


MEMORANDUM

TO: Representatives of the Technical Oversight Committee
Julianne LaRock, South Florida Water Management District (SFWMD)
Donatto Surratt, Everglades National Park (NPS)
Lori Miller, A.R.M. Loxahatchee National Wildlife Refuge (FWS)
Daniel Crawford, Jacksonville District, Army Corp of Engineers (USACE)
Edward Smith, Florida Department of Environmental Protection (FDEP)

FROM: Principals to the Consent Decree
Pedro Ramos
Superintendent, NPS
Kathleen Burchett
Area II Refuge Supervisor, FWS
Colonel James Booth
District Commander, Jacksonville, USACE
Adam Blalock
Deputy Secretary, FDEP
Drew Bartlett
Executive Director, SFWMD

 12/7/22

 12/7/22

 12/2/22

SUBJECT: December 2022 Memo to TOC Representatives on SRS Exceedances

The Consent Decree Principals provided a memorandum to the Technical Oversight Committee (TOC) representatives in October 2020 with guidance regarding the Water Year (WY) 2019 exceedance expressing Principal agreement with the TOC that the WY 2019 exceedance was related to a localized phenomenon, commonly referred to as "localized drivers," of phosphorus release and transport, linked to patterns of stage and flow and less related to phosphorus coming from the Everglades Agricultural Area. In September 2022, the Principals met to discuss topics including Everglades water quality. Based on those discussions, the Principals provide the following information to the Technical Oversight Committee (TOC) representatives regarding Shark River Slough (SRS) exceedances in Water Year (WY) 2019 and 2021.

- Investigation of drivers for Shark River Slough exceedances began in response to the WY2019 exceedance. The Principals established a collaborative inter-agency technical working group ("S333 Working Group") outside of the TOC forum and directed the Working Group to propose potential solutions aimed at resolving exceedances in the headwaters of the S333 structure. The Working Group proposed research projects that can (1) provide information to better understand the phenomena of localized drivers that influence elevated phosphorus levels in the headwaters of the S333 structure, and (2) support engineering, maintenance, and/or operational solutions to redress the elevated phosphorus in the headwaters of the S333 structure.
- As stated in the Principals' October 2020 guidance memorandum to the TOC representatives, progress on the S333 Working Group studies, the results, and any solutions will be made available to the public and TOC representatives. The activities of the S333 Working Group serve as the Principals' present method for addressing current

and potential future SRS exceedances that occur as a result of localized drivers in the headwaters of the S333 structure.

- Between October 2020 and February 2021, the S333 Working Group developed an outline of research projects consisting of two sequential phases focused on sediment characterization upstream of S333 and hydrodynamic influences of sediment transport on S333 operations with a "Stop" or "Go" feature to move from a limited Phase 1 to an expanded Phase 2, dependent on Phase 1 outcomes. The Working Group also produced an outline of eleven potential solutions dependent on the outcomes of each study phase. The Principals directed the Working Group to move forward with Phase 1 studies. The Everglades National Park Principal assigned resources and staff to conduct the Phase 1 sediment study. The South Florida Water Management District Principal similarly assigned resources and staff for the Phase 1 hydrodynamic study. The Principals directed the Working Group to continue meeting and collaborating until the Phase 1 studies are complete and the Working Group is ready to submit an initial set of recommendations for engineering, maintenance, and/or operational solutions to the Principals based on the results of the studies. The Working Group is also expected to make recommendations to proceed to Phase 2, if warranted.
- The S333 Working Group investigation is in the second year of the Phase 1 studies. The first year consisted of planning and study design for the research projects, developing detailed scopes of work, and securing funding, staff resources, and contractual support. Year two for the sediment characterization study has focused on a literature review, data collection, L-67A and L-29 canal water quality monitoring, and sediment profiling in the canals and in the WCA 3A marsh near the L-67A and Miami canals. For the hydrodynamic modeling study, year two has focused on L-67A and L-29 canal bathymetric surveys, setting up the S333 Computational Fluid Dynamics (CFD) model, and scenario simulation development. These studies are nearing completion and expected to deliver study results in March 2023 (hydrodynamic study) and June 2023 (sediment study). The Working Group has informed the Principals that the hydrodynamic study could be delayed until June 2023 if the sediment studies yield additional relevant information that should be incorporated into the modeling scenarios.
- The culmination of the Phase 1 studies is expected to provide one or more engineering, maintenance, or operational solutions for resolving Shark River Slough exceedances that result from localized drivers in the headwaters of the S333 structure. The Principals have directed the Working Group to expeditiously make its recommendations on those solutions. The Principals should, at their discretion, determine how to proceed with the recommendations and will make this information available to the TOC and the public.

Beyond these two studies and any resulting solutions, the State is continuing its implementation of Restoration Strategies, which is expected to further improve water quality flowing into the Everglades. Global changes being implemented to the Central and Southern Florida system are expected to decrease reliance on the S333 complex and increase water flow through WCA 3A and WCA 3B. The Principals and their agencies continue to use their best efforts to work cooperatively toward achieving the restoration and maintenance of water quality in the everglades.