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239-633-7274

June 21, 2017

Mr. Daniel Sensi
Permitting Program Manager
Florida Department of Environmental Protection
South District Office
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901

Re: Comments on the applicant's June 13, 2017 response to FDEPs second RAI (Chiquita Lock DEP#244816-005 RAI-2)

Delivered by email.

Mr. Sensi:

The comments provided herein are largely in support of my previous comments on March 3 and March 28. The applicants most recent response does not answer my concerns as reiterated here. The matter of Consent Order 15 validity can only be determined by the issuing court and should remain relevant to the discussion of this pending application. I am not in support of FDEP issuing the permit as submitted.

Applicants conclusion that Consent Order 15 or amended versions are no longer valid.

The applicant has concluded that the provisions of Consent Order 15 or apparently subsequent amended versions are no longer valid. It's my understanding that FDEP cannot unilaterally change the status of a court order. As such this is a disputable conclusion that would have to be defined by the courts and until then the provisions of Consent Order 15 or subsequent amended versions still apply as FDEP had intended and required during past Cape Coral / Lee County MS4 permit review cycles. Abandoning the intent of Consent Orders that apply to the Cape Coral spreader canal system by removing the component (Chiquita Lock) that facilitates stormwater treatment as intended by Consent Order is inappropriate and perhaps illegal. The basic premise of the applicant is that the spreader system is no longer as efficient as it once was due to erosion. However, it was the lack of maintenance by Cape Coral that enabled the erosion. Claiming that the Chiquita Lock should now be removed due to a lack of efficiency would be a breach of the Court decree (Consent Orders) where lack of maintenance would not be justification for removing the lock.

Boating convenience or safety issues relating to access through the Lock would not be sufficient to contravene the purpose of the Lock as intended by Consent Order 15 for CWA water quality compliance. Boating issues should be addressed by Lock improvement not removal.

Applicants conclusion that existing nutrient uptake by the freshwater canal system and other projects should be creditable compensation for lost treatment capacity by removing the Chiquita Lock.

The applicant has suggested that they should be credited for nutrient reduction from the freshwater canal system in at least partial compensation for removing the Chiquita Lock. However, they have not provided a nutrient budget demonstrating that the freshwater canal system provides a net reduction in TN. The fact that TN concentrations within the spreader canal and much of the freshwater canal system continue to trend up is indicative that neither the freshwater canal system nor the entirety of the MS4 permitting required components of the system provide a net reduction in TN loading to the spreader system mostly contained by the Chiquita Lock.

As suggested in my second set of comments in my letter of March 28, 2017, the freshwater canal system is more likely a “source” rather than a “sink” of TN. In the absence of a nutrient budget it’s more likely the freshwater system has lost “capacity” for sequestering capability due to the age of the system now at more than 50 years. When nutrient sequestering efficiency is limited due to “legacy” nutrients from cumulative loading, uptake is reduced and TN is more likely internally cycled, facilitating export downstream to the spreader system during storm events. Removing the lock would facilitate this process of TN export and loading directly to the impaired Caloosahatchee Estuary by creating a direct connection, reducing hydraulic residence time and treatment capacity of the spreader system.

As such, the lock should not be removed unless or until the compensating treatment is “online” and functioning to prevent any period of time where they applicants stormwater discharge would be contributing to the impairment of the Caloosahatchee Estuary. Unfortunately, the applicant has not determined the nutrient dynamics of the system adequately enough to quantify the treatment capacity necessary to compensate for removing the Chiquita Lock.

The applicant suggests that their MS4 permit program would address any loss of treatment capacity or inequity that would result in removing the Chiquita Lock. However, evidence for that conclusion from Cape Coral’s MS4 NPDES permit involvement in the past is lacking. Cape Coral has several WBIDs within and during MS4 permitting jurisdiction now impaired for various water quality parameters. In other words, MS4 NPDES permitting does not prevent water quality impairment. The applicant’s suggestion that further impairment or additional loading to the already impaired Caloosahatchee would be addressed by MS4 permitting lacks reasonable assurance required for FDEP to issue this permit.

Furthermore, there is strong evidence over a long period that the freshwater canal system demonstrates an impaired condition due to problematic levels of algae and higher aquatic vegetation. When aquatic macrophytes dominate primary production, dissolved nutrients in the water column and sediments are incorporated in plant tissue which in effect masks total nutrients present in the system when only sampling the water column. “Imbalance” of flora as described in FDEP impaired waters criteria (FAC 62.302 and 62.303) refers to the circumstance I have described in reference to the Cape Coral

freshwater canal system and necessitates further analysis with the “vegetation or lake condition index” (FAC 62-160.800) to more accurately assess the degree of nutrient impairment.

Simply applying wet detention treatment efficiency estimates described by the applicant for obtaining a treatment “credit”, is inappropriate since the freshwater canal system would not be in the early stages of treatment where nutrient sequestering capacity would be relatively high and for the additional reasons described above relating to a nutrient budget. It also appears that information on hydraulic residence time for the freshwater canal components has not been determined. This information is an integral component of determining nutrient assimilation and downstream loading as part of the wet detention BMP calculation and another reason why we are requesting that a nutrient budget be determined to support the TN “sink” vs “source” concern and overall efficiency of the system for sequestering TN in the context of the Lock in vs. out.

Please inform me of any future action (e.g. notice of intent to issue or RAI) by FDEP on this permit application.

Regards,

A handwritten signature in black ink, appearing to read "John R. Cassani".

John Cassani
Calusa Waterkeeper