



CHARLOTTE HARBOR NATIONAL ESTUARY PROGRAM

4980 Bayline Drive, 4th Floor, North Fort Myers FL 33917-3909

239/995-1777 ➤ Fax 239/656-7724 ➤ www.charlotteharbornep.org

September 24, 2003

Colonel Robert M. Carpenter
District Engineer
U.S. Army Corps of Engineers
(Prudential Building)
701 San Marco Blvd.
Jacksonville, FL 32207

Mr. Henry Dean
Executive Director
South Florida Water Management District
P.O. Box 24680
West Palm Beach, Florida 33416-4680

Honorable Matthew D. DeBoer
Chairman
Charlotte County Board of County
Commissioners
Charlotte County Administration Center
18500 Murdock Circle
Port Charlotte, FL 33948

Mr. Ken Haddad
Executive Director
Florida Fish and Wildlife Conservation
Commission
620 South Meridian Street
Tallahassee, FL 32399-1600

Honorable Ray Judah
Chairman
Lee County Board of County
Commissioners
P.O. Box 398
Fort Myers, FL 33902-0398

Mr. David B Struhs
Secretary
Florida Department of Environmental
Protection
3900 Commonwealth Blvd.
Tallahassee, FL 32399-3000

Re: Coordination of regional efforts to allow a more natural hydrologic regime to the Caloosahatchee Estuary

Dear Col. Carpenter, Mr. Dean, Hon. DeBoer, Mr. Haddad, Hon. Judah, and Mr. Struhs:

This letter is to request that regional agencies, Lee and Charlotte Counties; the South Florida Water Management District; the U.S. Army Corps of Engineers; the Florida Fish and Wildlife Conservation Commission; and the Florida Department of Environmental Protection, coordinate efforts to establish and maintain a more natural hydrologic regime to the Caloosahatchee Estuary. The Charlotte Harbor National Estuary Program (NEP) strongly supports our partners' efforts to implement the Minimum Flow and Levels rule for the Caloosahatchee River. The Charlotte Harbor NEP is a partnership program, created by Section 320 of the Clean Water Act, to protect and preserve the Charlotte Harbor estuary, recognized as an estuary of national significance and one of the most productive estuaries in the State. The Caloosahatchee River is a major tributary to and key component of the Charlotte Harbor estuary; protecting the natural flow regime and ecological integrity of this river is of great importance to the Charlotte Harbor NEP. Since 1996, the Charlotte Harbor NEP has developed and completed a Comprehensive Conservation and Management Plan (CCMP) for the estuary and its watershed. Our partnership includes, among others, Lee and Charlotte Counties; the Cities of Sanibel, Ft Myers and Cape Coral; the U.S. Environmental Protection Agency; U.S. Army Corps of Engineers; U.S. Fish and

Wildlife Service; the Florida Fish and Wildlife Conservation Commission; the Florida Department of Environmental Protection; and both the South and the Southwest Florida Water Management Districts.

In September 2001, the South Florida Water Management District established the following Minimum Flows and Levels rule for the Caloosahatchee River:

“A MFL exceedance occurs during a 365-day period, when (a) a 30-day average salinity concentration exceeds 10 parts per thousand at the Ft Myers salinity station (measured at 20% of the total river depth from the water surface at a location latitude 263907.260, longitude 815209.296) or (b) a single, daily average salinity exceeds a concentration of 20 parts per thousand at the Ft Myers salinity station. Exceedance of either subsection (a) or subsection (b), for two consecutive years is a violation of the MFL.” (Chapter 40.E.8.221(2)F.A.C.).

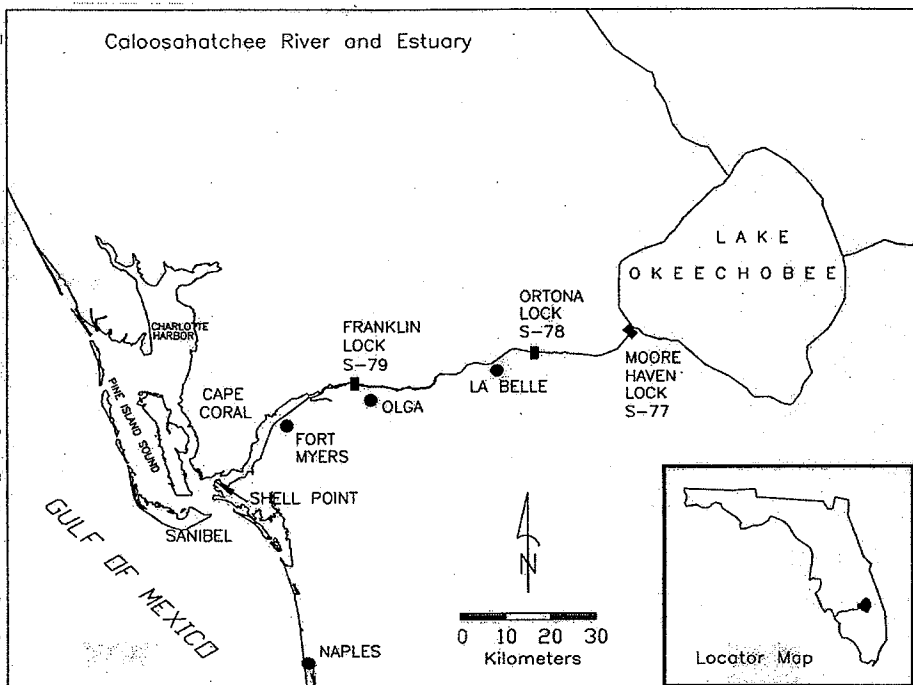
The District’s MFL rule is intended to maintain valuable tapegrass (*Vallisneria americana*) habitat within the river in a 640-acre area located between 24 and 30 kilometers upstream of Shell Point. It is thought that a provision of environmental conditions suitable for tapegrass will then provide suitable conditions for other desirable estuarine species and that enhancement of tapegrass will lead to enhancement of other valuable species.

The effort to establish and now meet the MFL rule by the District addresses the following Quantifiable Objectives of our CCMP:

HA-2: Identify, establish, and maintain a more natural seasonal variation (annual hydrograph) in freshwater flows by the year 2010 for:

1. Caloosahatchee River;...

FW-2: Meet the stated objectives for the target extent, location, and quality of the following habitats in the Charlotte Harbor NEP study area: a) native submerged aquatic vegetation should be maintained and restored at a total extent and quality no less than caused by natural variation..."



(Produced by the South Florida Water Management District)

Subsequent to the

establishment of the September 2001 rule, the District determined that an estimated total flow of 500 cubic feet/second (cfs) is needed to maintain the less than 10 ppt salinity at Ft Myers to meet the MFL rule. The District further estimates that during wet conditions, if 300 cfs flows through the Franklin Locks and Dam (S-79), another estimated 200 cfs, depending on antecedent conditions, may originate from input from groundwater and the tributaries west of the Locks to combine for a total of 500 cfs. However, during dry conditions, the additional input from the tidal basin west of the Franklin Locks and Dam will not be sufficient to allow a flow of 300 cfs from the Locks to meet the MFL rule. This is documented in the District's technical document updating the 2001 rule (please see SFWMD, 2003. *Technical Documentation to Support Development of Minimum Flows and Levels for the Caloosahatchee River and Estuary, Draft 2003 Status Update Report*. South Florida Water Management District, West Palm Beach, FL.):

- "The salinity produced by a discharge of 300 cfs at S-79 will depend on the magnitude of input from downstream tributaries and ground water. The magnitude of this downstream input will depend on whether antecedent conditions have been wet or dry."(page 29) and
- "Under current conditions, a mean monthly discharge of 300 cfs at S-79 would be expected to produce an average salinity of about 10 ppt. About half the time the salinity would be less than 10 ppt and about half the time greater" (pages 39-40)

In addition, the District currently proposes the following frequency distribution of mean monthly inflows to the Caloosahatchee Estuary through S-79 as per the revised Caloosahatchee restoration goal (EST02 CERP Restudy & CEMP –1998: 490,000 af/yr):

Frequency of Occurrence (percent within each category)	Discharge Range from S-79 (cfs)	Total Discharge S-79 & Tidal Basin
10	0-300	0-430
~2.0		431-500
65	301-800	431-1300
17	801-1300	1301-2780
5	1301-1800	2781-3900
1.5	1801-2300	3901-4450
1	2301-2800	4501-5500
0.5	2801-4500	5501-7000
0	>4500	>7000

(taken from 07/21/03 *Draft Performance Measures: S-79, Shell Point and San Carlos Bay Freshwater Inflow*, page 10)

This flow distribution clearly anticipates that the MFL rule will be violated approximately 10-12 percent of the time. In addition, the estimate of 490,000 af/yr for the river may not be sufficient to provide the necessary flows to the estuary to protect valuable resources.

Because maintaining submerged aquatic vegetation and suitable habitat for estuarine species is a crucial goal of the Charlotte Harbor NEP, the Program is requesting that regional entities, such as the District; FDEP; Lee and Charlotte Counties; FWC; and USACE, proactively plan and coordinate efforts to establish a more natural hydrologic regime to the Caloosahatchee Estuary in the future. The Program requests our partners work jointly to accomplish the following:

1. **Develop and implement a Recovery Strategy for the Caloosahatchee River in conjunction with the land management strategies of the local governments to ensure the MFL rule will not be violated in the future;**
2. **Pending establishment and implementation of a Recovery Strategy, establish an interim measure or series of measures for ensuring the MFL is met should the 200 cfs not be provided by drainage west of S-79, including consideration of supplemental Lake Okeechobee releases;**
3. **Acquire land within the watershed that will allow for additional storage and natural timing, quantity and location of surface runoff and groundwater to the Caloosahatchee Estuary;**
4. **Develop, obtain funding and construct projects to restore and maintain a more natural timing, quantity and location of flows to the Caloosahatchee Estuary;**
5. **Encourage that future development projects within the Caloosahatchee watershed will not have deleterious influence on groundwater and tributary inputs west of the Franklin Lock system;**
6. **Research and monitor effects of flows to estuarine resources and water quality to better predict and document causes of failure and thereby identify necessary actions to correct deficiencies; and**
7. **Establish and then adhere to a plan for protective maximum flows and water levels to the Caloosahatchee Estuary to assure significant adverse impacts do not occur to significant estuarine resources.**

The Management Conference applauds the technical methodology that the District has followed in developing the MFL rule and the work done to date in documenting the hydrologic needs of estuarine resources. However, it is apparent that restoring a more natural hydrologic regime to the river cannot be done by the District alone and will require a coordinated effort by the Southwest Florida region as a whole. If we can be of assistance in furthering these efforts, please do not hesitate to contact me at lbeever@swfrpc.org or Catherine A. Corbett, Senior Scientist, at ccorbett@swfrpc.org.

Sincerely,



Lisa B. Beever, PhD, AICP
Director
LBB/CAC/cac

CC: Board of Commissioners, Florida Fish and Wildlife Conservation Commission
Board of County Commissioners, Charlotte County
Board of County Commissioners, Lee County
Governing Board Members, South Florida Water Management District