanimously.

Agenda Item 5: Approval of Minutes – March 19, 2021, and November 5, 2021, Joint Workshops

Council Action: Commissioner Mitchell from St. Lucie County moved approval of the March 19 and November 5, 2021, Minutes. Mayor Ross from the City of Cooper City seconded the motion, which carried unanimously.

Agenda Item 6: Wesley R. Brooks, Ph.D., Chief Resilience Officer, Office of Governor DeSantis, State of Florida

Chair Geller introduced Dr. Wesley Brooks, Chief Resilience Officer, Office of Governor DeSantis, State of Florida.

Per Dr. Brooks:

"The Florida Legislature recognizes that the state is vulnerable to adverse impacts from flooding, resulting from increases in frequency and duration of rainfall events; storm surge from more frequent and severe weather systems; and sea level rise. Such adverse occurrences impact post economic, social, environmental, and public health and safety challenges to the state." The Florida Legislature has tasked us to examine and respond to these issues. We must ensure that we are meeting our community's vision and needs, while procuring the right dollars for the right projects.

Resilience. Defined as empowering local communities to build the future they want for themselves, their posterity, and neighbors. Dr. Brooks noted that his position entails communication, coordination, and innovation and his focus is on flood mitigation (i.e., sea level rise, heavy downpours, riverine flooding). He offered his assistance to local governments. He visited numerous counties this week, meeting with local governments and observing their issues. Martin County has two projects being funded with the resilience funds awarded from Florida Department of Environmental Protection (DEP).

In general, he is educating and bringing attention to the State's efforts to develop a more comprehensive approach to delivering resilience projects to our communities that encompasses coordination with state agencies, federal agencies, and local agencies. He desires to serve as a bridge of connection between local, state, and federal governments.

As we progress, an all-important innovation piece will include conducting, assessing, and addressing gaps across all our state efforts. There is tremendous support from all the agency heads so far. The Governor's support of this initiative has resonated throughout state government, and you are seeing a positive move towards accommodating a comprehensive resilience vision.

Another program, the Resilient Florida Program, enhances the efforts to protect the inland waterways, coastlines, and shores, which serve as invaluable natural defenses against sea level rise. The Legislature's actions will yield the largest investment in Florida's history to prepare communities for the impacts of climate change – including sea level rise, intensified storms, and flooding. The state is going to be investing over a billion dollars in resilience award money, which is all matched at the local level.

The planning grants can be used to help fund comprehensive plan amendments for coastal re-development. If applying from the county level, they can be used for vulnerability assessments. County-wide vulnerability assessments will help identify where the critical infrastructure is, what the vulnerabilities are, and it also opens the county up for the actual resilience implementation project funds, which is the biggest source of funds that DEP is providing.

Beyond the planning grants, there are implementation grants. Counties in this room have been successful, such as Miami-Dade County and Monroe County - home to the Florida Keys. Those implementation grants can fund design or construction projects. With the planning grants, there is no cost-share necessary. For the implementation grants, it is a 50% cost share. It ties in very well with the idea that these projects must be locally driven.

Finally, the Florida Flood Hub is addressing flooding and sea level rise. If we are not already a resilience leader in terms of actual practice of resilience, this is going to be the scientific underpinning that allows us to be a leader in the modeling of compound flooding—including questions concerning the impacts of flooding and how to mitigate it.

Chair Geller asked Dr. Brooks to comment on the C&SF Restudy. Dr. Brooks responded that he has been working on the C&SF Restudy for the past 4-5 years, stating that the Army Corps of Engineers (ACOE) will be involved in the Restudy. There is no higher priority in South Florida than making sure that that flood control system is operational.

Commissioner Smith from Martin County thanked Dr. Brooks for his work on the Coral Reef Reauthorization Act. Dr. Brooks thanked the RPCs for their support on this bill, affirming that he is confident the Restoring Resilient Reefs Act Bill will be completed this year.

Commissioner Coldiron from Monroe County thanked Dr. Brooks for working with the Monroe County Twin Lakes neighborhood, noting that the County has completed a vulnerability assessment and has

identified the roads that need immediate help. She thanked him for the funds that Twin Lakes received, as well as for Stillwight Point.

Mayor Ziade from the City of North Lauderdale in Broward County asked if there is a matrix of what is needed to apply for these grants. Dr. Brooks stated that he would connect her with the Office of Resilience and Coastal Protection after the meeting, and they would guide her through the details.

Chair Townsend thanked Dr. Brooks for his presentation.

Agenda Item 7: Resiliency Initiatives Panel “Neighbors Helping Neighbors” – Moderated by Tom Lanahan, Executive Director, TCRPC

Mr. Lanahan, TCRPC Executive Director, recognized the panel members in attendance and noted there would be a series of questions.

Panel:

Sandra Bogan, Resilience Navigator, St. Lucie County

Kathy Fitzpatrick, PE, Coastal Engineer, Martin County

Jake Leech, Palm Beach County Office of Resilience

Dr. Jennifer Jurado, Chief Resilience Officer, Broward County

Dr. Ana Carolina Maran, District Resiliency Officer, South Florida Water Management District

Andrew Sobczak, Assistant Community Development Director, Indian River County

Questions for “Neighbors Helping Neighbors” Resilience Panel

How are you accomplishing stakeholder engagement and outreach (realtors, landowners, business community)?

Dr. Jurado, Broward County, stated that every year the County hosts a regional/countywide resilience roundtable. All the cities (elected officials, city managers, key resilient staff) are invited. She noted the South Florida Water Management District is an ongoing partner. This is an important forum for bringing together everyone in Broward County about the nature of our challenges through the efforts of the SE Florida Regional Climate Change Compact. In 2017, we engaged the business community on the theme of economic resilience, and it continues to be a robust partnership. This includes representatives from Palm Beach, and Miami-Dade counties and we have reached out to Monroe County. There is an economic resilience committee that is convened by the Greater Fort Lauderdale Chamber of Commerce attended by numerous chambers that meets monthly. She noted that the business community is engaged on these recommendations relating to economic resilience. We are working with developers and the real estate community to plan for future conditions.

Mr. Leech, Palm Beach County, noted they are working regionally with many high-level stakeholders, who understand the resilience and climate issues that are affecting south Florida.

Ms. Fitzpatrick, Martin County, mentioned that they are getting established, sending out initial letters, and following up with questionnaires.

Ms. Bogan, St. Lucie County, said that they participate in webinars that raise a greater level of awareness with the residents. They are doing an economic vulnerability assessment in this next round. She also mentioned that St. Lucie County has an upward mobility initiative-putting established nonprofit groups, who are working toward elevating economic opportunity, within the community.

Dr. Maran, South Florida Water Management District, asserted the district has been establishing close coordination and alignment with all the counties with whom they work. The group is fully committed to understanding what the communities want to look like when planning projects at the SFWMD. The SFWMD has been putting together a list of priority resiliency projects and are working with the counties to understand how the resiliency projects can be integrated to all the local projects.

Do your efforts extend beyond the coastal areas, and if yes, what are the initiatives?

Dr. Maran noted the efforts focus on the inland needs and how we can quantify inland impacts, primarily driven by rainfall. The language is specific in the legislation that rainfall is the first vulnerability issue that we need to map, in coordination with the local governments. We have invested some years in research to understand future rainfall and a piece of this work is being released in April from the District.

Mr. Lanahan asked if those studies look at the interface between rainwater and tailwater conditions due to sea level rise.

Dr. Maran noted flood protection level of service accounts for increasing storm surge and sea level rise at the coastal structures. Working closely with the ACOE, the next study will explore fully integrating rainfall, sea level rise, and storm surge impacts through advanced modeling and proper characterization of compound flooding impacts.

Mr. Leech noted that this is an issue for Palm Beach County (PBC) because of the urbanized coastal population. There is a significant western inland population that is overlooked, especially when discussing sea level rise. Sea level rise can cause significant issues with flooding inland when flood control structures are compromised because of the way the canal system works. A vulnerability assessment will be conducted that covers the unincorporated parts of Palm Beach County, including western communities.

Dr. Jurado noted early planning efforts were focused principally on the coastal vulnerabilities because of the high tide flooding, recognizing that there was exceptional risk for the western communities. The countywide models for all of Broward County were updated to look at predicted flood elevations under

an integrated approach of groundwater table rise, increased rainfall intensification, and the impacts of sea level rise on that entire drainage system. Our community flood map, which is separate from FEMA, has been updated to look at future flood elevations with two feet of sea level rise and accounting for all those conditions. Broward County has contracted for a multiyear study that is designed to focus on modified water management operations, infrastructure improvements, and redevelopment strategies to help address the collective flood mitigation needs across Broward County, including how to manage, store, distribute, and infiltrate water in a manner that is responsive to this evolving flood risk.

Mr. Sobczak from Indian River County noted they recently wrapped up a resilience study funded by DEP. Having a large open canal system significantly impacts the coastal area as well inland areas, specifically the older subdivisions. We are going back and plugging in some specific elevation data, finished floor, and survey data for parking lots and storm water systems to get a better view of what these potential inland impacts would be.

Mr. Lanahan asked about the open canal system. There are no intervening control structures along the way, so water can be pushed westward and as things back up subdivisions can get backwards flooding.

Mr. Sobczak explained that the subdivisions eventually drain into the open canal system, which is tied into the lagoon, so when that level rises there is that opportunity for the water to go in the opposite direction.

Ms. Fitzpatrick countered that it depends on one's definition of coastal. If you talk to NOAA, the entire state is coastal. Definitions change as you move up and down the coast. In the more southern counties, there are the canals with control structures. In our area, especially in Martin County, there are natural waterways that extend far inland, and the County's initial flooding problems have not been strictly caused by sea level rise. We are interested in what the SFWMD is doing with their updated predictive precipitation because we have a hybrid problem--rainwater that cannot go anywhere due to sea level rise. Additionally, the worst flooding that we have had in our county is in these areas of developed relic dunes. The water has accumulated with nowhere to drain and we have had to start pumping it everywhere.

Are you addressing the land use/resilience interface?

Dr. Jurado noted in looking at the countywide resilience plan, there is a progressive land use plan that encourages compact development and transit-oriented development. Key corridors will be examined and look at how to not only alter development strategies to support this compact development but may find that we cannot achieve the SFWMD water quality requirements on a parcel-by-parcel basis.

Mr. Lanahan asked about a retention system design, based on a higher groundwater table so it brings the entire system up. Dr. Maran noted that several years ago the groundwater table map was updated, and the groundwater table has already risen a foot in the community. The historic standards were inadequate, but they were also a foot too shallow. It is up to the developer to demonstrate how he will satisfy that requirement, but we demonstrated it through site specific examples while adopting the standard, and it

has been applied successfully, and subsequently, to all projects since 2017. It is embedded in our land use plan and embedded in our code of ordinances.

Ms. Fitzgerald noted that Martin County is different -- a lot of land, less density, but while our county is a higher elevation, the older structures are along those inland waterways.

What is the status of funding and implementation?

Dr. Jurado noted the needs are far greater than the resources that are currently available. The Resilient Florida Grant funding program has been a welcome area of support. The Rebuild Florida grant program has also provided communities with support, and we have our eye on federal infrastructure funding. We had about \$87 million allocated across the Broward County, including the airport, parks, and many city projects. There are ongoing collaborations with the Florida Department of Transportation (FDOT) on some projects. Broward County has put a total of \$4 million behind that countywide resilience plan and considers that a significant investment. Our business community has said, "Give us a plan, show what the risk reduction is, and we will support that plan, if it is well documented and developed."

Dr. Leech lauded great board support for these resilience projects, as well as great and promising opportunities through the state and federal levels.

Ms. Bogan noted that St. Lucie County only started resilience planning a few years ago and has been fortunate to get a few grants. The County received the CDBG funding and have executed it in the last few weeks, which will allow us to hire a team of consultants to do additional vulnerability assessments. The plan is to create a robust engagement with business leaders, nonprofits, educational institutions, and our general citizen stakeholders, and then we will work toward a preliminary draft and final resilience plan.

Dr. Maran noted they put together their first Sea Level Rise and Flood Resiliency Plan last year, trying to document and organize our prior investment in terms of resiliency. In year one of this plan-formulation process, we focused on the piece of the system that is most vulnerable—our coastal structures. To stabilize the funding for the implementation of the project, we have been looking at any grant opportunity. Going on our third round this year, we work with the federal level to bring grant applications. We are also partnering with the local government to implement those projects, and we are coordinating at the state level. We also have the C&SF Study coming up which will focus on those coastal structures and increase our funding opportunities through the cost-share agreement that we will be building with the ACOE next.

Dr. Jurado noted about two years ago the business community came forward and partnered with our local governments, and we received a state grant to develop an economic case for resilience. It was a foundational document. It evaluated the 4-county compact area. Figures were developed at the regional level and the county level, with municipal analyses within that. It really made the case demonstrating a 4:1 return on investment for building level adaptation and a 2:1 return on investment. Communitywide

investments could be beaches, dunes, seawall strategies, extended to coordinated stormwater management strategies.

Mr. Lanahan asked Dr. Jurado to share seawall issues.

Dr. Jurado noted that in 2012 many of our communities began to see more regular and impactful tidal flooding; then there were a few years of calmness and then it really came back again maybe in the 2016 timeframe. We found that Broward County had no consistent protection. The seawall heights are all different, from city to city, from neighboring property to neighboring property. Homeowners might make the investment improving their seawall, yet the water just flows around it from neighboring properties right back into their yard, and so we knew we needed to have consistency in terms of standards, an almost guaranteed level of service. If I make this investment, is the protection going to come? Therefore, we worked with the ACOE on a study and came up with a recommended top elevation. Advancing through our land use plan and then through the county's adoption of a standard within our code of ordinances, we established a figure of 5-foot NAVD elevation. Acknowledging that much of the elevations in Broward County are very low (sometimes one foot), establishing five feet is a sizeable difference. Therefore, the ordinance also allowed for adoption of an interim target of 4 feet NAVD up until 2035 so long as you can achieve those 5 feet by 2050. That number, that standard, was identified as being able to provide high tide flood protection through the year 2070. Additionally, earlier than that it provides flood protection with high tides and smaller storm surges. Broward County requires our municipalities to adopt an implementation ordinance within two years of the County's adoption. March is that two-year period, and I would say all our coastal cities have either adopted or close to their final hearing. There are a couple more inland communities that have small, limited reaches of a canal that might be tidal. We worked closely with our Water Advisory Board which Senator Geller chairs to work with all our municipalities. A lot of knowledge coming into that process, and we had extensive municipal and industry outreach and for all the Commission meetings that we supported in that process, there was not a single conversation where there was a challenge about that. Instead, the residents and the developers said we just needed a number. We know the amount of flooding taking place. We saw a lot of success with that process and that is where we stand today.

Mayor Geller asked how this to apply to existing properties.

Dr. Jurado noted upgrading seawalls is not expected to be an overnight accomplishment. Upgrading applies to new development, re-development, a major restoration, or a property that has been cited as the source of tidal water trespass, affecting adjacent properties or right of way. Even then, the cited resident would have 12 months to implement remedies. Our legal community identifies tidal flooding as a public nuisance requiring remedy. For example, there have been instances where medical services were disrupted, people were trudging through two feet of tidal water, and people could not get their children to school. It is a public nuisance.

What were the main deliberation points/controversies during the crafting of the plan?

Dr. Jurado noted funding of residential seawalls are a main point of deliberation. There remains concern that there is not a committed source of funding for residential improvements. Seawalls are already a part of the property, like roofs. Improvements must be made, but we have successfully communicated that the standards are reasonable and manageable. For example, working with the USGS, we used a moderate scenario with the ground table map. We went through site-specific examples that show technical feasibility and that drainage needs could not only be met but that they were also reasonable. They were bracketed about .5 to 1.6 percent of the total project costs. We do have resilience tied into our land use plan, and today the requirements of applying resilience standards have not precluded any single project.

Ms. Fitzpatrick noted it is difficult fixing existing problems, addressing new problems, trying to get out from behind the eight-ball, all while gaining the trust of the residents and developers. We do realize that we can adapt internally, but we need to figure out how to buy ourselves time and to be able to discover underlying problems.

In hindsight, what would you do differently?

Dr. Maran noted the most important task is to effectively coordinate with the local level, partnering to understand the timing and implementation of those projects.

Dr. Jurado noted in 2017, when they finally reached out to the business community, they had been waiting for us! I think, I, along with our partners, would say that it has been the most rewarding, enriching, fruitful investment, and collaboration over these past five years. We, who do the policy planning at the local government level, must engage the business community. They have been our strongest, most supportive partners. They have connections and are creative, efficient, and energetic. Being able to access funds at the regional level is sometimes challenging because the compact is not a separate entity. It is important to consider, when looking at partnerships, who can serve as the fiscal agent; who has the easiest procurement process; and who can procure and manage the funds well.

Commissioner McKinlay from Palm Beach County asked how we can manage to do all these resilience efforts without doing two things: 1) without continuing to raise the cost of housing for our residents; and 2) without triggering a move from the Florida Legislature to wipe out our efforts. The few of us who sit on the 16-county coalition on Lake Okeechobee agree that there is nothing more important to resilience efforts than making sure we protect our water supply, and I have full participation from my small rural counties, so it is frustrating to get no response from Miami-Dade and Broward counties, in terms of protecting the water supply for South Florida.

Dr. Leech agreed that affordable housing is an issue. Resilience cannot be the only priority requiring funds. Despite long-term savings, other important projects compete for upfront funds, such as solar panels on every roof and electric vehicle charges in every house, but even if we get affordable housing in the county,

with sea level rise issues, what if all those affordable homes flood? Then we have bigger problems. We must compromise and prioritize.

Dr. Jurado noted to the 16-county coalition, I respect the efforts of these sixteen counties. We need to reassess how our county, our commissioners, and our staff can participate at the appropriate level. We, as a county, are certainly very committed to the water supply protection issues. We have been watchful and are interested in the partnerships on reuse and C51 reservoir, as well as many other areas. We have worked together on several large-scale regional projects, and there is much more to do including the C&SF project. Let us continue to work closely together. Thank you for the partnership to date.

On the housing issue: Right now, housing is not affordable, and it has nothing to do with resilience. The cost of insurance alone can be a hindrance to homeownership. Investments and resilience are the best way to maintain affordability. We need to be very thoughtful about redevelopment strategies. Speaking without authority, I think there will be some adjustments in terms of what can be built to be most affordable. Whatever we do, bolstering resilience is the best bet to be able to envision a place for ourselves, our children, and future generations moving forward.

Commissioner Furr from Broward County noted that Monroe County is the only county who has paved the way for an advanced water treatment plant in South Florida. Our two biggest counties have not done that yet. Would you recommend to utility directors to go to advanced water treatment plants? I wonder if you all look at it as your place to be making those kinds of recommendations, or do you feel this is outside of your sphere?

Dr. Leech noted he did not know the exact definition of advanced water treatment plant but indicated the water utility in PBC is doing a phenomenal job of upgrading some of their facilities. We are about to expand the lagoons at one of our systems. The water that we are going to be releasing into that lagoon will be functionally potable, although we are not selling it as potable water.

Commissioner Furr noted that in Hollywood, Florida, the water is not pure enough when it comes out, right now, for reuse. There are many reasons, on various levels, for every county as to why the water is not at the pureness we need for reuse. The technology is there, yet the cost is high.

Dr. Jurado noted that the greatest pressure on the reefs are the urban discharges on the surface water, which is of poor quality. I believe that nutrient reductions in treated wastewater are certainly attractive. In comparison, the costs would be equitable to other water quality improvements, producing the same benefits. I think we would want an understanding of the potential benefits of water quality improvements, and I think we should be cognizant of looking at the other energy demands that come with all our water treatment improvements, holistically optimizing water quality. For example, are we optimizing our green infrastructure in our wastewater treatment nutrient removal? We need that, and clearly nutrient removal is attractive, but if we do that across the board, which utilities and what benefits of investments are of

concern? I do not know enough to be able to say emphatically where our priorities should or should not be.

Ms. Fitzgerald replied that we do what we can when we can. If funding becomes available for something that is lower on the priority list, we must do it and see how it works. Sometimes opportunities arise, and they make your decisions for you. As funding comes along, we must be open to whatever comes along. Take that chance and go with it.

Councilmember Bournique, Gubernatorial Appointee from Indian River County, noted that we still have not figured out what to do when we flush our toilets. He serves on the St. John's River Water Management District (SJRWMD) Governing Board, and we are still accepting biosolids from all the counties to our south and from our west, over from Tampa, Miami-Dade, Broward, and Palm Beach counties. They are trucking 82% of their biosolids to us which end up in our basin. We have the St. Johns River and the Indian River Lagoon (IRL) and we are seeing unbelievable outbreaks because of biosolids in our basin. It needs to be dealt with at your facilities. When you pay ranchers to accept your biosolids, which contain chemicals from ingested pills that everybody takes from the pharmaceutical industry, those chemicals go through the grasses and into the meat of cattle. Humans are going to ingest those chemicals again later. That cycle needs to be broken. The cheapest possible way to do that is to do it at your plant, not putting it on the back of other people in an environmental setup that we should not have to deal with it. It is ruining our environment. The upper Indian River Lagoon looks like pea soup and we cannot accept that anymore. We need to move away from that, and it needs to be done at home in your backyard, with your taxpayers taking on the brunt of flushing their own toilets.

Mayor Ziade from the City of North Lauderdale asked what is the fifteen-second elevated speech to residents that do not even know what the word *resilience* means? When you go to explain to them that they are funding the water pump from the C14 and re-doing the canal system, how do you explain to the residents that do not live on the canals why we are spending "x" amount of money on canals when it does not affect them?

Dr. Maran noted it is extremely important for our communities to make the connection that flooding affects everybody. We need to explain to the community how the system works. They need to understand that if any piece of our primary or secondary system fails, the flooding is not going to occur in just one spot, but we are going to have consequences down/upstream, depending on from where the main driver of the flood risk is coming. The system is integrated. We have groundwater levels in Florida that are not so close to the surface, so flooding is the highest risk that we have. Explain the drainage basin and how everything is interconnected.

By our working on those basins to reduce overall flood risks, insurance costs will also be impacted.

Dr. Jurado noted that the systems are all interconnected and affects us all. Flooded roads mean kids do not get to school; people do not get to work; patients do not get to medical facilities. It is about making

investments across the system that serve a community. We must be able to navigate, and so it is about community livability, community affordability, quality of life.

Commissioner Smith stated that there is a consistent struggle in Florida in getting a pilot project done which people can put their hands on. Senator Mayfield was helpful in getting Senate hearings on innovative technologies. At the Association of Counties, we have inserted in every policy, language with the words *innovative technologies* to support the idea that it is something we need to be doing. At the National Association of Counties (NACO), I chair the Energy Environment and Land Use (EELU) Committee. We have put in our National Association of Counties, *innovative technologies* at that level and on the federal level for funding. There is a great amount of money available at the federal level for septic to sewer, wastewater conversions, and other issues related to wastewater. If there was ever a time for Florida to stick itself out in front of this issue, now is the time. We must get in on the conversation and include our coral reefs, the Indian River Lagoon, and other estuaries that receive off our runoff. Hopefully, we can get the Legislature focused on it. I know there is funding at the state level, but there is potentially a lot of funding at the federal level. We must make an application, so we can get some of this equipment on the ground and get it producing, so if the utilities do not have an excuse to say, “This is not for us,” or, “It is too expensive, and we can’t afford it now.” I agreed with Kathy’s comment that when funding comes your way, you must be flexible enough to take it and run with it. We need to get back to prioritizing these issues. Let us keep pushing each other. We will put a pilot project wherever you want to put it. The Janicki’s are still willing to show us the industry and they are actively building this technology around the country. Now is the time.

Mr. Lanahan thanked the panel for being here today and for taking the time to help participate in this conversation and sharing with each other some of your successes and challenges along the way with this. A round of applause.

Agenda Item 8: Collaborative Multi-Region CDBG-Mitigation Project Overview

Mr. Lanahan noted that the CDBG-Mitigation project is underway. It is funded through a community development block grant mitigation program. Six of the RPCs are involved in this effort (East Central, North Central, Northeast, Treasure Coast, Central and Tampa Bay RPCs) and are getting started on this, and the concept is advancing mitigation assessment and planning through regional collaboration. One of the goals of this is to look at the sorts of planning and mitigation projects that cross county boundaries. While it does not cover the entire footprint of the ten regional planning councils, the idea is that it is useful for all the regional planning councils and the entire state.

Chair Townsend recognized Lucdwin Luck, Regional Manager from the office of Chief Financial Officer Jimmy Petronis.

Legislative Update and Look Ahead – Senator Ken Pruitt

Mr. Ken Pruitt (former Senator), now President of The P5 Group, LLC, a full-service governmental affairs and public policy consulting firm, gave a presentation on the 2022 Florida Legislative Session.

Mr. Pruitt noted the legislative session lasted 60 days, with 3,735 bills filed and only 285 bills passed in both chambers. The \$112 billion 2022-23 budget includes \$43 billion in general revenue. He detailed the budget highlights and amounts as well as significant bills that passed and failed.

He perceived that the last two sessions have been the most significant in modern history. The levels of funding for resiliency, the establishment of storm water, water supply, Everglades, land acquisition, water projects, septic to sewer, and infrastructure in general, has been extraordinary. The Legislature focused on those initiatives that would move the needle for a very fast-growing Florida. Of the two hundred plus bills that passed, most of them passed unanimously.

He went on to ask “What is next?” There are two new leaders coming in, Senate President Kathleen Passidomo from the Naples area and Speaker-Designate Paul Renner from the Palm Coast from the Northeast Florida area. They are two of the most respected legislators in the process.

Commissioner McKinlay thanked Senator Pruitt for always being such a great mentor and offering very sage advice. She asked him what he sees moving forward over the second term as being the priorities for the administration, understanding that many of them have been accomplished during the first four years. What can we expect moving forward?

Mr. Pruitt noted it has been a joy to be able to collaborate on these important issues. The funding that you have received from the State is the beginning of what will be happening in these infrastructure policies because Florida is going to be growing by 900 to 1,000 people a day. The Legislature is just beginning this course, and you are going to continue to see them because these are initiatives from the people. They are demanding improvements in resiliency, clean water, storm water, etc. Those issues that impact quality of life are important issues to them. As far as House Speaker-Designate Paul Renner and Senate President Kathleen Passidomo, they will always have something near and dear to them to bring forward, but for the most part, you are going to see what you saw this past session in terms of infrastructure, moving these initiatives forward, getting Florida prepared even more so than what it is now.

Commissioner McKinlay noted that much of that funding was a one-time infusion of federal dollars. She asked if the state would continue that level of funding from other resources or that our economy is just going to keep doing that well and make up for what we will lose in federal funding? Mr. Pruitt replied that while some of those funding resources were federal, the majority was at the state level and that is what they will continue to leverage. The beauty of local leveraging is ensuring our match and what they provide.

Commissioner O’Bryan thanked Senator Pruitt for his help over the years. Mr. Pruitt thanked Commissioners O’Bryan and McKinlay for their service.

Agenda Item 9a: Statewide Water Resources Investment Planning - Frank Bernardino, Partner, Anfield Consulting

Frank Bernardino, Partner, Anfield Consulting, gave a PowerPoint presentation entitled “One Region, One Water.” The presentation is available on TCRPC’s Website: [PowerPoint Presentation \(tcrpc.org\)](#) and [SFRPC’s Website](#).

He discussed the following:

- FY 22-23 General Appropriations
- FY 21-22 SFWMD Budget Highlights
- FY 22-33 WMD Cooperative Funding
- Governance Issues
- Funding Issues

In summary, not including adaptation for Sea Level Rise, Florida will need \$66.09 billion over the next 20 years to address its water resource protection and infrastructure needs. We need to step up the game and have a meaningful conversation about what our priorities are, find a funding plan, and push solutions that will get us to where we need to go.

Mayor Gerwig with the Village of Wellington had a question about the disparity of funding compared to transportation and funding for Everglades Restoration.

Mr. Bernardino noted that you cannot talk Everglades Restoration without understanding that it impacts water supply and that there is a measure of flood and water resource management that is present. It is great that we have made that investment in Everglades Restoration, but there are other areas that matter too. Since there are limited funding resources, what should be the priority? Is it drinking water, flood control, or is it natural resource management? Two of those do not have appropriate funds. He said he is not saying to take money out of the transportation arena and move it to water, but his point is these things are important too, and they are not being funded appropriately.

Councilmember Bournique discussed public-private partnerships. Our future water supply, food supply, and the way we want to grow, will come out of embracing the people that are here and own the open spaces in Western St. Lucie, Western Palm Beach County, and the open areas of Osceola. Rather than chase them off and force them into putting up thousands of roof tops, it is better to embrace them, saying we would like to take some of your water and pond it to provide water to the community. We are better if we can use some of your land for our food supply. We want to embrace, not chase away with our restrictions. The future is public-private partnerships: Caulkins Water Farm and others ring a bell. The reconnection of the St. Johns and South Florida water management areas is another issue. The private landowners that reside between Indian River and St. Lucie County want to reconnect it. They sit there with tens of thousands of acres to allow the water not to go to the Lagoon, but to let it flow into the upper

St. Johns, into 200,000 acres of marsh, or for a water supply for all the residents to the north. It is unbelievable that we have not embraced them earlier, and now the Legislature is thinking. It started back with Senator Pruitt listening about the original talks about water farming and other issues.

Commissioner McKinlay gave thanks to Miami-Dade and Broward counties because the C51 reservoir, which is housed in her district, would not have come to fruition had it not been for their partnership. We are happy to be the holder of those funds to make sure that projects get completed. For 7½ years, Commissioner Smith talked about putting that plan together, like the transportation work plan. How do we make that happen? What is the first step that we can take? What can local governments do to put that plan together to present it to the state? Can we get those applications and start mapping where those project requests are and start putting that together ourselves to push the state to start doing something?

Mr. Bernardino stated that in the resiliency world, the State attempted to do that. The new resiliency law, which passed last year, now requires the DEP to have a 3-year plan that rotates much like the Transportation Work Plan. The difference is that the resiliency plan does not have the level of funding that the Transportation Work Plan has, so the funding appropriation amount will be exceeded by the needs. There is an attempt to put a work plan together on a 3-year rotating basis for the funds that they do have. Our advocacy needs to focus on two things: 1) Push for more available funding, so additional work can be undertaken regarding water infrastructure. We need to have projects in place to make that level of investment. The Economic and Demographic Research (EDR) Report, on an annual basis, has been an alarm bell that has begun to go off in Tallahassee. This year the investment has doubled but in water infrastructure it is nowhere near what is needed. The local drinking water supply is the responsibility of the local governments, and most of the problems that we are facing in the future is because of sea level rise impacts on wellfields. This will have to be regional. So where does that conversation begin? Also, for regional flood control, the secondary system is your responsibility, not the responsibility of the water management district. Where is the regional coordination for those improvements? The District can make all the improvements that they want to the primary system, but it will not matter if the secondary and tertiary systems are not working properly.

Mr. Bernardino stated that the SFWMD supports the request in Tallahassee because they do not have a means by which to raise revenue themselves.

Commissioner McKinlay thanked Mr. Bernardino for all his good work.

Commissioner Smith noted that he represents the Small County Coalition on the long-range Transportation Planning Commission for the Department of Transportation, in which he has been involved over the past 18 years. FDOT's budget was approximately \$3 billion, and now it is over \$11 billion. There is a specific process that FDOT goes through every 5 years. There is a 5-year work plan, a 20-year work plan, and it is incredibly deliberate. Well-managed, well-thought through, and every year produces results that are predictable. Water does not get the same benefit. We have an incredibly supportive administration today on water, and we have a Legislature that is supportive as well, but that is not always

consistent. The water discussion goes up and down. FDOT keeps going on. What is the difference? Why does FDOT enjoy the support that it gets, and water does not, on a long-term basis? Part of it is that there is an enormous industry behind transportation--asphalt people, bridge people, engineers, all sorts of societies, all sorts of folks that are engaged in that re-occurring funding strategy that make sure that funding is recurring yearly. Water does not necessarily have or enjoy that same kind of strategy. The idea of creating a duplicative kind of plan, like the FDOT, is to create an ongoing strategy that never leaves water out of anybody's conversation. It keeps the pressure on all of us to stay in the conversation constantly, allowing the industry, which is building these hundreds of millions of dollars' worth of projects for us, to continue building. If that industry knew that the money, \$66 billion, was going to continue to be there in the future, there would be a very different level of support or conversation in Tallahassee on water, than we are getting today. The construction industry must be a part of that conversation. It only scratches the surface of what FDOT does, but Frank's data shows the numbers for FDOT and the numbers for water. It clearly shows that to keep up with the millions of folks that are coming to Florida yearly, infrastructure is crucial for both transportation and water. Whether it is sea level rise, infrastructure, septic to sewer, biosolids, or you name it, water is involved. Unless we get the same kind of structure put in place that is diligent and recurring, predictable, and strong, we will keep having this same conversation.

We have been successful in getting those resolutions adopted at the Florida Association of Counties. We knew that it would not happen this session, but we knew that the leadership coming in was supportive in looking for a long-term strategy on water, and so we head into this knew period encouraged. I think, additionally, that we need to put together on paper, for both the League of Cities and for the Association of Counties, a more concise strategy plan of needs to present during the next legislative session.

Agenda Item 9b: Statewide Water Resources Investment Planning - Joint Resolution TCSF #22-01

Council staff created Joint Resolution TCSF #22-01 expressing support for statutory changes that will lead to coordinated and strategic investment of State funds for water resources using a structured modeled on the Florida Transportation Commission and Florida Transportation Plan. The Resolution is intended to be sent to leaders in the Legislature, the Governor, the Florida Association of Counties, the Florida League of Cities, and the other Regional Planning Councils.

Mr. Lanahan read into the record.

A JOINT RESOLUTION OF THE SOUTH FLORIDA AND TREASURE COAST REGIONAL PLANNING COUNCILS REPRESENTING THE LOCAL GOVERNMENTS OF MONROE, MIAMI-DADE, BROWARD, PALM BEACH, MARTIN, ST. LUCIE, AND INDIAN RIVER COUNTIES, FLORIDA; SUPPORTING CREATION OF A STATEWIDE COORDINATED PLANNING AND PRIORITIZATON APPROACH FOR WATER RESOURCE INVESTMENTS MODELED ON THE FLORIDA TRANSPORTATION COMMISSION; PROVIDING FOR TRANSMITTAL; AND PROVIDING FOR AN EFFECTIVE DATE.

Council Action: Chair Geller moved approval of Joint Resolution TCSF #22-01 supporting improved statewide water resources planning. Mayor Ross seconded the motion which carried unanimously.

Agenda Item 10: Coral Reef Conservation Strategy Joint Letter

Mrs. Cosio Carballo noted that at the October 16, 2020, joint meeting, the Councils voted to send a joint letter to FDEP Secretary Noah Valenstein and FFWCC Executive Director Eric Sutton requesting they take on as a priority the development of a joint long-term reef conservation strategy for Florida's Coral Reef. The letter was sent, received, and acknowledged. The letter in front of you today is requesting status of Council's request.

Council Action: Chair Geller moved approval of transmitting the Coral Reef Conservation Strategy Joint Letter. Mayor Ross seconded the motion which carried unanimously.

Agenda Item 11: Discussion and Topics for October 2022 "Southeast Florida Summit"

Chair Townsend noted some of the things discussed were wastewater and affordable housing.

Chair Geller noted looking at an all-day summit that will encompass a topic. He noted three topics were discussed at the SFRPC being solid waste management, insurance, and affordable housing. It is the recommendation of the South Florida RPC that it be solid waste management but only subject to the TCRPC agreeing.

Commissioner Furr agreed that solid waste is a regional issue, and we need to figure out a way to manage this together. If we are all creating an incinerator or building a palletization plant, planning to eliminate biosolids, working with other counties is imperative. Whatever assets they have, how can we use those assets together? This affects us all. It is a topic that is worth discussing for both planning councils, since it does affect these two planning councils directly. He stated he advocates for that as a major topic.

Mayor Ross. Ditto.

Chair Geller asked if there were other things people would prefer to the solid waste?

Commissioner Smith asked that biosolids be part of that conversation. Commissioner Furr agreed.

Commissioner O'Bryan recommended selecting a backup, which would be affordable housing.

Chair Geller noted he did not think we can have a backup because we need to line up speakers. If it is the desire of this group, we could just say we would have two topics: one for 4-5 hours and one between 1-3 hours. Affordable housing is too broad. If we are going to discuss affordable housing, we need to

determine what aspect of affordable housing. We were talking about trying one aspect, transit-oriented development, or the impact of homeowner's insurance on housing.

O'Bryan asked for a second topic.

Mayor Gerwig wanted agricultural waste part of that conversation.

Commissioner Marino from Palm Beach County noted she is the secretary for the Solid Waste Authority for Palm Beach County, and she is happy to coordinate.

Chair Geller noted there is a desire to have two topics. What he said he heard was a primary and a secondary. If that is correct, the only things heard thus far, unless somebody else says something different, is a primary on solid waste management and a secondary, later in the afternoon, on an aspect which we will determine, but it must be a single and discreet aspect of affordable housing that we might be able to deal with in a couple of hours.

Chair Geller asked if there was consensus and the members of both councils agreed.

Agenda Item 12: Public Comment

Samuel Cintron of the Sierra Club stated that the Intergovernmental Panel on Climate Change (IPCC) recently released a report and we have about 10 years to try to keep our temperatures below 1.5 degrees above the industrial levels. He said he knows that he does not have to inform the Council Members as to the problems. He said he would like to stress the urgency: we need to take this seriously, and said he has a few ideas for consideration by the Councils.

He went on to say that we should concentrate on the Florida Wildlife Corridor Act of 2021 which spans the whole southern part of Florida – all the way up to Alabama. Salinization of our freshwaters and loss of flora and fauna are issues of concern. We must think globally and act locally. We must prevent development. These natural preserves are consistently being encroached by development. We must stop granting variances and exceptions to zoning ordinances.

Under the previous administration, the EPA's wetland permitting authority to protect Florida's wetlands was transferred over to the Florida Governor. He said that since Florida took over, developers have rushed to submit a rash of permit applications to satisfy voracious building, property flipping, and many other money-making schemes. Mr. Cintron also stated that under the state takeover anyone objecting to a wetlands permit in Florida has lost protection under the National Environmental Policy Act because the law does not apply to state permits. He said a lawsuit was filed in January 2021 on behalf of seven groups through the Sierra Club challenging EPA's approval of the state wetlands permitting program and the way authority was transferred from federal agencies.

Agenda Item 13: Council Comment

Chair Geller noted at the next meeting of the Broward County Water Advisory Board the entire meeting will be devoted to the issue of septic to sewer.

Chair Townsend thanked everyone for coming out today and that there were a lot of good conversations. She said she is looking forward to the October meeting. Chair Geller thanked everyone for being here. Mrs. Cosio Carballo thanked the TCRPC for hosting the Joint Meeting and for the great partnership that we continue to have working together. Mr. Lanahan thanked Mrs. Cosio Carballo for all her help in putting the Joint Meeting together and lining up all the speakers. Mr. Lanahan also thanked Palm Beach County for hosting the joint meeting and providing the audio-visual technology as well.

Agenda Item 14: Adjournment

There being no further business, Chair Townsend and Chair Geller adjourned the Joint Meeting of the Treasure Coast and South Florida Regional Planning Councils at 2:00 p.m. This signature is to attest that the undersigned are the Secretaries or designated nominees of the Treasure Coast and South Florida Regional Planning Councils, and that the information herein provided is the true and correct Minutes of the March 18, 2022, meeting.

Michele Lincoln, SFRPC Secretary
Monroe County Commissioner

Doug Smith, TCRPC Secretary / Treasurer
Martin County Commissioner

“Challenges and Opportunities”

Highlights from October 21, 2022
Florida Atlantic University
Boca Raton, Florida



SOLID WASTE CONFERENCE WAS A HUGE REGIONAL SUCCESS!

The South Florida and Treasure Coast Regional Planning Councils hosted a 7-County Conference on Solid Waste Management Challenges and Opportunities in Southeast Florida. The Conference was held on Friday, October 21, 2022 at Florida Atlantic University in Boca Raton.

Featured presentations were given by county professionals and other subject matter experts regarding the current state of solid waste management practice in Southeast Florida, new technologies and best-practice approaches, and opportunities for greater regional collaboration to manage an ever-growing supply of solid waste.

Please visit our [Solid Waste Management Regional Conference](#) webpage for more information, meeting materials, recordings, and presentations. Provided below is a brief overview of this very successful event.

“Solid Waste Management is important to the seven counties in the RPCs’ planning areas. The amount of trash that we’re generating increases each year while places to store our leftover waste decreases. What will we do when our landfills fill up? What about the methane generated by landfills? Are there new technologies that we can use? Is burning effective and ecologically sound? Are we going to be able to recycle more? And how are we going to pay for all of this?”

~ Senator Steve Geller, SFRPC Chair

“It’s important that the Regional Planning Councils jointly discuss this issue because Solid Waste Management is truly a regional challenge requiring coordination and collaboration to address. Each of us will gain insights to bring home and apply regionally.

~ Cathy Townsend, TCRPC Chair

REGIONAL OVERVIEW

*Isabel Cosio Carballo, SFRPC Executive Director
Tom Lanahan, TCRPC Executive Director*

[\[view presentation\]](#)

On behalf of the South Florida and Treasure Coast Regional Planning Councils (RPCs) we thank you for your interest in this very important conversation and continued support of the Councils efforts to make the South Florida region a better place to live and thrive.



According to the Department of Environmental Protection, the Southeast Florida regional population served in 2020 was 6,951,723. Data reflects that the Municipal Solid Waste (MSW) collected and recycled was as follows:

Total Tons Collected Per Year	13,601,628
Total Tons Recycled Per Year	4,455,829
Single-Family Tons Collected Per Year	4,157,429
Single-Family Tons Recycled Per Year	1,207,420
Multi-Family Tons Collected Per Year	2,163,337
Multi-Family Tons Recycled Per Year	431,606
Commercial Tons Collected Per Year	7,280,862
Commercial Tons Recycled Per Year	2,816,803

The State of Florida collected a total of 47,064,583 tons of solid waste of which 19,572,559 tons were recycled. Florida has an average recycling rate of 42%. Data received from a survey produced by the RPCs and submitted by the



Solid Waste Management Directors for each County reflects the challenges facing Southeast Florida:

South Florida Regional Planning Council			
October 2021	Miami-Dade	Broward	Monroe
Landfill Capacity Remaining	9.8 Million Cubic Yards	1.03 Million Cubic Yards	No Landfill
Projected Depletion Year (absent hurricane)	2026, 2032	2030	0

Treasure Coast Regional Planning Council				
October 2021	Palm Beach	Martin	St. Lucie	Indian River
Landfill Capacity Remaining	26.5 Million Cubic Yards	No Landfill	12.7 Million Cubic Yards	12.3 Million Cubic Yards
Projected Depletion Year (absent hurricane)	2054	0	2067	2086

CONVERTING WASTE-TO-ENERGY

*Joe Kilsheimer, Executive Director
Florida Waste-to-Energy Coalition
[\[view presentation\]](#)*

What is Waste-to-Energy (WTE)?

Waste-to-Energy (WTE) is critical infrastructure for the state of Florida and, may be one of the State’s best available environmental tools. WTE is the direct combustion of municipal solid waste in a facility that uses extremely high temperatures – around 1,500 to 1,800 degrees Fahrenheit – to turn garbage into a chemically inert ash, reducing the volume of solid waste by 90%. The heat is used to create steam to generate electricity hence the term “[Waste-to-Energy](#).”



The Economics of WTE

Financially, Florida’s WTE facilities are supported by three streams of revenue: tipping fees, electricity sales, and the

sale of recyclable metals recovered from the ash. Federal laws (PURPA) require utilities to purchase power from “qualified independent power producers,” (i.e., WTE facilities), but allows states to determine the pricing formula, also known as the “standard offer.”

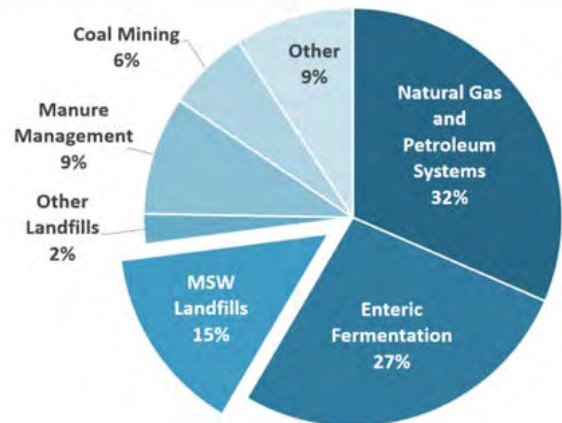
Over the past 20 years, changes in how Florida calculates the basis of the standard offer have dramatically reduced what utilities are willing to pay for WTE-generated electricity.

Why does Florida have 10 WTE facilities?

One of the reasons is because in Florida, counties are responsible, by State Statute, for the operation of solid waste facilities that meet the needs of their residents. This is a responsibility that counties cannot escape, and it works better when cities and counties are collaborating and working together to plan our solid waste future.

Methane emitted by landfills is also a significant contributor to global climate change. New data shows that methane is even more damaging than previously thought.

2020 U.S. Methane Emissions, By Source



Source: Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2020 U.S. EPA 2022

Benefits of WTE

In 1977, the Florida Legislature enacted [The Florida Resource Recovery Act](#) which mandated that the State’s 19 most populous counties study WTE as part of their Solid Waste Master Plans. The counties in which WTE provides the primary method of solid waste disposal are Florida’s most populous and economically vibrant economies. Land resources for new landfills are



dwindling and in some cases there’s simply no more room to place a landfill in the area.

- WTE communities comprise 48% of Florida’s population.
- Florida’s WTE communities comprise more than half of the state’s economy.
- Florida’s 10 WTE facilities annually;
 - ✓ Avoid the landfilling of 6.5 million tons of solid waste.
 - ✓ Reduce the volume of solid waste by 90%.
 - ✓ Reduce greenhouse gas emissions by 6.5 million tons of CO₂.
 - ✓ Recycle 212,000 tons of metal; enough to build 156,000 cars.

Waste-to-energy facilities provide a safe, technologically advanced means of waste disposal that reduces greenhouse gases, generates clean energy, and recycles metal. It is a widely recognized technology that can help mitigate climate change. This is because the waste combusted at a WTE facility doesn’t generate methane, as it would at a landfill; the metals that would have been sent to the landfill are recovered for recycling instead of being thrown out; and the electricity generated offsets the greenhouse gases that would otherwise have been generated from coal and natural gas power plants. WTE facilities are the only form of energy generation that reduces greenhouse gases. Additionally, the energy produced at waste-to-energy facilities is reliable baseload power, meaning that it is generated 24 hours a day, seven days a week. That provides the opportunity to not only sell electricity onto the grid, but also provide steam delivered to houses, public buildings, and industry.



It is essential to note that disaster debris management numbers are not a part of the numbers provided in Florida’s recycling rate and solid waste management. Disaster debris can rapidly consume landfill capacity. The average life span of the Class 1 Landfills in the Southeast Florida region is currently 24 years, excluding disasters, so we need to act now. Section 403.706 of the Florida State Statutes:

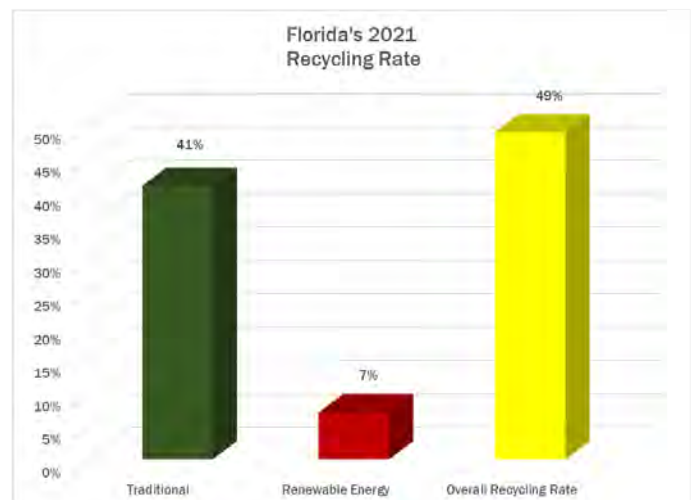
- Established the [75% recycling goal for municipal solid waste by 2020](#).
- Directed all counties to report their recycling progress annually.
- Established interim recycling goals: 40% by 2012; 50% by 2014; 60% by 2016; and 70% by 2018.
- Directed counties, over 100,000 population, to develop a plan if the county does not achieve the interim recycling goal.
- Directed the state to identify additional programs or statutory changes if the interim recycling goals are not met.

The statewide overall recycling rate, including renewable energy recycling credits, decreased from 50% in 2020 to 49% in 2021. The statewide traditional recycling rate, excluding renewable energy recycling credits, decreased from 42% in 2020 to 41% in 2021.

FLORIDA’S RECYCLING RATE AND DISASTER DEBRIS MANAGEMENT

Allanah Irwin, MS, Environmental Manager Solid Waste
Florida DEP, Southeast District
[\[view presentation\]](#)

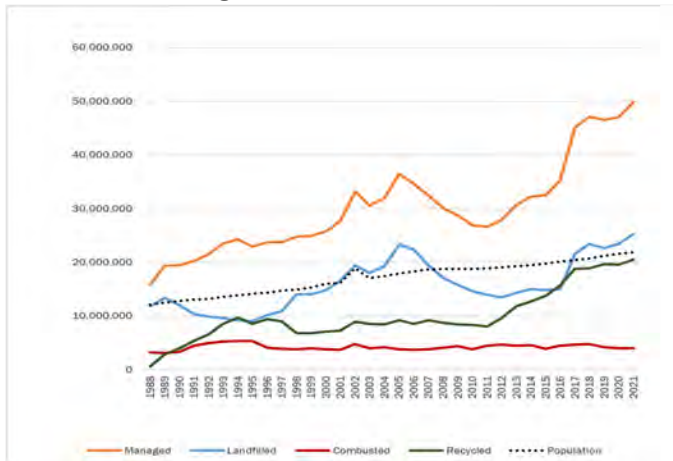
Disaster debris management locations are temporarily authorized solid waste management processing sites, subject to an Emergency Final Order. There are currently [1,030 preauthorized sites on file](#), which must be processed every year. This allows our Counties to receive FEMA funding during times of natural disasters.



Source: Department of Environmental Protection



Solid Waste Management in Florida 1988 – 2021



Source: Department of Environmental Protection

Available Recycling Programs

- [Guardians of the Environment](#)
 The Guardians of the Environment curriculum was developed at the direction of the Florida Legislature with the Department of Environmental Protection. Florida science educators from across the state collaborated to create original lesson plans aligned to the Next Generation Sunshine State Standards (NGSSS) in Science.
- [F.O.R.C.E. Florida Organics Recycling Center for Excellence](#)
 FORCE is Florida's Organics recycling effort involving the Florida Department of Environmental Protection (FDEP), and public/private researchers. The mission of FORCE is to provide a framework to promote organics recycling and serve as a catalog of information on statewide efforts to streamline compost processing, research, demonstration, marketing, and education in Florida.



NEW TECHNOLOGIES

Dave Robau, Executive Director, Gulf Coast Energy Network
[\[view presentation\]](#)

Solid Waste is a Global Challenge!

Simply burning garbage is not the best idea, so the Gulf Coast Energy Network commercialized advanced solid waste processing technologies. Through our work with the Department of Defense we built the first-in-the-Air Force Plasma Gasification technology to safely process 10 TPD of Municipal Solid Waste. It will ultimately provide energy security for warfighters in the battlefield.



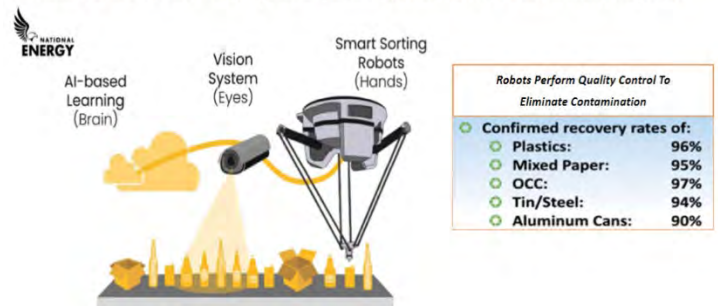
We are seeing more cardboard and plastics in our packaging materials – so we unpacked the power of garbage! All packaging materials should be recyclable or compostable. If they're not, we recommend not introducing them into the world.

Let's talk ROBOTS!

We have incorporated them into the solid waste community. We could potentially eliminate the need for solid waste landfills. We can reduce labor, provide a safer environment, use the same staff, but utilize them as technicians instead, receiving data and studying the amount and sources of solid waste being run through the system. Today, because of technological advances these robots can now sort waste into 50 different categories which boosts their economic viability.

Leveraging AI-Powered Robotic Sorting Technology

Robots increase worker safety, significantly reduce operational cost and increase recycling rates.



Source: National Energy & Gulf Coast Energy Network



Did you know?

Landfills are the 3rd largest single point source of greenhouse emissions for methane gases. What are landfills doing to your road system? Do you know how much a garbage truck weighs or what their fuel efficiency is? It's less than 3 miles to the gallon. An average garbage truck can travel up to 500 miles per day. Think of the impact to your roadways. Did you know that when Hurricane Katrina hit New Orleans, 12 years of their landfill capacity was gone in a week. We must focus on waste reduction.

ADVANCED BIOSOLIDS MANAGEMENT & NUTRIENT RECOVERY

Stanley Janicki, Chief Revenue Officer, Sedron Technologies
[\[view presentation\]](#)

How can we take Florida to the next generation of biosolids management and enable the complete elimination of land application of biosolids, reduce the landfilling of biosolids, produce renewable energy, and produce climate smart precision fertilizers that farmers and the agricultural community in Florida can use?



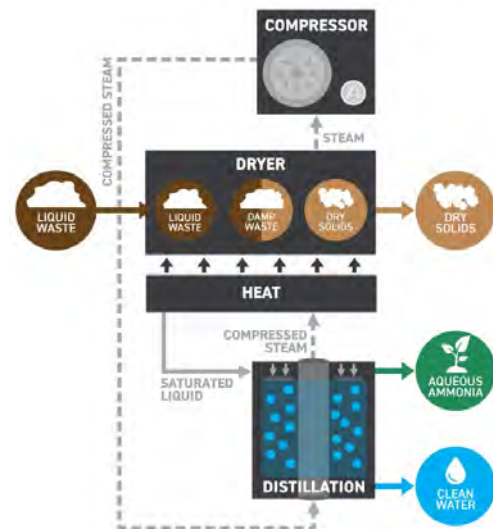
The tremendous population growth of Florida has resulted in many wastewater treatment plants receiving increased nutrient loading. Once received, these increased nutrients are difficult to remove from the plants. This causes further issues – such as the quality of their biosolids and where the biosolids go. Currently one-third of Florida's 1.7 million tons of wet biosolids go into landfills. Another one-third is land applied creating incredible deleterious impact in the environment – such as nutrient pollution from runoff. The last issue of concern is the carbon footprint, not just of water and wastewater but the other industries in Florida. Cement production and general energy production, as examples, all have a tremendous carbon impact. All of these issues can be solved with the right tools!

Introducing the VARCOR™ System

Sedron Technologies' [VARCOR system](#) provides a highly efficient solution for processing liquid waste streams that

concentrates and recovers the outputs into pathogen-free solid and liquid fractions. This approach to treatment is applicable to liquid waste streams such as:

- Wastewater biosolids
- Wastewater side stream nutrient removal (both nitrogen and phosphorus)
- Dairy waste
- Low Carbon Fuel Standard (LCFS) digestate
- Raw septage



Source: Sedron Technologies

The VARCOR can process any liquid waste stream with suspended or dissolved solids in it. This allows the VARCOR system to be 30 times more efficient than conventional evaporation. It is a complete holistic liquid waste handling system that solves nutrient pollution by stopping the land application of biosolids while simultaneously producing renewable energy and providing the Florida agricultural industry with precision, climate-smart, nitrogen fertilizer unbundled from phosphorus. Industrial scale facilities are under construction and in the planning stage now.





RECOVERED MATERIALS - RECYCLING

Ramana P. Kari, P.E., BCEE, Chief Engineer, Solid Waste Authority of Palm Beach County
Michael W. Ruiz, Assistant County Administrator, Broward County
[\[view presentation\]](#)

Recovered Materials vs. Recyclable Materials



Chapter 62-701 of the Florida Administrative Code (FAC) defines Recovered Material as metal, paper, plastic, textile, or rubber materials that have known recycling potential, can be feasibly recycled, and have been

diverted and source separated or have been removed from the solid waste stream for sale, use, or reuse as raw materials, whether or not the materials require subsequent processing or separation from each other, but does not include materials destined for any use that constitutes disposal. Recovered materials as described above are not solid waste.

Recyclable material means those materials which are capable of being recycled and which would otherwise be processed or disposed of as solid waste.

Role of Government

Reduce

- Extended Producer Responsibility (Policy)

Reuse

- Sharing (Policy and Practice)
- Right to Repair (Policy)
- Composting (Practice)

Recycle

- Goals (Policy)
- Materials Recovery Facilities (Practice)
- Collection Incentives vs. Enforcement (Practice)
- Contamination Reduction (Single Dual Stream)

Reduce, Reuse, Recycle, and RETHINK???

Think outside the recyclable collection bin

- Residential recycling is only a small % of the total.

Construction & Demolition (C&D) Debris Recycling

- Achieves diversion from the landfill.
- Sends valuable material for reuse and avoids mining of natural material.
- Increases recycling rates.

Vegetation recycling

- Achieves diversion from the landfill.
- Beneficial reuse.

Beneficial Use of WTE ash-derived aggregates (ADA)

- Avoids mining of natural material
- Reduces landfilling of ash

Advanced Metals Recovery (AMR) from WTE ash

- Additional revenue stream.
- Improves ADA quality.

Summary

- Choose a system that works for your community.
- Align recyclables with markets and seek value.
- High collection, capital, O&M, and disposal costs necessitate a cohesive approach (not a fragmented system). Economies of scale!
- Need branding and consistent messaging.
- Focus on low-hanging fruits (C&D debris, vegetation).
- Establish short- and long-term approaches.
- Set realistic goals.

REGIONAL COLLABORATION & COORDINATION

A 7-County Expert Panel "Talks Trash"



Broward County Commissioner Beam Furr, Moderator

- Challenge: When you think about what you need, think about what else your County needs beyond the solid waste community. If we are ever going to



think about bringing solid waste manufacturing to the Region, we need to pool those things together.

residents. Today, all around, our residents are satisfied.

**Himansu Mehta, Utilities and Biosolids Department
Managing Director, Indian River County**

- What You Need: Sharing lessons learned would be helpful. Our County was once part of the Central District and we valued meetings with the Directors. We need more collaboration and to share our processes and methodologies. We need more help in educating the youth, possibly using digital devices since we live in a digital age and kids know a lot of these devices.
- What We Have: We have great Commissioners who back our ideas.

**Rebecca Olson, Assistant Director of Public Utilities &
Solid Waste, St. Lucie County**

- What You Need: We need marketing assistance. Education is important to help with contamination rates and much more. We also need a glass offtake. We do have a glass processing machine which breaks bottles down into sand, and we have a lot of it, but we need to give the material that is produced away because we have an abundance.
- What You Have: Our board is very supportive, and we have been able to get agreements approved. We also have an offtake of small generators for plastic milk jugs. If it is something that you have enough of, and you don't want to put it in your landfill, we will take it & recycle it.

**Sam Amerson, Utilities and Solid Waste Department
Director, Martin County**

- What You Need: We have difficulty getting commercial recycling numbers. The recycling rates are not as accurate as they could be.
- What You Have: Our County Commission listens & supports staff. No idea is too crazy or outlandish. They want us to keep thinking outside the box. We have landfill & transfer station capacity. We also have plans to build a single stream transfer station adjacent to our current transfer station to open up the tipping floor for additional garbage. On a side note, we recently went through a competitive bid, with three bidders. Our board was not interested in the lowest price, but the level of service! It may have cost more, but we have a duty to our

**Dan Pellowitz, Solid Waste Authority Executive Director,
Palm Beach County**

- What You Need: We have 30 years with waste-to-energy experience and need to do better at educating the community on what we have and what we do. Additionally, it would also be helpful to have additional standby reciprocal agreements, we currently have agreements in place with Okeechobee and the Jet Landfill. Lastly, our landfill is set to expire in 2054. In this line of business, if you're less than 10 years away, then you're already behind, so we will be looking to extend the life of our landfill.
- What You Have: We have excess capacity in our recycling center and have offered our assistance, in a pinch, if someone needs it, we can assist quickly.

**Kevin Kelleher, Assistant County Administrator, Broward
County**

- What You Need: We need a structure built to address the issue collaboratively. We currently have an energy plant with little life left, but we need newer options and more space. We need a material recovery facility (MRF) as well, hopefully we can work collaboratively.
- What You Have: We have 31 Cities & a County Commission that recognizes that this is a problem. A working group has been created to address this issue and form a Countywide solid waste authority.
- Thoughts on Education: We do not believe people generally understand the totality of the problem. Elected officials are aware, but there also comes a cost, then there are political ramifications & it results in an uninformed community. With respect to the elected fronts, we believe we can address the commercial community which will help tremendously, but then the cost is passed on to the community, but it will help the problem





significantly. It is good to prepare the public for policy!

have arranged different tours, as well as special interest groups, and Commissioners.

Michael Fernandez, Director, Miami-Dade County Department of Solid Waste Management



- What We Need: Capacity is a huge issue for Miami-Dade County. We have our development boundary, but we are limited on space.
- What You Have: We have a waste-to-energy facility. It has expanded our capacity. It is also still a need in other areas, and since recycling is expensive, it is necessary more so than landfills. We must recycle better! We don't have a county-owned materials recovery facility (MRF), but they are controlled by the private sector, therefore maybe a partnership is appropriate.
- Thoughts on Education: There's a misconception that we landfill everything. We are the masters of waste, and we manage 1.8 million tons but that's only one-third of what's really out there. In actuality there is a total of 5 million tons that we don't even touch. One thing we had previously decided is to add language to our trucks that your trash is turned into energy, we've done marketing, youth education, and commercials and it has helped open the eyes of our residents. Messaging is important. Secondly, our recycling program is important, but cities also have their own program, and it can get very confusing for the public. We are attempting to create an app to let people see what is and isn't a part of our program. Standardization would be beneficial for clarity and compliance.

What would the panel like to see the Councils & our policy makers do moving forward?

Cheryl Sullivan, Director, Monroe County Solid Waste Management

- Plastic Film Recycling additions and a Bottle Bill would be helpful. It would also help to have commercial recycling mandated.
- More collaboration!
- Commercial recycling because we need help. And more regional conversations. Our planning councils are vital to this step!
- A change in the avoided-cost-calculation to allow WTE facilities to make more than 2-3 cents per kilowatt hour since the market rate is currently at 11-12 cents.
- We need to look at PFAS and PFOA and will need some clear direction from Tallahassee as to what it means for the solid waste community.
- We need to look internally at our own practices as well. Point of the day, there is one recycle bin in the room here and it has a plastic bag, which means it was going to be thrown away with the other garbage. We need to start looking at ourselves before we can impose on others. We need to practice what we preach!
- Financing the waste-to-energy facilities better. Funding is important, especially for startup programs. We need to look more at building infrastructure and not just programs.
- We must get the attention of the folks with the money and power to help us with infrastructure. Implementing a Bottle Bill and getting commercial owners on board is also a priority.

- What You Need: We could use a buy-in from commercial partners. Until it becomes an absolute "you must do this", they do not participate. They are a large part of our recycling issue.
- What You Have: We have a resilient community. We have a concerned and participatory Commission. We all make trash, we all make garbage, and we all must work together.
- Thoughts on Education: There is a misconception that recycling all just goes into the trash & not really recycled, so for us it's important to keep pushing the message out to the community. They should also know more about the MRF centers and how they work. In working with waste management, we

Martin County Commissioner Doug Smith encouraged the team to go back amongst themselves and provide the policy makers with a work product that says, *we need this thing out of the legislature this year, it would be a huge game changer for us.*



SUMMARY & NEXT STEPS

The South Florida and Treasure Coast Regional Planning Councils look forward to addressing the following topics and better serving you to help make our Region a better, safer, and cleaner environment to live in:

- Public Education
- Attacking the Construction, Demolition & Vegetation components of the Trash Stream
- Concepts for Regional Cooperation
- Looking at the Transportation Implications
- Hosting a “What Do You Have? What Do You Need?” Conversation to include manufacturers and end-users
- Hosting periodic Solid Waste Management Directors meetings for the Region
- Hosting a Cost Avoidance Conversation
- Covering Legislative Concerns for Solid Waste Management Directors

“One thing I would say about this group, and if you’ve been in this long enough, the friendships that you build, the relationships you build, the partnerships we build in these two Regional Planning Councils is incredibly powerful. It was said earlier, that if we can get our minds wrapped around an idea and we represent 6 million, 7 million, whatever that population number is and we go to D.C. or we go to Tallahassee, that’s an amazing influencer on policy.”

~ Doug Smith, Martin County Commissioner



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