AGENDA ITEM SUMMARY SHEET
VILLAGE COUNCIL MEETING
October 3, 2018

Agenda Item:

Council consideration of support to the effort by local communities to challenge new criteria established by the South Florida Water Management District that may have serious negative impacts on water quality in our region.

Description:

The Village has been asked to add our support and authorize Mayor Boesch to sign, along with other Lee County Mayors, a letter challenging the South Florida Water Management District and their revised rules related to "minimum flows and levels" (MFL) affecting the Caloosahatchee River. This is a complex topic. However, given the dramatic impact of poor water quality in our region this is important topic for Council consideration.

Mayor Kevin Ruane of the City of Sanibel will provide additional information to provide additional insight into this issue.

Action Requested:

Motion to approve Mayor Boesch signing the letter in support of the City of Sanibel, the City of Fort Myers, the City of Cape Coral, the City of Fort Myers Beach and Lee County challenging new criteria and rules established by the SFWMD.

Financial Impacts:

At this time we see no direct costs to be incurred as a result of this action.

Attachment:

1. Copy of the September 24, 2018 letter to the SFWMD by the cities of Sanibel, Cape Coral, Fort Myers, Fort Myers Beach, and Bonita Springs.

ATTACHMENT 1

September 24, 2018

Federico Fernandez, Governing Board Chairman
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, FL 33406

Subject: Caloosahatchee Minimum Flow and Level Rule Update

Dear Chairman Fernandez:

The Mayors of Lee County are very disappointed in the Governing Board's decision to adopt amendments to Rule 40E-8.221, Florida Administrative Code, to revise the Minimum Flows and Levels (MFL) criteria for the Caloosahatchee River. Although we recognize that this update will result in an incremental improvement in the form of an increase in the MFL from 300 cubic feet per second (cfs) to 400 cfs, empirical salinity and flow data provided by local scientists and real-time monitoring of conditions in the estuary suggest that 400 cfs will not be sufficient to achieve the ecological target of 10 practical salinity units (psu) at the designated MFL measuring station in Fort Myers. Salinity data collected this year between January and April, when the Caloosahatchee was receiving average flows of 650 cfs, reflect salinity remained above the 10 psu ecological harm threshold at the Fort Myers measuring station for 89 days. Furthermore, the west coast scientists fundamentally disagree with District staff that shifting the ecological baseline away from tape grass habitat and averaging the results of several component studies (many of which include organisms that are much less sensitive to ecological changes) will prevent further "significant harm" from occurring within the estuary. Our scientists also argue that the use of tape grass HABITAT as an indicator for the health of the estuary is the most sensitive and appropriate tool for measuring the health of the estuary. Tape grass habitat should not be considered "single-species management", as referenced in the Technical Document to Support Reevaluation of the Minimum Flow Criteria for the Caloosahatchee River Estuary (page 8), as it represents an entire habitat and performs important ecosystem and water quality functions.

It is important to recognize that it was District water management policies between 1999 and 2001 that resulted in the loss of more than 1,000 acres of tape grass habitat in the upper Caloosahatchee estuary between the US-41 bridge and the Cape Coral Parkway bridge. Between February 7, 1999, to April 13, 1999, average flows to the Caloosahatchee (at S-79) were 11.26 cfs. Between February 5, 2000, to March 3, 2000, average flows to the Caloosahatchee (at S-79) were 0 cfs. Between June 4, 2000, and June 24, 2000 average flows to the Caloosahatchee were 29.43 cfs, and from October 17, 2000 to May 23, 2001, average flows to the Caloosahatchee (at S-79) were 57.20 cfs (see attached graph). Water management decisions from 2001 to present day have resulted in the Caloosahatchee receiving either too little water during the dry season or too much water during the wet season, preventing the recovery of the public tape grass resource. This constant fluctuation between extremes has eliminated the resiliency of the estuary to rebound, even when salinities are in the preferred range for tape grass habitat. High levels of colored dissolved organic matter (CDOM) in the estuary associated with high-volume wet season flows reduce light available to tape grass, compounding the impacts of high salinities during the dry season.

At the September 13th Governing Board meeting, the Mayors who attended respectfully requested that you delay rule adoption until additional information can be collected to verify why there is such a discrepancy between the District's modeled data and in-situ measured data provided by local scientists. We asked that you consider implementing a two-year pilot study to fully evaluate the relationship between measured flow and salinity. As you may know, the FDEP recently approved installation of 6 additional flow monitoring stations that will be online in the next several months. Data provided by the flow monitoring stations will help verify the actual flows and tidal contributions to the estuary. Because the Districts findings relied heavily on the primary Prevention and Recovery Strategy for the MFL, the C-43 West Basin Reservoir, which is not scheduled to be completed until 2022, we have a difficult time understanding the sense of urgency to adopt a rule that cannot be enforced until 2022.

During the meeting Executive Director Marks indicated that we were "confused" between "minimum flow" and "restoration flows". Frankly, we find that comment insulting to our communities and our local scientists that have been working on this issue for decades. I can assure you that we are not "confused" and our staff have been engaged in the MFL review process and provided numerous technical comment letters raising concerns about the methods and flows proposed in the rule update. There is a body of scientific data, much of which has been funded or conducted by District scientists, which suggests that adequate minimum flows are in excess of 450 cfs and that restoration flows are closer to 800 to 1,000 cfs (Tolley et al., 2010).

We recognize that the proposed changes were peer reviewed by respected scientists selected by the District. However, we also recognize that they were tasked with reviewing the proposed MFL in a relative vacuum, without fully understanding the historical perspective and habitat loss that occurred as a direct result of water management policies. If the peer review committee were specifically tasked with evaluating the relationship between measured salinity in Fort Myers and flows at the Franklin Lock, and the resulting impacts on tape grass habitat in the upper estuary, we are confident that the recommendations in their report would have been much different. It is apparent that by taking the focus off of a sensitive, umbrella indicator species like tape grass, which was identified as Valued Ecosystem Component by District scientists (Chamberlain and Doering, 1998), and averaging flow and salinity responses over numerous organisms that are less sensitive to changes in salinity, the District was able arrive at a flow target that would not greatly impact water supply planning, rather than a flow target that would prevent "significant harm" to the public resource.

During the meeting, Ms. Bates indicated that the District has a procedural responsibility to update the MFL rule to comply with a request from the Joint Administrative Procedures Committee (JAPC) recommendations. We have obtained a copy of the correspondence dated July 23, 2015, from the Committee to the District (see attached). In the letter to the District the JAPC state that under 40E-8.221:

> *The rule states that it lists the minimum flows and levels (MFL) at which point further withdrawals would cause significant harm to the water resources. Subsections (2), (4) and (5) of this rule list the mean monthly flow necessary to maintain sufficient salinities to prevent a MFL exceedance. Paragraph 373.042(1)(a), F.S., cited as law implemented for this rule, defines the minimum water level as "the level of groundwater in an aquifer and the level of surface water at which further withdrawals would be significantly harmful to the water resources of the area." Please explain why the significant harm is expressed in rule subsections (2), (4) and (5) in terms of salinity only, and does not include the measure of the significance of other types of harm.*

Based on our review of the JAPC's request, it does not appear that the committee was actually requesting that the District revise the Caloosahatchee MFL so that it is represented as a flow target, as was suggested by Ms. Bates, but rather they were inquiring as to "*...why the significant harm is expressed in rule subsections (2), (4) and (5) in terms of salinity only, and does not include the measure of the significance of other types of harm.*" We would argue that the existing MFL rule language under 40E-8.221 (2) Caloosahatchee River, is tied directly to a minimum flow under the definition of *373.042(1)(a)*, which was erroneously cited in the JAPC's letter with the definition of 373.042(1)(b). The definition for 373.042(1)(a) is for "minimum flow" not "minimum water Level" and is defined as:

> *Minimum flow for all surface watercourses in the area. The minimum flow for a given watercourse is the limit at which further withdrawals would be significantly harmful to the water resources or ecology of the area.*

We do not believe that the District staff interpreted the Committee's comments correctly when addressing the Governing Board or in the methods they used when revising the MFL rule update.

During the meeting, Governing Board member Moran asked staff a question regarding what would be needed if the MFL was set at the flow level that we were suggesting (i.e., 720 cfs), as discussed in the letter we submitted on September 11th. Ms. Bates' ultimate response to the question was that additional water storage projects would be needed. As noted above, the C-43 Reservoir is the primary Prevention and Recovery Strategy for the Caloosahatchee MFL. The reservoir will store approximately 170,000 acre-feet of water. Water from the reservoir, once constructed, would be reserved through CERP water reservation for release to the estuary during the dry season. At flows of 400 cfs the reservoir would optimistically provide approximately 214 days of flows. At flows of 700 cfs the reservoir would only provide 122 days of flows. As you can see, there is a significant difference in the performance of the project depending on the flow target established for the estuary. Since the C-43 Reservoir is the primary Prevention and Recovery Strategy for the estuary, and the rule has been in effect since 2001 and exceedances to the rule have occurred in 12 of the past 17 years, and the C-43 Reservoir is not anticipated to be completed until 2022, we would argue that an interim Prevention and Recovery Strategy should have been implemented to prevent further harm to the estuary. In-fact these low flow decisions are simply policy decisions and do not require additional projects, just implementation of protocols that call for water supply cut backs applied across all uses, including permitted users.

If the District is serious about working towards "restoration flows" to the Caloosahatchee, as staff suggested should be the District's focus instead of the "minimum flow", we challenge the Governing Board to immediately direct staff to begin working on a statutory water reservation for the Caloosahatchee estuary. To be clear, this would be a statutory reservation of water for the protection of fish and wildlife within the Caloosahatchee estuary. This should not be confused with the CERP project reservation for the C-43 Reservoir Project, which is estimated to provide approximately 214 days of minimum flows at 400 cfs or approximately 122 days of minimum flows at 700 cfs to the estuary (not accounting for evapotranspiration or other factors).

In conclusion, we strongly urge you to immediately reverse your decision to move forward with updating the Caloosahatchee MFL Rule and begin a pilot study to assess the flow and salinity relationships to come up with a minimum flow that will be protective of the remaining tape grass habitat in the upper estuary.

We hope that you will consider our request and we look forward to working with you to restore the Caloosahatchee estuary.

Sincerely,

Kevin Ruane, Mayor
City of Sanibel

Joe Coviello, Mayor
City of Cape Coral

Randall P. Henderson Jr., Mayor
City of Fort Myers

Tracey Gore, Mayor
Town of Fort Myers Beach

Peter Simmons, Mayor
City of Bonita Springs

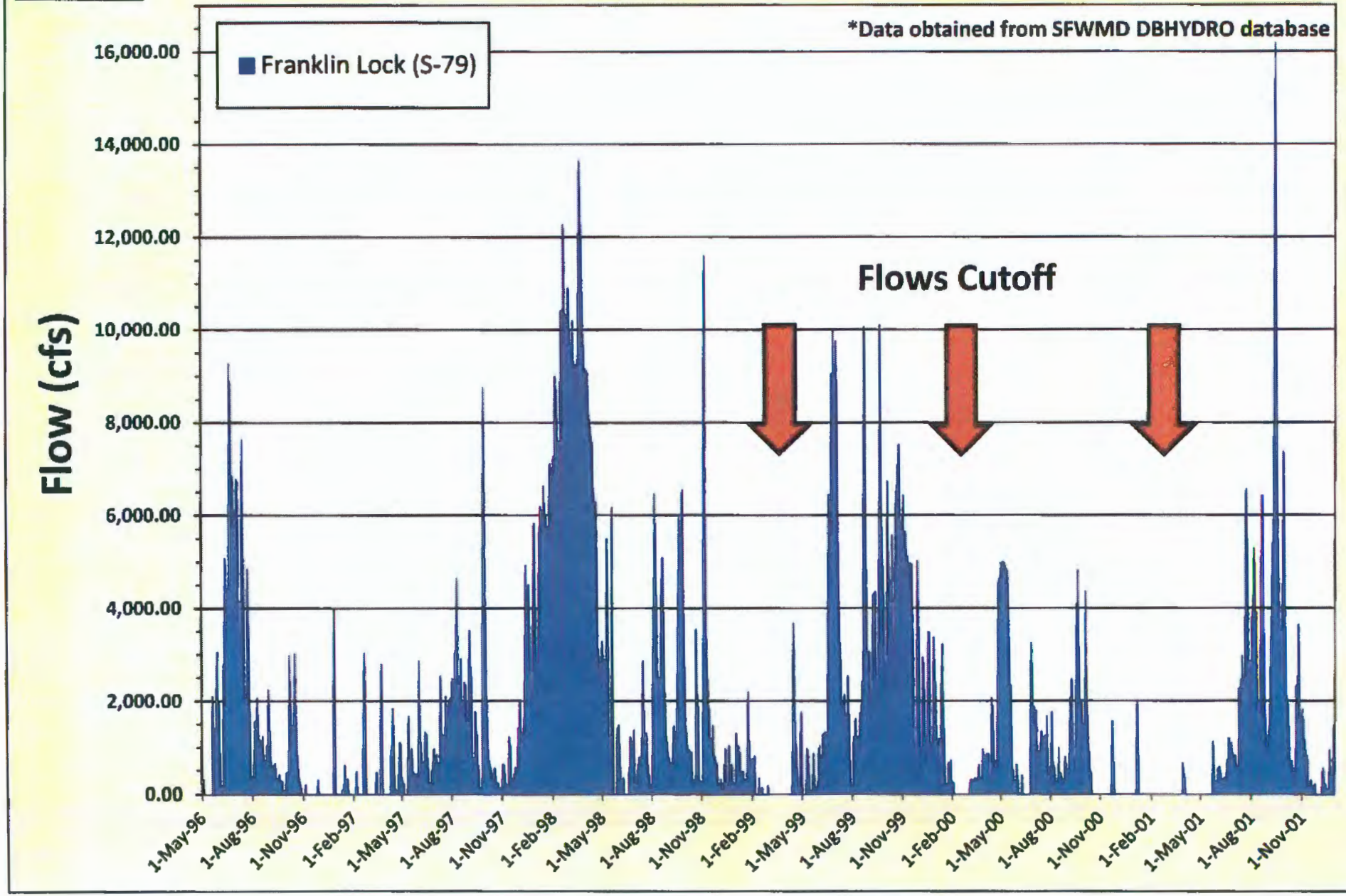
C.C.: Governor Rick Scott
SFWMD Governing Board
Secretary Noah Valenstein, Florida Department of Environmental Protection
Chairman Bo Rivard, Florida Fish and Wildlife Conservation Commission
Sanibel City Council
Cape Coral City Council
Fort Myers City Council
Fort Myers Beach Town Council
Bonita Springs City Council

References Cited

Tolley, S.G., D. Fugate, M.L. Parsons, S.E. Burghart, E.B. Peebles. 2010. The responses of turbidity, CDOM, benthic microalgae, phytoplankton and zooplankton to variation in seasonal freshwater inflow to the Caloosahatchee Estuary. Final Report to SFWMD, 99 pp.

Chamberlain, R.H., and P.H Doering. 1998. Proceedings of the Charlotte Harbor Public Conference and Technical Symposium; 1997 March 15-16; Punta Gorda, Fla. Charlotte Harbor National Estuary Program Technical Report No. 98-02. West Palm Beach (Fla.); South Florida Water Management District. 247 p.

Caloosahatchee Flows May 1996 — December 2001



THE FLORIDA LEGISLATURE

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July 23, 2015

Mr. Kirk L. Burns
General Counsel
South Florida Water Management District
P.O. Box 24680
West Palm Beach, Florida 33416-4680

Re: South Florida Water Management District Rule Chapters 40E-1, 7 and 8, F.A.C.

Dear Mr. Burns:

Pursuant to this Committee's authority in Joint Rule 4.6 of the Florida Legislature, 2014-2015, to review administrative rules and to advise the agency of its findings, I have reviewed the rule chapters referenced above, and have the following comments:

40E-1.702 This rule states that the District's Environmental Resource, Consumptive Use and Surface Water Management Permit enforcement program is implemented through guidelines described in subsections (1), (2) and (3) of the rule. Because the enforcement programs rely upon the guidelines referenced, those guidelines should be incorporated in the manner described in ss. 120.54(1)(i) and 120.55(1)(a), F.S. If those guidelines have been incorporated elsewhere in the District's rules, those incorporating rules should be referenced here.

40E-7.216(1) The reference to the definition of "material breach" in this rule should refer to rule 40E-7.215(5), the definition of "material breach," and not 40E-7.215(4), F.A.C.

40E-7 The statute cited as law implemented for this rule chapter, s. 373.610, F.S., requires the district to adopt rules to specify the circumstances and conditions for reinstatement after suspension. These rules do not appear to include those circumstances and conditions, and therefore appear to contravene the law being implemented, in violation of s. 120.52(8)(c), F.S.

40E-8.221 The rule states that it lists the minimum flows and levels (MFL) at which point further withdrawals would cause significant harm to the water resources. Subsections (2), (4) and (5) of this rule list the mean monthly flow necessary to

maintain sufficient salinities to prevent a MFL exceedance. Paragraph 373.042(1)(a), F.S., cited as law implemented for this rule, defines the minimum water level as "the level of groundwater in an aquifer and the level of surface water at which further withdrawals would be significantly harmful to the water resources of the area." Please explain why the significant harm is expressed in rule subsections (2), (4) and (5) in terms of salinity only, and does not include the measure of the significance of other types of harm.

Sincerely,

Suzanne G. Printy
Chief Attorney

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