

## CENTRAL AND SOUTHERN FLORIDA PROJECT

### COMPREHENSIVE EVERGLADES RESTORATION PLAN



## Program Management Plan for Restoration Coordination and Verification (RECOVER)

Fiscal Years 2004-2006




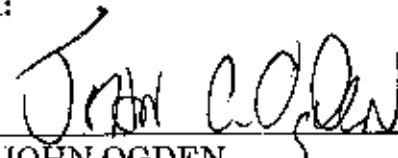
U.S. Army Corps of Engineers  
Jacksonville District




South Florida  
Water Management District

**FOR THE PROJECT DELIVERY TEAM:**

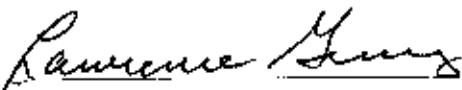
  
STUART APPELBAUM  
Chief, RECOVER Branch  
Restoration Program Div., USACE

 19 Nov. 2004  
JOHN OGDEN  
Chief Scientist  
Office of RECOVER, SFWMD

**FOR THE DESIGN COORDINATION TEAM:**


  
DENNIS R. DUKE, P.E.  
Program Manager for  
Restoration Program Div., USACE

11/15/04  
Date

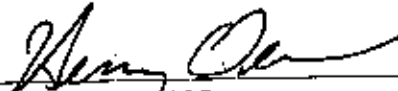
  
LAWRENCE GERRY  
Acting Director, Ecosystem  
Restoration Department, SFWMD

1/6/05  
Date

**FOR THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT:**


  
CHIP MERRIAM  
Deputy Executive Director, SFWMD

1-18-05  
Date:

  
HENRY DEAN  
Executive Director, SFWMD

1/18/05  
Date:

**FOR THE PROJECT REVIEW BOARD, USACE:**

  
RICHARD E. BONNER, P.E.  
Deputy District Engineer for  
Project Management, USACE

1/21/05  
Date:

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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 and 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. Prior to the C&SF Project Comprehensive Review Study, referred to as the Restudy, a comprehensive look at the water management system had not been conducted since the projects first authorization in 1949.

The Restudy 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 Restudy culminated in a feasibility report to Congress dated July 1999 (USACE and SFWMD 1999). 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 ongoing 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 and SFWMD 2000a), that all CERP programs be guided by approved management plans.

The first *RECOVER Program Management Plan*, dated May 2001, contained activities for Fiscal Years (FY) 2001-2003 (USACE and SFWMD 2001). This current management plan lays out the tasks, responsibilities and budgets planned for FY 2004-2006 (Attachment A). 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 assessment, evaluation and planning and integration. RECOVER's three missions are as follows:

- **Assessment** - to physically measure (through monitoring) and interpret actual responses in the natural and human systems as the CERP projects are implemented
- **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
- **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 following documents:

- *Water Resources Development Act of 2000* (U.S. Congress 2000)
- *Master Program Management Plan* (USACE and SFWMD 2000a)
- *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* (USACE and SFWMD 2000b)
- *Programmatic Regulations for the Comprehensive Everglades Restoration Plan; Final Rule* (DOD 2003)

### 1.1.1 Water Resources Development Act (WRDA) of 2000

The federal Water Resources Development Acts provide the USACE with the authority to conduct studies and implement projects. Section 601 of WRDA 2000 pertains to the CERP (U.S. Congress 2000). The following three subsections of Section 601 apply to RECOVER activities.

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

*(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.<sup>1</sup>*

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 the following:

*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*

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

*adaptive assessment under subsection (b)(2)(C)(xi)), and the work anticipated over the next 5-year period.*

### **1.1.2 Design Agreement**

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*, referred to as simply the Design Agreement, was executed in May 2000, between the Department of the Army and the SFWMD (USACE and SFWMD 2000b). It provides a definition of “design” that 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* (USACE and SFWMD 2000a) describes the framework and process to be used by the USACE and the SFWMD for managing and monitoring implementation of the Comprehensive Plan. The *Master Program Management Plan* provides a definition for program-level activities, including RECOVER. The *Master Program Management Plan* calls for the development of management plans for all such activities. While Section 3.0 of the plan outlines RECOVER responsibilities, tasks and work products, this RECOVER Program Management Plan provides a more comprehensive accounting of specific work items, schedules and a budget. Throughout the CERP process, the *Master Program Management Plan* may be updated. These updates may require modifications to existing or new management plans including the *RECOVER Program Management Plan*. It will be updated to reflect any changes that could be required.

### **1.1.4 Programmatic Regulations for the Comprehensive Everglades Restoration Plan**

The *Programmatic Regulations for the Comprehensive Everglades Restoration Plan; Final Rule* (DOD 2002) establishes processes and procedures that will guide the USACE and its partners in the implementation of the CERP. The processes and procedures that will be performed by RECOVER are included in Section 385.20 of the final rule:

*(a) RECOVER (Restoration Coordination and Verification) is an interagency and interdisciplinary scientific and technical team described 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 conduct assessment, evaluation, and planning and integration activities using the best available science that support implementation of the Plan with the overall goal of ensuring that the 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 teams that accomplish activities such as: developing system-wide performance measures; developing and implementing the monitoring and assessment program; evaluating alternatives developed by Project Delivery Teams to achieve the goals and purposes of the Plan; conducting system-wide water quality analyses; developing, refining, and applying system-wide models and tools; and evaluating modifications to the Plan. RECOVER is not a policy making body, but has technical and scientific responsibilities that support implementation of the Plan.*

*(b) Documents or work products prepared or developed by RECOVER shall not be self-executing, but shall be provided as information for consideration by the Corps of Engineers and the South Florida Water Management District, 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. Technical information developed by RECOVER shall be available to the public.*

*(c) The Corps of Engineers and the South Florida Water Management District shall 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, to use their expertise, to ensure that information developed by RECOVER is shared at the earliest possible time with agencies, tribes, and the public, 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 Oceanic and Atmospheric Administration of the Department of Commerce, the Florida Fish and Wildlife Conservation Commission, 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, the 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, coordination, or other activities required by applicable law, policy, or regulation.*

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

*(1) Assign program managers from the Corps of Engineers and the South Florida Water Management District to be responsible for carrying out the activities of RECOVER; and*

*(2) Establish a RECOVER Leadership Group to 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. In addition to the program managers, the RECOVER Leadership Group shall, consist of one member appointed by each of the following:*

- (i) Environmental Protection Agency;*
- (ii) National Oceanic and Atmospheric Administration;*
- (iii) US Fish and Wildlife Service;*
- (iv) US Geological Survey;*
- (v) National Park Service;*
- (vi) Miccosukee Tribe of Indians of Florida;*
- (vii) Seminole Tribe of Florida;*
- (viii) Florida Department of Agriculture and Consumer Services;*
- (ix) Florida Department of Environmental Protection; and*
- (x) Florida Fish and Wildlife Conservation Commission.*

*(3) As necessary to assist the program managers, the Corps of Engineers and the South Florida Water Management District may add additional members to the RECOVER Leadership Group.*

*(e) RECOVER shall perform assessment, evaluation, and planning and integration activities as described in this paragraph.*

*(1) Assessment activities. In accordance with §385.31, RECOVER shall conduct credible scientific assessments of hydrological, water quality, biological, ecological, water supply, and other responses to the Plan. The Corps of Engineers and the South Florida Water Management District will ensure that these assessments incorporate the best available science and that the results are provided for external peer review, as appropriate, and are made fully available for public review and comment. RECOVER shall conduct assessment activities, including, but not limited to:*

*(i) Developing proposed assessment performance measures for assessing progress towards the goals and purposes of the Plan;*

*(ii) Developing a proposed monitoring plan to support the adaptive management program;*

*(iii) Conducting monitoring and assessment activities as part of the adaptive management program to assess the actual performance of the Plan;*

*(iv) Developing recommendations for interim goals in accordance with §385.38;*

*(v) Assessing progress towards achieving the interim goals established pursuant to §385.38;*

*(vi) Developing recommendations for interim targets in accordance with §385.39;*

*(vii) Assessing progress towards achieving the interim targets established pursuant to §385.39; and*

*(viii) Cooperating with the independent scientific review panel and external peer review in accordance with §385.22.*

*(2) Evaluation activities. In accordance with §385.26(c) and §385.32, RECOVER shall assist Project Delivery Teams in ensuring that project design and performance is fully linked to the goals and purposes of the Plan and incorporating, as appropriate, information developed for Project Implementation Reports into the Plan. RECOVER shall conduct evaluation activities, including, but not limited to:*

*(i) Developing proposed evaluation performance measures for evaluating alternative plans developed for the Project Implementation Report;*

*(ii) Conducting evaluations of alternative plans developed for Project Implementation Reports and Comprehensive Plan Modification Reports; and*

*(iii) Supporting development and refinement of predictive models and tools used in the evaluation of alternate plans developed by the Project Delivery Teams.*

*(3) Planning and integration activities. RECOVER shall conduct planning and integration activities, in accordance with §385.31, in support of the adaptive management program as a basis for identifying opportunities for improving the performance of the Plan and other appropriate planning and integration activities associated with implementation of the Plan. RECOVER shall conduct planning and integration activities, including, but not limited to:*

*(i) Developing and refining conceptual and predictive models and tools in support of the integration of new science into the adaptive management program;*

*(ii) Reviewing and synthesizing new information and science that could have an effect on the Plan;*

*(iii) Developing proposed refinements and improvements in the design or operation of the Plan during all phases of implementation;*

*(iv) Preparing technical information to be used in the development of the periodic reports to Congress prepared pursuant to §385.40; and*

*(v) Analyzing proposed revisions to the Master Implementation Sequencing Plan.*

*(f) In carrying out the functions described in this section, RECOVER shall consider the effects of activities and projects that are not part of the Plan, but which could affect the ability of the Plan to achieve its goals and purposes.*

*(g) As appropriate, the Corps of Engineers and the South Florida Water Management District shall seek external peer review of RECOVER activities in accordance with §385.22(b).*

## **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 a leadership group and six task teams. 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 tri-chairs. The tri-chairs consist of a staff member from each of the sponsoring agencies, the USACE and the SFWMD, and a staff member from another federal or state agency.

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 predicatively evaluate and physically assess the Comprehensive Plan and to develop improvements to the plan.

### 1.3 RECOVER Mission Statement

The RECOVER Leadership Group adopted a mission statement in February 2003. This mission statement provides the purpose and guiding principles for RECOVER:

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 [Comprehensive] 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 [Comprehensive] 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 Design Coordination Team 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 Design Coordination Team 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. The processes are assessment, evaluation, and planning and integration. Many of these tasks have been underway since the initiation of the CERP and they will continue until implementation of the CERP is completed.

### **2.1.1 Assessment**

The assessment process tasks are as follows:

- 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
- Assess interim goals/interim targets performance.
- Refine Interim Goals/Interim Targets indicators and performance predictions.

### **2.1.2 Evaluation**

The evaluation process tasks are as follows:

- 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

- Evaluate the performance of the Master Implementation Sequencing Plan

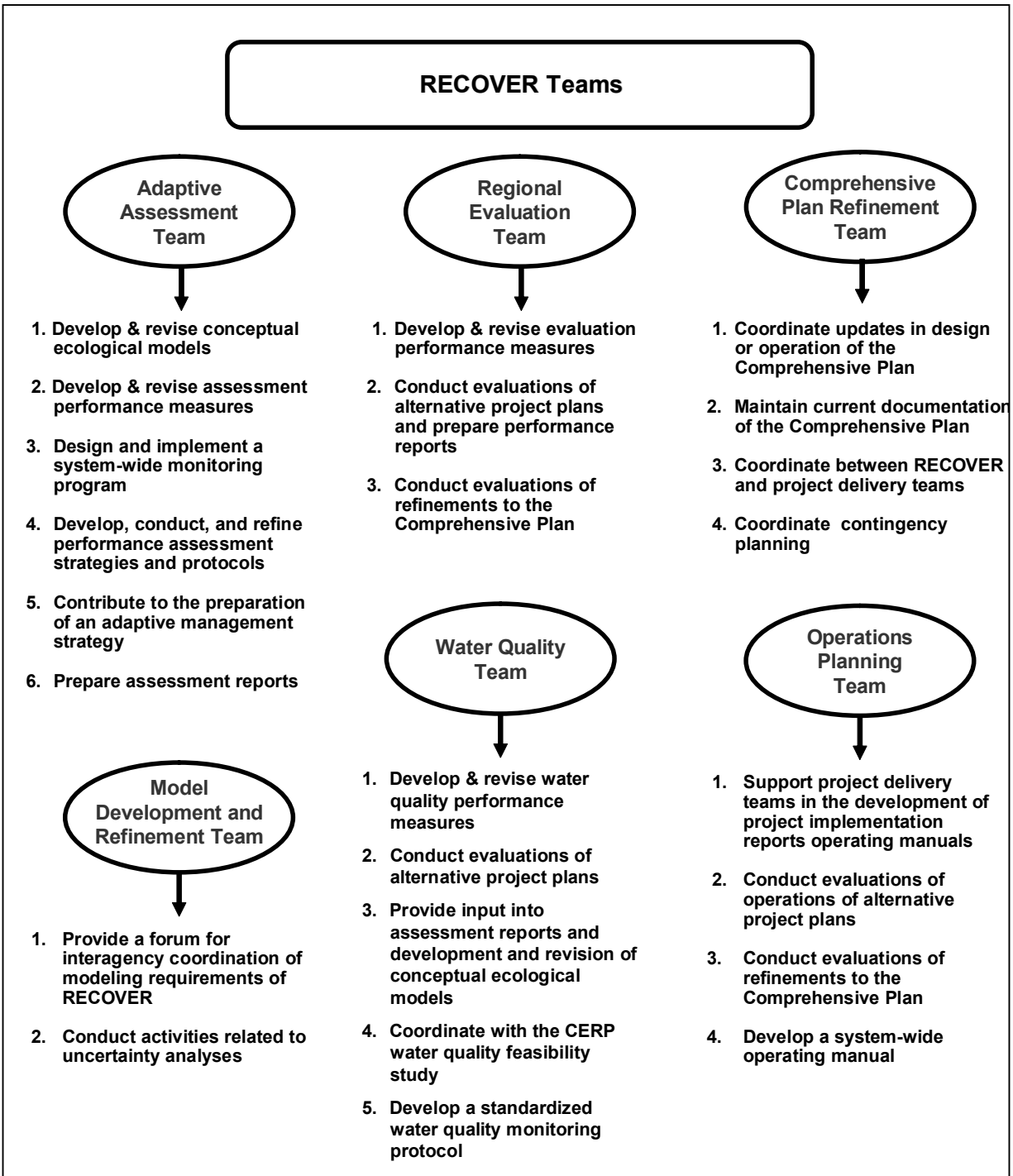
### **2.1.3 Planning and Integration**

The planning and integration process tasks are as follows:

- 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 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 a system-wide operating manual
- 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 RECOVER Leadership Group (RLG) (Figure 1). The six task teams are the Adaptive Assessment Team (AAT), the Regional Evaluation Team (RET), the Comprehensive Plan Refinement Team (CPR), the Model Development and Refinement Team (MRT), the Water Quality Team (WQT, and the Operations Planning Team (OPT). The 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.



**Figure 2.** RECOVER task teams

Prior to the issuance of the final rule of the Programmatic Regulations (DOD 2003), the RLG was a standing team consisting of the two RECOVER chairs from the SFWMD and the USACE, the tri-chairs from each of the six RECOVER teams, 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. The Programmatic Regulations (DOD 2003) now require the RLG consist of the two RECOVER chairs from the USACE and the SFWMD, and one member appointed by each of the following agencies or stakeholders: U.S. Environmental Protection Agency, National Oceanic and Atmospheric Administration, U.S. Fish and Wildlife Service, U.S. Geological Survey, National Park Service, Miccosukee Tribe of Indians of Florida, Seminole Tribe of Florida, Florida Department of Agriculture and Consumer Services, Florida Department of Environmental Protection, and Florida Fish and Wildlife Conservation Commission.

While this management plan is a management document between the sponsoring agencies (USACE and 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

### **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 a budget. The schedule and budget for RECOVER is included in Attachment A. The cost estimate for RECOVER activities is separated into three categories: the Adaptive Assessment and Monitoring Program, Programmatic Activities and Project-Specific Activities. The Adaptive Assessment and Monitoring Program costs (Table A-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 A-1) involves 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 A-2), 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 A-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 Attachment A 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 Attachment A.

The following work breakdown structure is grouped first into the RECOVER Program Management activities and then the three 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 three processes. In most cases, a single team has the lead responsibility (in italics after the major task) for each task, but 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 monthly reporting and 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 Science Coordination Group, an organization newly formed by the South Florida Ecosystem Restoration Task Force, may provide one mechanism for ensuring peer review of RECOVER documents. 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 of Florida are

to enter an agreement to establish the independent scientific review panel required by WRDA 2000. That independent panel is to conduct ongoing 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. 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. Standardize formatting, methods for quality control, and a consistent review process must be developed and maintained. 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. 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 RECOVER 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 RECOVER 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 (DOD 2003), 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 initial report is currently being produced (RECOVER in prep.) The measures presented in this 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 CERP. 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 FY 2005. This task includes coordinating the technical efforts required to review and refine the overall definition of success.

## **3.2 Assessment**

Detailed information regarding assessment activities is contained in the Adaptive Assessment and Monitoring (AA&M) Program Management Plan.

## **3.3 Evaluation**

### *3.3.1 Evaluation Management (RET, WQT, MRT)*

3.3.1.1 Workshops, meetings and coordination activities. The 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 Regional Evaluation, Water Quality and Model Refinement Teams will also develop and assist development of CERP Guidance Memoranda. These 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 products and documents. The Regional Evaluation, Water Quality and Model Refinement Teams are responsible for many scientific and technical evaluation 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. 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 and setting up workshops or other technical meetings. The overall strategy for resolving issues will be guided by the RECOVER 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 and Water Quality Teams will systematically review and refine the set of system-wide evaluation 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 Regional Evaluation Team web page. Links to the performance measure tables and graphics used to evaluate alternative plans will be displayed on the CERP web site.

### 3.3.3 *Conduct system-wide evaluations and reviews of updates of the Comprehensive Plan (RET, CPR, OPT, WQT, MRT)*

The Regional Evaluation and the Comprehensive Plan Refinement Teams, with assistance from the Operations Planning, Water Quality, and the Model Refinement Teams, 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, the without project condition, the South Florida Water Management Model (SFWMM), the Natural System Model (NSM), or 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 SFWMD's 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 Interagency Modeling Center. 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 program management plan, 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 Model Refinement and Development Team and Interagency Modeling Center. The Water Quality Team will coordinate with the Model Refinement and Development Team and/or seek alternatives for model development and refinement of water quality models. The Water Quality Team may

also coordinate with the Interagency Modeling Center on the need to develop new models and/or expand existing water quality models for system-wide evaluations. The Water Quality Team 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, 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 the 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 and Water Quality Teams 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 and Water Quality Teams 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, the 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.

*3.3.3.9 Assist project delivery teams in additional analysis for WRDA 2000 (CPR, RET, WQT).* The project delivery teams in coordination with RECOVER will conduct detailed analyses for the tentatively selected plan to ensure compliance with WRDA 2000 (U.S. Congress 2000) and Chapter 373 of the Florida Statutes. One of the additional analyses is the quantification and reservation analysis undertaken to ensure compliance with the Savings Clause of WRDA 2000 and Chapter 373 of the Florida Statutes. 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. The 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. The 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 agencies, stakeholders and the public 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. The 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 and setting up workshops or other technical meetings. The overall strategy for resolving issues will be guided by the RECOVER 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 project management plan and the project implementation report processes. 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's RECOVER Section Chief Scientist and staff and the USACE's 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 Comprehensive Plan. 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 improving 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, restoration and other projects outside of the CERP may also have effects on the Comprehensive Plan.

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)*

A Comprehensive Plan modification report will include a supplemental environmental impact statement (EIS), a Fish and Wildlife Coordination Act Report, and other documents required by law. 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 the CERP, warrants a comprehensive plan modification report. These steps will include coordination and meetings necessary for developing a position for the initiation of a report.

### 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 in July 1999 (USACE and SFWMD 1999). Since that time, work has continued on several fronts relating to the implementation of the Comprehensive

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 assumptions for the future without project condition have changed. For these reasons and others, the Comprehensive Plan needs to be updated and evaluated with this new information and compared to the Restudy feasibility report. This task is to complete the work initiated in FY 2003 on the ICU and complete a final ICU report. At this point in time, it is assumed that the next CERP update will be performed in FY 2006.

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

3.4.7.1 Assist in developing project operating manuals. A 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.

3.4.7.2 Support project delivery teams in the development of modifications to the project draft operating manuals during construction. Many projects will be constructed within or in very close proximity to the existing C&SF Project. In order to preserve the current flood control and urban, agricultural and environmental water supply, considerations during major construction activities and modifications to the project draft operating manuals may 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 (DOD 2003) require a system-wide operating manual. The Operations Planning Team will prepare the system-wide operating manual.

### *3.4.9 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 U.S. Environmental Protection Agency. The program plan will interact with RECOVER on two levels: 1) the monitoring plan and the annual assessments and 2) design of individual projects. The Water Quality Team will coordinate these interactions by assisting with the feasibility study to establish the plan; evaluating the setting of water quality standards and criteria from an ecosystem restoration perspective; and state the findings for integrating existing and future water quality restoration targets for south Florida water bodies. The Water Quality Team

will also assist in establishing pollutant load reduction targets and strategies for watersheds affected by the CERP facilities/operations.

#### *3.4.10 Aquifer Storage and Recovery Contingency Planning*

Due to the uncertainty in implementing aquifer storage and recovery (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 plan:

Stuart Appelbaum, U.S. Army Corps of Engineers  
Cheryl Buckingham, U.S. Army Corps of Engineers  
Maxine Cheesman, South Florida Water Management District  
Mike Choate, U.S. Army Corps of Engineers  
Steve Davis, South Florida Water Management District  
Betty Grizzle, U.S. Fish and Wildlife Service  
Jenni Hiscock, South Florida Water Management District  
Eric Hughes, U.S. Environmental Protection Agency  
Tom Kosier, South Florida Water Management District  
Elmar Kurzbach, U.S. Army Corps of Engineers  
Kim Jacobs, South Florida Water Management District  
Liz Manners, U.S. Army Corps of Engineers  
Agnes McLean, South Florida Water Management District  
Brenda Mills, South Florida Water Management District  
John Ogden, South Florida Water Management District  
Bob Pace, U.S. Fish and Wildlife Service  
Joseph Redican, U.S. Army Corps of Engineers  
Orlando Ramos-Gines, U.S. Army Corps of Engineers  
Lisa Smith, South Florida Water Management District  
Ken Tarboton, South Florida Water Management District  
Steve Traxler, U.S. Fish and Wildlife Service  
Jim Vearil, U.S. Army Corps of Engineers

## **6.0 Summary of Work In-Kind Services**

The SFWMD will receive work-in-kind credit for work performed under the RECOVER activity. The 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. The USACE will review the work-in-kind credit reports and provide SFWMD with a letter indicating approval of in-kind work completed.

## **7.0 References**

DOD. 2003. Programmatic Regulations for the Comprehensive Everglades Restoration Plan; Final Rule. Department of Defense, Federal Register, 33 CFR Part 385, November 12, 2003.

RECOVER. 2003. Draft CERP Quality Assurance System Requirement Manual. Restoration Coordination and Verification Program, c/o Jacksonville District, United States Army Corps of Engineers, Jacksonville, Florida, and South Florida Water Management District, West Palm Beach, Florida.

RECOVER. 2004. CERP Monitoring and Assessment Plan. Restoration Coordination and Verification Program, c/o Jacksonville District, United States Army Corps of Engineers, Jacksonville, Florida, and South Florida Water Management District, West Palm Beach, Florida.

RECOVER. In prep. CERP System-wide Performance Measures. Restoration Coordination and Verification Program, c/o Jacksonville District, United States Army Corps of Engineers, Jacksonville, Florida, and South Florida Water Management District, West Palm Beach, Florida.

USACE and SFWMD. 1999. Central and Southern Florida Project Comprehensive Review Study Final Integrated Feasibility Report and Programmatic Environmental Impact Statement. United States Army Corps of Engineers, Jacksonville District, Jacksonville, Florida, and South Florida Water Management District, West Palm Beach, Florida.

USACE and SFWMD. 2000a. Mater Program Management Plan. Comprehensive Everglades Restoration Plan, United States Army Corps of Engineers, Jacksonville District, Jacksonville, Florida, and South Florida Water Management District, West Palm Beach, Florida.

USACE and SFWMD. 2000b. Design Agreement between the Department of the Army and South Florida Water Management District for the Design of the Elements of the Comprehensive Plan for the Everglades and South Florida Ecosystem Restoration Project. United States Army Corps of Engineers, Jacksonville District, Jacksonville, Florida, and South Florida Water Management District, West Palm Beach, Florida.

USACE and SFWMD. 2001. Management Plan for Restoration Coordination and Verification (RECOVER). United States Army Corps of Engineers, Jacksonville District,

FINAL

Jacksonville, Florida, and South Florida Water Management District, West Palm Beach, Florida.

U.S. Congress. 2000. Water Resources Development Act of 2000. Public Law No. 106-541, signed December 11, 2000. Title VI, Section 601, of the act, describes authorizations specific to the Comprehensive Everglades Restoration Plan.

## **8.0 Attachment A: FY 2004 - FY 2006 Schedule and Costs**

**TABLE A-1  
Estimated Costs for RECOVER Activities FY 2004 – 2006**

PMP Task #	PMP Task Description	FY04		FY05		FY06	
		Corps	SFWMD	Corps	SFWMD	Corps	SFWMD
3.1	Program Management						
	CPR	\$ 108,980	\$ 216,540	\$ 38,805	\$ 20,325	\$ 34,840	\$ 26,370
	MRT	\$ -	\$ -	\$ -	\$ -	\$ 7,245	\$ 4,830
	OPT	\$ -	\$ -	\$ -	\$ -	\$ 7,245	\$ 4,830
	RET	\$ 22,770	\$ 78,570	\$ 32,338	\$ 28,890	\$ 27,525	\$ 24,405
	RLG	\$ 680,508	\$ 111,960	\$ 807,869	\$ 290,070	\$ 732,296	\$ 132,120
	WQT	\$ 42,279	\$ 30,705	\$ 45,359	\$ 21,405	\$ 42,455	\$ 19,135
	Sub total	\$ 854,537	\$ 437,775	\$ 924,371	\$ 360,690	\$ 851,606	\$ 211,690
3.3	Evaluation						
	CPR	\$ 15,000	\$ -	\$ 25,000	\$ -	\$ 22,000	\$ -
	MRT	\$ 86,000	\$ 6,900	\$ 40,000	\$ -	\$ 42,000	\$ -
	OPT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	RET	\$ 581,806	\$ 117,480	\$ 494,743	\$ 91,080	\$ 486,848	\$ 91,080
	RLG	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	WQT	\$ 341,878	\$ 75,010	\$ 539,781	\$ 68,530	\$ 441,019	\$ 68,530
	Sub total	\$ 1,024,684	\$ 199,390	\$ 1,099,524	\$ 159,610	\$ 991,867	\$ 159,610
3.4	Planning and Integration						
	CPR	\$ 1,548,804	\$ 453,450	\$ 1,944,533	\$ 444,450	\$ 1,696,383	\$ 408,210
	MRT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	OPT	\$ 208,736	\$ 51,060	\$ 482,432	\$ 66,240	\$ 456,511	\$ 64,860
	RET	\$ 19,665	\$ 5,520	\$ 6,140	\$ 22,260	\$ -	\$ -
	RLG	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	WQT	\$ 7,600	\$ 5,640	\$ 19,600	\$ 12,360	\$ 13,800	\$ 2,760
	Sub total	\$ 1,784,805	\$ 515,670	\$ 2,452,705	\$ 545,310	\$ 2,166,694	\$ 475,830
<b>TOTAL</b>		<b>\$ 3,664,026</b>	<b>\$ 1,152,835</b>	<b>\$ 4,476,600</b>	<b>\$ 1,065,610</b>	<b>\$ 4,010,167</b>	<b>\$ 847,130</b>

**TABLE A-2**  
**Estimated Costs for Project Activities FY 2004 - 2006**

	FY04		FY05		FY06	
	Corps	SFWMD	Corps	SFWMD	Corps	SFWMD
CPR	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
MRT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
OPT	\$ 113,623	\$ 17,700	\$ 211,767	\$ 34,500	\$ 223,598	\$ 41,400
RET	\$ 458,137	\$ 313,260	\$ 532,052	\$ 273,930	\$ 599,151	\$ 251,160
RLG	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
WQT	\$ 226,180	\$ 193,840	\$ 114,898	\$ 152,600	\$ 118,565	\$ 170,440
Sub total	\$ 797,940	\$ 524,800	\$ 858,717	\$ 461,030	\$ 941,314	\$ 463,000