

City of Coral Gables City Commission Meeting
Agenda Item F-1
July 11, 2023
City Commission Chambers
405 Biltmore Way, Coral Gables, FL

City Commission

Mayor Vince Lago

Vice Mayor Rhonda Anderson

Commissioner Melissa Castro

Commissioner Ariel Fernandez

Commissioner Kirk Menendez

City Staff

City Attorney, Cristina Suárez

City Manager, Peter Iglesias

City Clerk, Billy Urquia

Assistant Director Mobility and Sustainability, Matt Anderson

Public Works Director, Hermes Diaz

Public Speaker(s)

Carlos Hernandez, Chief of the Water and Wastewater Division

Agenda Item F-1 [12:18 p.m.]

Time Certain 11:00 a.m.

Update on Miami-Dade County's New Septic Tank Requirements.
(Sponsored by Commissioner Fernandez)

Mayor Lago: F-1 an update on Miami-Dade County's new septic tank requirements. Before I pass it onto the sponsor, I'd like for the Manager, if possible, along with the Vice Mayor to provide a little bit of historical context of where we are right now and the process that we're going through to ensure that we do things the right way step-by-step-by-step, to ensure maximum efficiency, we're talking about septic tanks.

Vice Mayor Anderson: On the septic tanks. I'm just going to go back and turn back time for a little bit. It was in 2019, you and I were working together while you were still a City Commissioner to move forward our plan for septic to sewer conversion, and we crafted a memo together. We had the septic to sewer conversion document in there, noting that the rest of the state had received a mandate, in fact, that they had to do the septic to sewer conversion in every county that had great springs. We have small springs. We don't have great springs under the definition of the Florida

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Statutes, so therefore, we were not included in that program, not including in the funding aspects of the program, and we have to move forward. It was also in 2019, we went to see our federal House of Representative member, Donna Shalala, and sought some federal funding at that point, and after being elected went up with you to the State Legislature and brought back home the funds necessary with a matching grant, to get our septic to sewer program, the plan actually laid out. So, we know at what levels the pipes have to be done. We know where we have to put the pump stations in, and we can effectively plan out to prioritize some of the lowest basins that we have first and be able to make the proper requests for funding to both the state and federal leaders. So, moving forward, I do want to continue on this route. I had spoken with Commissioner Regalado after the Kings Bay matter was passed about rolling out the education piece at the appropriate time, along with the city for residents to understand what the true cost of putting in the newer septic systems are, because it is close to the number its going to cost for you to hook up. It would much rather hook people up to sewer than having to spend that money twice by putting in more expensive septic tank and then to add salt to the wound having to pay for it again to hook up to the sewer system as well. When we wrote up the legislative item on that, Commissioner Menendez crafted, I had asked to be co-sponsored on it, but the agenda had already published and it wasn't one of those things bring up a few items, because my daughter is a water quality scientist, I learned from her about the different federal programs and how we have to both do the state and the federal together, otherwise it won't happen because if our state is not accepting the funds, the federal agencies that have it available or crafting legislation it opens it up for higher density areas, such as ours, we're not going to see those dollars.

Mayor Lago: Thank you Vice Mayor. Commissioner.

Commissioner Fernandez: The reason I put this on the agenda, resident Sheryl Gold reached out to me a few months back and let me know that the county was passing some more rigorous requirements when it came to replacement of septic tanks and I spoke to our Sustainability Director and I asked him to reach out to Miami-Dade County so that we can hear directly from the county on what those new requirements are, so that residents can be informed as to what the changes are going forward. So, thank you for taking that step up and making this happen.

Sustainability Director Anderson: My pleasure. Matt Anderson, Assistant Director Mobility and Sustainability. And I just wanted to make a quick introduction to Mr. Carlos Hernandez, he is the Chief of the Water and Waste Water Division with the Regulatory and Economic Resources Division at DERM with Miami-Dade County and he'll be giving you guys a brief presentation on Miami-Dade County's new septic tank requirement, and also, Hermes Diaz our Public Works Director is here as well and he can speak to that as well. I will introduce Carlos and I want to thank him in advance for taking time out of his busy schedule to attend our Commission meeting today and give us this update.

Mayor Lago: How are you sir. Thank you for being here with us.

Mr. Hernandez: Good morning. Thank you. Some familiar faces. So, for those that I haven't seen in a long time, hello, good to see you. Before I start, I do want to say that I very much enjoyed the Vice Mayor's points. I think are all very valid. In an ideal scenario, you would be installing sewers

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and not dealing with septic systems, right. They will all tend to fail. They will all tend to be replaced and to the extent that you can be connected to sewers, that would be ideal. Having said that, when we crafted the regulations and we started working on the ordinance, we recognized that there's going to be situations that you have to have a septic system that there's no way around it, because of timing or because of distance to a public sewer. So, in that sense we looked at the signs, we looked at many reports that were prepared at the request of the Commission to make a determination on how to move forward with the ordinance. We had plenty of public meetings and the like, and outreach with the industry, developers, contractors and the like. I have a very short presentation and I'm here to pretty much answer any questions you may have. Quickly, I'll do a little background then I'll discuss what really changed in 2023, that's kind of the key date. Then on the septic systems we have different types what they mean and how the process has changed. So, as I mentioned earlier, all the work that we did for the ordinance comes from several reports that were done on behalf of the Commission and primarily was how the sea level rise impact septic systems and what can we do to address sea level rise and other issues; and what we did what we found was that sea level rise alone is not just the only issue, there are plenty of issues with septic systems and we found that its relatively common to find failed systems that don't have the characteristics of a failed system, that is, you flush everything works perfectly fine, everything is working great, but your drain field is failed or your tank is failed and you either directly discharging sewage to the ground and not knowing that there's an issue, and I can tell you that firsthand, because it happened in my house. My system had completely failed and there was no sense of it. I had no idea of it. I clean it about every three years. I had it cleaned and the last time I had it cleaned, I discovered that it was a total failure and it had to be repaired. Just because it flushes, and everything works fine doesn't mean that everything is okay. So, what really changed. Starting in 2023, really January 1st, the county code requires that all systems that are installed brand new or complete replacements be performance-based treatment systems. And so, what determines the level of treatment is a function of the land use and other factors required to protect ground water and surface waters. We break it down very simple into four types of systems. The first one, Type 1 is the conventional system, the ones that really no longer allow to be installed in the county. You could repair them, right, so if your drain field fails and you've just got to replace a drain field you could do that. If your tank only fails, you could do that. If you have to replace everything, which is more common, then you have to replace the entire system with a performance-based system. Type 2 provides secondary treatment. Type 3 advance secondary; and Type 4 is the most advanced and it provides additional treatment, in particular with nutrients and in particular with phosphorous. So, these are the levels of treatment. You can see that conventional system provides even limited treatment for BOD...BOD are all those organic parameters that place the...oxygen, right, so they deplete oxygen from the water, they are...in many other ways similar to suspended solids. When you go to Type 2, Type 3, and Type 4, you increase the level of treatment before it even hits the drain field, so you are doing a lot more treatment even before you get to the drain field and then further treatment at the drain field. And so, which type of system do I need? Most residential will use a Type 2. Obviously, the cost increases, Type 2 is generally the least expensive. They go up a little bit to Type 3 and Type 4 as the most expensive. There is not a significant difference in 2 and 3, but there's a bigger difference with Type 4. So, what's the criteria for determining which system. Most residential will fit under Type 2, unless it's a very small lot or very large house, or you're very close to surface water. So, if you're within 1,000 feet of surface water and that line sort of suggests on the right side of that less than 1,000 feet, those will be Type 3 for single-family

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residence, or on the other side Type 2 if it flows. Type 3 is for any single-family residence or duplex that doesn't qualify under Type 2, and pretty much every other use. Type 4 kicks in under very specific criteria that brings in the issue of very large flows, land use, and the potential for phosphorous. So just looking at it from a perspective of what the code says and...you can see that any house, it would have to be a really small house and/or large lot to be a Type 2. Most large houses are going to be a Type 3 or larger house with small lots. A single-family residence would never go into a Type 4, it would max out as a Type 3. So, what's really changed in the process. Before January 1, 2023, the technical review of a septic system was done entirely by DOH, DERM did land use requirements and sewage loading and some other requirements. Obviously, you can't have a repair shop on septic and things like that for land use, but DERM did not do reviews relative to the actual type of system that's required, and so that's the big change in the process. With that said, that's really the bulk of it and I'm here to answer any questions you may have.

Mayor Lago: Thank you for joining us. I appreciate it.

Mr. Hernandez: Thank you.

Mayor Lago: Mr. Director.

Public Works Director Diaz: Good morning, Hermes Diaz, Public Works Director. One of the things I wanted to include in the discussion is the fact that we did get a grant to do a citywide sanitary sewer master plan to facilitate the septic to sewer conversion, and I think the deadline...

Mayor Lago: When did we get that grant?

Sustainability Director Anderson: I believe it was last year.

Public Works Director Diaz: I think we just got it recently.

Mayor Lago: But it was awarded last year.

Public Works Director Diaz: It was awarded last year, it has to go through a process that, I don't know on the top of my head when the Commission actually signed off on it. Its going to take approximately a year. They will basically break down the areas that don't have sewer into basins, and one of the things that I want to make sure that we do as part of the process is to gauge the interest within those basins in the case, to avoid something like what happened with Kings Bay, are they interested in pursuing this, even if it means they are going to have to cover some of the costs and one of the critical things that we're going to hopefully get out of this process is, does the county have the capacity to receive flows at the connection points whenever we're ready to go and we're going to be working closely together once we get to that point, because that's when we think its critical. We don't really know at this point, and most of the areas are residential. The commercial areas for the most part are already on sanitary sewer and also most of the areas on the water on the bay side with the exception of Kings Bay, they are already on sanitary sewer. So, you're not looking at a tremendous amount of flow, but there's going to be a tremendous amount of coordination. Its something that we're really looking forward to, and I think it would give us an

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idea the order of magnitude, number one, of the expense, and as we start pursuing grants, hopefully towards this kind of work, a lot of these grants require contributions and there needs to be an understanding as to how exactly we're going to cover, that's in addition to the cost of actually moving the service from the septic tank abandonment and the connection to.

Mayor Lago: Mr. Director, I asked the Manager last week to recap Kings Bay and see if that money is still available in regard to the grant. Can you give us some information on that. I know that the residents didn't want it, but obviously, that's the last remaining low-lying area and I'd like to circle back, first give us a little bit of background to my colleagues on the Commission so they understand what we're dealing with; and number two, see if I can take another bite at it on a different front. See if I can find additional monies and see if there's a possibility of not allowing that \$2.7 million, I think it was.

Public Works Director Diaz: Right.

Mayor Lago: To be removed from the city, see if we can find another angle. I think its critically important to get this last piece which is right on the water off of septic tanks.

Public Works Director Diaz: The reason we looked at Kings Bay back then, you know, this plan, it was kind of like a last-minute thing, we applied. To be honest with you, we didn't think we were going to get it, and we were very fortunate to receive the grant and then the question was, why Kings Bay? The reality is that because of the topography and the system infrastructure, Kings Bay is probably the cheapest, easiest, fastest place that you can install a sewer system. There was a little bit of a technical discussion about it. Anywhere else in the city we need this master plan to be done, because we're not entirely sure what direction the flows are going to go, where we are going to connect to, what's the size of the basin area, the topography actually plays a lot into that. In Kings Bay that information goes towards a little bit of a technical understanding. I kind of have a general idea of where it goes, the size of the system.

Commissioner Menendez: Question. Because obviously, I remember the issue that came before us as the Commission with Kings Bay. I don't remember what the total dollar amount was that last part which, obviously the residents at that point, I think it was ballpark, \$60,000 per property owner, correct me if I'm wrong. Do you remember what the total cost would be. I don't know how many properties – I don't remember how many properties.

Public Works Director Diaz: I want to say it was about 149, 150 properties, and I want to say on the top of my head, I think it was 50/50 roughly, so it was 2.7, \$5 ½ million in total roughly.

Mayor Lago: Commissioner Menendez, that's one of the questions that I asked from the City Manager. He's getting us that information. I told him to send it to everybody.

Commissioner Menendez: Perfect.

Public Works Director Diaz: I'll be more than happy to just go back in time and revisit that and provide you with that information. What this grant is going to allow us to be ready, be ready for whatever comes, including...grants.

Sustainability Director Anderson: And if I could just add too. The city has really been adding on the education front. We have added all this information to our city website and also in talking with our Development Services team, our plumbing official has been active in the roundtables that the county has had and has been educating folks as they're coming in and getting permits of the new requirements from the county. And in addition, its also helping us out, I think with the grants when we're applying is, the city has really been on the leading edge of working with our local universities and understanding our water quality issues here in our city and our Coral Gables waterway. We've gone through Phase 1 and we're already entering into Phase 2 of that study, that's really looking at what the nutrient loads in our Coral Gables waterway are and where the land base sources are coming from and coming up with land-base management strategies to help identify what we can do. So, I think those studies that this city has committed funding to and doing those is really helping us also in the long run when we go out to apply for state and federal funding, because we have that data that we make available to the public as well for them to be able to take a look at that. So, we really are understanding our waterway and what's going on within it.

Commissioner Fernandez: And Commissioner Regalado's office at the county had offered to try to help find some of the additional funding to cover the cost in Kings Bay. As a question, you may not have an answer for me. What are we talking about as an economic impact for somebody who was going to change their septic tank with the old requirements versus the new requirements in these categories, because I think that may also be a point for people to understand they're going to be paying substantially more.

Mr. Hernandez: So, obviously every property is different, and every specific project is different, but in general terms, after long conversations and discussions and verifying information, the contractors, manufacturers and the like, you're looking at a differential of \$10 - \$20,000. Let's say on a very simple system, very simple, you might have been \$10,000 standard system, you may be \$15 - \$20,000 on a performance-based system.

Mayor Lago: So, to that point, we already had this discussion, everyone who is here will tell you. We sat and we pleaded, and we begged, remember Vice Mayor.

Vice Mayor Anderson: Yes.

Mayor Lago: We explained to the residents that your septic tank is going to fail eventually and you're going to spend an exorbitant amount of money. Its better to transition now and do the environmentally correct thing to a septic tank, excuse me, from septic tank to sewer. There was no convincing, remember.

Vice Mayor Anderson: I just tried to get 30 more days. I wanted to be able to sit down and be able to educate them sum.

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Mayor Lago: And by the way, and I go back on that, and I told him in private you were 100 percent correct.

Vice Mayor Anderson: So, I do have some asks from your office and I had made an ask through Commissioner Regalado to look at options, number one, for being able to run systems together. You have your standard gravity system that we're installing, but there's also bio-directional drilling that perhaps could be used with a smaller system with a grinder pump to be able to take the material from an existing tank and pump it out without having to tear up your driveway, without having to remove any trees, without having to tear down walls and so forth, to be able to run a gravity fit system from the back of the house to the front of the house. People can have options, because if we're using these types of systems in other areas where you have basements and you have a grinder pump and it can pump it into a typical sewer system and areas north of us, I don't see any reason why we can't do it here, but we need some input to/from the county as to whether that's going to be acceptable. The other second thing that I talk about is establishing a sewer co-op, like we have solar co-ops. So instead of every individual resident having to call in a separate plumber to come in, which is going to end up in a higher cost per resident to be able to do these connections, that we establish not a solar co-op, but a sewer co-op to be able to get competitive bidding in. It worked wonderfully when I went to go buy my solar panels. I got a great deal, and I would like for our residents to be able to get great deals on being able to get this hook-up done as painlessly as possible. To the other point that we're bringing out to director on, areas that are ready, willing and able to do the hook-up in response to the last letter I sent out highlighting some of the things that we've been doing, sewer had probably the highest number of e-mails that were sent to me making inquiries into that and people asking to be prioritized. So, I've started keeping a list, along with staff so that we can know where people are the most receptive and I can tell you it's the south Gables mostly, mostly along the waterway, mostly in a low-lying areas, Snapper Creek, Banyan Drive area where there are already issues existing in our waterway. We know from the water quality results and the charts, we also know it from people not being able to flush their toilets during heavy rain period events. I think we're on the right track, we've just got to roll off the education at the right time and provide some tools. We absolutely need some tools to help the residents to wrap their heads around this and get the pricing done for connection in a most efficient manner.

Commissioner Fernandez: The other question I had for you. There is a requirement once the sewer is available for connectivity, what is it, 45 days?

Mr. Hernandez: 90 days.

Commissioner Fernandez: 90 days. So, I've spoken to Commissioner Cabrera's office and to Commissioner Regalado about the possibility of maybe expanding on that to allow for people to have more time to make that connection.

Mr. Hernandez: That's been something that I've been working on for over a decade, 90 days doesn't make any sense, and I can sit here for hours explaining why that is, but if I could just go back. I love the idea of pumping from your septic tank, that's common in many other places. We have actually recommended and worked with the city on some homes that want to connect to their

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sewer system and applied that technology or similar technology with a small grinder to be able to get to the sewer. So, we're in complete support of any system, doesn't have to always be a ladder, there are many options there. So, we're very supportive of that. The 90 days is in the county code for one very particular reason. Its part of the bond ordinance and I've ran into that too many times; and what I proposed is to create through an ordinance, the ability to grant additional time, in particular for projects that are part of a master plan. So, the 90 days is really not realistic. The thing is, we can't change the code and go against the bond ordinance, because that would be problematic, but I think there's ways to address that, so that you work it in a place that has a master plan so that you connect within 90 days when a certain trigger hits, right. It's a little complicated. We have done it through REQCB as a class extension through the director, which we are doing now as well to do that, and there's reasons why we can do that, but it is a challenge and as much as I've been wanting to change that for more than a decade, it's been very difficult.

Mayor Lago: Thank you very much. I appreciate it.

Vice Mayor Anderson: Thank you.

Commissioner Fernandez: Thank you for coming.

Vice Mayor Anderson: Looking forward to working with you.