MEMORANDUM

To: Council Members

From: Staff

Date: September 20, 2013 Council Meeting

Subject: Central Everglades Planning Project Draft Integrated Project Implementation Report and Environmental Impact Statement

Introduction

The U.S. Army Corps of Engineers (Corps) has submitted the Central Everglades Planning Project (CEPP) Draft Integrated Project Implementation Report and Environmental Impact Statement to the Florida State Clearinghouse for review in the Intergovernmental Coordination and Review process. The Florida Department of Environmental Protection (FDEP) administers the state clearinghouse program, which provides a coordinated review by all appropriate state and regional agencies. The review process is intended to inform the applicant of potential concerns or inconsistencies regarding the proposed activity.

FDEP has requested that Treasure Coast Regional Planning Council (TCRPC) review the CEPP report and submit comments by October 1, 2013. As part of the review process, TCRPC solicited comments on the proposed project from local governments and other organizations in the region on August 29, 2013. Comments from regional planning councils are to be based on consistency with the Strategic Regional Policy Plan or conflict with regional or local plans and programs. This report includes a summary of the proposed project and TCRPC comments.

Summary of the Project

Purpose, Need, and Scope of the Study

The purpose of the CEPP is to restore or improve the Everglades ecosystem (including wetlands, uplands, and associated estuaries), water quality, water supply, and recreation while protecting cultural and archeological resources and values. The CEPP is a component of the Comprehensive Everglades Restoration Plan (CERP), which was authorized as a framework for restoring the south Florida ecosystem while providing for other water-related needs of the region in the 2000 Water Resources Development Act (WRDA). Since the CERP was approved, three projects were authorized in the 2007 WRDA and proceeded into construction (Indian River Lagoon-South, Picayune Strand, and Site 1 Impoundment) and a fourth project, Melaleuca and Other Exotic Plants Biological Controls, was implemented under the programmatic authority in WRDA 2000.
Despite this progress, ecological conditions and functions within the central portion of the Everglades ridge and slough community continue to decline due to lack of sufficient quantities of freshwater flow into the central Everglades and timing and distribution problems. To respond to this concern, the Corps and the South Florida Water Management District (SFWMD) initiated the CEPP in November 2011 to evaluate alternatives for restoring ecosystem conditions in the central portion of the Everglades and opportunities for providing for other water-related needs in the region.

**Authority**

The CEPP study is being conducted under the authority provided by Section 601(d)(2)(b) of WRDA 2000, which requires preparation of a Project Implementation Report (PIR) to implement components of the CERP. Upon approval of the PIR by the Governing Board of the SFWMD and the Assistant Secretary of the Army for Civil Works, the recommended plan will be submitted to Congress for authorization.

**Alternative Plans and the Recommended Plan**

Planning goals for CERP projects include enhancing ecological values and enhancing economic values and social well-being. Both goals were considered during the formulation of CEPP alternative plans, and project-specific objectives and constraints were established to evaluate the plans. In general, ecosystem restoration objectives focused on providing additional water to the Everglades by capturing freshwater discharges from Lake Okeechobee to the St. Lucie and Caloosahatchee Estuaries. Timing of deliveries and distribution of flows to the Everglades and improvements to water supply for municipal, agricultural, and Tribal use were also evaluated.

The plan formulation strategy for CEPP consisted of multiple formulation phases that followed the natural southerly flow of water from Lake Okeechobee through the Everglades ecosystem to Florida Bay. The strategy involves the formulation of management measures and components that serve to restore the central portions of the Everglades including Water Conservation Area (WCA) 3 and Everglades National Park, while improving the northern and southern estuary ecosystems and increasing water supply for municipal and agricultural users. The CEPP study recommends six components of the CERP:

- Everglades Agricultural Storage Reservoirs
- WCA 3 Decompartmentalization and Sheetflow Enhancement
- S-356 Pump Station Modifications
- L-31 Levee Seepage Management
- System-wide Operational Changes – Everglades Rain-Driven Operations
- Flow to Northwest and Central WCA 3A

To facilitate the evaluation of thousands of possible combinations of measures, screening criteria were developed to select the array of measures and plans for detailed modeling and evaluation. Four alternative plans and the no-action plan were evaluated using hydrologic simulation model output and hydrologic performance measures based on restoration targets. Planning-level cost estimates were developed for the four alternative plans, ecosystem restoration benefits were calculated, and additional selection criteria were applied.
Combining alternative plan benefits, costs, and other selection criteria, a modified version of one of the alternatives was identified as both cost-effective and with the most ecosystem restoration benefits. This modified alternative was subsequently optimized to improve water supply performance and to address concerns about effects on the Biscayne Aquifer and Biscayne Bay. The recommended plan consists of many features, including: a flow equalization basin; installation, modification and/or removal of canals, levees, pump stations, gated structures, and seepage barrier; removal of about 6 miles of old Tamiami Trail, and other system-wide refinements.

**Benefits of the Recommended Plan**

The recommended plan beneficially affects more than 1.5 million acres in the St. Lucie and Caloosahatchee Estuaries, WCA 3A, WCA 3B, Everglades National Park, and Florida Bay. In addition to redistributing existing treated water in a more natural sheetflow pattern, the recommended plan provides an average of approximately 210,000 acre-feet per year of additional clean freshwater flowing into the central portion of the Everglades. This increase in freshwater flow to the Everglades is approximately two-thirds of the additional flow estimated to be provided by the CERP. The recommended plan also reduces the number and severity of harmful, high-volume discharges from Lake Okeechobee, improving salinity in the St. Lucie and Caloosahatchee Estuaries. The additional water flowing into northern WCA 3A and Everglades National Park will help to restore pre-drainage vegetative communities and habitat for fish and wildlife while providing incremental restoration of natural processes critical for the development of peat soils and tree islands, which are essential features of the Everglades ridge-and-slough landscape. Increased flows to Florida Bay will improve salinities, resulting in greater abundance and diversity of sea grasses and other estuarine plant and animal species.

The recommended plan will maintain current levels of service for flood protection and will not cause elimination of existing legal sources of water supply within the areas affected by the project. The project also will increase the amount of water available for municipal and industrial water uses in the Lower East Coast Water Supply Service Areas covering Broward and Miami-Dade counties by approximately 12 and 5 million gallons per day, respectively, while maintaining existing water supply performance for agricultural users in the Lake Okeechobee Service Area and the Seminole Tribe of Florida.

**Cost Estimate**

The first (2015 price level) cost of the recommended plan is $1,748,800,000, including construction, non-construction items, and contingency. Comparatively, the updated cost estimate (2015 price level) for features of the recommended plan included in the 1999 CERP is approximately $1.7 billion. Differences are attributable to new design criteria, new information gained since 1999 about design and construction of similar projects in south Florida, and risk analysis establishing appropriate contingencies to better assure project cost estimates submitted for authorization will not be exceeded during implementation.
Implementation Timeline

The implementation timeline for the recommended plan is approximately 14 years. However, the schedules of other dependent CERP projects will affect recommended plan implementation. Considering the cost of the recommended plan, funding scenarios, and dependencies, it is likely that full implementation of the recommended plan will extend over two or more decades. Given this timeframe and funding scenarios, the recommended plan will be implemented in phases comprised of logical groupings of recommended plan features.

Evaluation

Implementation of the recommended plan for the CEPP will assist in reducing harmful discharges of freshwater from Lake Okeechobee. This will have a beneficial effect on major water bodies in the region, including the St. Lucie River Estuary, Indian River Lagoon, and Lake Worth Lagoon, which also is impacted by discharges from Lake Okeechobee. Although the recommended plan provides a significant increase in freshwater needed for the restoration of the central Everglades, additional actions are needed to further reduce harmful discharges of freshwater from Lake Okeechobee. Therefore, it is important for the CEPP to proceed in a way that complements other components of CERP currently underway in the region. Approval of the CEPP should not delay or interrupt implementation of other approved CERP projects.

The CEPP recommended plan is consistent with the Strategic Regional Policy Plan. Specifically, the recommended plan furthers the policies in the following goal areas:

- **Regional Goal 6.2**: A regional water supply managed to provide for all recognized needs on a sustainable basis.
- **Regional Goal 6.3**: Protection of water quality and quantity.
- **Regional Goal 6.5**: Protection of estuarine resources.
- **Regional Goal 6.6**: Protection of wetlands and deepwater habitats.
- **Regional Goal 6.8**: Protection of endangered and potentially endangered species.
- **Regional Goal 6.9**: Protection and sustainability of the Everglades Ecosystem.

Implementation of the recommended plan will help to achieve ecosystem restoration, increased water supplies, improved water quality, and the maintenance of flood protection. This plan represents an opportunity to accomplish these goals and balance the need to provide water for natural systems and urban and agricultural uses.

Recommendation

Council should adopt this report and authorize its transmittal to the Florida State Clearinghouse.

Attachments
Recommended Plan

- A-2 Flow Equalization Basin (14,000 acres), including exterior and internal levees
  - Seepage Pump Station (500 cfs)
  - Water Control Structures (culverts, spillway)
  - Emergency Overflow Weir
  - Canals (inflow, seepage collection, internal collection, and discharge)
- L-6 Canal Flow Diversion
- L-5 Canal Conveyance Improvements
- S-8 Pump Station Complex Modifications
- L-4 Levee Degrade (approximately 2.9 miles) and Pump Station (360 cfs)
- Miami Canal Backfill (approximately 13.5 miles from 1.5 miles south of S-8 to Interstate 75)
- S-333 Spillway Modification (increase to 2,500 cfs)
- L-29 Canal Divide Structure (1,230 cfs)
- L-67A Conveyance Structures (three, 500 cfs)
- L-67C Levee Degrade (approximately 8 miles)
- Blue Shanty Levee, WCA-3B (approximately 8.5 miles)
- L-29 Levee Degrade (4.3 mi, within Blue Shanty Flow-way)
- L-67 Extension Levee Degrade and Canal Backfill (approximately 5.5 miles)
- Old Tamiami Trail Removal (≈ 6 miles)
- S-356 Pump Station Modifications (increase to 1,000 cfs)
- Seepage Barrier, L-31N Levee (approximately 4.2 miles)
- System-wide Operations Refinements
PURPOSE
The goal of the Central Everglades Planning Project (CEPP) is to deliver a finalized plan, known as a Project Implementation Report (PIR), for a suite of restoration projects in the central Everglades to prepare for congressional authorization, as part of the Comprehensive Everglades Restoration Plan (CERP). The Central Everglades Planning Project will identify and plan for projects on land already in public ownership to allow more water to be directed south to the central Everglades, Everglades National Park and Florida Bay. Public participation is a major component of this planning effort. A number of public workshops, sponsored by the South Florida Ecosystem Restoration Task Force’s Working Group, are planned to receive input from the public and keep them informed and engaged as active participants.

BACKGROUND
While much progress has been made on the CERP, efforts to date have mostly been in areas outside of the central Everglades. The heart of the Everglades restoration effort is restoring a more natural quantity, quality, timing and distribution of water to the remaining portions of the central area of the historic Everglades, often referred to as the “River of Gruss.”

In October 2011, the Assistant Secretary of the Army (Civil Works), the Secretary of the Interior, the Governor of Florida, the Executive Director of the South Florida Water Management District and other senior principals agreed to initiate the planning effort of the CERP central Everglades components. Due to the desire to expeditiously complete the study, the Central Everglades Planning Project is part of the U.S. Army Corps of Engineers’ National Pilot Program for Feasibility Studies.

STUDY APPROACH
The Central Everglades Planning Project incorporates updated science and technical information gained over the last decade to identify a recommended plan and prepare a PIR for congressional authorization of the next generation of CERP projects. The pilot planning study process uses clearly defined decision points to make the process more predictable and more efficient, while reducing the current planning study process timeline. The U.S. Army Corps of Engineers (USACE) is leading this planning effort in partnership with the South Florida Water Management District (SFWMD). The SFWMD is fully integrated in the technical planning process and is leading modeling efforts for the study.

This study will develop the next increment of project components that focus on restoring more natural water flow, depth, and durations into and within the central Everglades by:

- Increasing storage, treatment and conveyance of water south of Lake Okeechobee
- Removing canals and levees within the central Everglades
- Retaining water within Everglades National Park and protect urban and agricultural areas to the east from flooding
The CERP components identified to be studied as part of
the Central Everglades Planning Project are the: Everglades
Agricultural Storage Reservoirs, Water Conservation
Area 3 (WCA-3) Decompartmentalization and Sheetflow
Enhancement, 8-356 Pump Station Modifications, L-31
Levee Seepage Management, Flow to Northwest and Central
WCA-3A, and Everglades Rain-Driven Operations. These
components are highly interdependent features of the
recommended plan that are being formulated, optimized and
implemented in a comprehensive and integrated manner.
They make up the heart of the CERP and will lead to the
next suite of restoration projects.

STUDY SCHEDULE
This schedule for CEPP utilizes the principles outlined in the U.S. Army Corps of Engineers' Planning Transformation Process.
The project is currently in the study analysis phase. The draft Project Implementation Report (PIR) Environmental Impact
Statement (EIS) is currently available for public review through Oct. 15, 2013, and is available at: http://bit.ly/CEPP_DPIR.

PROJECT DELIVERY TEAM
The USACE and SFWMD are the principal federal and non-federal sponsors for the CERP, and other environmental restoration
efforts. Together, they are facilitating CERP Project Delivery Team (PDT) meetings for the Central Everglades Planning Project
in parallel with public workshops sponsored by the South Florida Ecosystem Restoration Task Force’s Working Group. PDT
meetings enable federal, state, local agencies and tribal governments to provide input into the Central Everglades Planning Project.

FOR MORE INFORMATION

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Information on upcoming public workshops and related documents are available on the
Task Force website at: www.sfrestore.org/cepp/cepp.html

Information on the Central Everglades Planning Project and related project documents
are available online at: www.bit.ly/CentralEverglades_CEPP

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