March 2005

CENTRAL AND SOUTHERN FLORIDA PROJECT

COMPREHENSIVE EVERGLADES RESTORATION PLAN

Programmatic Regulations

Master Implementation Sequencing Plan 1.0

U.S. Army Corps of Engineers
Jacksonville District

South Florida Water
Management District

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1.0 INTRODUCTION

The Comprehensive Everglades Restoration Plan (CERP or the Plan) provides connectivity between diverse and significant habitats of the South Florida ecosystem, including the Everglades, which encompasses 18,000 square miles from Orlando to the Florida Reef Tract. Everglades National Park, a significant portion of the greater Everglades Ecosystem, is a World Heritage Site, an International Biosphere Preserve, and a Wetland of International Importance. The Everglades and the South Florida ecosystem are affected by competing demands for recreation, development, and natural and commercial resources, and include some 68 federally listed threatened and endangered plants and animals.

First authorized by Congress in 1948, the Central and Southern Florida (C&SF) Project expanded the existing network of canals, levees, water storage areas and water control structures. Project objectives included flood control, regional water supply, prevention of saltwater intrusion, preservation of fish and wildlife, recreation and navigation. In fulfilling these objectives, the project has had unintended adverse effects on the natural environment that constitutes the Everglades and South Florida ecosystem. As a result, in 1996, the United States Army Corps of Engineers (USACE) was directed to develop a comprehensive plan to restore, preserve and protect the South Florida ecosystem while providing for the water-related needs of the region. The resulting plan submitted to Congress on July 1, 1999, is called CERP and consists of structural and operational modifications to the C&SF Project.

CERP was approved as a framework for the restoration of the natural system as Section 601 of the Water Resources Development Act of 2000 (WRDA 2000). The Plan consists of 68 components to restore, preserve and protect the South Florida ecosystem while providing for other water-related needs of the region, including water supply and flood protection. The Plan's components will be implemented over an approximately 40-year period. Together, these components are expected to benefit the ecological functioning of more than 2.4 million acres of the South Florida ecosystem by improving urban and agricultural water supply, deliveries to coastal estuaries, and regional water quality conditions, while maintaining existing levels of flood protection.

Section 601(h)(3) of WRDA 2000 required the Secretary of the Army, with the concurrence of the Secretary of the Interior and the Governor of Florida -- after an opportunity for public notice and comment -- to promulgate programmatic regulations to ensure that the goals and purposes of the Plan are achieved, and to establish the processes necessary for implementing the Plan. The final programmatic regulations became effective December 12, 2003, as Title 33, Part 385, of the Code of Federal Regulations.

The programmatic regulations call for a variety of tools and processes to be developed, including the Master Implementation Sequencing Plan (MISP).

Included within Section 10 of the *Final Integrated Feasibility Report and Programmatic Environmental Impact Statement* dated April 1, 1999, was the original sequencing plan for the implementation of the Comprehensive Everglades Restoration Plan. Section 10 described the project implementation process and the schedules developed to implement the recommended Plan. Subsequent to the completion of the aforementioned environmental impact statement, the Implementation Plan was first updated in July 2001 and was known as the Master Implementation Schedule (MIS 1.0). MIS 1.0 updated the Implementation Plan and documented the status of CERP at that time.

The MISP builds on previous efforts, and incorporates new information, implementation experience to date, and changes in legislation. Some of the new information includes the requirements in WRDA 2000 and the programmatic regulations, as well as the effects of the streamlining contained in the state's Acceler8 initiative (an accelerated schedule for several CERP components). These items will make CERP implementation more efficient, while staying true to the logic relationships of MISP and the partnership between the South Florida Water Management District (SFWMD) and the United States Army Corps of Engineers (USACE).

Presentation of the information in Bands, which groups items by implementation completion date, facilitates the understanding of the overall implementation strategy by presenting the information in the sequence it will be worked on by the implementing agencies (Bands are management tools that provide clear priorities and allow focusing of resource and agency expertise). While a majority of the items listed in the Bands are the construction completion timeframes for the different projects and project elements, the Indian River Lagoon – South (IRL-S) Project demanded a slightly different approach. While the construction completion timeframes are still listed for IRL-S, the Bands also list Real Estate acquisition timeframes for the Natural Areas. The MISP team and agency management feel that due to the large acreage required for the IRL-S Natural Areas and the likely extended acquisition period, it seemed logical to show real estate acquisition for the IRL-S Natural Areas in the Bands, even though the real estate acquisition timeframes are not listed for the other projects. This presentation of the IRL-S Natural Areas real estate acquisition assumes an interagency team, that at the time of publication of this document is still being formed, will be successful in garnering the resources necessary to complete the acquisitions as shown. If resources are not ultimately made available for this purpose, then the sequencing of these acquisitions would have to be reevaluated.

Development of the MISP included consideration of a variety of factors, including technical relationships, the status of scientific research in various disciplines, and resources available to implement projects. A change in any one of those factors could have a significant effect on the final sequencing and scheduling of projects. The factor most likely to change in the future is the availability of resources, which also includes assumptions about future funding and staff availability. These assumptions were used to determine how many projects could be developed simultaneously, after taking into account technical relationships among the various projects. There are projects scheduled to be completed in later Bands that face significant issues including future land

availability and have the potential for earlier implementation, including Indian River Lagoon (IRL) Natural Areas and Everglades National Park Seepage Management. These projects have demonstrable benefits for the natural system and have significant stakeholder support. Such projects could have been at least partially scheduled earlier if resource assumptions were different. The USACE and the SFWMD, along with its stakeholders, will continue to evaluate opportunities during project development for implementation of CERP components at the earliest possible time. As CERP implementation moves forward, the many factors that influence the final sequencing and scheduling, including resource availability, will be reviewed, and when significant changes occur, the MISP will be revised to reflect new realities.

The MISP is a snapshot in time and will be monitored, evaluated and updated as CERP implementation progresses, and more is known about the natural system and project implementation. While the MISP is a useful tool to get an overall idea of how CERP will be implemented over time, specific project teams should be contacted if detailed information about a particular project is desired.

2.0 GOALS AND PURPOSES OF THE PLAN

As stated in Section 601(h) of WRDA 2000, "The overarching objective of the Plan is the restoration, preservation, and protection of the South Florida ecosystem while providing for other water-related needs of the region, including flood protection and water supply." As submitted to Congress, the Plan contains 68 major components that anticipate the creation of approximately 217,000 acres of reservoirs and wetland-based water treatment areas, wastewater reuse plants, seepage management, and the removal of levees and canals in natural areas. These components vastly increase storage and water supply for the natural system, as well as for urban and agricultural needs, while continuing to fulfill the original objectives of the existing Central and Southern Florida Project. The Plan will restore more natural flows of water, including sheetflow; improve water quality; and establish more natural hydroperiods in the South Florida ecosystem. Improvements to fish and wildlife habitat, including those that benefit threatened and endangered species, are expected to occur as a result of the restoration of hydrologic conditions. This will promote the recovery of native flora and fauna, as well as threatened and endangered species.

The specific goal of the MISP is the proper grouping and sequencing of Plan components to enable achievement of the Plan's goals and objectives consistent with the intent of the programmatic regulations and WRDA 2000.

3.0 INTEGRATED FRAMEWORK FOR ASSURING THE GOALS AND PURPOSES OF THE PLAN ARE ACHIEVED

Section 601(h) of WRDA 2000 and the programmatic regulations establish an integrated framework of tools, processes, and an enforcement mechanism for ensuring that the goals and purposes of the Plan are achieved. This framework includes tools for planning, implementation and evaluation; a process for developing these tools in an open, public

process, with input from other federal, state, and local agencies; and an enforcement mechanism to ensure the requirements of the statute are carried out. Among the tools called for in the regulations is the MISP.

The programmatic regulations also establish the processes for developing these tools. Consistent with Section 601(h), the programmatic regulations were developed after notice and opportunity for public comment, with the concurrence of the Secretary of the U.S. Department of Interior and the Governor of Florida, and in consultation with the Seminole Tribe of Florida, the Miccosukee Tribe of Indians of Florida, the Environmental Protection Agency Administrator, the Secretary of the U.S. Department of Commerce, the Florida Department of Environmental Protection, and other federal, state and local agencies.

4.0 PURPOSE OF THE MASTER IMPLEMENTATION SEQUENCING PLAN

The purpose of the MISP is to identify the framework for restoration of the South Florida ecosystem. The programmatic regulations define the MISP as a plan:

> "…that includes the sequencing and scheduling for implementation of all of the projects of the Plan, including pilot projects and operational elements, based on the best scientific, technical, funding, contracting, and other information available. Projects shall be sequenced and scheduled to maximize the achievement of the goals and purposes of the Plan at the earliest possible time and in the most cost-effective way, consistent with the requirement that each project be justified on a next-added-increment basis, including the achievement of the interim goals established pursuant to §385.38 and the interim targets established pursuant to §385.39, consistent with §385.36 and §385.37(b), and to the extent practical given funding, engineering, and other constraints. The sequencing and scheduling of projects shall be based on considering factors, including, but not limited to:
>
> (i) Technical dependencies and constraints;
> (ii) Benefits to be provided by the project;
> (iii) Availability of lands required for the project; and
> (iv) Avoiding elimination or transfers of existing legal sources of water until an alternate source of comparable quantity and quality is available, in accordance with §385.36."master implementation sequencing plan development and approval process

5.0 MASTER IMPLEMENTATION SEQUENCING PLAN DEVELOPMENT AND APPROVAL PROCESS

Section 385.1 of the programmatic regulations requires the Secretary of the Army to ensure that the public understands the linkage between the processes, tools and

enforcement mechanism, and can monitor the effectiveness of this integrated framework in assuring the goals and purposes of the Plan are achieved by:

(i) Providing for public notice and comment in the development of planning, implementation and evaluation tools;
(ii) Providing notice of final action on planning, evaluation and implementation tools;
(iii) Making available to the public on a Web site, or by other appropriate means, final, and where appropriate, draft copies of all planning, evaluation and implementation tools; and
(iv) Explaining through the programmatic regulations and by other appropriate means the process for developing the tools, the linkage between the process, tools and enforcement mechanism, and the means by which these elements constitute an integrated framework for assuring the goals and purposes of the Plan are achieved.

Section 385.30 of the programmatic regulations describes the special processes for MISP development. The development process was initiated prior to the effective date of the programmatic regulations to lay out a strategy for effectively and efficiently developing technical work products and to elevate issues for resolution within the prescribed time frame. The programmatic regulations require that USACE and SFWMD develop the MISP in consultation with the same agencies listed in Paragraph 2 of Item 3.0 above.

6.0 MASTER IMPLEMENTATION SEQUENCING PLAN DECISION MAKING PROCESS

A two-phased approach was used to develop the MISP. Phase 1 consisted of the development of a Technical Constraints Analysis (TCA) which included an analysis of component packaging, identification of benefits, project sequencing and task duration. The outputs of the TCA were then evaluated further by resource leveling. Further information on Phase 1 development and the TCA is provided in the following sections.

USACE and SFWMD began the development process by inviting all the governmental entities and public that would be providing document inputs to an initial public meeting at the Okeeheelee Nature Center in West Palm Beach. The MISP team presented the process and strategy for developing the MISP. Information about the work of the teams (meeting summaries and initial work products) was posted on the CERP Web site (www.evergladesplan.org). Throughout the year-long development process, briefings were conducted for the SFWMD Water Resources Advisory Commission and the South Florida Ecosystem Restoration Task Force and Working Group.

Modeling of the Phase 1 effort at five-year increments was originally envisioned for the Phase 2 effort; however, these simulations are not available. Once the simulations become available, the MISP team will coordinate with RECOVER to conduct an appropriate review of the MISP in 5-year increments and review its relationship with Interim Goals and Interim Targets. The Bands show when construction of a CERP

component or feature has been completed and that the Project Implementation Report (PIR) and design phases would have been completed.

Phase 2 then consisted of presenting the output of Phase 1 for public and stakeholder review and comment, as well as taking into account factors that will affect the sequencing, such as the state's Acceler8 initiative. As mentioned earlier, bands provide clear priorities and allow focusing of resource and agency expertise.

6.1 Phase 1 Development Process

6.1.1 Technical Constraints Analysis

Phase 1 was initiated with the development of a Technical Constraints Analysis (TCA). The TCA includes an analysis of component packaging, identification of benefits, project sequencing and task duration starting with the logic in the Implementation Schedule in Section 10 of the Comprehensive Study and the update of Section 10 done as part of the Master Implementation Schedule, UPDATE 1.0 development.

6.1.1.1 Component Packaging Review

Component Packaging is the grouping of one or more of the 68 CERP components defined in the Plan under one PIR. The PIR may then be subdivided into more than one phase for efficient construction implementation.

Component Packaging also consisted of updating components to take into account the most recent available information, such as recent changes to the components that make up the Indian River Lagoon – South Project. The MISP team evaluated Section 10 of the "Final Integrated Feasibility Report and Programmatic Environmental Impact Statement" dated April 1, 1999, and MIS 1.0 (2001 Sequence) component packaging, and compared them to the additional requirements of WRDA 2000 and the programmatic regulations based on the best available information at the time. These additional requirements consisted of:

- Next Added Increment: Individual projects shall be formulated, evaluated and justified based on their ability to contribute to the goals and purposes of the Plan and on their ability to provide benefits that justify costs on a next-added-increment basis. If a component cannot be justified on a next-added-increment basis, it may be combined with one or more additional components for justification.

- Savings Clause: Reviewing schedule and sequencing impacts related to application of the Savings Clause as contained in the WRDA 2000 (Section 601(h)(5)(A)), and as further described in the programmatic regulations (Section 385.36), is critical to the MISP. The programmatic regulations stipulate that Project Implementation Reports (PIRs) shall include analyses to determine if existing legal sources of water are to be

eliminated or transferred as a result of project implementation. If it is determined that such an elimination or transfer will occur, a new source of water of equal quantity and quality must be available to replace it. With respect to flood control, it is intended that implementation of the Plan will not result in significant adverse impacts to any person with an existing, legally recognized right to a level of protection against flooding. While a detailed, quantitative analysis of the Savings Clause was not available for the MISP, the MISP team utilized the best available information to evaluate if a violation was likely to occur based on the sequencing.

6.1.1.2 Identification of Benefits

Because many projects have not yet reached the point in development for quantifying benefits, it was determined that a general description of anticipated benefits, such as those found in the "Final Integrated Feasibility Report and Programmatic Environmental Impact Statement," would be adequate at this time. However, more detailed descriptions of benefits were included if available.

6.1.1.3 Project Sequencing Review

Project Sequencing is the review of technical relationships of CERP projects (that consist of components). Project Sequencing was also based on maximizing restoration benefits. Initially authorized projects and pilot projects were given the highest priority. These technical relationships include:

- Pilot projects must be completed prior to the PIR being initiated; and
- Certain PIRs must be completed prior to other PIRs so as not to violate the Savings Clause.

6.1.1.4 Task Duration Review

Due to completion of the "Final Integrated Feasibility Report and Programmatic Environmental Impact Statement" passage of WRDA 2000 and the promulgation of the programmatic regulations, PIRs must meet additional requirements to be complete and acceptable. These requirements, along with experience gained from preparing two PIRs, resulted in a modification to the time and resources needed to complete a PIR. The MIS 1.0 task durations for the components were then updated to reflect the most recent information.

6.1.2 Technical Constraints Analysis Recommendations and Phase 1 Analysis

The completion of Component Packaging, Project Sequencing and Identification of Benefits culminated in the development of the TCA. Project names and their respective components can be found in Appendix D (Project Names and Components). The technical constraints of Plan components can be seen in Appendix E, and a summary of

changes to each project and sequencing descriptions are located in Appendix F. This analysis was then used as the starting point for resource leveling.

6.1.2.1 Resource-Leveling Review

Upon completion of the TCA technical review, attention was focused on the resource needs associated with implementing the CERP.

Representatives of the MISP team met to develop options for project execution within five-year "Bands." During the Phase 1 (TCA) analysis, it appeared that the majority of the projects in the CERP were being initiated during the first five-year window or "band" extending from 2005 until 2010. A resource-leveling exercise was initiated to identify potential adjustments in the execution of projects that could result in an improved long-term flow of work (from an execution standpoint). Adjustments took into account technical constraints associated with project dependencies (logic ties) and resource constraints.

The MISP team first identified priority projects that should be retained, if at all possible, in the first Band (Band 1). Priority was given to initially authorized projects, pilot projects and other projects that will provide significant, immediate benefits. In general, the team considered the contribution of projects to the goals of CERP, technical dependencies between projects, and the capacity of USACE and SFWMD to execute projects based on available resources, while continuing to maintain the logic for implementation that was finalized as part of the TCA analysis.

The team reviewed projects from a planning perspective that included three phases: PIR, Plans and Specifications (P&S) and Construction. Project Management Plan (PMP) development was considered part of the PIR phase and Design was considered part of P&S.

Implementation capacity was defined as the combined ability of implementing agencies to accomplish CERP work. This capacity was made up of human resource availability, as well as funding available to be dedicated toward a project. On the funding side, the base assumption was that approximately $200 million would be available from each implementing agency (SFWMD and USACE) per year to implement CERP projects for a total of approximately $400 million per year. The $200 million from USACE is expected to come from congressional appropriations, while the $200 million from SFWMD is coming from a combination of $75 million in local ad-valorem funds and $125 million from the Florida Legislature. While the authorizing legislation for state contribution is set to expire in 2010, it was assumed that funding would continue beyond that date. Starting with the TCA, an analysis of expected revenue needs was performed, and when projected needs were consistently above expected available resources, changes were made in the schedule to fit expected needs within expected available resources. It is important to note that the changes made did not violate the technical relationships established in the TCA. They only extended the implementation period for projects. Many iterations of this analysis were performed to arrive at the completion of Phase 1-MISP.

It was suggested to the MISP team that additional Federal options for funding, aside from USACE appropriations, may be available to further CERP goals. While all options for funding are worth exploring, it would not be prudent to base MISP on potential additional Federal funding that may or may not be available in the future. There are projects scheduled in later bands that face significant issues with future land availability, including IRL-S Natural Areas and Everglades National Park Seepage Management. These projects have demonstrable benefits for the natural system and have significant stakeholder support. Such projects could have been at least partially scheduled earlier if resource assumptions were different. If additional funding from any source is made available in the future, MISP will be reevaluated to determine the best use of it.

6.1.3 Phase 1 Recommendations

The schedule for Phase 1 recommendations is shown in Appendix B, "Comparison of Construction Completion Dates by Band," under the column "MISP-Phase 1." As previously noted, these bands are consistent with the total funding of approximately $400 million (50 percent Federal and 50 percent non-Federal). If additional funds were to become available, the MISP-Phase 1 schedule would be advanced based on its linkages and priority of projects outlined in the Technical Constraints Analysis, Phase I of the MISP process, and concluding with the delivery of the MISP for coordination with partner entities.

6.2 Phase 2 Development Process

It was originally envisioned that Phase 2 of MISP development would include model simulations of the MISP at five-year increments and an analysis of the performance of the system during each increment using the South Florida Water Management Model (SFWMM). At the time of this report, those simulations are not available for inclusion in Phase 2. The MISP team will work with RECOVER to perform an appropriate analysis of the MISP when simulations become available.

Because the simulations were not available, Phase 2 development was constrained to include presenting the output of Phase 1 into Bands for public and stakeholder review and comment, as well as taking into account factors that may affect scheduling, such as the state's Acceler8 initiative and streamlining of the implementation process.

6.2.1 SFWMD Acceler8 Initiative

Subsequent to the completion of MISP-Phase 1, SFWMD initiated an accelerated schedule for several components of the CERP (sometimes referred to as "Acceler8"). These components are shown in Table 1.

TABLE 1
SFWMD ACCELER8 AND COMPREHENSIVE PLAN COMPONENTS

Acceler8 Projects	Comprehensive Plan Components
C-44 Reservoir	C-44 Storage Reservoir (IRL)
Picayune Strand Restoration	Southern Golden Gate Estates Hydrologic Restoration
C-43 Reservoir	C-43 Storage Reservoir
EAA Storage Reservoir	EAA Storage Reservoir, Part 1
Biscayne Bay Coastal Wetlands, Phase 1	Biscayne Bay Coastal Wetlands
C-111 Spreader Canal	C-111 Spreader Canal
Water Preserve Areas	Acme Basin B Discharge
	Site 1 Impoundment
	C-9 Impoundment
	C-11 Impoundment
	WCA 3A/3B Levee Seepage Management

*Note: One Acceler8 (*Everglades Agricultural Area Stormwater Treatment Areas Expansion*) project does not represent a CERP component, so it was not included in this table.*

SFWMD will undertake design and construction of all Acceler8 projects. The detailed design will be initiated and fully coordinated with the PIR during the standard PIR process. The Acceler8 process will implement these projects more efficiently and is not anticipated to violate any of the project-specific assumptions and relationships that were defined in Phase 1 of MISP development. The Acceler8 projects will achieve the same goals and objectives defined for CERP, but with the funding stream provided by SFWMD, those goals will be achieved more expeditiously than would be possible under a standard implementation process. Two of the Acceler8 projects (Biscayne Bay Coastal Wetlands and EAA Storage Reservoir) represent only a portion of the CERP project. In the case of those two efforts, the CERP Project Implementation Report will evaluate the entire solution. The complete Acceler8 effort is listed as Phase 1 in the Bands included in Appendix B. For the remainder of CERP components not identified under Acceler8, the Corps and SFWMD will use the streamlined process, described in more detail below, to accelerate the program.

6.2.1.1 Funding for Acceler8 Projects

Phase 1 of the MISP was resourced with approximately $400 million total funding. This funding was then augmented by the $1.5 billion in additional construction funding for the Acceler8 initiative being brought forward by the state and SFWMD. The additional state funding for Acceler8 will make Federal funding previously dedicated to the Acceler8 projects available for other uses which could result in the acceleration of additional projects, both in the short term and over the longer implementation period.

Design and Construction of the Acceler8 projects will be fully funded by SFWMD. Due to the nature of the funding stream available for these projects and the need to complete the land acquisition necessary for the project, the priority for SFWMD funds will be the implementation of the Acceler8 projects (including any remaining land acquisition) and land acquisition for other projects in keeping with the needs identified in the MISP. SFWMD will continue to work with USACE on the implementation of the entire CERP Program using SFWMD funds and funds from the state's $125 million annual contribution.

6.2.2 Streamlined Process

In accordance with MISP-Phase 1 recommendations, USACE and SFWMD reevaluated the study and implementation process for CERP components. In MISP-Phase 1, the process for component implementation would be: 1) Complete PIR; 2) Initiate Detailed Design; 3) Complete Detailed Design; 4) Initiate Construction; and 5) Complete Construction.

Under a "streamlined" process, the Initiation of Detailed Design which would begin subsequent to the identification of the Tentatively Selected Plan and prior to the final PIR Completion. Additionally, Plans and Specifications for the first construction element would be initiated at the earliest possible time with Construction following as soon as possible.

6.2.3 Effects of the SFWMD Acceler8 Initiative and Streamlining

SFWMD's accelerated implementation, along with program streamlining, is consistent with the priorities identified in the Plan and the MISP-Phase 1 analysis. The schedules and linkages of the TCA will be accelerated as will the realization of benefits that will be identified in the PIRs.

Initial MISP-Phase 1 recommendations were based on numerous considerations, including resource availability. The commitment of SFWMD is to provide funding for both the design and construction of the Acceler8 components while continuing to support non-Acceler8 projects. This proposal will reduce the demand on federal funds and resources that were targeted for design and construction of the Acceler8 projects. This approach allows those funds and resources to be utilized elsewhere, including non-Acceler8 projects and required monitoring. The anticipated result is a streamlining of project implementation and potential acceleration of CERP benefits over the lifetime of the Acceler8 Program, as compared to the MISP-Phase 1 analysis.

6.2.4 MISP Phase 2 Evaluation with Acceler8 and Streamlining Initiatives

After evaluation of the resources made available by the state's actions, USACE and SFWMD determined that additional CERP components could be accelerated by streamlining the implementation process as identified in 6.2.2 above, given a few constraints:

1) Utilization of logic ties from the MISP-Phase 1 schedule to determine the next CERP component to be initiated;
2) Assume that all Lands, Easements, Rights-of-Way, Relocations and Disposals (LERRDs) would be in place, with the understanding that acquisition remains a SFWMD responsibility and may be limited by the Acceler8 effort;
3) USACE would fully fund all PIRs, as well as design and construction where SFWMD was the local sponsor, in accordance with cost-share requirements;
4) Overall cost sharing as described above for the CERP program will be maintained in accordance with WRDA; and
5) Sequencing for IRL-S Natural Areas contingent upon interagency team garnering appropriate resources.

7.0 MISP FINDINGS

Based on the MISP Phase 1 and Phase 2 evaluation, it was determined that the implementation of CERP components could be expedited by a number of years. The CERP completion date would still remain the same, as the last constructed components (North Lake Belt and Central Lake Belt) are dependent on land availability. This expedited implementation process would also mean that benefits to the South Florida ecosystem would be realized sooner.

A comparison of the original schedule contained in Section 10 of the Final Integrated Feasibility Report and Programmatic Environmental Impact Statement, vs. MISP-Phase 1 completion, vs. MISP streamlined is included in Appendix B.

As previously stated, development of the MISP included consideration of a variety of factors including technical relationships, the status of scientific research in various disciplines, and resources available to implement projects. A change in any one of those factors could have a significant effect on the final sequencing and scheduling of projects. The factor most likely to change in the future is the availability of resources which also includes assumptions about future funding and staff availability. These assumptions were used to determine how many projects could be developed simultaneously, after taking into account technical relationships among the projects.

There are projects scheduled to be completed in later bands that face significant issues including future land availability and have the potential for earlier implementation, including IRL-S Natural Areas and Everglades National Park Seepage Management. These projects have demonstrable benefits for the natural system and have significant stakeholder support. Such projects could have been at least partially scheduled earlier if

resource assumptions were different. The USACE and the SFWMD, along with its stakeholders, will continue to evaluate opportunities during PIR development for implementation of CERP components at the earliest time possible. As CERP implementation moves forward, all of the factors that influenced the final sequencing and scheduling, including resource availability, will be reviewed and when significant changes occur the MISP will be revised to reflect new realities.

The MISP is a snapshot in time and will be monitored, evaluated and updated as the implementation of CERP progresses and more is known about the both the natural system and project implementation. While the MISP is a useful tool to get an overall idea of how CERP will be implemented over time, specific project teams should be contacted if detailed information about a particular project is desired.

APPENDIX A: PROGRAMMATIC REGULATIONS EXCERPT

§385.30 Master Implementation Sequencing Plan.

(a) Not later than December 13, 2004, the Corps of Engineers and the South Florida Water Management District shall, in consultation with the Department of the Interior, the Environmental Protection Agency, the Department of Commerce, the Seminole Tribe of Florida, the Miccosukee Tribe of Indians of Florida, the Florida Department of Environmental Protection, and other federal, state, and local agencies, develop a Master Implementation Sequencing Plan that includes the sequencing and scheduling for implementation of all of the projects of the Plan, including pilot projects and operational elements, based on the best scientific, technical, funding, contracting and other information available. The Corps of Engineers and the South Florida Water Management District shall also consult with the South Florida Ecosystem Restoration Task Force in preparing the Master Implementation Sequencing Plan.

(1) Projects shall be sequenced and scheduled to maximize the achievement of the goals and purposes of the Plan at the earliest possible time and in the most cost-effective way, consistent with the requirement that each project be justified on a next-added-increment basis, including the achievement of the interim goals established pursuant to §385.38 and the interim targets established pursuant to §385.39, consistent with §385.36 and §385.37(b), and to the extent practical given funding, engineering and other constraints. The sequencing and scheduling of projects shall be based on considering factors, including, but not limited to:

(i) Technical dependencies and constraints;

(ii) Benefits to be provided by the project;

(iii) Availability of lands required for the project; and

(iv) Avoiding elimination or transfers of existing legal sources of water until an alternate source of comparable quantity and quality is available, in accordance with §385.36.

(2) The Master Implementation Sequencing Plan shall include appropriate discussion of the logic, constraints and other parameters used in developing the sequencing and scheduling of projects.

(3) In accordance with §385.18, the Corps of Engineers and the South Florida Water Management District shall provide opportunities for the public to review and comment on the Master Implementation Sequencing Plan.

(b) Whenever necessary to ensure the goals and purposes of the Plan are achieved, but at least every five years, the Corps of Engineers and the South Florida Water Management District shall, in consultation with the Department of the Interior, the Environmental Protection Agency, the Department of Commerce, the Seminole Tribe of Florida, the Miccosukee Tribe of Indians of Florida, the Florida Department of Environmental Protection, and other Federal, State, and local agencies, review the Master Implementation Sequencing Plan.

(1) The Master Implementation Sequencing Plan may be revised as appropriate, consistent with the goals and purposes of the Plan, and consistent with §385.36 and §385.37(b), to incorporate new information including, but not limited to:

(i) Updated schedules from Project Management Plans;

(ii) Information obtained from pilot projects;

(iii) Updated funding information;

(iv) Approved revisions to the Plan;

(v) Congressional or other authorization or direction;

(vi) Information resulting from the adaptive management program, including new information on costs and benefits; or

(vii) Information regarding progress toward achieving the interim goals established pursuant to §385.38 and the interim targets established pursuant to §385.39.

(2) Proposed revisions to the Master Implementation Sequencing Plan shall be analyzed by RECOVER for effects on achieving the goals and purposes of the Plan and the interim goals and targets.

(3) The revised Master Implementation Sequencing Plan shall include information about the reasons for the changes to the sequencing and scheduling of individual projects.

(4) In accordance with §385.18, the Corps of Engineers and the South Florida Water Management District shall provide opportunities for the public to review and comment on revisions to the Master Implementation Sequencing Plan.

APPENDIX B: COMPARISON OF CONSTRUCTION COMPLETION DATES BY BAND

Comparison of Restudy and MISP 1.0 Construction Completion Dates

As of: 6 April 2005

Component/ Project Name	Construction Completion Dates		
	Comp Plan (April 1999)	MISP Phase 1	MISP Streamlined (current)
Caloosahatchee (C-43) River ASR Pilot	Oct-02	Sep-06	2006
Hillsboro ASR Pilot Project	Oct-02	Dec-06	2006
Melaleuca Eradication and Other Exotic Plants (PIR)	Sep-11	Nov-13	2007
Winsberg Farm Wetlands Restoration	Dec-05	Jul-14	2008
L-31N (30) Seepage Management Pilot	Oct-02	Jul-08	2008
Lake Okeechobee ASR Pilot	Dec-01	Sep-08	2007
Biscayne Bay Coastal Wetlands (Phase 1)	May-18	May-11	2008
Picayune Strand (Southern Golden Gate Estates) Hydrologic Restoration	Jun-05	2009	2009
Indian River Lagoon - South			
- C-44 Reservoir*	Jun-07	Oct-09	2009
- Natural Areas Real Estate Acquisition (Phase 1)		Band 5	2009
Broward County WPA			
- C-9 Impoundment*	Sep-07	Jul-11	2009
- C-11 Impoundment*	Sep-08	Jul-11	2009
- WCA 3A-3B Levee Seepage Management*	Sep-08	Jul-10	2008
Acme Basin B Discharge	Sep-06	Jul-09	2007
Site 1 Impoundment*	Sep-07	Dec-09	2009
C-111 Spreader Canal	Jul-08	Dec-10	2008
North Palm Beach County - Part 1			
- C-51 and L-8 Basin Reservoir, Phase 1 (PBA)	2011	2008	2008
EAA Storage Reservoir			
- Part 1, Phase 1*	Sep-09	Dec-09	2009
Lake Okeechobee Watershed			
- Lake Istopoga Regulation Schedule	Dec-01	2008	2008
Modify Rotenberger Wildlife Management Area Operation Plan		Jul-09	2009
Lakes Park Restoration	Jun-04	Dec-14	2009
C-43 Basin Storage Reservoir	Mar-12	Band 2	2010

Band 1 (2005-2010)

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Comparison of Restudy and MISP 1.0 Construction Completion Dates As of: 6 April 2005

Component/ Project Name	Comp Plan (April 1999)	MISP Phase 1	MISP Streamlined (current)	
Indian River Lagoon - South				
- C25 Reservoir and Northfork/Southfork Basin	May-10	Band 7	Band 2	
- C-23/24 STA		May-16	Band 2	
- C-23/24 North	May-09	Mar-17	Band 2	
- C-23/24 South		Mar-17	Band 2	
- Natural Areas Real Estate Acquisition (Phase 2)		Band 5	Band 2	
Strazzulla Wetlands	Oct-07	Apr-10	Band 2	
ASR Regional Study		Band 2	Band 2	
EAA Storage Reservoir				
- Part 1, Phase 2*			Band 2	
North Palm Beach County - Part 1				
- Lake Worth Lagoon Restoration	Mar-11	Band 2	Band 2	
- Pal-Mar/Corbett Hydropattern Restoration		Band 2	Band 2	
- C-17 Backpumping	Oct-08	Band 3	Band 2	
- C-51 Backpumping and Treatment	Oct-08	Band 3	Band 2	
- L-8 Basin Modifications	Sep-11	Band 2	Band 2	
Florida Keys Tidal Restoration	Aug-05	Band 3	Band 2	
Lake Okeechobee Watershed				
- Tributary Sediment Dredging	Sep-05	Band 2	Band 2	
- Water Quality Treatment Facilities	Sep-10	Band 2	Band 2	
- North of Lake Okeechobee Storage	Sep-15	Band 2	Band 2	
- Taylor Creek/ Nubbin Slough*	Jan-09	Sep-11	Band 2	
Henderson Creek/ Belle Meade Restoration	Dec-05	Band 3	Band 2	
Modify Holey Land Wildlife Management Area Operation Plan		Band 2	Band 2	
C-4 Eastern Structure	Jul-05	Band 2	Band 2	
Everglades National Park Seepage Management (Phase 1)	Oct-10	Band 2	Band 2	
Biscayne Bay Coastal Wetlands (Phase 2)	May-18	Band 2	Band 2	
WCA 3 Decompartimentalization and Sheetflow Enhancement				
- Physical Models	N/A	N/A	Band 2	
- North New River Improvements*	Jan-09	Band 3	Band 2	
WPA Conveyance				
- Dade-Broward Levee and Canal		Band 2	Band 2	
Broward Secondary Canal System	Jun-09	Band 3	Band 2	

Band 2 (2010-2015)

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Comparison of Restudy and MISP 1.0 Construction Completion Dates As of: 6 April 2005

Component/ Project Name	Comp Plan (April 1999)	MISP Phase 1	MISP Streamlined (current)	
Flows to Northwest and Central WCA 3A				
- G-404 Pump Station Modifications	Mar-09	Band 3	Band 3	
- Flows to NW and Central WCA 3A	Apr-09	Band 3	Band 3	
Miccosukkee Water Management Plan	Band 1	Band 3	Band 3	
Indian River Lagoon - South				
- Natural Areas Real Estate Acquisition (Phase 3)		Band 5	Band 3	
EAA Storage Reservoir				
- Part 2	Dec-15	Band 3	Band 3	
WPA Conveyance				
- North Lake Belt Storage Area (Turnpike Deliveries)	Sep-08	Band 3	Band 3	
Palm Beach County Agricultural Reserve Reservoir - Part 1	Aug-13	Band 3	Band 3	
Palm Beach County Agricultural Reserve ASR - Part 2		Band 4	Band 3	
Wastewater Reuse Pilot				
- South Miami Dade Reuse Pilot	Sep-05	Band 3	Band 3	
WCA 3 Decompartilization and Sheetflow Enhancement				
- Miami Canal		Band 3	Band 3	
- Canal and Levee Modifications in WCA 3		Band 3	Band 3	
- WCA 3A & 3B Flows to CLB	Feb-16	Band 3	Band 3	
- Eastern / Western TT			Band 3	
Everglades National Park Seepage Management (Phase 2)	Dec-13	Band 3	Band 3	
Lake Belt In-Ground Reservoir Technology Pilot Project	Dec-05	Band 3	Band 3	
Flows to Eastern WCA	Feb-17	Band 3	Band 3	
Seminole Tribe Water Conservation Plan	Jun-08	Band 3	Band 3	
North Palm Beach County - Part 1				
- C-51 and L-8 Basin Reservoir, Phase 2	Sep-11	Band 3	Band 3	
North Palm Beach County - Part 2				
- L-8 Basin ASR		Band 3	Band 3	
- C-51 Regional ASR	Sep-13	Band 4	Band 3	
Caloosahatchee Backpumping with STA	Sep-15	Band 4	Band 3	
Loxahatchee National Wildlife Refuge Internal Canal Structures	Jul-03	Band 4	Band 3	
Lake Okeechobee ASR				
- Lake Okeechobee ASR - Part 1	Jun-20	Band 4	Band 3	
C-43 Basin ASR	Mar-12	Band 3	Band 3	

Band 3 (2015-2020)

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Comparison of Restudy and MISP 1.0 Construction Completion Dates

As of: 6 April 2005

Component/ Project Name	Comp Plan (April 1999)	MISP Phase 1	MISP Streamlined (current)	
Big Cypress/ L-28 Interceptor	Sep-16	Band 4	Band 4	Band 4 (2020-2025)
Indian River Lagoon - South				
- Natural Areas (Complete Construction)		Band 5	Band 4	
- Muck Remediation		Band 6	Band 4	
Restoration of Pineland & Hardwood in C-111 Basin	Mar-06	Band 4	Band 4	
South Miami-Dade County Reuse	Jun-20	Band 4	Band 4	
West Miami-Dade County Reuse	Jun-20	Band 4	Band 4	
Lake Okeechobee ASR				
- Lake Okeechobee ASR - Part 2		Band 5	Band 4	
Hillsboro ASR	Oct-14	Band 4	Band 4	
WCA 2B Flows to Evergaldes National Park				
- WCA 2B Flows to CLB (L-30 Improvements)		Band 4	Band 4	
- WCA 2B Flows to CLB		Band 5	Band 4	
Lake Okeechobee ASR				Band 5 (2025-2030)
- Lake Okeechobee ASR - Part 3		Band 5	Band 5	
North Lake Belt Storage Area - Phase 1	Feb-21	Band 5	Band 5	
Central Lake Belt Storage Area - Phase 1	Feb-21	Band 5	Band 5	
North Lake Belt Storage Area - Phase 2	Jun-36	Band 7	Band 7	Band 7 (2035-2040)
Central Lake Belt Storage Area - Phase 2	Dec-36	Band 7	Band 7	

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