

**National Park Service
U.S. Department of the Interior**



**Everglades National Park
Florida**

Record of Decision
Central Everglades Planning Project Final Environmental Impact Statement

August 2017

Recommended:

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Superintendent
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Date:

8/16/17

Approved:

for

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8/21/17

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UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

RECORD OF DECISION

CENTRAL EVERGLADES PLANNING PROJECT
ENVIRONMENTAL IMPACT STATEMENT

Everglades National Park

INTRODUCTION

The Department of the Interior, National Park Service (NPS), has prepared this Record of Decision (ROD) on the *Central Everglades Planning Project Final Integrated Project Implementation Report and Environmental Impact Statement (CEPP FEIS)*. The U.S. Army Corps of Engineers (USACE) is the lead agency for this project and signed a ROD on August 31, 2015. The NPS is a participating agency on this project because impacts from the Selected Plan will affect lands within Everglades National Park (EVER) managed by the NPS.

The purpose of this ROD is to formally adopt the 2014 USACE CEPP FEIS. The NPS served as a participating agency in the development of the CEPP FEIS and has determined, after an independent review, that the comments and suggestions submitted to the lead agency during the National Environmental Policy Act (NEPA) process have been satisfied, and that the CEPP FEIS complies with all NEPA-related requirements applicable to the NPS. The FEIS is available online at:

<http://www.saj.usace.army.mil/Missions/Environmental/Ecosystem-Restoration/Central-Everglades-Planning-Project/>

Because the NPS was not a formal cooperating agency for the CEPP, recirculation of the FEIS to the public for a period of 30 days was necessary under Council on Environmental Quality (CEQ) Regulations (40 CFR 1506.3) prior to adoption. The recirculation period began on December 2, 2016, with the publication of a Notice of Availability in the Federal Register by the U.S. Environmental Protection Agency (EPA), and concluded on January 3, 2017.

The CEPP is designed to capture water that is currently being discharged to the Northern Estuaries and direct additional flows to the central Everglades, EVER, and Florida Bay. Two components of the Selected Plan will involve construction activities on NPS lands within EVER. The NPS is adopting the programmatic direction and environmental analyses in the CEPP FEIS and ROD, in order to inform subsequent site-specific NEPA reviews of CEPP actions proposed within EVER prior to implementation. The site-specific NEPA documents will tier to the CEPP FEIS.

This ROD describes the Selected Plan, identifies other alternatives considered and the environmentally preferable alternative, and provides the rationale for the decision to adopt the Selected Plan. Further, it lists measures to minimize environmental harm, discusses mitigation and monitoring measures, and describes public and agency involvement in the decision making process. Attached to this ROD is the NPS “Non-impairment Determination” for the Selected Plan.

BACKGROUND

The CEPP combines several components of the Comprehensive Everglades Restoration Plan (CERP), which was approved as a framework for restoring the south Florida ecosystem in the 2000 Water Resources Development Act (WRDA). The purpose of CERP is to modify structural and operational components of the Central and Southern Florida Project to achieve restoration of the Everglades and the south Florida ecosystem while providing for other water-related needs such as urban and agricultural water supply and flood protection. The CERP consists of 68 components that were originally planned for implementation over a 40-year period.

Purpose and Need

The purpose of the CEPP is to improve the quantity, quality, timing and distribution of water flows to the Northern Estuaries, central Everglades, including Water Conservation Areas 3A and 3B (WCA 3A, WCA 3B) and EVER, and Florida Bay while increasing water supply for municipal and agricultural users. Since the CERP was approved, several projects have proceeded into construction. Despite this progress, ecological conditions and functions within the central portion of the Everglades ridge and slough community continue to decline due to insufficient quantities of freshwater flow, and timing and distribution problems. To respond to this concern, the USACE Jacksonville District 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 EIS was prepared under the authority of WRDA 2000. It was a national pilot project for the USACE, testing opportunities for expediting the planning phase of civil works projects, and providing a recommendation to Congress. The Draft EIS was released in August 2013 for a 64-day public review period. The Final EIS dated July 2014 was revised in December 2014. The report of the Chief of Engineers was completed on December 23, 2014. The USACE ROD, signed on August 31, 2015, selected the recommended plan, Alternative 4R2, for implementation. Congress authorized the CEPP as part of the Water Infrastructure Improvements for the Nation Act (PL 114-322) on December 16, 2016.

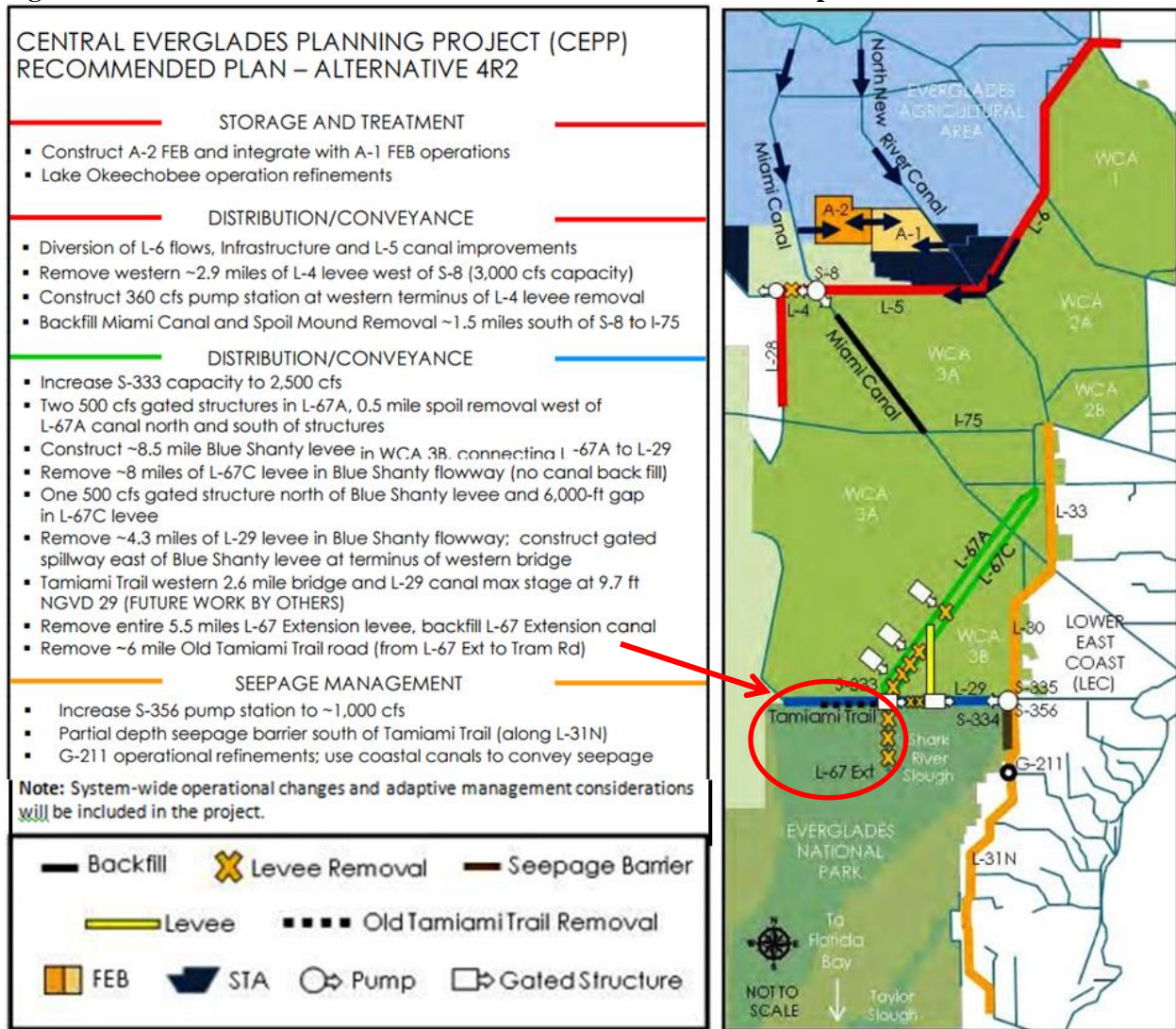
DECISION

Based on the NPS and Department of the Interior's extensive participation in development of the CEPP and our review of the analysis as documented in the FEIS and ROD, the NPS hereby adopts the CEPP FEIS and Selected Plan. The Selected Plan includes multiple features to store, treat, and deliver water as sheetflow at the north end of WCA 3A and calls for removal of barriers to sheetflow between WCA 3A, WCA 3B, and EVER (see Figure 1 on next page). Two components of the Selected Plan will involve construction activities on lands within EVER (see the final two components listed under the section on Distribution/Conveyance). These projects are:

- Removal of approximately 5.7 miles of the **Old Tamiami Trail**, and
- Removal of approximately 5.5 miles of the **L-67 Extension Levee** and backfilling its canal

Removal of these features will help to meet the purpose of CEPP by enhancing surface water flows from WCA 3A into EVER and improving marsh connectivity and wetland functioning north and south of Tamiami Trail.

Figure 1: The Selected Plan consists of the features shown in this map from the CEPP FEIS:



Old Tamiami Trail Removal

This component involves the removal of 5.7 miles of the Old Tamiami Trail from the L-67 Extension Levee west to the Shark Valley Loop within EVER (Figures 1 and 2). Tamiami Trail was the first automobile route across the Everglades, connecting the cities of Tampa and Miami. Begun in 1916, the road was officially opened in 1928. It was constructed as a two-lane, shellrock road with no barriers separating it from the associated Tamiami Canal. The canal, located along the north side of the road, resulted from the blasting and dredging of limestone bedrock to provide an adequate roadbed across portions of the route characterized by swamp. The Tamiami Trail and associated features/structures have been evaluated in five cultural resources surveys. As a result, it has been determined that the Old Tamiami Trail and Canal are significant and therefore are eligible for the National Register of Historic Places (NRHP).

Removal of Old Tamiami Trail will be accomplished using equipment such as excavators, graders and dump trucks. Vegetation will be cleared from the roadbed with mechanical equipment. Roadway fill will be excavated to match the grade of surrounding marsh (approximately 3 feet) and stockpiled on-site

within staging areas. If suitable, the material could be used in other CEPP projects or for other needs. Unsuitable material will be hauled to a certified landfill. The footprint of the removed road will be allowed to revegetate naturally and 31 acres of wetlands will be restored. The Old Tamiami Trail canal will remain in place to distribute water flow. Construction will occur over an approximate one-year period. The Shark Valley Entrance Road will remain open during the construction period. Removal of Old Tamiami Trail will precede the removal of the L-67 Extension Levee.

L-67 Extension Removal

This component involves removing the remaining 5.5 miles of the L-67 Extension levee within EVER and backfilling the L-67E canal using levee material. The levee and canal were constructed in 1967. In 2013, the USACE and NPS conducted a Phase I Survey of potential high probability cultural resource areas impacted by the original construction of the L-67 Extension levee and associated borrow canal. No significant cultural resource sites were located. Based on information gathered during the research of other canals, levees, and features within the CEPP Area of Potential Effect, it is highly probable that the L-67 Ext. and associated features are not eligible for NRHP listing and therefore are not considered historically significant.

Removal of the levee will be accomplished using the means and methods described for the Old Tamiami Trail, and will occur over an approximate one-year period. The depth of levee removal within the footprint of historic tree islands will be determined during the Pre-Construction Engineering Design (PED) Phase of the project. The L-67E canal will be filled to match the grade of the surrounding marsh and allowed to revegetate naturally. Approximately 104 acres of acres of wetlands will be restored.

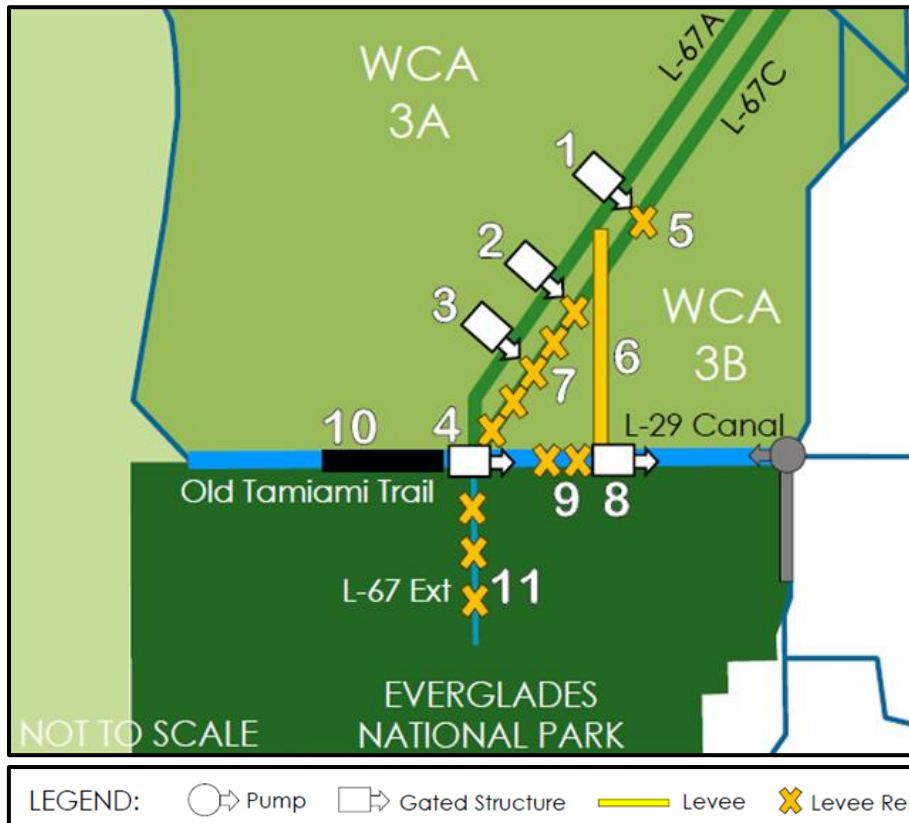


Figure 2.
CEPP map showing location of Old Tamiami Trail and L-67 Ext. project features within Everglades National Park.

The USACE ROD emphasized that the Selected Plan is a conceptual plan that includes guidelines for future coordination requirements and programmatic consultations as methods of ensuring the project avoids and minimizes impacts to resources to the extent practicable. Because of the complexity of the plan, detailed designs are necessary to complete consultations, and consultations will therefore continue and be concluded in the PED Phase of the project. Site-specific NEPA reviews of the Old Tamiami Trail and L-67 Extension components will also take place during the PED phase.

MEASURES TO MINIMIZE HARM

All practical measures to avoid or minimize environmental harm have been adopted as part of the Selected Plan. The full range of mitigation commitments is described in Section 6.7.6 and Annexes A, B, D, and E, of the FEIS and is summarized in Appendix B of this ROD. The Selected Plan also includes adaptive management, water quality, hydrometeorologic, and ecological monitoring activities to ensure that the intended purposes of the project will be achieved through long term operations. The methods, locations, and timing of monitoring and adaptive management are included in Section 6.4.4 and Annex D of the FEIS. The Adaptive Management and Monitoring Plan incorporates some existing programs to avoid redundancies and insure cost effectiveness. Additional measures to minimize harm may be developed during detailed planning, compliance and permitting for individual components of the Selected Plan.

OTHER ALTERNATIVES CONSIDERED

In addition to the Selected Plan, a “no action” plan and four action alternatives were evaluated in the CEPP FEIS. The alternatives included different combinations of storage and treatment, distribution and conveyance, and seepage management components. The alternatives were evaluated using hydrologic simulation model outputs. Performance measures were used to evaluate the degree to which proposed alternative plans met restoration targets representative of Everglades pre-drainage conditions. Planning-level cost estimates were developed for the four alternative plans, ecosystem restoration benefits were calculated, and additional selection criteria were applied. Detailed descriptions of the alternatives are presented in Sections 3 to 6 of the CEPP FEIS.

BASIS FOR DECISION

The NPS and Department of the Interior support implementation of the CEPP Selected Plan which will provide meaningful steps toward restoration of the central Everglades, EVER and coastal estuaries. NPS is adopting the programmatic direction and environmental analyses in the FEIS and ROD to inform site-specific NEPA reviews of CEPP actions proposed within EVER prior to implementation. Following completion of this NPS ROD, EVER will prepare an Environmental Assessment (EA) of potential modifications to Old Tamiami Trail that will tier to the CEPP FEIS. This new NPS-led EA will analyze the site-specific hydrological, ecological, and cultural resources effects of restoring sheet flow, via the modification of the Old Tamiami Trail roadway. Detailed designs will be developed and evaluated, and further consultations will be conducted for compliance with Section 7 of the Endangered Species Act (ESA) and Section 106 of the National Historic Preservation Act (NHPA). No construction will occur until all legal requirements have been met.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The Selected Plan was identified to be environmentally preferable and the least environmentally damaging practicable alternative in the CEPP FEIS. When fully implemented, the Selected Plan is expected to deliver on average 210,000 acre-feet of new water from Lake Okeechobee to the central

Everglades each year. The additional water flowing into northern WCA 3A and EVER will help to restore pre-drainage vegetative communities and habitat for fish and wildlife while providing incremental improvement 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. After consideration of the environmental consequences of the alternatives and the proposed mitigation measures, the NPS has determined that the USACE Selected Plan is the preferred option in this ROD.

AGENCY COORDINATION AND PUBLIC INVOLVEMENT

The expedited CEPP planning process required extensive coordination with the public and federal, tribal, state, and local resource management and regulatory agencies. The NPS joined the interagency project team in 2011 and was fully involved in all phases of the planning process. The South Florida Ecosystem Task Force's Working Group sponsored 18 public workshops throughout the study providing opportunities for the public to provide input to the Task Force, which in turn informed the study team. Formal consultation with the Task Force also occurred throughout the study, including presentations of the final array of alternatives (December 2012) and the recommended plan (July 2013). The CEPP EIS project team also hosted public meetings (November – December 2012 and September 2013) summarizing the alternative plans, the recommended plan, and effects.

Initial public and agency comments received in response to a December 2, 2011, public notice of intent to prepare an EIS were mostly supportive of the project. Comments focused on the uncertainty in the expedited planning process, specific features, links to other CERP projects and planning constraints. Two NEPA public scoping workshops were held in December 2011. Five public workshops were held in December 2012 to receive comments on the final array of alternatives. Stakeholders, local governments, and representatives of nongovernmental environmental organizations provided written comments and statements. The primary concerns centered on the need to move as much water south as possible, reduce releases to the Caloosahatchee and St. Lucie Estuaries, the effect of water levels on recreation opportunities, impacts to Biscayne Bay and Florida Bay, and water supply.

Similar issues, as well as new concerns, were raised in response to the public and agency review and comment of the CEPP Draft EIS, for which a notice of availability was published in the Federal Register on August 30, 2013. During the 64 day review period, a project overview was presented and questions answered at five public meetings held in south Florida. While there was significant support for the project and the expedited planning process, additional concerns included the implementation schedule, water supply and operating plans. Detailed descriptions of agency and public involvement, including comment letters and responses, are presented in Section 7.1 and Appendix C.3 of the CEPP FEIS.

National Historic Preservation Act Section 106 Consultation

The CEPP FEIS determined that removing up to 5.7 miles of the Old Tamiami Trail to improve sheetflow would result in major long-term adverse effects to the historic roadway and canal and could result in loss of its eligibility for listing on the National Register of Historic Places. The effect determinations on the historic roadway and canal are considered to be preliminary findings, and potential mitigation measures could reduce the effects. The USACE initiated consultation under Section 106 of the NHPA with the State Historic Preservation Office (SHPO), the Seminole Tribal Historic Preservation Office, the Miccosukee Tribe of Indians of Florida's NAGPRA Representative, the Advisory Council on Historic Preservation, EVER, and interested parties. During consultation, several conclusions were drawn: (1) It was determined that additional surveys were needed to identify cultural resources within specific areas of

potential effect, (2) It was decided that as the CEPP project progressed, additional surveys may be needed, specifically during the Pre-Construction Engineering Design (PED) phase, when feature designs were finalized and construction staging areas were determined, and (3) Section 106 compliance with the NHPA would be conducted separately from NEPA and would not be completed during the feasibility phase of the project; however it would be complete prior to construction of each feature.

Avoidance of adverse effects to cultural resources is preferred by the USACE and NPS when possible. Pursuant to 36 CFR 800.1, where possible, the project design will be modified to avoid impacting significant historic properties and culturally significant sites. Where avoidance is not possible, other mitigation measures will be considered. Future mitigation measures will be developed during the PED phase in consultation with SHPO, tribal groups and other interested parties as established in implementing regulations for Section 106 of the NHPA.

Endangered Species Act Section 7 Consultation

The USACE entered formal consultation with the U.S. Fish and Wildlife Service (USFWS) on the Everglades snail kite and its designated critical habitat, Cape Sable seaside sparrow and its designated critical habitat, wood stork and eastern indigo snake. In a programmatic Biological Opinion (BO) dated April 19, 2014, the USFWS provided a preliminary determination that the recommended plan was not likely to jeopardize the continued existence of nor modify designated critical habitat for species listed under the Endangered Species Act of 1973. The BO states that further consultation will be needed when more specific project details are finalized during project design and implementation activities.

Recirculation of the CEPP FEIS

Because the NPS was not a formal cooperating agency for the CEPP NEPA process, recirculation of the FEIS to the public for a period of 30 days was necessary under CEQ Regulations (40 CFR 1506.3) prior to adoption. The recirculation period began on December 2, 2016, with the publication of a Notice of Availability (NOA) in the Federal Register by the U.S. EPA. EVER also announced its intent to adopt via an NPS Federal Register Notice; electronic mail; letters sent to federal, state, local and tribal governments; and posting on the NPS Planning, Environment and Public Comment website at:

<https://parkplanning.nps.gov/projectHome.cfm?projectID=68602>

Three comments were received during the 30-days of recirculation. Letters from the EPA and the Florida Department of Transportation stated that the agencies look forward to working with NPS and other stakeholders on any subsequent NEPA actions. The USACE stated it fully supports NPS detailed planning for the Tamiami Trail component of CEPP. The USACE will be a cooperating agency on the NPS Old Tamiami Trail Modifications EA.

CONCLUSION

Among the alternatives considered, the Selected Plan best meets the purpose, need and objectives of the CEPP FEIS and is expected to support the long-term restoration, preservation and protection of the natural resources and values of EVER. With the mitigation measures and environmental commitments as described in the FEIS and USACE ROD, all practical means to avoid and minimize environmental harm have been adopted. The Selected Plan will not result in impairment of park resources and values or violate the NPS Organic Act.

APPENDIX A

NON-IMPAIRMENT DETERMINATION

Why is a Non-Impairment Determination Required?

Section 1.4.7 of NPS *Management Policies 2006* states that:

[b]efore approving a proposed action that could lead to an impairment of park resources and values, an NPS decision-maker must consider the impacts of the proposed action and determine, in writing, that the activity will not lead to an impairment of park resources and values.

Actions that require preparation of EAs and EISs constitute actions that may have the potential to impair park resources or values. Therefore, a non-impairment determination must be made for any action Selected in a FONSI or ROD that could impact park resources and values and to which the NPS is a signatory. The non-impairment determination is completed only for the selected action.

What is Impairment?

Sections 1.4.5 and 1.4.6 of Management Policies 2006 provide an explanation of impairment. Section 1.4.5 defines impairment as:

[a]n impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values.

Section 1.4.5 goes on to state that:

[a]n impact to any park resource or value may, but does not necessarily, constitute impairment. An impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park,
- Key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or
- Identified as a goal in the park's general management plan or other relevant NPS planning documents as being of significance.

An impact would be less likely to constitute an impairment if it is an unavoidable result of an action necessary to preserve or restore the integrity of park resources or values and it cannot be further mitigated.

Section 1.4.6 of *Management Policies 2006* identifies the park resources and values that are subject to the no-impairment standard:

The "park resources and values" that are subject to the no-impairment standard include:

- the park's scenery, natural and historic objects, and wildlife, and the processes and condition that sustain them, including, to the extent present in the park: the ecological, biological, and physical processes that created the park and continue to act upon it; scenic features; natural visibility, both in daytime and at night; natural landscapes; natural soundscapes and smells; water and air resources; soils; geological resources; paleontological resources; archeological resources; cultural landscapes; ethnographic resources; historic and prehistoric sites, structure, and objects; museum collections; and native plants and animals;
- appropriate opportunities to experience enjoyment of the above resources, to the extent that can be done without impairing them;
- the park's role in contributing to the national dignity, the high public value and integrity, and the superlative environmental quality of the national park system, and the benefit and inspiration provided to the American people by the national park system; and
- any additional attributes encompassed by the specific values and purposes for which the park was established.

How is a Non-Impairment Determination Made?

Section 1.4.7 of *Management Policies 2006* states that

[I]n making a determination of whether there would be an impairment, an NPS decision maker must use his or her professional judgment. This means that the decision-maker must consider any environmental assessments or environmental impact statements required by the National Environmental Policy Act of 1969 (NEPA); consultations required under Section 106 of the National Historic Preservation Act (NHPA); relevant scientific and scholarly studies; advice or insights offered by subject matter experts and others who have relevant knowledge or experience; and the results of civic engagement and public involvement activities relating to the decision.

Management Policies 2006 further define “professional judgment” as

a decision or opinion that is shaped by study and analysis and full consideration of all the relevant facts, and that takes into account the decision-maker's education, training, and experience; advice or insights offered by subject matter experts and others who have relevant knowledge and experience; good science and scholarship; and, whenever appropriate, the results of civic engagement and public involvement activities relation to the decision.

Impairment Determination for the Selected Plan

This determination on impairment has been prepared for the Selected Plan described on pages 6-1 to 6-95 in the Central Everglades Planning Project Final Environmental Impact Statement (CEPP FEIS). An impairment determination is made for all resource impact topics analyzed for the Selected Plan that have been identified to have the potential to affect Everglades National Park (EVER). An impairment determination is not made for visitor use and experience, public health and safety, environmental justice, land use, and park operations because impairment findings relate back to park resources and values, and these impact areas are not generally considered to be park resources or values according to the Organic Act, and cannot be impaired in the same way that an action can impair park resources and values.

Impacted resources within EVER assessed for impairment are as follows:

Record of Decision for NPS Adoption of Central Everglades Planning Project FEIS

Hydrology and Water Quality

Implementation of the Selected Plan will decrease the large pulses of Lake Okeechobee water that are currently discharged to the St. Lucie and Caloosahatchee estuaries and send this water southward through the central Everglades. On average, approximately 210,000 acre-feet of water will be treated in flow equalization basins and stormwater treatment areas each year, reducing phosphorus concentrations to meet required water quality standards. The treated water will be distributed to flow through and help restore more natural quantity, timing and distribution of waters to WCA 3A, WCA 3B, EVER and Florida Bay. Several existing levees, canals, culverts, and pump stations will be constructed, modified, or removed to improve the flow of water through the system and provide for other water related needs.

Over the long term, water entering the park's Shark River Slough (SRS) from WCA 3 should have lower concentrations of total phosphorus as compared with the Future Without Project (FWO) condition due to the backfilling of the Miami Canal which will result in more water passing through the marsh areas and less water flowing directly from upstream canal sources. The Selected Plan is expected to improve marsh hydroperiods which will reduce the risk of downstream total phosphorus (TP) spikes caused by dry-out and rewetting. Impacts to the southern estuaries will be a decrease in average salinity conditions and the addition of nitrogen loading associated with the increase in flow. The effect of the added nitrogen is not expected to be ecologically significant.

Removal of the Old Tamiami Trail and the L-67 Extension levee and canal will allow for improved sheetflow distribution as water flows south into SRS. Construction activity during backfilling and degrading of the L-67A Extension and the Old Tamiami Trail roadway may result in the temporary mobilization of phosphorus contained in levee and roadway sediments. Impacts from the mobilization of total phosphorus during construction may temporarily increase TP concentrations at the EVER NP201 marsh monitoring stations. After the removal of the L-67 Extension and the Old Tamiami Trail roadway modifications are completed, the additional flow dispersion in northern SRS will reduce the likelihood that marsh concentrations within this area are adversely impacted by CEPP flows.

Shark River Slough water quality compliance measurements, as determined by the 1992 Consent Decree, are made at the inflow structures upstream of the Old Tamiami Trail canal and roadway. Modifications to the downstream roadway will have no effect on water quality compliance in Shark River Slough, from the standpoint of a requirement to change the monitoring locations. In 2012 the U.S. Environmental Protection Agency (EPA) and the State of Florida Department of Environmental Protection (FDEP) developed and concurred on a water quality based effluent limit (WQBEL) and a strategy to be implemented by the State to improve water quality and achieve compliance ("State Restoration Strategies"). This program is expanding the existing water quality improvement projects to achieve stringent phosphorous water quality standards established for the Everglades. At present, the Federal parties believe that the State Restoration Strategies, implemented in accordance with the State Issued Consent Order and other joint restoration projects, are sufficient to achieve water quality requirements for existing flows to the Everglades. If there is an exceedance of the Appendix A compliance limits, which results from a change in operation of a Federal project, and it has been determined that an exceedance cannot be remedied without additional water quality measures, the Federal and State partners will determine the most appropriate course of action, including what joint measures should be taken as a matter of shared responsibility.

Each individual component of the CEPP will require a Comprehensive Everglades Restoration Plan Regulation Act (CERPRA) permit from the Florida Department of Environmental Protection. CEPP project features cannot proceed unless/until it is determined through the CERPRA permitting process that construction and/or operation of the feature 1) will not cause or contribute to a violation of water quality

standards; 2) will not cause or contribute to a violation of the permit(s) discharge limits or specific conditions; and, 3) reasonable assurances exist that demonstrate adverse impacts on flora and fauna in the area influenced by the project element will not occur. Integration of adaptive management, operations, and monitoring into the CEPP will help provide reasonable assurance associated with water quality issues and uncertainties. Best management practices (BMPs) will be placed in construction contracts and deployed during construction to prevent pollution of waters in the vicinity of project features.

The removal of Old Tamiami Trail and the L-67 Extension levee will result in increased hydrologic connectivity, improved sheetflow, and extended hydroperiods that will reduce drying events. These impacts will be beneficial to both hydrology and water quality. Short-term, adverse construction-related impacts associated with the potential for increased sedimentation will be minimized through the use of appropriate construction management practices determined through the permitting process. No long-term adverse effects on water quality are anticipated. Overall effects on hydrology and water quality will be noticeable and beneficial throughout the park which is a designated World Heritage Site and Wetland of International Importance. As a result, there will be no impairment to these resources.

Soils

During the removal of Old Tamiami Trail and the L-67 Extension Levee, soils will be disturbed by construction activities. This impact will be confined to construction areas, mitigated by using BMPs and will only last during construction. In the long-term, improved hydroperiods and sheetflow will reduce soil oxidation, which will promote peat accretion necessary to rebuild the mosaic of habitats across the landscape. Overall effects on soils will be noticeable and beneficial in the mainland area of the park. The Selected Plan will not impair soils because soil functions will improve and continue to operate naturally to support a wide range of plants and wildlife.

Wetlands and Vegetation

The additional water flowing into northern WCA 3A and EVER under the Selected Plan will help to restore pre-drainage vegetative communities and habitat for fish and wildlife while providing incremental improvement of natural processes critical for the development of peat soils and tree islands, which are essential features of the Everglades ridge and slough landscape. The removal of 5.7 miles of Old Tamiami Trail and the backfill of the L-67 Extension canal will recover and restore 31 acres and 104 acres of wetlands respectively, and help provide more natural topography to promote sheetflow. Construction may have a short-term, temporary adverse effect on wetland function in the construction areas, but once the project is complete, wetland function will be enhanced due to the acres of wetlands gained.

Non-native and invasive plant infestations in the CEPP project area may be exacerbated by soil disturbance during construction and hydrological modifications and may require active management. There are invasive species control programs in place that will help contain non-native species and mitigate adverse impacts to the natural ecosystem.

Over the long-term, the resumption of sheetflow and pre-drainage hydroperiods will improve and help maintain the ecological function and value of the park's vegetation and wetlands communities. This will be a substantial beneficial effect to the park. As a result, there will be no impairment of these resources.

Marine Resources and Essential Fish Habitat

Increased overland flows to Florida Bay under the Selected Plan will improve salinities, resulting in greater abundance and diversity of sea grasses, mangroves, and other estuarine plant and animal species. The Selected Plan will not impair EVER marine resources and essential fish habitat because implementation is expected to result in long-term beneficial effects on the ecological function and value of these resources.

Special Status Species

The Selected Plan will result in beneficial and adverse impacts on special status species. During the CEPP FEIS process, the USACE entered into formal consultation with the U.S. Fish and Wildlife Service (USFWS) on the Everglades snail kite and its designated critical habitat, Cape Sable seaside sparrow and its designated critical habitat, wood stork and eastern indigo snake. In a programmatic Biological Opinion (BO) dated April 19, 2014, the USFWS provided a preliminary determination that the recommended plan was not likely to jeopardize the continued existence of nor modify designated critical habitat for species listed under the Endangered Species Act of 1973. The BO states that further consultation will be needed when more specific project details are finalized during project design and implementation activities.

The NPS will continue ESA Sec. 7 consultation with the USFWS during the planning and design phase for the Old Tamiami Trail modifications. Upon completing the Sec. 7 consultation, the NPS and USACE will undertake the agreed-to avoidance and minimization measures and implementing terms and conditions. With the implementation of these measures, there will be no impairment to special status species within EVER from implementing the Selected Plan.

Wildlife and Habitat

The Selected Plan will result in temporary adverse impacts from noise and visual disturbance due to construction activities in the project area. Conditions will return to baseline following construction and no long-term adverse effects are anticipated. Long-term beneficial effects on wildlife and wildlife habitat throughout the park will result from improved hydrologic conditions and the restoration of sheetflow. As a result, there will be no impairment to EVER resources or values related to wildlife and habitat.

Cultural Resources

The CEPP FEIS determined that removing the L-67 Extension Levee and backfilling the adjacent canal would have no effect on cultural resources. The FEIS determined that removing approximately 5.7 miles of the Old Tamiami Trail to improve sheetflow would result in major long-term adverse effects to the historic roadway and canal and could result in loss of its eligibility for listing on the National Register of Historic Places. The effect determinations on the historic roadway and canal are considered to be preliminary findings, and potential mitigation measures could reduce the effects. The USACE initiated consultation under Section 106 of the NHPA with the State Historic Preservation Office (SHPO), the Seminole Tribal Historic Preservation Office, the Miccosukee Tribe of Indians of Florida's NAGPRA Representative, the Advisory Council on Historic Preservation, EVER, and interested parties. During consultation, several conclusions were drawn: (1) It was determined that additional surveys were needed to identify cultural resources within specific areas of potential effect, (2) It was decided that as the CEPP project progressed, additional surveys may be needed, specifically during the Pre-Construction Engineering Design (PED) phase, when feature designs were finalized and construction staging areas were determined, and (3) Section 106 compliance with the NHPA would be conducted separately from NEPA and would not be completed during the feasibility phase of the project; however it would be complete prior to construction of each feature.

The NPS and USACE prefer to avoid adverse effects to cultural resources when possible. Pursuant to NHPA implementing regulations, 36 CFR 800.1, where possible, the project design for Old Tamiami Trail removal will be modified to avoid impacting significant historic properties and culturally significant sites. Where avoidance is not possible, other mitigation measures will be considered. Future mitigation measures will be developed during the NPS planning and design phase for the Old Tamiami Trail modifications in consultation with the SHPO, tribal groups and other interested parties.

A Memorandum of Agreement between the NPS, USACE and the SHPO will be developed to resolve the adverse effects of Old Tamiami Trail modifications. With the conclusion of Sec. 106 consultations and implementation of the agreed-to mitigations in the MOA, there will be no impairment to historic resources within EVER.

Conclusion

The impact analyses summarized above demonstrate that the Selected Plan will result in substantial beneficial effects on the resources and values of EVER, a designated World Heritage Site and Wetland of International Importance. Implementation of the Selected Plan will not result in major adverse impacts on a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation of the park; (2) key to the natural or cultural integrity of the park or opportunities for enjoyment of the park; or (3) identified as a goal in the park's general management plan or other NPS planning documents. Effects to park resources other than those discussed above have been determined to have no or negligible adverse impacts from the activities to be implemented. There will be no impairment to park resources or values from implementing the Selected Plan.

APPENDIX B

CEPP FEIS Section 6.7.6 Environmental Commitments

The USACE commits to avoiding, minimizing or mitigating for adverse effects during construction activities by including the following commitments in the contract specifications:

1. The contractor would be required to keep construction activities under surveillance, management, and control to avoid pollution of surface, ground waters, and wetlands. The contract specifications would require the contractor to employ best management practices (BMPs) with regard to erosion and turbidity control.
2. The contractor would be required to prevent oil, fuel, or other hazardous substances from entering the air, ground, drainage, local bodies of water, or wetlands. The contract specifications would require that the contractor adopt safe and sanitary measures for the disposal of solid wastes and would require a spill prevention plan. The contractor would also be required to transport and dispose of any construction and demolition debris in accordance with applicable requirements.
3. The contractor would be required to keep construction activities under surveillance and control to minimize damage to the environment by noise and pollution of air resources.
4. The contractor would be required to keep construction activities under surveillance, management, and control to minimize interference with, disturbance to, and damage of fish and wildlife. The contractor would be required to inform the construction team of the potential presence of threatened and endangered species in the work area, the need for construction conservation measures, and any requirements resulting from Endangered Species Act (ESA) Section 7 consultation.
5. The contractor would be required to take appropriate measures to protect historic, archeological and cultural resources within the work area.
6. The contractor would be required to keep construction activities under surveillance, management, and control to prevent the transfer and spread of invasive species due to construction activities. The contract specifications would require the contractor to employ BMPs and measures to prevent the transfer and spread of invasive species.

In addition, as required under WRDA 2000, the CERP Programmatic Regulations, and current USACE policy, the Project Delivery Team (PDT) has taken the following actions:

1. The PDT has identified water to be reserved or allocated for the natural system. **Annex B** addresses this requirement.
2. The recommended plan has been evaluated in light of its potential effects on existing legal sources of water and the level of service for flood protection. **Annex B** addresses this requirement.
3. WRDA 2000, the authorizing legislation for CERP, has now made a formal monitoring plan a requirement for all CERP restoration projects. The Selected Plan includes adaptive management, water quality, hydrometeorologic, and ecological monitoring activities to ensure that the intended

purposes of the project would be achieved through long term operations. **Annex D** addresses this requirement.

4. In addition to the project level monitoring plan, the PDT has developed a nuisance and exotic vegetation control plan which strives to either prevent or reduce the establishment of invasive and non-native species within the project area. **Annex D** addresses this requirement.
5. USACE guidance interpreting the WRDA of 2007 (Section 2039), requires preparation of an adaptive management plan for all ecosystem restoration projects. Adaptive management is a formal process for continually improving management policies and practices by learning from their outcomes. In the context of CEPP, the adaptive management plan provides an approach for addressing project uncertainties by testing hypotheses, linking science to decision making, and adjusting implementation of the project as necessary, to improve the probability of restoration success. **Annex D** addresses this requirement.
6. The recommended plan has been evaluated in light of its potential effects on fish and wildlife resources, including effects to Federally listed species. Consultation was initiated with USFWS on August 5, 2013 with completion of a Biological Assessment (BA). A Programmatic Biological Opinion (BO) was received on April 9, 2014, which clearly states that further consultation will be needed when more specific project details are finalized during project design and implementation activities. While this document does not authorize incidental take of three endangered avian species (CSSS, snail kite, and wood stork), it does describe the anticipated effects based on current information. Upon completing ESA Section 7 consultation for each PPA, USACE will undertake the agreed-to avoidance and minimization measures and implementing terms and conditions (TCs). When USACE is closer to constructing phases of CEPP that will affect listed species, USFWS will provide separate consultation document(s) which may authorize incidental take, and provide applicable reasonable and prudent measures (RPMs) and TCs. Additional information can be found in **Annex A**.