Memorandum

TO: Florida State Clearinghouse

THROUGH: Greg Knecht, Director
Office of Ecosystem Projects

FROM: Ernie Marks, Administrator
Program Coordination and Regulation Section

DATE: January 20, 2012

SUBJECT: USACE – Final Integrated Project Implementation Report and Environmental Impact Statement (PIR/EIS) for the Biscayne Bay Coastal Wetlands Phase 1 Project

SAI #: FL201003115144C

Background:

The Biscayne Bay Coastal Wetlands (BBCW) project is a component of the Comprehensive Everglades Restoration Plan (CERP), which provides for the restoration, protection and preservation of the water resources of central and south Florida. In December of 2011, the Jacksonville District, U.S. Army Corps of Engineers (USACE) published the Final Project Implementation Report and Environmental Impact Statement (Final PIR/EIS) for the BBCW Phase 1 Project. A subsequent request for Department comments and recommendations on the proposed report of the Chief of Engineers, the District Engineer and the Final PIR/EIS for the BBCW Phase 1 Project was received through the State Clearinghouse on December 21, 2011.

The BBCW Phase 1 project's primary purpose is to redirect freshwater, currently discharged directly to Biscayne Bay through man-made canals, to adjacent coastal wetlands in order to restore a more natural water flow pattern. By rehydrating coastal wetlands and reducing harmful point source freshwater discharge, the Tentatively Selected Plan (Alternative O, Phase 1) will help restore freshwater and saltwater wetlands, re-establish more natural salinity concentrations, and provide a more productive near shore nursery habitat. The remaining features of Alternative O, which will be studied in a subsequent PIR, will greatly increase freshwater wetland benefits and further achieve restoration goals.

Comments:

The Department provided comments on the BBCW Phase 1 Project Draft PIR/EIS on April 26, 2010. Department staff reviewed the Final PIR/EIS and found that our previous comments appear to have been addressed. The Department continues to fully support moving the recommended plan, Alternative O, forward for federal approval, funding and full implementation.

The Department requests that the USACE continue to coordinate with our Southeast District Waste Cleanup Section on activities related to the soil management plan and handling of soils generated from construction activities; along with any additional assessments required for this project.

Issuance or modification of a Department regulatory authorization will be required for all phases of this project prior to construction and operations. With regard to the soil management plans identified above, any existing regulatory authorizations may need to be revisited by the Department should conditions that existed between the time of issuance and the present require modification to the terms and conditions within those authorizations. During the authorization process, please note that reasonable assurances must be provided to ensure that the project will meet relevant Department Statutory and Rule requirements. Please continue to work closely with Department staff to ensure that the proper authorizations are in place prior to any of the proposed activities taking place.

The Department sincerely appreciates the opportunity to review and comment on the proposed report from the Chief of Engineers, the District Engineer and the Final PIR/EIS. Should you have any questions on the comments provided, please feel free to contact Dianne Hughes at (561) 682-2662.

Electronic copies to:
Greg Knecht
Ernie Marks
Stacey Feken
Tracy Robb
Jerilyn Ashworth
Deinna Nicholson
Susan Mason

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

February 2, 2012

Mr. Stuart J. Appelbaum
Jacksonville District
U.S. Army Corps of Engineers
P.O. Box 4970
Jacksonville, FL 32232-0019

Subject: EPA NEPA Comments on U.S. Army Corps of Engineers, Comprehensive Everglades Restoration Plan (CERP) FEIS for the "Biscayne Bay Coastal Wetlands Phase 1"; December 2011; Miami-Dade County, FL; CEQ 20100078; ERP #COE-E39080-FL

Dear Mr. Appelbaum:

In accordance with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) has reviewed the referenced U.S. Army Corps of Engineers (COE) Final Environmental Impact Statement (FEIS) for Phase I of the proposed Biscayne Bay coastal wetland restoration. We have discussed it with the COE (Jacksonville District), National Park Service (Biscayne National Park) and Miami-Dade County (Department of Environmental Resources Management: DERM). EPA believes that this proposed project is an important component of the Comprehensive Everglades Restoration Plan (CERP).

The Biscayne Bay coastal wetlands consist of onshore freshwater wetlands (Biscayne Bay shorelands) and nearshore saltwater wetlands (Biscayne Bay). Over time, this project area has been degraded through canal drainage of freshwater runoff, which has changed the hydroperiod of affected onshore freshwater wetlands and reduced non-point flows into the Bay, which in turn created hypersaline conditions in nearshore Bay waters. The area has further been degraded through point source discharges of freshwater from the canal system into the Bay, which created hyposaline conditions at the point of discharge in nearshore Bay waters.

The Biscayne Bay Coastal Wetlands Project proposes to restore coastal freshwater wetlands by re-establishing overland flows cut off by the canal system and roadways, through redistribution of that water by a spreader system to rehydrate the 11,000-acre project area. The saltwater wetlands of nearshore Biscayne Bay would also be restored by limiting point source (canal) freshwater discharges into Biscayne Bay. Both actions would help restore Bay salinities to more natural/ambient levels that are more suitable for nursery and other nearshore habitats such as oyster reefs.

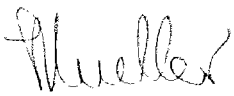
The proposed project is to be accomplished in two phases (two separate EISs and Project Implementation Reports: PIRs). The Tentatively Selected Plan identified in the FEIS to implement the present Phase 1 of the project is Alternative O. This alternative would help restore a 3,761-acre footprint through establishing seven pump stations, 10 culverts, three miles of spreader canals, and plugging 2,500 feet of mosquito control ditches.

Comments & Recommendations

EPA strongly supports this proposed project as a CERP water quality, wetland and habitat restoration project. We believe it constitutes a useful first step to accomplishing the project goals within current funding. We recommend the expedited implementation of Phase 1 – as well as prospective Phase 2 to further restore the coastal wetlands of Biscayne Bay.

EPA appreciates the opportunity to review the FEIS. Should you have questions regarding these comments, feel free to contact Jamie Higgins of my staff for NEPA issues (404-562-9681 or higgins.jamie@epa.gov) and Eric Hughes of the EPA Water Protection Division (located in the Jacksonville District office) for technical issues (904/232-2464 or Eric.H.Hughes@usace.army).

Sincerely,



Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, D.C. 20240

February 7, 2012

Colonel Alfred Pantano
Commander
United States Army Corps of Engineers
Jacksonville District
P.O. Box 4970
Jacksonville, FL 32232-0019

Dear Colonel Pantano:

Thank you for the opportunity to review the *Central and Southern Florida Project Comprehensive Everglades Restoration Plan Biscayne Bay Coastal Wetlands Phase 1 Final Integrated Project Implementation Report and Environmental Impact Statement*, dated July 2011.

The Biscayne Bay Coastal Wetlands Project, the only Comprehensive Everglades Restoration Plan (CERP) project to benefit Biscayne Bay and Biscayne National Park, is a high priority for the Department of the Interior (Department). The Department supports the Selected Plan for Phase 1 of Alternative O as a first step toward meeting restoration goals in the project study area. The project intends to redistribute freshwater runoff from the watershed away from the existing canal discharges and into the coastal wetlands adjoining Biscayne Bay to provide a more natural and historic overland flow through existing coastal wetlands. It is important that the South Florida Water Management District move forward to protect the water identified in the Project Implementation Report (PIR) expeditiously and commit to additional protective measures.

The remaining features of Alternative O, which will be studied in a subsequent PIR for Phase 2, will greatly increase freshwater wetland benefits and further achieve restoration goals. Key to restoring the health of Biscayne Bay is not only to protect the freshwater presently flowing into the Bay, but also to identify and deliver additional sources of water to the Bay in Phase 2 in order to achieve the desired goals of the Biscayne Bay Coastal Wetlands Project, especially the goals to reduce the exceedingly high near shore salinity and to maintain stable salinity through the dry season. The Department urges the United States Army Corps of Engineers and the South Florida Water Management District to move ahead as soon as possible with Phase 2 of this project.

Our comment letter, dated May 3, 2010, on the *Central and Southern Florida Project Comprehensive Everglades Restoration Plan Biscayne Bay Coastal Wetlands Phase 1 Draft Integrated Project Implementation Report and Environmental Impact Statement* is attached.

Sincerely,

S. Joan Lawrence

for Shannon A. Estenoz
Director, Everglades Restoration Initiatives
U.S. Department of the Interior

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

TAKE PRIDE IN AMERICA

MAY 03 2010

Colonel Alfred Pantano
Commander
United States Army Corps of Engineers
Jacksonville District
P.O. Box 4970
Jacksonville, FL 32232-0019

Dear Colonel Pantano:

Thank you for the opportunity to review and provide comments on the *Central and Southern Florida Project Comprehensive Everglades Restoration Plan Biscayne Bay Coastal Wetlands Phase 1 Draft Integrated Project Implementation Report and Environmental Impact Statement* (DPIR/EIS), dated March 2010. The Biscayne Bay Coastal Wetlands Project, the only Comprehensive Everglades Restoration Plan (CERP) Project to benefit Biscayne Bay and Biscayne National Park, is a high priority for the Department of the Interior (Department). The National Parks Conservation Association has recently listed Biscayne National Park, an Outstanding Florida Water, as one of the five most endangered parks in the United States. The Department appreciates the efforts of the United States Army Corps of Engineers (USACE) and the South Florida Water Management District (SFWMD) in moving forward with Phase 1 of this project. The Department further urges the USACE and the SFWMD to expedite Phase 2 of this project and other CERP projects in the area in order to achieve maximum benefits.

The primary purpose of the BBCW Project is to redirect freshwater, currently discharged directly to the Bay through man-made canals, to coastal wetlands adjacent to the Bay in order to restore a more natural water flow pattern to Biscayne Bay. The proposed redistribution of freshwater flow across a wide area is expected to restore or enhance freshwater wetlands, tidal wetlands, and near-shore Bay habitat. The project is expected to create conditions that will be conducive to the reestablishment of oysters and other components of the oyster reef community, reestablish productive nursery habitat, and reduce abrupt freshwater discharges that are physiologically stressful to fish and benthic invertebrates in the Bay near canal outlets.

The Department supports the Tentatively Selected Plan (TSP) for Phase 1 of Alternative O as a first step toward meeting restoration goals in the project study area. Alternative O, Phase 1, includes a footprint of roughly 3,761 acres of land, seven pump stations, approximately 10 culverts reconnecting wetlands, approximately 3 miles of spreader canals, and plugging 2,500 feet of mosquito control ditches. Phase 1 has been divided into three sub-components: Deering Estate, Cutler Wetlands, and L-31 East Flow Way. Specific recommendations for project features of these sub-components involve monitoring. Monitoring for this project is important to assist in developing operations, analyzing the effectiveness of the project, and assisting in adaptive management. As to the Deering Estate sub-component, the addition of an additional monitoring station in the nearshore region north of S-123 is recommended to provide a direct measure of changes in salinity. As to the Cutler Properties sub-component, the addition of an additional recorder near the northern end of the C-702 spreader canal is recommended to assist in the operation and adaptive management of the C-701 pump station. Also, in addition to monthly readings, taking

additional readings when water is flowing is suggested. Additional suggested changes to the monitoring plan from the USACE independent scientific review committee should be incorporated in the DPIR/EIS. The Department believes that both the water made available to the natural system by the BBCW Project and the existing freshwater currently flowing to Biscayne Bay are necessary to maintain project benefits and must be protected from consumptive use through the State of Florida's reservation or allocation authority as required by the Water Resources Development Act of 2000. The Department believes that revisions to the Identification of Water to be Reserved or Allocated for the Natural System and Project Assurances sections of the DPIR/EIS are necessary to incorporate protection for the existing water as well as the water made available by the project and has begun discussions with the USACE and the SFWMD regarding needed revisions.

The remaining features of Alternative O, which will be studied in a subsequent Project Implementation Report (PIR) for Phase 2, will greatly increase freshwater wetland benefits and further achieve restoration goals. The DPIR/EIS states that the timetable for achieving the subsequent PIR is currently an unresolved issue. Key to restoring the health of Biscayne Bay is not only to protect the freshwater presently flowing into the Bay from consumptive use allocation, but also to identify and deliver additional sources of water to the Bay in Phase 2 in order to achieve the desired goals of the BBCW Project, especially the goals to reduce the exceedingly high near shore salinity and to maintain stable salinity through the dry season.

Although the SFWMD has begun the Miami-Dade Canal Agricultural Drawdown Study, the present practice of the SFWMD to lower water levels in South Miami-Dade County at the start of the dry season to benefit agriculture remains a concern for the Department. It has been suggested that the drawdown be eliminated as part of the Phase 2 PIR. It is expected that continued reduction of the stage in C-102 and C-103 to meet agricultural purpose, even with pumping into the L-31, will continue to cause a regional reduction in stage and continue to force a discharge of water at the end of the wet season. An alternate discharge pattern that maximizes benefit in the coastal habitat by mimicking the quantity and timing of natural freshwater discharge is preferred and should be analyzed in the Phase 2 PIR

The DPIR/EIS states that 517,000 acre-feet of freshwater are needed to provide ecosystem restoration in BBCW. This is based on the assumption that the wetland communities and the area of benthic invertebrates out to 500 meters (during the wet season) and out to 250 meters (during the dry season) are dependent on freshwater flows for health and sustainability. The Department believes that the nearshore portion of the Bay dependent on freshwater flow is potentially larger than that identified in the DPIR/EIS and urges the USACE to reassess the area of ecological restoration during the Phase 2 of this project if it is not done earlier. The National Park Service's supporting rationale is contained in two documents prepared by the South Florida Natural Resources Center: *Ecological Targets for Western Biscayne National Park* (April 2006) and *Estimates of Flows to Meet Salinity Targets for Western Biscayne National Park* (June 2008).

Separate comments from the National Park Service and specific technical comments regarding operations are attached. Although the United States Fish and Wildlife Service (Service) has not provided separate comments on the DPIR/EIS, the Service has issued a draft Fish and Wildlife Coordination Act (FWCA) Report on July 9, 2008, and will be issuing a final FWCA Report in the near future. The Service has also completed informal consultation under Section 7 of the Endangered Species Act, dated November 18, 2009, for Phase 1.

We look forward to working with your staff as this draft is improved and the Final PIR/EIS is developed. The Department appreciates the hard work of the Jacksonville District in implementing Everglades restoration programs. If you would like to discuss this specific project or these comments, please do not hesitate to contact me at 202-208-6273.

Sincerely,

Donald Jodrey
Attorney – Advisor

Enclosure

DEPARTMENT OF THE AIR FORCE
AIR FORCE RESERVE COMMAND

6 February 2012

Lawrence Ventura
Environmental Flight Chief
29350 Westover St, Bldg 232
Homestead ARB, FL 33039-1299

Brad Tarr
U.S. Army Corps of Engineers
Jacksonville District, Planning Division
Environmental Branch
P.O. Box 4970
Jacksonville, FL 32232-0019

Dear Mr Tarr

This letter is in response to the Central and Southern Florida Project Comprehensive Everglades Restoration Plan Biscayne Bay Coastal Wetlands Phase I Final Integrated Project Implementation Report and Environmental Impact Statement. Following review of the document there is concern that the potential Bird/Wildlife Aircraft Strike Hazard (BASH) the project may present for aircraft operating from Homestead Air Reserve Base (HARB) has not been fully addressed.

HARB currently has F-16 and F-15 fighter aircraft, turboprop aircraft, and helicopters operating from the base. Flight patterns for normal departures, arrivals and traffic patterns for these aircraft pass over the L-31 East Flow Way area of the project. The document states in paragraph 3.1.8.2 that at least 294 bird species have been observed in the project area while

> *The most commonly observed birds are water and wading birds, such as the Great Blue Heron, Great Egret (Casmerodius albus), Brown Pelican, Doublecrested Cormorant and Osprey (Pandion haliaetus). Common Grackles (Quiscalus quiscula) and Boat-tailed Grackles (Quiscalus major) are also highly visible birds in this area. Less noticeable, but relatively common, are the Mockingbird (Mimus polyglottos), Northern Cardinal (Cardinalis cardinalis) and various warbler species during spring and fall migration periods.*

In Volume II, Appendix B, Risk Register, the conclusion of the analysis for risk measure RE-4, Birds Near Airport, is that restoration will produce mostly wading birds, which should not be a concern for interfering with aircraft. We disagree with that conclusion and find it is not supported by data and analysis.

In meetings held at HARB including representatives of USACE and SFWMD on November 22, 2005 and June 27, 2006, we expressed concerns over the effect increasing bird populations in the project area may have on flight operations at the base. Additional data on bird/aircraft strikes

and the Homestead ARB BASH program was provided to the project team as a result of these meetings. We understood through these meetings that a project requirement would be to mitigate negative effects, that project staff would investigate the BASH issue, and we would be contacted if issues were unable to be addressed.

In a previous letter dated May 24, 2007 sent to Tiphanie Jinks at USACE with a courtesy copy to Matt Morrison at SFWMD, we described a study completed for HARB, *Examination of the Potential Flight Hazard and Evaluation of the Stormwater Impacts Posed by Implementation of the CERP Biscayne Bay Coastal Wetlands Project* (BEM systems, 2006) and previously provided the study to the project team. We specifically requested that BEM examine the potential increase in BASH incidents that may occur due to any predicted increase in local wading bird populations around the facility resulting from implementation of the BBCW project. The study found that the rapid increase in land development west of HARB can be a contributing factor to increased risk of bird strike. As development increases, displaced wading birds will need to find other suitable habitat. In this case, the available wetlands will be to the north and east of the base, likely congregating birds in the area that may be problematic for flight take-offs. HARB flight patterns are in a southwest to northeast direction; an increase in wading birds east of the base may increase potential hazard for bird strikes. The lack of westward wetlands may also narrow and condense the fall migration path along the eastern coast. Predator/prey relationships surrounding HARB are also highly relevant. Many of the non-wading birds involved in bird strikes at HARB from April 1997 to June 2004 were predatory in nature. Rehydration and ecological improvements to the coastal wetlands should result in increased food source for predatory birds. I request that the BBCW project review some of the predatory/prey relationships to identify if the birds most implicated in strikes will also thrive due to the ecological improvements.

I have enclosed another copy of the report done by BEM Systems, Inc. for your reference. Your attention to this matter will assist us in maintaining compatible land uses in the vicinity of the base, ensuring our ability to safely continue our mission at this installation.

If you have any questions, don't hesitate to call me. My number is (786) 415-7163.

Sincerely

LAWRENCE VENTURA

Attachment
BBCW Report Final 20 Jun 06

DEPARTMENT OF THE AIR FORCE
AIR FORCE RESERVE COMMAND

9 March 2012

Lawrence Ventura, Jr.
Chief, Environmental Flight and Base Community Planner
482d Fighter Wing
29305 Westover St., Bldg 232
Homestead ARB, FL 33039-1299

Colonel Alfred A. Pantano, Jr.
District Commander
U.S. Army Corps of Engineers
P.O. Box 4970
Jacksonville, FL 32232-0019

Dear Colonel Pantano

We appreciate the additional information provided by Tim Brown addressing Homestead Air Reserve Base's (ARB) bird/aircraft strike concerns. The information was provided in response to our letter of 6 Feb 12 expressing concerns that the Biscayne Bay Coastal Wetlands (BBCW) Phase One Final Environmental Impact Statement (EIS) did not provide sufficient data and analysis supporting the conclusion that increases in bird populations driven by the wetlands enhancements would not be a problem for Homestead ARB aircraft.

We reviewed the supporting documentation received from Mr. Brown and engaged in a conference call with members of your staff to help us fully understand the additional information. We have concluded that the information provided by Mr. Brown supports our initial concern that additional assessment and analysis is required to understand the likely bird response associated with rehydration of the coastal wetlands adjacent to Biscayne Bay near Homestead ARB and the effect the bird response may have on the number or character of potential Bird/Wildlife Aircraft Strikes (BASH) incidents. In particular, Dr. Peter Frederick, from the Department of Wildlife Ecology and Conservation at the University of Florida, wrote that:

> "more in-depth analysis of the effects of rehydration on secondary productivity and vegetation patterns might be very instructive for solving this question. Further, such information might well lead to the ability to predict new locations of bird activity, and perhaps how to target effective harassment to reduce risk at HARB."

Dr. Frederick closes his letter by calling for more study of this issue:

> "As above, a more in-depth analysis of the probable effects of wetland hydration could be extremely instructive. Further, if the rehydration can be broken into manageable geographic pieces, a pilot study could be carried out that would demonstrate the actual effects on birds. This latter possibility would add considerably to confidence in predictions about airstrike potential."

While Dr. Frederick mentions a pilot study, Homestead ARB does not require any specific report in order to concur with the BBCW Project EIS. However additional examination of the topic is required including evaluating the likely bird response to spatial and temporal changes in habitat types as a result of actions proposed in the BBCW Project.

Our planned next step is to engage Dr. Frederick and others that provided expert opinions, with the support of your staff, in a more detailed discussion of how an in-depth analysis could be completed. We also want to explore his idea of a pilot study to ensure we understand his intent. Further, we are collecting BASH records and flight operation records requested by your staff during our conference call and will provide that informationto you soon.

The environmental benefits of the BBCW Project are important. The most important objective of the Base, though, remains the safety of the airmen and aircrews flying a variety of multi-million dollar aircraft in national defense and homeland security missions and protecting the surrounding communities.

We look forward to continuing the dialogue on this issue and are committed to resolving it as soon as possible.

Sincerely

LAWRENCE VENTURA JR.
Base Community Planner