
CENTRAL AND SOUTHERN FLORIDA PROJECT

COMPREHENSIVE EVERGLADES RESTORATION PLAN



Program Management Plan for REstoration COordination and VERification (RECOVER) (FY04-FY06)



U.S. Army Corps of Engineers
Jacksonville District



South Florida
Water Management District

**Management Plan
for
Restoration Coordination and Verification
(RECOVER)**

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Management Plan for Restoration Coordination and Verification (RECOVER)

The Comprehensive Everglades Restoration Plan (CERP or Comprehensive Plan) provides a blueprint for the restoration and preservation of the south Florida ecosystem, while providing for other water-related needs of the region, including water supply and flood protection. This nationally and internationally known ecosystem has deteriorated significantly over the past 50 years, and the outlook for the future, without implementation of the Comprehensive Plan, shows further degradation. Construction and operations of the Central & Southern Florida (C&SF) Project have disrupted the natural timing, quantity, quality and distribution of water to the natural system. The size of the remaining natural system has been substantially reduced as a result of development in south Florida. There has not been a comprehensive look at the water management system since its first authorization in 1949.

The C&SF Project Comprehensive Review Study was authorized by Congress in 1992 to conduct a system-wide review of the C&SF Project with an eye towards recommending structural or operational changes to the project to restore and protect the south Florida ecosystem while maintaining, and in some cases enhancing, other authorized project purposes. The C&SF Project Comprehensive Review Study culminated in a feasibility report to Congress dated July 1999 (a.k.a. the “Yellow Book”). This report resulted in an authorization in the Water Resources Development Act (WRDA) of 2000 that provides the U.S. Army Corps of Engineers (USACE) with the authority to conduct studies and implement projects, utilizing an adaptive management strategy, in the CERP.

As implementation of the CERP moves forward, a program that is known as “REstoration COordination and VErification” (RECOVER) was devised to ensure that a system-wide focus is maintained throughout the ongoing planning and implementation of the plan. RECOVER is a system-wide program of the CERP, designed to organize and provide the highest quality scientific and technical support during the implementation of the plan. The restoration plan is science-based, and it is the role of RECOVER to ensure that science continues to guide implementation of the plan. RECOVER accomplishes its activities through partnerships among federal, state and local agencies and tribal governments. RECOVER affords the opportunity to participate in an on-going process of assessment and refinement of the Comprehensive Plan. Additionally, RECOVER provides opportunities for stakeholders to participate in the review of RECOVER work products.

This document is the second in a series of RECOVER program management plans that will be prepared throughout the CERP implementation process, satisfying the requirement of the Master Program Management Plan (USACE, SFWMD 2000), that all Comprehensive Plan programs be guided by approved management plans.

The first RECOVER Program Management Plan, dated May 2001, contained activities for Fiscal Years (FY) 2001-2003. This current management plan updates and summarizes activities that were completed during FY 2001-2003 (Appendix A) and lays out the tasks, responsibilities and

budgets planned for FY 2004-2006. It should be noted that the RECOVER program is multi-agency. This management plan presents all the tasks to be completed by all agencies involved in RECOVER, but only includes costs for the USACE and the South Florida Water Management District (SFWMD).

1.0 Description

The role of RECOVER is to organize and apply scientific and technical information in ways that are most effective in supporting the objectives of the CERP, and to ensure that the system-wide goals and purposes of the CERP are achieved. While RECOVER is an interdisciplinary, interagency body, responsibility for RECOVER rests jointly with the USACE and the SFWMD, as the sponsoring agencies. RECOVER links science and the tools of science in three broad missions of system-wide evaluation, assessment and planning and integration. RECOVER's three missions are:

- **Evaluation** - to work with the project delivery teams to evaluate (through predictive modeling) and maximize the contribution made by each project to the system-wide performance of the CERP,
- **Assessment** - to physically measure (through monitoring) and interpret actual responses in the natural and human systems as the CERP projects are implemented, and
- **Planning and Integration** - to identify potential improvements in the design and operation of the CERP, consistent with the CERP objectives, and to strive for consensus regarding scientific and technical aspects of the CERP.

Although the RECOVER work effort spans the entire implementation period of the Comprehensive Plan, this management plan will focus, for budgetary purposes, on fiscal years 2004-2006.

1.1. Authority

The authority and mandate for RECOVER activities can be found in:

- the *Water Resources Development Act of 2000* (U.S. Congress 2000).
- the *Design Agreement Between the Department of the Army and South Florida Water Management District for the Design of Elements of the Comprehensive Plan for the Everglades and South Florida Ecosystem Restoration Project* (U.S. Army, SFWMD 2000), and
- the *Master Program Management Plan* (USACE, SFWMD 2000).
- the *Proposed Programmatic Regulations for the Comprehensive Everglades Restoration Plan (22 CFR Part 385 - dated 2 August 2002)*

1.1.1 Water Resources Development Act (WRDA) of 2000

Federal Water Resources Development Acts provide the USACE with the authority to conduct studies and implement projects. Included in WRDA 2000 is *Section 601. Comprehensive Everglades Restoration Plan*. The following three subsections of Section 601 apply to RECOVER activities.

Subsection (b)(2)(C) provides specific authorization for:

(xi) Adaptive Assessment and Monitoring Program, at a total cost of \$100,000,000, with an estimated Federal cost of \$50,000,000 and an estimated non-Federal cost of \$50,000,000.¹

Subsection (h)(3)(C) Directs that programmatic regulations be developed and specifies that these regulations:

- (i) In General. -- Programmatic regulations promulgated under this paragraph shall establish a process --*
 - (I) for the development of project implementation reports, project cooperation agreements, and operating manuals that ensure that the goals and objectives of the Plan are achieved;*
 - (II) to ensure that new information resulting from changed or unforeseen circumstances, new scientific or technical information or information that is developed through the principles of adaptive management contained in the Plan, or future authorized changes to the Plan are integrated into the implementation of the Plan; and*
 - (III) to ensure the protection of the natural system consistent with the goals and purposes of the Plan, including the establishment of interim goals to provide a means by which the restoration success of the Plan may be evaluated throughout the implementation process.*

Lastly, subsection (l) requires that:

Beginning on October 1, 2005, and periodically thereafter until October 1, 2038, the Secretary and the Secretary of the Interior, in consultation with the Environmental Protection Agency, the Department of Commerce, and the State of Florida, shall jointly submit to Congress a report on the implementation of the Plan...Such reports shall include a description of planning, design, and construction work completed, the amount of funds expended during the period covered by the report (including a detailed analysis of the funds expended for adaptive assessment under subsection (b)(2)(C)(xi)), and the work anticipated over the next 5-year period.

1.1.2 Design Agreement.

¹ It should be noted that this congressional authorization applies to the first 10 years of adaptive management activities.

The Design Agreement, executed in May 2000, between the Department of the Army and the SFWMD, provides a definition of “design”, which includes the authorization for RECOVER activities:

(6) during the period of design, activities related to restoration, coordination, and verification as identified in the Comprehensive Plan, which includes, but is not limited to, adaptive assessment, monitoring, peer review, development and refinement of system level analytical model tools, and continuing review and refinement of the Comprehensive Plan, (Article I (b)).

1.1.3 Master Program Management Plan

The Master Program Management Plan (MPMP) describes the framework and process to be used by the USACE and the SFWMD for managing and monitoring implementation of the Comprehensive Plan. The MPMP provides a definition for program-level activities, including RECOVER. The MPMP calls for the development of management plans for all such activities. While Section 3.0 of the Master Plan outlines RECOVER responsibilities, tasks, and work products, this RECOVER Program Management Plan provides a more comprehensive accounting of specific work items, schedules and budget. Throughout the CERP process the MPMP may be updated. These updates may require modifications to existing or new management plans including this RECOVER Program Management Plan. It will be updated to reflect any changes that could be required.

1.1.4 Proposed Programmatic Regulations for the Comprehensive Everglades Restoration Plan

The Programmatic Regulations for the Comprehensive Everglades Restoration Plan establish processes and procedures that will guide the USACE and its partners in the implementation of the CERP. These processes and procedures that will be performed by RECOVER are included in Section 385.20 of the draft proposed rule:

(a) RECOVER (Restoration Coordination and Verification) is an interagency and interdisciplinary scientific and technical team, outlined in the “Final Integrated Feasibility Report and Programmatic Environmental Impact Statement” dated April 1, 1999. RECOVER was established by the Corps of Engineers and the South Florida Water Management District to assess, evaluate, and integrate the projects of the Plan with the overall goal of ensuring that the system-wide goals and purposes of the Plan are achieved. RECOVER has been organized into a Leadership Group that provides management and coordination for the activities of RECOVER and a number of teams that accomplish activities such as: developing performance measures; conducting the monitoring and assessment program; evaluating projects and components developed by Project Delivery Teams in achieving the system-wide goals and purposes of the Plan; conducting system-wide water quality analyses; developing, refining, and applying system-wide models and tools; and considering modifications to the Plan. RECOVER is not a policy making body, but has technical and scientific responsibilities that assist the Corps of Engineers and the South Florida Water Management District in achieving the

goals and purposes of the Plan.

(b) Any documents, reports, or recommendations, including performance measures or evaluations of alternatives developed for the Project Implementation Report, prepared or developed by RECOVER shall not be self-executing, but shall be provided to the Corps of Engineers and the South Florida Water Management District for review, discussion, revision, and/or approval, in consultation with the Department of the Interior, the Environmental Protection Agency, the Department of Commerce, the Miccosukee Tribe of Indians of Florida, the Seminole Tribe of Florida, the Florida Department of Environmental Protection, and other Federal, State, and local agencies.

(c) It shall be the intent of the Corps of Engineers and the South Florida Water Management District to encourage the participation of other Federal, State, and local agencies and the Miccosukee Tribe of Indians of Florida and the Seminole Tribe of Florida on RECOVER and to use the expertise of other agencies and the tribes on RECOVER, to ensure that information developed by RECOVER is shared at the earliest possible time, and to ensure that matters of concern are addressed as early as possible. The Corps of Engineers and the South Florida Water Management District recognize the special role of the National Marine Fisheries Service of the Department of Commerce and the Florida Fish and Wildlife Conservation Commission in marine system issues. The Corps of Engineers and the South Florida Water Management District recognize the special role of the Department of the Interior and the Florida Fish and Wildlife Conservation Commission as stewards of the natural system and for their technical and scientific activities in support of restoration. The Corps of Engineers and the South Florida Water Management District recognize the special role of the Environmental Protection Agency and the Florida Department of Environmental Protection in water quality issues. Accordingly, the Corps of Engineers and the South Florida Water Management District have used and will continue to use the Department of the Interior, Department of Commerce, the Florida Fish and Wildlife Conservation Commission, the Environmental Protection Agency, and the Florida Department of Environmental Protection as co-chairs along with the Corps of Engineers and the South Florida Water Management District on the appropriate technical teams that have been established to date as part of RECOVER.

(1) In general, participation on RECOVER shall be the financial responsibility of the participating agency or tribe.

(2) Participation by an agency or tribe on RECOVER shall not be considered or construed to be a substitute for consultation or coordination required by applicable law or this part.

(d) The Corps of Engineers and the South Florida Water Management District shall:

(1) Assign program managers to be responsible for carrying out the activities of RECOVER;

(2) Establish a RECOVER Leadership Group that shall assist the program managers in coordinating and managing the activities of RECOVER, including the establishment of sub-teams or other entities, and in reporting on the activities of

RECOVER;

- (3) Determine the structure and functions of the RECOVER Leadership Group, but membership shall include the Department of the Interior, the Miccosukee Tribe of Indians of Florida, the Seminole Tribe of Indians, the U.S. Environmental Protection Agency, the Florida Department of Environmental Protection, and may include other Federal, State, and local agencies; and*
- (e) RECOVER shall perform functions, including, but not limited to:*
- (1) Developing performance measures for achieving the system-wide goals and purposes of the Plan;*
 - (2) Conducting evaluations of alternatives developed for the Project Implementation Report in achieving the system-wide goals and purposes of the Plan;*
 - (3) Developing and implementing a monitoring plan to support the adaptive management program;*
 - (4) Conducting assessment activities as part of the adaptive management program to assess the actual performance of the Plan;*
 - (5) Conducting analyses associated with preparation of the Master Implementation Sequencing Plan;*
 - (6) Developing refinements and improvements in the design or operation of the Plan during all phases of implementation;*
 - (7) Developing and refining system-wide models and tools;*
 - (8) Conducting activities associated with the preparation of Pilot Project Technical Reports;*
 - (9) Conducting activities associated with preparation of Comprehensive Plan Modification Reports;*
 - (10) Conducting activities associated with the preparation of Operating Manuals;*
 - (11) Developing recommendations for interim goals pursuant to §385.38;*
 - (12) Assessing progress towards meeting the interim goals established pursuant to §385.38;*
 - (13) Developing recommendations for targets for evaluating progress in achieving other water-related needs of the region as provided for in the Plan pursuant to §385.39;*
 - (14) Assessing progress towards achieving other water-related needs of the region as provided for in the Plan pursuant to §385.39;*
 - (15) Cooperating with the independent scientific review panel constituted pursuant to §385.22;*
 - (16) Evaluating new information and science that could have an effect on the Plan; and*
 - (17) Preparing technical information to be used in the development of the periodic reports to Congress prepared in accordance with §385.40.*
- (f) RECOVER shall assist Project Delivery Teams in ensuring that project design and performance is fully linked to the system-wide goals and purposes of the Plan and to incorporate, as appropriate, information developed for Project Implementation Reports into the Plan.*
- (g) In carrying out its responsibilities, RECOVER shall consider projects that are not part of the Plan, but could affect the ability of the Plan to achieve its goals and*

purposes.

(h) As appropriate, the Corps of Engineers and the South Florida Water Management District shall consider seeking independent scientific review or other similar assistance to RECOVER in carrying out its responsibilities, including review of documents developed by RECOVER.

1.2 Background

To establish and maintain an effective link between science and the CERP, the C&SF Project Restudy Team created a process known as the "applied science strategy". RECOVER is responsible for the coordination and application of the components of the applied science strategy during the multi-year implementation of the Comprehensive Plan. The major components of the science strategy are conceptual ecological models, performance measures and restoration targets, a system-wide monitoring program, and an adaptive assessment protocol. The overall purpose of the strategy is to effectively apply current and future scientific understandings of natural and human systems to the planning, evaluation and assessment phases of the Comprehensive Plan. This science strategy provides the framework for an Adaptive Management Program in support of the goals of the CERP.

To meet RECOVER objectives and to ensure the successful application of all elements of the applied science strategy, RECOVER is currently organized into six task teams and one leadership group. While the leadership group is led by the two sponsoring agencies, the USACE and the SFWMD, the organization of all of these teams is both interagency and interdisciplinary for maximum effect in applying the strength of scientific, technical and operational expertise that exists throughout the federal, state, and local resource agencies and the Miccosukee Tribe of Indians of Florida, and the Seminole Tribe of Florida during the implementation of the CERP. Each task team is jointly led by USACE, SFWMD and federal or state agency tri-chairs.

RECOVER is designed to, (1) promote technical consensus across multi-agency lines, (2) provide direct links between RECOVER and the supporting scientific and technical organizations (e.g., research, monitoring, modeling, etc.) and (3) establish an open process that promotes scientific contributions to the Comprehensive Plan. While the RECOVER teams do not do all the research, monitoring and modeling required during the implementation of the plan, they do coordinate and guide what should be monitored, researched and modeled. In some cases individuals serving on the RECOVER teams carry out research, monitoring or modeling tasks in their professional capacity within their own agency. This approach insures that the best science and technology is applied to the implementation process, using the research information, monitoring and modeling tasks to predictively evaluate and physically assess the Comprehensive Plan, and to develop improvements to the plan.

1.3 RECOVER Mission Statement

The RECOVER Leadership Group adopted the following mission statement in February 2003, which provides the purpose and guiding principles for RECOVER:

RECOVER MISSION STATEMENT

RECOVER provides essential support to CERP in meeting its goals and purposes by applying a system-wide and integrative perspective to the planning and implementation of the Plan. RECOVER conducts scientific and technical evaluations and assessments for improving CERP's ability to restore, preserve, and protect the south Florida ecosystem while providing for the region's other water-related needs. RECOVER communicates and coordinates the results of these evaluations and assessments.

In accomplishing its mission, RECOVER adheres to the following principles:

- *Restoration: The goal of restoration is the recovery and sustainability of the defining characteristics of the greater Everglades ecosystem.*
- *Science-based approach: Incorporates objective and fact-driven investigations, constructive debate, and peer review.*
- *Transparency and access: Offers transparency and universal access to tools and data.*
- *Consensus-building: Uses fair processes and strives to reach consensus on conclusions and proposals.*
- *Inclusiveness: Uses multi-governmental and interdisciplinary collaboration to foster inclusiveness.*
- *Accountability: Meets schedules, maintains professional responsibilities, and efficiently provides quality products for CERP processes and teams.*
- *Adaptive management: Seeks continuous improvement in the Plan and its operations by using and building upon existing science and technology.*

2.0 Scope

RECOVER is responsible for carrying out the tasks necessary to successfully accomplish its missions through the processes of evaluation, assessment, and planning and integration at both the program and project level. At the program level, it will maintain a system-wide focus as it evaluates and assesses the CERP performance, develops refinements and improvements in the design and operations of the plan, and reviews the effects that other projects may have on the performance of the CERP. Throughout this document, “evaluate” is the process whereby the performance of plans and designs relative to desired objectives is forecast through predictive modeling; “assess” is the process whereby the actual performance of implemented projects is measured and interpreted based on information obtained by the system-wide monitoring and assessment program; and “planning and integration” is the iterative process whereby all elements of RECOVER and the CERP are coordinated. Concurrently, RECOVER encompasses all the

CERP projects. RECOVER will work with the project delivery teams to relate system-wide goals and objectives to project design and performance and incorporate information obtained during project plan formulation into the CERP and its evaluation. RECOVER is the primary means to link achievements at the project level to the overall success of the CERP in meeting the goals and objectives as stated in the plan. RECOVER will continue to function throughout the entire duration of the restoration process, continuously seeking ways to improve the plan as responses measured by a system-wide monitoring program are used to direct the adaptive assessment process. RECOVER will also evaluate other non-CERP projects that could affect the CERP's ability to achieve its objectives and/or are part of the without-project condition.

RECOVER provides system-wide feedback to the Design Coordination Team (DCT), through its Program Managers from the USACE and SFWMD as well as a representative from the Florida Department of Environmental Protection. The DCT generally oversees design-related issues to ensure among other things that the USACE and the SFWMD agree on both the design work that will be performed and the scheduling and costs for the work. The DCT is responsible for reviewing design plans, schedules and budgets; work products, such as Project Management Plans, Project Implementation Reports, Pilot Project Design Reports; construction plans and specifications; proposed updates of the Master Program Management Plan; land acquisition and relocation requirements; contract scopes of work, modifications, and costs; cost projections; anticipated requirements for the operation and maintenance of projects; and program activities such as data management, Environmental and Economic Equity, and RECOVER.

2.1 Three RECOVER Mission Areas

The primary RECOVER tasks, by process, are summarized below. Many of these tasks have been underway since the initiation of the CERP and they will continue until implementation of the CERP is completed.

ASSESSMENT

- Develop and refine conceptual ecological models
- Design and implement a system-wide monitoring and assessment plan (MAP)
- Develop and refine hydrologic, ecological/biological and water quality performance measures to support the MAP, adaptive assessment and interim goals
- Recommend research priorities in support of the MAP
- Conduct annual assessments of system-wide responses to the Comprehensive Plan
- Guide the system-wide Adaptive Management Program
- Prepare performance assessment reports no less frequently than every 5 years
- Participate in the development of interim goals and interim targets and an annual report card

EVALUATION

- Conduct system-wide evaluations of individual plan components or groups of components and refinements of the Comprehensive Plan and the existing and future without project condition

- Develop and refine hydrologic, ecological/biological and water quality performance measures to support regional evaluations of alternative plans and interim targets
- Identify and evaluate operational modifications to improve system-wide performance during plan formulation
- Review project level performance measures for consistency with system level hydrologic, ecological, and water quality performance measures
- Identify improvements for project performance that will improve its system-wide performance

PLANNING AND INTEGRATION

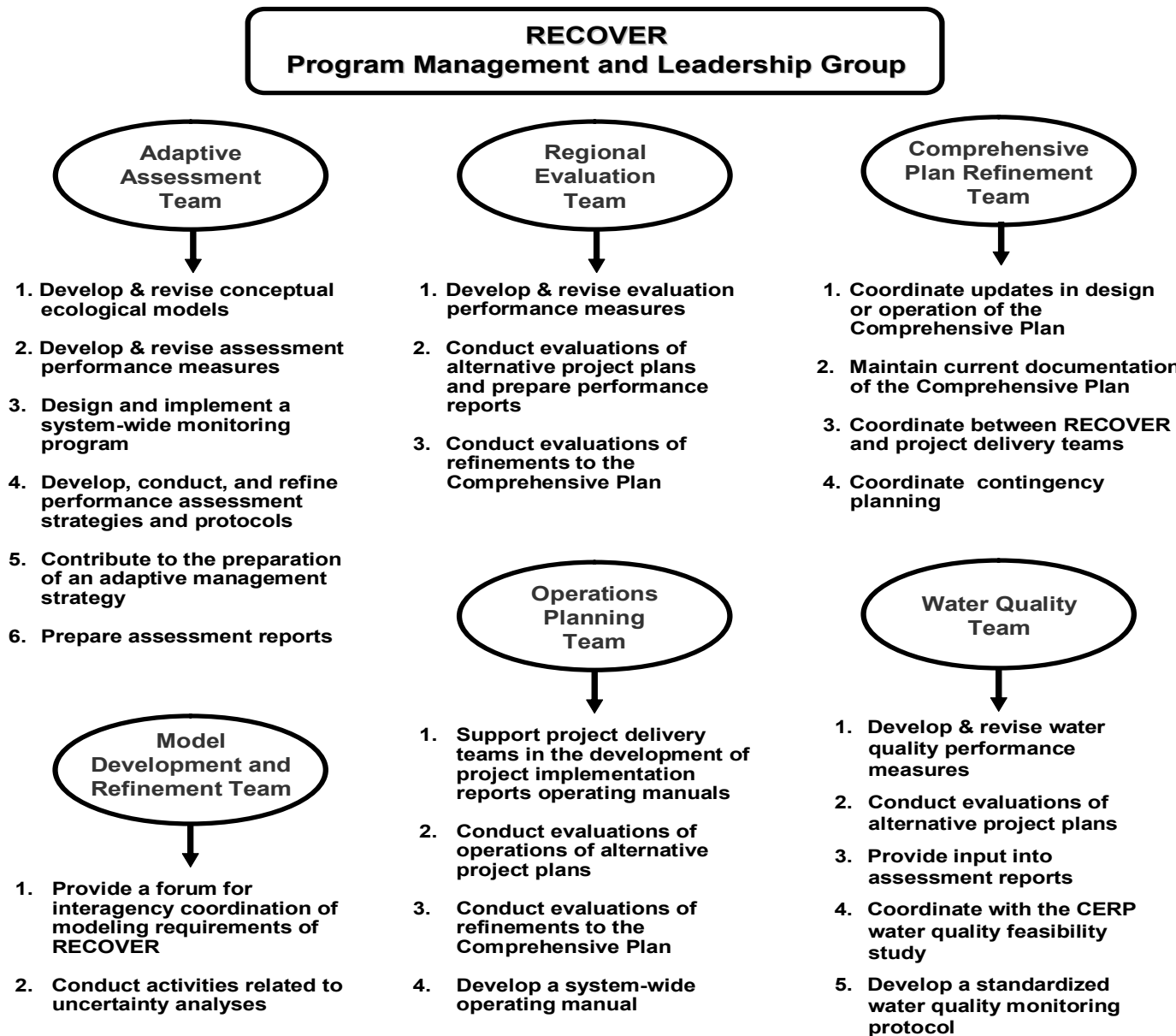
- Coordinate activities between RECOVER and the project delivery teams
- Maintain the most current version of the Comprehensive Plan
- Maintain the most current version of the existing and future without project conditions
- Participate in the development of Comprehensive Plan Modification Reports
- Support the CERP and the project delivery teams in long-range planning designed to optimize the success of the CERP
- Support project delivery teams in development of operating manuals that will support system-wide objectives and interim operations during construction
- Assist in assessing and identifying opportunities for operational modifications to improve system-wide performance
- Develop the system-wide operating manual
- Develop the Master Implementation Sequencing Plan
- Coordinate with efforts underway to develop the CERP Water Quality Feasibility Study
- Identify opportunities for refinements to the CERP
- Coordinate any needed contingency planning
- Develop interim goals and interim targets and an annual report card

2.2 RECOVER Teams

RECOVER is currently organized into six task teams and an overall Leadership Group (Figure 2.1). The Leadership Group (RLG) is responsible for coordinating and integrating the mission areas of the RECOVER task teams and ensuring that the overall focus and direction of the implementation process remains consistent with the goals of system-wide restoration. The leadership group is a standing team currently consisting of the tri-chairs from each of the six RECOVER teams, the two RECOVER chairs from the SFWMD and the USACE and five at-large members from the Florida Department of Environmental Protection, the Miccosukee Tribe of Indians of Florida, the Seminole Tribe of Florida, and the U.S. Fish and Wildlife Service and Everglades National Park.

While this management plan is a management document between the sponsoring agencies (USACE & SFWMD), the importance of the resources provided to RECOVER teams by participating agencies and tribal governments are also crucial components in RECOVER's success in carrying out its mission.

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3.0 Work Breakdown Structure

A work breakdown structure represents the basic elements of a project - in this case, RECOVER, a program-level activity for implementing the Comprehensive Plan - that flows from the top element - RECOVER - through its teams and ultimately to work products. The underlying philosophy of a work breakdown structure is to get to the layer of division where work products are assigned and accountability can be expected with respect to milestones and budget.

The work breakdown structure is developed from the project's scope, and leads to the development of a schedule and budget. The schedule and budget for RECOVER is included in Appendix B. The cost estimate for RECOVER activities is separated into three categories, which includes the Adaptive Assessment and Monitoring Program, Programmatic Activities, and Project-Specific Activities. The Adaptive Assessment and Monitoring Program costs (Table B-2) correspond to the tasks necessary to support the Congressionally authorized Adaptive Assessment and Monitoring Program and the science-based strategy for implementing the CERP, including the extensive system-wide monitoring program. The estimated cost for the Programmatic Activities (Table B-3) involve tasks that support project implementation at a program level (e.g., development and refinement of standards and planning activities that will be applied to all projects). The cost estimate and dates for the tasks for the third category, Project-Specific Activities (Table B-4), are included in this management plan to assist RECOVER in defining its resources needed to perform these evaluations. The detailed RECOVER tasks and costs that are necessary to support individual projects will be included in individual Project Management Plans. A total cost estimate for RECOVER activities is included as Table B-1. These costs are first broken out by tasks and then subdivided by the team resources (funds) required for those tasks. A follow up table is then provided to roll up all the tasks that each team is responsible for.

The costs shown in Appendix B are for the USACE and SFWMD only, and do not reflect the contributions of the other participants. What follows in this section is a breakdown of each RECOVER task by mission area. The assignment of tasks between the USACE and the SFWMD are also provided in Appendix B.

The following work breakdown structure is grouped first into the RECOVER Program Management activities and then the 3 processes (“Assessment”, Evaluation” and “Planning and Integration”) it manages and that RECOVER undertakes to complete its mission. As this process is ongoing and will be continuously revised throughout the implementation of the CERP, some tasks will be under more than one process. Lead RECOVER Teams for each task are noted parenthetically.

It should be noted that most of the tasks carried out by RECOVER are the products of two or more teams working in concert and some tasks may overlap the 3 processes. Although in most cases a single team has the lead responsibility (in italics after the major task) for each task, other teams have supporting or contributing roles. It is important to understand that the individual teams combine in different ways to accomplish all RECOVER tasks.

3.1 RECOVER Program Management

3.1.1 *Program Management*

3.1.1.1 Prepare and update the program management plan. This activity includes the preparation of the updated program management plan for RECOVER, the review to get the plan approved, and public involvement. These updates will include revisions to the budgets, resources, deliverables and appropriate outreach activities.

3.1.1.2 Provide a link between RECOVER and the Design Coordination Team. The program managers of RECOVER sit as members on the Design Coordination Team, keeping that body apprised of RECOVER activities. The program managers will be responsible for communications to the Design Coordination Team regarding proposals for refinement in the design and operations of projects and the overall plan, any technical issues not resolved at the RECOVER level, review of draft technical documents produced by RECOVER teams, and any matters brought before RECOVER that are more appropriately addressed by the Design Coordination Team.

3.1.1.3 Coordinate independent, external peer review. A fundamental means for strengthening the quality of the science that is applied to the Comprehensive Plan is through independent peer review of appropriate technical documents and analytical tools. The South Florida Ecosystem Restoration Working Group Science Coordination Team may provide one mechanism for ensuring peer review of RECOVER documents and tools through coordination with the Committee on the Restoration of the Greater Everglades Ecosystem, the Task Force, etc. In addition, independent technical review will occur through the journal publication process, expert assistance or other mechanisms typically employed by each agency. This task is for the coordination of these reviews with RECOVER, not for the actual costs of the reviews.

3.1.1.4 Support for coordination with an independent science review panel. The Secretary of the Army, the Secretary of the Interior, and the Governor are to enter an agreement to establish the independent scientific review panel required by WRDA 2000. That independent panel then is to conduct on-going review of the progress achieved by the CERP's execution in attaining the restoration goals of the CERP. The panel is to be convened by a body, such as the National Academy of Sciences, with expertise in assembling panels for the purpose of conducting independent scientific reviews. Panel members will be selected to ensure a balance of expertise, backgrounds, and perspectives, and to avoid any potential conflicts of interest. The panel will be required to produce a biennial report and submit its findings to Congress, the Secretary of the Army, the Secretary of Interior, and the Governor. It is specifically

intended for these reports to address the CERP's progress toward achieving the restoration goals of the CERP on a biennial basis. Each report will include an assessment of ecological indicators and other measures of progress in restoring the ecology of the natural system, based on CERP. Monthly review progress reports will be required to be submitted to the USACE and the SFWMD as updates prior to the drafting of the biennial reports. The agreement would be in place for five years, with provisions for renewal in five year increments as the CERP is ongoing. This agreement is currently being drafted for coordination, and it is expected that this be implemented by early FY04. Once this agreement is implemented, RECOVER will provide support for coordination with the science review panel and their monthly reports.

3.1.1.5 Coordinate RECOVER reports. RECOVER prepares and produces both technical and process documents for coordination and distribution in carrying out its mission. There is a need to standardize formatting and have a method for quality control while these documents undergo review within RECOVER, and to have consistency in this review. This task will be ongoing throughout the life of RECOVER.

3.1.2 *RECOVER Leadership Group*

3.1.2.1 Coordinate and manage activities of the RECOVER teams (RLG). In order to be maximally effective in designing and implementing the system-wide adaptive assessment strategy and to successfully address scientific issues, integration and prioritization of the teams' activities is necessary. The leadership group is designed to provide the collaboration among team leaders necessary for the teams to achieve their individual and collective tasks. Monthly summaries of activities and the progress of RECOVER teams will be provided by the leadership group.

3.1.2.2 Issue an annual report card on the performance of the Comprehensive Plan. As the Comprehensive Plan is implemented, an annual report card on the performance of the plan will be issued. The Leadership Group will coordinate development of this report card. The report card will convey how well the plan is meeting its objectives. It will also assist in meeting the annual requirements of the Florida legislature (Section 373.470, F.S.) and periodic reports to the U.S. Congress (WRDA of 2000, Section 601). Workshops may be held to review the draft report cards and update and finalize the annual report cards.

3.1.2.3 Develop interim goals and interim targets. In accordance with the programmatic regulations, interim goals and interim targets will be developed to facilitate interagency planning, monitoring and assessment so as to achieve the objectives of the Comprehensive Plan and to ensure the means by which the success of the plan may be evaluated.

3.1.2.4 Reports to Congress. Beginning on October 1, 2005, and at five year intervals thereafter, RECOVER teams will work on reports to Congress on the CERP implementation, including progress in reaching interim goals and interim targets and any revisions to the interim goals. This task covers RECOVER activities to support preparation of the report.

3.1.2.5 Prepare and maintain performance measure documentation. Performance measures are the quantitative and qualitative indicators used to determine the degree to which alternative plans are likely to meet restoration and other objectives or to which implemented plans have met restoration objectives. Performance measures will be documented in a technical report and revised as necessary. The measures presented in this documentation report will be reviewed, refined and expanded annually. A priority is to determine if the current set of measures is comprehensive enough to fully reveal the performance of the plan in meeting its goals. Conversely, the current measures will be evaluated through time to remove redundancies and to ensure that the restoration targets and trends identified by the measures reflect the CERP's goals.

3.1.2.6 Participate in the development of CERP Guidance Memoranda. As mandated or requested, RECOVER members will participate in the development of CERP guidance needed for the implementation of the Comprehensive Plan. The CERP Guidance Memoranda should not be confused with the Guidance Memoranda required in the Programmatic Regulations.

3.1.2.7 Maintain the system-wide perspective and refine the overall vision of success for the Comprehensive Everglades Restoration Plan. The RECOVER Leadership Group has lead responsibility in defining the success of the CERP and maintaining a system-wide vision and endpoint of restoration success. The definition of success and a vision of an endpoint for the CERP will be developed through a series of workshops beginning in FY05. This task includes coordinating the technical efforts required to review and refine the overall definition of success.

3.1.2.8 Develop and implement an Adaptive Management Strategy and prepare guidance memorandum for the CERP (AAT, WQT, OPT, CPR, RET).

3.1.2.8.1 Conduct adaptive management workshops. Adaptive Assessment Team and other members of RECOVER will conduct a series of workshops to assist in the development of an adaptive management strategy for CERP and establish the framework for the adaptive management process. Adaptive management principles will be authored as part of this task.

3.1.2.8.2 Prepare and implement adaptive management strategy.

Successful application of the adaptive management program will require the interaction of the interagency RECOVER teams, policy and decision makers, and the public, in addressing the opportunities identified by the performance assessment protocol. The adaptive management strategy will ensure that operational flexibility will maximize opportunities for adaptive management and minimize the potential need for retrofits.

3.2 ASSESSMENT

3.2.1 Assessment (Adaptive Assessment and Water Quality) Teams Management (AAT and WQT).

3.2.1.1 Workshops and coordination activities. The assessment (Adaptive Assessment and Water Quality) teams will accomplish their tasks through collaboration and coordination. Workshops and meetings will be important ways of accomplishing development of assessment performance measures, providing venues for discussing project assessments, reviewing project level assessment performance measures, developing strategies for activities, and coordinating with other RECOVER teams. The Adaptive Assessment and Water Quality teams will coordinate their activities with the project liaisons (discussed further in Section 3.4). Contractor(s) will provide support, facilitation, coordination and documentation services for the workshops and meetings, as appropriate.

3.2.1.2 Ensure appropriate public and agency review and coordination of assessment documents. The assessment (Adaptive Assessment and Water Quality) teams are responsible for the development of many scientific and technical tasks that will be essential for measuring the effects of the CERP implementation such as the development of the Monitoring and Assessment Plan (MAP). Review and coordination of documents produced by these technical teams by the public, stakeholders, tribes and agencies will be crucial to the overall successful implementation of the CERP. This activity will be coordinated with the program-level public outreach program, as necessary.

3.2.1.3 Resolve technical issues. The assessment (Adaptive Assessment and Water Quality) teams will maintain a list of unresolved scientific and technical issues pertaining to assessment aspects, establish priorities for issue resolution, and take steps to resolve these issues. The teams will develop issue resolution reports describing the steps taken to resolve each issue, and the solutions that were reached. This may require drafting issue papers, setting up workshops, or other technical meetings. The overall strategy for resolving conflicting technical opinions will be guided by the Leadership Group.

3.2.2 Develop, refine and revise conceptual ecological models and recommend research needs (AAT, WQT). The conceptual models form the basis for the selection of performance measures, which will in turn determine the design of the system-wide monitoring program. Comparisons between predicted responses among stressors and attributes as well as the actual responses measured by the monitoring program provide an opportunity to improve the conceptual models and the performance measures, and to more effectively predict future responses to implementation of the CERP projects.

The Adaptive Assessment and Water Quality teams will periodically review and improve the conceptual ecological models to reflect new information and improved hypotheses. They will identify the specific hydrological, ecological, water quality, and biological measures of restoration success. The Adaptive Assessment Team will maintain current documentation for all models. The Water Quality Team will periodically review and improve the conceptual ecological models to ensure water quality is being accurately addressed. Conceptual models will be revised or additional ones developed as necessary to complete the understanding of the natural system based on new information and improved hypotheses.

The Adaptive Assessment and Water Quality teams will recommend research needed in support of the Comprehensive Plan. The conceptual models will be used as a basis for recommending research that will lead to improved design and interpretations of the system-wide monitoring program. The tri-chairs of both teams, after consultation with their respective team members, will meet as needed to select for funding and execution those research items with highest priority needs.

3.2.3 Develop, refine and revise assessment performance measures and maintain the current set of performance measures for system-wide assessments (AAT, WQT). The Adaptive Assessment and Water Quality teams will develop assessment performance measures and restoration targets and performance indicators in regions where they do not currently exist, and review and improve the current set of assessment performance measures and targets. The Adaptive Assessment and Water Quality teams will systematically update the set of assessment performance measures and other assessment criteria used to assess the performance of the CERP at a system-wide scale. The Adaptive Assessment Team has the lead responsibility for developing and refining biological/ecological performance measures while the Water Quality Team has the lead for water quality assessment performance measures. The teams will create and maintain updated documentation for all assessment performance measures used in RECOVER as part of the adaptive assessment process. Updated measures and targets and indicators will be displayed on the RECOVER AAT web page.

3.2.4 Continue to develop, refine and revise the Monitoring and Assessment Plan (AAT, WQT). The assessment (Adaptive Assessment and Water Quality) teams will periodically update the system-wide Monitoring and Assessment Plan (MAP) in support of the Comprehensive Plan. The four objectives of the plan are to 1) document pre-CERP reference state conditions for the performance measure targets;

2) measure their status and trends; 3) detect unexpected responses; and 4) improve understandings of cause and effect relationships in the natural system and in the interactions between natural and human systems. Further detail on the implementation of the monitoring and assessment plan can be found in the tasks listed below and in the draft MAP (RECOVER, March 2003).

3.2.5 Implementation of the system-wide Monitoring and Assessment Plan (AAT, WQT). The Adaptive Assessment Team (which has the lead responsibility) and the Water Quality Team will work closely together in implementing the MAP. Implementation of the MAP will consist of three major tasks: 1) establishment and operation of the monitoring and assessment program, 2) management and QA/QC of RECOVER data in collaboration with the CERP data management program, and 3) assessment and reporting of the monitoring data.

3.2.5.1 Monitoring components and supporting research. This task involves designing and implementing a monitoring network and identifying key supporting research projects to assess the system responses to implementation of the CERP. Activities will include assessing existing monitoring efforts and networks, as well as identifying opportunities to integrate monitoring components with existing monitoring and water management infrastructure. Research needs have also been identified to support key uncertainties that have been identified in the conceptual models.

3.2.5.2 Standardization and quality control of monitoring protocols. This task involves developing a CERP Quality Assurance System Requirement Manual to establish operating standards for the design, collection and analyses of data for CERP Projects. A defined system of quality control practices and standard operating procedures is critical in order to ensure that data and measurements are of the appropriate type and quality, and are scientifically sound and defensible.

3.2.5.3 RECOVER data management. This task will entail the design, construction, testing and implementation of a centralized database to archive and retrieve the data generated from the system-wide monitoring program. Other tasks will include identifying and collecting data from various sources that may be useful to RECOVER in assessing the current status of the system and its future performance as each component of CERP is implemented.

3.2.6 Develop performance assessment protocols including pre-CERP reference state characterization (AAT, WQT). The assessment (Adaptive Assessment and Water Quality) teams will jointly develop a document detailing a monitoring data assessment protocol to assess the information collected and analyzed from the system-wide monitoring in support of the adaptive management strategy. The assessments will be used to develop performance assessment reports that identify opportunities for improvements to the Comprehensive Plan. The focus of the protocol will be on how RECOVER will assess the performance of the CERP, and

identify opportunities to improve the performance of the CERP based on monitoring and research data.

3.2.6.1 Conduct assessments of system-wide responses to the Comprehensive Plan (AAT, WQT, OPT). The Adaptive Assessment Team and Water Quality Team with assistance from the Operations Planning Team will interpret the responses by natural and human systems during implementation of the CERP. These assessments will be used by the Comprehensive Plan Refinement Team as a basis for identifying opportunities for refining the CERP and for developing any necessary changes that would produce the desired achievement of CERP goals. Periodic performance assessment reports on system-wide responses to the CERP for each of the parameters being monitored will be issued. The reports will describe how well the CERP components are meeting their targets, based upon system responses measured against restoration targets and compared against the pre-CERP reference state. This task will support development of the annual report card.

3.2.6.1.1 Develop a process for preparation of assessment reports. This task will involve the development of a process for preparation of performance assessment reports. The Adaptive Assessment Team will finalize a process for the efficient production of these reports including the coordination of input from other RECOVER teams.

3.2.6.1.2 Final performance assessment report format The Adaptive Assessment Team will finalize the report format for performance assessments based on results of the ongoing RECOVER initiated task to determine the best method for presentation of RECOVER assessment results.

3.2.7 Review project level monitoring plans (AAT and WQT). The Adaptive Assessment Team and Water Quality Team will review the project level monitoring plans for consistency and compatibility with system-wide performance monitoring plans and will provide the results of these reviews to the project delivery teams.

3.3 EVALUATION

3.3.1 Evaluation (Regional Evaluation, Water Quality and Model Refinement) Teams Management (RET, WQT, and MRT).

3.3.1.1 Workshops, meetings, and coordination activities. The Evaluation (Regional Evaluation, Water Quality, and Model Refinement) Teams will accomplish their tasks through collaboration and coordination. Workshops and meetings will be important ways of accomplishing development of performance measures, providing venues for discussing project evaluations,

reviewing project level performance measures, developing strategies for activities, and coordinating with other RECOVER teams. The Evaluation (Regional Evaluation, Water Quality and Model Refinement) Teams will also develop and assist development of CERP Guidance Memoranda. The Evaluation (Regional Evaluation, Water Quality and Model Refinement) Teams will coordinate their activities with the project liaisons (discussed further in Section 3.4.2). A contractor(s) will provide support, facilitation, coordination and documentation services for the workshops and meetings, as appropriate.

3.3.1.2 Ensure appropriate public and agency review and coordination of Evaluation (Regional Evaluation, Water Quality and Model Refinement) Teams' products and documents. Evaluation (Regional Evaluation, Water Quality and Model Refinement) Teams are responsible for many scientific and technical tasks that will be of importance to the implementation of the Comprehensive Plan. Review and coordination of these products and documents by the public, stakeholders and agencies will be crucial to the overall successful implementation of the plan. This activity will be coordinated with the program-level public outreach program, as necessary.

3.3.1.3 Resolve technical issues. Evaluation (Regional Evaluation, Water Quality and Model Refinement) Teams will maintain a list of unresolved scientific and technical issues pertaining to evaluations, establish priorities for issue resolution, and take steps to resolve these issues. The teams will develop issue resolution reports describing the steps taken to resolve each issue, and the solutions that were reached. This may require drafting issue papers, setting up workshops, or other technical meetings. The overall strategy for resolving issues will be guided by the Leadership Group.

3.3.2 Develop, review and/or revise evaluation performance measures and maintain the current set of performance measures for system-wide evaluations (RET, WQT). The Regional Evaluation Team and Water Quality Team will systematically review and refine the set of performance measures and other evaluation criteria used to predict the performance of CERP at a system-wide scale. Measures will be developed for areas that do not currently have them and targets will be refined whenever new scientific information is obtained. The Water Quality Team will evaluate performance measures for both surface and ground water and their interactions, and will identify potential conflicts between water quality performance measures and other measures. All performance measures, revisions to performance measures and other evaluation criteria will be documented. Links to the documentation sheets will be displayed on the RECOVER RET web page. Links to the performance measure tables and graphics used to evaluate alternative plans will be displayed on the CERP website.

3.3.3 Conduct system-wide evaluations and reviews of updates of the Comprehensive Plan (RET, CPR). The Regional Evaluation Team and the Comprehensive Plan Refinement Team, with assistance from the Operations Planning Team, Water Quality Team and the Model Refinement Team, will work closely together to develop a process to refine the Comprehensive Plan, address changes in assumptions about current and future conditions, and incorporate improvements to the tools to evaluate the Comprehensive Plan (also see task 3.4.4 and 3.4.6). As a part of this process, the Regional Evaluation Team with assistance from the Water Quality Team will perform a system-wide analysis for all Comprehensive Plan updates. The level of analysis for each update will be determined based on the potential effects that the update would have on the Comprehensive Plan, to the without project condition, to the SFWMM, NSM or to input data (topography, for example). When analysis is required, evaluations will compare model simulations and the implications of these changes to the regional system and estimate impacts of the changes.

3.3.4 Regional Evaluation Reports (RET, WQT, OPT). The Regional Evaluation Team will finalize a process for the efficient production of regional evaluation reports including the coordination of input from other RECOVER teams and will finalize the report format for regional evaluations based on results of the ongoing RECOVER initiated task to determine the best method for presentation of RECOVER evaluation results.

3.3.5 Model Development and Refinement Team coordination (MRT). Development and refinement of the existing system-wide predictive models that were used to develop the CERP, and development and review of new models for future system-wide CERP modeling is the primary responsibility of the Office of Modeling. The Interagency Modeling Center (IMC) is the production center for CERP modeling; it will also coordinate with the Office of Modeling with requests for model development. The Model Development and Refinement team will serve as a coordinating link between RECOVER and the IMC. The major predictive models used in development of the CERP were the South Florida Water Management Model (SFWMM), the Natural System Model (NSM), the Lake Okeechobee Water Quality Model (LOWQM) and the Across Trophic Level System Simulation (ATLSS) models. Activities involving these models as well as other models not specifically named in this PMP will be undertaken by the Model Development and Refinement Team with assistance from the Regional Evaluation and Water Quality teams.

3.3.5.1. Water Quality Team support of MRT and IMC. The Water Quality Team will coordinate with the MRT, and/or seek alternatives, for model development and refinement of water quality models. The WQT may also coordinate with the IMC on the need to develop new models and/or expand existing water-quality models for system-wide evaluations. The WQT may pursue contracts for development of additional water-quality models.

3.3.6 *Evaluation Methodology (RET)*. In order to support the project delivery teams and the selection of alternatives that optimize a project's contribution to the system-wide goals, a systematic means to evaluate benefits of projects is necessary. A method to combine and/or summarize model results that is scientifically defensible and replicable is needed. The Regional Evaluation Team will provide input to those developing the evaluation methodology.

3.3.7 *Uncertainty analysis (RET, WQT, and MRT)*. It is necessary to characterize model and performance measure uncertainty to help understand and interpret model results. As recommended in a January 2002 workshop summary, the next step is to create a test case using a small set (3-5) input variables and applying a Latin hypercube uncertainty analysis for output distributions. Priority of performance measures would be selected by Regional Evaluation Team. The ultimate goal would be to characterize the uncertainty of priority performance measures on their graphics and use the information for interpretation and evaluation of alternative plans.

3.3.8 *Project evaluations (RET and WQT)*. As project implementation reports are developed, the Regional Evaluation Team with assistance from the Water Quality Team will review projects at several stages to ensure consistency with system level goals and objectives and will perform regional evaluations of the performance of alternative plan to ensure they meet those objectives.

3.3.8.1 Review project level performance measures (RET and WQT). The Regional Evaluation Team and Water Quality Team will review the project level performance measures for consistency with system-wide performance measures and provide the results of the reviews to the project delivery teams.

3.3.8.2 Regional evaluations. The Regional Evaluation Team with assistance from the Water Quality Team will evaluate the planning alternatives with the SFWMM (or another regional model as appropriate), to ensure that each project maintains or improves the current Comprehensive Plan level of system-wide performance with respect to hydrological, biological, and water quality performance. The Regional Evaluation Team and Water Quality Team will suggest improvements in a Regional Evaluation Report, as needed, and work with the project delivery teams to optimize the performance of each project.

3.3.8.3 Evaluate performance of hydrologically isolated projects. The Regional Evaluation Team with assistance from other teams will review pertinent hydrologically isolated projects such as other project elements during the plan formulation stage. If a hydrologic model is not available or appropriate for the project, the analysis will consist of the team's best professional judgment of whether the alternative is consistent with the Comprehensive Plan's goals, objectives and performance. The team will

suggest improvements, if needed, and work with the project delivery teams as necessary to optimize the performance of the projects

3.3.8.4 Review project-level performance measures and conduct regional evaluations of non-CERP projects. Analyses are needed for non-CERP projects such as Modified Water Deliveries, C-111 Project, and others, particularly if they were simulated in the 2050 without project condition. The purpose of analyses will not be to request improvements to these plans, but rather to determine how the system performs with Comprehensive Plan features in place so that these features can be optimized appropriately to the new conditions. Performance measures will be reviewed, when appropriate, as previously discussed in this section.

3.3.9 *Assist project delivery teams in additional analysis for WRDA 2000 (CPR, RET and WQT).* The project delivery teams in coordination with RECOVER will conduct detailed analyses for the tentatively selected plan to ensure compliance with WRDA 2000 and Florida Statutes, Chapter 373. One of the additional analyses is the quantification and reservation analysis undertaken to ensure compliance with the Savings Clause of WRDA 2000 and Florida Statutes, Chapter 373. The project delivery teams will lead with assistance from RECOVER to quantify water made available for environmental and other water-related needs and identify water to be reserved. The project delivery teams will also lead with assistance from RECOVER to complete savings clause analysis for potential water supply transfers and identify the project's contributions towards meeting interim goals and targets. The contributions towards interim goals will be based on the interim operational strategies developed by the project delivery teams in coordination with RECOVER for the selected plan to maximize project performance in delivering system-wide interim benefits.

3.4 PLANNING and INTEGRATION

3.4.1 *Planning and Integration Management (CPR, OPT).*

3.4.1.1 Workshops and coordination activities. Planning and Integration (Comprehensive Plan Refinement and Operations Planning) Teams will accomplish their tasks through collaboration and coordination. The Comprehensive Plan Refinement and Operations Planning teams will both develop and assist in the development of CERP Guidance Memoranda. The teams will coordinate their activities with the project liaisons (discussed further in Section 3.4.2). A contractor(s) will provide support, facilitation, coordination and documentation services for the workshops and meetings, as appropriate.

3.4.1.2 Ensure appropriate public and agency review and coordination of planning and integration documents. Planning and Integration

(Comprehensive Plan Refinement and Operations Planning) Teams are responsible for many scientific and technical tasks that will be of importance to the implementation of the Comprehensive Plan. Review and coordination of the documents by the public, stakeholders and agencies will be crucial to the overall successful implementation of the plan. This activity will be coordinated with the program-level public outreach program, as necessary.

3.4.1.3 Resolve technical issues. Planning and Integration (Comprehensive Plan Refinement and Operations Planning) Teams will maintain a list of unresolved scientific and technical issues pertaining to planning and integration aspects (operations, formulation, and water quality), establish priorities for issue resolution, and take steps to resolve these issues. The team will develop issue resolution reports describing the steps taken to resolve each issue, and the solutions that were reached. This may require drafting issue papers, setting up workshops, or other technical meetings. The overall strategy for resolving issues will be guided by the Leadership Group.

3.4.2 *Coordinate activities between RECOVER and the project delivery teams (Liaisons).* RECOVER has assigned a liaison for each project in the CERP. Their goals are to substantially improve communication and coordination between RECOVER and the project delivery teams and to ensure consistency and a smooth working relationship throughout the PMP and PIR process. The liaisons will serve as the initial points of contact for questions on RECOVER responsibilities, work products and protocol (standard operating procedure) while coordinating with the SFWMD Office of RECOVER Director and staff and the Corps RECOVER Branch Chief and staff as needed to ensure effective communication.

3.4.3 *Develop project delivery teams interaction strategy (Liaisons, all teams).* RECOVER teams and the liaisons will develop interaction strategies to improve coordination and communication strategies with the project delivery teams. These strategies will be revised as necessary and provided to the project delivery teams for input and review.

3.4.4 *Document and maintain the most current version of the Comprehensive Plan (CPR)* Throughout the CERP implementation process, the Comprehensive Plan will be updated and refined as necessary to reflect new information developed during the project development and adaptive assessment processes and as changes to the existing condition and future without project conditions occur. The Comprehensive Plan Refinement Team will perform the tasks necessary to keep current documentation of the Comprehensive Plan. This ensures that the most recent information regarding the Comprehensive Plan is maintained and readily available. Depending upon the magnitude of change of the activities listed below, it is recognized that the development of a Comprehensive Plan Modification Report may be triggered.

3.4.4.1 Update the existing and future without project conditions. As projects are implemented and activities that affect the Comprehensive Plan or the assumptions of the existing and future without project conditions occur, the Comprehensive Plan Refinement Team will keep track of these changes and ensure that all RECOVER and project delivery teams have the most current versions.

3.4.4.2 Project induced refinements. It is anticipated that each project delivery team will develop its project to a greater level of detail and certainty than conceptualized in the CERP. These potential changes brought about by more design detail will necessitate that the Comprehensive Plan be updated with the new information. The Comprehensive Plan Refinement Team will incorporate any such changes from authorized projects into the CERP.

3.4.4.3 Assessment induced refinements. As system responses to CERP implementation are measured and analyzed, the Adaptive Assessment Team will prepare assessment reports. These reports will describe the CERP's progress towards meeting its system-wide goals, identify any unexpected or undesirable system responses and identify opportunities for making improve elements in the design or operation of CERP projects.

3.4.4.4 Other induced refinements. The results of the CERP pilot projects and feasibility studies will potentially have effects on the Comprehensive Plan. Additionally, there are restoration and other projects outside of the CERP that may do the same.

3.4.4.5 Analytical tool induced refinements. The ongoing development of analytical tools used to simulate and evaluate Comprehensive Plan projects as they are formulated may bring about changes in the expected performance of the CERP. These types of refinements will be documented in technical reports. It is not expected that these activities will trigger the development of a Comprehensive Plan Modification Report.

3.4.5 *Comprehensive Plan Modification Reports (CPR).* Activities under this task include steps (in addition to Step 3.4.4) necessary to determine if the most recent CERP Update, or other major changes to CERP, warrants a Project Management Plan (PMP) for a Comprehensive Plan Modification Report (CPMR). This report will include a supplemental EIS, Fish and Wildlife Coordination Act Report, and other documents required by law. These steps will include coordination and meetings necessary for developing a position for the initiation of a CPMR.

3.4.6 *Performance of periodic CERP Updates (CPR, RET, WQT).* The purpose of the Initial CERP Update (ICU) is to respond to a changed environment and new information gained since the Comprehensive Plan feasibility report was released (July 1999). Since that time, work has continued on several fronts relating to the implementation of the Plan. Performance measures and indicator regions for the

natural system, which are used to predict plan performance, have been revised. Upgrades have been made and new data has been added to the SFWMM and the NSM, which are the primary hydrologic tools used in plan formulation and evaluation. Seven years have passed since the development of the “Restudy” existing condition and there have been changes in assumptions for the future without project condition. For these reasons and others, the Comprehensive Plan needs to be updated and evaluated with this new information and compared to the 1999 Restudy Report. This task is to complete the work initiated in FY03 on the ICU and complete a final ICU report. For this PMP it will be assumed that the next CERP Update will be performed in FY06.

3.4.7 Support Project Delivery Teams in development of Project Operating Manuals (OPT).

3.4.7.1 Complete operations strategy for project operations. The Operations Planning Team has developed a strategy for ensuring that operations of the components of the CERP provide the expected benefits to the natural system and to the agricultural and urban sectors. This strategy will guide the Operations Planning Team in working with the project delivery teams in the design of operations for each of the CERP components.

3.4.7.2 Assist in developing project operating manuals. The Draft Project Operating Manual represents the operational intent of the individual projects as envisioned in the Comprehensive Plan. The Operations Planning Team will work with the project delivery teams to develop revisions to draft operating manuals for each project for inclusion in a project implementation report. The Operations Planning Team will work with the project managers to revise the draft operating manuals at the conclusion of construction of each project.

3.4.7.3 Support project delivery teams in the development of modifications to the project draft operating manuals during construction. Many projects will be constructed in or in very close proximity to the existing C&SF Project. In order to preserve the current flood control, water supply and environmental water supply considerations during major construction activities, modifications to the project draft operating manuals will be required. Interim operations plans will detail how water is managed during the construction phase of the individual project.

3.4.8. Interim System-Wide Operations. The Programmatic Regulations will require a system-wide operating manual. The Operations Planning Team will prepare the system-wide operating manual.

3.4.9 Coordinate with project delivery teams on local water quality issues (WQT). The team will serve as a link between RECOVER and project delivery teams to ensure local water quality issues for project implementation are appropriately addressed in project management plans and coordinated with RECOVER water

quality performance measures and targets. Not only will the Water Quality Team coordinate with the project teams; they will be the link between those teams and programmatic water quality activities.

3.4.10 Coordinate with the South Florida Water Quality Protection Program and the CERP Water Quality Feasibility Study (WQT). The South Florida Water Quality Protection Program is a state sponsored initiative supported by the USEPA. The program plan will interact with RECOVER on two levels: i) the monitoring plan and the annual assessments and ii) design of individual projects. The Water Quality Team will coordinate these interactions by assisting with the feasibility study to establish the plan, and to evaluate water quality standards and criteria setting from an ecosystem restoration perspective and state the findings for integrating existing and future water quality restoration targets for south Florida water bodies. The team will also assist in establishing pollutant load reduction targets and strategies for watersheds affected by the CERP facilities/operations.

3.4.11 Aquifer Storage and Recovery (ASR) Contingency Planning. Due to the uncertainty in implementing ASR on the scale envisioned in the CERP, this planning effort will evaluate two scenarios should ASR not work as well as anticipated. Results of the investigation will be documented in a technical report.

4.0 Change Control Procedures

This RECOVER Program Management Plan covers the three-year period from 2004 to 2006 and will be updated before the beginning of Fiscal Year 2007. This management plan is also meant to be flexible and will be updated as necessary during the three-year period. Any significant changes in scope, schedule, or cost will be taken to the Design Coordination Team for direction.

5.0 List Of Management Plan Preparers

The following individuals prepared this RECOVER Management Plan:

Stuart Appelbaum, U.S. Army Corps of Engineers
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Lisa Smith, South Florida Water Management District
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Jim Vearil, U.S. Army Corps of Engineers

6.0 Summary of Work In-Kind Services

SFWMD will receive work-in-kind credit for work performed under the RECOVER activity. SFWMD will transmit a letter requesting work-in-kind credit with this management plan to the USACE. The SFWMD will prepare quarterly reports detailing in-kind work under this activity. USACE will review the work-in-kind credit reports and provide SFWMD with a letter indicating approval of in-kind work completed.

DRAFT

Attachment A

FY01-FY03 RECOVER Expenditures

**TABLE A-1
RECOVER FUNDS EXPENDED TO DATE**

Note: Funds spent in FY00 were to establish RECOVER and PMP and are included in the overall cost sharing.

