MIAMIBEACH

COMMITTEE MEMORANDUM

TO: Public Safety and Neighborhood Quality of Life Committee Members

FROM: Alina T. Hudak, City Manager

DATE: December 7, 2022

SUBJECT: **DISCUSSION REGARDING THE EXCESSIVELY HIGH LEVELS OF BACTERIA IN THE PARK VIEW ISLAND CANAL SINCE 2020, THE ADMINISTRATION'S EFFORTS TO IDENTIFY THE SOURCE OF THE UNDERLYING CONTAMINATION, AND THE ASSOCIATED PUBLIC OUTREACH AND EDUCATION EFFORTS REQUIRED TO ENSURE PUBLIC SAFETY.**

HISTORY:

Park View kayak launch and canal water quality concerns and information have been discussed at the Land Use and Sustainability Committee in 2020 and 2021. The City Commission ratified the action taken by the City Manager to approve the emergency purchase for additional analysis of sources on June 24, 2022 under City Code Sec. 2-396 for the health, safety, and welfare of the city.

On March 4, 2020 Jaffer Wells Drilling, a subcontractor for FPL contractor Hy-Power, struck a 42-inch sanitary sewer main near the intersection of 17 Street and Lincoln Road. This event caused increased pressure throughout the sanitary system and on March 5, 2020 caused a sewer force main break at the parking lot at 72 Street and Collins Avenue. Following the break, sewage recovery and cleaning efforts began immediately and continued for approximately one week after the spill. Water quality testing began on March 6, 2020 to identify impacts to the surrounding surface waters.

Typically, following a sanitary sewer break, surrounding surface waters will continue to have high bacteria counts for a couple of days following the incident. However, high bacteria counts continued many days following the sewage break repair, and still continue. This long-lasting issue is a concern to public health in this waterway. The Administration continues to perform extensive investigations and is currently working with Dr. Solo-Gabriele of the University of Miami to conduct further in-depth analysis due to her extensive background in non-point source pollution and developing recommendations for permanent solutions.

ANALYSIS

Administration's Efforts To Identify The Source Of The Underlying Contamination:

Existing conditions:

·Aging stormwater infrastructure with old pipes and outfalls without modern-day water quality treatment pump stations;
·Aging wastewater system that is both publicly and privately owned;
·Overall community "housekeeping" with visible aboveground sources of pollution;
·Park View Canal is a shallow secondary canal that has very limited tidal flushing; and
·The canal location next to a dense urban environment with impermeable surfaces.

Analysis of possible sources of contamination include:

·Dye testing was conducted to identify possible direct interconnections between the sanitary sewer and the stormwater drainage systems,
·Siphon (underwater sewer pipe) between Parkview Island and 72 Street was tested;
·Abandoned force main from North Bay Village at 72 street;
·Abandoned overflow from Sewer Pump Station No. 23 located at 72 Street and Abbot Avenue;
·Smoke testing of the gravity sanitary sewer system was carried out. This type of testing is widely used to identify cracks, breaks and defects of sanitary sewer systems. Additional video inspection of the public wastewater system was conducted to further identify deficiencies;
·Private properties have outfalls that discharge into the waterway are under the regulatory authority of Miami-Dade County's Division of Environmental Resources Management (DERM) and have been referred to the agency as possible sources.
·The City hired consultants to conduct source tracking analysis to identify fecal gene biomarker for humans and/or canines at four locations within the canal. The results indicated that fecal coliform from dogs and birds was above conditions humans was not detected or detected, but in quantities below the limit of quantification; and
·The City retained ESciences, a third-party consultant specializing in environmental and ecological investigations, to conduct a thorough analysis of the data and investigations to date.

Ongoing efforts include:

While video testing of wastewater lines did not reveal major deficiencies, Hazen and Sawyer is currently reviewing videos to identify sanitary sewage exfiltration from both public and private mains. They will be providing recommendations. The City routinely cleans the stormwater system to remove contaminants and litter. More recently, the City enhanced street-sweeping activities in the area to increase the capture of street pollutants before they are "flushed" into the waterway during rainstorms. Multidepartment walk throughs have identified the following contributors: A wildlife feeding area resulting in a high concentration of animal waste, homeless encampments, dog waste, leaking private dumpster, and changing City garbage cans to add covers

Associated Public Outreach And Education Efforts Required To Ensure Public Safety:

Outreach has included the following: "No Contact Advisory" signage was posted at the kayak launch, notices with updates issued routinely via the City's Neighborhood Affairs Division team, and information was posted on the City's website. The elevated dog samples led the City to launch a multi-tiered outreach campaign in 2021 to educate the public and encourage people to pick-up after their animals. This campaign includes advertisement on bus shelters, water bills, digital ads, and

direct mailing. Educational signs were installed in the local dog parks, parks, and along the right-of-way and reusable doggie bag dispensers and flyers were distributed to residents walking their dogs in the area as well as to local veterinarians and dog groomers.

Funding:
Current funding includes $122,000 for the University of Miami, $500,000 for canal analysis and $250,000 for wastewater pipe and manhole rehabilitation. Over the long-term, the City plans to completely rehabilitate and/or replace water and stormwater infrastructure in the area. If funding is obtained, North Shore D of the Neighborhood Improvement Projects, also known as the North Beach Town Center project, is scheduled to begin construction in 2027. The project would replace water and wastewater as well as stormwater infrastructure immediately south of the Park View Canal. The new stormwater system will bring a new stormwater treatment system for the area.

CONCLUSION:

Since one point-source of contamination has not been identified, Dr. Solo-Gabriele, an expert in non-point source pollution, is well qualified to lead this analysis and recommendations. The study is ongoing and Administration will recommend next steps based on the study results. When the study is completed, a community meeting will be held sharing the analysis. The report, expected in December 2022, will also recommend solutions.

Applicable Area

Citywide

Is this a "Residents Right to Know" item, pursuant to City Code Section 2-14?	Does this item utilize G.O. Bond Funds?
No	No

Strategic Connection

Environment & Infrastructure - Work regionally and nationally to protect Biscayne Bay water quality and to maintain a healthy dune and beach system.

ATTACHMENTS:

Description	Type
Referral Memo from 6.22.22 Commission	Memo