Date: July 13, 2022

To: Ms. Jennifer Carpenter, FDEP

From: John Cassani, Calusa Waterkeeper

Topic: Monitoring compliance for fecal indicator bacteria (FIB) at Billy's Creek and Manuel's Branch as stipulated in Department of Environmental Protection v. City of Fort Myers Consent Order, OGC No. 20-0851.

Sent via email

Calusa Waterkeeper has reviewed the five FIB quarterly reports representing monitoring to date by the City of Fort Myers as part of the requirement of Fort Myers Consent Order, OGC No 20-0851. Section 5G of the Consent Order states:

(G) Conduct and submit a minimum of quarterly sampling data for untreated human waste indicators (HF-183 and acetaminophen at a minimum) for at least 4 quarters to the Department for the watersheds referenced in subparagraph 5 (F) above (minimum 2 stations per watershed). If untreated human waste indicators persist, quarterly source specific monitoring shall continue until clear for at least two consecutive quarters.	April 30, 2021 July 31, 2021 October 31, 2021 And continue until no untreated human waste indicators are detected for at least two consecutive quarters.

The two human untreated waste indicators are HF-183 and acetaminophen. A review of the quarterly reports documenting detection for HF-183 and acetaminophen are summarized in the following table.

Parameter	April 2021	May-July 2021	Aug-Oct 2021	Nov 2021-Jan 2022	Feb-Apr 2022
HF-183	MB BC	MB BC	MB BC	MB BC	MB
acetaminophen	MB BC	MB BC	MB BC	MB BC	MB
CGOF1					
BacCan-UCD					MB

MB = Manuel's Branch; BC = Billy's Creek

The source tracing parameter CGOF1 represents cat or feline DNA and the BacCan-USD is from canine or dog sources.

HF-183 (human DNA via Bacteroides sp.) was detected during each of the five quarterly sampling periods at Manuel's Branch and during the first four consecutive sampling periods at Billy's Creek. Apparently HF-183 was not monitored in the final quarterly sampling period at Billy's Creek. Detection levels of HF-183 ranged from low to high and at multiple locations between both waterbodies. Acetaminophen was detected at relatively low concentrations for all five quarterly sampling periods at Manuel's Branch and the first four consecutive sampling periods at Billy's Creek.

Detection of HF-183 and acetaminophen were at relatively high levels at Manuel's Branch, compared to Billy's Creek. Either HF-183 or acetaminophen were detected during each sampling period at both waterbodies. It is our expectation that Fort Myers will continue monitoring until detections of either HF-183 or acetaminophen cease for two consecutive quarters as stipulated in the Consent Order.

It is obvious from these data that human sources are a factor in the elevated, and at some locations increasing levels of FIB at both Billy's Creek and Manuel's Branch. Even without the detection of untreated human waste tracers, there remains significant health risk from the continually elevated levels of both *E. coli* and enterococci bacteria in both waterbodies.

Unfortunately, City staff and most recently Mr. Moulton (Fort Myers Public Works Director) has publicly emphasized the FIB problem as stemming from trash

It should be noted that FDEP has determined that the tidal reach of Billy's Creek is classified as predominantly marine (WBID 3240J). Enterococci is the FDEP designated parameter for assessing Class III predominantly marine waters and should have been used to assess Billy's Creek up to the water control structure (extent of tidal influence) adjacent to the Billy's Creek Filter Marsh, rather than E. coli which is the parameter used for predominantly freshwater. During the FDEP 2020-2021 Biennial Assessment, FDEP determined that Billy's Creek was verified impaired for enterococci bacteria, requiring at TMDL for restoration. FDEP concluded the verified impairment for enterococci at Billy's Creek was based on land use and the following reasons:

"This waterbody is impaired for this parameter based on the number of exceedances for the sample size and anthropogenic sources have been identified using land use. This parameter is being added to the Verified List and the department is requesting EPA add it to the 303(d) List."

Also, as part of the FDEP 2020-2021 Biennial Assessment, Manuel's Branch was verified impaired for E. coli for the following reasons:

"This waterbody is impaired for this parameter based on the number of exceedances for the sample size and anthropogenic sources have been confirmed using genetic marker and chemical tracer data. This parameter is being added to the Verified List and the department is requesting EPA add it to the 303(d) List."

Apparently, the anthropogenic sources FDEP determined from sampling Billy's Creek in June 2018 (attached) and the source tracing conducted as part of the Consent Order discussed here were not uploaded into the FDEP statewide water quality database for Billy's Creek. The FDEP priority for Billy's Creek and Manuel's Branch TMDL development should be elevated to high, consistent with FDEP assessment and prioritization involving parameters of human health significance since both waterbodies have been documented to have anthropogenic sources by genetic marker or chemical tracer data.

Calusa Waterkeeper will be asking FDEP to accelerate TMDL development for both Billy's Creek and Manuel's Branch since both waterbodies have had high FIB exceedances for many years.

The Consent Order also requires implementation of a Pollutant Reduction Plan (PRP) per section 5F:

(F) Develop and implement a Pollutant Reduction Plan to address elevated bacteria levels in 1) Manuel's Branch watershed and 2) Billy's Creek watershed. The Plan shall include measures to identify and eliminate sources of bacteria within the City of Fort Myers and shall be submitted to the Department for review and approval.	July 31, 2021

Please provide measures taken by the City since July 31, 2021 that represent specific actions that resulted in significant reductions in *E. coli* levels in compliance with state water quality standards or below the ten percent threshold concentration (TPTC) as described in FAC Chapter 62-302. In the PRP dated July 12, 2021, it was reported that *"Concentrations of E.coli in the vicinity of the identified pipe crossing on Manuel Branch appear to be decreasing after replacement of the sanitary sewer line, which points to elimination of a point-source."* Are concentrations of *E. coli* declining below the TPTC and in compliance with state water quality standards? Was the point-source eliminated?

Examination of *E. coli* trends at both waterbodies as reported in the fifth quarterly sampling report, demonstrate considerable variability that include increasing, decreasing or "stable" trends and require more frequent sampling for valid trend analysis that could demonstrate significance.

In the most recent quarterly report, the City / GHD mentioned they had received no guidance from FDEP which was the basis for modifying or apparently terminating the untreated human waste source tracer monitoring. Did the lack of guidance from FDEP signify that the Department was in agreement with the City's actions and conclusions regarding Consent Order compliance?

We look forward to a response with respect to Consent Order compliance as outlined in this letter.

Thank you for your consideration.