PRELIMINARY DRAFT **November 9, 2001**

CENTRAL AND SOUTHERN FLORIDA PROJECT

COMPREHENSIVE EVEGLADES RESTORATION PLAN

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PROJECT MANAGEMENT PLAN

EVERGLADES AGRICULTURAL AREA STORAGE RESERVOIRS PHASE 1

U.S. Army Corps of Engineers
Jacksonville District

South Florida Water Management District

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1.2 List of Acronyms

LIST OF ACRONYMS AND ABBREVIATIONS used in CERP program:

AFB	*Alternatives Formulation Briefing*
A/E	*Architect/Engineer*
ACOE	*Army Corps of Engineers*
AFB	*Alternatives Formulation Briefing*
ASA-CW	*Assistant Secretary of the Army - Civil Works*
ASR	*Aquifer Storage and Recovery*
BA	*Biological Assessment*
BCOE	*Biddability, Constructibility, Operability, and Environmental*
BMP	*Best Management Practices*
C&SF	*Central and Southern Florida Project*
CATEX	*Categorical Exclusion*
CCNA	*Consultants Competitive Negotiation Act*
CEQ	*Council on Environmental Quality*
CERP	*Comprehensive Everglades Restoration Plan*
CERPRA	*Comprehensive Everglades Restoration Plan Regulation Act*
CESAJ	*Jacksonville District, U.S. Army Corps of Engineers*
COE	*U. S. Army Corps of Engineers*
Corps	*U. S. Army Corps of Engineers*
CRG	*Corporate Review Group*
DCT	*Design Coordination Team*
DDR	*Detailed Design Report*
DOI	*Department of the Interior*
EA	*Environmental Assessment*
E&D	*Engineering and Design*
EAA	*Everglades Agricultural Area*
ECP	*Everglades Construction Project*
EFA	*Everglades Forever Act*
EFH	*Essential Fish Habitat*
E-HTRW	*Environmental – Hazardous, Toxic and Radioactive Waste*
EIS	*Environmental Impact Statement*
ENP	*Everglades National Park*
EPA	*United States Environmental Protection Agency*
ERC	*Environmental Regulatory Commission*
ERP	*Environmental Resource Permit*

FAC	*Florida Administrative Code*
FAS	*Floridan Aquifer System*
FDEP	*Florida Department of Environmental Protection*
FGS	*Florida Geological Survey*
FONSI	*Finding of No Significant Impact*
FS	*Florida Statutes*
FWC	*Florida Fish and Wildlife Conservation Commission*
FWS	*United States Fish and Wildlife Service*
GIS	*Geographic Information System*
GPS	*Global Positioning System*
H&H	*Hydrology and Hydraulics*
HMS	*Hydrologic Modeling System*
HQUSACE	*Headquarters, United States Army Corps of Engineers*
HSPF	*Hydrologic Simulation Program - Fortran*
HTRW	*Hazardous, Toxic, and Radioactive Waste*
ITR	*Independent Technical Review*
LERRD	*Lands, Easements, Rights-of-way, Relocations, and Disposal*
MCACES	*MicroComputer Aided Cost Engineering System*
MPMP	*Master Program Management Plan*
NED	*National Economic Development*
NAVD	*North American Vertical Datum*
NEPA	*National Environmental Policy Act*
NGVD	*National Geodetic Vertical Datum*
NMFS	*National Marine Fisheries Service*
NOAA	*National Oceanic and Atmospheric Administration*
NPDES	*National Pollution Discharge Elimination System*
NPS	*National Park Service*
NRCS	*National Resource Conservation Survey*
O&M	*Operations and Maintenance*
OGC	*FDEP Office of General Counsel*
OMRR&R	*Operation, Maintenance, Rehabilitation, Repair, and Replacement*
P&G	*Principles and Guidelines*
P&S	*Plans and Specifications*
PCA	*Project Cooperation Agreement*
PDT	*Project Delivery Team*
PE	*Project Engineer*
PED	*Pre-construction, Engineering, and Design*
PIR	*Project Implementation Report*
PM	*Project Manager*
PMP	*Project Management Plan*
ppb	*part per billion*
PRB	*Project Review Board*
PTL	*Planning Team Leader*
QCM	*Quality Control Manager*

QCP	*Quality Control Plan*
RA	*Remedial Action*
RASTA	*Reservoir Assisted Stormwater Treatment Area*
RD	*Remedial Design*
RECOVER	*Restoration Coordination and Verification*
RES	*Real Estate Supplement*
Restudy	*Central and Southern Florida Project Comprehensive Review Study*
RFI	*Request for Information*
RFP	*Request for Proposal*
ROD	*Record of Decision*
SACCR	*Project Schedule and Cost Change Request*
SAD	*South Atlantic Division*
SCS	*Soil Conservation Service*
SFWMD	*South Florida Water Management District*
SFWMM	*South Florida Water Management Model*
STA	*Stormwater Treatment Area*
TMDL	*Total Maximum Daily Load*
TNC	*The Nature Conservancy*
TP	*Total Phosphorus*
TRC	*Technical Review Conference*
USACE	*United States Army Corps of Engineers*
USFWS	*United States Fish and Wildlife Service*
USGS	*United States Geological Survey*
VE	*Value Engineering*
WBS	*Work Breakdown Structure*
WCA	*Water Conservation Area*
WMA	*Wildlife Management Area*
WOD	*Works of the District*
WPA	*Water Preserve Area*
WQ	*Water Quality*
WQC	*Water Quality Certification*
WQCE	*Water Quality Criteria Exemption*
WRDA	*Water Resource Development Act*

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1.4 Errata Sheets

1.5 List of Updates and Revisions

2.0 PROJECT INFORMATION

The Central & Southern Florida (C&SF) Project extends from south of Orlando to the Florida Keys and is composed of a regional network of canals, levees, storage areas and water control structures. First authorized by Congress in 1948, the project serves multiple purposes. The authorized purposes of the project include flood control, regional water supply for agricultural and urban areas, prevention of salt-water intrusion, water supply to Everglades National Park, preservation of fish and wildlife, recreation and navigation. For close to 50 years, the C&SF Project has performed its authorized functions well. However, the project also has had unintended adverse effects on the unique natural environment that constitutes the Everglades and south Florida ecosystem.

The C&SF Project Comprehensive Review Study, Final Integrated Feasibility Report and Programmatic Environmental Impact Statement, April 1999, better known as the Restudy, looked at the existing project, its physical features and operations, with a view towards recommending structural and/or operational changes to better meet the goals of south Florida ecosystem restoration and the continued provision of safe, reliable water supply and flood protection for the people who live there. Ensuring sustainable water resources for the future, or "getting the water right," – the right quantity, quality, timing, and distribution – is what the Restudy is about.

The intent of the Restudy was to evaluate conditions within the C&SF project area and to recommend modifications to restore important functions and values of the Everglades and south Florida ecosystem and plan for the water resources needs of the people of south Florida for the next 50 years. As stated in the Water Resources Development Act (WRDA) of 2000, the overarching objective of the plan is the restoration, preservation, and protection of the South Florida Ecosystem while providing for other water-related needs of the region, including water supply and flood protection.

The lack of storage in the Everglades system, particularly during wet periods, has led to ecological damage of Lake Okeechobee's littoral zone and damaging regulatory releases to the St. Lucie and Caloosahatchee estuaries. Conversely, in dry periods, this lack of storage has led to water supply shortages for both the human and natural environment. Therefore, many of the Comprehensive Everglades Restoration Plan (CERP) restoration features are heavily dependent on water storage.

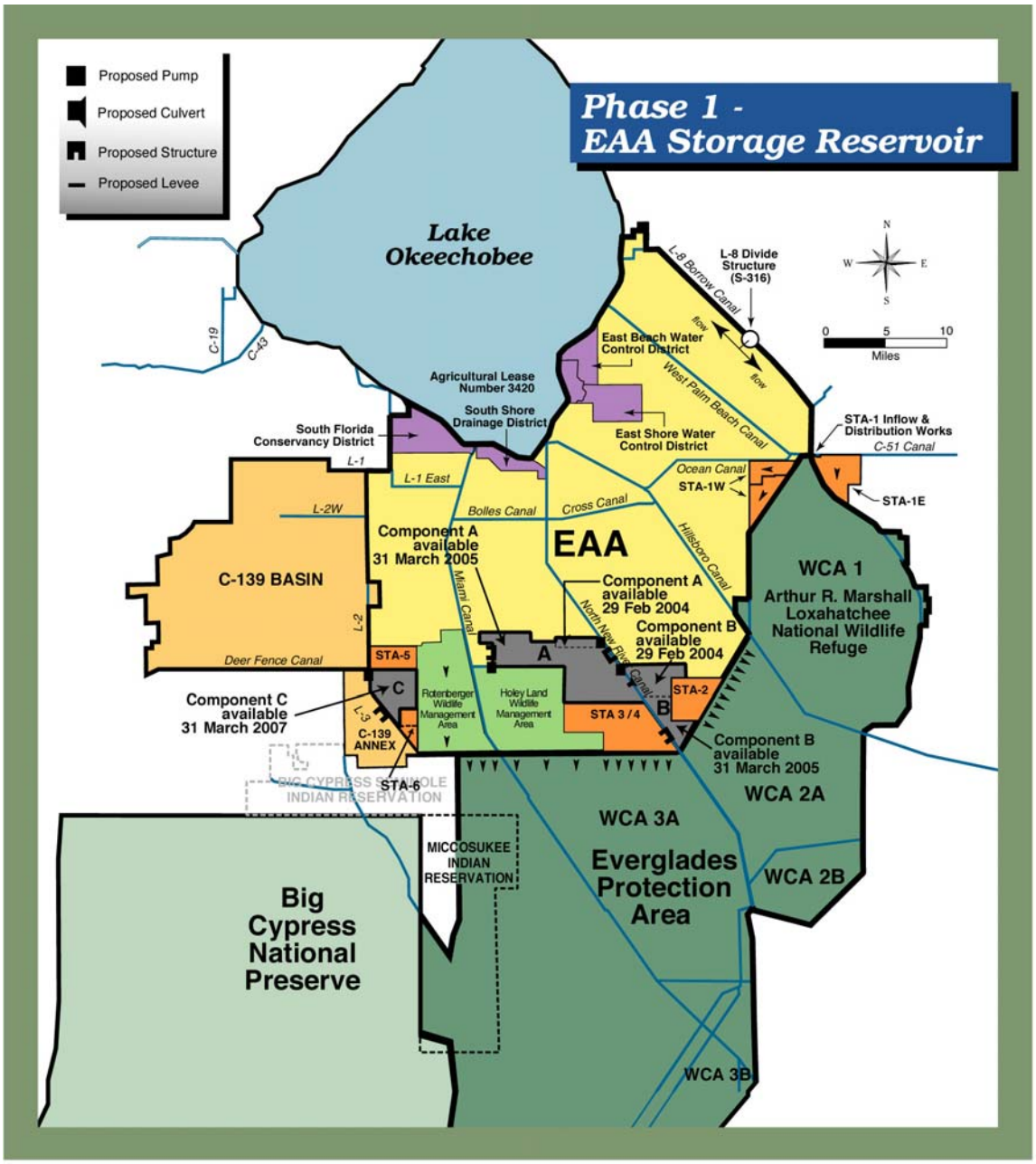

FIGURE 1 - Everglades Agricultural Area Vicinity Map

2.1 Project Background

This Project Management Plan (PMP) is for Phase 1 of the Everglades Agricultural Area Storage Reservoirs project. The region of the Everglades immediately south of Lake Okeechobee, now called the Everglades Agricultural Area (EAA) (Figure1), was drained and ground water levels were managed to reduce flood damages to agricultural production. This area is about 500,000 acres of rich, fertile agricultural land. A large portion of the EAA is devoted to the production of sugarcane. The average ground elevation is about 12 feet NGVD. Directly south of the EAA lie the Water Conservation Areas (WCAs) which cover about 878,000 acres and consist mainly of sawgrass marshes and tree islands. The WCAs were created by the 1948 C&SF Project for the conservation of water supplies for the Lower East Coast.

The primary canals consist of the Miami, the North New River, the Hillsboro, and the West Palm Beach Canals, which traverse the area north south, and the Bolles and Cross Canal, which extends west-east. Water levels in the canals are controlled to achieve optimum crop growth, flood control and water supply. Major surface impoundments in the area are non-existing.

Supplemental agricultural water supply within the EAA in the dry season is currently met by deliveries from Lake Okeechobee. Additional water storage within the EAA would lessen its dependency on Lake Okeechobee for irrigation water and potentially reduce the ecologically damaging high water conditions in the Water Conservation Areas and backpumping into Lake Okeechobee during the wet season. Regional aboveground impoundments or storage areas within the EAA would capture and store Everglades Agricultural Area runoff or excess water from Lake Okeechobee. During the dry season, reservoir releases could be made to the primary canals for agricultural irrigation and for natural system demand to the Everglades ecosystem. Lake Okeechobee would then no longer serve as the only supplemental source for meeting Everglades Agricultural Area irrigation demands and Everglades Protection Area water needs.

Restudy Concepts

For Phase 1, the Restudy recommended the construction of above-ground reservoirs with a total storage capacity of 240,000 acre-feet located in the EAA in western Palm Beach County and conveyance capacity increases for the Miami, North New River, Bolles and Cross canals. The initial design for the reservoirs assumed 40,000 acres divided into two, equally sized compartments (1 and 2) with water levels fluctuating up to six feet above grade in each compartment. The final size, depth and configuration of this facility will be determined through more detailed planning and design and based on the actual land areas available as acquired through the Talisman land exchange (1999).

The stated purpose of this feature is to improve timing of environmental deliveries to the Water Conservation Areas including reducing damaging flood releases from the EAA to the Water Conservation Areas, reduce Lake Okeechobee regulatory releases to estuaries, meet supplemental agricultural irrigation demands, and increase flood protection within the EAA.

Runoff from the Miami and North New River (NNR) Canal Basins within the EAA and regulatory releases from Lake Okeechobee will be pumped into the reservoirs. Compartment 1 discharges will be used to meet EAA irrigation demands only. Compartment 2 discharges will be used to meet environmental demands as a priority and can be used to supply a portion of agricultural demands if the environmental demands equal zero. The storage compartments may provide a water quality treatment function, augmenting the performance of the Everglades Construction Project (ECP) and ensuring protection of water quality in the Everglades Protection Area. Design of this feature will include providing flow equalization to the STAs which allows for the most effective treatment. Alternatives will be considered to further divide the proposed storage compartments to reduce evapotranspiration and seepage.

Table 1. EAA Storage Reservoirs, Phase 1 Features.

FEATURE	DETAILS	SPECIFIED PURPOSE
Compartment 1	20,000 acre reservoir, up to 6 feet deep Inflow pump of 2700 cfs from Miami Canal Inflow pump of 2300 cfs from NNR Canal Outflow structure of 3000 cfs to Miami Canal Outflow structure of 4400 cfs to NNR Canal	To meet Everglades Agricultural Area irrigation demands only
Compartment 2	20,000 acre reservoir, up to 6 feet deep Inflow pump of 4500 cfs from Miami Canal Inflow pump of 3000cfs from NNR Canal Outflow structure of 3600 cfs to STA 3/4 (@ 6 feet head) Outflow structure of 4500 cfs to Miami Canal Outflow structure of 3000 cfs to NNR Canal	To meet environmental demands as a priority and can be used to supply a portion of agricultural demands if the environmental demands equal zero
North New River Canal	Increase conveyance of approximately 18 miles of the northern reaches in the EAA may be tripled (200% increase)	For Lake Okeechobee regulatory releases
Miami Canal	Increase conveyance of approximately 28 miles of the northern reaches in the EAA may be tripled (200% increase)	For Lake Okeechobee regulatory releases
Bolles and Cross Canal	Increase conveyance of approximately 16 miles of canals.	(Assumed – To provide appropriate inter-basin transfer capacity)

The EAA Storage Reservoirs Phase 1 project was conditionally authorized in WRDA 2000. Table 1 includes a list of features recommended in the Restudy. The conditions of this authorization will be met by submitting a Project Implementation Report (PIR) to the Committee on Transportation and Infrastructure of the House of

Representatives and the Committee on Environment and Public Works of the Senate.

Project Implementation Process:

A Design Agreement, between the South Florida Water Management District (SFWMD) and the Jacksonville District U.S. Army Corps of Engineers (USACE), was executed on May 12, 2000, for the Design of Elements of the Comprehensive Plan for the Everglades and South Florida Ecosystem Restoration Project. The Design Agreement required the preparation of a Master Program Management Plan (MPMP) to provide an overall management strategy to implement the CERP. This MPMP, executed on August 2000, describes how projects will be implemented by utilizing interagency, interdisciplinary Project Delivery Teams (PDT). Each PDT, guided by the project managers, will develop a project specific PMP.

Upon approval of this PMP, the PDT will initiate studies required to prepare a PIR. The PIR will be developed to document the plan formulation, engineering and design work. The PIR will provide information to bridge the gap between the conceptual design included in the Restudy and the detailed design necessary to advance a project to construction. It will constitute both the decision documents for federal approval and for state approval under Florida Statutes (F.S.), section (s.) 373.026. The PIR will be released in draft for review and comment to agencies and the public. At the conclusion of the review and comment period, the report will be revised based upon agency and public comments. It will then be transmitted to the Florida Department of Environmental Protection for compliance review under s. 373.1501, F.S., and approval under s. 373.026, F.S. The Department of Environmental Protection must approve a report, or approve it with amendments, within 60 days of submittal. Further, the "Everglades Restoration Investment Act" (s. 373.470) requires that each PIR address the factors provided in s. 373.1501, F.S. sufficient to allow the SFWMD to obtain departmental approval.

This PMP is a living document that will be updated or revised, as necessary, throughout the life of the project. Updates are defined as changes to the PMP that occur on a regular basis and do not substantially modify the schedule, cost or annual management plan for the project. Scheduled revisions, after the completion of key major project development products, will reflect the changes in the project's scope or to reflect additional or better understanding of the project's development resulting from the completion of a decision document or design/acquisition document. The revisions will provide additional levels of detail for the upcoming project development phases based on information developed in the recently completed phase. Revisions will be scheduled upon completion of the PIR in preparation for project design, and prior to the initiation of the construction phase, to support the development and the execution of a Project Cooperation Agreement (PCA).

2.2 Description

The EAA Storage Reservoirs Phase 1 project is located in the EAA in western Palm Beach County and Hendry County on lands purchased with Department of Interior Farm Bill funds, with SFWMD funds, and on lands gained through a series of exchanges for lands being purchased with these funds. Implementation of this project will be consistent with the Farm Bill land acquisition agreements. The area presently consists of land that is mostly under sugar cane cultivation.

This project was included in the initial authorization for three reasons: 1) lands needed for the project have been or will be acquired; 2) it provides the opportunity to construct the facility in a manner that is mutually beneficial for the Comprehensive Everglades Restoration Plan and the sponsor's ECP; and 3) construction of this facility provides multiple environmental, water supply, and flood protection benefits. This project will improve timing of environmental deliveries to the WCAs by reducing damaging flood releases from the EAA to the WCAs, reduce Lake Okeechobee regulatory releases to the estuaries, meet supplemental agricultural irrigation demands, and increase flood protection within the EAA.

This project is the first phase of the EAA Storage Reservoirs component of CERP. The recommended plan included two above ground reservoirs with a total storage capacity of approximately 240,000 acre-feet located on land associated with the Talisman Land purchase in the EAA. Conveyance capacity increases for the Miami, North New River, Bolles and Cross Canals are also included in the design of this project. The initial design for the reservoirs assumed 40,000 acres, divided into two, equally sized compartments with water levels fluctuating up to six feet above grade in each compartment.

As originally envisioned, Compartment 1 would be a 20,000-acre reservoir at six feet maximum depth with inflow pumps with a capacity of 2,700 cfs from the Miami Canal Basin and 2,300 cfs from the North New River Canal Basin for diversion of EAA runoff. Outflow to the EAA would be through a 3,000 cfs structure to the Miami Canal Basin and a 4,400 cfs structure to the North New River Canal and Hillsboro Canal basins. Compartment 2 would be a 20,000-acre reservoir at six feet maximum depth with inflow pumps with a capacity of 4,500 cfs from the Miami Canal Basin and 3,000 cfs from the North New River Canal Basin for diversion of Lake Okeechobee regulatory releases. Outflow to the ECP's STA-3/4 would be through a 3,600 cfs structure. Canal conveyance capacities would be increased by 200 percent for the Miami, North New River, Bolles and Cross canals in order to direct Lake Okeechobee regulatory releases to the reservoirs.

The PIR for this project will address the specific location and sizing of the reservoirs as well as more site-specific design of levees and pump stations. In addition, the

extent of conveyance improvements for the North New River, the Miami, the Bolles and Cross canals will be identified.

2.3 Differences from Restudy

The Restudy envisioned the EAA Storage Reservoirs Phase 1 comprised of two 20,000-acre compartments to be between the Miami and North New River Canals located north of the STA-3/4 and the Holey Land Wildlife Management Area (WMA). The actual Talisman Land Agreement acreage to be used for this project was divided into three areas (Figure 2). This geographic modification to the original concept provided a change to the original conceptual plan. Additional data will be collected in the PIR phase of the project that will determine the most effective combination of number and size of compartments, as well as depth to achieve the project goals.

The results of the Watershed Assessment will be used to focus subsequent project-specific planning efforts on the features that are most appropriate. The watershed assessment will also provide the basis for developing a more detailed PIR work plan. Upon completion of the Watershed Assessment, the PDT will consider preparing an interim PIR for the increased canal conveyance capacities component and a final PIR for the reservoir component of the EAA Storage Reservoirs project, if it is in the best interest of the project.

The pump station and water control structures identified in the Restudy were tentative requirements based on two 20,000-acre compartments between the Miami and the North New River Canals. Since the Talisman Land acquisition has modified the geographic location of the lands and the acreage, and the design of STA-3/4 has been completed, the footprint of the reservoirs will be located within the available lands.

2.4 Authority/Authorization

Water Resources Development Act of 2000 provides authority for CERP, and section 601(b)(2)(C)(ii) of the WRDA of 2000 provides specific authority for implementing the EAA Storage Reservoirs, Phase 1 project. The direction and guidance for the development of this PMP are contained within the CERP Master Program Management Plan which was developed and approved by the USACE and the SFWMD. The purpose of the MPMP is to describe the framework and processes to be used by the USACE and SFWMD for managing and monitoring implementation of CERP. The Department of the Army and the SFWMD have executed a Design Agreement for the Design of Elements of the Comprehensive Plan for the Everglades and South Florida Ecosystem Restoration Project (Design Agreement), May 2000, which covers each party's cooperation and contribution requirements for CERP design, including this project.

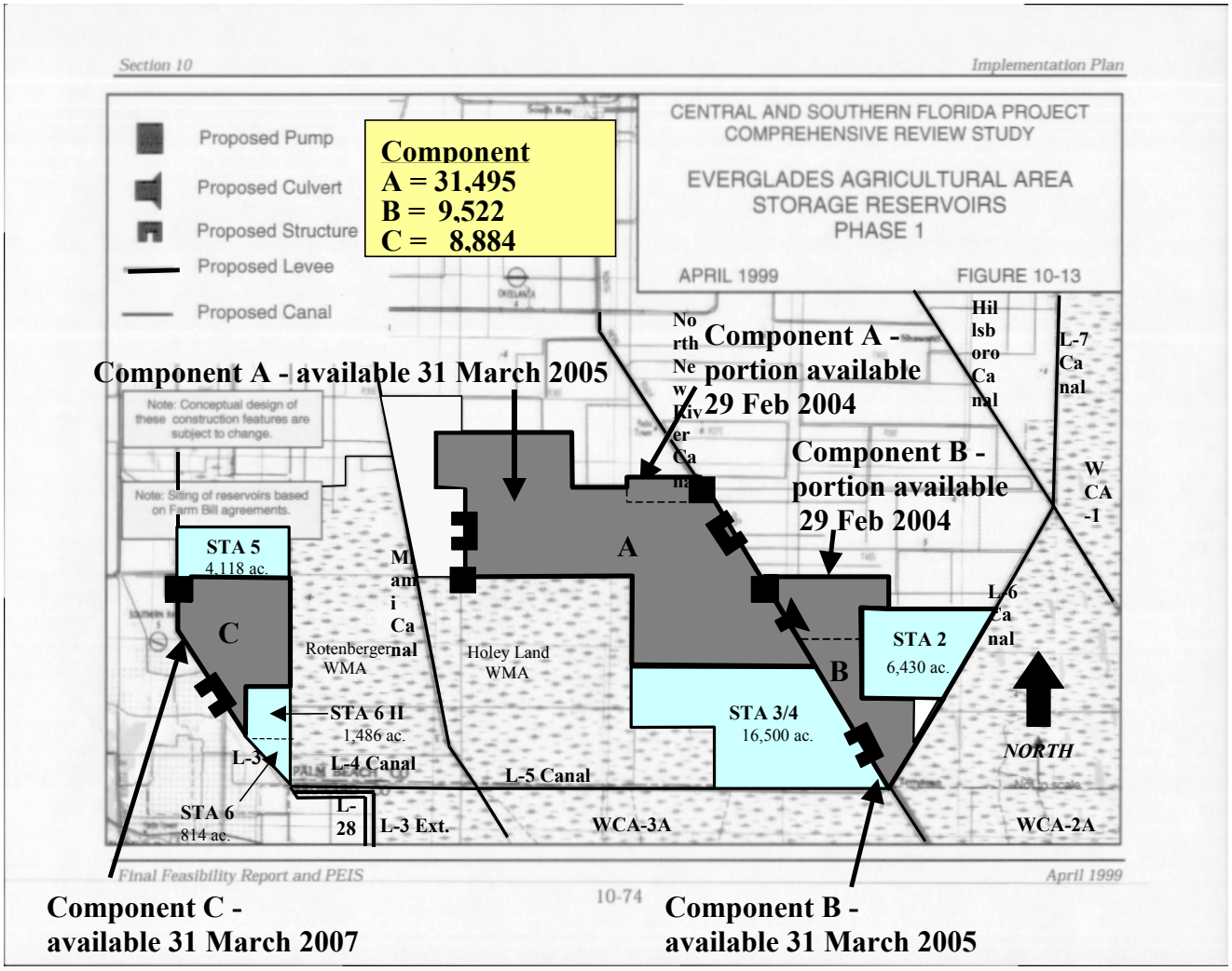

Figure 2. Everglades Agricultural Area Storage Reservoirs Phase 1 Location

2.5 Related Projects

A critical aspect of the PIR for the EAA Storage Reservoir project will be the documentation of the regional impacts during the interim period when the remaining CERP components are not complete, and also, to test the sensitivity of the reservoirs' regional impacts to changes in the assumptions regarding performance of other CERP components.

2.5.1 Everglades Agricultural Area Storage Reservoirs Project (Phase 2)

This project is the second phase of the Everglades Agricultural Area Storage Reservoirs component. It includes an above-ground reservoir with a total storage capacity of approximately 120,000 acre-feet located in the EAA in western Palm

Beach County. The initial design for the reservoir assumed 20,000 acres, which would make-up the third compartment of the storage reservoir, with water levels fluctuating up to six feet above grade. The 20,000-acre Phase 2 design and construction was not discussed in detail nor was the land for the reservoir identified in the Restudy. The final scope for this project will be determined through more detailed planning and design after Phase 1 is designed. There will be a separate PMP developed for the EAA Storage Reservoirs Phase 2 project.

The purpose of this project is to further improve the timing of environmental deliveries to the WCAs, including reducing damaging flood releases from the EAA to the WCAs and reducing Lake Okeechobee regulatory releases to the estuaries.

This last increment of storage would be used to meet environmental demands as a priority. The sources of water for this reservoir are overflow from the Phase 1 reservoirs and Lake Okeechobee regulatory releases only during extreme wet events. This project will be operated as a dry storage reservoir with discharges being made down to 18 inches below average ground level. The project can also be designed to provide a water quality treatment function, augmenting the performance of the ECP and ensuring protection of water quality in the Everglades Protection Area. Design of this project for water quality performance will be based on water quality targets for the ECP and other water quality targets developed to protect designated uses in EAA waters.

2.5.2 Everglades Construction Project

The ECP is composed of 12 interrelated construction projects located between Lake Okeechobee and the WCAs. The cornerstone of the ECP is six large constructed wetlands totaling over 47,000 acres. These stormwater treatment areas (STAs) will use naturally occurring biological processes to reduce the levels of phosphorus that enter the Everglades. STAs 1W, 2, 5 and 6 are in full operation. STAs 1E and 3/4 are scheduled to be in operation by 2003. Due to their location and function, the STAs created by the ECP will play a major role in the operation and design of the EAA Storage Reservoirs project. During the Restudy, the STAs were assumed to provide water quality treatment of the water going to the natural system from the proposed EAA storage reservoirs.

2.5.3 Basin-Specific Feasibility Studies/Water Quality Improvement Strategies

Florida's 1994 Everglades Forever Act (F.S. 373.4592) and the federal Everglades Settlement Agreement (Case No. 88-1886-CIV-HOEVELER) establish both interim and long-term water quality goals designed to restore and protect the Everglades Protection Area. Activities are currently underway to meet the interim goal of reducing phosphorus levels in discharges from the EAA and other sources to the

Everglades Protection Area to a long-term annual flow-weighted mean concentration of 50 parts per billion (ppb). These activities include the implementation of EAA Best Management Practices (BMPs) and the construction of over 47,000 acres of STAs through the ECP. The ECP captures and treats water from seven hydrologic basins. Concurrent with implementation of the ECP, the SFWMD is implementing the Everglades Stormwater Program (ESP) to address the water quality issues associated with discharges from the remaining eight non-ECP Everglades tributary basins. Also concurrent with these activities, the SFWMD and other groups are conducting water quality research, ecosystem-wide planning (e.g., CERP), and regulatory programs to ensure a sound foundation for science-based decision making for long-term water quality solutions. Integrating the EAA Reservoirs with the STAs to maximize STA performance will impact the EAA Reservoir operational plan. An effort is currently under way to integrate these projects while maintaining the goals of both projects.

The long-term goal of the Everglades restoration effort is to combine point source control, basin-level and regional solutions in a system-wide approach to ensure that all waters discharged into the Everglades Protection Area meet the numeric phosphorus criterion and other applicable state water quality standards by December 31, 2006. In order to achieve this goal, the SFWMD is implementing a strategy to ensure all water quality standards are met on a basin by basin basis. This strategy consists of conducting basin-specific feasibility studies which will integrate information from research, regulation, and planning studies to determine the optimal combination of BMPs, optimized STA, advanced treatment technologies, Water Preserve Areas, etc., to meet the final water quality objectives.

By December 2003, long-term water quality improvement plans are to be developed and permit applications submitted that would describe the long-term water quality solutions. It is anticipated that conceptual engineering plans will be developed by September 2003 in order to provide the information for these permit applications and water quality improvement plans. To meet these deadlines, the SFWMD is evaluating the feasibility of alternative water quality solutions, to be completed by June 2002.

A baseline set of flow and water quality data has been developed in support of the Basin-Specific Feasibility Studies/Water Quality Improvement Strategies for all Everglades Protection Area tributary basins (Goforth and Piccone, 2001). This baseline data set is appropriate for use in the development of a data inventory for the EAA Storage Reservoirs project.

2.5.4 Lake Okeechobee Watershed Project

The Lake Okeechobee Watershed Project includes four components recommended in the Restudy: North of Lake Okeechobee Storage Reservoir; Taylor Creek/Nubbin Slough Storage and Treatment Area; Lake Okeechobee Watershed Water Quality Treatment Facilities; and Lake Okeechobee Tributary Sediment Dredging. These components were combined for an opportunity to generate a more efficient design and address the interdependencies and tradeoffs between them. The purpose of these components is to attenuate flows to Lake Okeechobee, detain water during wet periods for later use during dry periods, reduce nutrient loads, and remove phosphorous from canals located in areas with high concentrations of phosphorus runoff. The recommended plan includes approximately 250,000 acre-feet of storage, multiple STAs encompassing approximately 7500 acres, two reservoir assisted STAs totaling 4375 acres, restoring 3500 acres of wetlands, and dredge/contain 150 tons phosphorus from 10 miles of primary canals. The operation of the Lake Okeechobee watershed reservoirs, in conjunction with the operation of the regional ASR system and the EAA reservoirs, was optimized to maximize the performance goals of the Restudy. Performance changes in this project can impact the EAA reservoir water budget.

2.5.5 Aquifer Storage and Recovery (ASR)

The project concept is to store surface water or groundwater, treated to meet water quality standards, in the underlying Floridan Aquifer System using ASR wells to place the water in storage and subsequently to recover during dry periods. Among other benefits, implementation of regional ASR technology at the Lake Okeechobee site would help to minimize high-volume water releases to the St. Lucie and Caloosahatchee estuaries. During dry periods, water recovered from the ASR wells would be used to maintain the surface water level within Lake Okeechobee and associated canals throughout the Everglades, and to augment water supply deliveries. ASR technology provides storage - an important component that will contribute to the overall Everglades restoration. CERP includes the construction of up to 200 ASR wells (with associated pre- and post- treatment facilities) installed adjacent to Lake Okeechobee, with a total combined pumping capacity of 1 billion gallons of water per day. The regional performance of the EAA storage component is dependent on the extent to which the Lake Okeechobee ASR project performs as assumed in the CERP.

3.0 PROJECT SCOPE

3.1 Statement of Project Scope

Implementation of the EAA Storage Reservoirs Phase 1 project will be conducted over several years, in a phased approach. The project scope begins with the advance plan formulation and early design phase which includes those tasks and initial investigations leading up to and including the selection of a recommended plan documented in a Project Implementation Report (PIR). The design phase also includes identifying and applying for any necessary permits and preparation of detailed design documents, plans and specifications. The construction phase includes construction of the reservoirs, canals, levees, pump stations, water control structures, and other in-ground storage facilities. Activities such as project management, coordination, documentation and public outreach will take place during all project phases. Since land for this project does not match the conceptual modeling of the Restudy recommended plan, compartment sizing, use concepts, and locations will be studied during the PIR phase.

3.2 Project Goals and Objectives

The project goals and objectives of the EAA Storage Reservoirs Phase 1 project include:

- Reduction of the Lake Okeechobee regulatory releases to the estuaries and backpumping from the EAA into Lake Okeechobee by sending the water to the south and into the reservoirs;

- Improved environmental releases through the storage of water and release to the Everglades during the dry season demand;

- Flow equalization and optimization of treatment performance of STA-2, STA-3/4, STA-5, and STA-6 by capturing peak storm event discharges within the reservoirs for slow release to the STAs; and

- Improved flood control and regional water supply for the agricultural community currently served by the EAA canals and other areas served by Lake Okeechobee.

The project is composed of two major features:

- 240,000 ac-ft of storage with associated inflow and outflow pump stations and water control structures, and

- Improved conveyance capacity for the Miami Canal, North New River Canal, and Bolles and Cross Canals.

Watershed Assessment

One of the first tasks in the PIR will be to perform a Watershed Assessment to refine the Restudy water budgets for the project components and to provide peak flows for canal conveyance improvements requirements. Additionally, the Watershed Assessment is needed to evaluate the regional impact of the project during the interim period when the remaining CERP components are not complete. The Watershed Assessment will include sensitivity analyses on the reservoirs and regional impacts in response to changes in the performance assumptions of other CERP components.

The watershed assessment will also provide the basis for developing a more detailed PIR work plan. Upon completion of the Watershed Assessment, the PDT will consider preparing an interim PIR for the increased canal conveyance capacities component and a final PIR for the reservoir component of the EAA Storage Reservoirs project, if separate benefits can be shown for each project.

It is anticipated that the canal conveyance construction can be implemented in advance of the reservoir construction given that all construction for the canal conveyance improvement will likely take place within the existing right of way. Earlier construction of the canal improvements would provide:

- Reduction of back pumping into Lake Okeechobee and releases to the estuaries.
- Operational flexibility within the EAA to move water within basins to meet the needs of agricultural and environmental stakeholders.
- Operational flexibility to provide water supply to the lower east cost when the North New River component in Broward County is completed and the degrading of the Miami Canal in WCA 3A is initiated.
- Allows the project to start construction earlier than would be possible if all components waited for the reservoir to initiate construction (delayed due to land reservation requirements).
- Components of the reservoirs that come on line early will have the water transmission system needed to efficiently serve EAA requirements and immediately start to contribute to the CERP program.

Preparing an interim PIR for the increased canal conveyance capacities component of this project could expedite the benefits of increasing the capacity of the canals to transfer excess water from Lake Okeechobee. The increased canal conveyance would provide opportunities to deliver additional water to the WCAs when capacity is available. The additional volume of water would first be delivered to the STAs and then to the WCAs, if the water level is below the regulation schedule, for environmental use rather than wastefully discharging it to the ocean.

The PIR will also evaluate the storage reservoirs' effect on basin water quality. This will be done to ensure that water quality targets (as per 9.1.5.1 of the Restudy – Volume 1) for the Everglades Protection Area and the ECP are not diminished. The ECP STAs have been designed to receive the existing basin flows but it is not currently known how these flows may be affected by the addition of the EAA storage reservoirs. This evaluation will, at a minimum, address the following:

- Water quality characterization of the outflow from the impoundment areas prior to release to the STAs.
- The possible concentrating effect of reusing the impounded water within the EAA and its effect on the STA's performance.
- The effect of proposed dry storage operations on phosphorus generation due to oxidation and subsequent first flushes.
- Investigations of operational alternatives that will maximize the opportunity of the EAA Storage Reservoirs to capture and reduce nutrient loads without compromising the water supply component of the project.

3.3 Project Constraints and Assumptions

The EAA Storage Reservoir Phase 1 is based on the following assumptions and constraints:

Assumptions

- The Reservoir will be constructed on the lands purchased as part of the Talisman Land Agreement which consists of approximately 50,000 acres divided into three areas: Western property ~ approximately 9,000 acres; Central property ~ approximately 31,500 acres and; Eastern property ~ approximately 9,500 acres.
- The reservoirs will not operate efficiently unless the canal conveyance capacity is increased up to 200% between Lake Okeechobee and the reservoirs.
- A 50% - 50% cost share of work between the USACE and the SFWMD is the goal for the project.
- This PMP is a living document that will be updated or revised as necessary throughout the life of the project. Formal updates to the PMP will be made during the design and construction phase.

Constraints

- The project is constrained by the availability and geographic location of the land, the geology of the system, land usage, and operation of the system.

- The project is also constrained by the Savings Clause in WRDA 2000 which prohibits the elimination or transfer of existing legal water supply sources as a result of implementation of the Plan until comparable sources are available.
- The Talisman Land Agreement established land reservations for interim farming. The timing of the termination of the reservations is contingent upon SFWMD giving the farmers a 30-month notice, with two follow up notices, tied to use of the land for a project. Earliest reservation termination dates were established with the landowners during the settlement (Figure 2):
  - 31 March 2005 – Most of the Talisman South Ranch and the Florida Crystals Cabassa Farm (Central Property) and farms east of US 27 and south and east of STA-2 (portion of Eastern Property)
  - 29 February 2004 – The Woerner Property on the north east border of the Central Property, and the north and west sides of STA-2 (portion of Eastern Property)
  - 31 March 2007 – The US Sugar property south of STA-5 and north of STA-6 (Western Property)
- The geology of the system consists of one to two feet of muck (peat type material), on top of dense limerock cap with lower layers of shell hash, and interspersed limestone lenses. The cap rock is very dense and varies from two feet below the surface to eight feet in thickness. The construction of canals, levees, pump stations, water control structures, and other in-ground facilities may require blasting. The presence of the interspersed limestone lenses may be the mechanism for increased downward seepage, which limits the depth of reservoirs due to increased deep seepage losses. The head differential with adjacent (non-project) properties may also cause increased seepage onto farmed fields, which may result in crop production losses or increased pumping demands. This geologic information is based on experience associated with the construction of STA-3/4, will be further investigated during the PIR phase of the project.
- The PDT is constrained by the project cost estimate, schedule and scope in the Restudy. If estimates increase by greater than 10 percent, either a value engineering study or verification by the USACE Project Review Board and the SFWMD Governing Board will be performed.

WORK BREAKDOWN STRUCTURE (WBS)

The Work Breakdown Structure is a deliverable-oriented grouping of project elements that organizes and defines the total scope of the project. The WBS identifies the sub-products that will be required to implement the total project and the hierarchical arrangement of all activities associated with completing each of the required sub-products. The WBS is attached in Appendix C.

4.1 Work Breakdown Structure Levels

The WBS process is a method commonly used to organize a project in a descending level of detail. As the project is dissected into products and then into sub-products, the broadest or most general level of detail is referred to as Level 4 activities. At this level the activities represent major sub-components, which when put together, comprise the project. As an example, a typical CERP project will have the following major products, or Level 4 activities: Project Management Plan; Project Implementation Report; Design Documentation Reports; Plans and Specifications; Project Cooperation Agreement; Real Estate; Construction; Operation and Maintenance; and Monitoring. For each Level 4 activity, an array of Level 5 tasks support that activity and must be completed to successfully deliver the products and the project. This hierarchy of all activities constitutes the WBS.

4.2 Activity or Product Identification

The WBS hierarchy has been reduced to its lowest task level for project scheduling and budget purposes. Products will be broken down in this manner until the products and sub-products are reduced to activities and tasks. Activities are the lowest level of the WBS that have resources to perform the work. Tasks refer to individual work actions that make up an activity but do not have resources, cost, or duration assigned directly to them. All project activities are identified (in addition to the agency/action office responsible for completing the product, its schedule, and the budgeted cost) in Appendix C.

4.3 Responsibility Identification

The Project Managers assigned a responsible organization, division, branch, section or equivalent during the PMP development for every activity in the project. The assigned organization is responsible for developing the resource and time estimates for those assigned activities as a part of the PMP. The SFWMD is the lead agency for this project. The USACE and the SFWMD will share responsibilities such as project management, project documentation and public outreach throughout the life of the project. The USACE will have the lead role in the Geotechnical Investigations, Survey and Mapping, and Environmental Compliance. The SFWMD with the support of a Consultant Team will have the lead role in the remainder of the tasks necessary for completion of the PIR, Detail Documentation Report (DDR), and Plans & Specifications.

5.0 RESOURCE ASSIGNMENT REPORT

This section documents each agency's role and responsibilities for each of the tasks that are described in the Work Breakdown Structure. The list is contained in Assignment Report, Tab A of Appendix D, which delineates each agency's responsibilities.

6.0 FUNCTIONAL AREA PLANS

For each major functional area, a plan has been developed to provide initial product identification, explain the need for the products and sub-products that will be developed in the functional area, identify inter- and intra-project dependencies, define the rationale for providing these products, and provide written documentation of functional area product development.

6.1 Plan Formulation

The purpose of the EAA Storage Reservoirs Phase 1 project is the construction of two major features: 1) 240,000 ac-ft of storage with associated inflow and outflow pump stations and water control structures, and 2) Improved conveyance capacity for the Miami Canal, North New River Canal, and Bolles and Cross Canal.

The PIR will develop and evaluate alternatives which will optimize the configuration of the reservoirs, including boundaries, number of compartments, and water depth within those compartments; operational plans of the system; as well as the canal conveyance capacity of the project. The process to develop the PIR will include a systematic approach to making determinations at each step so the interested public and decision-makers are fully aware of the basic assumptions employed, the data and information analyzed, the areas of risk and uncertainty, the reasons and rationales used, and the significant implications of each alternative plan.

The PIR is an integrated advanced feasibility, environmental compliance, and design document that will serve as the basis for obtaining both state approval and meeting conditions of WRDA 2000. The steps and intermediate decisions that lead to a recommended plan will be documented in the PIR. The process of developing the PIR will include multiple steps. The first step involves identification of unresolved technical issues from the Restudy and other reports. The second step will include development of performance measures. The third step will include development of project alternatives. The fourth step will include evaluation of alternatives. It is anticipated that this step will be accomplished using an interactive process that will take place over multiple phases of the evaluation process. The final step, selection of the recommended plan, occurs once all technical studies and evaluations are completed, and will provide up to the 30 percent engineering design of the recommended EAA Storage Reservoirs Phase 1 project.

A detailed description of work to be performed during the PIR phase is contained in Appendix V.

6.2 Engineering and Design Plan

The engineering and design plan will provide descriptions of all engineering and design efforts necessary to implement the project. The scope of required surveys and aerial photography will be determined and bid requests will be prepared. The survey data will be reviewed for impacts of the project on existing utilities, and required relocations will be determined. Alternative plans will be investigated and design input will be provided to Cost Engineering to develop preliminary MCACES construction cost estimates for Plan Formulation. Structural designs will be developed for elements of the selected/recommended plan (dams and levees, canals, spillways, pump stations, etc.). Real estate requirements will be determined, including rights-of-way and temporary construction easements. Engineering input will be provided for required NEPA documentation and permits. The USACE and SFWMD Engineering, Real Estate, and Construction staffs will coordinate their input for the Engineering Appendix to the PIR. The USACE Design Branch will provide input for the Engineering Appendix, including write-up and plates, to form the elements of project design considerations and construction procedures. Responses to ITR and interagency review comments will be provided, and the Engineering Appendix will be revised as required.

6.2.1 Hydrology and Hydraulics Studies

A Hydrology and Hydraulics Design Sub-Team will be created to provide support to the PDT in completion of the PIR activities. The SFWMD and the USACE will develop a scope of work for consulting services to provide PIR-level hydrologic and hydraulic modeling.

This activity has three integrated objectives: (1) to investigate and analyze hydrologic and hydraulic data needed to formulate, evaluate feasibility and optimize plan alternatives, (2) to design canals, reservoirs and water control structures using analyses performed by hydrologic and geologic investigations, and (3) to provide a water control plan that governs operations of constructed project features. The tasks will involve modeling of existing conditions, future without project, formulated alternatives, and the final selected plan. Additional tasks will involve optimization of designed water control features for benefits and cost with an operating plan for effectiveness and impact.

Preliminary results for the EAA Storage Reservoirs were obtained from the South Florida Water Management Model (SFWMM) simulations for Restudy Alternative D13R. The SFWMM is a regional planning tool with a coarse resolution of a 2x2-mile grid system (Memorandum from Raul Novoa, July 9, 2001). The SFWMM model simulates long-term hydrologic effects with numerous assumptions over most

of the SFWMD effected by structural and operational measures. The hydrologic period of record ranges from 1965 to 1995 and computations are performed on a daily time step. The period of record contains continuous years of drought as well as continuous years of above normal rainfall. The large scale of the SFWMM model limits its ability to adequately evaluate local scale or relatively marked transient events. The Western property does not coincide with any one of the previous compartments (1, 2 and 3), simulated by the HSM group for the Restudy. It would be necessary to refine the previous simulation based on the current available acreage (50,000 acres) versus the Restudy acreage (40,000 acres) and location of the new three areas of land (Central, Eastern and Western properties).

Groundwater modeling will be required to address concerns of seepage through levees and deep ground seepage from the reservoir into the surficial aquifer. The modeling effort will be of resolution fine enough to enable accurate geotechnical analyses to be performed to describe the critical reservoir-groundwater interface. Another facet of the groundwater modeling effort is to perform the analyses necessary to determine seepage control requirements. Seepage control is typically associated with perimeter seepage canal depths and rate of seepage required to be pumped back into the reservoir.

In-depth additional hydraulics and hydrology modeling and/or analysis will be required to refine the results from the SFWMM model simulations. The refined results will optimize the storage capacity, determine required canal conveyance capacities (i.e., Miami and North New River canals) and set reservoir inflow pump plant requirements and discharge structures. A model that is capable of simulating project conditions will be selected and used for these analyses. Additional modeling will be required to optimize structure sizes and routing effects (i.e. head losses).

The levee height requirement for the reservoirs will be based on potential risk of loss of human life, damage to property and damage to environment. Factors in the design of levee heights consist of cell configurations, wind setup/wave runup analyses, routing of design and Probable Maximum Precipitation storms, operational requirements, and consideration of Federal and State guidelines and regulations.

<u>Hydrology and Hydraulics and Technical Review Conference.</u> This task includes preparing for and attending the TRC. This task also includes the effort required to address all comments generated at the TRC.

<u>Hydrology and Hydraulics Documentation for the Draft Report.</u> This task includes preparation of the narrative report that documents all hydrology and hydraulics studies performed for the PIR. Results of the hydrologic model evaluations and other hydrologic investigations will be compiled and incorporated into the draft interim PIR into the Hydrology and Hydraulics Appendix. The Appendix will also include all

hydraulic design data for all water control structures. Included in this activity is the effort necessary to compile the data, write the report, and prepare all plates necessary to document model development and control structure design, model outputs and evaluations.

Hydrology and Hydraulics and Final Review Conference. This task includes preparing for and attending the final review conference. This task also includes the effort required to address all comments generated at the conference and to finalize the hydrologic model investigation documentation for the final PIR.

Support for Updating the PMP. This activity includes the H&H requirement to provide input to the PMP update for project modifications recommended by the PIR. This activity also includes the effort required to develop the time and cost estimates to perform pre-construction, engineering and design (PED) studies recommended in the PIR.

6.2.1.1 Hydrologic Investigations

Computer simulation models will be used to evaluate existing conditions, future without project, interim performance prior to completion of CERP, limited sensitivity analyses with a range of performance assumptions for other related CERP components, formulated alternatives and final selected plan for project effectiveness in ecosystem restoration, flood control and water supply needs. Existing hydrologic data will be evaluated to determine the model simulation period to be used in the PIR modeling efforts. Existing data and modeling tools will also be evaluated for sufficiency.

The evaluation of existing and future conditions within the study area will be accomplished using both hydrologic and hydrodynamic models. Comparison of model output representing current and future conditions will be used to establish the impact of changes to the existing system. The output from the models for the existing conditions will be compared to output from the model runs representing future alternatives. This comparison will identify the environmental and flood control benefits/impacts associated with implementation of the selected plan. The future "without project" condition describes what is expected to happen if none of the alternative plans evaluated in the PIR are implemented. The "without project" condition is the same as the "no action" alternative that is required to be considered by the Federal regulations implementing the *National Environmental Policy Act of 1969 (NEPA).*

Performance Parameters must be established:

- Canal Performance Parameters. Establish required canal conveyance performance parameters for the Miami, North New River, Bolles and Cross canals, the canal supplying component and seepage recirculation canals if

required. These parameters will include modeling of surface and sub-surface hydraulic conductance to analyze seepage and other effects on the surface-aquifer interaction.

- Reservoir Performance Parameters. Establish required performance parameters for the Western, and Central - Eastern properties. These parameters will include, as a minimum, storage capacity, water quality, and maximum allowable seepage.
- Regional Water Availability Performance Parameters. Establish required performance parameters for the effectiveness of various reservoir configurations and related CERP assumptions on regional environmental, urban and agricultural water supplies.

Hydrology Review/Coordination. This task includes a review of all existing hydrology data for adequacy of basin specific data needed for hydrologic and hydraulic model efforts needed for the PIR. This task also includes the effort necessary to maintain coordination between the SFWMD and the USACE staff during the model effort.

Watershed Assessments. Key information to be collected for the selected watersheds will include: 1) a complete basin description (including drainage features, hydrogeology, topography, soils, and land use); 2) sub-basin delineations; 3) an inventory of existing land management activities (including all water management systems, water supply demands, and their regulatory status); 4) analysis of existing water quality data to provide an assessment of current conditions and trends. Watershed assessments will provide basin specific information needed to meet the data requirements of the hydrologic modeling, such as: Hydrologic Simulation Program-Fortran (HSPF), MIKE SHE, Modflow, Modbranch, UNET Unsteady Flow Model, HMS or other equivalent watershed model.

Rainfall-Frequency Analysis. Appropriate methodology will be used to determine the relationships between rainfall, runoff, and frequency for the study area. Design storms will be developed for frequencies from 2-year to 100-year and the Standard Project Flood. This data will be used to perform design analysis of plan alternatives.

Develop Hydrologic Models. A numerical model capable of simulating the surface water management plan alternatives for the basins in the study area will be developed and used to evaluate impacts of the alternatives. Model output will be used to evaluate the hydrologic effects of the various plan alternatives for comparison.

Groundwater/Surface Water Model Development and Application. In order to evaluate the restoration and flood control of any alternative adequately, accurate groundwater/surface water models are needed. The integrated groundwater/surface water models can be used to analyze restoration and flood control issues.

6.2.1.2 Hydraulic Design

Coordination and review of hydrologic analyses will be performed to establish expected initial, alternative and final impacts and effectiveness of hydrologic design. Additional hydraulic data may be collected and amended to hydraulic analyses to optimize design of water conveyance and structural control features. The hydraulic analysis will include modeling of regional and local water conveyance features with additional site-specific hydraulic modeling and design. The hydraulic design of project features will be sufficient in detail to enable other definitive engineering design, including structural and mechanical/electrical design and cost estimation to be performed. Coordination with other engineering disciplines will be necessary to implement final construction design of all project features with respect to hydrology and hydraulic analyses. Combined engineering design data will be used to develop MCACES cost estimates for the construction of the separate project features and totaled for the project cost estimate.

Review of Hydrologic Data. Hydrologic model analyses formulated for each alternative plan will be reviewed for furthering project feature designs effectiveness and optimization. Data from model simulations include, but are not limited to, local groundwater elevations and gradients, operational criteria for pumps, headwater and tailwater for control features, reservoir storage and setting of emergency overflow weir crest and/or spillway elevations.

Additional Hydraulic Data. Additional data will be collected and analyzed to design project features with sufficient detail to allow for PIR phase design and further coordination for final design. Data collected may include, but not be limited to, historic water and stream gage records, topographic surveys, geotechnical analyses and as-built plans from existing local features.

Hydraulic Model Analysis. Modeling of regional and local water conveyance will be necessary to describe hydraulic parameters and characterization of different volumetric flow rates throughout the project region. Sensitivity analyses will be performed to envelope expected operational impacts and benefits. The analyses may be performed using empirical-mathematical models, HEC models or other acceptable models to the SFWMD and the USACE.

Design Project Features. For this activity, design features are divided into three categories with each integrated with the others forming a complete hydraulic system of collection, storage, discharge and conveyance system.

Canal Design. This task includes designing and hydraulically describing all water conveyance features including, but not limited to, canal cross sections, depths, bed slopes and location. Additionally, the design may include any necessary canal

levees for flood control and bed/bank armoring for erosion if scouring velocities may occur.

Reservoir Design. This task includes determining reservoir levee alignment based on available real estate and specific design concerns, and determining levee/dam crest elevation to provide required storage volume and levee superiority. This task also includes designing seepage canals to provide interception, conveyance or drainage and/or recirculation of expected seepage.

Water Control Feature Design. This task includes designing and hydraulically describing all water control features including, but not limited to, pump sizes and configurations, spillways, gated spillways, gated and non-gated culverts, weirs and bridges.

Coordinate Structural Design. This task includes required coordination of H&H with Design Branch structural engineers to develop engineering drawings and construction methods. Concerns addressed will include, but not be limited to, foundations and loadings, stability analysis of hydraulic structures, material quantities with borrow and spoil pile areas, utilities relocation coordination, site accesses and maintenance of traffic plans.

Coordinate Mechanical and Electrical Design. This task includes required coordination of H&H with Design Branch mechanical and electrical engineers to design water control structures, including: pump stations, gated spillways and culverts, and telemetry systems for remote operation.

6.2.1.3 Hydrology and Hydraulics Operations

A Water Control Plan will be developed in four phases consisting of operational criteria for the project. The four phases include the Draft Water Control Plan, the Interim Water Control Plan, the Preliminary Water Control Plan and the Final Water Control Plan.

The Water Control Plan includes regulation schedules and operating criteria for the project and additional provisions as may be required to collect, analyze, and disseminate basic data; prepare detailed operating schemes; ensure project safety; and carry out the operation of the project in an appropriate manner. To develop the operating criteria, the analyses performed for the Restudy will be refined and expanded. More-detailed analytical tools will be developed as needed. Operational rules and criteria will be developed for all water control structures, including pump stations, culverts and spillways. The water control plan should ensure that the objectives of CERP, as well as other authorized project purposes, will be met. This will require transforming the necessary hydrologic modeling into practical, real-time operational criteria and rules to determine the operation schemes.

The development of the Water Control Plan will evolve as the project evolves, as new, more-detailed information becomes available. The Draft Water Control Plan will be completed during the PIR phase. The Interim Water Control Plan will be completed during the detailed design and plans and specifications phases. The Preliminary Water Control Plan will be completed prior to the completion of construction, and the Final Water Control Plan will be completed during the post-construction operational testing and monitoring phase. At any point during this process, it may be appropriate to revise the Water Control Plan that is operable at the time. While flexibility will be designed into the Water Control Plan to accommodate the adaptive assessment approach to project implementation, revisions to the Water Control Plan may be necessary to account for changing conditions, assessments from the RECOVER teams, or new projects coming on line. Development of the Water Control Plan will be carried out in a public process and within the framework of appropriate laws and regulations. USACE and SFWMD will jointly develop the Water Control Plan. The development of the Water Control Plan should be coordinated with the USACE's South Atlantic Division (SAD) consistent with applicable regulations. The Water Control Plan will be included in Appendix M.

6.2.2 Geotechnical/Hydrogeologic Exploration, Modeling and Design

The objective of this activity is to investigate and analyze subsurface material and foundations at project sites for the purpose of selection and design of project features. The USACE will perform this work. Geotechnical investigations and analyses will be required for the following project features: reservoirs, structures, embankments, dams and levees, canals, wells, and other plan components determined feasible and cost effective. Tasks associated with this activity are outlined below.

6.2.2.1 Geologic and Hydrogeologic Explorations

Literature Search of Existing Data

Compile and Review Existing Data. This task includes collecting existing geologic, hydrogeologic and geotechnical data that are specific to the study area. The data search should include core borings, laboratory test results, geologic maps, geophysical surveys, geologic/hydrogeologic reports, mining reports, well logs and aquifer pump-test data.

Identify Additional Data Gaps. A detailed list on data needs will be prepared and used to prepare scope of work for supplemental geotechnical and hydrogeologic investigations.

Prepare Data Collection Work Plan. This task includes developing a work plan detailing the geotechnical investigations to be performed and data to be collected. The revised scope will be used to collect data to fill the data gaps identified with the literature search. The work plan will include core borings, geophysical surveys, monitoring wells, aquifer pump tests, water quality sampling, etc.

Field Exploration and Instrumentation

Geophysical Surveys
This task includes performing surface geophysical surveys (i.e., seismic and resistivity) to identify and map continuity of subsurface features (confining beds, structures, stratigraphy, etc.). The studies will likely involve both land-based and water-based studies performed over the reservoir areas and water-based studies performed along the canals.

PIR Phase Subsurface Exploration

Core Borings. Core borings will be spaced on a one-mile grid throughout the reservoir areas and on 5,000-foot centers along the Bolles and Cross Canal alignments. Core borings will also be needed on 5,000-foot centers along the Miami Canal and the North New River Canal. However, core borings drilled in the 1950's are already in existence along those canal alignments. Therefore, for cost estimating purposes it was assumed that these existing core borings would provide for two-thirds of the needed subsurface data along those canals and that only one-third of the number of core borings necessary to provide for one core boring every 5,000 feet along the Miami and North New River Canals would need to be drilled for the PIR-level study. The actual number of core borings that will be necessary will be determined after a more thorough review of the existing data. The preliminary depths for the core borings in the reservoir areas are anticipated to alternate from 25 feet and 50 feet, with every tenth boring being extended to 100 feet for a total of 12 100-foot borings. The canal borings will extend to a minimum of 10 feet below the anticipated canal bottom or to a depth of 50 feet, whichever is greater.

Core Borings			
Boring Location	**Number of Borings**	**Depth (ft)**	**Spacing**
Reservoir Areas (50,000 acres)	12	100	1-mile grid*
	54	50	1-mile grid*
	54	25	1-mile grid*
Bolles Canal	9	50**	5000 feet
Cross Canal	10	50**	5000 feet
Miami Canal	9	50**	5000 feet***
North New River Canal	7	50**	5000 feet***

*All of the reservoir borings will be placed together on a 1-mile grid within the reservoir areas though their depths will vary based on the numbers shown above.
**The depths of the canal boring will extend to a minimum of 10 feet below the anticipated canal bottom or 50 feet, whichever is deeper.
***The number of canal borings assumes that borings previously drilled in the 1950's for the Miami and North New River Canals can be used to in addition to new borings.

Monitoring Wells. A total of 12 monitoring wells will be installed at the three different reservoir areas. The wells will be a minimum six-inches in diameter to allow for instrumentation. Actual total depths and screen intervals will be contingent on the findings in the Literature Search but will likely range from approximately 20 feet to 80 feet. These monitoring wells will be installed in the 100-foot core borings to be drilled as part of the core boring program described above to make efficient use of field-exploration funds.

Downhole Geophysical Logging. Downhole geophysical logs will be performed in each of the 12 100-foot bore holes that will be drilled as part of the core drilling program described above. Tentative log suites will include resistivity, gamma ray, sonic and caliper. A video scan will also be run on each bore hole.

Laboratory Tests. Tests will include sieve analysis, plasticity (Atterberg limits), triaxial shear strength tests, unconfined compressive strength tests, Proctor density tests and permeability tests.

Recharge Tests. One recharge test will be performed in every core boring drilled in the reservoir areas and along the canal alignments to develop a database of field permeabilities.

Continuous Pump Tests. If in the best interest of the project, three aquifer pump tests will be performed on three different monitoring wells at the reservoir sites. The tests will consist of pumping for a minimum 48 hours with recovery monitoring until the groundwater has recovered to at least 95% of original static water level. Piezometers will be installed near the wells to read drawdown at various distances from the well due to pumping.

Instrumentation. Each of the monitoring wells will be instrumented and equipped with a data logger to collect data about the groundwater levels and basic water

quality. Measurements the instrumentation will collect will include water level, temperature, total dissolved solids, and specific conductivity. Data collection intervals and analysis will be scoped out in the water quality section of the PMP.

Survey for Core Borings. Each core boring will be located using GPS level 3 survey. Monitoring well elevations, after installation, will be taken to within 0.01 foot resolution.

DDR Phase Subsurface Exploration.

This phase will focus on providing DDR level site-specific data to support conceptual designs and to supply data for final design.

Core Borings. Core borings will be spaced on 1,000-foot centers along the embankment alignments of the reservoirs and also on 1,000-foot centers along the Bolles and Cross canal alignments. Core borings will also be needed on 1,000-foot centers along the Miami Canal and the North New River Canal. However, core borings drilled in the 1950's are already in existence along those canal alignments. Therefore, for cost estimating purposes it was assumed that these existing core borings would provide for two-thirds of the needed subsurface data along those canals and that only one-third of the number of core borings necessary to provide for one core boring every 1,000 feet along the Miami and North New River Canals would need to be drilled for the DDR-level study. An additional five core borings will be drilled for each structure. The core boring depths in the reservoir area are anticipated to alternate between 30 and 50 feet. The canal borings will extend to a minimum of 10 feet below the anticipated canal depth or 50 feet, whichever is deeper. For structures, the center boring will be drilled to a depth of 60 feet and the remainder to depths of 40 feet.

Core Borings			
Boring Location	**Number of Borings**	**Depth (ft)**	**Spacing (ft)**
Reservoir Embankments (377,000 feet)	189	50	1000*
	189	30	1000*
Bolles Canal	43	50**	1000
Cross Canal	45	50**	1000
Miami Canal	50	50**	1000***
North New River Canal	33	50**	1000***
Structures	10 40	60 40	- -

*All of the reservoir borings will be drilled along the embankment alignment. The depths of these embankment borings will alternate between 50 and 30 feet with 1000-foot spacing between each one.
**The depths of the canal boring will extend to a minimum of 10 feet below the anticipated canal bottom or 50 feet, whichever is deeper.
***The number of canal borings assumes that borings previously drilled in the 1950's for the Miami and North New River Canals can be used to in addition to new borings.

Electric Cone Tests. A total of 100 electric cone tests for the DDR phase exploration will be located on 1,000-foot centers along the embankments of the reservoirs. The electric cone tests will be advanced to depths of 100 feet.

Marchetti Dilatometer Tests. One 50-foot Marchetti Dilatometer test will be performed at each structure site for a total of 10 tests.

Test Pits. A total of 60 test pits will be excavated in prospective borrow areas for the three reservoir sites.

Recharge Tests. One recharge test will be performed in half of the core borings drilled along the reservoir embankment alignment to develop a database of field permeabilities.

Laboratory Tests. Tests will include sieve analysis, Atterberg limits, triaxial shear strength testing, laboratory permeability testing, unconfined compressive strength tests and laboratory compaction tests using both the Proctor method and the vibratory table/relative density method.

Survey for Core Borings. Each core boring will be located using GPS level 3 survey. After drilling, each core boring will be surveyed using land surveying techniques and a level 2 survey with elevations taken to within 0.01 feet resolution.

P&S Phase Subsurface Exploration.
This phase is a DDR-level exploration during the Plans and Specifications Phase for providing data to support designs of major project features whose proposed locations have been moved since the DDR phase exploration. It is anticipated that the volume of the necessary work in this phase will be 15 percent of the PIR-phase work.

6.2.2.2 Geotechnical and Hydrogeologic Modeling and Design

Analysis and Design Using PIR Phase Subsurface Exploration Data. This work will be done to a level of detail suitable for a PIR.

Preliminary Ground Water and Seepage Modeling of Reservoirs and Canals. This task will be performed using preliminary PIR phase subsurface exploration, laboratory and field test data including recharge and pump tests data. The seepage analyses for the canals will be dependent on the preliminary canal designs including canal widths, depths, stages, soil characteristics and hydraulic gradients.

Develop Preliminary Seepage Control Alternatives. This task includes performing an alternative analysis for seepage control alternatives for reservoir embankments.

Alternatives may include seepage canals, cutoff walls, toe drains, reservoir operational changes, liners, etc., or a combination of these.

Preliminary Slope Stability Analysis Including Modeling of Seepage Through Embankments. Slope stability analysis will be performed using Spencer's method of slices within the UTEXAS 4 computer program. The Groundwater Modeling System (GMS), SEEP-2D option, will be used for the seepage analysis to get the phreatic surface to be used in the slope stability analysis. Soil parameters will be obtained from core boring and laboratory data.

Preliminary Borrow and Fill Densities Analysis for Embankment Quantities Calculations. This task will be done using the PIR phase subsurface exploration In-Situ testing data.

Alternatives Analysis of Embankment Types. This task includes performing a cost analysis for the various types of embankment sections that are suitable for the various reaches of the project (i.e. homogeneous fill, earth and rock fill, Roller Compacted Concrete (RCC), etc.).

Preliminary Spillway Alternatives Analyses. This task includes performing an alternative analysis to compare costs for various spillway construction and armoring methods.

Preliminary Slope Protection Design and Alternatives Analysis. This task includes performing a cost analysis for slope protection alternatives for various reaches of the project's embankments.

Develop a Preliminary Instrumentation Plan. This task includes developing a preliminary instrumentation plan for monitoring the phreatic surface within the embankments and the uplift pressures underneath them.

Produce an Embankment Design and Selection Report. This report will be placed in the engineering appendix for the PIR.

Produce a Schedule and Scope for the DDR Phase Subsurface Exploration. This task will include preparing a schedule and scope for the DDR phase subsurface exploration.

Analysis and Design Using DDR Phase Subsurface Exploration Data
This work will be done to a level of detail suitable for a DDR.

Final Ground Water and Seepage Modeling of Reservoirs and Canals. PIR Phase data along with additional data from the DDR phase subsurface exploration will be used to confirm and refine the initial ground water seepage model. The final

ground water model for the reservoirs will be dependent on the recharge tests and continuous pump tests of PIR subsurface field exploration and the recharge tests of the DDR phase subsurface explorations. The final seepage analyses for the canals will be dependent on the preliminary canal designs including canal widths, depths and stages.

Selection of Final Seepage Control Designs for Various Project Reaches. The DDR phase subsurface field exploration data will be used to confirm the preliminary seepage control designs. The most cost-effective suitable designs for each reach of the reservoir embankments will be selected.

Final Slope Stability Analysis Including Dam Seepage Modeling. The DDR phase data will be used to generate DDR level slope stability analyses to sufficiently represent each reach of the project's embankments with the greatest attention given to the reservoir embankments since they will be defined as dams.

Selection of Final Embankment Type for Each of the Various Project Reaches. This task includes selecting the final embankment type for each of the various project reaches.

Final Spillway Design. This task includes selecting the final spillway design for each spillway in the project. This task also includes finalizing all designs for these spillways.

Final Slope Protection Designs. This task includes finalizing slope protection designs for each reach of the project where slope protection is necessary.

Final Embankment Instrumentation Plan. This plan will include piezometers, observation wells, inclinometers and other instrumentation necessary for monitoring the performance and integrity of the embankments.

Identification of Borrow Areas. The DDR phase subsurface exploration data will be used to identify borrow areas to supply sufficient fill material to construct the dams and embankments of the reservoirs. Effort will be made to locate these borrow areas at locations within the reservoir sites where suitable embankment fill materials are found closest to the respective embankment reaches in order to minimize material transportation costs.

6.2.3 Structures, Electrical and Mechanical Design, and Surveys

This activity includes the tasks associated with the USACE and SFWMD engineering staffs assisting the PIR consultant in investigation and design work. Some tasks include:

PDT Meetings. This task includes attending PDT meetings and participating in the development of conceptual designs to establish prospective alternatives to be included in the PIR. This task also includes reviewing existing field data (surveys, quad sheets, and aerial photography) as required.

Surveys. This task includes developing the scope for initial and additional surveys and aerial photography, and conducting or obtaining services for surveys and aerial photography. This task also includes reviewing survey data for impacts of the proposed project features on existing utilities and determining required relocations.

Alternative Plans. This task includes investigating alternative plans, including utility relocation coordination and providing design and quantity input to Cost Engineering to develop preliminary MCACES construction cost estimates for Plan Formulation.

General Designs. This task includes developing general designs, including civil, structural, and mechanical/electrical, for elements of the selected/recommended plan (dams and levees, canals, spillways, and pump stations, etc.) as required.

Real Estate. This task includes determining preliminary real estate requirements as applicable including rights-of-way and temporary construction easements.

Environmental Compliance. This task includes providing engineering input for required environmental compliance documentation and permits.

Engineering Appendix. This task includes coordinating technical input from other USACE and SFWMD elements and other agencies in preparation of input for the Engineering Appendix to the report and preparing input for the Engineering Appendix, including write-up and plates, to present the elements of project design considerations and construction procedures.

Technical Review Comments. This task includes providing responses to Independent Technical Review (ITR) and interagency review comments and revising the Engineering Appendix as required.

6.2.4 Environmental – Hazardous, Toxic, and Radioactive Waste (E-HTRW) Assessment

The objective of this activity is to identify, investigate, and assess Environmental - Hazardous Toxic and Radioactive Waste (E-HTRW) and its potential impacts in the study area. The results of the assessment conducted during the PIR will provide rationale for proceeding into the next phase.

Civil works project funds are not to be employed for E-HTRW related activities except as provided in ER 1165-2-132, Hazardous, Toxic, and Radioactive Waste (HTRW) Guidance for Civil Works Projects, or otherwise specifically provided in law. E-HTRW sites should be avoided whenever practicable during project implementation. This can be accomplished by early identification of E-HTRW sites and potential E-HTRW impacts.

Plan formulation, selection, and project alternative design may be substantially influenced by the presence of E-HTRW in the EAA study area. It is therefore imperative that E-HTRW assessment be conducted early in the PIR phase in order to facilitate plan formulation and selection. Alternative plans may consider avoidance of E-HTRW as a possible response. At least one alternative plan should be formulated to avoid E-HTRW sites to the maximum extent possible, consistent with EAA Storage Reservoirs study objectives. A preliminary cost estimate of required E-HTRW response actions will be needed for each alternative plan in order to make a reasoned choice among alternative plans.

E-HTRW assessment involves the following components: (1) archive research and site reconnaissance to identify and select E-HTRW sites in the EAA which could potentially impact project implementation; (2) water quality and site characterization to assess the nature and extent of E-HTRW contamination at select E-HTRW sites to the degree necessary to determine potential WQ and E-HTRW impacts on project implementation; (3) qualitative risk assessment of potential impacts to human health and the environment in the absence of response action, to the degree necessary to determine potential impacts to project implementation; (4) E-HTRW response alternatives analysis; (5) E-HTRW response cost estimate; (6) coordination with SFWMD; and (7) preparation of the E-HTRW appendix to the PIR.

6.2.5 Project Cost Estimate

This activity includes developing all the design and cost estimates needed to support formulation of alternative plans and the plan recommended for implementation.
Preliminary design and cost estimates for screening plan components will be prepared to support plan formulation and optimization of the plan components. The preliminary design and cost analysis will include estimates of construction costs; average annual operation, maintenance and replacement costs; engineering, design, supervision, and administration costs. After the preliminary assessment of alternative plans has been completed, the plans will be screened to select those alternatives that warrant further study. During the time leading up to selection of a tentative plan, modified and updated cost figures will be supplied as the individual project plans are refined in order to selectively eliminate alternatives. A cost estimate will be prepared for the recommended plan, and a locally preferred plan, if different

from the recommended plan, using the Micro Computer Aided Cost Engineering System (MCACES). The cost estimate will contain sufficient detail to incorporate the requirements of *ER 1110-2-1302, Civil Works Cost Engineering*. Material from these activities will be included as part of a separate engineering appendix to the PIR. Costs attributable to work in this activity include the effort required to prepare input for the preliminary draft, draft, and final PIR, as well as participation in any required review conferences and resolution of comments resulting from the conferences.

Engineering Design for Preliminary Assessment of Alternatives. Preliminary civil design for formulating, scoping, and qualitative assessment of alternative plans will include site layout, identification of project features, typical cross sections, profiles, and location of facilities/utilities. Alternate combinations of types of construction and alignments will be screened to ensure optimum plans are identified.

Screening Level Cost Estimates. Cost Engineering will assist in the selection of the components of the plans that will be considered during the preliminary assessment of plan alternatives. Cost information already compiled during the reconnaissance phase of study will be used to provide cost data for possible variations of the alternatives considered during the feasibility phase. MCACES cost estimates will not be required for the preliminary assessment of plan alternatives.

Engineering Design Final Alternatives. After the preliminary assessment of plan alternatives is completed and during the time leading up to the selection of plans for further study, information on additional components, as the individual project plans are refined, will be required input for engineering design and cost estimation refinement. This will be necessary for the final plan alternatives to be accomplished.

Preliminary Cost Estimates for Final Alternatives. After the preliminary assessment of plan alternatives is completed and during the time leading up to the tentative selection of a plan, modified and updated cost figures will be supplied as the individual project plans are refined in order to eliminate alternatives. The cost estimates will be based on quantities, which will be provided as a result of engineering design efforts for both construction and operation, maintenance, rehabilitation, repair and replacement (OMRR&R) items.

Finalize Design for Recommended Plan. After final alternative screening is complete, the designs for the recommended plan and a locally preferred plan (if different from the recommended plan), will be completed. This effort will include developing the drawings, deriving quantities, and identifying operation and maintenance costs.

Civil Design Write-Up for Preliminary Draft PIR. This activity includes preparation of the narrative report which documents all work leading up to submission of the preliminary draft PIR and input into the draft PMP.

Cost Estimating Write-Up. This activity includes the effort to prepare a narrative summary and the associated cost tables, documenting all the work performed leading up to submission of the preliminary draft PIR.

MCACES Cost Estimate. This work involves preparing the initial MCACES cost estimate for the recommended plan and the locally preferred plan, if different from the recommended plan. A detailed MCACES cost estimate will be prepared for the selected plan(s). The cost estimate will include detailed cost evaluations of the requirements for construction and OMRR&R activities. The cost estimate will be accompanied by a cost estimate summary describing major design features and important assumptions made in preparing the MCACES cost estimate.

Design and Cost Estimating Participation in the Alternative Formulation Briefing (AFB). This activity includes preparation of work appropriate for presentation and participation in the AFB.

Finalize MCACES Cost Estimate. This work includes providing detailed cost figures for refinement and/or changes in the final project design before the final report. Included will be a detailed evaluation of the requirements for OMRR&R activities. These will be incorporated into the final MCACES cost estimate for the selected plan. Also included is the effort required to modify the report write-up and the appropriate cost tables, if necessary, before submission of the final PIR.

Comment Responses & Finalize Write-Up. This task includes the effort required to address all comments generated at the AFB by revising drawings and the report write-up as well as documenting the comments and resolutions in the Project Guidance Memorandum.

SFWMD will work closely with the USACE during the plan formulation process of identifying alternative measures to be evaluated in the preliminary assessment of plans, and in actually performing the screening of alternatives to select plans that warrant further study. SFWMD's responsibility in this area will continue throughout the study as more features are formulated and designs developed. SFWMD will provide input to USACE regarding operation and maintenance costs for the alternatives. SFWMD will also assist in the process of locating existing utilities in the project area.

6.3 Construction

The Construction Phase will begin after the Project Cooperation Agreement, completion of review of the plans and specifications for the project, within the USACE and with the SFWMD, subject to the receipt of adequate Federal and Local construction funds. At that time, remaining efforts will include certification of all real estate interests necessary for the construction contract, securing of all

necessary permits, and preparation for all necessary relocations or replacements. In order to balance project costs evenly between the USACE and SFWMD, construction contracts responsibilities will be divided between the two agencies. Once the lands have been certified and initial construction funding is available, the USACE or SFWMD will advertise and award the construction contract. The advertisement and award will be subject to the Federal Acquisition Regulations. After issuance of the Notice to Proceed, the USACE's South Florida Area Engineer and/or Gulf Coast Area Engineer or SFWMD's construction management staff will monitor the construction in accordance with agreed designs and objectives, and inform the USACE and SFWMD Project Managers of construction progress. The Project Managers will remain responsible for the project throughout the construction phase and updating the PDT as necessary. In addition, they will coordinate contract changes and funding requirements with the Area Engineer as the project proceeds through the construction phase. All changes in the work shall be made only through the Area Engineer in charge of the contract. No change instructions of any kind shall be given directly to the construction contractor except by the Contracting Officer or the Administrative Contracting Officer in order to prevent financial obligations for which funds might not have been made available. As construction on each independently functioning unit nears completion, the Project Manager will advise and schedule a final inspection date with the SFWMD's Project Manager and the Area Engineer. After final inspection, the completed project works will be signed for and transferred to the SFWMD. Final acceptance will not occur until the functional unit under consideration has been completed.

6.4 Real Estate Plan

This project is located on lands purchased with Department of the Interior (DOI) Farm Bill (Public Law 104-127, Section 390) funds, with SFWMD funds, and on lands gained through a series of exchanges for lands being purchased with these funds. It is anticipated that no additional land acquisition may be required for the reservoirs and that minimal land acquisition will be required for the canal improvements. Since lands for the reservoirs have already been acquired, the verification process will take place in early March of 2005 by both SFWMD and DOI. If transfer to SFWMD has not already taken place, it will also take place in early March of 2005 to allow SFWMD to certify the lands for the project.

The real estate analyses will include an inventory of all lands adjacent to the canal improvements, followed by a list of lands to be acquired for the canal improvement portion of the project. An appraisal of the costs of lands and damages, and preparation of a plan for acquisition of these lands will also be include. Other tasks include an analysis of physical takings, attorney's opinion of compensability, obtaining rights of entry for various field collection activities, and providing input to the Project Cooperation Agreement (PCA) and to the PIR. This activity includes all written memoranda, opinions, database development reports and other documents provided

by Real Estate personnel as required in support of feasibility phase planning efforts and eventually the purchase of the necessary canal rights of way. Documentation will be included in Appendix H.

Reservoirs

The initial design for the EAA Storage Reservoirs assumed 40,000 acres, divided into two, equally sized compartments. However, actual design and construction will result in multiple reservoirs by maximizing the use of the land acquired through the Farm Bill land acquisition agreements, which encompasses approximately 50,000 acres.

- EAA-Western Property 8,884 acres located between L-3 and the Rotenberger Wildlife Management Area in Hendry County. Land will become available on March 31, 2007.

- EAA-Central Property 31,495 acres located between the Miami and North New River Canals in Palm Beach County. A major portion of the land will become available on March 31, 2005; a small portion on February 29, 2004.

- EAA-Eastern Property 9,522 acres located between the North New River Canal and STA-2 in Palm Beach County. The southern portion of the land will become available on March 31, 2005; the northern portion on February 29, 2004.

<u>Talisman Land Acquisition</u>

On March 26, 1999, SFWMD closed on the acquisition of approximately 50,000 acres of land located within the southern portion of the Everglades Agricultural Area in Palm Beach County, Florida. This acquisition was the culmination of many years of negotiations that intensified in the final 18 months. The complex transaction was structured in two phases. The first phase was the purchase agreement between Talisman Company and DOI and The Nature Conservancy (TNC) funded by a Cooperative Agreement between DOI, TNC, and the SFWMD. Under phase one, Talisman committed to selling its entire holdings in the EAA, totaling approximately 53,500 acres. The second phase was the purchase and exchange of approximately 50,000 acres. In the second phase, the District acquired approximately 21,000 acres directly from Talisman and acquired approximately 29,000 from the Sugar Interests. Talisman conveyed to the Sugar Interests the balance of the Talisman land. The Sugar Interests reserved use of the Talisman and Sugar Interest lands for sugar cane farming prior to SFWMD project implementation. The purchase price was $133,798,100.

There are three successive notices that must be given to the farmers on the lands to effect a proper termination. The three successive notices are:

1. Advance Notice of Construction: Upon a determination by the USACE of the SFWMD that based upon reasonable expectation a project will commence within the last 12 months of the next 42 months period, advance notice of construction will be provided in accordance with the Project Cooperation Agreement. Because the reservation terms run until March 31, 2005 (except for the U.S. Sugar reservation which runs through March 31, 2007), the advance notice of construction must be given prior to October 1 thirty months in advance to effectuate a termination on April 1 thirty months later. Using April 2005 as the earliest termination date, notice would have to be given prior to October 1, 2002. This allows the farmers one more planting and two more harvests prior to vacating the property.

2. Notice of Construction Impact: This notice must be given prior to September 1 preceding the earliest construction commencement date and prior to each September 1 of each year thereafter. This notice identifies the portions of the property, which will be required to vacate no sooner than 6 months after the notice and the portions of the property, which may continue to be farmed during the 18 months following the notice. In the above example, this notice would be given by prior to September 1, 2004. It would identify lands needed for the project April 1, 2005, and those lands, which could continue to be farmed through March 31 2006.

3. Notice to Vacate: This notice is sent at least 90 days prior to contractor notice to proceed with construction. This notice requires that the property be vacated that later of 30 days after the date of the notice or 60 days prior to commencement date of construction as identify in the notice, whichever is later.

Woerner Property Acquisition

On February 26, 1999, SFWMD purchased approximately 5,241 acres of land located in southern Palm Beach County for $19,917,213.60. The results of a Phase II Environmental Assessment, completed in 1999, indicate that there is significant environmental liability associated with the acquisition of the Woerner property. Total cost of required corrective action was estimated at just under $4,000,000 at that time. This remediation issue must be resolved prior to construction. The property, which consists of Tract Nos. V6 100-001 and V6 100-039, was acquired in conjunction with the settlement of an eminent domain action involving an adjacent tract, STA Tract No. 103-009, located within the boundaries of STA-2. In accordance with the settlement agreement, SFWMD leases Tract Nos. V6 100-001 and V6 100-039 to the former owner, Woerner South, Inc., for continued use as a sod farm.

Lease Termination:

a. The original term of the Lease runs from February 27,1999 through February 29, 2004 (the "Original Term"). The Lease may only be terminated during the Original Term in the event of default by either party that is not cured within the time period provided in the Lease.

b. Commencing March 1, 2004 through March 28, 2007, the District may only terminate the Lease if it needs the entire property for "water management purposes". Water management purposes are defined in the Lease as "water storage, flood control, water conservation, water reclamation, water quality and allied purposes and projects".

c. Following the Original Term, the Lease automatically renews on a year to year basis unless either party provides at least one year's notice of its intent to terminate the Lease; provided, however, that termination may only occur at the conclusion of a lease year (i.e. February 28th) and notice must be given at least sixty (60) days prior to the end of the preceding lease year (i.e. to terminate by February 28, 2010, notice must be given between December 31, 2008 and February 28, 2009).

d. After February 28, 2007, the Lease may be terminated by either party, provided sufficient notice is given as described above.

Maps outlining the interest currently farming the land will be added to Appendix H.

Canals

It is anticipated that minimal land acquisition will be required for the canal improvements. The real estate analyses will include an inventory of all lands adjacent to the canal improvements, followed by a list of lands to be acquired for this purpose. An appraisal of the costs of lands and damages, and preparation of a plan for acquisition of these lands will also be include.

6.4.1 Obtain Rights of Entry

According to normal construction contract specifications, the contractor should obtain access/rights-of-entry. However, if unsuccessful, notification to real estate by a request for rights of entry by section, township, and range parameters, permission will be obtained from Reservation holders to temporarily use his/her land for a specified time and purpose. These will be obtained for purposes of environmental investigations, cultural assessments, core sampling, surveys, explorations, etc.

6.4.2 Ownership Information

Upon notification of alternative feature description and location by section, township, and range parameters, the following data for areas under consideration as project features will be obtained:

- Tax maps and public right-of-way maps;
- List of reservation holders;
- Tax rolls including value, structure, type, etc.;
- Zoning information;
- Last search of records for each parcel;
- Anticipated mineral extraction and determination if such activity is permitted by law;
- Identification of all structures potentially impacted that are occupied and may be removed due to project implementation;
- Identification of all known public utilities located within the proposed project area that may require relocation;
- Identification of sponsor acquisition costs and real estate administrative costs associated with implementation of each alternative; and
- Location maps (city or county) of proposed construction areas including material disposal areas.

6.4.3 Preliminary Real Estate Cost Estimates

Preliminary cost estimates will be prepared for lands, easements, rights-of-ways, relocations and disposal areas (LERRD) for multiple components for the preliminary assessment of project alternatives during the plan formulation stage of the study. This will require a similar method of estimating costs performed during the PMP. The preliminary cost estimates along with the aforementioned ownership information will be compiled in the Geographic Information System (GIS) database as polygon attributes for use in the evaluation analyses.

6.4.4 Section Corner Survey

Boundary Survey – A boundary survey of the subject parcel(s) to be acquired will show all necessary boundary information and a tie to an identifiable land boundary corner, the Section, Township, and Range, and County and basis of bearings. The survey should be registered to the Florida State Plane Coordinate System. NAD 1983/1990 datum and all distances and coordinates delineated using the U.S. Survey foot. All boundary data, in digital format (i.e. ArcInfo Coverage or AutoCAD dxf) should accompany the survey. This survey information is required to establish state plane coordinates for sections and townships within the study area for real estate mapping purposes. The survey data will be incorporated into the GIS

database and used to map property boundaries and ultimately develop real estate acquisition costs for alternatives.

6.4.5 Real Estate Acquisition Maps

An initial set of maps and drawings will be prepared utilizing the GIS database developed for this task, that delineate the real estate acquisition lines based on technical design drawings developed during the feasibility phase. This activity is dependent upon receipt of the footprint of project features and tax maps followed by a coordination meeting with the study manager to assure all project features are identified including temporary construction areas, road access, borrow/disposal areas, etc. These maps will reflect the minimum real estate required for project purposes.

6.4.6 Physical Takings Analysis

This analysis will result in a written legal opinion as to whether flooding induced by construction, operation or maintenance of the proposed project will result in a taking of an interest in real property for which just compensation must be paid to the owner. The opinion must describe the analysis, to include hydrologic data incorporating depth, frequency, duration, velocity and extent of induced flooding based on economic data, as well as relevant state and Federal law, and present a conclusion on the takings issue.

6.4.7 Relocations Analysis

After a determination through engineering design of what facilities must be relocated including roads, railroads, pipelines, utilities, bridges, and cemeteries, a preliminary legal opinion on whether a substitute facility is required will be documented. The opinion makes findings on whether the owner has a compensable interest, whether the owner has a legal duty to continue to maintain and operate the facility/utility, and whether federal law requires the provision of a substitute facility rather than mere payment of market value for the property acquired. The preliminary legal opinion differs from the final legal opinion only in its acceptance as fact of the owner's statement of its interest in the property, without a search of property records. A baseline cost estimate must be developed for the relocations to include an engineering cost estimate for the performance or construction of the relocation and the value of the land. The Real Estate Supplement (RES) will include a statement as to whether the Federal government, the SFWMD, or owner will be responsible for the relocation and acquisition of new rights-of-way, the costs for relocation, and land to be acquired allocated to each entity.

6.4.8 Gross Appraisal

This task includes activities necessary to complete a detailed, supported appraisal of the collective real estate requirements and impacts of the recommended plan as required by *ER 405-1-12*. The Gross Appraisal must be of sufficient detail to provide an accurate cost estimate sufficient for Congressional authorization. Review and approval of the Gross Appraisal Report is accomplished concurrently with the draft PIR. The Gross Appraisal will be submitted concurrently with the draft PIR and is dependent upon receipt of the final recommended plan including real estate maps with project features, estates to be appraised, tax and ownership information, zoning and land use maps.

6.5 Contracting and Acquisition Plan

This section describes the contracting strategy that will be utilized for implementation of the PIR phase of the project. Contracting and acquisition strategies to be utilized during design and construction phases will be developed in subsequent updates of this PMP.

Contract specific acquisition strategies will be developed for each individual contract to be advertised and awarded. Procurement statutes, regulations and procedures applicable to the procuring Agency (USACE or SFMWD) will dictate the acquisition process. Factors to be considered in determining the specific acquisition strategies include but are not limited to technical complexity of the work, environmental considerations/constraints, construction schedules and magnitude of construction. Socioeconomic statutes, regulations and procedures applicable to the respective procuring Agency will be applied to each individual acquisition. Acquisition strategies will be fully staffed through the Project Team, the Design Coordination Team and appropriate procuring Agency approving Officials.

A detailed breakdown of all contracting and acquisition activities, including estimated costs, schedules, and durations will be added to Appendix I.

6.5.1 PIR Contract

An Architect/Engineer (A/E) contract will be awarded for technical support in preparation of the PIR for the EAA Storage Reservoirs project. The SFWMD will act as the procuring agency for this contract. The acquisition process will follow the requirements of the Consultant's Competitive Negotiation Act (CCNA) and all-applicable policies and regulations of the SFWMD. The procurement will comply with the District's Minority and Women Owned Businesses contracting rules. The USACE will review and comment on the scope of work for the contract prior to

issuance of the Request for Proposal (RFP). The selection committee for review and ranking proposals will consist of USACE and SFWMD personnel.

A scope of work will be prepared by the project managers and an RFP will be released in accordance with the CCNA process. The scope of work will include work scopes, costs, and schedules for all proposed contract products that are consistent with the approved PMP. The contract will require compliance with all applicable Federal and State regulations and policies. The PDT will guide the consultant during the project execution and review all deliverables. The consultant will generally be responsible for performing technical functions required to prepare the watershed assessment and to assist SFWMD and USACE in preparation of the PIR.

As an authorized project, the scope of work will clearly define the limitation on alternative evaluations to reservoirs configurations, the number of compartments, depth of water in subject compartments, and operational plans.

All project elements designated for performance by contract will be processed in accordance with the procuring agency's (USACE or SFWMD) standard acquisition policies, and in accordance with all applicable state and federal laws, regulations and executive orders. The procuring agency will have exclusive authority over contractual actions; however, the USACE and the SFWMD agree to provide each other with the opportunity to review and comment on solicitations for all contracts, including relevant draft scopes of work, prior to issuance of solicitations. The USACE and the SFWMD will provide each other the opportunity to review and comment on contract modifications, including change orders, prior to issuing the consultant a Notice to Proceed. If it is necessary to conduct non-procuring agency reviews and solicitation advertisements concurrently, review comments will be submitted to the procuring agency prior to the date established for receipt of bids or proposals. The procuring agency's project manager will work with the contracting officer and appropriate staff from the USACE and SFWMD to develop a Source Selection Plan and a Technical Evaluation Team for each project. The USACE and the SFWMD agree to offer each other the opportunity, if desired, to participate in the development of a Source Selection Plan and to serve as a voting member on the Technical Evaluation Team for all competitive acquisitions. All procurement information will be managed to maintain the integrity of the procurement process as required by the procuring agency.

The USACE and the SFWMD agree to share available information that will help expand the list of qualified firms for participation in procurement opportunities. The parties agree to develop and conduct outreach activities designed to keep prospective consultants, contractors and vendors informed of procurement opportunities and to promote to the maximum extent practicable participation by small, disadvantaged and women-owned businesses. These activities will be

conducted in a manner consistent with applicable state and Federal laws, regulations, executive orders, and policies.

6.6 Quality Control

Quality Control is the process employed to ensure the performance of a task meets the agreed-upon requirements of the project and appropriated laws, policies and technical criteria, on schedule and within budget. Execution of design and technical quality is the responsibility of technical staff and must be achieved while conforming to schedules and budgets. The Quality Control Plan (QCP), Appendix J, is prepared for projects that, due to their size or complexity, are divided into several elements after the feasibility phase and will be supplemented as necessary to address each of the individual elements. Overall, the QCP will provide the continuity necessary to bind all products together and reflect project decisions reached during the feasibility phase. QCP supplements will be consistent with the overall QCP and address issues that pertain to a specific product.

6.6.1 Quality Control Plan

The product quality is the responsibility of the Project Managers. A Quality Control Plan will be develop by the Project Managers and the technical leaders including as a minimum the following:

- Project synopsis
- List of project delivery team leaders and members with their expertise including email addresses and phone numbers.
- List of ITR team members with their expertise including email addresses and phone numbers.
- Schedule of engineering events, site visits, and key intermediate milestones for development of the overall product including the ITR team at appropriate milestones within the schedule. The schedule should be updated periodically to reflect changes and current status and be readily available to the team.
- Engineer contracted products should include the following:
    1. Engineers Quality Management Plan.
    2. Engineers organization chart (with names and positions identified).
    3. List of Engineers project delivery team and their agency counterparts.
    4. List of Engineers ITR team members.

The Quality Control Plan should be updated when significant changes occur on the project.

6.6.2 Independent Technical Review

An Independent Technical Review (ITR) is required for all CERP Projects. This is a Washington level policy and is further defined by Engineer Regulations. ITR is part of the corporate QC/QA process. QC is comprised of peer reviews, normal technical

reviews and the Independent Technical Review. In general, QA oversight is for areas of responsibility (and governance) outside of the authority assigned to the PDT.

All planning, engineering and design products shall have an ITR. The ITR team will be established prior to work starting on the PIR and shall conduct such reviews as necessary to insure that the product is consistent with established criteria, guidance, regulations, procedures, and policy. The ITR process shall be a continuous process with reviews coordinated with the Project Managers to minimize lost planning and design effort.

A copy of the ITR documentation along with a Statement of Independent Technical and Legal Review will be submitted with all documents forwarded to HQUSACE and SFWMD-PRB for approval. A sample Statement of Technical and Legal Review is included as TAB B, Appendix J of this plan.

Lead Elements. Some work will be accomplished with the SFWMD as the lead element and some work will be accomplished with the USACE as the lead element.

Responsibility. The lead element is responsible for the QC role of establishing ITR. By regulation, USACE retains a QA role in all products for the purpose of assuring resolution of Federal legal, technical and policy review issues. In a like manner, SFWMD retains a QA role in all products for the purpose of assuring resolution of State legal, technical and policy review issues.

ITR Teams. ITR Teams will be comprised of mixtures of personnel from SFWMD, USACE, contractors and other personnel from State and Federal agencies. The Director of the SFWMD's CERP/ECP Department will select all SFWMD team members. The Division Chiefs are responsible for selecting all USACE team members.

Work under the Direction of USACE as Lead Element.

- Work with In-house Personnel. USACE will conduct and certify ITR based on ITR Team evaluations. The USACE and the SFWMD will perform QA.
- Work by Contract Personnel**.** The Contractor will conduct and certify ITR based on the Contractor's ITR Team evaluations. The USACE and the SFWMD will perform QA.

Work under the Direction of SFWMD as Lead Element.

- Work with In-house Personnel**.** The PMP does not currently envision any SFWMD in-house work other than review and administration of the contract work. Should in-house work be required during the execution of the work,

the SFWMD will conduct and certify ITR based on an ITR Team composed of SFWMD and USACE personnel. Similarly, the USACE and the SFWMD will perform QA.

- Work by Contract Personnel. For DDR and P&S the Contractor will conduct and certify ITR based on the Contractor's ITR Team Evaluations. The USACE and the SFWMD will perform QA. For the PIR only, the Contractor, SFWMD and USACE will jointly conduct and certify ITR based on ITR Team evaluations. The USACE and the SFWMD will perform QA.

Milestones

The ITR team shall be formally set up no later than December 31, 2001. A two part joint technical conference of the Project Managers and the ITR will be scheduled.

- Part I - Will address the current project plan, project background, objectives, scope of field investigations, schedule, cost, design options, major issues.
- Part II - Will review the Procedures, Policies and Milestone requirements of the ITR process, establish the coordination process between the project managers and the ITR team to minimize lost planning and design effort and formulate an ITR strategy document (ITRSD). The ITRSD will show how the review process will be coordinated and provide a cost loaded schedule of the activity.

The project managers will update the PMP to include the ITRSD, reflect the schedule and cost in the WBS, and the QCP for presentation to the ITR team members.

The program level Procedures, Policies and Milestone requirements for the ITR process are currently being drafted and will be included in Appendix J of this plan.

6.7 Environmental Justice

Executive Order 12898, Federal Actions To Address Environmental Justice in Minority Populations and Low Income Populations, requires the Federal government to achieve environmental justice by identifying and addressing disproportionately high and adverse effects of its activities on minority and low-income, including Indian Tribe populations. Public participation conducted through the Public Outreach Plan during NEPA scoping and screening shall include these populations so that their concerns are considered early. The NEPA process is completed during the Project Implementation Report.

By this reference, *The Environmental Justice Plan for Projects of the CERP* becomes part of this Project Management Plan. The environmental justice plan provides a subject overview and a work breakdown structure for the environmental justice

activities to be performed as part of this Project Management Plan. The project delivery team will utilize the step by step process described in the referenced plan.

The staff of the Environmental and Economic Equity Program will periodically revise the standard language in The Environmental Justice Plan for Projects of the CERP. That plan will follow the evolving body of knowledge recognized in nation-wide literature and will be adjusted periodically as appropriate, to ensure that accepted environmental justice practices are followed. Each CERP project shall address environmental justice in the fashion provided by that plan.

6.8 Public Outreach and Involvement

6.8.1 General

The Public Outreach Plan for the EAA Storage Reservoirs project is a guide for the public information and involvement activities to be conducted during development of the PIR. Implementation of the Comprehensive Everglades Restoration Plan (CERP) has the potential to affect the lives of all South Floridians. On the other hand, each individual CERP project has the potential to affect a smaller segment of the South Florida population. Because the CERP will affect so many people either directly or indirectly and on both the program and project levels, public outreach is an integral component of CERP implementation. Not only is public outreach responsible government, but it helps ensure projects are completed on time and within budget. Public outreach helps identify and resolve small issues at the onset of a project, which, if overlooked, can become larger, more serious issues later.

6.8.2 What Public Outreach Is and Is Not

Public outreach is a process by which interested and affected individuals, organizations, agencies and governmental entities are informed of a project and its goals, and have the opportunity to participate in the decision-making process. Public outreach supports the exchange of ideas and information among individuals and groups, which is critical to resolving the challenges involved in implementing CERP. Outreach also creates and builds partnerships, involves the community, helps form mutual understanding, engenders trust, reduces conflict, and ultimately leads to a more complete project. Public outreach is composed of two primary types of activities: information and involvement.

Public outreach is not simply holding hearings at predetermined times, as required by law. Rather, public outreach entails scheduling and conducting meetings in locations and at times that are convenient for the public and ensuring that interested parties and the public at large have an opportunity to participate. It is

an inclusive and interactive process that first makes the public part of determining which outreach activities are needed and when they are needed. It is also a process by which the public has a role in helping to mold the project plan.

6.8.3 Why Public Outreach is Important

There are many reasons outreach is considered critical to South Florida ecosystem restoration. These include:

- The high level of public, political, and media interest in Everglades restoration, water resources and restoration of the South Florida ecosystem, which translates into a need for information
- The need for concerned communities (including stakeholder groups, state and federal agencies, Tribes, and the general public) to learn about and better understand each other's views and concerns in order to build agreement on solutions
- A need to reach communities that have been under-represented in decision-making processes in the past and to provide under-served communities with information concerning aspects of the project which may interest or affect them
- A need for agencies to develop plans and strategies that effectively address the expressed or unexpressed issues and concerns of the public, including targeted stakeholder groups
- Finally, the law requires public involvement and environmental education.

6.8.4 Public Outreach Goals

Public outreach for CERP, in general, and for this project, in particular, includes the following goals:

- Increase public awareness of Everglades restoration and the role and significance of the EAA Storage Reservoirs project in the overall CERP
- Inform the public of the project goals, objectives, progress, issues and findings
- Involve stakeholders, agencies, Tribes and other interested groups and individuals as the PIR is developed, to ensure that public values regarding the project are fully considered
- Reduce conflict among interested and affected parties by building agreement on solutions to emerging issues
- Improve the substantive quality of project-level decisions as a result of public participation
- Develop and utilize innovative techniques to inform and engage traditionally under-represented communities and socially and economically

disadvantaged individuals, including those with limited English language proficiency
- Increase public trust in the USACE and the SFWMD.

6.8.5 Information

Public information is meant to raise the awareness of the public-at-large. The strategies and mechanisms for doing so generally involve mass communication tools such as newspapers and electronic media, including television, radio, and the Internet.

Though agencies often refer to the public-at-large as the "general public," in reality, the "public" is far from homogenous. The general public is actually made up a number of differing "publics". The challenge of any outreach program to be truly successful is recognizing the differences between these publics, their levels of knowledge, interest and preferred means of receiving information. Thus, public information strategies generally begin with identification of broad audience types and progresses through recognition of smaller groups of more specialized interest. Next, appropriate messages and tools are developed for each.

Public information products usually contain general descriptions about the project. They tend to present non-technical, brief messages consisting of the project purpose, problems, opportunities, potential solutions and benefits. Both project updates and notices of upcoming events are two typical messages carried in public information products.

6.8.6 Public, Stakeholder and Agency Involvement

Outreach efforts must go far beyond simply informing the public. Outreach efforts must actually seek to engage or involve interested people in implementation processes.

The typical process for engaging the public during plan development and implementation is through public hearings, meetings or workshops. For these events, mechanisms used for public notice are those that will be received by the widest audience. Generally, mass communication tools are used: newspapers, television, radio and Internet. The USACE and the SFWMD will also typically distribute written notices to its mailing list of interested individuals and groups such as elected officials, community-based organizations, non-profits, business organizations, etc.

Some members of the public have a far greater level of interest in Everglades's restoration than others. These are persons who want to have an actual voice in the process. These individuals are often associated with "interest groups" such as community or civic associations. Others are associated with groups that have an even higher level of interest because they are more directly impacted by activities and

policy decisions. These "stakeholder" groups include the sugar industry, water utilities, local governments, Tribes, environmental organizations, recreational user groups and others. A variety of public agencies have been heavily involved in the Restudy and CERP and are also very likely to want to participate in implementation processes.

Some people have a far greater level of interest in this particular project. Care will be taken to ensure those individuals and groups most interested in this project will be informed and engaged in the PIR development process.

Much of the outreach work that is conducted for interest groups, stakeholders and other public entities revolves around "issue identification and management". Issue identification and management is a proactive strategy in which organizations identify emerging issues and/or trends. It involves 1) identifying issues, 2) analyzing those issues, 3) setting priorities, 4) selecting program strategy options, 5) implementing a program of action and communication, and 6) evaluating effectiveness. Issue management involves developing and establishing relationships with the public. On the project level, this process can help identify issues of a very localized, but important nature.

6.8.7 Identify Target Audiences

South Florida is a heterogeneous society. As CERP implementation proceeds, it is critical that all interest groups are actively and appropriately involved. This will require identification of specific target audiences and utilization of aggressive means of soliciting input and participation.

Identification of target audiences requires agencies to recognize the diversity of South Florida's cultures and proactively engage these cultures and language groups in its programs. It is also crucial that these groups are given the opportunity to engage in ways that take into consideration their interests and their ethnic and cultural differences and preferences. A "cookie-cutter" or "one size fits all" approach to public outreach results in some parties being overlooked or unintentionally omitted.

To determine a specific target audience, the following factors will be used:

- Self identification (those who have made their interest known)
- Proximity (those who live near or frequent a proposed feature)
- Mandate (agencies that have some authority or groups that have related missions)
- Use (people who may gain or lose some use)
- Economics (those who gain or lose something in the process)

During the Restudy, the following interest and stakeholder groups were identified.

- Agricultural organizations
- Business organizations
- Civic associations and public interest groups
- Environmental organizations and agencies
- Federal elected officials and agencies
- State and local elected officials and agencies
- Tribal governments and organizations
- News media, including print, electronic and Internet media
- Recreationalists
- Socially and economically disadvantaged individuals and groups, including businesses associations and trade organizations
- Utility groups

The participation of other groups and individuals may require cultivation. For those groups, more aggressive efforts will be made to search out and elicit input and participation. These groups, listed alphabetically, may include:

- Cultural organizations
- Educational institutes
- Grassroots/community-based organizations
- Homeowner tenants' associations, neighborhood watch groups and resident organizations
- Labor/employment organizations
- Not-for-profit community and educational groups
- Rural cooperatives
- Senior citizen groups

One key mechanism for identifying new interested parties and groups is to conduct interviews with key community leaders and activists. These people can also be asked to provide input on the most effective means of engaging traditionally underrepresented groups.

6.8.8 Outreach to Minority and Socially and Economically Disadvantaged Communities

South Florida's population is extremely diverse, yet during the early stages of the Restudy, it became apparent that outreach efforts, with the exception of public hearings, tended to focus on the same set of "traditional" stakeholders and interest groups – agricultural interests, environmentalists, and water suppliers. The result was that important segments of South Florida's population were being unintentionally omitted from the planning process. Recognizing that Everglades restoration affects a broader segment of the population than represented by the well-established stakeholder groups, the USACE and the SFWMD set out to engage populations that had been historically under-represented in restoration project outreach. Specific efforts to engage to Black American and Hispanic American

communities were initiated. These efforts will be carried through at the project level. With WRDA 2000, outreach to socially and economically disadvantaged people, including those with limited English proficiency became a congressional mandate, reinforcing an already strongly embraced goal of the CERP outreach program.

6.8.9 Partnering with Others

Over the past five years or so, interest in the Restudy (and subsequently the CERP) has increased tremendously. Not only are individuals and organizations interested in learning more about the CERP, but they are also interested in helping others to learn about "the plan to restore America's Everglades." Many organizations have expressed an interest in collaborating in outreach on both the program- and project-level. These groups include environmentalists, water suppliers, agriculturists, Recreationalists, educational institutes, community-based organizations and non-profits, agencies and local governments, and many others. The USACE and the SFWMD have a responsibility to evaluate and appropriately utilize these opportunities to collaborate with others. Each should fill a slightly different niche – reaching different target audiences in different times and in different ways or in different locations. In effect, partnering with other groups, especially non-traditional groups, offers the opportunity to extend message delivery far beyond what the USACE and the SFWMD are now accomplishing.

6.8.10 Strategy for the Project Outreach Plan

The detailed Public Outreach Plan for this project is contained in Appendix P of this document. The process for developing this public outreach strategy was a collaborative effort. SFWMD and USACE project managers and planning technical leaders worked with agency outreach staff, including service center and minority outreach specialists to develop this strategy.

6.9 Environmental Compliance

6.9.1 National Environmental Policy Act

The National Environmental Policy Act of 1969 (NEPA) and the Council on Environmental Quality (CEQ) NEPA regulations *(40 CFR Parts 1500 – 1508)* contain provisions that require Federal agencies to prepare documents and reports that substantiate that those agencies are acting in compliance with the letter and spirit of the Act. The Restudy represented a Programmatic Environmental Impact Statement (EIS), which addressed at a general level the alternatives and environmental effects of the overall project. Due to the conceptual nature of the CERP, many site-specific environmental documents will be prepared for the individual separable project elements. Those documents will be prepared during the PIR stage as either Supplemental EISs or site-specific Environmental Assessments (EAs). The Environmental Protection Agency typically reviews the documents.

The NEPA document will be integrated with the PIR, and may be used to support permit applications. As part of the process that is required by NEPA, the reports will be subjected to public review, and will incorporate comments from state, federal and local agencies, native American tribes and non-governmental agencies. In conjunction with NEPA, the scope of work consists of activities to ensure compliance with other Federal environmental statutes and coordination with Florida agencies and programs. The other federal statutes that may apply to this project are: Clean Water Act (CWA), Clean Air Act (CAA), Fish and Wildlife Coordination Act, as amended (FWCA) (16 U.S.C. 661 *et seq.),* National Historic Preservation Act (NHPA), as amended (PL 89-665), and the Archeological and Historic Preservation Act (AHPA), as amended (PL93-291), Endangered Species Act of 1973, as amended (ESA) (16 U.S.C. 1531 *et seq.*), Coastal Zone Management Act of 1972 (CZMA) (16 U.S.C. 1451-1464), Comprehensive Environmental Response Compensation and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712), the Estuary Protection Act (16 U.S.C. 1221-1226), Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), Farmlands Protection Policy Act (FPPA), and U. S. Army Corps of Engineers Planning Regulation ER-1105-2-100, and NEPA compliance Regulation ER-200-2-2. Relevant state statues and regulations include compliance with *Minimum Flows and Levels (373.0421)*, the State Comprehensive Plan (section 187.201, F.S.), the State Water Policy (section 62-40), Consumptive Use Permitting (40E-2, F.A.C.), Everglades Forever Act, and State Water Quality Regulations (Chapter 373). Consideration of this project in light of the above statutes and regulations will ensure a thorough assessment of alternatives and allow responsible

decisions for choosing the alternative that will provide the most environmental benefit.

Fish and Wildlife Service Coordination and the CERP Process

The U.S. Fish and Wildlife Service (FWS) is the principal Federal agency responsible for conserving, protecting and enhancing fish, wildlife, and plants and their habitats for the continuing benefit of the American people. The agency enforces Federal wildlife laws, administers the ESA, manages migratory bird populations, restores nationally significant fisheries, and conserves and restores wildlife habitat such as wetlands. Natural resource protection legislation relevant to the projects authorized under the CERP that affect the agency's trust resource responsibilities include the ESA, the FWCA, NEPA, the MBTA, the Estuary Protection Act, and the CZMA. In addition, several Executive Orders have also established guidance to Federal agencies, including the Service, relative to fish and wildlife protection and conservation.

For CERP projects authorized under the Water Resources Development Act, the Endangered Species Act and the Fish and Wildlife Coordination Act represent the primary authorities under which the FWS cooperates and coordinates with project sponsors. These are discussed in greater detail in Appendix P.

Environmental Studies

Environmental studies will encompass the development of performance measures to use for alternatives analyses and in formulating monitoring plans. Biologists and ecologists will also provide input to hydrological and ecological modelers, and plan formulators; this interdisciplinary cooperative effort will result in a better analysis of potential environmental impacts and forming a more viable alternative. Baseline surveys will include gathering historical information through aerial photographs and written documentation. Field surveys will also be conducted to gather current vegetation and faunal data.

6.9.2 Monitoring

Because of the relative newness of restoration science and uncertainty in ecosystem restoration planning, success can vary due to a variety of technical and site specific factors. Recognizing this uncertainty, we will allow for contingencies to address restoration problems early in the planning process. To accomplish this, a technique called "adaptive management" will be considered for inclusion in restoration projects. At the heart of adaptive management and the cornerstone for restoration success is a carefully designed monitoring program that measures effects of restoration measures, allows for feedback based on new insights, and adjustments

made accordingly to the project and future separable restoration elements. Monitoring plans will be in place during and after project construction, and will provide input into local and regional ecological assessments. Local monitoring efforts will be coordinated with those of RECOVER so as to avoid overlap. Project-specific performance measures and monitoring will be developed with input from the PDT.

6.9.3 Water Quality Characterization

Water Quality Data Collection and Evaluation. The scope of this effort will initially involve the investigation of all pertinent water quality data and databases of the region. This will be for the purpose of establishing a baseline water quality dataset that will be used for any necessary water quality modeling conducted to assess future restoration activities and to support water quality certification application activities (see following two paragraphs). The water quality data analysis effort will include: a literature search, review of existing water quality data, identification of point/nonpoint nutrient and contaminant sources, and on-going research studies of transport mechanisms. Data collected would be used to assess the benefits to water quality provided by the proposed storage areas as detailed in the plan alternatives.

Water Quality Modeling

The primary water quality parameters that will be used in indicating the general fate of water quality constituents in the EAA elements (through the use of various water quality models) are Total Phosphorus (TP) and Dissolved Oxygen (DO). These two constituents have been found most consistently to exist at levels adverse to regional environmental health. The concentration and load reductions of TP, or the concentration of DO, as water moves through reservoirs have been successfully used as the key performance indicators in other similar regional studies. The actual suite of water quality parameters to be analyzed shall not be limited to the indicator parameters. Water quality modeling tasks are as follows:

a. For each alternative, ground- and surface water model outputs shall be reviewed. The flows from the models shall be processed and water quality models run using resulting data. The functional water quality treatment value of each component shall be qualitatively evaluated.

b. Quantitative water quality performance indicators of *reservoirs* shall be obtained using first level planning water quality models. The primary models are EUTROMOD developed by Rechow (1992), and Bill Walker's Model (1998) that was developed to assist with the analysis of water quality impacts of the Restudy. These are empirical models and highly data dependent. The EUTROMOD has given more consistent results when used to evaluate the fate of TP within reservoirs (Kone, 2001),

therefore it will be preferred over the latter. Walker's model has been used to size all Everglades Construction Project (ECP) STAs. Other water quality models may be employed for reservoir and/or canal water quality analysis as deemed appropriate. Some examples of other such models are CE-QUAL-W2 (Engineering Research and Development Center—ERDC) and WASP5 (USEPA).

c. Mathematical water quality models shall be employed to conduct planning level simulations for the purpose of estimating the effects of reservoir operations on downstream receiving *STA*s. Examples of such models are Dr. Walker's STA model used to determine the fate of TP in STAs, those (models) based on Kadlec and Knight's pollutant removal efficiency equation (1996), and the ERDC's Pollutant Removal Estimates for Wetlands (PREWet).

d. After a thorough analysis of simulated post-project water quality enhancements, the rationale used in selecting one project alternative over another shall be detailed in report format.

Water Quality Certification (WQC) Permit Application

The application for any required water quality certification will be completed and submitted to the FDEP. The application will be submitted as part of the State of Florida Comprehensive Everglades Restoration Plan Regulation Act (CERPRA) permit application process pursuant to the Florida Administrative Code 62-302 and Clean Water Act Section 1341. For the purpose of the federal PIR approval, a WQC Permit will be applied for early enough to be issued before scheduled construction. The WQC permit will require that all related storage area specifications be consistent with those established by the SFWMD (FAC 40C).

<u>1344(b) Evaluation.</u> Section 1344(b) information requirements shall be met by documentation of excavation and fill volumes from engineering designs.

Water Quality Characterization Scope Assumptions

The above water quality characterization tasks are based on the following project features and source/receiving water assumptions.

a. General Description

The current project area delineation differs from that originally envisioned in the Restudy description for this project. For the purpose of this analysis, it is assumed that the EAA Storage Reservoirs project components shall be grouped into the three major categories as described below:

The conveyance components. Included in this list are the Miami, North New River, Bolles and Cross Canals improvements.

The reservoir components. This list consists of:

- EAA-Western Property 8,884 acres located between L-3 and the Rotenberger Wildlife Management Area in Hendry County. This component may or may not be included in Phase 1. At a minimum, this feature shall be evaluated for long-term storage/treatment contributions.

- EAA-Central Property 31,495 acres located between the Miami and North New River Canals in Palm Beach County.

- EAA-Eastern Property 9,522 acres located between the North New River Canal and STA-2 in Palm Beach County. This component may be hydraulically linked to the Central Property in order to contribute to the storage and treatment of Lake Okeechobee releases as well as discharge to STA-3/4.

The STAs. The contiguously located STAs (STA-3/4 in particular, and potentially STAs 2, 5 and 6) will be hydraulically linked to the Reservoirs for the purpose of enhancing treatment of waters released from the reservoirs.

b. Description of Component-specific Water Quality Criteria (Source and Outflow Waters)

In order to assess the performance of EAA components in terms of water quality improvement, it will be necessary to examine the inflow source of water being sent to the component and the receiving water to which the impoundment shall release water. The finalization of the inflow and outflow water quality criteria will largely determine whether or not the component does or does not provide water quality improvement. In effect, this subtask establishes the background water quality criterion that EAA components are supposed to meet (in the absence of independently established regulatory numerical criteria).

For example: When the component's primary use is for water storage for water supply purposes, the main water quality criterion will be to meet the ambient water quality standard of the discharge canal of the designated component. In that case, a reduction of concentration or load from the impoundment is deemed as a positive effect for non-dissolved oxygen parameters. For DO, an increase is desired. As necessary, polishing cells can also be incorporated into the design during the PIR phase in order to improve effluent quality.

The Water Quality PDT sub-team will evaluate operational and design feature alternatives for the purpose of improving water quality in the reservoirs, and optimization of STA performance. PIR-level water quality modeling results will be used to evaluate the fate of constituents in the project components. The water quality sub-team will coordinate with the SFWMD Basin-Specific Feasibility Studies/Water Quality Improvement Strategies project staff to achieve the optimal performance of the combined reservoirs and STAs. Results from SFWMD's STA Optimization Research will also be used in conjunction with PIR- level water quality modeling to evaluate the performance of the combined reservoir and STA systems.

6.10 Value Engineering

The USACE's Engineer Regulation 1110-2-1150 requires a value engineering (VE) study for all projects with an estimated construction cost of $2 million or more. A VE study will be performed on the earliest document available that establishes the functional requirements of the project and includes a MCACES cost estimate. The PDT will determine whether the initial VE study shall occur during the PIR phase or be delayed until the DDR phase. After the initial VE study is completed, and based on the recommendation of the PDT, the Commander will certify that the design achieved in the Pre-Construction, Engineering, and Design (PED) effort is the most cost effective for this design phase. Also, during the preparation of each design document, additional VE team studies will be conducted if the PDT identifies areas for potential cost savings and/or design improvements. The PDT will include the VE representative from the SFWMD and the VE officer from USACE.

The Value Engineering Plan, Appendix L, assumes that the VE study will be performed after final approval of the PIR as the first step in the DDR/PED phase. Assuming the estimated construction cost exceeds $2 million the following is used:

As a minimum, a VE Study will be performed after approval of the PIR or when deemed appropriate by the PDT, the VE representative from the SFWMD, and the Value Engineering Officer from USACE. The study will be conducted in accordance with the provisions of ER 1110-2-1150 and the most recent VE policy guidance. The study will identify potential measures to reduce overall project cost as well as measures, which may increase or improve the project's economic or environmental benefits. Accepted VE proposals shall be implemented in the DDR/PED phase. The VE study team will include five to ten members with professional experience consistent with project goals.

To capture the benefits of potential cost reducing construction methods and technologies employed by a contractor, Value Engineering Change Proposal clauses, in accordance with FAR 52.248-3, will be included in all project construction specifications.

6.11 Operations and Maintenance

A complete Operations and Maintenance (O&M) Plan will be developed for the EAA Storage Reservoirs project. Alternative formulation will consider various operational schemes. An O&M Plan will follow the selected alternative and it will be developed during the design phase considering that operation of the reservoirs can change the design. Immediately upon acceptance of each project feature, it will be turned over to SFWMD for operation and maintenance. As the project is constructed, interim operations and maintenance manuals and interim water control manuals will be prepared by the contractor and provided to SFWMD for each completed project feature. Upon completion of project construction, final operation and maintenance and water control manuals will be provided to the SFWMD. The O&M Plan will be included as Appendix O.

6.12 Socioeconomics

Socioeconomic studies will be concerned with national economic efficiency effects and issues, and regional socioeconomic impacts. The focus of socioeconomic study efforts will be to address National Economic Development (NED) and regional impacts, to the extent expected to result from potential plans. Issues expected to be addressed include water supply (urban and agricultural), navigation, recreation, fishing, costs of implementation and other impacts of construction, and flooding. Potential opportunities for life cycle cost effectiveness in plan formulation and design may arise during the PIR process. Socioeconomic team participation will be available for consultation regarding such issues as they arise. The Environmental and Economic Equity Program Management Plan (Equity Plan) will complete several analyses evaluating the effects of removing agricultural lands from production. The Project Managers for the EAA Storage Reservoirs project will cooperate in the development of these analyses to ensure the applicability to the EAA Storage Reservoirs project. Socioeconomic team involvement is also expected in public involvement and outreach activities, including environmental justice issues and appropriate PIR documentation.

Environmental Quality Effects

A traditional benefit-cost study was not conducted for the Comprehensive Everglades Restoration Project Study (CERP), nor will it be for this component CERP project. This is because the overwhelming majority of the project's benefits are ecosystem improvement benefits that are not expressed in monetary units. Plan selection and justification bring together non-monetarily expressed benefits, and "monetized" benefits and costs, using incremental cost analysis and cost effectiveness procedures. Socio-economic team participation involvement in this evaluation work will help to insure that an economical alternative will be formulated and recommended for implementation.

National Economic Efficiency Effects

General. The EAA Storage Reservoirs project will be one of many components operating together in concert to produce not only localized, but also regional system-wide effects of the CERP, which include both system-wide ecosystem restoration goals, and urban and agricultural water supply and flood control. The effects of the EAA Storage Reservoirs project will be widespread and will also have important local impact plan formulation and design issues. Socioeconomic issues anticipated to require focus and attention during the PIR include water supply (agricultural and urban), flood control, navigation, recreation, and fishing, which will be addressed to the extent identifiable. Also, an important role of economic evaluation will consist of properly expressing costs of alternatives under consideration. Costs must be calculated as the difference between costs incurred with the plan and costs that would have been incurred in the "without-project" condition. Other potential national economic efficiency issues include cost effectiveness in design, construction impacts and costs, and environmental justice.

Costs, Cost Effectiveness, and Construction Impacts. Costs for construction, OMRR&R, and land acquisition will be translated into proper units to assist in the comparison of alternatives. Careful attention will be necessary for the issues of price levels, timing, and present worth calculations. Proper application of engineering economy principles can help to assure that economically prudent features will be incorporated into plan design.

Water Supply and Flood Control. A major element of the CERP is additional water supply storage. The storage component of the EAA Storage Reservoirs project is an important part of increasing storage in the entire system. Socioeconomic issues include effects on agricultural water supply for irrigation of crops, as well as effects on navigation and flood control. These issues will be the focus of attention during the PIR process, and will be documented in the PIR.

Recreation, Navigation and Fishing. Long term effects of CERP implementation will most likely be improved ecosystem health for South Florida. The specifics of ecosystem-economic system linkages are difficult to evaluate, especially since there exists great uncertainty regarding specific ecosystem responses to project implementation. Nevertheless, the changes will most likely be positive, and the resulting effects on recreation, fishing (both recreational and commercial) and associated navigation will most likely also be positive. To the extent identifiable, these issues will be explored and documented.

Regional Economic Impacts

Effects on the regional economy from construction spending and other project-caused impacts will be evaluated and documented. Such impacts are expected to include changes in sales, earnings, and employment in the regional economy. There are also regional economic impacts associated with converting agricultural lands to this project. The potential always exists for there to be impacts on minorities, those living in poverty, etc. Potential negative effects such as displacement of individuals, and other impacts will be addressed and documented. There will be documentation of the findings and results of environmental justice and public involvement outreach efforts.

6.13 Restoration Coordination and Verification (RECOVER) Integration

The Restoration Coordination and Verification Team (RECOVER) is structured to examine projects in a systematic manner to ensure the success of the Comprehensive Everglades Restoration Plan. RECOVER ensures that a system-wide perspective is maintained as each project is planned and implemented. As a part of this responsibility, RECOVER will provide support to the PDT to maximize the compatibility and performance of this project within the context of the overall Comprehensive Plan objectives.

RECOVER is organized into 6 sub-teams. These teams are designed to address both program and project level objectives of the Comprehensive Plan. At the program level, RECOVER will maintain a system-wide focus as it evaluates and assesses Comprehensive Plan performance, recommends 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 Comprehensive Plan. Concurrently, RECOVER will also 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 Comprehensive Plan and its evaluation. The teams include:

RECOVER TEAMS	RESPONSIBILITIES
Adaptive Assessment Team	Develops assessment tools including a system-wide monitoring plan, assists in the development of project level monitoring plan
Comprehensive Plan Refinement Team	Coordinates activities between RECOVER and the PDT, and will assist in the development of "with and without" project conditions
Model Development and Refinement Team.	Uses computer models to simulate the performance of the Comprehensive Plan based on input from the PDT
Operations Planning Team	Provides technical assistance in the design of operations and water control plans
Regional Evaluation Team	Evaluates the hydrologic effects of the project on the regional system using simulation tools
Water Quality Team	Ensures water quality for projects is addressed and coordinated with system-wide water quality performance measures and targets

The following describes the RECOVER tasks necessary to support the PDT. In general, it is assumed that SFWMD and USACE will share the workload necessary to support the PDT.

1. Initial Scoping with RECOVER - RECOVER will provide technical expertise and will brief the PDT on the CERP history and vision as to how the project was formulated and how it fits into the larger picture of the Comprehensive Plan. RECOVER will meet with the project team as needed to set goals, objectives and performance targets that will, at a minimum, meet the performance predicted for the approved CERP. While the PDT will develop its own performance measures, which may be based on system-wide targets as well as local targets, RECOVER will be available to assist in the development or review of performance measures to insure compatibility among the system-wide and project performance measures. RECOVER will also assist the PDT in looking for opportunities to use the project planning process to improve the performance of CERP. To insure adequate coordination between RECOVER and the project team, the Comprehensive Refinement Team chairs will serve as a central point of contact.

2. Assist in the Development of Base Conditions -- The Comprehensive Plan will likely be refined over time in response to: implementation of individual projects, the annual adaptive assessment process, improved scientific knowledge and ongoing improvements in simulation models. Results of pilot projects, new

feasibility studies and other ongoing activities (e.g., Lower East Coast Regional Water Supply Plan, Modified Water Deliveries to Everglades National Park) may also lead to refinements to the Comprehensive Plan. By refining the plan at appropriate points, RECOVER will track and document new information to ensure that the system-wide objectives of the plan reflect the best information available. As changes occur that affects the Comprehensive Plan, RECOVER will inform the PDT on issues that could impact the formulation of the project. Further, RECOVER will assist the PDT in the development of the future "with and without" project conditions.

3. Plan Formulation and Evaluation -- RECOVER will conduct system-wide evaluations of alternative plans using the SFWMM (or other hydrologic and ecologic regional models). The goal for these evaluations is to ensure that the hydrologic, biologic and water quality performance of the whole system are equal to or exceed the approved Comprehensive Plan. As a minimum, the selected/recommended plan will be evaluated to determine the level of regional performance. Based on the extent of potential impacts to the regional system, preliminary alternatives may also be evaluated by RECOVER to assist the PDT in formulating plans. If regional models (hydrologic or ecologic) are not available or appropriate for the project, the RECOVER evaluation will be based on best professional judgement of whether the alternatives are consistent with the approved Comprehensive Plan. RECOVER will suggest improvements, if needed, and work with the PDT as necessary to optimize the performance of the recommended project to provide maximum benefits to the regional system. If the PDT is unable to develop a plan that achieves the performance level of the approved Comprehensive Plan, the RECOVER will organize an ad-hoc team to attempt to resolve the issue, following an agreed-upon issue resolution process. The ad-hoc team may be made up of members of the PDT, RECOVER, and additional expertise as needed.

4. Assist in the development of Operations and Water Control Plans -- As the project formulation nears completion, RECOVER will use the SFWMM or other appropriate regional scale computer simulation models to develop system-wide interim operation scenarios (during and post construction). RECOVER will evaluate these scenarios to determine the effects on the natural system, water supply and flood control at different phases of project implementation. RECOVER will work with the PDT to develop draft water control plans for the project for inclusion in a project implementation report. Further, after construction of a project, a final water control plan will be required. RECOVER will work with the project teams to develop final water control plans at the conclusion of construction of each project. Many projects will be constructed in or in very close proximity to the existing C&SF Project.

5. Coordination with System-wide Monitoring Plan -- RECOVER has developed a system-wide monitoring and assessment plan in support of the Comprehensive Plan. The four objectives of the system-wide plan are to 1) establish pre-CERP baseline conditions for the regional 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 so that the information can be used to increase the effectiveness of projects not yet implemented. The PDT will coordinate with RECOVER to ensure the data collection and analysis is consistent with the system-wide monitoring and assessment plan. To eliminate duplication of effort the PDT will assess existing monitoring efforts and networks and integrate its monitoring efforts with RECOVER's monitoring and water management infrastructure. Protocols and standard operation procedures for data collection, instrumentation, data processing, lab analysis, and quality control and assurance that has been developed for CERP will be used by the PDT. Additionally, the PDT will utilize the data management system developed for CERP. This includes a centralized database to archive and retrieve the data generated from project monitoring.

RECOVER PIR Reports -- All RECOVER interactions with a PDT will be documented in written format. A final RECOVER report will be included in the PIR to document how the PDT's recommended plan is predicted to influence the system-wide performance of CERP. This report will also document any changes that occurred during the project formulation and design as a result of the system-wide evaluations, and any action that may be necessary to amend the Comprehensive Plan.

6.14 Project Cooperation Agreement

During the development of the PIR, the USACE and the SFWMD will develop a draft Project Cooperation Agreement (PCA). Upon finalizing the PIR, which will be forwarded as the project decision document for meeting Congressional conditions of authorization, a draft PCA package will be prepared. In accordance with ER 1105-2-100, this package will consist of a draft PCA, a statement of financial capability (an assessment of SFWMD's ability to fund its share of the project costs), and a letter of support from the SFWMD. The Project Managers will compile and coordinate review of the draft PCA package. The draft PCA package will be submitted to the USACE South Atlantic Division, USACE Headquarters and the Assistant Secretary of the Army for Civil Works. The final PCA will then be returned to the Jacksonville District for signing by the SFWMD. The signed PCA will be transmitted to the Assistant Secretary of the Army for Civil Works for final signatures. See Appendix R for additional information.

7.0 PROJECT SCHEDULE

The project schedule can be found in Appendix D. The schedule corresponds to the levels of the Work Breakdown Structure and identifies milestones. Additional levels of the schedules shall be developed as required and shall all be compatible with each other, the project summary schedule, and the WBS.

7.1 Logic Network Analysis

The PDT utilized an automated critical path method network analysis system to develop a logic network for the project schedule. The SFWMD and the USACE will utilize common software to the fullest extent possible to ease the data sharing and reporting. The schedule identifies the critical path (the sequence of activities that require the minimum time for the project to complete). A logic network was developed and includes all activities identified during the WBS analysis, the associated dependencies, and other associated activity data. The logic network is included in Appendix D, Tab B.

7.2 Program Guidance

The PDT developed a list of project activities that will be performed with a description of each activity and the initial duration estimate. The list of activities was the result of the analysis performed during the Work Breakdown Structure development and was sequenced in a logical progression to identify and document the interdependency of activities. Duration estimates for each activity were calculated based on estimates of time required to successfully complete each activity. During the estimating process, the PDT considered project constraints and assumptions, resource requirements and capabilities, and available historical information.

7.3 Project Schedule

A project schedule was developed using the logic network, duration estimates, constraints and assumptions along with available resource information (time, money, manpower) as noted in the project dictionary. The schedule is included in Appendix D.

8.0 FINANCIAL MANAGEMENT

8.1 Cost Estimates

A planning level cost estimate for this project is provided in Appendix E.

8.2 Budget

The project budget, as identified in the Restudy:

"The total initial cost for this feature is $233,408,000, which includes planning cost of $9,621,000, engineering and design cost of $6,414,000, no real state cost and construction cost of $217,373,000. No real estate cost are included in the initial cost for this feature, as the land being purchased with Department of Interior Farm Bill funds, with SFWMD funds, and sharing allocations between the Federal government and the SFWMD for this will be determined during the Project Implementation Report. The annual operation cost are $14,458,000."

Project budgeting involves allocating the overall cost estimate to individual activities so that project cost performance may be measured. The project budget was developed using the cost estimates, WBS, and project schedule.

Applicable documentation will be included in Appendix E.

WRDA 2000 authorized the EAA Storage Reservoirs Phase 1 project for implementation. Periodic updates and revisions to the project budget will be required during the course of the project. It is assumed a semiannual revision will be made to the budget throughout the project.

9.0 SUMMARY OF WORK-IN-KIND SERVICES

The Design Agreement allows for In-Kind services by the SFWMD. A detailed listing of In–Kind services will be provided in Appendix F.

10.0 PERFORMANCE MEASUREMENT

The Project Managers will compile information and facilitate a series of interagency and public workshops to develop a comprehensive set of performance measures that, at a minimum, addresses:

- All project goals and objectives as defined in the CERP,
- The requirements of all Federal laws and regulations, including but not limited to National Environmental Policy Act, Endangered Species Act, and Clean Water Act,
- The requirements of all relevant State laws and regulations, including but not limited to Florida Statutes, s. 373.026, s. 373.1501, and s. 373.470,
- The most recent applicable performance measures used in the Restudy or modified by RECOVER based on the South Florida Water Management Model,
- Cost estimates for construction and operation and maintenance,
- Socioeconomic issues at the local, regional, state, and Federal levels,
- Environmental justice issues,
- Real estate issues,
- All other relevant water resources issues that will have a bearing on decision-making during the project, including flood control and water supply, and
- All other potential impacts of the project.

The comprehensive list of performance measures must contain all relevant criteria that will be applicable to the selection of the recommended plan and should include measures of not only the goals of the project, but also all of the potential impacts of the project. Performance measures will be developed and organized in a hierarchical format starting with the project goals. For each project goal, a comprehensive set of supporting sub-goals will be developed. Then, for each of the sub-goals, a comprehensive set of supporting subordinate sub-goals will be developed. This hierarchical breakdown will continue until a comprehensive set of performance measures are identified.

To the extent possible, performance measures should be quantifiable. Only where necessary, should a performance measure be qualitative. Each performance measure will contain the following information:

- Description: summary of what is being measured and why;
- Rationale: explanation of why this performance measure is useful for measuring performance towards a project goal or sub-goal or why it is important in evaluating potential project impacts;
- Target: description of how each alternative will be scored against the performance measure and what will be considered success; and

- Evaluation Method: description of modeling approaches, computational methods, data to be evaluated, evaluation criteria, or other methods to be used in the evaluation of the alternative plans for the performance measure.

A review of applicable literature to develop an initial hierarchical set of goals, sub-goals, and performance measures will be necessary. During the development of the initial draft, the PDT will conduct a meeting to obtain general input and guidance. The initial draft set of performance measures will be distributed to the PDT for review and the project managers will facilitate an interagency meeting. Interagency comments will be incorporated into the final draft set of performance measures.

The Project Managers will organize and facilitate a public meeting to obtain input on the performance measures as part of the NEPA scoping process. Based on public comments, the Project Managers will finalize the performance measure document. This document will be formatted so that it can be directly incorporated into the PIR.

11.0 PROJECT MANAGEMENT PLAN CHANGE CONTROL PROCEDURES

A PMP is a living document that will be updated or revised, as necessary, throughout the life of the project. Updates are defined as changes to the PMP that occur on a regular basis and do not substantially modify the schedule, cost, or annual work plan for the project. Updates may result from posting of actual data, corrections to erroneous information, or the addition of new data identified by the project managers. Updates may be made by project managers at any time and presented at each organization's regularly scheduled reporting or status briefing. PMP revisions are defined as changes that reflect significant changes in the project scope, schedule, cost, and/or annual work plan. PMP revisions may be scheduled or unscheduled depending on the nature of the change and/or the occurrence of a significant event/milestone or phase of project development. Revisions to the PMP will be reviewed by the DCT and will require formal approval by the USACE and SFWMD.

The PMP will serve as the baseline for the identification, tracking of changes in project scope, schedule, and cost. Progress will be monitored using performance reports with the goal of identifying changes as soon as possible and forecasting new schedules and/or costs. If changes in scope are identified, the ER 5-7-11 or other applicable rules and regulations will be utilized as the method to document and seek approval for the change.

12.0 PROJECT CLOSEOUT PROCEDURES

After final inspection and acceptance of the project, property transfer documents will be prepared to transfer the completed works to the SFWMD as the local sponsor. These documents will identify the completed works, any associated items such as O&M manuals that will accompany the works, any outstanding deficiencies, any remaining warranties, and the effective date of the transfer. This will occur as soon as practical following completion of construction of the project. The USACE will process documents such as the final pay estimate and contractor evaluation required for closing the applicable construction contract. Cost of the operations and maintenance of each completed functional project segment will be borne according to the provisions of the PCA unless superceded by changes in applicable federal law.

The USACE will review the report of audit done on the SFWMD's records for all project costs to be applied as credits. The SFWMD may likewise review the audit of USACE records to ascertain the completeness and validity of expenditures. Based upon final accounting of all project costs, the final apportionment of project costs between the Federal government and the SFWMD will be made in accordance with the stipulations of the PCA. Following final adjustments, any excess funds contributed by the SFWMD will be returned to them and the letter of credit or escrow account will be terminated.

13.0 APPROVAL

FOR THE DESIGN COORDINATION TEAM:

_____ _____

DENNIS R. DUKE, P.E. Date
USACE, Program Manager

_____ _____

RANDALL K. BUSHEY, P.E. Date
Director, Restoration Program Dept.
SFWMD

FOR THE CORPORATE REVIEW BOARD, SFWMD:

_____ _____

JOSEPH A. SCHWEIGART, P.E. Date
Deputy Executive Director
SFWMD

FOR THE PROJECT REVIEW BOARD, USACE:

_____ _____

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

14.0 APPENDICES

APPENDIX A: LIST OF PROJECT DELIVERY TEAM MEMBERS

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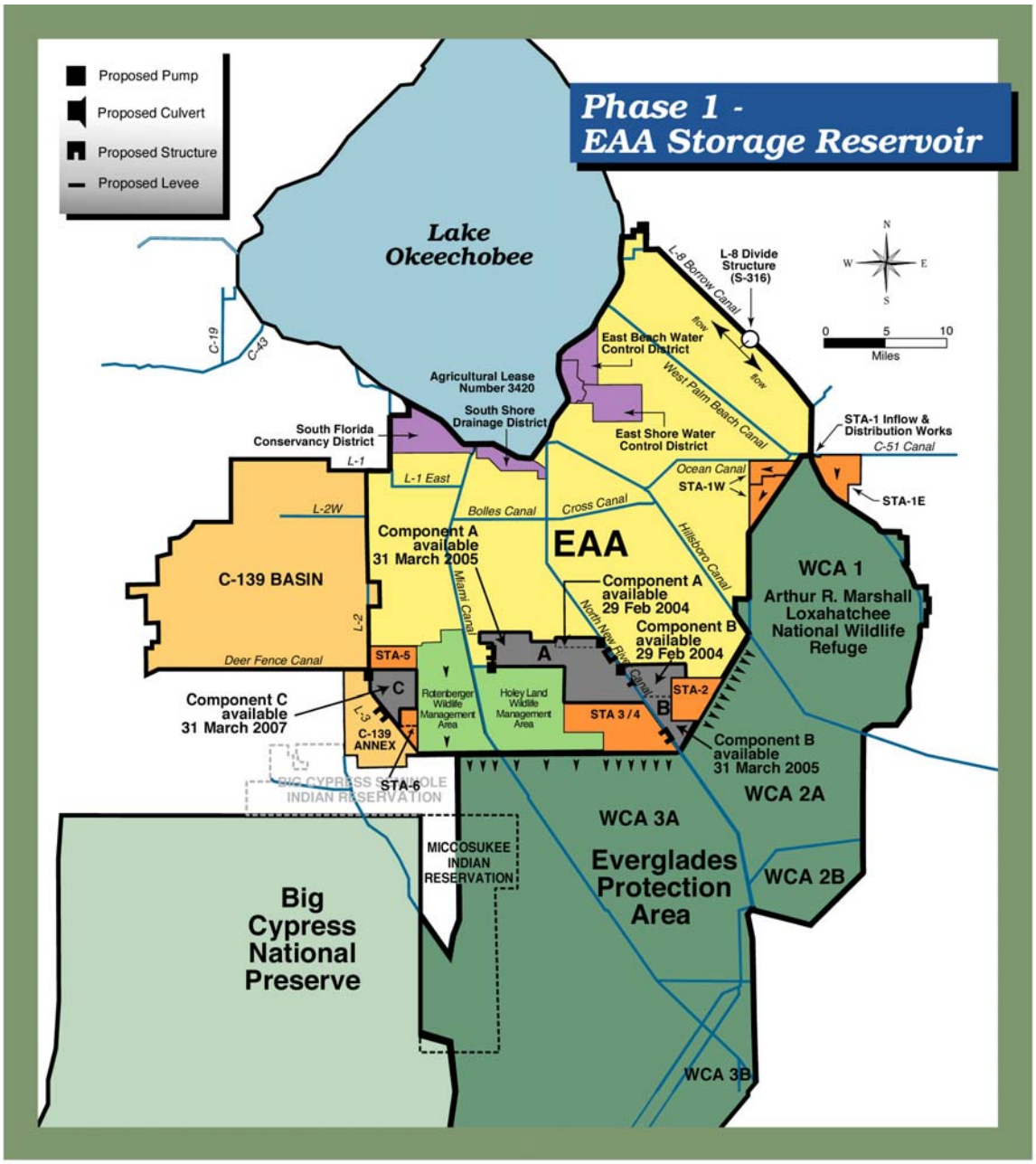
APPENDIX B: PROJECT MAP


Proposed Pump
Proposed Culvert
Proposed Structure
Proposed Levee
Phase 1 -
EAA Storage Reservoir
Lake Okeechobee
C-19
C-43
L-8 Borrow Canal
L-8 Divide Structure (S-316)
flow
flow
N
W
E
S
0
5
10
Miles
East Beach Water Control District
West Palm Beach Canal
Agricultural Lease Number 3420
South Shore Drainage District
East Shore Water Control District
South Florida Conservancy District
STA-1 Inflow & Distribution Works
C-51 Canal
L-1
L-1 East
Ocean Canal
STA-1W
STA-1E
L-2W
Bolles Canal
Cross Canal
Hillsboro Canal
Component A available 31 March 2005
EAA
C-139 BASIN
Component A available 29 Feb 2004
WCA 1
Arthur R. Marshall Loxahatchee National Wildlife Refuge
Miami Canal
North New River Canal
Component B available 29 Feb 2004
L-2
Deer Fence Canal
STA-5
A
C
Rotenberger Wildlife Management Area
Holey Land Wildlife Management Area
STA-2
Component C available 31 March 2007
L-3
C-139 ANNEX
STA 3 / 4
B
Component B available 31 March 2005
STA-6
BIG CYPRESS SEMINOLE INDIAN RESERVATION
WCA 2A
WCA 3A
MICCOSUKEE INDIAN RESERVATION
Everglades Protection Area
WCA 2B
Big Cypress National Preserve
WCA 3B

APPENDIX C: WORK BREAKDOWN STRUCTURE

WBS Activity Listing 8-Nov-01

Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost	BL Expense Cost	Total Float
08WIP (2) Part 1 - Everglades Agricultural Area Reservoirs		2166.0d	22-Jan-01	16-Sep-09	$233,109,533	$227,588,000	0.0d
08WIP (2).1 CERP		2166.0d	22-Jan-01	16-Sep-09	$233,109,533	$227,588,000	0.0d
08WIP (2).1.08 Everglades Agricultural Area Reservoirs		2166.0d	22-Jan-01	16-Sep-09	$233,109,533	$227,588,000	0.0d
08WIP (2).1.08.1 Project Management Plan		790.0d	22-Jan-01	18-Mar-04	$485,660	$350,000	14.0d
08WIP (2).1.08.1.1 Project Management for PMP		1.0d	22-Jan-01	22-Jan-01	$0	$0	12.0d
08-1040	Start PMP Project Management	1.0d	22-Jan-01*	22-Jan-01	$0	$0	12.0d
08WIP (2).1.08.1.2 Initial PMP		235.0d	23-Jan-01	28-Dec-01	$350,000	$350,000	14.0d
08-1060	PMP Initiated	1.0d	23-Jan-01	23-Jan-01	$0	$0	12.0d
08-1062	Initial Scope of Project	21.0d	24-Jan-01	22-Feb-01	$0	$0	12.0d
08-1061	Project Delivery Team	12.0d	24-Jan-01	8-Feb-01	$0	$0	27.0d
08-1130	Interagency Kick-off Meeting	1.0d	23-Feb-01	23-Feb-01	$0	$0	18.0d
08-1121	PDT Kick-off Meeting	1.0d	13-Mar-01*	13-Mar-01	$0	$0	0.0d
08-1150	Draft PMP for Internal Review	120.0d	14-Mar-01	30-Aug-01	$350,000	$350,000	6.0d
08-1070	Public Stakeholders PMP Workshop	7.0d	16-Aug-01	27-Aug-01*	$0	$0	0.0d
08-1151	Complete Internal Review Draft PMP	48.0d	31-Aug-01	8-Nov-01	$0	$0	6.0d
08-1152	Complete Final Draft PMP	8.0d	9-Nov-01	21-Nov-01	$0	$0	6.0d
08-1066	Post PMP on Web Public/Agency Review	1.0d	9-Nov-01	9-Nov-01	$0	$0	13.0d
08-1153	Distribute PMP for DCT, CRG, PRB, SFWMD GB	1.0d	26-Nov-01	26-Nov-01	$0	$0	6.0d
08-1154	Present and Discuss PMP at DCT Meeting	1.0d	5-Dec-01	5-Dec-01*	$0	$0	0.0d
08-1155	Present PMP at PRB Meeting	1.0d	14-Dec-01	14-Dec-01*	$0	$0	0.0d
08-1156	Present PMP at CRG Meeting	1.0d	17-Dec-01	17-Dec-01*	$0	$0	0.0d
08-1170	SFWMD Approval PMP	2.0d	18-Dec-01	19-Dec-01	$0	$0	0.0d
08-1160	Partner/PRB Endorse PMP (DDE)	2.0d	20-Dec-01	21-Dec-01	$0	$0	0.0d
08-1171	Work in Kind Letter from USACE District Engineer	4.0d	24-Dec-01	28-Dec-01	$0	$0	14.0d
08WIP (2).1.08.1.3 PIR PMP Revision		40.0d	22-Jan-04	18-Mar-04	$135,660	$0	14.0d
08-2277	PIR PMP update - USACE	40.0d	22-Jan-04	18-Mar-04	$50,160	$0	14.0d
08-2278	PIR PMP update - SFWMD	40.0d	22-Jan-04	18-Mar-04	$85,500	$0	14.0d
08WIP (2).1.08.2 Project Implementation Report		854.0d	22-Jan-01	17-Jun-04	$8,526,593	$3,200,000	212.0d

TASK filter: All Activities

WBS Activity Listing 8-Nov-01

Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost	BL Expense Cost	Total Float
08WIP (2).1.08.2.1	**Project Management**	522.0d	24-Dec-01	27-Jan-04	$428,469	$0	0.0d
08-2052	PIR Proj Mgt - USACE	522.0d	24-Dec-01	27-Jan-04	$159,600	$0	0.0d
08-2054	PIR Proj Mgt - SFWMD	522.0d	24-Dec-01	27-Jan-04	$65,949	$0	0.0d
08-1181	Scope of Work AE Contract - SFWMD	15.0d	24-Dec-01	15-Jan-02	$44,460	$0	16.0d
08-1180	Scope of Work AE Contract - USACE	15.0d	27-Dec-01	17-Jan-02	$37,620	$0	14.0d
08-1190	Government Estimates - SFWMD	10.0d	11-Jan-02	25-Jan-02	$15,960	$0	14.0d
08-1192	Government Estimates - USACE	10.0d	11-Jan-02	25-Jan-02	$27,360	$0	14.0d
08-1200	Procurement AE contract - SFWMD	20.0d	28-Jan-02	25-Feb-02	$34,200	$0	14.0d
08-1516	PMP Update - Assess Phase SFWMD	40.0d	14-Jan-03	12-Mar-03	$18,240	$0	54.0d
08-1520	PMP Update - Assess Phase Contract	40.0d	14-Jan-03	12-Mar-03	$11,400	$0	54.0d
08-2620	PMP Update - Assess Phase USACE	40.0d	14-Jan-03	12-Mar-03	$13,680	$0	54.0d
08WIP (2).1.08.2.2	**Plan Formulation**	854.0d	22-Jan-01	17-Jun-04	$7,628,672	$3,200,000	212.0d
08WIP (2).1.08.2.2.01	**Goals, Objectives, Performance Measures**	263.0d	24-Dec-01	13-Jan-03	$783,712	$0	54.0d
08WIP (2).1.08.2.2.01.1	**Watershed Assessment**	263.0d	24-Dec-01	13-Jan-03	$544,540	$0	54.0d
08-1220	Planning Tech Lead - SFWMD	100.0d	24-Dec-01	16-May-02	$22,800	$0	217.0d
08-1230	Design Criteria and Scope of Work	7.0d	24-Dec-01	3-Jan-02	$31,920	$0	70.0d
08-2470	Planning Technical Lead - USACE	100.0d	24-Dec-01	16-May-02	$15,960	$0	187.0d
08-1178	RECOVER - Watershed Assess - PDT participation	100.0d	31-Dec-01	22-May-02	$4,560	$0	193.0d
08-1300	Select models/analytical methods	10.0d	4-Jan-02	17-Jan-02	$12,540	$0	90.0d
08-1218	Preliminary Water Quality Assessment	40.0d	27-Feb-02	23-Apr-02	$36,480	$0	34.0d
08-1240	Review Re-Study AH D13R Assumptions	10.0d	27-Feb-02	12-Mar-02	$6,840	$0	54.0d
08-1270	Seepage evaluation	30.0d	27-Feb-02	9-Apr-02	$34,200	$0	74.0d
08-2480	GIS Database (topo, drainage, STA's, & Talisman)	15.0d	27-Feb-02	19-Mar-02	$9,120	$0	89.0d
08-1290	Hydrology-surface drainage (canals) & Hydrogeology (aquifers)	40.0d	13-Mar-02	7-May-02	$42,180	$0	54.0d
08-1450	Water budget (SFWMM)	40.0d	8-May-02	3-Jul-02	$25,080	$0	54.0d
08-1320	Flow estimates	10.0d	5-Jul-02	18-Jul-02	$29,640	$0	54.0d
08-1330	Storage requirements	10.0d	5-Jul-02	18-Jul-02	$36,480	$0	54.0d
08-1208	Evaluate STA performance benefits (canal conveyance)	10.0d	19-Jul-02	1-Aug-02	$15,960	$0	119.0d
08-1460	Model scenario runs (SFWMM)	75.0d	19-Jul-02	4-Nov-02	$57,000	$0	54.0d
08-1700	Existing/future level of flood protection (canal conveyance)	20.0d	19-Jul-02	15-Aug-02	$22,800	$0	89.0d
08-1210	Evaluate flood control economic benefits	20.0d	16-Aug-02	13-Sep-02	$15,960	$0	89.0d
08-1480	Draft Watershed Assessment Report	15.0d	5-Nov-02	26-Nov-02	$27,360	$0	54.0d

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Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost	BL Expense Cost	Total Float
08-1485	PDT review - Draft Assess Report - SFWMD	10.0d	27-Nov-02	12-Dec-02	$13,680	$0	54.0d
08-1490	PDT review - Draft Assess Report - USACE	10.0d	27-Nov-02	12-Dec-02	$19,152	$0	54.0d
08-1500	Independent Tech Review - Assessment Report	10.0d	27-Nov-02	12-Dec-02	$30,400	$0	54.0d
08-1510	Final Assessment Report	20.0d	13-Dec-02	13-Jan-03	$34,428	$0	54.0d
08WIP (2).1.08.2.2.01.2	**Performance Measures**	60.0d	27-Feb-02	21-May-02	$239,172	$0	34.0d
08-1271	Draft Performance Measure - USACE	20.0d	27-Feb-02	26-Mar-02	$79,800	$0	34.0d
08-1272	Draft Performance Measures - Contractor	20.0d	27-Feb-02	26-Mar-02	$57,000	$0	34.0d
08-1273	Draft Performance Measures - SFWMD	20.0d	27-Feb-02	26-Mar-02	$22,800	$0	34.0d
08-1274	PDT Performance Measures Review - SFWMD	10.0d	27-Mar-02	9-Apr-02	$5,928	$0	34.0d
08-1275	PDT Performance Measures Review - USACE	10.0d	27-Mar-02	9-Apr-02	$10,716	$0	34.0d
08-1276	Perf Measure/Scoping Public Workshop - Contractor	15.0d	10-Apr-02	30-Apr-02	$9,120	$0	34.0d
08-1277	Perf Measure/Scoping Public Workshop - USACE	15.0d	10-Apr-02	30-Apr-02	$11,856	$0	34.0d
08-1278	Perf Measure/Scoping Public Workshop - SFWMD	15.0d	10-Apr-02	30-Apr-02	$12,312	$0	34.0d
08-1279	Finalize Performance Measures	15.0d	1-May-02	21-May-02	$29,640	$0	34.0d
08WIP (2).1.08.2.2.02	**Inventory and Forecast Conditions**	51.0d	26-Feb-02	7-May-02	$62,700	$0	14.0d
08-2850	Existing/Base Conditions	25.0d	26-Feb-02	1-Apr-02	$20,520	$0	40.0d
08-1260	Future Land Use Projections	25.0d	27-Feb-02	2-Apr-02	$21,660	$0	14.0d
08-2860	Future Without Project	25.0d	3-Apr-02	7-May-02	$20,520	$0	14.0d
08WIP (2).1.08.2.2.03	**Alt Plan Formulation**	170.0d	27-Feb-02	28-Oct-02	$957,714	$0	44.0d
08-1771	Real Estate Data Collection - Canals	45.0d	27-Feb-02	30-Apr-02	$23,940	$0	64.0d
08-2051	Real Estate Data Collection - Reservoirs	30.0d	27-Feb-02	9-Apr-02	$9,120	$0	74.0d
08-1763	Initial Alternative Plans - Canals - USACE	25.0d	27-Mar-02	30-Apr-02	$59,280	$0	49.0d
08-1767	Inital Alternative Plans - Canals - SFWMD	25.0d	27-Mar-02	30-Apr-02	$11,400	$0	49.0d
08-1770	Initial Alternative Plans - Canals - Contractor	25.0d	27-Mar-02	30-Apr-02	$87,780	$0	49.0d
08-2037	Initial Alternative Plans - Reservoirs - USACE	35.0d	27-Mar-02	14-May-02	$92,340	$0	39.0d
08-2040	Initial Alternative Plans - Reservoirs - Contractor	35.0d	27-Mar-02	14-May-02	$124,260	$0	39.0d
08-2038	Initial Alternative Plans - Reservoir - SFWMD	35.0d	27-Mar-02	14-May-02	$31,920	$0	39.0d
08-2750	Pre-Application Meeting	10.0d	2-Apr-02	15-Apr-02*	$9,120	$0	0.0d
08-2760	Pre-Application Concurrence Letter	4.0d	17-Apr-02	22-Apr-02*	$7,296	$0	0.0d
08-2770	Pre-Application Letter	4.0d	1-May-02	6-May-02*	$7,296	$0	0.0d
08-2039	Plan Formulation - Economics Input	30.0d	8-May-02	19-Jun-02	$15,960	$0	14.0d
08-2590	Feasibility Scoping Meeting - USACE	10.0d	15-May-02	29-May-02	$9,120	$0	89.0d

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Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost	BL Expense Cost	Total Float
08-2600	Feasibility Scoping Meeting - SFWMD	10.0d	15-May-02	29-May-02	$4,560	$0	89.0d
08-1777	Public Workshop - Alt Plan Form - SFWMD	10.0d	20-Jun-02	3-Jul-02	$18,696	$0	14.0d
08-2043	Public Workshop - Alt Plans Form - USACE	10.0d	20-Jun-02	3-Jul-02	$23,712	$0	14.0d
08-2050	Public Workshop - Alt Plans Form - Contractor	10.0d	20-Jun-02	3-Jul-02	$31,920	$0	14.0d
08-1780	Final Alternative Plans - Canals	20.0d	5-Jul-02	1-Aug-02	$61,560	$0	19.0d
08-2060	Final Alternative Plans - Reservoirs	20.0d	5-Jul-02	1-Aug-02	$88,008	$0	14.0d
08-2070	Alternative Plans Description - Reservoirs	30.0d	19-Jul-02	29-Aug-02	$62,472	$0	14.0d
08-1790	Alternative Plans Description - Canals	15.0d	2-Aug-02	22-Aug-02	$43,320	$0	19.0d
08-1795	PDT Review Alt Plans - SFWMD	10.0d	30-Aug-02	13-Sep-02	$24,510	$0	14.0d
08-1800	PDT Review Alt Plans - USACE	10.0d	30-Aug-02	13-Sep-02	$38,304	$0	14.0d
08-1810	Final Alternative Plan Document - Canals	20.0d	16-Sep-02	11-Oct-02	$29,640	$0	54.0d
08-2090	Final Alternative Plan Document - Reservoirs	30.0d	16-Sep-02	28-Oct-02	$42,180	$0	14.0d
08WIP (2).1.08.2.2.04	**Alt Plan Evaluation**	470.0d	24-Dec-01	6-Nov-03	$4,988,584	$3,200,000	40.0d
08-1955	Fish & Wildlife participation in PIR/EIS process - Canals	250.0d	24-Dec-01	23-Dec-02	$57,000	$0	260.0d
08-1956	Informal Endangered Species Consultation - Canals	65.0d	24-Dec-01	28-Mar-02	$6,840	$0	333.0d
08-1957	Fish & Wildlife Draft Coord Act Report - Canals	90.0d	24-Dec-01	2-May-02	$5,700	$0	298.0d
08-2235	Fish & Wildlife participation in PIR/EIS process - Reservoirs	450.0d	24-Jan-02	6-Nov-03	$228,000	$0	40.0d
08-1761	Topo Data Collection - Canals	180.0d	27-Feb-02	13-Nov-02	$677,360	$650,000	34.0d
08-1762	Geotech Data Collection - Canals	180.0d	27-Feb-02	12-Nov-02	$552,600	$450,000	59.0d
08-2041	Topo Data collection - Reservoirs	180.0d	27-Feb-02	12-Nov-02	$653,500	$625,000	34.0d
08-2042	Geotech Data collection - Reservoirs	180.0d	27-Feb-02	12-Nov-02	$1,600,400	$1,475,000	24.0d
08-2570	Hazardous Toxic Radioactive Waste Assessment/Evaluation Canals	60.0d	27-Feb-02	21-May-02	$82,080	$0	179.0d
08-2580	Hazardous Toxic Radioactive Waste Assessment/Evaluation Reserv...	120.0d	27-Feb-02	15-Aug-02	$82,080	$0	64.0d
08-2730	Fish & Wildlife Final Coord Act Report - Canals	10.0d	3-May-02	16-May-02	$4,560	$0	298.0d
08-2120	H&H Evaluation of Alternative Plans - Reservoirs	60.0d	16-Sep-02	12-Dec-02	$86,640	$0	19.0d
08-2100	Alt Plans Conceptual Design - Reservoirs	60.0d	29-Oct-02	28-Jan-03	$90,630	$0	14.0d
08-2233	Informal Endangered Species Consultation - Reservoirs	100.0d	29-Oct-02	26-Mar-03	$9,120	$0	79.0d
08-2234	Fish & Wildlife Draft Coord Act Report - Reservoirs	120.0d	29-Oct-02	23-Apr-03	$5,700	$0	59.0d
08-1820	Alt Plans Conceptual Design - Canals	20.0d	13-Nov-02	13-Dec-02	$42,180	$0	59.0d
08-1840	H&H Evaluation of Alternative Plans - Canals	30.0d	13-Nov-02	30-Dec-02	$91,200	$0	34.0d
08-2130	Socio-Economic Evaluation Alt Plans - Reservoirs	60.0d	13-Dec-02	12-Mar-03	$29,640	$0	19.0d
08-2140	Real Estate Cost Est Alt Plans - Reservoirs	10.0d	13-Dec-02	27-Dec-02	$11,400	$0	59.0d

Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost	BL Expense Cost	Total Float
08-2150	Environmental Evaluation Alt Plans - Reservoirs	60.0d	13-Dec-02	12-Mar-03	$72,960	$0	19.0d
08-2237	Draft Water Control Plan - Reservoirs	45.0d	13-Dec-02	19-Feb-03	$43,890	$0	34.0d
08-1830	Alt Plans Cost Estimates - Canals	15.0d	13-Dec-02	7-Jan-03	$20,064	$0	59.0d
08-1850	Socio-Economic Evaluation Alt Plans - Canals	10.0d	30-Dec-02	14-Jan-03	$21,660	$0	59.0d
08-1860	Real Estate Cost Est Alt Plans - Canals	10.0d	30-Dec-02	14-Jan-03	$6,840	$0	49.0d
08-1870	Environmental Evaluation Alt Plans - Canals	14.0d	30-Dec-02	21-Jan-03	$37,620	$0	55.0d
08-1958	Draft Water Control Plan - Canals	35.0d	30-Dec-02	20-Feb-03	$31,920	$0	34.0d
08-2110	Alt Plans Cost Estimates - Reservoirs	30.0d	29-Jan-03	12-Mar-03	$34,200	$0	14.0d
08-1880	Draft Alt Plan Evaluation Document - Canals - Contractor	20.0d	20-Feb-03	20-Mar-03	$63,840	$0	34.0d
08-2160	Draft Alt Plan Evaluation Document - Reservoirs - Contractor	20.0d	13-Mar-03	9-Apr-03	$43,320	$0	19.0d
08-2165	PDT Cmts - Draft Alt Plan Evaluation - SFWMD	10.3d	17-Apr-03	1-May-03	$37,620	$0	18.7d
08-2170	PDT Cmts - Draft Alt Plan Evaluation - USACE	15.0d	17-Apr-03	7-May-03	$74,100	$0	14.0d
08-2740	Fish & Wildlife Final Coord Act Report - Reservoirs	30.0d	24-Apr-03	5-Jun-03	$4,560	$0	125.0d
08-2180	Independent Tech Review Alt Plan Evaluation	15.0d	8-May-03	29-May-03	$60,800	$0	14.0d
08-1910	Final Alt Plan Evaluation Report - Canals	16.0d	30-May-03	20-Jun-03	$43,320	$0	24.0d
08-2190	Final Alt Plan Evaluation Report - Reservoirs	20.0d	30-May-03	26-Jun-03	$75,240	$0	14.0d
08WIP (2).1.08.2.2.05	**Recommended Plan**	854.0d	22-Jan-01	17-Jun-04	$835,962	$0	212.0d
08-2036	RECOVER - PDT participation	500.0d	22-Jan-01	21-Jan-03	$28,500	$0	124.0d
08-2055	Plan Technical Lead - Reservoirs - USACE	500.0d	22-Jan-01	21-Jan-03	$28,500	$0	220.0d
08-2560	Cultural Resources Phase 1 Investigation - Reservoirs	90.0d	20-Feb-03	26-Jun-03	$11,400	$0	110.0d
08-2550	Cultural Resources Phase 1 Investigation - Canals	60.0d	20-Feb-03	15-May-03	$4,560	$0	140.0d
08-2830	Summary of FWCA Report Issues and Recomendations	10.0d	13-Jun-03	26-Jun-03	$2,280	$0	77.0d
08-1960	Draft PIR/EIS - Canals - Contractor	15.0d	23-Jun-03	14-Jul-03	$47,880	$0	24.0d
08-2690	Fish & Wildlife participation in PIR/EIS process - Canals	30.0d	23-Jun-03	4-Aug-03	$27,360	$0	84.0d
08-2240	Draft PIR/EIS - Reservoirs - Contractor	25.0d	27-Jun-03	1-Aug-03	$43,320	$0	14.0d
08-2640	Value Engineering - Reservoirs	30.0d	27-Jun-03	8-Aug-03	$38,760	$0	14.0d
08-2700	Fish & Wildlife participation in PIR/EIS process - Reservoir	60.0d	27-Jun-03	22-Sep-03	$30,780	$0	39.0d
08-2650	Alternative Formulation Briefing - USACE	10.0d	14-Jul-03	25-Jul-03	$9,120	$0	77.0d
08-2660	Alternative Formulation Briefing - SFWMD	10.0d	14-Jul-03	25-Jul-03	$6,840	$0	77.0d
08-1961	RECOVER Review Draft PIR/EIS - Canals	10.0d	15-Jul-03	28-Jul-03	$11,400	$0	89.0d
08-1963	PDT Review Draft PIR/EIS - Canals - USACE	10.0d	15-Jul-03	28-Jul-03	$20,520	$0	89.0d
08-1966	PDT Review Draft PIR/EIS - Canals - SFWMD	10.0d	15-Jul-03	28-Jul-03	$11,400	$0	89.0d

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Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost	BL Expense Cost	Total Float
08-1975	PDT Comparison Alt Plans - Canals - SFWMD	10.0d	15-Jul-03	28-Jul-03	$15,960	$0	89.0d
08-1980	PDT Comparison Alt Plans - Canals - USACE	10.0d	15-Jul-03	28-Jul-03	$22,344	$0	89.0d
08-2630	Value Engineering - Canals	15.0d	15-Jul-03	4-Aug-03	$22,800	$0	24.0d
08-2241	RECOVER Review Draft PIR/EIS - Reservoirs	20.0d	4-Aug-03	29-Aug-03	$17,100	$0	35.0d
08-2710	PDT Comparison Alt Plans -Reservoirs - SFWMD	10.0d	4-Aug-03	15-Aug-03	$15,960	$0	45.0d
08-2720	PDT Comparison Alt Plans - Reservoirs - USACE	10.0d	4-Aug-03	15-Aug-03	$23,484	$0	45.0d
08-2243	PDT Review Draft PIR/EIS - Reservoirs USACE	30.0d	5-Aug-03	16-Sep-03	$69,426	$0	24.0d
08-2246	PDT Review Draft PIR/EIS - Reservoirs SFWMD	30.0d	5-Aug-03	16-Sep-03	$20,520	$0	24.0d
08-2248	Final Deliverable Draft PIR/EIS	40.0d	5-Aug-03	30-Sep-03	$26,220	$0	14.0d
08-2820	Reasonable Assurances Stauts Meeting	5.0d	9-Sep-03	15-Sep-03	$6,840	$0	77.0d
08-2840	In-Progress Review	5.0d	24-Sep-03	30-Sep-03	$6,840	$0	44.0d
08-2253	Public Wkshp - Draft PIR/EIS - USACE	22.0d	1-Oct-03	31-Oct-03	$30,780	$0	22.0d
08-2256	Public Wkshp - Draft PIR/EIS - SFWMD	22.0d	1-Oct-03	31-Oct-03	$15,048	$0	22.0d
08-2250	Public Review Draft PIR/EIS	30.0d	1-Oct-03	13-Nov-03	$12,540	$0	14.0d
08-2254	Public Wkshp - Draft PIR/EIS - Contractor	22.0d	1-Oct-03	31-Oct-03	$14,592	$0	22.0d
08-2780	Sec. 373.1501(5) Submital to FDEP	10.0d	20-Oct-03	31-Oct-03*	$9,120	$0	0.0d
08-2790	Sec. 373.026(8)(b) Approval by FDEP	10.0d	3-Nov-03	17-Nov-03*	$4,560	$0	0.0d
08-2800	WQC Permits issued by FDEP	10.0d	3-Nov-03	17-Nov-03*	$4,560	$0	0.0d
08-2273	Final Draft PIR/EIS - USACE	44.0d	14-Nov-03	21-Jan-04	$59,280	$0	14.0d
08-2276	Final Draft PIR/EIS - SFWMD	44.0d	14-Nov-03	21-Jan-04	$34,200	$0	14.0d
08-2274	Final Draft PIR/EIS - Contractor	44.0d	14-Nov-03	21-Jan-04	$54,720	$0	14.0d
08-2810	Preliminary Endorsement/Letter of Intent by SFWMD	5.0d	25-Nov-03	3-Dec-03*	$2,280	$0	0.0d
08-2303	Final PIR/EIS Div. Eng. Notice - SFWMD	12.0d	9-Jan-04	27-Jan-04*	$10,488	$0	0.0d
08-2310	Final PIR/EIS Div. Eng. Notice - USACE	12.0d	9-Jan-04	27-Jan-04*	$9,120	$0	0.0d
08-2035	Congressional Committee Approval PIR	100.0d	28-Jan-04	17-Jun-04	$4,560	$0	212.0d
08WIP (2).1.08.2.3	**Environmental Evaluation & Compliance Appendix**	56.0d	21-Jan-03	9-Apr-03	$44,232	$0	19.0d
08WIP (2).1.08.2.3.01	**Enviro Compliance Appendix - Canals**	20.0d	21-Jan-03	19-Feb-03	$9,120	$0	55.0d
08-1920	Environmental Evaluation Appendix - Canals	20.0d	21-Jan-03	19-Feb-03	$9,120	$0	55.0d
08WIP (2).1.08.2.3.02	**Enviro Compliance Appendix - Reservoirs**	20.0d	13-Mar-03	9-Apr-03	$35,112	$0	19.0d
08-2200	Environmental Evaluation Appendix - Reservoirs	20.0d	13-Mar-03	9-Apr-03	$35,112	$0	19.0d
08WIP (2).1.08.2.4	**Socio-Economic Appendix**	60.0d	14-Jan-03	9-Apr-03	$27,360	$0	19.0d
08WIP (2).1.08.2.4.01	**Socio-Economic App - Canals**	20.0d	14-Jan-03	12-Feb-03	$6,840	$0	59.0d

WBS Activity Listing 8-Nov-01

Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost	BL Expense Cost	Total Float
08-1940	Socio-Economic Evaluation Appendix - Canals	20.0d	14-Jan-03	12-Feb-03	$6,840	$0	59.0d
08WIP (2).1.08.2.4.02	**Socio-Economic App - Reservoirs**	20.0d	13-Mar-03	9-Apr-03	$20,520	$0	19.0d
08-2220	Socio-Economic Evaluation Appendix - Reservoirs	20.0d	13-Mar-03	9-Apr-03	$20,520	$0	19.0d
08WIP (2).1.08.2.5	**Engineering & Design Appendix**	70.0d	7-Jan-03	16-Apr-03	$206,340	$0	14.0d
08WIP (2).1.08.2.5.01	**E&D Appendix - Canals**	25.0d	7-Jan-03	12-Feb-03	$94,620	$0	59.0d
08-1930	Eng & Design Appendix - Canals	25.0d	7-Jan-03	12-Feb-03	$94,620	$0	59.0d
08WIP (2).1.08.2.5.02	**E&D Appendix - Reservoirs**	25.0d	13-Mar-03	16-Apr-03	$111,720	$0	14.0d
08-2210	Eng & Design Appendix - Reservoir	25.0d	13-Mar-03	16-Apr-03	$111,720	$0	14.0d
08WIP (2).1.08.2.6	**Real Estate Appendix**	40.0d	30-Dec-02	27-Feb-03	$31,920	$0	49.0d
08WIP (2).1.08.2.6.01	**RE Appendix - Canals**	30.0d	14-Jan-03	27-Feb-03	$20,520	$0	49.0d
08-1950	Real Estate Evaluation Appendix - Canals	30.0d	14-Jan-03	27-Feb-03	$20,520	$0	49.0d
08WIP (2).1.08.2.6.02	**RE Appendix - Reservoirs**	30.0d	30-Dec-02	11-Feb-03	$11,400	$0	59.0d
08-2230	Real Estate Evaluation Appendix - Reservoirs	30.0d	30-Dec-02	11-Feb-03	$11,400	$0	59.0d
08WIP (2).1.08.2.7	**Permitting & Monitoring**	240.0d	24-Apr-02	9-Apr-03	$159,600	$0	34.0d
08WIP (2).1.08.2.7.02	**Evaluate Monitoring Feasibility Issues**	60.0d	30-May-02	22-Aug-02	$33,060	$0	34.0d
08-1540	Identify Potential Monitoring Sites	60.0d	30-May-02	22-Aug-02	$33,060	$0	34.0d
08WIP (2).1.08.2.7.01	**Define Monitoring Objectives**	25.0d	24-Apr-02	29-May-02	$35,340	$0	34.0d
08-1527	Evaluation of existing WQ monitoring - SFWMD	10.0d	24-Apr-02	7-May-02	$9,120	$0	34.0d
08-1526	Evaluation of existing WQ monitoring - USACE	10.0d	24-Apr-02	7-May-02	$4,560	$0	34.0d
08-1528	Define monitoring objectives - SFWMD	15.0d	8-May-02	29-May-02	$10,260	$0	34.0d
08-1530	Define monitoring objectives - USACE	15.0d	8-May-02	29-May-02	$11,400	$0	34.0d
08WIP (2).1.08.2.7.03	**Site & Parameter Selection**	45.0d	23-Aug-02	28-Oct-02	$34,200	$0	34.0d
08-1550	Site & Parameter Selection	45.0d	23-Aug-02	28-Oct-02	$34,200	$0	34.0d
08WIP (2).1.08.2.7.04	**Preliminary Monitoring Site Design**	30.0d	29-Oct-02	12-Dec-02	$27,360	$0	34.0d
08-1560	Monitoring Site Design	30.0d	29-Oct-02	12-Dec-02	$27,360	$0	34.0d
08WIP (2).1.08.2.7.05	**Monitoring Network Cost Estimate**	20.0d	13-Dec-02	13-Jan-03	$13,680	$0	34.0d
08-1570	Network Cost Estimate	20.0d	13-Dec-02	13-Jan-03	$13,680	$0	34.0d
08WIP (2).1.08.2.7.06	**Monitoring Network Design**	60.0d	14-Jan-03	9-Apr-03	$15,960	$0	34.0d
08-1572	RECOVER Monitoring Plan Review	15.0d	14-Jan-03	4-Feb-03	$2,280	$0	34.0d
08-1573	Monitoring Network Design - USACE	45.0d	5-Feb-03	9-Apr-03	$4,560	$0	34.0d
08-1574	Monitoring Network Design- SFWMD	45.0d	5-Feb-03	9-Apr-03	$9,120	$0	34.0d
08WIP (2).1.08.3	**Detail Documentation Report**	170.0d	28-Jan-04	27-Sep-04	$4,811,000	$4,811,000	2.0d

WBS Activity Listing 8-Nov-01

Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost	BL Expense Cost	Total Float
08-2320	DDR - Canals	120.0d	28-Jan-04	16-Jul-04*	$1,200,000	$1,200,000	52.0d
08-2330	DDR - Reservoirs	170.0d	28-Jan-04	27-Sep-04*	$3,611,000	$3,611,000	0.0d
08WIP (2).1.08.4	**Plans & Specs**	235.0d	19-Jul-04	24-Jun-05	$1,604,000	$1,604,000	0.0d
08-2370	Plans & Specs - Canals	75.0d	19-Jul-04	2-Nov-04*	$400,000	$400,000	160.0d
08-2380	Plans & Specs - Reservoirs	185.0d	28-Sep-04	24-Jun-05*	$1,204,000	$1,204,000	0.0d
08WIP (2).1.08.5	**Project Cooperation Agreement**	60.0d	18-Jun-04	13-Sep-04	$0	$0	752.0d
08-2390	PCA - Canals	60.0d	18-Jun-04	13-Sep-04	$0	$0	752.0d
08-2400	PCA - Reservoirs	60.0d	18-Jun-04	13-Sep-04	$0	$0	212.0d
08WIP (2).1.08.6	**Real Estate**	741.0d	31-Jul-02	18-Jul-05	$309,280	$250,000	792.0d
08-2462	Talisman Property - Advance Notice of Construction	43.0d	31-Jul-02	1-Oct-02*	$11,400	$0	0.0d
08-2450	Woerner Property - Notice of Intent to Terminate Lease	60.0d	2-Dec-02	28-Feb-03*	$11,400	$0	0.0d
08-2460	Woerner Property Available for Remediation	1.0d	27-Feb-04 A	27-Feb-04*	$4,560	$0	0.0d
08-2463	Talisman Property - Notice of Construction Impact	43.0d	1-Jul-04	1-Sep-04	$4,560	$0	0.0d
08-2350	Real Estate Acquisition - Canals	250.0d	19-Jul-04	18-Jul-05	$250,000	$250,000	792.0d
08-2360	Land Verification - Reservoirs	40.0d	2-Feb-05	31-Mar-05*	$18,240	$0	0.0d
08-2464	Talisman Property - Notice to Vacate	20.0d	4-Mar-05	1-Apr-05*	$9,120	$0	0.0d
08WIP (2).1.08.7	**Construction**	1217.0d	3-Nov-04	16-Sep-09	$217,373,000	$217,373,000	0.0d
08-2410	Construction - Canals	500.0d	3-Nov-04	2-Nov-06*	$70,373,000	$70,373,000	717.0d
08-2420	Constructon - Reservoirs	1040.0d	21-Jul-05	16-Sep-09*	$147,000,000	$147,000,000	0.0d

Program Controls DRAFT

Activity Definition Dictionary 13-Nov-01

Activity ID	WBS	PMP Section	Activity Name	Orig Dur	Early Start	Early Finish
08-1040	08WIP (2).1.08.1.1		Start PMP Project Management	1.0d	22-Jan-01	22-Jan-01
08-1060	08WIP (2).1.08.1.2		PMP Initiated	1.0d	22-Jan-01	22-Jan-01
08-1061	08WIP (2).1.08.1.2		Project Delivery Team	12.0d	23-Jan-01	7-Feb-01
08-1062	08WIP (2).1.08.1.2		Initial Scope of Project	21.0d	23-Jan-01	21-Feb-01
08-1066	08WIP (2).1.08.1.2		Post PMP on Web Public/Agency Review	1.0d	26-Oct-01	26-Oct-01
08-1070	08WIP (2).1.08.1.2		Public Stakeholders PMP Workshop	7.0d	16-Aug-01	27-Aug-01
08-1121	08WIP (2).1.08.1.2		PDT Kick-off Meeting	1.0d	13-Mar-01	13-Mar-01
08-1130	08WIP (2).1.08.1.2		Interagency Kick-off Meeting	1.0d	22-Feb-01	22-Feb-01
08-1150	08WIP (2).1.08.1.2		Draft PMP for Internal Review	120.0d	14-Mar-01	30-Aug-01
08-1151	08WIP (2).1.08.1.2		Completed Internal Review	38.0d	31-Aug-01	25-Oct-01
08-1152	08WIP (2).1.08.1.2		Completed Final Draft PMP	15.0d	26-Oct-01	16-Nov-01
08-1153	08WIP (2).1.08.1.2		Distribute PMP for DCT, CRG, PRB, SFWMD GB	1.0d	19-Nov-01	19-Nov-01
08-1154	08WIP (2).1.08.1.2		Present and Discuss PMP at DCT Meeting	1.0d	5-Dec-01	5-Dec-01
08-1155	08WIP (2).1.08.1.2		Present PMP at PRB Meeting	1.0d	14-Dec-01	14-Dec-01
08-1156	08WIP (2).1.08.1.2		Present PMP at CRG Meeting	1.0d	17-Dec-01	17-Dec-01
08-1160	08WIP (2).1.08.1.2		Partner/PRB Endorse PMP (DDE)	2.0d	20-Dec-01	21-Dec-01
08-1170	08WIP (2).1.08.1.2		SFWMD Approval PMP	2.0d	18-Dec-01	19-Dec-01
08-1171	08WIP (2).1.08.1.2		Work in Kind Letter from USACE District Engineer	4.0d	24-Dec-01	28-Dec-01
08-1178	08WIP (2).1.08.2...		RECOVER - Watershed Assess - PDT participation	100.0d	31-Dec-01	22-May-02
08-1180	08WIP (2).1.08.2.1		Scope of Work AE Contract - USACE	15.0d	27-Dec-01	17-Jan-02
08-1181	08WIP (2).1.08.2.1		Scope of Work AE Contract - SFWMD	15.0d	24-Dec-01	15-Jan-02
08-1190	08WIP (2).1.08.2.1		Government Estimates - SFWMD	10.0d	11-Jan-02	25-Jan-02
08-1192	08WIP (2).1.08.2.1		Government Estimates - USACE	10.0d	11-Jan-02	25-Jan-02
08-1200	08WIP (2).1.08.2.1		Procurement AE contract - SFWMD	20.0d	28-Jan-02	25-Feb-02
08-1208	08WIP (2).1.08.2...		Evaluate STA performance benefits (canal conveyance)	10.0d	19-Jul-02	1-Aug-02
08-1210	08WIP (2).1.08.2...		Evaluate flood control economic benefits	20.0d	16-Aug-02	13-Sep-02
08-1218	08WIP (2).1.08.2...		Preliminary Water Quality Assessment	40.0d	27-Feb-02	23-Apr-02
08-1220	08WIP (2).1.08.2...		Planning Tech Lead - SFWMD	100.0d	24-Dec-01	16-May-02
08-1230	08WIP (2).1.08.2...		Design Criteria and Scope of Work	7.0d	24-Dec-01	3-Jan-02
08-1240	08WIP (2).1.08.2...		Review Re-Study AH D13R Assumptions	10.0d	27-Feb-02	12-Mar-02
08-1260	08WIP (2).1.08.2...		Future Land Use Projections	25.0d	27-Feb-02	2-Apr-02
08-1270	08WIP (2).1.08.2...		Seepage evaluation	30.0d	27-Feb-02	9-Apr-02
08-1271	08WIP (2).1.08.2...		Draft Performance Measure - USACE	20.0d	27-Feb-02	26-Mar-02
08-1272	08WIP (2).1.08.2...		Draft Performance Measures - Contractor	20.0d	27-Feb-02	26-Mar-02
08-1273	08WIP (2).1.08.2...		Draft Performance Measures - SFWMD	20.0d	27-Feb-02	26-Mar-02
08-1274	08WIP (2).1.08.2...		PDT Performance Measures Review - SFWMD	10.0d	27-Mar-02	9-Apr-02
08-1275	08WIP (2).1.08.2...		PDT Performance Measures Review - USACE	10.0d	27-Mar-02	9-Apr-02
08-1276	08WIP (2).1.08.2...		Perf Measure/Scoping Public Workshop - Contractor	15.0d	10-Apr-02	30-Apr-02
08-1277	08WIP (2).1.08.2...		Perf Measure/Scoping Public Workshop - USACE	15.0d	10-Apr-02	30-Apr-02
08-1278	08WIP (2).1.08.2...		Perf Measure/Scoping Public Workshop - SFWMD		10-Apr-02	30-Apr-02
08-1279	08WIP (2).1.08.2...		Finalize Performance Measures	15.0d	1-May-02	21-May-02
08-1290	08WIP (2).1.08.2...		Hydrology-surface drainage (canals) & Hydrogeology (aqui...	40.0d	13-Mar-02	7-May-02
08-1300	08WIP (2).1.08.2...		Select models/analytical methods	10.0d	4-Jan-02	17-Jan-02
08-1320	08WIP (2).1.08.2...		Flow estimates	10.0d	5-Jul-02	18-Jul-02
08-1330	08WIP (2).1.08.2...		Storage requirements	10.0d	5-Jul-02	18-Jul-02
08-1450	08WIP (2).1.08.2...		Water budget (SFWMM)	40.0d	8-May-02	3-Jul-02
08-1460	08WIP (2).1.08.2...		Model scenario runs (SFWMM)	75.0d	19-Jul-02	4-Nov-02
08-1480	08WIP (2).1.08.2...		Draft Watershed Assessment Report	15.0d	5-Nov-02	26-Nov-02

Activity ID	WBS	PMP Section	Activity Name	Orig Dur	Early Start	Early Finish
08-1485	08WIP (2).1.08.2...		PDT review - Draft Assess Report - SFWMD	10.0d	27-Nov-02	12-Dec-02
08-1490	08WIP (2).1.08.2...		PDT review - Draft Assess Report - USACE	10.0d	27-Nov-02	12-Dec-02
08-1500	08WIP (2).1.08.2...		Independent Tech Review - Assessment Report	10.0d	27-Nov-02	12-Dec-02
08-1510	08WIP (2).1.08.2...		Final Assessment Report	20.0d	13-Dec-02	13-Jan-03
08-1516	08WIP (2).1.08.2.1		PMP Update - Assess Phase SFWMD	40.0d	14-Jan-03	12-Mar-03
08-1520	08WIP (2).1.08.2.1		PMP Update - Assess Phase Contract	40.0d	14-Jan-03	12-Mar-03
08-1526	08WIP (2).1.08.2...		Evaluation of existing WQ monitoring - USACE	10.0d	24-Apr-02	7-May-02
08-1527	08WIP (2).1.08.2...		Evaluation of existing WQ monitoring - SFWMD	10.0d	24-Apr-02	7-May-02
08-1528	08WIP (2).1.08.2...		Define monitoring objectives - SFWMD	15.0d	8-May-02	29-May-02
08-1530	08WIP (2).1.08.2...		Define monitoring objectives - USACE	15.0d	8-May-02	29-May-02
08-1540	08WIP (2).1.08.2...		Identify Potential Monitoring Sites	60.0d	30-May-02	22-Aug-02
08-1550	08WIP (2).1.08.2...		Site & Parameter Selection	45.0d	23-Aug-02	28-Oct-02
08-1560	08WIP (2).1.08.2...		Monitoring Site Design	30.0d	29-Oct-02	12-Dec-02
08-1570	08WIP (2).1.08.2...		Network Cost Estimate	20.0d	13-Dec-02	13-Jan-03
08-1572	08WIP (2).1.08.2...		RECOVER Monitoring Plan Review	15.0d	14-Jan-03	4-Feb-03
08-1573	08WIP (2).1.08.2...		Monitoring Network Design - USACE	45.0d	5-Feb-03	9-Apr-03
08-1574	08WIP (2).1.08.2...		Monitoring Network Design- SFWMD	45.0d	5-Feb-03	9-Apr-03
08-1700	08WIP (2).1.08.2...		Existing/future level of flood protection (canal conveyance)	20.0d	19-Jul-02	15-Aug-02
08-1761	08WIP (2).1.08.2...		Topo Data Collection - Canals	180.0d	27-Feb-02	13-Nov-02
08-1762	08WIP (2).1.08.2...		Geotech Data Collection - Canals	180.0d	27-Feb-02	12-Nov-02
08-1763	08WIP (2).1.08.2...		Initial Alternative Plans - Canals - USACE	25.0d	27-Mar-02	30-Apr-02
08-1767	08WIP (2).1.08.2...		Inital Alternative Plans - Canals - SFWMD	25.0d	27-Mar-02	30-Apr-02
08-1770	08WIP (2).1.08.2...		Initial Alternative Plans - Canals - Contractor	25.0d	27-Mar-02	30-Apr-02
08-1771	08WIP (2).1.08.2...		Real Estate Data Collection - Canals	45.0d	27-Feb-02	30-Apr-02
08-1777	08WIP (2).1.08.2...		Public Workshop - Alt Plan Form - SFWMD	10.0d	20-Jun-02	3-Jul-02
08-1780	08WIP (2).1.08.2...		Final Alternative Plans - Canals	20.0d	5-Jul-02	1-Aug-02
08-1790	08WIP (2).1.08.2...		Alternative Plans Description - Canals	15.0d	2-Aug-02	22-Aug-02
08-1795	08WIP (2).1.08.2...		PDT Review Alt Plans - SFWMD	10.0d	30-Aug-02	13-Sep-02
08-1800	08WIP (2).1.08.2...		PDT Review Alt Plans - USACE	10.0d	30-Aug-02	13-Sep-02
08-1810	08WIP (2).1.08.2...		Final Alternative Plan Document - Canals	20.0d	16-Sep-02	11-Oct-02
08-1820	08WIP (2).1.08.2...		Alt Plans Conceptual Design - Canals	20.0d	13-Nov-02	13-Dec-02
08-1830	08WIP (2).1.08.2...		Alt Plans Cost Estimates - Canals	15.0d	13-Dec-02	7-Jan-03
08-1840	08WIP (2).1.08.2...		H&H Evaluation of Alternative Plans - Canals	30.0d	13-Nov-02	30-Dec-02
08-1850	08WIP (2).1.08.2...		Socio-Economic Evaluation Alt Plans - Canals	10.0d	30-Dec-02	14-Jan-03
08-1860	08WIP (2).1.08.2...		Real Estate Cost Est Alt Plans - Canals	10.0d	30-Dec-02	14-Jan-03
08-1870	08WIP (2).1.08.2...		Environmental Evaluation Alt Plans - Canals	14.0d	30-Dec-02	21-Jan-03
08-1880	08WIP (2).1.08.2...		Draft Alt Plan Evaluation Document - Canals - Contractor	20.0d	20-Feb-03	20-Mar-03
08-1910	08WIP (2).1.08.2...		Final Alt Plan Evaluation Report - Canals	16.0d	30-May-03	20-Jun-03
08-1920	08WIP (2).1.08.2...		Environmental Evaluation Appendix - Canals	20.0d	21-Jan-03	19-Feb-03
08-1930	08WIP (2).1.08.2...		Eng & Design Appendix - Canals	25.0d	7-Jan-03	12-Feb-03
08-1940	08WIP (2).1.08.2...		Socio-Economic Evaluation Appendix - Canals	20.0d	14-Jan-03	12-Feb-03
08-1950	08WIP (2).1.08.2...		Real Estate Evaluation Appendix - Canals	30.0d	14-Jan-03	27-Feb-03
08-1955	08WIP (2).1.08.2...		Fish & Wildlife participation in PIR/EIS process - Canals	250.0d	24-Dec-01	23-Dec-02
08-1956	08WIP (2).1.08.2...		Informal Endangered Species Consultation - Canals	65.0d	24-Dec-01	28-Mar-02
08-1957	08WIP (2).1.08.2...		Fish & Wildlife Draft Coord Act Report - Canals	90.0d	24-Dec-01	2-May-02
08-1958	08WIP (2).1.08.2...		Draft Water Control Plan - Canals	35.0d	30-Dec-02	20-Feb-03
08-1960	08WIP (2).1.08.2...		Draft PIR/EIS - Canals - Contractor	15.0d	23-Jun-03	14-Jul-03
08-1961	08WIP (2).1.08.2...		RECOVER Review Draft PIR/EIS - Canals	10.0d	15-Jul-03	28-Jul-03

Activity ID	WBS	PMP Section	Activity Name	Orig Dur	Early Start	Early Finish
08-1963	08WIP (2).1.08.2...		PDT Review Draft PIR/EIS - Canals - USACE	10.0d	15-Jul-03	28-Jul-03
08-1966	08WIP (2).1.08.2...		PDT Review Draft PIR/EIS - Canals - SFWMD	10.0d	15-Jul-03	28-Jul-03
08-1975	08WIP (2).1.08.2...		PDT Comparison Alt Plans - Canals - SFWMD	10.0d	15-Jul-03	28-Jul-03
08-1980	08WIP (2).1.08.2...		PDT Comparison Alt Plans - Canals - USACE	10.0d	15-Jul-03	28-Jul-03
08-2035	08WIP (2).1.08.2...		Congressional Committee Approval PIR	100.0d	28-Jan-04	17-Jun-04
08-2036	08WIP (2).1.08.2...		RECOVER - PDT participation	500.0d	22-Jan-01	21-Jan-03
08-2037	08WIP (2).1.08.2...		Initial Alternative Plans - Reservoirs - USACE	35.0d	27-Mar-02	14-May-02
08-2038	08WIP (2).1.08.2...		Initial Alternative Plans - Reservoir - SFWMD	35.0d	27-Mar-02	14-May-02
08-2039	08WIP (2).1.08.2...		Plan Formulation - Economics Input	30.0d	8-May-02	19-Jun-02
08-2040	08WIP (2).1.08.2...		Initial Alternative Plans - Reservoirs - Contractor	35.0d	27-Mar-02	14-May-02
08-2041	08WIP (2).1.08.2...		Topo Data collection - Reservoirs	180.0d	27-Feb-02	12-Nov-02
08-2042	08WIP (2).1.08.2...		Geotech Data collection - Reservoirs	180.0d	27-Feb-02	12-Nov-02
08-2043	08WIP (2).1.08.2...		Public Workshop - Alt Plans Form - USACE	10.0d	20-Jun-02	3-Jul-02
08-2050	08WIP (2).1.08.2...		Public Workshop - Alt Plans Form - Contractor	10.0d	20-Jun-02	3-Jul-02
08-2051	08WIP (2).1.08.2...		Real Estate Data Collection - Reservoirs	30.0d	27-Feb-02	9-Apr-02
08-2052	08WIP (2).1.08.2.1		PIR Proj Mgt - USACE	522.0d	24-Dec-01	27-Jan-04
08-2054	08WIP (2).1.08.2.1		PIR Proj Mgt - SFWMD	522.0d	24-Dec-01	27-Jan-04
08-2055	08WIP (2).1.08.2...		Plan Technical Lead - Reservoirs - USACE	500.0d	22-Jan-01	21-Jan-03
08-2060	08WIP (2).1.08.2...		Final Alternative Plans - Reservoirs	20.0d	5-Jul-02	1-Aug-02
08-2070	08WIP (2).1.08.2...		Alternative Plans Description - Reservoirs	30.0d	19-Jul-02	29-Aug-02
08-2090	08WIP (2).1.08.2...		Final Alternative Plan Document - Reservoirs	30.0d	16-Sep-02	28-Oct-02
08-2100	08WIP (2).1.08.2...		Alt Plans Conceptual Design - Reservoirs	60.0d	29-Oct-02	28-Jan-03
08-2110	08WIP (2).1.08.2...		Alt Plans Cost Estimates - Reservoirs	30.0d	29-Jan-03	12-Mar-03
08-2120	08WIP (2).1.08.2...		H&H Evaluation of Alternative Plans - Reservoirs	60.0d	16-Sep-02	12-Dec-02
08-2130	08WIP (2).1.08.2...		Socio-Economic Evaluation Alt Plans - Reservoirs	60.0d	13-Dec-02	12-Mar-03
08-2140	08WIP (2).1.08.2...		Real Estate Cost Est Alt Plans - Reservoirs	10.0d	13-Dec-02	27-Dec-02
08-2150	08WIP (2).1.08.2...		Environmental Evaluation Alt Plans - Reservoirs	60.0d	13-Dec-02	12-Mar-03
08-2160	08WIP (2).1.08.2...		Draft Alt Plan Evaluation Document - Reservoirs - Contractor	20.0d	13-Mar-03	9-Apr-03
08-2165	08WIP (2).1.08.2...		PDT Cmts - Draft Alt Plan Evaluation - SFWMD	10.3d	17-Apr-03	1-May-03
08-2170	08WIP (2).1.08.2...		PDT Cmts - Draft Alt Plan Evaluation - USACE	15.0d	17-Apr-03	7-May-03
08-2180	08WIP (2).1.08.2...		Independent Tech Review Alt Plan Evaluation	15.0d	8-May-03	29-May-03
08-2190	08WIP (2).1.08.2...		Final Alt Plan Evaluation Report - Reservoirs	20.0d	30-May-03	26-Jun-03
08-2200	08WIP (2).1.08.2...		Environmental Evaluation Appendix - Reservoirs	20.0d	13-Mar-03	9-Apr-03
08-2210	08WIP (2).1.08.2...		Eng & Design Appendix - Reservoir	25.0d	13-Mar-03	16-Apr-03
08-2220	08WIP (2).1.08.2...		Socio-Economic Evaluation Appendix - Reservoirs	20.0d	13-Mar-03	9-Apr-03
08-2230	08WIP (2).1.08.2...		Real Estate Evaluation Appendix - Reservoirs	30.0d	30-Dec-02	11-Feb-03
08-2233	08WIP (2).1.08.2...		Informal Endangered Species Consultation - Reservoirs	100.0d	29-Oct-02	26-Mar-03
08-2234	08WIP (2).1.08.2...		Fish & Wildlife Draft Coord Act Report - Reservoirs	120.0d	29-Oct-02	23-Apr-03
08-2235	08WIP (2).1.08.2...		Fish & Wildlife participation in PIR/EIS process - Reservoirs	450.0d	24-Jan-02	6-Nov-03
08-2237	08WIP (2).1.08.2...		Draft Water Control Plan - Reservoirs	45.0d	13-Dec-02	19-Feb-03
08-2240	08WIP (2).1.08.2...		Draft PIR/EIS - Reservoirs - Contractor	25.0d	27-Jun-03	1-Aug-03
08-2241	08WIP (2).1.08.2...		RECOVER Review Draft PIR/EIS - Reservoirs	20.0d	4-Aug-03	29-Aug-03
08-2243	08WIP (2).1.08.2...		PDT Review Draft PIR/EIS - Reservoirs USACE	30.0d	4-Aug-03	15-Sep-03
08-2246	08WIP (2).1.08.2...		PDT Review Draft PIR/EIS - Reservoirs SFWMD	30.0d	4-Aug-03	15-Sep-03
08-2248	08WIP (2).1.08.2...		Final Deliverable Draft PIR/EIS	40.0d	5-Aug-03	30-Sep-03
08-2250	08WIP (2).1.08.2...		Public Review Draft PIR/EIS	30.0d	1-Oct-03	13-Nov-03
08-2253	08WIP (2).1.08.2...		Public Wkshp - Draft PIR/EIS - USACE	22.0d	1-Oct-03	31-Oct-03
08-2254	08WIP (2).1.08.2...		Public Wkshp - Draft PIR/EIS - Contractor	22.0d	1-Oct-03	31-Oct-03

Activity ID	WBS	PMP Section	Activity Name	Orig Dur	Early Start	Early Finish
08-2256	08WIP (2).1.08.2...		Public Wkshp - Draft PIR/EIS - SFWMD	22.0d	1-Oct-03	31-Oct-03
08-2273	08WIP (2).1.08.2...		Final Draft PIR/EIS - USACE	44.0d	14-Nov-03	21-Jan-04
08-2274	08WIP (2).1.08.2...		Final Draft PIR/EIS - Contractor	44.0d	14-Nov-03	21-Jan-04
08-2276	08WIP (2).1.08.2...		Final Draft PIR/EIS - SFWMD	44.0d	14-Nov-03	21-Jan-04
08-2277	08WIP (2).1.08.1.3		PIR PMP update - USACE	40.0d	22-Jan-04	18-Mar-04
08-2278	08WIP (2).1.08.1.3		PIR PMP update - SFWMD	40.0d	22-Jan-04	18-Mar-04
08-2303	08WIP (2).1.08.2...		Final PIR/EIS Div. Eng. Notice - SFWMD	12.0d	9-Jan-04	27-Jan-04
08-2310	08WIP (2).1.08.2...		Final PIR/EIS Div. Eng. Notice - USACE	12.0d	9-Jan-04	27-Jan-04
08-2320	08WIP (2).1.08.3		DDR - Canals	120.0d	28-Jan-04	16-Jul-04
08-2330	08WIP (2).1.08.3		DDR - Reservoirs	170.0d	28-Jan-04	27-Sep-04
08-2350	08WIP (2).1.08.6		Real Estate Acquisition - Canals	250.0d	19-Jul-04	18-Jul-05
08-2360	08WIP (2).1.08.6		Land Verification - Reservoirs		2-Feb-05	31-Mar-05
08-2370	08WIP (2).1.08.4		Plans & Specs - Canals	75.0d	19-Jul-04	2-Nov-04
08-2380	08WIP (2).1.08.4		Plans & Specs - Reservoirs	185.0d	28-Sep-04	24-Jun-05
08-2390	08WIP (2).1.08.5		PCA - Canals	60.0d	18-Jun-04	13-Sep-04
08-2400	08WIP (2).1.08.5		PCA - Reservoirs	60.0d	18-Jun-04	13-Sep-04
08-2410	08WIP (2).1.08.7		Construction - Canals	500.0d	3-Nov-04	2-Nov-06
08-2420	08WIP (2).1.08.7		Constructon - Reservoirs	040.0c	21-Jul-05	16-Sep-09
08-2450	08WIP (2).1.08.6		Woerner Property - Notice of Intent to Terminate Lease	60.0d	2-Dec-02	28-Feb-03
08-2460	08WIP (2).1.08.6		Woerner Property Available for Remediation	1.0d	27-Feb-04	27-Feb-04
08-2462	08WIP (2).1.08.6		Talisman Property - Advance Notice of Construction	43.0d	31-Jul-02	1-Oct-02
08-2463	08WIP (2).1.08.6		Talisman Property - Notice of Construction Impact	43.0d	1-Jul-04	1-Sep-04
08-2464	08WIP (2).1.08.6		Talisman Property - Notice to Vacate	20.0d	4-Mar-05	1-Apr-05
08-2470	08WIP (2).1.08.2...		Planning Technical Lead - USACE	100.0d	24-Dec-01	16-May-02
08-2480	08WIP (2).1.08.2...		GIS Database (topo, drainage, STA's, & Talisman)	15.0d	27-Feb-02	19-Mar-02
08-2550	08WIP (2).1.08.2...		Cultural Resources Phase 1 Investigation - Canals	60.0d	20-Feb-03	15-May-03
08-2560	08WIP (2).1.08.2...		Cultural Resources Phase 1 Investigation - Reservoirs	90.0d	20-Feb-03	26-Jun-03
08-2570	08WIP (2).1.08.2...		Hazardous Toxic Radioactive Waste Assessment/Evaluati...	60.0d	27-Feb-02	21-May-02
08-2580	08WIP (2).1.08.2...		Hazardous Toxic Radioactive Waste Assessment/Evaluati...	120.0d	27-Feb-02	15-Aug-02
08-2590	08WIP (2).1.08.2...		Feasibility Scoping Meeting - USACE	10.0d	15-May-02	29-May-02
08-2600	08WIP (2).1.08.2...		Feasibility Scoping Meeting - SFWMD	10.0d	15-May-02	29-May-02
08-2620	08WIP (2).1.08.2.1		PMP Update - Assess Phase USACE	40.0d	14-Jan-03	12-Mar-03
08-2630	08WIP (2).1.08.2...		Value Engineering - Canals	15.0d	15-Jul-03	4-Aug-03
08-2640	08WIP (2).1.08.2...		Value Engineering - Reservoirs	30.0d	27-Jun-03	8-Aug-03
08-2650	08WIP (2).1.08.2...		Alternative Formulation Briefing - USACE	10.0d	14-Jul-03	25-Jul-03
08-2660	08WIP (2).1.08.2...		Alternative Formulation Briefing - SFWMD	10.0d	14-Jul-03	25-Jul-03
08-2690	08WIP (2).1.08.2...		Fish & Wildlife participation in PIR/EIS process - Canals	30.0d	23-Jun-03	4-Aug-03
08-2700	08WIP (2).1.08.2...		Fish & Wildlife participation in PIR/EIS process - Reservoir	60.0d	27-Jun-03	22-Sep-03
08-2710	08WIP (2).1.08.2...		PDT Comparison Alt Plans -Reservoirs - SFWMD	10.0d	4-Aug-03	15-Aug-03
08-2720	08WIP (2).1.08.2...		PDT Comparison Alt Plans - Reservoirs - USACE	10.0d	4-Aug-03	15-Aug-03
08-2730	08WIP (2).1.08.2...		Fish & Wildlife Final Coord Act Report - Canals	10.0d	3-May-02	16-May-02
08-2740	08WIP (2).1.08.2...		Fish & Wildlife Final Coord Act Report - Reservoirs	30.0d	24-Apr-03	5-Jun-03
08-2750	08WIP (2).1.08.2...		Pre-Application Meeting	10.0d	2-Apr-02	15-Apr-02
08-2760	08WIP (2).1.08.2...		Pre-Application Concurrence Letter	4.0d	17-Apr-02	22-Apr-02
08-2770	08WIP (2).1.08.2...		Pre-Application Letter	4.0d	1-May-02	6-May-02
08-2780	08WIP (2).1.08.2...		Sec. 373.1501(5) Submital to FDEP	10.0d	20-Oct-03	31-Oct-03
08-2790	08WIP (2).1.08.2...		Sec. 373.026(8)(b) Approval by FDEP	10.0d	3-Nov-03	17-Nov-03
08-2800	08WIP (2).1.08.2...		WQC Permits issued by FDEP	10.0d	3-Nov-03	17-Nov-03

Activity ID	WBS	PMP Section	Activity Name	Orig Dur	Early Start	Early Finish
08-2810	08WIP (2).1.08.2...		Preliminary Endorsement/Letter of Intent by SFWMD	5.0d	25-Nov-03	3-Dec-03
08-2820	08WIP (2).1.08.2...		Reasonable Assurances Stauts Meeting	5.0d	9-Sep-03	15-Sep-03
08-2830	08WIP (2).1.08.2...		Summary of FWCA Report Issues and Recomendations	10.0d	13-Jun-03	26-Jun-03
08-2840	08WIP (2).1.08.2...		In-Progress Review	5.0d	24-Sep-03	30-Sep-03
08-2850	08WIP (2).1.08.2...		Existing/Base Conditions	25.0d	26-Feb-02	1-Apr-02
08-2860	08WIP (2).1.08.2...		Future Without Project	25.0d	3-Apr-02	7-May-02

APPENDIX D: PROJECT SCHEDULE

TAB A – Responsibility Assignment Report

See Appendix E, Tab C.

Logic Network 8-Nov-01

Activity ID	Activity Name	Original Duration	Start	Finish	Predecessors
08-1040	Start PMP Project Management	1.0d	22-Jan-01*	22-Jan-01	
08-1060	PMP Initiated	1.0d	23-Jan-01	23-Jan-01	08-1040
08-1061	Project Delivery Team	12.0d	24-Jan-01	8-Feb-01	08-1060
08-1062	Initial Scope of Project	21.0d	24-Jan-01	22-Feb-01	08-1060
08-1066	Post PMP on Web Public/Agency Review	1.0d	9-Nov-01	9-Nov-01	08-1151
08-1070	Public Stakeholders PMP Workshop	7.0d	16-Aug-01	27-Aug-01*	08-1121
08-1121	PDT Kick-off Meeting	1.0d	13-Mar-01*	13-Mar-01	08-1062
08-1130	Interagency Kick-off Meeting	1.0d	23-Feb-01	23-Feb-01	08-1062, 08-1061
08-1150	Draft PMP for Internal Review	120.0d	14-Mar-01	30-Aug-01	08-1130, 08-1121
08-1151	Complete Internal Review Draft PMP	48.0d	31-Aug-01	8-Nov-01	08-1150
08-1152	Complete Final Draft PMP	8.0d	9-Nov-01	21-Nov-01	08-1151
08-1153	Distribute PMP for DCT, CRG, PRB, SFWMD GB	1.0d	26-Nov-01	26-Nov-01	08-1152, 08-1066
08-1154	Present and Discuss PMP at DCT Meeting	1.0d	5-Dec-01	5-Dec-01*	08-1153
08-1155	Present PMP at PRB Meeting	1.0d	14-Dec-01	14-Dec-01*	08-1154
08-1156	Present PMP at CRG Meeting	1.0d	17-Dec-01	17-Dec-01*	08-1155
08-1160	Partner/PRB Endorse PMP (DDE)	2.0d	20-Dec-01	21-Dec-01	08-1170
08-1170	SFWMD Approval PMP	2.0d	18-Dec-01	19-Dec-01	08-1156
08-1171	Work in Kind Letter from USACE District Engineer	4.0d	24-Dec-01	28-Dec-01	08-1160
08-1178	RECOVER - Watershed Assess - PDT participation	100.0d	31-Dec-01	22-May-02	08-1160, 08-1170, 08-1171
08-1180	Scope of Work AE Contract - USACE	15.0d	27-Dec-01	17-Jan-02	08-1160, 08-1170, 08-1171
08-1181	Scope of Work AE Contract - SFWMD	15.0d	24-Dec-01	15-Jan-02	08-1160, 08-1170
08-1190	Government Estimates - SFWMD	10.0d	11-Jan-02	25-Jan-02	08-1181, 08-1180
08-1192	Government Estimates - USACE	10.0d	11-Jan-02	25-Jan-02	08-1181, 08-1180
08-1200	Procurement AE contract - SFWMD	20.0d	28-Jan-02	25-Feb-02	08-1190, 08-1192
08-1208	Evaluate STA performance benefits (canal convey...	10.0d	19-Jul-02	1-Aug-02	08-1320
08-1210	Evaluate flood control economic benefits	20.0d	16-Aug-02	13-Sep-02	08-1700
08-1218	Preliminary Water Quality Assessment	40.0d	27-Feb-02	23-Apr-02	08-1200, 08-1230
08-1220	Planning Tech Lead - SFWMD	100.0d	24-Dec-01	16-May-02	08-1160, 08-1170
08-1230	Design Criteria and Scope of Work	7.0d	24-Dec-01	3-Jan-02	08-1160, 08-1170

TASK filter: All Activities

Logic Network 8-Nov-01

Activity ID	Activity Name	Original Duration	Start	Finish	Predecessors
08-1240	Review Re-Study AH D13R Assumptions	10.0d	27-Feb-02	12-Mar-02	08-1200, 08-1230
08-1260	Future Land Use Projections	25.0d	27-Feb-02	2-Apr-02	08-1200
08-1270	Seepage evaluation	30.0d	27-Feb-02	9-Apr-02	08-1200, 08-1230
08-1271	Draft Performance Measure - USACE	20.0d	27-Feb-02	26-Mar-02	08-1200
08-1272	Draft Performance Measures - Contractor	20.0d	27-Feb-02	26-Mar-02	08-1200
08-1273	Draft Performance Measures - SFWMD	20.0d	27-Feb-02	26-Mar-02	08-1200
08-1274	PDT Performance Measures Review - SFWMD	10.0d	27-Mar-02	9-Apr-02	08-1271, 08-1272, 08-1273
08-1275	PDT Performance Measures Review - USACE	10.0d	27-Mar-02	9-Apr-02	08-1271, 08-1272, 08-1273
08-1276	Perf Measure/Scoping Public Workshop - Contractor	15.0d	10-Apr-02	30-Apr-02	08-1274, 08-1275
08-1277	Perf Measure/Scoping Public Workshop - USACE	15.0d	10-Apr-02	30-Apr-02	08-1274, 08-1275
08-1278	Perf Measure/Scoping Public Workshop - SFWMD	15.0d	10-Apr-02	30-Apr-02	08-1274, 08-1275
08-1279	Finalize Performance Measures	15.0d	1-May-02	21-May-02	08-1276, 08-1277, 08-1278
08-1290	Hydrology-surface drainage (canals) & Hydrogeol...	40.0d	13-Mar-02	7-May-02	08-1230, 08-1240, 08-1300
08-1300	Select models/analytical methods	10.0d	4-Jan-02	17-Jan-02	08-1230
08-1320	Flow estimates	10.0d	5-Jul-02	18-Jul-02	08-1450, 08-1300
08-1330	Storage requirements	10.0d	5-Jul-02	18-Jul-02	08-1450, 08-1300
08-1450	Water budget (SFWMM)	40.0d	8-May-02	3-Jul-02	08-1240, 08-2480, 08-1270, 08-1290, 08-1300
08-1460	Model scenario runs (SFWMM)	75.0d	19-Jul-02	4-Nov-02	08-1450, 08-1320, 08-1330
08-1480	Draft Watershed Assessment Report	15.0d	5-Nov-02	26-Nov-02	08-1460, 08-1700, 08-1208, 08-1210, 08-1218
08-1485	PDT review - Draft Assess Report - SFWMD	10.0d	27-Nov-02	12-Dec-02	08-1480
08-1490	PDT review - Draft Assess Report - USACE	10.0d	27-Nov-02	12-Dec-02	08-1480, 08-2470
08-1500	Independent Tech Review - Assessment Report	10.0d	27-Nov-02	12-Dec-02	08-1480
08-1510	Final Assessment Report	20.0d	13-Dec-02	13-Jan-03	08-1178, 08-1500, 08-1485, 08-1490
08-1516	PMP Update - Assess Phase SFWMD	40.0d	14-Jan-03	12-Mar-03	08-1510
08-1520	PMP Update - Assess Phase Contract	40.0d	14-Jan-03	12-Mar-03	08-1510
08-1526	Evaluation of existing WQ monitoring - USACE	10.0d	24-Apr-02	7-May-02	08-1218
08-1527	Evaluation of existing WQ monitoring - SFWMD	10.0d	24-Apr-02	7-May-02	08-1218
08-1528	Define monitoring objectives - SFWMD	15.0d	8-May-02	29-May-02	08-1526, 08-1527
08-1530	Define monitoring objectives - USACE	15.0d	8-May-02	29-May-02	08-1526, 08-1527
08-1540	Identify Potential Monitoring Sites	60.0d	30-May-02	22-Aug-02	08-1528, 08-1530
08-1550	Site & Parameter Selection	45.0d	23-Aug-02	28-Oct-02	08-1540
08-1560	Monitoring Site Design	30.0d	29-Oct-02	12-Dec-02	08-1550
08-1570	Network Cost Estimate	20.0d	13-Dec-02	13-Jan-03	08-1560
08-1572	RECOVER Monitoring Plan Review	15.0d	14-Jan-03	4-Feb-03	08-1570

Logic Network 8-Nov-01

Activity ID	Activity Name	Original Duration	Start	Finish	Predecessors
08-1573	Monitoring Network Design - USACE	45.0d	5-Feb-03	9-Apr-03	08-1572
08-1574	Monitoring Network Design- SFWMD	45.0d	5-Feb-03	9-Apr-03	08-1572
08-1700	Existing/future level of flood protection (canal con...	20.0d	19-Jul-02	15-Aug-02	08-1320
08-1761	Topo Data Collection - Canals	180.0d	27-Feb-02	13-Nov-02	08-1160, 08-1170, 08-1192
08-1762	Geotech Data Collection - Canals	180.0d	27-Feb-02	12-Nov-02	08-1160, 08-1170, 08-1192
08-1763	Initial Alternative Plans - Canals - USACE	25.0d	27-Mar-02	30-Apr-02	08-1271, 08-1272, 08-1273
08-1767	Inital Alternative Plans - Canals - SFWMD	25.0d	27-Mar-02	30-Apr-02	08-1271, 08-1272, 08-1273
08-1770	Initial Alternative Plans - Canals - Contractor	25.0d	27-Mar-02	30-Apr-02	08-1271, 08-1272, 08-1273
08-1771	Real Estate Data Collection - Canals	45.0d	27-Feb-02	30-Apr-02	08-1200
08-1777	Public Workshop - Alt Plan Form - SFWMD	10.0d	20-Jun-02	3-Jul-02	08-1279, 08-1763, 08-1767, 08-1770, 08-2037, 08-2038, 08-2039, 08-2040
08-1780	Final Alternative Plans - Canals	20.0d	5-Jul-02	1-Aug-02	08-1771, 08-1777, 08-2043, 08-2050
08-1790	Alternative Plans Description - Canals	15.0d	2-Aug-02	22-Aug-02	08-1780
08-1795	PDT Review Alt Plans - SFWMD	10.0d	30-Aug-02	13-Sep-02	08-1790, 08-2070
08-1800	PDT Review Alt Plans - USACE	10.0d	30-Aug-02	13-Sep-02	08-1790, 08-2070
08-1810	Final Alternative Plan Document - Canals	20.0d	16-Sep-02	11-Oct-02	08-1795, 08-1800, 08-2600, 08-2590
08-1820	Alt Plans Conceptual Design - Canals	20.0d	13-Nov-02	13-Dec-02	08-1761, 08-1762, 08-1810, 08-2570
08-1830	Alt Plans Cost Estimates - Canals	15.0d	13-Dec-02	7-Jan-03	08-1820
08-1840	H&H Evaluation of Alternative Plans - Canals	30.0d	13-Nov-02	30-Dec-02	08-1761, 08-1810
08-1850	Socio-Economic Evaluation Alt Plans - Canals	10.0d	30-Dec-02	14-Jan-03	08-1840
08-1860	Real Estate Cost Est Alt Plans - Canals	10.0d	30-Dec-02	14-Jan-03	08-1840
08-1870	Environmental Evaluation Alt Plans - Canals	14.0d	30-Dec-02	21-Jan-03	08-1840
08-1880	Draft Alt Plan Evaluation Document - Canals - Co...	20.0d	20-Feb-03	20-Mar-03	08-1830, 08-1850, 08-1860, 08-1870, 08-1510, 08-1958
08-1910	Final Alt Plan Evaluation Report - Canals	16.0d	30-May-03	20-Jun-03	08-2180
08-1920	Environmental Evaluation Appendix - Canals	20.0d	21-Jan-03	19-Feb-03	08-1870
08-1930	Eng & Design Appendix - Canals	25.0d	7-Jan-03	12-Feb-03	08-1830, 08-1840
08-1940	Socio-Economic Evaluation Appendix - Canals	20.0d	14-Jan-03	12-Feb-03	08-1850
08-1950	Real Estate Evaluation Appendix - Canals	30.0d	14-Jan-03	27-Feb-03	08-1860
08-1955	Fish & Wildlife participation in PIR/EIS process - ...	250.0d	24-Dec-01	23-Dec-02	08-1160, 08-1170
08-1956	Informal Endangered Species Consultation - Canals	65.0d	24-Dec-01	28-Mar-02	08-1160, 08-1170
08-1957	Fish & Wildlife Draft Coord Act Report - Canals	90.0d	24-Dec-01	2-May-02	08-1160, 08-1170
08-1958	Draft Water Control Plan - Canals	35.0d	30-Dec-02	20-Feb-03	08-1840
08-1960	Draft PIR/EIS - Canals - Contractor	15.0d	23-Jun-03	14-Jul-03	08-1910, 08-1956, 08-1957, 08-1958, 08-2730
08-1961	RECOVER Review Draft PIR/EIS - Canals	10.0d	15-Jul-03	28-Jul-03	08-1960
08-1963	PDT Review Draft PIR/EIS - Canals - USACE	10.0d	15-Jul-03	28-Jul-03	08-1960

Logic Network 8-Nov-01

Activity ID	Activity Name	Original Duration	Start	Finish	Predecessors
08-1966	PDT Review Draft PIR/EIS - Canals - SFWMD	10.0d	15-Jul-03	28-Jul-03	08-1960
08-1975	PDT Comparison Alt Plans - Canals - SFWMD	10.0d	15-Jul-03	28-Jul-03	08-1960, 08-1910
08-1980	PDT Comparison Alt Plans - Canals - USACE	10.0d	15-Jul-03	28-Jul-03	08-1960, 08-1910
08-2035	Congressional Committee Approval PIR	100.0d	28-Jan-04	17-Jun-04	08-2303, 08-2310
08-2036	RECOVER - PDT participation	500.0d	22-Jan-01	21-Jan-03	
08-2037	Initial Alternative Plans - Reservoirs - USACE	35.0d	27-Mar-02	14-May-02	08-1271, 08-1272, 08-1273
08-2038	Initial Alternative Plans - Reservoir - SFWMD	35.0d	27-Mar-02	14-May-02	08-1271, 08-1272, 08-1273
08-2039	Plan Formulation - Economics Input	30.0d	8-May-02	19-Jun-02	08-1260, 08-2860, 08-2850
08-2040	Initial Alternative Plans - Reservoirs - Contractor	35.0d	27-Mar-02	14-May-02	08-1271, 08-1272, 08-1273
08-2041	Topo Data collection - Reservoirs	180.0d	27-Feb-02	12-Nov-02	08-1160, 08-1170, 08-1192
08-2042	Geotech Data collection - Reservoirs	180.0d	27-Feb-02	12-Nov-02	08-1160, 08-1170, 08-1192
08-2043	Public Workshop - Alt Plans Form - USACE	10.0d	20-Jun-02	3-Jul-02	08-2037, 08-2039, 08-2040, 08-1763, 08-1767, 08-1770, 08-2038, 08-1279
08-2050	Public Workshop - Alt Plans Form - Contractor	10.0d	20-Jun-02	3-Jul-02	08-2037, 08-2039, 08-2040, 08-1763, 08-1767, 08-1770, 08-2038, 08-1279
08-2051	Real Estate Data Collection - Reservoirs	30.0d	27-Feb-02	9-Apr-02	08-1200
08-2052	PIR Proj Mgt - USACE	522.0d	24-Dec-01	27-Jan-04	08-1160, 08-1170
08-2054	PIR Proj Mgt - SFWMD	522.0d	24-Dec-01	27-Jan-04	08-1160, 08-1170
08-2055	Plan Technical Lead - Reservoirs - USACE	500.0d	22-Jan-01	21-Jan-03	
08-2060	Final Alternative Plans - Reservoirs	20.0d	5-Jul-02	1-Aug-02	08-2043, 08-2050, 08-2051, 08-1777
08-2070	Alternative Plans Description - Reservoirs	30.0d	19-Jul-02	29-Aug-02	08-2060
08-2090	Final Alternative Plan Document - Reservoirs	30.0d	16-Sep-02	28-Oct-02	08-2590, 08-2600, 08-1795, 08-1800
08-2100	Alt Plans Conceptual Design - Reservoirs	60.0d	29-Oct-02	28-Jan-03	08-2041, 08-2042, 08-2090, 08-2580
08-2110	Alt Plans Cost Estimates - Reservoirs	30.0d	29-Jan-03	12-Mar-03	08-2100
08-2120	H&H Evaluation of Alternative Plans - Reservoirs	60.0d	16-Sep-02	12-Dec-02	08-1795, 08-1800
08-2130	Socio-Economic Evaluation Alt Plans - Reservoirs	60.0d	13-Dec-02	12-Mar-03	08-2120
08-2140	Real Estate Cost Est Alt Plans - Reservoirs	10.0d	13-Dec-02	27-Dec-02	08-2120
08-2150	Environmental Evaluation Alt Plans - Reservoirs	60.0d	13-Dec-02	12-Mar-03	08-2120
08-2160	Draft Alt Plan Evaluation Document - Reservoirs - ...	20.0d	13-Mar-03	9-Apr-03	08-2110, 08-2130, 08-2140, 08-2150, 08-2237, 08-1510
08-2165	PDT Cmts - Draft Alt Plan Evaluation - SFWMD	10.3d	17-Apr-03	1-May-03	08-2160, 08-2200, 08-2210, 08-2220, 08-2230, 08-2237, 08-1880, 08-1920, 08-1930, 08-194...
08-2170	PDT Cmts - Draft Alt Plan Evaluation - USACE	15.0d	17-Apr-03	7-May-03	08-2160, 08-2200, 08-2210, 08-2220, 08-2230, 08-2237, 08-1880, 08-1920, 08-1930, 08-194...
08-2180	Independent Tech Review Alt Plan Evaluation	15.0d	8-May-03	29-May-03	08-2165, 08-2170, 08-1516, 08-1520, 08-2620
08-2190	Final Alt Plan Evaluation Report - Reservoirs	20.0d	30-May-03	26-Jun-03	08-2180
08-2200	Environmental Evaluation Appendix - Reservoirs	20.0d	13-Mar-03	9-Apr-03	08-2150, 08-1574, 08-1573
08-2210	Eng & Design Appendix - Reservoir	25.0d	13-Mar-03	16-Apr-03	08-2110, 08-2120
08-2220	Socio-Economic Evaluation Appendix - Reservoirs	20.0d	13-Mar-03	9-Apr-03	08-2130

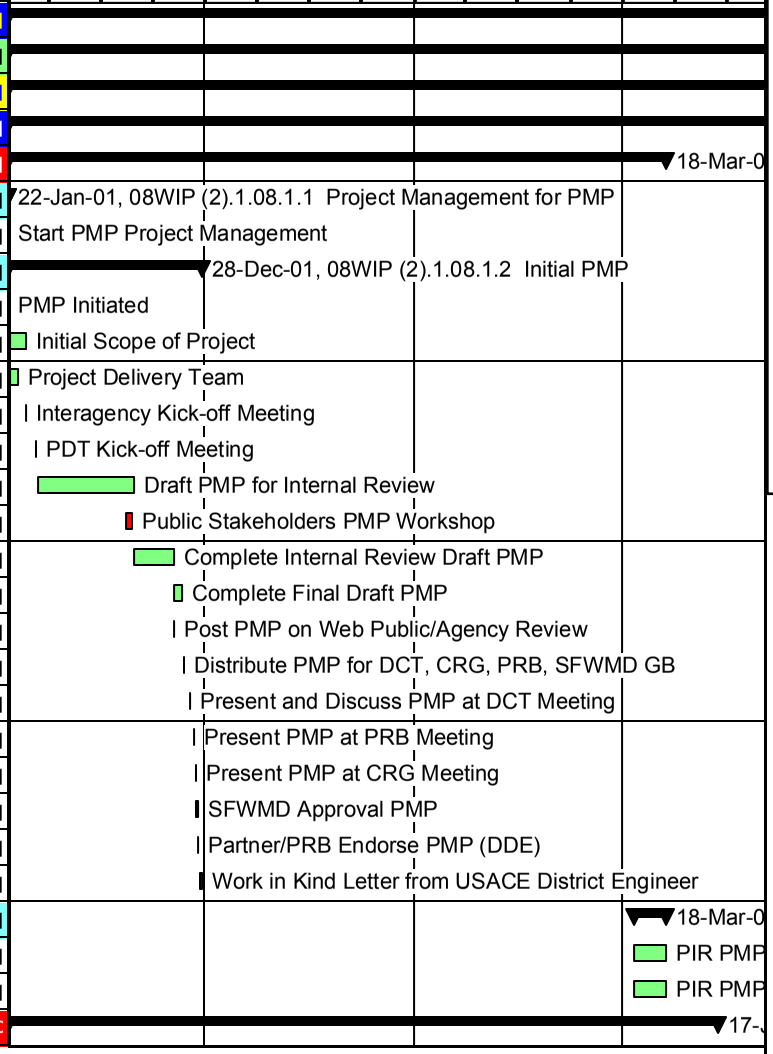
Activity ID	Activity Name	Original Duration	Start	Finish	Predecessors
08-2230	Real Estate Evaluation Appendix - Reservoirs	30.0d	30-Dec-02	11-Feb-03	08-2140
08-2233	Informal Endangered Species Consultation - Rese...	100.0d	29-Oct-02	26-Mar-03	08-2090
08-2234	Fish & Wildlife Draft Coord Act Report - Reservoirs	120.0d	29-Oct-02	23-Apr-03	08-2090
08-2235	Fish & Wildlife participation in PIR/EIS process - ...	450.0d	24-Jan-02	6-Nov-03	08-1160, 08-1170
08-2237	Draft Water Control Plan - Reservoirs	45.0d	13-Dec-02	19-Feb-03	08-2120
08-2240	Draft PIR/EIS - Reservoirs - Contractor	25.0d	27-Jun-03	1-Aug-03	08-2036, 08-2190, 08-2200, 08-2210, 08-2220, 08-2230, 08-2233, 08-2234, 08-2237
08-2241	RECOVER Review Draft PIR/EIS - Reservoirs	20.0d	4-Aug-03	29-Aug-03	08-2240
08-2243	PDT Review Draft PIR/EIS - Reservoirs USACE	30.0d	5-Aug-03	16-Sep-03	08-2240, 08-2630
08-2246	PDT Review Draft PIR/EIS - Reservoirs SFWMD	30.0d	5-Aug-03	16-Sep-03	08-2240, 08-2630
08-2248	Final Deliverable Draft PIR/EIS	40.0d	5-Aug-03	30-Sep-03	08-2240, 08-2640, 08-1960
08-2250	Public Review Draft PIR/EIS	30.0d	1-Oct-03	13-Nov-03	08-2248, 08-2241, 08-2243, 08-2246, 08-2710, 08-2720
08-2253	Public Wkshp - Draft PIR/EIS - USACE	22.0d	1-Oct-03	31-Oct-03	08-2243, 08-2246, 08-2248, 08-2710, 08-2720
08-2254	Public Wkshp - Draft PIR/EIS - Contractor	22.0d	1-Oct-03	31-Oct-03	08-2243, 08-2246, 08-2248, 08-2710, 08-2720
08-2256	Public Wkshp - Draft PIR/EIS - SFWMD	22.0d	1-Oct-03	31-Oct-03	08-2243, 08-2246, 08-2248, 08-2710, 08-2720
08-2273	Final Draft PIR/EIS - USACE	44.0d	14-Nov-03	21-Jan-04	08-2253, 08-2256, 08-2250, 08-2254, 08-2560, 08-2740, 08-1961, 08-1975, 08-1980, 08-255...
08-2274	Final Draft PIR/EIS - Contractor	44.0d	14-Nov-03	21-Jan-04	08-1961, 08-1975, 08-1980, 08-2250, 08-2253, 08-2256, 08-2254, 08-2550, 08-2560, 08-269...
08-2276	Final Draft PIR/EIS - SFWMD	44.0d	14-Nov-03	21-Jan-04	08-2253, 08-2256, 08-2250, 08-2560, 08-2740, 08-1961, 08-1975, 08-1980, 08-2690, 08-270...
08-2277	PIR PMP update - USACE	40.0d	22-Jan-04	18-Mar-04	08-2273, 08-2276, 08-1961, 08-1975, 08-1980, 08-2274
08-2278	PIR PMP update - SFWMD	40.0d	22-Jan-04	18-Mar-04	08-2273, 08-1961, 08-1975, 08-1980, 08-2274
08-2303	Final PIR/EIS Div. Eng. Notice - SFWMD	12.0d	9-Jan-04	27-Jan-04*	08-2235, 08-1955, 08-2800, 08-2820
08-2310	Final PIR/EIS Div. Eng. Notice - USACE	12.0d	9-Jan-04	27-Jan-04*	08-2235, 08-1955, 08-2800, 08-2820
08-2320	DDR - Canals	120.0d	28-Jan-04	16-Jul-04*	08-2303, 08-2310, 08-2278, 08-2277, 08-2054, 08-2052
08-2330	DDR - Reservoirs	170.0d	28-Jan-04	27-Sep-04*	08-2277, 08-2303, 08-2310, 08-2278, 08-2054, 08-2052
08-2350	Real Estate Acquisition - Canals	250.0d	19-Jul-04	18-Jul-05	08-2320
08-2360	Land Verification - Reservoirs	40.0d	2-Feb-05	31-Mar-05*	08-2330
08-2370	Plans & Specs - Canals	75.0d	19-Jul-04	2-Nov-04*	08-2320
08-2380	Plans & Specs - Reservoirs	185.0d	28-Sep-04	24-Jun-05*	08-2330
08-2390	PCA - Canals	60.0d	18-Jun-04	13-Sep-04	08-2035
08-2400	PCA - Reservoirs	60.0d	18-Jun-04	13-Sep-04	08-2035
08-2410	Construction - Canals	500.0d	3-Nov-04	2-Nov-06*	08-2350, 08-2370, 08-2390
08-2420	Constructon - Reservoirs	1040.0d	21-Jul-05	16-Sep-09*	08-2360, 08-2380, 08-2400, 08-2464
08-2450	Woerner Property - Notice of Intent to Terminate L...	60.0d	2-Dec-02	28-Feb-03*	
08-2460	Woerner Property Available for Remediation	1.0d	27-Feb-0...	27-Feb-04*	08-2450
08-2462	Talisman Property - Advance Notice of Construction	43.0d	31-Jul-02	1-Oct-02*	

Activity ID	Activity Name	Original Duration	Start	Finish	Predecessors
08-2463	Talisman Property - Notice of Construction Impact	43.0d	1-Jul-04	1-Sep-04	08-2462
08-2464	Talisman Property - Notice to Vacate	20.0d	4-Mar-05	1-Apr-05*	08-2463
08-2470	Planning Technical Lead - USACE	100.0d	24-Dec-01	16-May-02	08-1160, 08-1170
08-2480	GIS Database (topo, drainage, STA's, & Talisman)	15.0d	27-Feb-02	19-Mar-02	08-1230, 08-1200
08-2550	Cultural Resources Phase 1 Investigation - Canals	60.0d	20-Feb-03	15-May-03	08-1958
08-2560	Cultural Resources Phase 1 Investigation - Reser...	90.0d	20-Feb-03	26-Jun-03	08-2237
08-2570	Hazardous Toxic Radioactive Waste Assessment/...	60.0d	27-Feb-02	21-May-02	08-1160, 08-1170, 08-1200
08-2580	Hazardous Toxic Radioactive Waste Assessment/...	120.0d	27-Feb-02	15-Aug-02	08-1200
08-2590	Feasibility Scoping Meeting - USACE	10.0d	15-May-02	29-May-02	08-2037, 08-2040, 08-2038, 08-1763, 08-1767, 08-1770, 08-2770
08-2600	Feasibility Scoping Meeting - SFWMD	10.0d	15-May-02	29-May-02	08-2037, 08-2040, 08-2038, 08-1763, 08-1767, 08-1770, 08-2770
08-2620	PMP Update - Assess Phase USACE	40.0d	14-Jan-03	12-Mar-03	08-1510, 08-1220
08-2630	Value Engineering - Canals	15.0d	15-Jul-03	4-Aug-03	08-1960
08-2640	Value Engineering - Reservoirs	30.0d	27-Jun-03	8-Aug-03	08-2240
08-2650	Alternative Formulation Briefing - USACE	10.0d	14-Jul-03	25-Jul-03	08-1910, 08-2190, 08-2830
08-2660	Alternative Formulation Briefing - SFWMD	10.0d	14-Jul-03	25-Jul-03	08-1910, 08-2190, 08-2830
08-2690	Fish & Wildlife participation in PIR/EIS process - ...	30.0d	23-Jun-03	4-Aug-03	08-1910
08-2700	Fish & Wildlife participation in PIR/EIS process - ...	60.0d	27-Jun-03	22-Sep-03	08-2190
08-2710	PDT Comparison Alt Plans -Reservoirs - SFWMD	10.0d	4-Aug-03	15-Aug-03	08-2240
08-2720	PDT Comparison Alt Plans - Reservoirs - USACE	10.0d	4-Aug-03	15-Aug-03	08-2240
08-2730	Fish & Wildlife Final Coord Act Report - Canals	10.0d	3-May-02	16-May-02	08-1957
08-2740	Fish & Wildlife Final Coord Act Report - Reservoirs	30.0d	24-Apr-03	5-Jun-03	08-2234
08-2750	Pre-Application Meeting	10.0d	2-Apr-02	15-Apr-02*	
08-2760	Pre-Application Concurrence Letter	4.0d	17-Apr-02	22-Apr-02*	08-2750
08-2770	Pre-Application Letter	4.0d	1-May-02	6-May-02*	08-2760
08-2780	Sec. 373.1501(5) Submital to FDEP	10.0d	20-Oct-03	31-Oct-03*	
08-2790	Sec. 373.026(8)(b) Approval by FDEP	10.0d	3-Nov-03	17-Nov-03*	08-2780
08-2800	WQC Permits issued by FDEP	10.0d	3-Nov-03	17-Nov-03*	08-2780
08-2810	Preliminary Endorsement/Letter of Intent by SFW...	5.0d	25-Nov-03	3-Dec-03*	08-2790
08-2820	Reasonable Assurances Stauts Meeting	5.0d	9-Sep-03	15-Sep-03	08-2650, 08-2660
08-2830	Summary of FWCA Report Issues and Recomend...	10.0d	13-Jun-03	26-Jun-03	08-1910, 08-2190
08-2840	In-Progress Review	5.0d	24-Sep-03	30-Sep-03	08-2248
08-2850	Existing/Base Conditions	25.0d	26-Feb-02	1-Apr-02	08-1200
08-2860	Future Without Project	25.0d	3-Apr-02	7-May-02	08-1260

Project Gantt Chart

8-Nov-01

Activity ID	Original Duration	Early Start	Early Finish	Total Float
Total	2166.0d	22-Jan-01	16-Sep-09	0.0d
08WIP (2) Part 1 - Everglades Agricultural Ar...	2166.0d	22-Jan-01	16-Sep-09	0.0d
08WIP (2).1 CERP	2166.0d	22-Jan-01	16-Sep-09	0.0d
08WIP (2).1.08 Everglades Agricultural Area Reservoirs	2166.0d	22-Jan-01	16-Sep-09	0.0d
08WIP (2).1.08.1 Project Management Plan	790.0d	22-Jan-01	18-Mar-04	14.0d
08WIP (2).1.08.1.1 Project Management for PMP	1.0d	22-Jan-01	22-Jan-01	12.0d
08-1040	1.0d	22-Jan-01	22-Jan-01	12.0d
08WIP (2).1.08.1.2 Initial PMP	235.0d	23-Jan-01	28-Dec-01	14.0d
08-1060	1.0d	23-Jan-01	23-Jan-01	12.0d
08-1062	21.0d	24-Jan-01	22-Feb-01	12.0d
08-1061	12.0d	24-Jan-01	8-Feb-01	27.0d
08-1130	1.0d	23-Feb-01	23-Feb-01	18.0d
08-1121	1.0d	13-Mar-01	13-Mar-01	0.0d
08-1150	120.0d	14-Mar-01	30-Aug-01	6.0d
08-1070	7.0d	16-Aug-01	27-Aug-01	0.0d
08-1151	48.0d	31-Aug-01	8-Nov-01	6.0d
08-1152	8.0d	9-Nov-01	21-Nov-01	6.0d
08-1066	1.0d	9-Nov-01	9-Nov-01	13.0d
08-1153	1.0d	26-Nov-01	26-Nov-01	6.0d
08-1154	1.0d	5-Dec-01	5-Dec-01	0.0d
08-1155	1.0d	14-Dec-01	14-Dec-01	0.0d
08-1156	1.0d	17-Dec-01	17-Dec-01	0.0d
08-1170	2.0d	18-Dec-01	19-Dec-01	0.0d
08-1160	2.0d	20-Dec-01	21-Dec-01	0.0d
08-1171	4.0d	24-Dec-01	28-Dec-01	14.0d
08WIP (2).1.08.1.3 PIR PMP Revision	40.0d	22-Jan-04	18-Mar-04	14.0d
08-2277	40.0d	22-Jan-04	18-Mar-04	14.0d
08-2278	40.0d	22-Jan-04	18-Mar-04	14.0d
08WIP (2).1.08.2 Project Implementation Report	854.0d	22-Jan-01	17-Jun-04	212.0d



Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

TASK filter: All Activities

Project Gantt Chart 8-Nov-01

	2005				2006				2007				2008				2009				2010				2011				2012				2013			
Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4

16-Sep-09, Total

16-Sep-09, 08WIP (2) Part 1 - Everglades Agricultural Area Reservoirs

16-Sep-09, 08WIP (2).1 CERP

16-Sep-09, 08WIP (2).1.08 Everglades Agricultural Area Reservoirs

4, 08WIP (2).1.08.1 Project Management Plan

4, 08WIP (2).1.08.1.3 PIR PMP Revision

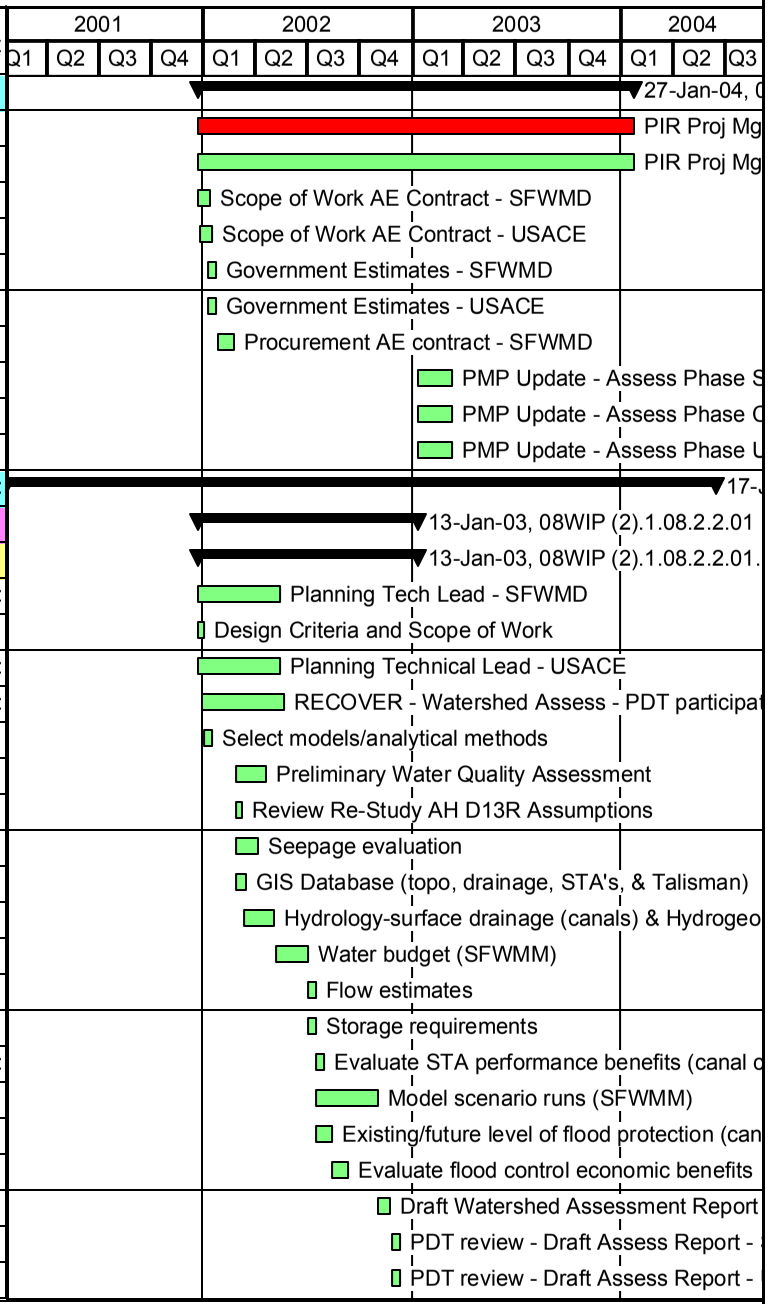
update - USACE

update - SFWMD

un-04, 08WIP (2).1.08.2 Project Implementation Report

Project Gantt Chart 8-Nov-01

Activity ID	Original Duration	Early Start	Early Finish	Total Float
08WIP (2).1.08.2.1 Project Management	522.0d	24-Dec-01	27-Jan-04	0.0d
08-2052	522.0d	24-Dec-01	27-Jan-04	0.0d
08-2054	522.0d	24-Dec-01	27-Jan-04	0.0d
08-1181	15.0d	24-Dec-01	15-Jan-02	16.0d
08-1180	15.0d	27-Dec-01	17-Jan-02	14.0d
08-1190	10.0d	11-Jan-02	25-Jan-02	14.0d
08-1192	10.0d	11-Jan-02	25-Jan-02	14.0d
08-1200	20.0d	28-Jan-02	25-Feb-02	14.0d
08-1516	40.0d	14-Jan-03	12-Mar-03	54.0d
08-1520	40.0d	14-Jan-03	12-Mar-03	54.0d
08-2620	40.0d	14-Jan-03	12-Mar-03	54.0d
08WIP (2).1.08.2.2 Plan Formulation	854.0d	22-Jan-01	17-Jun-04	212.0c
08WIP (2).1.08.2.2.01 Goals, Objectives, Perform...	263.0d	24-Dec-01	13-Jan-03	54.0d
08WIP (2).1.08.2.2.01.1 Watershed Assessment	263.0d	24-Dec-01	13-Jan-03	54.0d
08-1220	100.0d	24-Dec-01	16-May-02	217.0c
08-1230	7.0d	24-Dec-01	3-Jan-02	70.0d
08-2470	100.0d	24-Dec-01	16-May-02	187.0c
08-1178	100.0d	31-Dec-01	22-May-02	193.0c
08-1300	10.0d	4-Jan-02	17-Jan-02	90.0d
08-1218	40.0d	27-Feb-02	23-Apr-02	34.0d
08-1240	10.0d	27-Feb-02	12-Mar-02	54.0d
08-1270	30.0d	27-Feb-02	9-Apr-02	74.0d
08-2480	15.0d	27-Feb-02	19-Mar-02	89.0d
08-1290	40.0d	13-Mar-02	7-May-02	54.0d
08-1450	40.0d	8-May-02	3-Jul-02	54.0d
08-1320	10.0d	5-Jul-02	18-Jul-02	54.0d
08-1330	10.0d	5-Jul-02	18-Jul-02	54.0d
08-1208	10.0d	19-Jul-02	1-Aug-02	119.0c
08-1460	75.0d	19-Jul-02	4-Nov-02	54.0d
08-1700	20.0d	19-Jul-02	15-Aug-02	89.0d
08-1210	20.0d	16-Aug-02	13-Sep-02	89.0d
08-1480	15.0d	5-Nov-02	26-Nov-02	54.0d
08-1485	10.0d	27-Nov-02	12-Dec-02	54.0d
08-1490	10.0d	27-Nov-02	12-Dec-02	54.0d



Project Gantt Chart 8-Nov-01

	2005				2006				2007				2008				2009				2010				2011				2012				2013			
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
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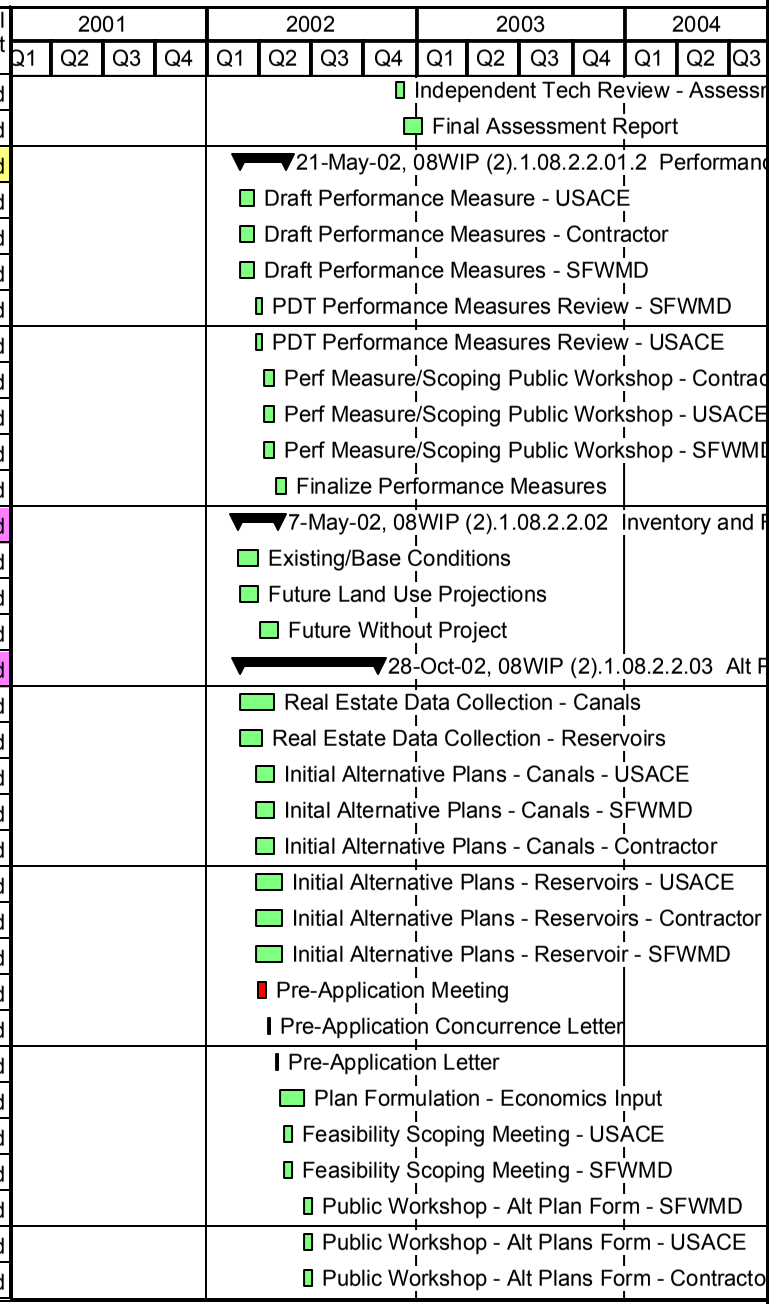
Project Gantt Chart 8-Nov-01

Activity ID	Original Duration	Early Start	Early Finish	Total Float
08-1500	10.0d	27-Nov-02	12-Dec-02	54.0d
08-1510	20.0d	13-Dec-02	13-Jan-03	54.0d
08WIP (2).1.08.2.2.01.2 Performance Measures	60.0d	27-Feb-02	21-May-02	34.0d
08-1271	20.0d	27-Feb-02	26-Mar-02	34.0d
08-1272	20.0d	27-Feb-02	26-Mar-02	34.0d
08-1273	20.0d	27-Feb-02	26-Mar-02	34.0d
08-1274	10.0d	27-Mar-02	9-Apr-02	34.0d
08-1275	10.0d	27-Mar-02	9-Apr-02	34.0d
08-1276	15.0d	10-Apr-02	30-Apr-02	34.0d
08-1277	15.0d	10-Apr-02	30-Apr-02	34.0d
08-1278	15.0d	10-Apr-02	30-Apr-02	34.0d
08-1279	15.0d	1-May-02	21-May-02	34.0d
08WIP (2).1.08.2.2.02 Inventory and Forecast Co...	51.0d	26-Feb-02	7-May-02	14.0d
08-2850	25.0d	26-Feb-02	1-Apr-02	40.0d
08-1260	25.0d	27-Feb-02	2-Apr-02	14.0d
08-2860	25.0d	3-Apr-02	7-May-02	14.0d
08WIP (2).1.08.2.2.03 Alt Plan Formulation	170.0d	27-Feb-02	28-Oct-02	44.0d
08-1771	45.0d	27-Feb-02	30-Apr-02	64.0d
08-2051	30.0d	27-Feb-02	9-Apr-02	74.0d
08-1763	25.0d	27-Mar-02	30-Apr-02	49.0d
08-1767	25.0d	27-Mar-02	30-Apr-02	49.0d
08-1770	25.0d	27-Mar-02	30-Apr-02	49.0d
08-2037	35.0d	27-Mar-02	14-May-02	39.0d
08-2040	35.0d	27-Mar-02	14-May-02	39.0d
08-2038	35.0d	27-Mar-02	14-May-02	39.0d
08-2750	10.0d	2-Apr-02	15-Apr-02	0.0d
08-2760	4.0d	17-Apr-02	22-Apr-02	0.0d
08-2770	4.0d	1-May-02	6-May-02	0.0d
08-2039	30.0d	8-May-02	19-Jun-02	14.0d
08-2590	10.0d	15-May-02	29-May-02	89.0d
08-2600	10.0d	15-May-02	29-May-02	89.0d
08-1777	10.0d	20-Jun-02	3-Jul-02	14.0d
08-2043	10.0d	20-Jun-02	3-Jul-02	14.0d
08-2050	10.0d	20-Jun-02	3-Jul-02	14.0d



Project Gantt Chart

8-Nov-01

	2005				2006				2007				2008				2009				2010				2011				2012				2013			
Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
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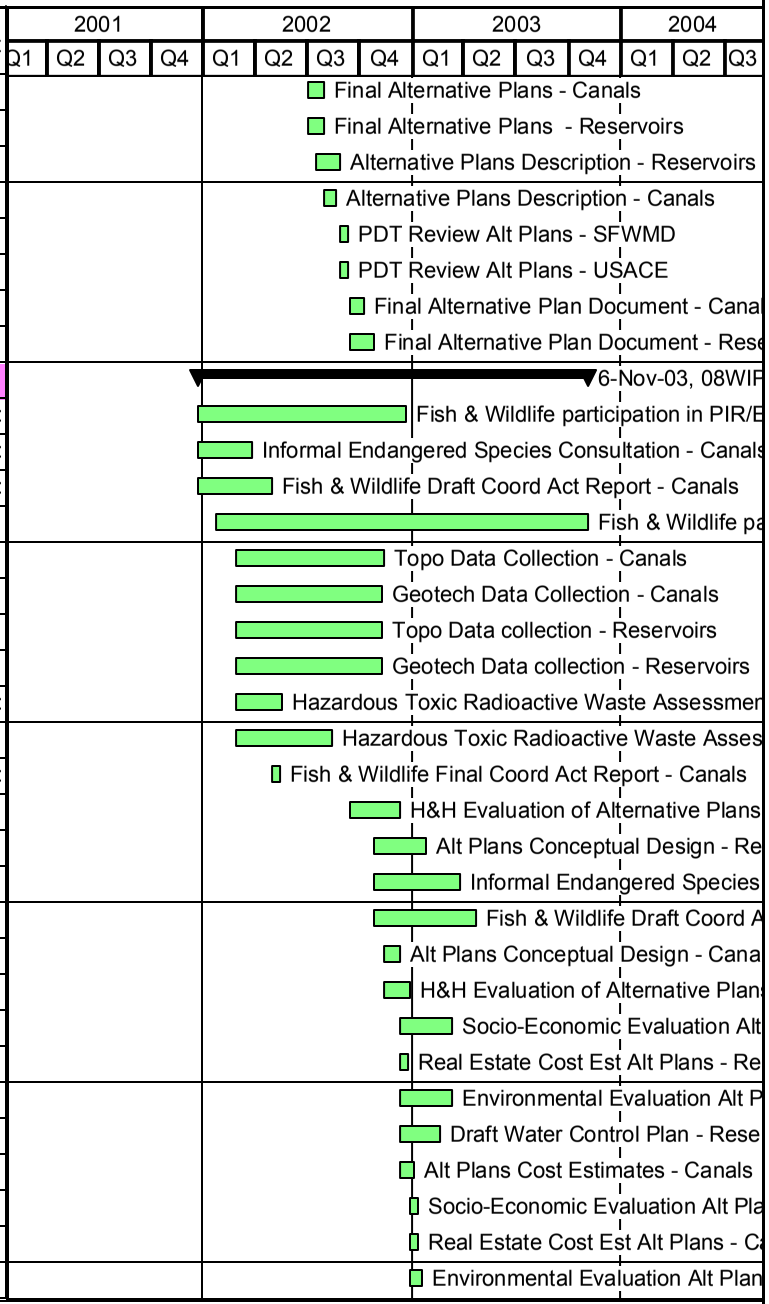
Project Gantt Chart

8-Nov-01

Activity ID	Original Duration	Early Start	Early Finish	Total Float
08-1780	20.0d	5-Jul-02	1-Aug-02	19.0d
08-2060	20.0d	5-Jul-02	1-Aug-02	14.0d
08-2070	30.0d	19-Jul-02	29-Aug-02	14.0d
08-1790	15.0d	2-Aug-02	22-Aug-02	19.0d
08-1795	10.0d	30-Aug-02	13-Sep-02	14.0d
08-1800	10.0d	30-Aug-02	13-Sep-02	14.0d
08-1810	20.0d	16-Sep-02	11-Oct-02	54.0d
08-2090	30.0d	16-Sep-02	28-Oct-02	14.0d
08WIP (2).1.08.2.2.04 Alt Plan Evaluation	470.0d	24-Dec-01	6-Nov-03	40.0d
08-1955	250.0d	24-Dec-01	23-Dec-02	260.0c
08-1956	65.0d	24-Dec-01	28-Mar-02	333.0c
08-1957	90.0d	24-Dec-01	2-May-02	298.0c
08-2235	450.0d	24-Jan-02	6-Nov-03	40.0d
08-1761	180.0d	27-Feb-02	13-Nov-02	34.0d
08-1762	180.0d	27-Feb-02	12-Nov-02	59.0d
08-2041	180.0d	27-Feb-02	12-Nov-02	34.0d
08-2042	180.0d	27-Feb-02	12-Nov-02	24.0d
08-2570	60.0d	27-Feb-02	21-May-02	179.0c
08-2580	120.0d	27-Feb-02	15-Aug-02	64.0d
08-2730	10.0d	3-May-02	16-May-02	298.0c
08-2120	60.0d	16-Sep-02	12-Dec-02	19.0d
08-2100	60.0d	29-Oct-02	28-Jan-03	14.0d
08-2233	100.0d	29-Oct-02	26-Mar-03	79.0d
08-2234	120.0d	29-Oct-02	23-Apr-03	59.0d
08-1820	20.0d	13-Nov-02	13-Dec-02	59.0d
08-1840	30.0d	13-Nov-02	30-Dec-02	34.0d
08-2130	60.0d	13-Dec-02	12-Mar-03	19.0d
08-2140	10.0d	13-Dec-02	27-Dec-02	59.0d
08-2150	60.0d	13-Dec-02	12-Mar-03	19.0d
08-2237	45.0d	13-Dec-02	19-Feb-03	34.0d
08-1830	15.0d	13-Dec-02	7-Jan-03	59.0d
08-1850	10.0d	30-Dec-02	14-Jan-03	59.0d
08-1860	10.0d	30-Dec-02	14-Jan-03	49.0d
08-1870	14.0d	30-Dec-02	21-Jan-03	55.0d



Project Gantt Chart 8-Nov-01

	2005				2006				2007				2008				2009				2010				2011				2012				2013			
Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
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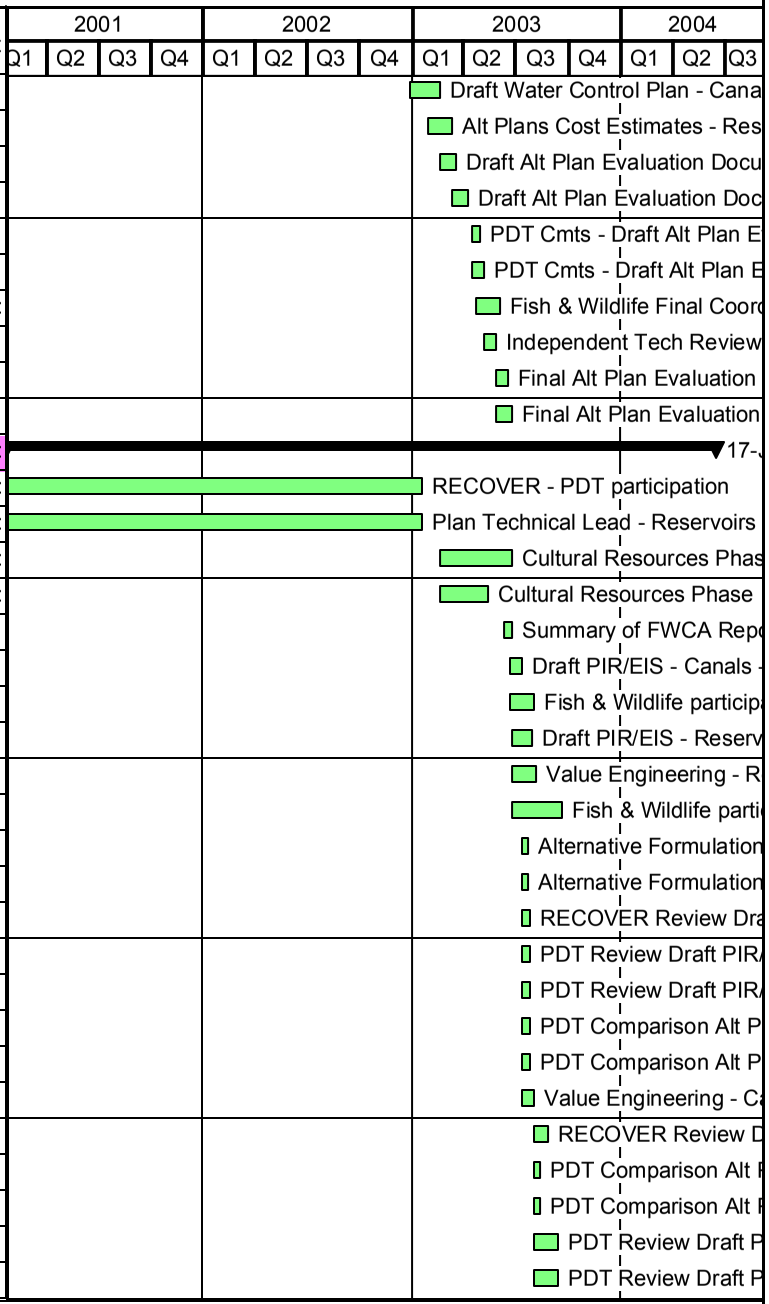
Project Gantt Chart

8-Nov-01

Activity ID	Original Duration	Early Start	Early Finish	Total Float
08-1958	35.0d	30-Dec-02	20-Feb-03	34.0d
08-2110	30.0d	29-Jan-03	12-Mar-03	14.0d
08-1880	20.0d	20-Feb-03	20-Mar-03	34.0d
08-2160	20.0d	13-Mar-03	9-Apr-03	19.0d
08-2165	10.3d	17-Apr-03	1-May-03	18.7d
08-2170	15.0d	17-Apr-03	7-May-03	14.0d
08-2740	30.0d	24-Apr-03	5-Jun-03	125.0c
08-2180	15.0d	8-May-03	29-May-03	14.0d
08-1910	16.0d	30-May-03	20-Jun-03	24.0d
08-2190	20.0d	30-May-03	26-Jun-03	14.0d
08WIP (2).1.08.2.2.05 Recommended Plan	854.0d	22-Jan-01	17-Jun-04	212.0c
08-2036	500.0d	22-Jan-01	21-Jan-03	124.0c
08-2055	500.0d	22-Jan-01	21-Jan-03	220.0c
08-2560	90.0d	20-Feb-03	26-Jun-03	110.0c
08-2550	60.0d	20-Feb-03	15-May-03	140.0c
08-2830	10.0d	13-Jun-03	26-Jun-03	77.0d
08-1960	15.0d	23-Jun-03	14-Jul-03	24.0d
08-2690	30.0d	23-Jun-03	4-Aug-03	84.0d
08-2240	25.0d	27-Jun-03	1-Aug-03	14.0d
08-2640	30.0d	27-Jun-03	8-Aug-03	14.0d
08-2700	60.0d	27-Jun-03	22-Sep-03	39.0d
08-2650	10.0d	14-Jul-03	25-Jul-03	77.0d
08-2660	10.0d	14-Jul-03	25-Jul-03	77.0d
08-1961	10.0d	15-Jul-03	28-Jul-03	89.0d
08-1963	10.0d	15-Jul-03	28-Jul-03	89.0d
08-1966	10.0d	15-Jul-03	28-Jul-03	89.0d
08-1975	10.0d	15-Jul-03	28-Jul-03	89.0d
08-1980	10.0d	15-Jul-03	28-Jul-03	89.0d
08-2630	15.0d	15-Jul-03	4-Aug-03	24.0d
08-2241	20.0d	4-Aug-03	29-Aug-03	35.0d
08-2710	10.0d	4-Aug-03	15-Aug-03	45.0d
08-2720	10.0d	4-Aug-03	15-Aug-03	45.0d
08-2243	30.0d	5-Aug-03	16-Sep-03	24.0d
08-2246	30.0d	5-Aug-03	16-Sep-03	24.0d



Project Gantt Chart 8-Nov-01

	2005				2006				2007				2008				2009				2010				2011				2012				2013			
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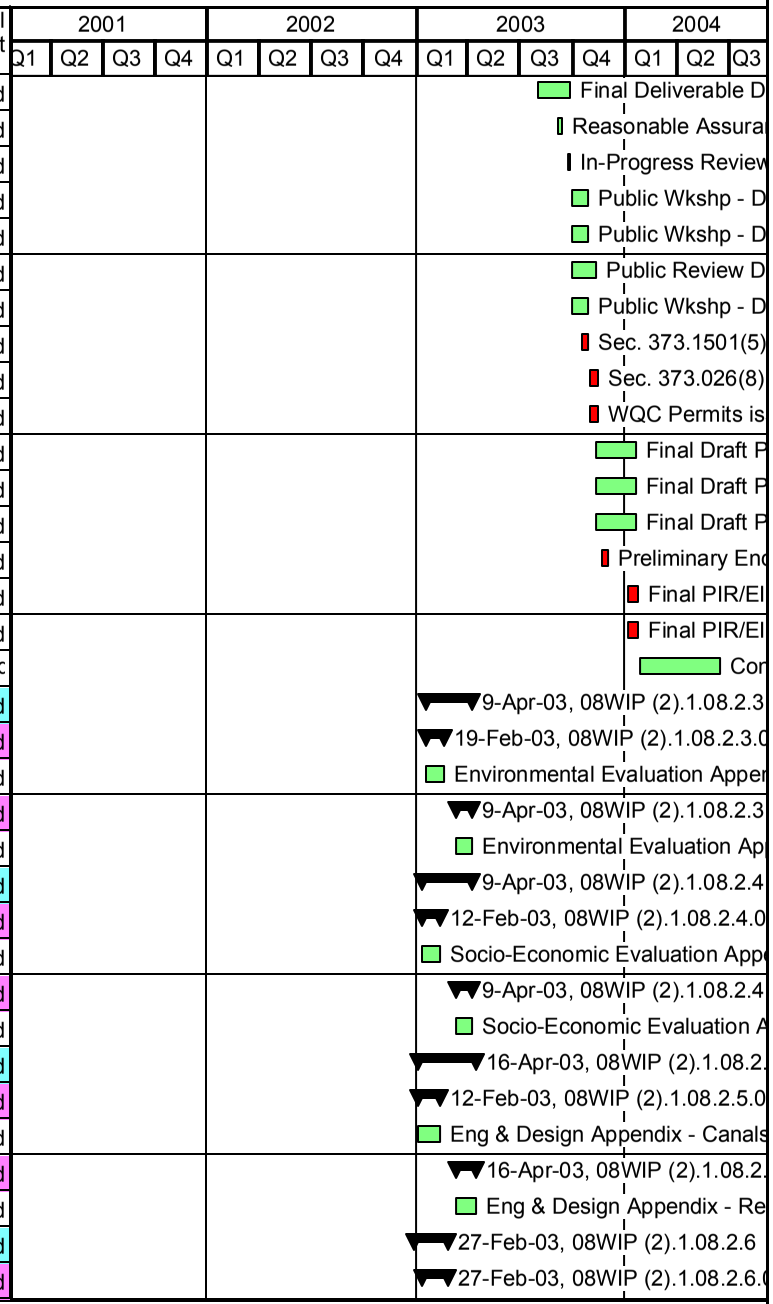
Project Gantt Chart 8-Nov-01

Activity ID	Original Duration	Early Start	Early Finish	Total Float
08-2248	40.0d	5-Aug-03	30-Sep-03	14.0d
08-2820	5.0d	9-Sep-03	15-Sep-03	77.0d
08-2840	5.0d	24-Sep-03	30-Sep-03	44.0d
08-2253	22.0d	1-Oct-03	31-Oct-03	22.0d
08-2256	22.0d	1-Oct-03	31-Oct-03	22.0d
08-2250	30.0d	1-Oct-03	13-Nov-03	14.0d
08-2254	22.0d	1-Oct-03	31-Oct-03	22.0d
08-2780	10.0d	20-Oct-03	31-Oct-03	0.0d
08-2790	10.0d	3-Nov-03	17-Nov-03	0.0d
08-2800	10.0d	3-Nov-03	17-Nov-03	0.0d
08-2273	44.0d	14-Nov-03	21-Jan-04	14.0d
08-2276	44.0d	14-Nov-03	21-Jan-04	14.0d
08-2274	44.0d	14-Nov-03	21-Jan-04	14.0d
08-2810	5.0d	25-Nov-03	3-Dec-03	0.0d
08-2303	12.0d	9-Jan-04	27-Jan-04	0.0d
08-2310	12.0d	9-Jan-04	27-Jan-04	0.0d
08-2035	100.0d	28-Jan-04	17-Jun-04	212.0c
08WIP (2).1.08.2.3 Environmental Evaluation & Co...	56.0d	21-Jan-03	9-Apr-03	19.0d
08WIP (2).1.08.2.3.01 Enviro Compliance Appen...	20.0d	21-Jan-03	19-Feb-03	55.0d
08-1920	20.0d	21-Jan-03	19-Feb-03	55.0d
08WIP (2).1.08.2.3.02 Enviro Compliance Appen...	20.0d	13-Mar-03	9-Apr-03	19.0d
08-2200	20.0d	13-Mar-03	9-Apr-03	19.0d
08WIP (2).1.08.2.4 Socio-Economic Appendix	60.0d	14-Jan-03	9-Apr-03	19.0d
08WIP (2).1.08.2.4.01 Socio-Economic App - Can...	20.0d	14-Jan-03	12-Feb-03	59.0d
08-1940	20.0d	14-Jan-03	12-Feb-03	59.0d
08WIP (2).1.08.2.4.02 Socio-Economic App - Res...	20.0d	13-Mar-03	9-Apr-03	19.0d
08-2220	20.0d	13-Mar-03	9-Apr-03	19.0d
08WIP (2).1.08.2.5 Engineering & Design Appendix	70.0d	7-Jan-03	16-Apr-03	14.0d
08WIP (2).1.08.2.5.01 E&D Appendix - Canals	25.0d	7-Jan-03	12-Feb-03	59.0d
08-1930	25.0d	7-Jan-03	12-Feb-03	59.0d
08WIP (2).1.08.2.5.02 E&D Appendix - Reservoirs	25.0d	13-Mar-03	16-Apr-03	14.0d
08-2210	25.0d	13-Mar-03	16-Apr-03	14.0d
08WIP (2).1.08.2.6 Real Estate Appendix	40.0d	30-Dec-02	27-Feb-03	49.0d
08WIP (2).1.08.2.6.01 RE Appendix - Canals	30.0d	14-Jan-03	27-Feb-03	49.0d



Project Gantt Chart 8-Nov-01

	2005				2006				2007				2008				2009				2010				2011				2012				2013			
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
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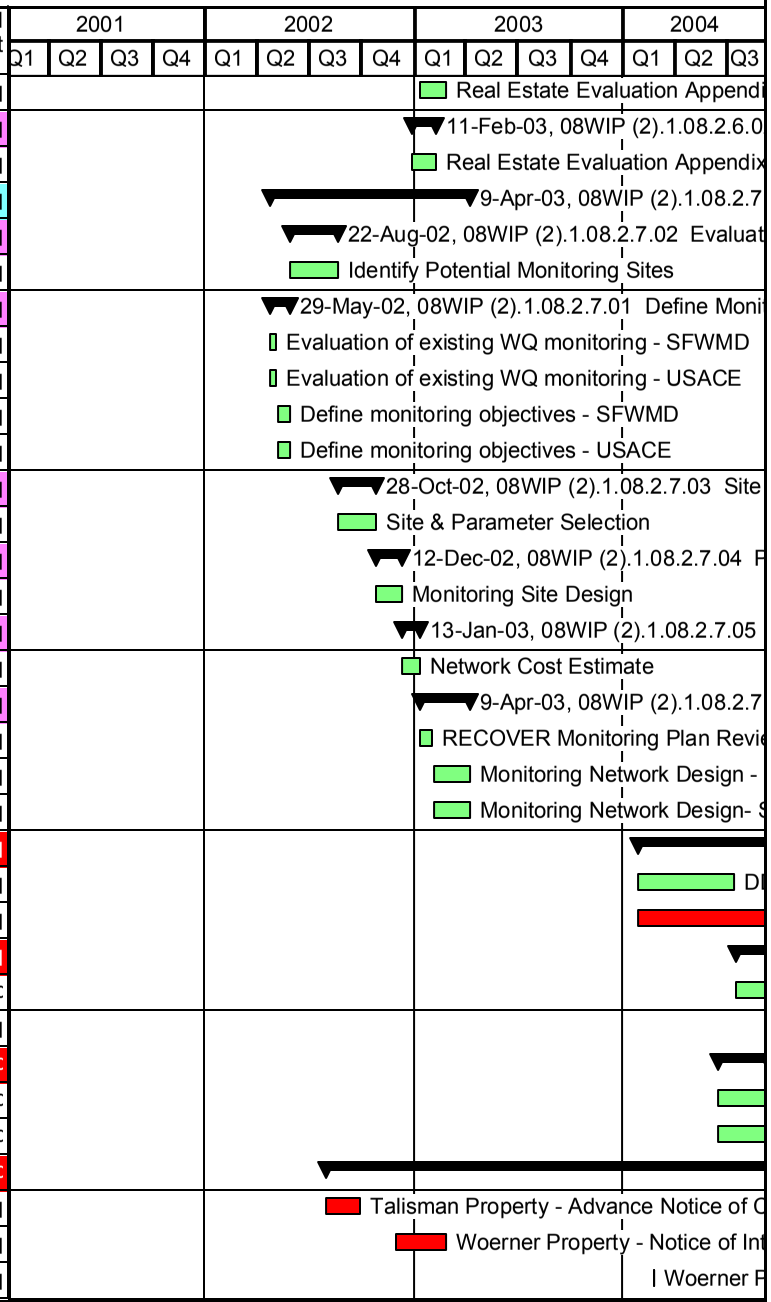
Project Gantt Chart 8-Nov-01

Activity ID	Original Duration	Early Start	Early Finish	Total Float
08-1950	30.0d	14-Jan-03	27-Feb-03	49.0d
08WIP (2).1.08.2.6.02 RE Appendix - Reservoirs	30.0d	30-Dec-02	11-Feb-03	59.0d
08-2230	30.0d	30-Dec-02	11-Feb-03	59.0d
08WIP (2).1.08.2.7 Permitting & Monitoring	240.0d	24-Apr-02	9-Apr-03	34.0d
08WIP (2).1.08.2.7.02 Evaluate Monitoring Feasib...	60.0d	30-May-02	22-Aug-02	34.0d
08-1540	60.0d	30-May-02	22-Aug-02	34.0d
08WIP (2).1.08.2.7.01 Define Monitoring Objectives	25.0d	24-Apr-02	29-May-02	34.0d
08-1527	10.0d	24-Apr-02	7-May-02	34.0d
08-1526	10.0d	24-Apr-02	7-May-02	34.0d
08-1528	15.0d	8-May-02	29-May-02	34.0d
08-1530	15.0d	8-May-02	29-May-02	34.0d
08WIP (2).1.08.2.7.03 Site & Parameter Selection	45.0d	23-Aug-02	28-Oct-02	34.0d
08-1550	45.0d	23-Aug-02	28-Oct-02	34.0d
08WIP (2).1.08.2.7.04 Preliminary Monitoring Sit...	30.0d	29-Oct-02	12-Dec-02	34.0d
08-1560	30.0d	29-Oct-02	12-Dec-02	34.0d
08WIP (2).1.08.2.7.05 Monitoring Network Cost E...	20.0d	13-Dec-02	13-Jan-03	34.0d
08-1570	20.0d	13-Dec-02	13-Jan-03	34.0d
08WIP (2).1.08.2.7.06 Monitoring Network Design	60.0d	14-Jan-03	9-Apr-03	34.0d
08-1572	15.0d	14-Jan-03	4-Feb-03	34.0d
08-1573	45.0d	5-Feb-03	9-Apr-03	34.0d
08-1574	45.0d	5-Feb-03	9-Apr-03	34.0d
08WIP (2).1.08.3 Detail Documentation Report	170.0d	28-Jan-04	27-Sep-04	2.0d
08-2320	120.0d	28-Jan-04	16-Jul-04	52.0d
08-2330	170.0d	28-Jan-04	27-Sep-04	0.0d
08WIP (2).1.08.4 Plans & Specs	235.0d	19-Jul-04	24-Jun-05	0.0d
08-2370	75.0d	19-Jul-04	2-Nov-04	160.0c
08-2380	185.0d	28-Sep-04	24-Jun-05	0.0d
08WIP (2).1.08.5 Project Cooperation Agreement	60.0d	18-Jun-04	13-Sep-04	752.0c
08-2390	60.0d	18-Jun-04	13-Sep-04	752.0c
08-2400	60.0d	18-Jun-04	13-Sep-04	212.0c
08WIP (2).1.08.6 Real Estate	741.0d	31-Jul-02	18-Jul-05	792.0c
08-2462	43.0d	31-Jul-02	1-Oct-02	0.0d
08-2450	60.0d	2-Dec-02	28-Feb-03	0.0d
08-2460	1.0d	27-Feb-04	27-Feb-04	0.0d



2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013

Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4

x - Canals

2 RE Appendix - Reservoirs

- Reservoirs

Permitting & Monitoring

e Monitoring Feasibility Issues

oring Objectives

& Parameter Selection

reliminary Monitoring Site Desigr

Monitoring Network Cost Estimate

06 Monitoring Network Design

w

USACE

FWMD

27-Sep-04, 08WIP (2).1.08.3 Detail Documentation Report

DR - Canals

DDR - Reservoirs

24-Jun-05, 08WIP (2).1.08.4 Plans & Specs

Plans & Specs - Canals

Plans & Specs - Reservoirs

13-Sep-04, 08WIP (2).1.08.5 Project Cooperation Agreement

PCA - Canals

PCA - Reservoirs

18-Jul-05, 08WIP (2).1.08.6 Real Estate

onstruction

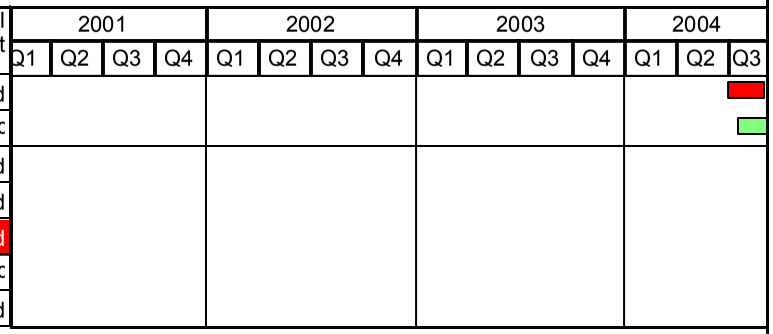
ent to Terminate Lease

roperty Available for Remediation

Project Gantt Chart

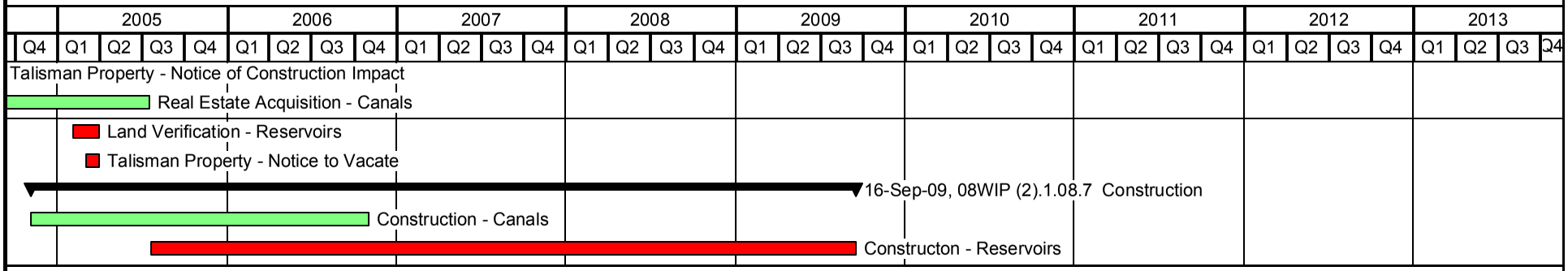
8-Nov-01

Activity ID	Original Duration	Early Start	Early Finish	Total Float
08-2463	43.0d	1-Jul-04	1-Sep-04	0.0d
08-2350	250.0d	19-Jul-04	18-Jul-05	792.0c
08-2360	40.0d	2-Feb-05	31-Mar-05	0.0d
08-2464	20.0d	4-Mar-05	1-Apr-05	0.0d
08WIP (2).1.08.7 Construction	1217.0d	3-Nov-04	16-Sep-09	0.0d
08-2410	500.0d	3-Nov-04	2-Nov-06	717.0c
08-2420	1040.0d	21-Jul-05	16-Sep-09	0.0d



Project Gantt Chart

8-Nov-01



APPENDIX E: PROJECT COST ESTIMATE AND BUDGET

Total Project Cost Summary by WBS 8-Nov-01

Activity ID	Activity Name	Budgeted Total Cost	Budgeted Labor Cost	Budgeted Expense Cost	Original Duration	Start	Finish	Total Float
08WIP (2)	Part 1 - Everglades Agricultural Area Reserv...	$233,109,533	$5,521,533	$227,588,000	2166.0d	22-Jan-01	16-Sep-09	0.0d
08WIP (2).1	CERP	$233,109,533	$5,521,533	$227,588,000	2166.0d	22-Jan-01	16-Sep-09	0.0d
08WIP (2).1.08	Everglades Agricultural Area Reservoirs	$233,109,533	$5,521,533	$227,588,000	2166.0d	22-Jan-01	16-Sep-09	0.0d
08WIP (2).1.08.1	Project Management Plan	$485,660	$135,660	$350,000	790.0d	22-Jan-01	18-Mar-04	14.0d
08WIP (2).1.08.1.1	Project Management for PMP	$0	$0	$0	1.0d	22-Jan-01	22-Jan-01	12.0d
08WIP (2).1.08.1.2	Initial PMP	$350,000	$0	$350,000	235.0d	23-Jan-01	28-Dec-01	14.0d
08WIP (2).1.08.1.3	PIR PMP Revision	$135,660	$135,660	$0	40.0d	22-Jan-04	18-Mar-04	14.0d
08WIP (2).1.08.2	Project Implementation Report	$8,526,593	$5,326,593	$3,200,000	854.0d	22-Jan-01	17-Jun-04	212.0c
08WIP (2).1.08.2.1	Project Management	$428,469	$428,469	$0	522.0d	24-Dec-01	27-Jan-04	0.0d
08WIP (2).1.08.2.2	Plan Formulation	$7,628,672	$4,428,672	$3,200,000	854.0d	22-Jan-01	17-Jun-04	212.0c
08WIP (2).1.08.2.3	Environmental Evaluation & Compliance Appendix	$44,232	$44,232	$0	56.0d	21-Jan-03	9-Apr-03	19.0d
08WIP (2).1.08.2.4	Socio-Economic Appendix	$27,360	$27,360	$0	60.0d	14-Jan-03	9-Apr-03	19.0d
08WIP (2).1.08.2.5	Engineering & Design Appendix	$206,340	$206,340	$0	70.0d	7-Jan-03	16-Apr-03	14.0d
08WIP (2).1.08.2.6	Real Estate Appendix	$31,920	$31,920	$0	40.0d	30-Dec-02	27-Feb-03	49.0d
08WIP (2).1.08.2.7	Permitting & Monitoring	$159,600	$159,600	$0	240.0d	24-Apr-02	9-Apr-03	34.0d
08WIP (2).1.08.3	Detail Documentation Report	$4,811,000	$0	$4,811,000	170.0d	28-Jan-04	27-Sep-04	2.0d
08WIP (2).1.08.4	Plans & Specs	$1,604,000	$0	$1,604,000	235.0d	19-Jul-04	24-Jun-05	0.0d
08WIP (2).1.08.5	Project Cooperation Agreement	$0	$0	$0	60.0d	18-Jun-04	13-Sep-04	752.0c
08WIP (2).1.08.6	Real Estate	$309,280	$59,280	$250,000	741.0d	31-Jul-02	18-Jul-05	792.0c
08WIP (2).1.08.7	Construction	$217,373,000	$0	$217,373,000	1217.0d	3-Nov-04	16-Sep-09	0.0d

TASK filter: All Activities

TAB B – Fully Funded Cost Estimate

This section is reserved for documents that will be developed and made available at a later date.

Activity Cost Listing by Organization

13-Nov-01

Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
Contractor - Biologist									
	08-1272	Draft Performance Measures - Contractor	20	2/27/2002	3/26/2002	34	$4,560	80	4.0
	08-2040	Initial Alternative Plans - Reservoirs - Contract	35	3/27/2002	5/14/2002	39	$10,260	180	5.1
	08-1870	Environmental Evaluation Alt Plans - Canals	14	12/30/2002	1/21/2003	55	$6,840	120	8.6
	08-2200	Environmental Evaluation Appendix - Reservoir	20	3/13/2003	4/9/2003	19	$6,840	120	6.0
	08-2160	Draft Alt Plan Evaluation Document - Reservoir	20	3/13/2003	4/9/2003	19	$3,420	60	3.0
	08-2190	Final Alt Plan Evaluation Report - Reservoirs	20	5/30/2003	6/26/2003	14	$4,560	80	4.0
	08-1960	Draft PIR/EIS - Canals - Contractor	15	6/23/2003	7/14/2003	29	$4,560	80	5.3
	08-2240	Draft PIR/EIS - Reservoirs - Contractor	25	6/27/2003	8/1/2003	14	$4,560	80	3.2
	08-2248	Final Deliverable Draft PIR/EIS	40	8/5/2003	9/30/2003	14	$4,560	80	2.0
	08-2254	Public Wkshp - Draft PIR/EIS - Contractor	22	10/1/2003	10/31/2003	22	$2,280	40	1.8
	Summary for (10 detail records)				**TOTAL**		**$52,440**	**920**	
Contractor - Cost Estimator									
	08-1272	Draft Performance Measures - Contractor	20	2/27/2002	3/26/2002	34	$4,560	80	4.0
	08-1260	Future Land Use Projections	25	2/27/2002	4/2/2002	14	$6,840	120	4.8
	08-2040	Initial Alternative Plans - Reservoirs - Contract	35	3/27/2002	5/14/2002	39	$6,840	120	3.4
	08-1780	Final Alternative Plans - Canals	20	7/5/2002	8/1/2002	19	$6,840	120	6.0
	08-1790	Alternative Plans Description - Canals	15	8/2/2002	8/22/2002	19	$6,840	120	8.0
	08-1210	Evaluate flood control economic benefits	20	8/16/2002	9/13/2002	89	$9,120	160	8.0
	08-1810	Final Alternative Plan Document - Canals	20	9/16/2002	10/11/2002	54	$2,280	40	2.0
	08-1480	Draft Watershed Assessment Report	15	11/5/2002	11/26/2002	54	$3,420	60	4.0
	08-1820	Alt Plans Conceptual Design - Canals	20	11/13/2002	12/13/2002	59	$9,120	160	8.0
	08-2140	Real Estate Cost Est Alt Plans - Reservoirs	10	12/13/2002	12/27/2002	59	$4,560	80	8.0
	08-1510	Final Assessment Report	20	12/13/2002	1/13/2003	54	$1,368	24	1.2
	08-2130	Socio-Economic Evaluation Alt Plans - Reserv	60	12/13/2002	3/12/2003	19	$9,120	160	2.7
	08-1830	Alt Plans Cost Estimates - Canals	15	12/13/2002	1/7/2003	59	$20,064	352	23.5

Activity Cost Listing by Organization

13-Nov-01

Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
	08-1850	Socio-Economic Evaluation Alt Plans - Canals	10	12/30/2002	1/14/2003	59	$6,840	120	12.0
	08-1930	Eng & Design Appendix - Canals	25	1/7/2003	2/12/2003	59	$9,120	160	6.4
	08-2110	Alt Plans Cost Estimates - Reservoirs	30	1/29/2003	3/12/2003	14	$27,360	480	16.0
	08-1880	Draft Alt Plan Evaluation Document - Canals -	20	2/20/2003	3/20/2003	34	$4,560	80	4.0
	08-2160	Draft Alt Plan Evaluation Document - Reservoir	20	3/13/2003	4/9/2003	19	$3,420	60	3.0
	08-2210	Eng & Design Appendix - Reservoir	25	3/13/2003	4/16/2003	14	$9,120	160	6.4
	08-1910	Final Alt Plan Evaluation Report - Canals	16	5/30/2003	6/20/2003	29	$4,560	80	5.0
	08-2190	Final Alt Plan Evaluation Report - Reservoirs	20	5/30/2003	6/26/2003	14	$6,840	120	6.0
	08-2240	Draft PIR/EIS - Reservoirs - Contractor	25	6/27/2003	8/1/2003	14	$4,560	80	3.2
	08-2248	Final Deliverable Draft PIR/EIS	40	8/5/2003	9/30/2003	14	$3,420	60	1.5
	08-2274	Final Draft PIR/EIS - Contractor	44	11/14/2003	1/21/2004	14	$2,280	40	0.9
	Summary for (24 detail records)				**TOTAL**		**$173,052**	**3,036**	
Contractor - Cultural Resource									
	08-2150	Environmental Evaluation Alt Plans - Reservoir	60	12/13/2002	3/12/2003	19	$7,980	140	2.3
	08-2560	Cultural Resources Phase 1 Investigation - Re	90	2/20/2003	6/26/2003	110	$11,400	200	2.2
	08-2550	Cultural Resources Phase 1 Investigation - Ca	60	2/20/2003	5/15/2003	140	$4,560	80	1.3
	Summary for (3 detail records)				**TOTAL**		**$23,940**	**420**	
Contractor - Design Engineer									
	08-1272	Draft Performance Measures - Contractor	20	2/27/2002	3/26/2002	34	$13,680	240	12.0
	08-2041	Topo Data collection - Reservoirs	180	2/27/2002	11/12/2002	34	$2,280	40	0.2
	08-1761	Topo Data Collection - Canals	180	2/27/2002	11/13/2002	34	$6,840	120	0.7
	08-1770	Initial Alternative Plans - Canals - Contractor	25	3/27/2002	4/30/2002	49	$27,360	480	19.2
	08-2040	Initial Alternative Plans - Reservoirs - Contract	35	3/27/2002	5/14/2002	39	$28,500	500	14.3
	08-1279	Finalize Performance Measures	15	5/1/2002	5/21/2002	34	$6,840	120	8.0
	08-2050	Public Workshop - Alt Plans Form - Contractor	10	6/20/2002	7/3/2002	14	$2,280	40	4.0
	08-1780	Final Alternative Plans - Canals	20	7/5/2002	8/1/2002	19	$7,980	140	7.0

Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
	08-1780	Final Alternative Plans - Canals	20	7/5/2002	8/1/2002	19	$7,980	140	7.0
	08-2060	Final Alternative Plans - Reservoirs	20	7/5/2002	8/1/2002	14	$9,120	160	8.0
	08-2060	Final Alternative Plans - Reservoirs	20	7/5/2002	8/1/2002	14	$22,800	400	20.0
	08-2070	Alternative Plans Description - Reservoirs	30	7/19/2002	8/29/2002	14	$22,800	400	13.3
	08-1790	Alternative Plans Description - Canals	15	8/2/2002	8/22/2002	19	$13,680	240	16.0
	08-1810	Final Alternative Plan Document - Canals	20	9/16/2002	10/11/2002	54	$9,120	160	8.0
	08-2090	Final Alternative Plan Document - Reservoirs	30	9/16/2002	10/28/2002	14	$12,540	220	7.3
	08-2120	H&H Evaluation of Alternative Plans - Reservoi	60	9/16/2002	12/12/2002	19	$23,940	420	7.0
	08-2100	Alt Plans Conceptual Design - Reservoirs	60	10/29/2002	1/28/2003	14	$38,760	680	11.3
	08-1480	Draft Watershed Assessment Report	15	11/5/2002	11/26/2002	54	$4,560	80	5.3
	08-1820	Alt Plans Conceptual Design - Canals	20	11/13/2002	12/13/2002	59	$23,940	420	21.0
	08-1840	H&H Evaluation of Alternative Plans - Canals	30	11/13/2002	12/30/2002	34	$23,940	420	14.0
	08-1510	Final Assessment Report	20	12/13/2002	1/13/2003	54	$6,840	120	6.0
	08-2237	Draft Water Control Plan - Reservoirs	45	12/13/2002	2/19/2003	34	$23,940	420	9.3
	08-1930	Eng & Design Appendix - Canals	25	1/7/2003	2/12/2003	59	$18,240	320	12.8
	08-1920	Environmental Evaluation Appendix - Canals	20	1/21/2003	2/19/2003	55	$4,560	80	4.0
	08-2110	Alt Plans Cost Estimates - Reservoirs	30	1/29/2003	3/12/2003	14	$6,840	120	4.0
	08-1880	Draft Alt Plan Evaluation Document - Canals -	20	2/20/2003	3/20/2003	34	$9,120	160	8.0
	08-2160	Draft Alt Plan Evaluation Document - Reservoir	20	3/13/2003	4/9/2003	19	$9,120	160	8.0
	08-2210	Eng & Design Appendix - Reservoir	25	3/13/2003	4/16/2003	14	$23,940	420	16.8
	08-1910	Final Alt Plan Evaluation Report - Canals	16	5/30/2003	6/20/2003	29	$6,840	120	7.5
	08-2190	Final Alt Plan Evaluation Report - Reservoirs	20	5/30/2003	6/26/2003	14	$9,120	160	8.0
	08-1960	Draft PIR/EIS - Canals - Contractor	15	6/23/2003	7/14/2003	29	$6,840	120	8.0
	08-2640	Value Engineering - Reservoirs	30	6/27/2003	8/8/2003	14	$9,120	160	5.3
	08-2630	Value Engineering - Canals	15	7/15/2003	8/4/2003	1,530	$4,560	80	5.3
	08-2254	Public Wkshp - Draft PIR/EIS - Contractor	22	10/1/2003	10/31/2003	22	$2,280	40	1.8

Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
	08-2274	Final Draft PIR/EIS - Contractor	44	11/14/2003	1/21/2004	14	$9,120	160	3.6
	08-2278	PIR PMP update - SFWMD	40	1/22/2004	3/18/2004	14	$6,840	120	3.0
	Summary for (36 detail records)				**TOTAL**		**$466,260**	**8,180**	
Contractor - Ecologist									
	08-1276	Perf Measure/Scoping Public Workshop - Cont	15	4/10/2002	4/30/2002	34	$1,368	24	1.6
	08-1279	Finalize Performance Measures	15	5/1/2002	5/21/2002	34	$2,280	40	2.7
	08-2050	Public Workshop - Alt Plans Form - Contractor	10	6/20/2002	7/3/2002	14	$4,560	80	8.0
	08-2150	Environmental Evaluation Alt Plans - Reservoir	60	12/13/2002	3/12/2003	19	$6,840	120	2.0
	08-1920	Environmental Evaluation Appendix - Canals	20	1/21/2003	2/19/2003	55	$4,560	80	4.0
	08-2200	Environmental Evaluation Appendix - Reservoir	20	3/13/2003	4/9/2003	19	$6,840	120	6.0
	08-2190	Final Alt Plan Evaluation Report - Reservoirs	20	5/30/2003	6/26/2003	14	$4,560	80	4.0
	08-1960	Draft PIR/EIS - Canals - Contractor	15	6/23/2003	7/14/2003	29	$4,560	80	5.3
	08-2240	Draft PIR/EIS - Reservoirs - Contractor	25	6/27/2003	8/1/2003	14	$6,840	120	4.8
	08-2248	Final Deliverable Draft PIR/EIS	40	8/5/2003	9/30/2003	14	$4,560	80	2.0
	Summary for (10 detail records)				**TOTAL**		**$46,968**	**824**	
Contractor - Economist									
	08-1279	Finalize Performance Measures	15	5/1/2002	5/21/2002	34	$2,280	40	2.7
	08-2039	Plan Formulation - Economics Input	30	5/8/2002	6/19/2002	14	$4,560	80	2.7
	08-1850	Socio-Economic Evaluation Alt Plans - Canals	10	12/30/2002	1/14/2003	59	$3,420	60	6.0
	08-1940	Socio-Economic Evaluation Appendix - Canals	20	1/14/2003	2/12/2003	59	$2,280	40	2.0
	08-1880	Draft Alt Plan Evaluation Document - Canals -	20	2/20/2003	3/20/2003	34	$2,280	40	2.0
	08-2220	Socio-Economic Evaluation Appendix - Reserv	20	3/13/2003	4/9/2003	19	$6,840	120	6.0
	08-2190	Final Alt Plan Evaluation Report - Reservoirs	20	5/30/2003	6/26/2003	14	$4,560	80	4.0
	08-2240	Draft PIR/EIS - Reservoirs - Contractor	25	6/27/2003	8/1/2003	14	$1,140	20	0.8
	Summary for (8 detail records)				**TOTAL**		**$27,360**	**480**	

Activity Cost Listing by Organization

13-Nov-01

Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
Contractor - GIS Tech									
	08-2480	GIS Database (topo, drainage, STA's, & Talism	15	2/27/2002	3/19/2002	89	$9,120	160	10.7
	08-1770	Initial Alternative Plans - Canals - Contractor	25	3/27/2002	4/30/2002	49	$13,680	240	9.6
	08-2040	Initial Alternative Plans - Reservoirs - Contract	35	3/27/2002	5/14/2002	39	$13,680	240	6.9
	08-2050	Public Workshop - Alt Plans Form - Contractor	10	6/20/2002	7/3/2002	14	$2,280	40	4.0
	08-1780	Final Alternative Plans - Canals	20	7/5/2002	8/1/2002	19	$9,120	160	8.0
	08-2060	Final Alternative Plans - Reservoirs	20	7/5/2002	8/1/2002	14	$12,540	220	11.0
	08-2070	Alternative Plans Description - Reservoirs	30	7/19/2002	8/29/2002	14	$10,032	176	5.9
	08-1810	Final Alternative Plan Document - Canals	20	9/16/2002	10/11/2002	54	$4,560	80	4.0
	08-2090	Final Alternative Plan Document - Reservoirs	30	9/16/2002	10/28/2002	14	$9,120	160	5.3
	08-2120	H&H Evaluation of Alternative Plans - Reservoi	60	9/16/2002	12/12/2002	19	$6,840	120	2.0
	08-2100	Alt Plans Conceptual Design - Reservoirs	60	10/29/2002	1/28/2003	14	$17,100	300	5.0
	08-1480	Draft Watershed Assessment Report	15	11/5/2002	11/26/2002	54	$3,420	60	4.0
	08-1840	H&H Evaluation of Alternative Plans - Canals	30	11/13/2002	12/30/2002	34	$12,540	220	7.3
	08-2140	Real Estate Cost Est Alt Plans - Reservoirs	10	12/13/2002	12/27/2002	59	$2,280	40	4.0
	08-1510	Final Assessment Report	20	12/13/2002	1/13/2003	54	$3,420	60	3.0
	08-2150	Environmental Evaluation Alt Plans - Reservoir	60	12/13/2002	3/12/2003	19	$4,560	80	1.3
	08-2230	Real Estate Evaluation Appendix - Reservoirs	30	12/30/2002	2/11/2003	59	$4,560	80	2.7
	08-1860	Real Estate Cost Est Alt Plans - Canals	10	12/30/2002	1/14/2003	49	$2,280	40	4.0
	08-1870	Environmental Evaluation Alt Plans - Canals	14	12/30/2002	1/21/2003	55	$4,560	80	5.7
	08-1930	Eng & Design Appendix - Canals	25	1/7/2003	2/12/2003	59	$11,400	200	8.0
	08-1950	Real Estate Evaluation Appendix - Canals	30	1/14/2003	2/27/2003	49	$6,840	120	4.0
	08-1880	Draft Alt Plan Evaluation Document - Canals -	20	2/20/2003	3/20/2003	34	$13,680	240	12.0
	08-2200	Environmental Evaluation Appendix - Reservoir	20	3/13/2003	4/9/2003	19	$5,016	88	4.4
	08-2160	Draft Alt Plan Evaluation Document - Reservoir	20	3/13/2003	4/9/2003	19	$4,560	80	4.0
	08-2210	Eng & Design Appendix - Reservoir	25	3/13/2003	4/16/2003	14	$9,120	160	6.4

Activity Cost Listing by Organization

13-Nov-01

Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
	08-1910	Final Alt Plan Evaluation Report - Canals	16	5/30/2003	6/20/2003	29	$6,840	120	7.5
	08-2190	Final Alt Plan Evaluation Report - Reservoirs	20	5/30/2003	6/26/2003	14	$9,120	160	8.0
	08-1960	Draft PIR/EIS - Canals - Contractor	15	6/23/2003	7/14/2003	29	$6,840	120	8.0
	08-2240	Draft PIR/EIS - Reservoirs - Contractor	25	6/27/2003	8/1/2003	14	$6,840	120	4.8
	08-2274	Final Draft PIR/EIS - Contractor	44	11/14/2003	1/21/2004	14	$9,120	160	3.6
	08-2278	PIR PMP update - SFWMD	40	1/22/2004	3/18/2004	14	$12,540	220	5.5
	Summary for (31 detail records)				**TOTAL**		**$247,608**	**4,344**	
Contractor - H&H Engineer									
	08-1230	Design Criteria and Scope of Work	7	12/24/2001	1/3/2002	70	$6,840	120	17.1
	08-1270	Seepage evaluation	30	2/27/2002	4/9/2002	74	$17,100	300	10.0
	08-1770	Initial Alternative Plans - Canals - Contractor	25	3/27/2002	4/30/2002	49	$13,680	240	9.6
	08-2040	Initial Alternative Plans - Reservoirs - Contract	35	3/27/2002	5/14/2002	39	$20,520	360	10.3
	08-1279	Finalize Performance Measures	15	5/1/2002	5/21/2002	34	$4,560	80	5.3
	08-1528	Define monitoring objectives - SFWMD	15	5/8/2002	5/29/2002	34	$2,280	40	2.7
	08-2050	Public Workshop - Alt Plans Form - Contractor	10	6/20/2002	7/3/2002	14	$4,560	80	8.0
	08-2060	Final Alternative Plans - Reservoirs	20	7/5/2002	8/1/2002	14	$18,240	320	16.0
	08-1208	Evaluate STA performance benefits (canal con	10	7/19/2002	8/1/2002	119	$6,840	120	12.0
	08-1700	Existing/future level of flood protection (canal c	20	7/19/2002	8/15/2002	89	$6,840	120	6.0
	08-2070	Alternative Plans Description - Reservoirs	30	7/19/2002	8/29/2002	14	$13,680	240	8.0
	08-1790	Alternative Plans Description - Canals	15	8/2/2002	8/22/2002	19	$9,120	160	10.7
	08-1790	Alternative Plans Description - Canals	15	8/2/2002	8/22/2002	19	$9,120	160	10.7
	08-1810	Final Alternative Plan Document - Canals	20	9/16/2002	10/11/2002	54	$6,840	120	6.0
	08-2120	H&H Evaluation of Alternative Plans - Reservoi	60	9/16/2002	12/12/2002	19	$27,360	480	8.0
	08-2100	Alt Plans Conceptual Design - Reservoirs	60	10/29/2002	1/28/2003	14	$25,650	450	7.5
	08-1480	Draft Watershed Assessment Report	15	11/5/2002	11/26/2002	54	$4,560	80	5.3
	08-1820	Alt Plans Conceptual Design - Canals	20	11/13/2002	12/13/2002	59	$9,120	160	8.0

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Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
	08-1840	H&H Evaluation of Alternative Plans - Canals	30	11/13/2002	12/30/2002	34	$13,680	240	8.0
	08-2150	Environmental Evaluation Alt Plans - Reservoir	60	12/13/2002	3/12/2003	19	$4,560	80	1.3
	08-1958	Draft Water Control Plan - Canals	35	12/30/2002	2/20/2003	34	$18,240	320	9.1
	08-1930	Eng & Design Appendix - Canals	25	1/7/2003	2/12/2003	59	$13,680	240	9.6
	08-1880	Draft Alt Plan Evaluation Document - Canals -	20	2/20/2003	3/20/2003	34	$6,840	120	6.0
	08-2160	Draft Alt Plan Evaluation Document - Reservoir	20	3/13/2003	4/9/2003	19	$3,420	60	3.0
	08-2210	Eng & Design Appendix - Reservoir	25	3/13/2003	4/16/2003	14	$18,240	320	12.8
	08-1910	Final Alt Plan Evaluation Report - Canals	16	5/30/2003	6/20/2003	29	$6,840	120	7.5
	08-2190	Final Alt Plan Evaluation Report - Reservoirs	20	5/30/2003	6/26/2003	14	$6,840	120	6.0
	08-1960	Draft PIR/EIS - Canals - Contractor	15	6/23/2003	7/14/2003	29	$6,840	120	8.0
	08-2240	Draft PIR/EIS - Reservoirs - Contractor	25	6/27/2003	8/1/2003	14	$6,840	120	4.8
	08-2248	Final Deliverable Draft PIR/EIS	40	8/5/2003	9/30/2003	14	$6,840	120	3.0
	08-2274	Final Draft PIR/EIS - Contractor	44	11/14/2003	1/21/2004	14	$9,120	160	3.6
	08-2278	PIR PMP update - SFWMD	40	1/22/2004	3/18/2004	14	$6,840	120	3.0
	Summary for (32 detail records)				**TOTAL**		**$335,730**	**5,890**	
Contractor - Hydro Modelor									
	08-1300	Select models/analytical methods	10	1/4/2002	1/17/2002	90	$5,700	100	10.0
	08-1272	Draft Performance Measures - Contractor	20	2/27/2002	3/26/2002	34	$13,680	240	12.0
	08-1290	Hydrology-surface drainage (canals) & Hydrog	40	3/13/2002	5/7/2002	54	$28,500	500	12.5
	08-1770	Initial Alternative Plans - Canals - Contractor	25	3/27/2002	4/30/2002	49	$13,680	240	9.6
	08-2040	Initial Alternative Plans - Reservoirs - Contract	35	3/27/2002	5/14/2002	39	$20,520	360	10.3
	08-1279	Finalize Performance Measures	15	5/1/2002	5/21/2002	34	$4,560	80	5.3
	08-1450	Water budget (SFWMM)	40	5/8/2002	7/3/2002	54	$6,840	120	3.0
	08-1330	Storage requirements	10	7/5/2002	7/18/2002	54	$22,800	400	40.0
	08-1320	Flow estimates	10	7/5/2002	7/18/2002	54	$13,680	240	24.0
	08-1780	Final Alternative Plans - Canals	20	7/5/2002	8/1/2002	19	$13,680	240	12.0

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Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
	08-1208	Evaluate STA performance benefits (canal con	10	7/19/2002	8/1/2002	119	$4,560	80	8.0
	08-1700	Existing/future level of flood protection (canal c	20	7/19/2002	8/15/2002	89	$6,840	120	6.0
	08-1460	Model scenario runs (SFWMM)	75	7/19/2002	11/4/2002	54	$18,240	320	4.3
	08-2090	Final Alternative Plan Document - Reservoirs	30	9/16/2002	10/28/2002	14	$6,840	120	4.0
	08-2120	H&H Evaluation of Alternative Plans - Reservoi	60	9/16/2002	12/12/2002	19	$28,500	500	8.3
	08-2100	Alt Plans Conceptual Design - Reservoirs	60	10/29/2002	1/28/2003	14	$9,120	160	2.7
	08-1480	Draft Watershed Assessment Report	15	11/5/2002	11/26/2002	54	$4,560	80	5.3
	08-1840	H&H Evaluation of Alternative Plans - Canals	30	11/13/2002	12/30/2002	34	$20,520	360	12.0
	08-1510	Final Assessment Report	20	12/13/2002	1/13/2003	54	$6,840	120	6.0
	08-2150	Environmental Evaluation Alt Plans - Reservoir	60	12/13/2002	3/12/2003	19	$4,560	80	1.3
	08-1870	Environmental Evaluation Alt Plans - Canals	14	12/30/2002	1/21/2003	55	$4,560	80	5.7
	08-1930	Eng & Design Appendix - Canals	25	1/7/2003	2/12/2003	59	$13,680	240	9.6
	08-1880	Draft Alt Plan Evaluation Document - Canals -	20	2/20/2003	3/20/2003	34	$6,840	120	6.0
	08-2160	Draft Alt Plan Evaluation Document - Reservoir	20	3/13/2003	4/9/2003	19	$6,840	120	6.0
	08-2200	Environmental Evaluation Appendix - Reservoir	20	3/13/2003	4/9/2003	19	$5,016	88	4.4
	08-2210	Eng & Design Appendix - Reservoir	25	3/13/2003	4/16/2003	14	$18,240	320	12.8
	08-1910	Final Alt Plan Evaluation Report - Canals	16	5/30/2003	6/20/2003	29	$6,840	120	7.5
	08-2190	Final Alt Plan Evaluation Report - Reservoirs	20	5/30/2003	6/26/2003	14	$9,120	160	8.0
	08-1960	Draft PIR/EIS - Canals - Contractor	15	6/23/2003	7/14/2003	29	$6,840	120	8.0
	08-2254	Public Wkshp - Draft PIR/EIS - Contractor	22	10/1/2003	10/31/2003	22	$2,280	40	1.8
	08-2274	Final Draft PIR/EIS - Contractor	44	11/14/2003	1/21/2004	14	$6,840	120	2.7
	08-2278	PIR PMP update - SFWMD	40	1/22/2004	3/18/2004	14	$6,840	120	3.0
	Summary for (32 detail records)				**TOTAL**		**$348,156**	**6,108**	
Contractor - Hydrologist									
	08-1240	Review Re-Study AH D13R Assumptions	10	2/27/2002	3/12/2002	54	$4,560	80	8.0
	08-1840	H&H Evaluation of Alternative Plans - Canals	30	11/13/2002	12/30/2002	34	$6,840	120	4.0

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Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
	08-1510	Final Assessment Report	20	12/13/2002	1/13/2003	54	$4,560	80	4.0
	08-1930	Eng & Design Appendix - Canals	25	1/7/2003	2/12/2003	59	$9,120	160	6.4
	08-2210	Eng & Design Appendix - Reservoir	25	3/13/2003	4/16/2003	14	$6,840	120	4.8
	08-1960	Draft PIR/EIS - Canals - Contractor	15	6/23/2003	7/14/2003	29	$2,280	40	2.7
	08-2278	PIR PMP update - SFWMD	40	1/22/2004	3/18/2004	14	$6,840	120	3.0
	Summary for (7 detail records)				**TOTAL**		**$41,040**	**720**	
Contractor - Planner									
	08-2850	Existing/Base Conditions	25	2/26/2002	4/1/2002	40	$6,840	120	4.8
	08-1272	Draft Performance Measures - Contractor	20	2/27/2002	3/26/2002	34	$6,840	120	6.0
	08-1260	Future Land Use Projections	25	2/27/2002	4/2/2002	14	$6,840	120	4.8
	08-1770	Initial Alternative Plans - Canals - Contractor	25	3/27/2002	4/30/2002	49	$3,420	60	2.4
	08-2040	Initial Alternative Plans - Reservoirs - Contract	35	3/27/2002	5/14/2002	39	$10,260	180	5.1
	08-2860	Future Without Project	25	4/3/2002	5/7/2002	14	$6,840	120	4.8
	08-1276	Perf Measure/Scoping Public Workshop - Cont	15	4/10/2002	4/30/2002	34	$1,368	24	1.6
	08-1279	Finalize Performance Measures	15	5/1/2002	5/21/2002	34	$6,840	120	8.0
	08-2050	Public Workshop - Alt Plans Form - Contractor	10	6/20/2002	7/3/2002	14	$4,560	80	8.0
	08-1780	Final Alternative Plans - Canals	20	7/5/2002	8/1/2002	19	$4,560	80	4.0
	08-2060	Final Alternative Plans - Reservoirs	20	7/5/2002	8/1/2002	14	$6,840	120	6.0
	08-2070	Alternative Plans Description - Reservoirs	30	7/19/2002	8/29/2002	14	$9,120	160	5.3
	08-1790	Alternative Plans Description - Canals	15	8/2/2002	8/22/2002	19	$4,560	80	5.3
	08-1810	Final Alternative Plan Document - Canals	20	9/16/2002	10/11/2002	54	$6,840	120	6.0
	08-2090	Final Alternative Plan Document - Reservoirs	30	9/16/2002	10/28/2002	14	$3,420	60	2.0
	08-1480	Draft Watershed Assessment Report	15	11/5/2002	11/26/2002	54	$2,280	40	2.7
	08-1520	PMP Update - Assess Phase Contract	40	1/14/2003	3/12/2003	54	$9,120	160	4.0
	08-1880	Draft Alt Plan Evaluation Document - Canals -	20	2/20/2003	3/20/2003	34	$9,120	160	8.0
	08-2160	Draft Alt Plan Evaluation Document - Reservoir	20	3/13/2003	4/9/2003	19	$2,280	40	2.0

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Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
	08-2220	Socio-Economic Evaluation Appendix - Reserv	20	3/13/2003	4/9/2003	19	$4,560	80	4.0
	08-1910	Final Alt Plan Evaluation Report - Canals	16	5/30/2003	6/20/2003	29	$9,120	160	10.0
	08-2190	Final Alt Plan Evaluation Report - Reservoirs	20	5/30/2003	6/26/2003	14	$4,560	80	4.0
	08-2240	Draft PIR/EIS - Reservoirs - Contractor	25	6/27/2003	8/1/2003	14	$2,280	40	1.6
	08-2274	Final Draft PIR/EIS - Contractor	44	11/14/2003	1/21/2004	14	$3,420	60	1.4
	08-2278	PIR PMP update - SFWMD	40	1/22/2004	3/18/2004	14	$4,560	80	2.0
	Summary for (25 detail records)				**TOTAL**		**$140,448**	**2,464**	
Contractor - Project Mgr									
	08-1272	Draft Performance Measures - Contractor	20	2/27/2002	3/26/2002	34	$3,420	60	3.0
	08-2041	Topo Data collection - Reservoirs	180	2/27/2002	11/12/2002	34	$2,280	40	0.2
	08-1761	Topo Data Collection - Canals	180	2/27/2002	11/13/2002	34	$4,560	80	0.4
	08-1770	Initial Alternative Plans - Canals - Contractor	25	3/27/2002	4/30/2002	49	$2,280	40	1.6
	08-2040	Initial Alternative Plans - Reservoirs - Contract	35	3/27/2002	5/14/2002	39	$4,560	80	2.3
	08-1276	Perf Measure/Scoping Public Workshop - Cont	15	4/10/2002	4/30/2002	34	$1,824	32	2.1
	08-1279	Finalize Performance Measures	15	5/1/2002	5/21/2002	34	$2,280	40	2.7
	08-2050	Public Workshop - Alt Plans Form - Contractor	10	6/20/2002	7/3/2002	14	$4,560	80	8.0
	08-2060	Final Alternative Plans - Reservoirs	20	7/5/2002	8/1/2002	14	$6,840	120	6.0
	08-1780	Final Alternative Plans - Canals	20	7/5/2002	8/1/2002	19	$2,280	40	2.0
	08-2070	Alternative Plans Description - Reservoirs	30	7/19/2002	8/29/2002	14	$6,840	120	4.0
	08-2090	Final Alternative Plan Document - Reservoirs	30	9/16/2002	10/28/2002	14	$3,420	60	2.0
	08-1510	Final Assessment Report	20	12/13/2002	1/13/2003	54	$2,280	40	2.0
	08-1870	Environmental Evaluation Alt Plans - Canals	14	12/30/2002	1/21/2003	55	$4,560	80	5.7
	08-1520	PMP Update - Assess Phase Contract	40	1/14/2003	3/12/2003	54	$2,280	40	1.0
	08-1880	Draft Alt Plan Evaluation Document - Canals -	20	2/20/2003	3/20/2003	34	$4,560	80	4.0
	08-2220	Socio-Economic Evaluation Appendix - Reserv	20	3/13/2003	4/9/2003	19	$2,280	40	2.0
	08-2200	Environmental Evaluation Appendix - Reservoir	20	3/13/2003	4/9/2003	19	$2,280	40	2.0

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Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
	08-2160	Draft Alt Plan Evaluation Document - Reservoir	20	3/13/2003	4/9/2003	19	$4,560	80	4.0
	08-1910	Final Alt Plan Evaluation Report - Canals	16	5/30/2003	6/20/2003	29	$2,280	40	2.5
	08-2190	Final Alt Plan Evaluation Report - Reservoirs	20	5/30/2003	6/26/2003	14	$4,560	80	4.0
	08-1960	Draft PIR/EIS - Canals - Contractor	15	6/23/2003	7/14/2003	29	$4,560	80	5.3
	08-2240	Draft PIR/EIS - Reservoirs - Contractor	25	6/27/2003	8/1/2003	14	$1,140	20	0.8
	08-2254	Public Wkshp - Draft PIR/EIS - Contractor	22	10/1/2003	10/31/2003	22	$912	16	0.7
	08-2274	Final Draft PIR/EIS - Contractor	44	11/14/2003	1/21/2004	14	$2,280	40	0.9
	08-2278	PIR PMP update - SFWMD	40	1/22/2004	3/18/2004	14	$4,560	80	2.0
	Summary for (26 detail records)				**TOTAL**		**$88,236**	**1,548**	
Contractor - Public Relations									
	08-1276	Perf Measure/Scoping Public Workshop - Cont	15	4/10/2002	4/30/2002	34	$4,560	80	5.3
	08-2050	Public Workshop - Alt Plans Form - Contractor	10	6/20/2002	7/3/2002	14	$9,120	160	16.0
	08-2254	Public Wkshp - Draft PIR/EIS - Contractor	22	10/1/2003	10/31/2003	22	$4,560	80	3.6
	Summary for (3 detail records)				**TOTAL**		**$18,240**	**320**	
Contractor - Real Estate									
	08-2051	Real Estate Data Collection - Reservoirs	30	2/27/2002	4/9/2002	74	$9,120	160	5.3
	08-1771	Real Estate Data Collection - Canals	45	2/27/2002	4/30/2002	64	$23,940	420	9.3
	08-1780	Final Alternative Plans - Canals	20	7/5/2002	8/1/2002	19	$2,280	40	2.0
	08-2060	Final Alternative Plans - Reservoirs	20	7/5/2002	8/1/2002	14	$1,368	24	1.2
	08-2140	Real Estate Cost Est Alt Plans - Reservoirs	10	12/13/2002	12/27/2002	59	$4,560	80	8.0
	08-2130	Socio-Economic Evaluation Alt Plans - Reserv	60	12/13/2002	3/12/2003	19	$4,560	80	1.3
	08-2230	Real Estate Evaluation Appendix - Reservoirs	30	12/30/2002	2/11/2003	59	$6,840	120	4.0
	08-1860	Real Estate Cost Est Alt Plans - Canals	10	12/30/2002	1/14/2003	49	$4,560	80	8.0
	08-1850	Socio-Economic Evaluation Alt Plans - Canals	10	12/30/2002	1/14/2003	59	$4,560	80	8.0
	08-1950	Real Estate Evaluation Appendix - Canals	30	1/14/2003	2/27/2003	49	$13,680	240	8.0
	08-2160	Draft Alt Plan Evaluation Document - Reservoir	20	3/13/2003	4/9/2003	19	$1,140	20	1.0

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Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
	08-2190	Final Alt Plan Evaluation Report - Reservoirs	20	5/30/2003	6/26/2003	14	$2,280	40	2.0
	08-2240	Draft PIR/EIS - Reservoirs - Contractor	25	6/27/2003	8/1/2003	14	$1,140	20	0.8
	08-2248	Final Deliverable Draft PIR/EIS	40	8/5/2003	9/30/2003	14	$4,560	80	2.0
	08-2278	PIR PMP update - SFWMD	40	1/22/2004	3/18/2004	14	$2,280	40	1.0
	Summary for (15 detail records)				**TOTAL**		**$86,868**	**1,524**	
Contractor - Sociologist									
	08-1272	Draft Performance Measures - Contractor	20	2/27/2002	3/26/2002	34	$3,420	60	3.0
	08-2130	Socio-Economic Evaluation Alt Plans - Reserv	60	12/13/2002	3/12/2003	19	$6,840	120	2.0
	08-1940	Socio-Economic Evaluation Appendix - Canals	20	1/14/2003	2/12/2003	59	$4,560	80	4.0
	08-2220	Socio-Economic Evaluation Appendix - Reserv	20	3/13/2003	4/9/2003	19	$6,840	120	6.0
	08-2190	Final Alt Plan Evaluation Report - Reservoirs	20	5/30/2003	6/26/2003	14	$2,280	40	2.0
	08-2240	Draft PIR/EIS - Reservoirs - Contractor	25	6/27/2003	8/1/2003	14	$1,140	20	0.8
	08-2248	Final Deliverable Draft PIR/EIS	40	8/5/2003	9/30/2003	14	$2,280	40	1.0
	Summary for (7 detail records)				**TOTAL**		**$27,360**	**480**	
Contractor - Water Quality									
	08-1272	Draft Performance Measures - Contractor	20	2/27/2002	3/26/2002	34	$6,840	120	6.0
	08-1218	Preliminary Water Quality Assessment	40	2/27/2002	4/23/2002	34	$28,500	500	12.5
	08-2570	Hazardous Toxic Radioactive Waste Assessm	60	2/27/2002	5/21/2002	179	$27,360	480	8.0
	08-2580	Hazardous Toxic Radioactive Waste Assessm	120	2/27/2002	8/15/2002	64	$27,360	480	4.0
	08-1770	Initial Alternative Plans - Canals - Contractor	25	3/27/2002	4/30/2002	49	$13,680	240	9.6
	08-2040	Initial Alternative Plans - Reservoirs - Contract	35	3/27/2002	5/14/2002	39	$9,120	160	4.6
	08-1527	Evaluation of existing WQ monitoring - SFWM	10	4/24/2002	5/7/2002	34	$4,560	80	8.0
	08-1528	Define monitoring objectives - SFWMD	15	5/8/2002	5/29/2002	34	$3,420	60	4.0
	08-1780	Final Alternative Plans - Canals	20	7/5/2002	8/1/2002	19	$6,840	120	6.0
	08-2060	Final Alternative Plans - Reservoirs	20	7/5/2002	8/1/2002	14	$10,260	180	9.0
	08-2090	Final Alternative Plan Document - Reservoirs	30	9/16/2002	10/28/2002	14	$6,840	120	4.0

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Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
	08-1480	Draft Watershed Assessment Report	15	11/5/2002	11/26/2002	54	$4,560	80	5.3
	08-1510	Final Assessment Report	20	12/13/2002	1/13/2003	54	$9,120	160	8.0
	08-2150	Environmental Evaluation Alt Plans - Reservoir	60	12/13/2002	3/12/2003	19	$23,940	420	7.0
	08-1870	Environmental Evaluation Alt Plans - Canals	14	12/30/2002	1/21/2003	55	$6,840	120	8.6
	08-1880	Draft Alt Plan Evaluation Document - Canals -	20	2/20/2003	3/20/2003	34	$6,840	120	6.0
	08-2160	Draft Alt Plan Evaluation Document - Reservoir	20	3/13/2003	4/9/2003	19	$4,560	80	4.0
	08-2200	Environmental Evaluation Appendix - Reservoir	20	3/13/2003	4/9/2003	19	$9,120	160	8.0
	08-2190	Final Alt Plan Evaluation Report - Reservoirs	20	5/30/2003	6/26/2003	14	$6,840	120	6.0
	08-1960	Draft PIR/EIS - Canals - Contractor	15	6/23/2003	7/14/2003	29	$4,560	80	5.3
	08-2240	Draft PIR/EIS - Reservoirs - Contractor	25	6/27/2003	8/1/2003	14	$6,840	120	4.8
	08-2254	Public Wkshp - Draft PIR/EIS - Contractor	22	10/1/2003	10/31/2003	22	$2,280	40	1.8
	08-2274	Final Draft PIR/EIS - Contractor	44	11/14/2003	1/21/2004	14	$12,540	220	5.0
	Summary for (23 detail records)				**TOTAL**		**$242,820**	**4,260**	
Independent Tech Review									
	08-1500	Independent Tech Review - Assessment Repor	10	11/27/2002	12/12/2002	54	$30,400	80	8.0
	08-2180	Independent Tech Review Alt Plan Evaluation	15	5/8/2003	5/29/2003	14	$60,800	160	10.7
	Summary for (2 detail records)				**TOTAL**		**$91,200**	**240**	
RECOVER POC									
	08-2036	RECOVER - PDT participation	500	1/22/2001	1/21/2003	124	$28,500	500	1.0
	08-1178	RECOVER - Watershed Assess - PDT particip	100	12/31/2001	5/22/2002	193	$4,560	80	0.8
	08-1572	RECOVER Monitoring Plan Review	15	1/14/2003	2/4/2003	34	$2,280	40	2.7
	Summary for (3 detail records)				**TOTAL**		**$35,340**	**620**	
RECOVER Team									
	08-1961	RECOVER Review Draft PIR/EIS - Canals	10	7/15/2003	7/28/2003	89	$11,400	20	2.0
	08-2241	RECOVER Review Draft PIR/EIS - Reservoirs	20	8/4/2003	8/29/2003	35	$17,100	30	1.5

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Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
		Summary for (2 detail records)			**TOTAL**		**$28,500**	**50**	
SFWMD - Counsel									
	08-1200	Procurement AE contract - SFWMD	20	1/28/2002	2/25/2002	14	$13,680	240	12.0
	08-2462	Talisman Property - Advance Notice of Constru	43	7/31/2002	10/1/2002	0	$6,840	120	2.8
	08-2450	Woerner Property - Notice of Intent to Terminat	60	12/2/2002	2/28/2003	0	$6,840	120	2.0
	08-2810	Preliminary Endorsement/Letter of Intent by SF	5	11/25/2003	12/3/2003	0	$2,280	40	8.0
	08-2303	Final PIR/EIS Div. Eng. Notice - SFWMD	12	1/9/2004	1/27/2004	0	$5,928	104	8.7
	08-2460	Woerner Property Available for Remediation	1	2/27/2004	2/27/2004	0	$4,560	80	80.0
	08-2463	Talisman Property - Notice of Construction Imp	43	7/1/2004	9/1/2004	0	$4,560	80	1.9
	08-2360	Land Verification - Reservoirs	40	2/2/2005	3/31/2005	0	$6,840	120	3.0
	08-2464	Talisman Property - Notice to Vacate	20	3/4/2005	4/1/2005	0	$9,120	160	8.0
		Summary for (9 detail records)			**TOTAL**		**$60,648**	**1,064**	
SFWMD - Economist									
	08-1274	PDT Performance Measures Review - SFWMD	10	3/27/2002	4/9/2002	34	$1,140	20	2.0
	08-1278	Perf Measure/Scoping Public Workshop - SFW	15	4/10/2002	4/30/2002	34	$1,824	32	2.1
	08-1795	PDT Review Alt Plans - SFWMD	10	8/30/2002	9/13/2002	14	$3,534	62	6.2
	08-1485	PDT review - Draft Assess Report - SFWMD	10	11/27/2002	12/12/2002	54	$2,280	40	4.0
	08-2165	PDT Cmts - Draft Alt Plan Evaluation - SFWMD	10	4/17/2003	5/1/2003	19	$3,420	60	5.8
	08-1966	PDT Review Draft PIR/EIS - Canals - SFWMD	10	7/15/2003	7/28/2003	1,535	$2,280	40	4.0
	08-1975	PDT Comparison Alt Plans - Canals - SFWMD	10	7/15/2003	7/28/2003	89	$2,280	40	4.0
	08-2710	PDT Comparison Alt Plans -Reservoirs - SFW	10	8/4/2003	8/15/2003	45	$2,280	40	4.0
	08-2246	PDT Review Draft PIR/EIS - Reservoirs SFWM	30	8/4/2003	9/15/2003	25	$2,280	40	1.3
	08-2256	Public Wkshp - Draft PIR/EIS - SFWMD	22	10/1/2003	10/31/2003	22	$1,368	24	1.1
	08-2276	Final Draft PIR/EIS - SFWMD	44	11/14/2003	1/21/2004	14	$2,280	40	0.9
		Summary for (11 detail records)			**TOTAL**		**$24,966**	**438**	

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Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
SFWMD - Engineer									
	08-1181	Scope of Work AE Contract - SFWMD	15	12/24/2001	1/15/2002	16	$13,680	240	16.0
	08-1190	Government Estimates - SFWMD	10	1/11/2002	1/25/2002	14	$6,840	120	12.0
	08-1930	Eng & Design Appendix - Canals	25	1/7/2003	2/12/2003	59	$9,120	160	6.4
	08-2210	Eng & Design Appendix - Reservoir	25	3/13/2003	4/16/2003	14	$12,540	220	8.8
	08-2640	Value Engineering - Reservoirs	30	6/27/2003	8/8/2003	14	$13,680	240	8.0
	08-2630	Value Engineering - Canals	15	7/15/2003	8/4/2003	1,530	$6,840	120	8.0
	08-2256	Public Wkshp - Draft PIR/EIS - SFWMD	22	10/1/2003	10/31/2003	22	$2,280	40	1.8
	08-2276	Final Draft PIR/EIS - SFWMD	44	11/14/2003	1/21/2004	14	$6,840	120	2.7
	08-2278	PIR PMP update - SFWMD	40	1/22/2004	3/18/2004	14	$6,840	120	3.0
	Summary for (9 detail records)				**TOTAL**		**$78,660**	**1,380**	
SFWMD - Modeler									
	08-1300	Select models/analytical methods	10	1/4/2002	1/17/2002	90	$3,420	60	6.0
	08-1240	Review Re-Study AH D13R Assumptions	10	2/27/2002	3/12/2002	54	$2,280	40	4.0
	08-1273	Draft Performance Measures - SFWMD	20	2/27/2002	3/26/2002	34	$6,840	120	6.0
	08-1270	Seepage evaluation	30	2/27/2002	4/9/2002	74	$6,840	120	4.0
	08-1274	PDT Performance Measures Review - SFWMD	10	3/27/2002	4/9/2002	34	$1,368	24	2.4
	08-1767	Inital Alternative Plans - Canals - SFWMD	25	3/27/2002	4/30/2002	49	$2,280	40	1.6
	08-2038	Initial Alternative Plans - Reservoir - SFWMD	35	3/27/2002	5/14/2002	39	$0	280	8.0
	08-1450	Water budget (SFWMM)	40	5/8/2002	7/3/2002	54	$13,680	240	6.0
	08-1777	Public Workshop - Alt Plan Form - SFWMD	10	6/20/2002	7/3/2002	14	$2,736	48	4.8
	08-1320	Flow estimates	10	7/5/2002	7/18/2002	54	$6,840	120	12.0
	08-1330	Storage requirements	10	7/5/2002	7/18/2002	54	$4,560	80	8.0
	08-1460	Model scenario runs (SFWMM)	75	7/19/2002	11/4/2002	54	$38,760	680	9.1
	08-1795	PDT Review Alt Plans - SFWMD	10	8/30/2002	9/13/2002	14	$6,384	112	11.2
	08-1485	PDT review - Draft Assess Report - SFWMD	10	11/27/2002	12/12/2002	54	$2,280	40	4.0

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Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
	08-1574	Monitoring Network Design- SFWMD	45	2/5/2003	4/9/2003	34	$2,280	40	0.9
	08-2165	PDT Cmts - Draft Alt Plan Evaluation - SFWMD	10	4/17/2003	5/1/2003	19	$9,120	160	15.6
	08-1975	PDT Comparison Alt Plans - Canals - SFWMD	10	7/15/2003	7/28/2003	89	$6,840	120	12.0
	08-1966	PDT Review Draft PIR/EIS - Canals - SFWMD	10	7/15/2003	7/28/2003	1,535	$4,560	80	8.0
	08-2710	PDT Comparison Alt Plans -Reservoirs - SFW	10	8/4/2003	8/15/2003	45	$6,840	120	12.0
	08-2246	PDT Review Draft PIR/EIS - Reservoirs SFWM	30	8/4/2003	9/15/2003	25	$4,560	80	2.7
	08-2276	Final Draft PIR/EIS - SFWMD	44	11/14/2003	1/21/2004	14	$4,560	80	1.8
	Summary for (21 detail records)				**TOTAL**		**$137,028**	**2,684**	
SFWMD - Monitoring									
	08-1527	Evaluation of existing WQ monitoring - SFWM	10	4/24/2002	5/7/2002	34	$4,560	80	8.0
	08-1528	Define monitoring objectives - SFWMD	15	5/8/2002	5/29/2002	34	$2,280	40	2.7
	08-1540	Identify Potential Monitoring Sites	60	5/30/2002	8/22/2002	34	$15,960	280	4.7
	08-1550	Site & Parameter Selection	45	8/23/2002	10/28/2002	34	$13,680	240	5.3
	08-1560	Monitoring Site Design	30	10/29/2002	12/12/2002	34	$27,360	480	16.0
	08-1570	Network Cost Estimate	20	12/13/2002	1/13/2003	34	$13,680	240	12.0
	08-1574	Monitoring Network Design- SFWMD	45	2/5/2003	4/9/2003	34	$6,840	120	2.7
	Summary for (7 detail records)				**TOTAL**		**$84,360**	**1,480**	
SFWMD - Operations									
	08-1273	Draft Performance Measures - SFWMD	20	2/27/2002	3/26/2002	34	$6,840	120	6.0
	08-1274	PDT Performance Measures Review - SFWMD	10	3/27/2002	4/9/2002	34	$1,140	20	2.0
	08-1767	Inital Alternative Plans - Canals - SFWMD	25	3/27/2002	4/30/2002	49	$4,560	80	3.2
	08-2038	Initial Alternative Plans - Reservoir - SFWMD	35	3/27/2002	5/14/2002	39	$15,960	280	8.0
	08-1278	Perf Measure/Scoping Public Workshop - SFW	15	4/10/2002	4/30/2002	34	$1,368	24	1.6
	08-1795	PDT Review Alt Plans - SFWMD	10	8/30/2002	9/13/2002	14	$6,384	112	11.2
	08-1485	PDT review - Draft Assess Report - SFWMD	10	11/27/2002	12/12/2002	54	$4,560	80	8.0
	08-2165	PDT Cmts - Draft Alt Plan Evaluation - SFWMD	10	4/17/2003	5/1/2003	19	$9,120	160	15.6

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Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
	08-1966	PDT Review Draft PIR/EIS - Canals - SFWMD	10	7/15/2003	7/28/2003	1,535	$4,560	80	8.0
	08-1975	PDT Comparison Alt Plans - Canals - SFWMD	10	7/15/2003	7/28/2003	89	$6,840	120	12.0
	08-2710	PDT Comparison Alt Plans -Reservoirs - SFW	10	8/4/2003	8/15/2003	45	$6,840	120	12.0
	08-2246	PDT Review Draft PIR/EIS - Reservoirs SFWM	30	8/4/2003	9/15/2003	25	$4,560	80	2.7
	08-2276	Final Draft PIR/EIS - SFWMD	44	11/14/2003	1/21/2004	14	$6,840	120	2.7
	08-2278	PIR PMP update - SFWMD	40	1/22/2004	3/18/2004	14	$9,120	160	4.0
	Summary for (14 detail records)				**TOTAL**		**$88,692**	**1,556**	
SFWMD - Permits									
	08-2570	Hazardous Toxic Radioactive Waste Assessm	60	2/27/2002	5/21/2002	179	$27,360	480	8.0
	08-2580	Hazardous Toxic Radioactive Waste Assessm	120	2/27/2002	8/15/2002	64	$27,360	480	4.0
	08-2750	Pre-Application Meeting	10	4/2/2002	4/15/2002	0	$2,280	40	4.0
	08-1278	Perf Measure/Scoping Public Workshop - SFW	15	4/10/2002	4/30/2002	34	$2,280	40	2.7
	08-2760	Pre-Application Concurrence Letter	4	4/17/2002	4/22/2002	0	$1,824	32	8.0
	08-2770	Pre-Application Letter	4	5/1/2002	5/6/2002	0	$1,824	32	8.0
	08-2165	PDT Cmts - Draft Alt Plan Evaluation - SFWMD	10	4/17/2003	5/1/2003	19	$4,560	80	7.8
	08-2246	PDT Review Draft PIR/EIS - Reservoirs SFWM	30	8/4/2003	9/15/2003	25	$6,840	120	4.0
	08-2780	Sec. 373.1501(5) Submital to FDEP	10	10/20/2003	10/31/2003	0	$4,560	80	8.0
	08-2800	WQC Permits issued by FDEP	10	11/3/2003	11/17/2003	0	$4,560	80	8.0
	08-2790	Sec. 373.026(8)(b) Approval by FDEP	10	11/3/2003	11/17/2003	0	$4,560	80	8.0
	08-2276	Final Draft PIR/EIS - SFWMD	44	11/14/2003	1/21/2004	14	$9,120	160	3.6
	08-2278	PIR PMP update - SFWMD	40	1/22/2004	3/18/2004	14	$9,120	160	4.0
	Summary for (13 detail records)				**TOTAL**		**$106,248**	**1,864**	
SFWMD - Procurement									
	08-1181	Scope of Work AE Contract - SFWMD	15	12/24/2001	1/15/2002	16	$10,260	180	12.0
	08-1190	Government Estimates - SFWMD	10	1/11/2002	1/25/2002	14	$4,560	80	8.0
	08-1200	Procurement AE contract - SFWMD	20	1/28/2002	2/25/2002	14	$13,680	240	12.0

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Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
		Summary for (3 detail records)			TOTAL		$28,500	500	
SFWMD - Project Manager									
	08-1230	Design Criteria and Scope of Work	7	12/24/2001	1/3/2002	70	$4,560	80	11.4
	08-1181	Scope of Work AE Contract - SFWMD	15	12/24/2001	1/15/2002	16	$20,520	360	24.0
	08-1220	Planning Tech Lead - SFWMD	100	12/24/2001	5/16/2002	217	$22,800	400	4.0
	08-2054	PIR Proj Mgt - SFWMD	522	12/24/2001	1/27/2004	0	$15,960	280	0.5
	08-1190	Government Estimates - SFWMD	10	1/11/2002	1/25/2002	14	$4,560	80	8.0
	08-1200	Procurement AE contract - SFWMD	20	1/28/2002	2/25/2002	14	$6,840	120	6.0
	08-1273	Draft Performance Measures - SFWMD	20	2/27/2002	3/26/2002	34	$9,120	160	8.0
	08-1274	PDT Performance Measures Review - SFWMD	10	3/27/2002	4/9/2002	34	$2,280	40	4.0
	08-2750	Pre-Application Meeting	10	4/2/2002	4/15/2002	0	$2,280	40	4.0
	08-1278	Perf Measure/Scoping Public Workshop - SFW	15	4/10/2002	4/30/2002	34	$2,280	40	2.7
	08-2760	Pre-Application Concurrence Letter	4	4/17/2002	4/22/2002	0	$1,824	32	8.0
	08-2770	Pre-Application Letter	4	5/1/2002	5/6/2002	0	$1,824	32	8.0
	08-1528	Define monitoring objectives - SFWMD	15	5/8/2002	5/29/2002	34	$2,280	40	2.7
	08-2600	Feasibility Scoping Meeting - SFWMD	10	5/15/2002	5/29/2002	89	$4,560	80	8.0
	08-1540	Identify Potential Monitoring Sites	60	5/30/2002	8/22/2002	34	$2,280	40	0.7
	08-1777	Public Workshop - Alt Plan Form - SFWMD	10	6/20/2002	7/3/2002	14	$6,840	120	12.0
	08-2462	Talisman Property - Advance Notice of Constru	43	7/31/2002	10/1/2002	0	$4,560	80	1.9
	08-1550	Site & Parameter Selection	45	8/23/2002	10/28/2002	34	$6,840	120	2.7
	08-1795	PDT Review Alt Plans - SFWMD	10	8/30/2002	9/13/2002	14	$6,384	112	11.2
	08-1485	PDT review - Draft Assess Report - SFWMD	10	11/27/2002	12/12/2002	54	$4,560	80	8.0
	08-2450	Woerner Property - Notice of Intent to Terminat	60	12/2/2002	2/28/2003	0	$4,560	80	1.3
	08-1516	PMP Update - Assess Phase SFWMD	40	1/14/2003	3/12/2003	54	$18,240	320	8.0
	08-2165	PDT Cmts - Draft Alt Plan Evaluation - SFWMD	10	4/17/2003	5/1/2003	19	$4,560	80	7.8
	08-2660	Alternative Formulation Briefing - SFWMD	10	7/14/2003	7/25/2003	77	$6,840	120	12.0

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Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
	08-2820	Reasonable Assurances Stauts Meeting	5	9/9/2003	9/15/2003	77	$2,280	40	8.0
	08-2840	In-Progress Review	5	9/24/2003	9/30/2003	44	$2,280	40	8.0
	08-2256	Public Wkshp - Draft PIR/EIS - SFWMD	22	10/1/2003	10/31/2003	22	$4,560	80	3.6
	08-2780	Sec. 373.1501(5) Submital to FDEP	10	10/20/2003	10/31/2003	0	$2,280	40	4.0
	08-2303	Final PIR/EIS Div. Eng. Notice - SFWMD	12	1/9/2004	1/27/2004	0	$4,560	80	6.7
	08-2035	Congressional Committee Approval PIR	100	1/28/2004	6/17/2004	212	$2,280	40	0.4
	08-2360	Land Verification - Reservoirs	40	2/2/2005	3/31/2005	0	$4,560	80	2.0
	Summary for (31 detail records)				**TOTAL**		**$190,152**	**3,336**	
SFWMD - Public Outreach									
	08-1278	Perf Measure/Scoping Public Workshop - SFW	15	4/10/2002	4/30/2002	34	$4,560	80	5.3
	08-1777	Public Workshop - Alt Plan Form - SFWMD	10	6/20/2002	7/3/2002	14	$9,120	160	16.0
	08-2256	Public Wkshp - Draft PIR/EIS - SFWMD	22	10/1/2003	10/31/2003	22	$6,840	120	5.5
	08-2250	Public Review Draft PIR/EIS	30	10/1/2003	11/13/2003	14	$4,560	80	2.7
	Summary for (4 detail records)				**TOTAL**		**$25,080**	**440**	
SFWMD - Real Estate									
	08-1767	Inital Alternative Plans - Canals - SFWMD	25	3/27/2002	4/30/2002	49	$4,560	80	3.2
	08-2038	Initial Alternative Plans - Reservoir - SFWMD	35	3/27/2002	5/14/2002	39	$15,960	280	8.0
	08-1795	PDT Review Alt Plans - SFWMD	10	8/30/2002	9/13/2002	14	$1,824	32	3.2
	08-2165	PDT Cmts - Draft Alt Plan Evaluation - SFWMD	10	4/17/2003	5/1/2003	19	$6,840	120	11.7
	08-2246	PDT Review Draft PIR/EIS - Reservoirs SFWM	30	8/4/2003	9/15/2003	25	$2,280	40	1.3
	08-2276	Final Draft PIR/EIS - SFWMD	44	11/14/2003	1/21/2004	14	$4,560	80	1.8
	08-2278	PIR PMP update - SFWMD	40	1/22/2004	3/18/2004	14	$9,120	160	4.0
	08-2360	Land Verification - Reservoirs	40	2/2/2005	3/31/2005	0	$6,840	120	3.0
	Summary for (8 detail records)				**TOTAL**		**$51,984**	**912**	
US Fish & Wildlife Biologist									

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Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
	08-1956	Informal Endangered Species Consultation - C	65	12/24/2001	3/28/2002	338	$6,840	120	1.8
	08-1957	Fish & Wildlife Draft Coord Act Report - Canals	90	12/24/2001	5/2/2002	313	$5,700	100	1.1
	08-1955	Fish & Wildlife participation in PIR/EIS process	250	12/24/2001	12/23/2002	260	$57,000	1,000	4.0
	08-2235	Fish & Wildlife participation in PIR/EIS process	450	1/24/2002	11/6/2003	40	$228,000	4,000	8.9
	08-2730	Fish & Wildlife Final Coord Act Report - Canals	10	5/3/2002	5/16/2002	1,834	$4,560	80	8.0
	08-2233	Informal Endangered Species Consultation - R	100	10/29/2002	3/26/2003	79	$9,120	160	1.6
	08-2234	Fish & Wildlife Draft Coord Act Report - Reserv	120	10/29/2002	4/23/2003	59	$5,700	100	0.8
	08-2740	Fish & Wildlife Final Coord Act Report - Reserv	30	4/24/2003	6/5/2003	125	$4,560	80	2.7
	08-2690	Fish & Wildlife participation in PIR/EIS process	30	6/23/2003	8/4/2003	84	$27,360	480	16.0
	08-2700	Fish & Wildlife participation in PIR/EIS process	60	6/27/2003	9/22/2003	39	$30,780	540	9.0
	Summary for (10 detail records)				**TOTAL**		**$379,620**	**6,660**	
USACE - Biologist									
	08-1230	Design Criteria and Scope of Work	7	12/24/2001	1/3/2002	70	$4,560	80	11.4
	08-1271	Draft Performance Measure - USACE	20	2/27/2002	3/26/2002	34	$13,680	240	12.0
	08-1275	PDT Performance Measures Review - USACE	10	3/27/2002	4/9/2002	34	$1,140	20	2.0
	08-1763	Initial Alternative Plans - Canals - USACE	25	3/27/2002	4/30/2002	49	$2,280	40	1.6
	08-2037	Initial Alternative Plans - Reservoirs - USACE	35	3/27/2002	5/14/2002	39	$9,120	160	4.6
	08-1277	Perf Measure/Scoping Public Workshop - USA	15	4/10/2002	4/30/2002	34	$1,368	24	1.6
	08-1530	Define monitoring objectives - USACE	15	5/8/2002	5/29/2002	34	$4,560	80	5.3
	08-1540	Identify Potential Monitoring Sites	60	5/30/2002	8/22/2002	34	$10,260	180	3.0
	08-2043	Public Workshop - Alt Plans Form - USACE	10	6/20/2002	7/3/2002	14	$3,648	64	6.4
	08-1550	Site & Parameter Selection	45	8/23/2002	10/28/2002	34	$6,840	120	2.7
	08-1800	PDT Review Alt Plans - USACE	10	8/30/2002	9/13/2002	14	$3,420	60	6.0
	08-1490	PDT review - Draft Assess Report - USACE	10	11/27/2002	12/12/2002	54	$2,280	40	4.0
	08-2150	Environmental Evaluation Alt Plans - Reservoir	60	12/13/2002	3/12/2003	19	$13,680	240	4.0
	08-1573	Monitoring Network Design - USACE	45	2/5/2003	4/9/2003	34	$2,280	40	0.9

Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
	08-2170	PDT Cmts - Draft Alt Plan Evaluation - USACE	15	4/17/2003	5/7/2003	14	$6,840	120	8.0
	08-2243	PDT Review Draft PIR/EIS - Reservoirs USAC	30	8/4/2003	9/15/2003	25	$5,700	100	3.3
	08-2253	Public Wkshp - Draft PIR/EIS - USACE	22	10/1/2003	10/31/2003	22	$2,280	40	1.8
	08-2250	Public Review Draft PIR/EIS	30	10/1/2003	11/13/2003	14	$2,280	40	1.3
	08-2273	Final Draft PIR/EIS - USACE	44	11/14/2003	1/21/2004	14	$4,560	80	1.8
	08-2277	PIR PMP update - USACE	40	1/22/2004	3/18/2004	14	$6,840	120	3.0
	Summary for (20 detail records)				**TOTAL**		**$107,616**	**1,888**	
USACE - Cost Estimator									
	08-1192	Government Estimates - USACE	10	1/11/2002	1/25/2002	14	$13,680	240	24.0
	08-1271	Draft Performance Measure - USACE	20	2/27/2002	3/26/2002	34	$2,280	40	2.0
	08-1275	PDT Performance Measures Review - USACE	10	3/27/2002	4/9/2002	34	$1,368	24	2.4
	08-2037	Initial Alternative Plans - Reservoirs - USACE	35	3/27/2002	5/14/2002	39	$6,840	120	3.4
	08-1800	PDT Review Alt Plans - USACE	10	8/30/2002	9/13/2002	14	$1,824	32	3.2
	08-2170	PDT Cmts - Draft Alt Plan Evaluation - USACE	15	4/17/2003	5/7/2003	14	$6,840	120	8.0
	08-1980	PDT Comparison Alt Plans - Canals - USACE	10	7/15/2003	7/28/2003	89	$2,280	40	4.0
	08-2720	PDT Comparison Alt Plans - Reservoirs - USA	10	8/4/2003	8/15/2003	45	$2,280	40	4.0
	08-2243	PDT Review Draft PIR/EIS - Reservoirs USAC	30	8/4/2003	9/15/2003	25	$6,840	120	4.0
	08-2273	Final Draft PIR/EIS - USACE	44	11/14/2003	1/21/2004	14	$4,560	80	1.8
	Summary for (10 detail records)				**TOTAL**		**$48,792**	**856**	
USACE - Design Engineer									
	08-2041	Topo Data collection - Reservoirs	180	2/27/2002	11/12/2002	34	$4,560	80	0.4
	08-1763	Initial Alternative Plans - Canals - USACE	25	3/27/2002	4/30/2002	49	$9,120	160	6.4
	08-2037	Initial Alternative Plans - Reservoirs - USACE	35	3/27/2002	5/14/2002	39	$13,680	240	6.9
	08-1800	PDT Review Alt Plans - USACE	10	8/30/2002	9/13/2002	14	$5,244	92	9.2
	08-2170	PDT Cmts - Draft Alt Plan Evaluation - USACE	15	4/17/2003	5/7/2003	14	$9,120	160	10.7
	08-1980	PDT Comparison Alt Plans - Canals - USACE	10	7/15/2003	7/28/2003	89	$4,560	80	8.0

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Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
	08-1963	PDT Review Draft PIR/EIS - Canals - USACE	10	7/15/2003	7/28/2003	1,535	$6,840	120	12.0
	08-2720	PDT Comparison Alt Plans - Reservoirs - USA	10	8/4/2003	8/15/2003	45	$4,560	80	8.0
	08-2243	PDT Review Draft PIR/EIS - Reservoirs USAC	30	8/4/2003	9/15/2003	25	$13,680	240	8.0
	08-2253	Public Wkshp - Draft PIR/EIS - USACE	22	10/1/2003	10/31/2003	22	$2,280	40	1.8
	08-2273	Final Draft PIR/EIS - USACE	44	11/14/2003	1/21/2004	14	$9,120	160	3.6
	08-2277	PIR PMP update - USACE	40	1/22/2004	3/18/2004	14	$6,840	120	3.0
	Summary for (12 detail records)				**TOTAL**		**$89,604**	**1,572**	
USACE - Economist									
	08-1192	Government Estimates - USACE	10	1/11/2002	1/25/2002	14	$11,400	200	20.0
	08-2850	Existing/Base Conditions	25	2/26/2002	4/1/2002	40	$6,840	120	4.8
	08-1271	Draft Performance Measure - USACE	20	2/27/2002	3/26/2002	34	$13,680	240	12.0
	08-1260	Future Land Use Projections	25	2/27/2002	4/2/2002	14	$5,700	100	4.0
	08-1275	PDT Performance Measures Review - USACE	10	3/27/2002	4/9/2002	34	$1,368	24	2.4
	08-1763	Initial Alternative Plans - Canals - USACE	25	3/27/2002	4/30/2002	49	$13,680	240	9.6
	08-2037	Initial Alternative Plans - Reservoirs - USACE	35	3/27/2002	5/14/2002	39	$14,820	260	7.4
	08-2860	Future Without Project	25	4/3/2002	5/7/2002	14	$6,840	120	4.8
	08-1277	Perf Measure/Scoping Public Workshop - USA	15	4/10/2002	4/30/2002	34	$912	16	1.1
	08-2039	Plan Formulation - Economics Input	30	5/8/2002	6/19/2002	14	$11,400	200	6.7
	08-2043	Public Workshop - Alt Plans Form - USACE	10	6/20/2002	7/3/2002	14	$3,192	56	5.6
	08-1210	Evaluate flood control economic benefits	20	8/16/2002	9/13/2002	89	$6,840	120	6.0
	08-1800	PDT Review Alt Plans - USACE	10	8/30/2002	9/13/2002	14	$3,420	60	6.0
	08-1490	PDT review - Draft Assess Report - USACE	10	11/27/2002	12/12/2002	54	$1,824	32	3.2
	08-2130	Socio-Economic Evaluation Alt Plans - Reserv	60	12/13/2002	3/12/2003	19	$9,120	160	2.7
	08-1850	Socio-Economic Evaluation Alt Plans - Canals	10	12/30/2002	1/14/2003	59	$6,840	120	12.0
	08-2170	PDT Cmts - Draft Alt Plan Evaluation - USACE	15	4/17/2003	5/7/2003	14	$6,840	120	8.0
	08-1980	PDT Comparison Alt Plans - Canals - USACE	10	7/15/2003	7/28/2003	89	$1,824	32	3.2

Activity Cost Listing by Organization

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Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
	08-2720	PDT Comparison Alt Plans - Reservoirs - USA	10	8/4/2003	8/15/2003	45	$1,824	32	3.2
	08-2243	PDT Review Draft PIR/EIS - Reservoirs USAC	30	8/4/2003	9/15/2003	25	$4,560	80	2.7
	08-2253	Public Wkshp - Draft PIR/EIS - USACE	22	10/1/2003	10/31/2003	22	$2,280	40	1.8
	08-2273	Final Draft PIR/EIS - USACE	44	11/14/2003	1/21/2004	14	$4,560	80	1.8
	Summary for (22 detail records)				**TOTAL**		**$139,764**	**2,452**	
USACE - Geotech Engineer									
	08-1271	Draft Performance Measure - USACE	20	2/27/2002	3/26/2002	34	$6,840	120	6.0
	08-1270	Seepage evaluation	30	2/27/2002	4/9/2002	74	$10,260	180	6.0
	08-1762	Geotech Data Collection - Canals	180	2/27/2002	11/12/2002	59	$102,600	1,800	10.0
	08-2042	Geotech Data collection - Reservoirs	180	2/27/2002	11/12/2002	24	$125,400	2,200	12.2
	08-1275	PDT Performance Measures Review - USACE	10	3/27/2002	4/9/2002	34	$912	16	1.6
	08-1763	Initial Alternative Plans - Canals - USACE	25	3/27/2002	4/30/2002	49	$6,840	120	4.8
	08-2037	Initial Alternative Plans - Reservoirs - USACE	35	3/27/2002	5/14/2002	39	$22,800	400	11.4
	08-2043	Public Workshop - Alt Plans Form - USACE	10	6/20/2002	7/3/2002	14	$2,280	40	4.0
	08-1800	PDT Review Alt Plans - USACE	10	8/30/2002	9/13/2002	14	$5,700	100	10.0
	08-1490	PDT review - Draft Assess Report - USACE	10	11/27/2002	12/12/2002	54	$2,280	40	4.0
	08-1870	Environmental Evaluation Alt Plans - Canals	14	12/30/2002	1/21/2003	55	$3,420	60	4.3
	08-2170	PDT Cmts - Draft Alt Plan Evaluation - USACE	15	4/17/2003	5/7/2003	14	$10,260	180	12.0
	08-1980	PDT Comparison Alt Plans - Canals - USACE	10	7/15/2003	7/28/2003	89	$4,560	80	8.0
	08-2720	PDT Comparison Alt Plans - Reservoirs - USA	10	8/4/2003	8/15/2003	45	$4,560	80	8.0
	08-2243	PDT Review Draft PIR/EIS - Reservoirs USAC	30	8/4/2003	9/15/2003	25	$13,680	240	8.0
	08-2253	Public Wkshp - Draft PIR/EIS - USACE	22	10/1/2003	10/31/2003	22	$2,280	40	1.8
	08-2273	Final Draft PIR/EIS - USACE	44	11/14/2003	1/21/2004	14	$9,120	160	3.6
	08-2277	PIR PMP update - USACE	40	1/22/2004	3/18/2004	14	$9,120	160	4.0
	Summary for (18 detail records)				**TOTAL**		**$342,912**	**6,016**	
USACE - Hydrology/Hydraulics									

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Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
	08-1230	Design Criteria and Scope of Work	7	12/24/2001	1/3/2002	70	$15,960	280	40.0
	08-1180	Scope of Work AE Contract - USACE	15	12/27/2001	1/17/2002	14	$9,120	160	10.7
	08-1300	Select models/analytical methods	10	1/4/2002	1/17/2002	90	$3,420	60	6.0
	08-1271	Draft Performance Measure - USACE	20	2/27/2002	3/26/2002	34	$13,680	240	12.0
	08-1761	Topo Data Collection - Canals	180	2/27/2002	11/13/2002	34	$4,560	80	0.4
	08-1290	Hydrology-surface drainage (canals) & Hydrog	40	3/13/2002	5/7/2002	54	$13,680	240	6.0
	08-1275	PDT Performance Measures Review - USACE	10	3/27/2002	4/9/2002	34	$2,280	40	4.0
	08-1763	Initial Alternative Plans - Canals - USACE	25	3/27/2002	4/30/2002	49	$13,680	240	9.6
	08-2037	Initial Alternative Plans - Reservoirs - USACE	35	3/27/2002	5/14/2002	39	$9,120	160	4.6
	08-1277	Perf Measure/Scoping Public Workshop - USA	15	4/10/2002	4/30/2002	34	$1,368	24	1.6
	08-1530	Define monitoring objectives - USACE	15	5/8/2002	5/29/2002	34	$4,560	80	5.3
	08-1450	Water budget (SFWMM)	40	5/8/2002	7/3/2002	54	$4,560	80	2.0
	08-1540	Identify Potential Monitoring Sites	60	5/30/2002	8/22/2002	34	$4,560	80	1.3
	08-2043	Public Workshop - Alt Plans Form - USACE	10	6/20/2002	7/3/2002	14	$3,648	64	6.4
	08-1330	Storage requirements	10	7/5/2002	7/18/2002	54	$9,120	160	16.0
	08-1320	Flow estimates	10	7/5/2002	7/18/2002	54	$9,120	160	16.0
	08-1208	Evaluate STA performance benefits (canal con	10	7/19/2002	8/1/2002	119	$4,560	80	8.0
	08-1700	Existing/future level of flood protection (canal c	20	7/19/2002	8/15/2002	89	$6,840	120	6.0
	08-1550	Site & Parameter Selection	45	8/23/2002	10/28/2002	34	$6,840	120	2.7
	08-1800	PDT Review Alt Plans - USACE	10	8/30/2002	9/13/2002	14	$9,120	160	16.0
	08-1840	H&H Evaluation of Alternative Plans - Canals	30	11/13/2002	12/30/2002	34	$13,680	240	8.0
	08-1490	PDT review - Draft Assess Report - USACE	10	11/27/2002	12/12/2002	54	$4,560	80	8.0
	08-2237	Draft Water Control Plan - Reservoirs	45	12/13/2002	2/19/2003	34	$19,950	350	7.8
	08-1958	Draft Water Control Plan - Canals	35	12/30/2002	2/20/2003	34	$13,680	240	6.9
	08-1573	Monitoring Network Design - USACE	45	2/5/2003	4/9/2003	34	$2,280	40	0.9
	08-2170	PDT Cmts - Draft Alt Plan Evaluation - USACE	15	4/17/2003	5/7/2003	14	$13,680	240	16.0

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Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
	08-1980	PDT Comparison Alt Plans - Canals - USACE	10	7/15/2003	7/28/2003	89	$4,560	80	8.0
	08-1963	PDT Review Draft PIR/EIS - Canals - USACE	10	7/15/2003	7/28/2003	1,535	$4,560	80	8.0
	08-2720	PDT Comparison Alt Plans - Reservoirs - USA	10	8/4/2003	8/15/2003	45	$4,560	80	8.0
	08-2243	PDT Review Draft PIR/EIS - Reservoirs USAC	30	8/4/2003	9/15/2003	25	$13,680	240	8.0
	08-2253	Public Wkshp - Draft PIR/EIS - USACE	22	10/1/2003	10/31/2003	22	$3,420	60	2.7
	08-2273	Final Draft PIR/EIS - USACE	44	11/14/2003	1/21/2004	14	$9,120	160	3.6
	08-2277	PIR PMP update - USACE	40	1/22/2004	3/18/2004	14	$9,120	160	4.0
	Summary for (33 detail records)				**TOTAL**		**$266,646**	**4,678**	
USACE - Planning Tech Lead									
	08-2055	Plan Technical Lead - Reservoirs - USACE	500	1/22/2001	1/21/2003	1,666	$28,500	500	1.0
	08-1180	Scope of Work AE Contract - USACE	15	12/27/2001	1/17/2002	14	$10,260	180	12.0
	08-2850	Existing/Base Conditions	25	2/26/2002	4/1/2002	40	$6,840	120	4.8
	08-1271	Draft Performance Measure - USACE	20	2/27/2002	3/26/2002	34	$13,680	240	12.0
	08-1260	Future Land Use Projections	25	2/27/2002	4/2/2002	14	$2,280	40	1.6
	08-1218	Preliminary Water Quality Assessment	40	2/27/2002	4/23/2002	34	$3,420	60	1.5
	08-1275	PDT Performance Measures Review - USACE	10	3/27/2002	4/9/2002	34	$2,280	40	4.0
	08-1763	Initial Alternative Plans - Canals - USACE	25	3/27/2002	4/30/2002	49	$4,560	80	3.2
	08-2037	Initial Alternative Plans - Reservoirs - USACE	35	3/27/2002	5/14/2002	39	$5,700	100	2.9
	08-2750	Pre-Application Meeting	10	4/2/2002	4/15/2002	0	$2,280	40	4.0
	08-2860	Future Without Project	25	4/3/2002	5/7/2002	14	$6,840	120	4.8
	08-1277	Perf Measure/Scoping Public Workshop - USA	15	4/10/2002	4/30/2002	34	$1,368	24	1.6
	08-2760	Pre-Application Concurrence Letter	4	4/17/2002	4/22/2002	0	$1,824	32	8.0
	08-2770	Pre-Application Letter	4	5/1/2002	5/6/2002	0	$1,824	32	8.0
	08-2590	Feasibility Scoping Meeting - USACE	10	5/15/2002	5/29/2002	89	$4,560	80	8.0
	08-2043	Public Workshop - Alt Plans Form - USACE	10	6/20/2002	7/3/2002	14	$2,736	48	4.8
	08-1800	PDT Review Alt Plans - USACE	10	8/30/2002	9/13/2002	14	$2,736	48	4.8

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Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
	08-1490	PDT review - Draft Assess Report - USACE	10	11/27/2002	12/12/2002	54	$2,280	40	4.0
	08-2620	PMP Update - Assess Phase USACE	40	1/14/2003	3/12/2003	54	$6,840	120	3.0
	08-2170	PDT Cmts - Draft Alt Plan Evaluation - USACE	15	4/17/2003	5/7/2003	14	$4,560	80	5.3
	08-2830	Summary of FWCA Report Issues and Recom	10	6/13/2003	6/26/2003	77	$2,280	40	4.0
	08-2650	Alternative Formulation Briefing - USACE	10	7/14/2003	7/25/2003	77	$4,560	80	8.0
	08-1963	PDT Review Draft PIR/EIS - Canals - USACE	10	7/15/2003	7/28/2003	1,535	$4,560	80	8.0
	08-1980	PDT Comparison Alt Plans - Canals - USACE	10	7/15/2003	7/28/2003	89	$2,280	40	4.0
	08-2720	PDT Comparison Alt Plans - Reservoirs - USA	10	8/4/2003	8/15/2003	45	$3,420	60	6.0
	08-2243	PDT Review Draft PIR/EIS - Reservoirs USAC	30	8/4/2003	9/15/2003	25	$3,420	60	2.0
	08-2820	Reasonable Assurances Stauts Meeting	5	9/9/2003	9/15/2003	77	$2,280	40	8.0
	08-2840	In-Progress Review	5	9/24/2003	9/30/2003	44	$2,280	40	8.0
	08-2253	Public Wkshp - Draft PIR/EIS - USACE	22	10/1/2003	10/31/2003	22	$3,420	60	2.7
	08-2250	Public Review Draft PIR/EIS	30	10/1/2003	11/13/2003	14	$2,280	40	1.3
	08-2780	Sec. 373.1501(5) Submital to FDEP	10	10/20/2003	10/31/2003	0	$1,140	20	2.0
	08-2273	Final Draft PIR/EIS - USACE	44	11/14/2003	1/21/2004	14	$9,120	160	3.6
	08-2310	Final PIR/EIS Div. Eng. Notice - USACE	12	1/9/2004	1/27/2004	0	$4,560	80	6.7
	08-2277	PIR PMP update - USACE	40	1/22/2004	3/18/2004	14	$4,560	80	2.0
	Summary for (34 detail records)				**TOTAL**		**$165,528**	**2,904**	
USACE - Procurement									
	08-1180	Scope of Work AE Contract - USACE	15	12/27/2001	1/17/2002	14	$18,240	320	21.3
	Summary for (1 detail record)				**TOTAL**		**$18,240**	**320**	
USACE - Project Manager									
	08-2470	Planning Technical Lead - USACE	100	12/24/2001	5/16/2002	187	$15,960	280	2.8
	08-2052	PIR Proj Mgt - USACE	522	12/24/2001	1/27/2004	0	$159,600	2,800	5.4
	08-1192	Government Estimates - USACE	10	1/11/2002	1/25/2002	14	$2,280	40	4.0
	08-2750	Pre-Application Meeting	10	4/2/2002	4/15/2002	0	$2,280	40	4.0

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Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
	08-1277	Perf Measure/Scoping Public Workshop - USA	15	4/10/2002	4/30/2002	34	$1,368	24	1.6
	08-2760	Pre-Application Concurrence Letter	4	4/17/2002	4/22/2002	0	$1,824	32	8.0
	08-2770	Pre-Application Letter	4	5/1/2002	5/6/2002	0	$1,824	32	8.0
	08-1530	Define monitoring objectives - USACE	15	5/8/2002	5/29/2002	34	$2,280	40	2.7
	08-2590	Feasibility Scoping Meeting - USACE	10	5/15/2002	5/29/2002	89	$4,560	80	8.0
	08-2043	Public Workshop - Alt Plans Form - USACE	10	6/20/2002	7/3/2002	14	$2,280	40	4.0
	08-1490	PDT review - Draft Assess Report - USACE	10	11/27/2002	12/12/2002	54	$1,368	24	2.4
	08-2620	PMP Update - Assess Phase USACE	40	1/14/2003	3/12/2003	54	$6,840	120	3.0
	08-2650	Alternative Formulation Briefing - USACE	10	7/14/2003	7/25/2003	77	$4,560	80	8.0
	08-2820	Reasonable Assurances Stauts Meeting	5	9/9/2003	9/15/2003	77	$2,280	40	8.0
	08-2840	In-Progress Review	5	9/24/2003	9/30/2003	44	$2,280	40	8.0
	08-2253	Public Wkshp - Draft PIR/EIS - USACE	22	10/1/2003	10/31/2003	22	$4,560	80	3.6
	08-2780	Sec. 373.1501(5) Submital to FDEP	10	10/20/2003	10/31/2003	0	$1,140	20	2.0
	08-2310	Final PIR/EIS Div. Eng. Notice - USACE	12	1/9/2004	1/27/2004	0	$4,560	80	6.7
	08-2035	Congressional Committee Approval PIR	100	1/28/2004	6/17/2004	212	$2,280	40	0.4
	Summary for (19 detail records)				**TOTAL**		**$224,124**	**3,932**	
USACE - Public Outreach									
	08-1277	Perf Measure/Scoping Public Workshop - USA	15	4/10/2002	4/30/2002	34	$4,560	80	5.3
	08-2043	Public Workshop - Alt Plans Form - USACE	10	6/20/2002	7/3/2002	14	$5,928	104	10.4
	08-2253	Public Wkshp - Draft PIR/EIS - USACE	22	10/1/2003	10/31/2003	22	$6,840	120	5.5
	08-2250	Public Review Draft PIR/EIS	30	10/1/2003	11/13/2003	14	$3,420	60	2.0
	Summary for (4 detail records)				**TOTAL**		**$20,748**	**364**	
USACE - Real Estate									
	08-1763	Initial Alternative Plans - Canals - USACE	25	3/27/2002	4/30/2002	49	$4,560	80	3.2
	08-2170	PDT Cmts - Draft Alt Plan Evaluation - USACE	15	4/17/2003	5/7/2003	14	$6,840	120	8.0
	08-2273	Final Draft PIR/EIS - USACE	44	11/14/2003	1/21/2004	14	$2,280	40	0.9

Activity Cost Listing by Organization

13-Nov-01

Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
		Summary for (3 detail records)			**TOTAL**		**$13,680**	**240**	
USACE - Surveyor									
	08-2041	Topo Data collection - Reservoirs	180	2/27/2002	11/12/2002	34	$19,380	340	1.9
	08-1761	Topo Data Collection - Canals	180	2/27/2002	11/13/2002	34	$11,400	200	1.1
		Summary for (2 detail records)			**TOTAL**		**$30,780**	**540**	
USACE - Value Engineer									
	08-1930	Eng & Design Appendix - Canals	25	1/7/2003	2/12/2003	59	$10,260	180	7.2
	08-2210	Eng & Design Appendix - Reservoir	25	3/13/2003	4/16/2003	14	$13,680	240	9.6
	08-2640	Value Engineering - Reservoirs	30	6/27/2003	8/8/2003	14	$13,680	240	8.0
	08-2630	Value Engineering - Canals	15	7/15/2003	8/4/2003	1,530	$9,120	160	10.7
		Summary for (4 detail records)			**TOTAL**		**$46,740**	**820**	
USACE - Water Quality									
	08-1271	Draft Performance Measure - USACE	20	2/27/2002	3/26/2002	34	$9,120	160	8.0
	08-1218	Preliminary Water Quality Assessment	40	2/27/2002	4/23/2002	34	$4,560	80	2.0
	08-2570	Hazardous Toxic Radioactive Waste Assessm	60	2/27/2002	5/21/2002	179	$27,360	480	8.0
	08-2580	Hazardous Toxic Radioactive Waste Assessm	120	2/27/2002	8/15/2002	64	$27,360	480	4.0
	08-1275	PDT Performance Measures Review - USACE	10	3/27/2002	4/9/2002	34	$1,368	24	2.4
	08-1763	Initial Alternative Plans - Canals - USACE	25	3/27/2002	4/30/2002	49	$4,560	80	3.2
	08-2037	Initial Alternative Plans - Reservoirs - USACE	35	3/27/2002	5/14/2002	39	$10,260	180	5.1
	08-1277	Perf Measure/Scoping Public Workshop - USA	15	4/10/2002	4/30/2002	34	$912	16	1.1
	08-1526	Evaluation of existing WQ monitoring - USACE	10	4/24/2002	5/7/2002	34	$4,560	80	8.0
	08-1800	PDT Review Alt Plans - USACE	10	8/30/2002	9/13/2002	14	$3,420	60	6.0
	08-1490	PDT review - Draft Assess Report - USACE	10	11/27/2002	12/12/2002	54	$4,560	80	8.0
	08-2150	Environmental Evaluation Alt Plans - Reservoir	60	12/13/2002	3/12/2003	19	$6,840	120	2.0
	08-1870	Environmental Evaluation Alt Plans - Canals	14	12/30/2002	1/21/2003	55	$6,840	120	8.6

Resource	ActID	TASK	Orig Dur	START	END	TF	Budget	Hours	Hrs/Day
	08-2170	PDT Cmts - Draft Alt Plan Evaluation - USACE	15	4/17/2003	5/7/2003	14	$9,120	160	10.7
	08-1963	PDT Review Draft PIR/EIS - Canals - USACE	10	7/15/2003	7/28/2003	1,535	$4,560	80	8.0
	08-2243	PDT Review Draft PIR/EIS - Reservoirs USAC	30	8/4/2003	9/15/2003	25	$7,866	138	4.6
	08-2253	Public Wkshp - Draft PIR/EIS - USACE	22	10/1/2003	10/31/2003	22	$3,420	60	2.7
	08-2273	Final Draft PIR/EIS - USACE	44	11/14/2003	1/21/2004	14	$6,840	120	2.7
	08-2277	PIR PMP update - USACE	40	1/22/2004	3/18/2004	14	$13,680	240	6.0
	Summary for (19 detail records)				**TOTAL**		**$157,206**	**2,758**	
USACE Construction/Operations									
	08-1271	Draft Performance Measure - USACE	20	2/27/2002	3/26/2002	34	$6,840	120	6.0
	08-1700	Existing/future level of flood protection (canal c	20	7/19/2002	8/15/2002	89	$2,280	40	2.0
	08-1800	PDT Review Alt Plans - USACE	10	8/30/2002	9/13/2002	14	$3,420	60	6.0
	08-2640	Value Engineering - Reservoirs	30	6/27/2003	8/8/2003	14	$2,280	40	1.3
	08-1980	PDT Comparison Alt Plans - Canals - USACE	10	7/15/2003	7/28/2003	89	$2,280	40	4.0
	08-2630	Value Engineering - Canals	15	7/15/2003	8/4/2003	1,530	$2,280	40	2.7
	08-2720	PDT Comparison Alt Plans - Reservoirs - USA	10	8/4/2003	8/15/2003	45	$2,280	40	4.0
	Summary for (7 detail records)				**TOTAL**		**$21,660**	**380**	
					GRAND TOTAL		**$5,471,544**	**94,462**	

Expense Item	Budgeted Cost	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	SFWMD	USACE
Draft PMP - USACE Internal Expense	$200,000	$200,000										$200,000
Draft PMP - SFWMD Internal Expense	$150,000	$150,000									$150,000	
GeoTech Canals	$450,000		$377,500	$72,500								$450,000
GeoTech Reservoirs	$1,475,000		$1,237,360	$237,639								$1,475,000
Topo Canals	$650,000		$545,271	$104,729								$650,000
Topo Reservoirs	$625,000		$524,312	$100,688								$625,000
DDR Canals USACE	$390,000				354250							$390,000
DDR Canals SFWMD	$810,000				810000						$810,000	
DDR Reservoir USACE	$1,176,000				1175999							$1,176,000
DDR Resevoirs SFWMD	$2,435,000				2435000						$2,435,000	
P & S Canals USACE	$128,000				$90,453	$37,547						$128,000
P & S Canals SFWMD	$272,000				$192,213	$79,787					$272,000	
P & S Reservoirs USACE	$385,000				$6,243	$378,757						$385,000
P & S Reservoirs SFWMD	$819,000				$13,281	$805,720					$819,000	
Real Estate Canals SFWMD	$250,000				$53,000	$197,000						$250,000
Real Estate Reservoirs	$0											$0
Canal Construction USACE	$35,186,500					$16,045,044	$17,522,877	$1,618,579				$35,186,500
Canal Construction SFWMD	$35,186,500					$16,045,044	$17,522,877	$1,618,579			$35,186,500	
Reservoir Construction USACE	$73,500,000					$3,604,327	$17,597,597	$17,597,597	$17,738,943	$16,961,539		$73,500,000
Reservoir Construction SFWMD	$73,500,000					$3,604,327	$17,597,597	$17,597,597	$17,738,943	$16,961,539	$73,500,000	
Total	**$227,588,000**	**$350,000**	**$2,684,443**	**$515,556**	**$5,130,439**	**$40,797,553**	**$70,240,948**	**$38,432,352**	**$35,477,886**	**$33,923,078**	**$113,172,500**	**$114,415,500**

Resource ID		Budgeted Cost	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	SFWMD	USACE
CO	SFWMD - Counsel	$60,648		$20,520	$6,840	$17,328	$15,960					$60,648	
ECON	SFWMD - Economist	$24,966		$6,498	$14,820	$3,648						$24,966	
ENG	SFWMD - Engineer	$78,660		$20,520	$42,180	$15,960						$78,660	
MOD	SFWMD - Modeler	$137,028		$83,585	$48,883	$4,560						$137,028	
MON	SFWMD - Monitoring	$84,360		$30,704	$53,656	$0						$84,360	
OPS	SFWMD - Operations	$88,692		$36,252	$36,480	$15,960						$88,692	
OUT	SFWMD - Public Outreach	$25,080		$13,680	$0	$11,400						$25,080	
PERM	SFWMD - Permits	$106,248		$62,928	$11,400	$31,920						$106,248	
PM	SFWMD - Project Manager	$240,143		$134,254	$77,794	$23,535	$4,560					$240,143	
PROC	SFWMD - Procurement	$28,500		$28,500	$0	$0						$28,500	
RE	SFWMD - Real Estate	$51,984		$22,344	$9,120	$13,680	$6,840					$51,984	
CO/BIO	Contractor - Biologist	$52,440		$14,820	$35,340	$2,280							$52,440
CO/COST	Contractor - Cost Estimator	$173,052		$42,294	$128,478	$2,280						$173,052	
CO/CULT	Contractor - Cultural Resource	$23,940		$0	$23,940	$0							$23,940
CO/ECOL	Contractor - Ecologist	$46,968		$8,208	$38,760	$0							$46,968
CO/ECON	Contractor - Economist	$27,360		$6,840	$20,520	$0						$27,360	
CO/ENG D	Contractor - Design Engineer	$466,259		$185,040	$262,979	$18,240						$466,259	
CO/ENG H	Contractor - H&H Engineer	$335,731		$142,159	$177,612	$15,960						$335,731	
CO/GIS	Contractor - GIS Tech	$247,608		$77,558	$148,390	$21,660						$247,608	
CO/HYDRO	Contractor - Hydrologist	$41,040		$4,560	$29,640	$6,840						$41,040	
CO/MODEL	Contractor - Hydro Modelor	$348,156		$175,176	$157,020	$15,960						$348,156	
CO/PLAN	Contractor - Planner	$140,448		$83,904	$48,564	$7,980						$140,448	
CO/PM	Contractor - Project Mgr	$88,236		$42,978	$37,506	$7,752						$88,236	

Resource ID		Budgeted Cost	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	SFWMD	USACE
CO/PR	Contractor - Public Relations	$18,240		$13,680	$0	$4,560						$18,240	
CO/RE	Contractor - Real Estate	$75,696		$36,708	$36,708	$2,280						$86,868	
CO/SOCIO	Contractor - Sociologist	$6,840		$3,420	$3,420	$0						$27,360	
CO/WQ	Contractor - Water Quality	$295,716		$140,448	$140,448	$14,820							$242,820
ACE/BIO	Contractor - Biologist												
ACE/COST	Contractor - Cost Estimator												
ACE/CULT	Contractor - Cultural Resource												
ACE/ECOL	Contractor - Ecologist												
ACE/ECON	Contractor - Economist												
ACE/ENG D	Contractor - Design Engineer												
ACE/ENG H	Contractor - H&H Engineer												
ACE/GEOG	Contractor - Geographer												
ACE/GIS	Contractor - GIS Tech												
ACE/HYDRO	Contractor - Hydrologist												
ACE/MODEL	Contractor - Hydro Modelor												
ACE/PLAN	Contractor - Planner												
ACE/PM	Contractor - Project Mgr												
ACE/PR	Contractor - Public Relations												
ACE/RE	Contractor - Real Estate												
ACE/SOCIO	Contractor - Sociologist												
ACE/TECH	Contractor - Technician												
ACE/WQ	Contractor - Water Quality												
PD-E	USACE - Biologist	$107,615		$57,987	$33,668	$15,960							$107,615
EN-C	USACE - Cost Estimator	$48,792		$25,992	$18,240	$4,560							$48,792
PD-D	USACE - Economist	$139,765		$100,093	$32,832	$6,840							$139,765
CO-C	USACE - Construction/Ops	$21,660		$12,540	$9,120	$0							$21,660
EN-D	USACE - Design Engineer	$89,604		$31,869	$39,495	$18,240							$89,604
EN-G	USACE - Geotech Engineer	$342,912		$246,899	$75,493	$20,520							$342,912
EN-H	USACE - Hydrology/Hydraulics	$266,646		$146,908	$98,078	$21,660							$266,646
PD-R	USACE - Planning Tech Lead	$165,528		$87,438	$53,010	$25,080							$165,528
DR-S	USACE - Project Manager	$224,126		$93,971	$93,766	$36,389							$224,126
DR-C	USACE - Public Outreach	$20,748		$10,488	$0	$10,260							$20,748
CT-C	USACE - Procurement	$18,240		$18,240	$0	$0							$18,240
RE-A	USACE - Real Estate	$13,680		$4,560	$6,840	$2,280							$13,680
EN-D	USACE - Surveyor	$30,780		$28,943	$1,837	$0							$30,780
EN-T	USACE - Value Engineer	$46,740		$0	$46,740	$0							$46,740
PD-E	USACE - Water Quality	$157,206		$93,480	$39,786	$23,940							$157,206
USFWS	US Fish & Wildlife Biologist	$379,621		$149,493	$216,955	$13,173							$379,621
REC/POC	RECOVER POC	$35,341		$18,811	$6,498	$10,032						$17,671	$17,670
REC/TEAM	RECOVER Team	$28,500		$0	$28,500	$0						$14,250	$14,250
ITR	Independent Tech Review	$91,200		$0	$91,200	$0						$45,600	$45,600
	Total	**$5,542,743**	**$0**	**$2,565,290**	**$2,482,556**	**$467,537**	**$27,360**	**$0**	**$0**	**$0**	**$0**	**$3,004,188**	**$2,517,351**
	Project Total	**$233,130,743**										**$116,176,688**	**$116,932,851**

TAB E – Project Cash Flow Chart

APPENDIX E TAB E: PROJECT CASH FLOW CHART								
FY	2002	2003	2004	2005	2006	2007	2008	2009
Non Federal Cost	1,437,578	1,590,498	3,762,097	20,759,238	35,120,474	19,216,176	17,738,943	16,961,539
Federal Cost	3,812,155	1,407,614	1,835,879	20,065,675	35,120,464	19,216,176	17,738,943	16,961,539
TOTAL	5,249,733	2,998,112	5,597,976	40,824,913	70,240,938	38,432,352	35,477,886	33,923,078

TAB F – Contingency Summary and Status

This section is reserved for documents that will be developed and made available at a later date.

APPENDIX F: SUMMARY OF WORK-IN-KIND SERVICES

APPENDIX F: SUMMARY OF WORK-IN-KIND SERVICES

Total Project Cost Allocation Summary

SFWMD PMP Labor	$150,000
SFWMD PIR Labor	$926,309
SFWMD PIR Contract	$2,187,730
SFWMD Design	$4,336,000
SFWMD Construction	$108,686,500
SFWMD Real Estate	$250,000
Total SFWMD Cost	$116,536,539
Corps PMP Labor	$200,000
Corps PIR Labor	$2,027,340
Corps PIR Contract	$3,200,000
Corps Design	$2,079,000
Corps Construction	$108,686,500
USFWS	$379,621
Total Federal Cost	$116,572,461
Total Project Cost	$233,109,000
50% Total Project Cost	$116,554,500
Total SFWMD Share	50.0%
Total Federal Share	50.0%

APPENDIX G: PERFORMANCE MEASUREMENT

This section is reserved for documents that will be developed and made available at a later date.

APPENDIX H: REAL ESTATE PLAN

This section is reserved for documents that will be developed and made available at a later date.

APPENDIX I: ACQUISITION PLAN

Purpose

The purpose of the acquisition plan is to identify equipment, materials, construction services, professional services, etc. that will be procured from outside sources to assist in project implementation. Emphasis is placed on identifying work items that can be conducted in a more cost-effective, economical, and timely manner than if conducted internally by either SFWMD or USACE staff.

Implementation

A statement of work, cost estimate, and timeframe will be established for each work item, with the item description contained in the Project Management Plan used as a guideline. For each item identified for procurement, a Project Team consisting of all those who will be responsible for significant aspects of the acquisition (i.e., procurement/contracting, legal, and technical personnel from USACE and SFWMD) will be formed. This planning must integrate the efforts of all personnel responsible for significant aspects of the acquisition.

The agency responsible for taking the lead on each work item (USACE or SFWMD) will also take the lead on procurement of those services (procuring Agency). Contract specific acquisition strategies will be developed for each individual contract to be advertised and awarded under the Project. The Project Manager will be responsible for coordinating with the Contracting representative on the Project Team and the procuring Agency office responsible for socioeconomic programs to initiate development of the appropriate acquisition strategy as early as possible in the project formulation process. The assigned Contracting representative on the Project Team is responsible for insuring coordination is maintained with the procuring Agency Contracting Officer or Contract Manager (as applicable) and appropriate procuring Agency approving Officials as required during the acquisition strategy formulation process. Procurement statutes, regulations and procedures applicable to the procuring Agency will dictate the acquisition process. Factors to be considered in determining the specific acquisition strategies include, but are not limited to, the following: (1) technical complexity of the work: (2) environmental considerations/constraints; and (3) project schedules. Socioeconomic statutes, regulations and procedures applicable to the respective procuring Agency will be applied to each individual acquisition. Acquisition strategies will be fully staffed through the Project Team, the Design Coordination Team and appropriate procuring Agency approving Officials.

USACE Assigned Tasks

Proposed contracts for architectural/engineering (A-E) services, and professional services will be procured through the placement of Task Orders under existing USACE Indefinite Delivery/Indefinite Quantity Contracts. If it is determined the

required services cannot be procured under existing ACOE contracts, individual contracts will be advertised and awarded to satisfy the requirement. For these actions, solicitations will be structured to maximize competition and provide maximum opportunity for the participation of small, small disadvantaged, women-owned businesses and HUB Zone participation while satisfying the needs of the ACOE in the most effective, economical and timely manner.

SFWMD Assigned Tasks

Proposed contracts for A-E and professional services will be procured through the most appropriate means whether that be cooperative agreements with other state or local governmental entities or through a competitive process. If it is determined that a competitive process is required, individual projects will be advertised, as necessary, and awarded through the solicitation process to satisfy the requirement. For these actions, solicitations will be structured to maximize competition and provide maximum opportunity for the participation of small, minority or woman-owned businesses while satisfying the needs of the SFWMD in the most effective, economical and timely manner.

Tasks Identified for Acquisition

At this time, the exact work split between the ACOE and SFWMD has not been finalized; however, certain items that are considered likely candidates for outsourcing are highlighted below. This list will be updated as necessary throughout the project.

1. Portions of the PIR

2. Geotechnical and core boring

3. Surveying and Mapping

4. Design services

5. Construction of canals and reservoirs

APPENDIX J: QUALITY CONTROL PLAN

TAB A – Independent Technical Review (ITR) Team Membership

Project Synopsis:

The Quality Control Plan (QCP) presents the policy and specific actions to be implemented on the EAA Storage Reservoirs project to ensure that high quality products are produced on time and within budget.

The purposes of this project are to provide flood control and irrigation for the agricultural community currently served by the Miami and North New River canals; to reduce Lake Okeechobee regulatory releases to the estuaries by sending the water to the south and into the reservoir (s); to improve environmental releases through storage of water in the flood control stages and release of the water to the Everglades during the dry season demand; and to improve phosphorus removal performance of Stormwater Treatment Areas.

An interim Project Implementation Report (PIR) and a final PIR may be prepared for the project. If applicable, the interim PIR will be for the increased conveyance of the Miami, North New River, Bolles, and Cross canals. The final PIR will be for the storage reservoirs.

Production:

The Project Delivery Team (PDT) list is provided in Appendix A of the PMP.

Independent Technical Review Team:

The ITR team members will be senior professionals selected by their technical division chief based on the expertise needed for the design. They will not be affiliated with the development of the design. Their assignment is to confirm the proper application of clearly established criteria, regulations, laws, codes, principles, and professional procedures. The technical review team members will be comprised of representatives from, but will not be limited to, the following organizations:

USACE	**SFWMD**
Planning	Planning and Controls
Engineering	Engineering
Office of Counsel	Office of Counsel
Operations/Maintenance	Operations/Maintenance
Real Estate	Real Estate
Quality Assurance	Engineering Water Quality

Schedule:

See Appendix D of the PMP for a schedule of engineering events, site visits, and key intermediate milestones for development of the overall product. The ITR Team will be included at appropriate milestones within this schedule. The schedule will be updated periodically to reflect changes and current status and be readily available to the team. The QCP will be updated when/if significant changes occur on the project.

Architect/Engineer (A/E) Contracted Products:

(To be added as more detail is obtained) -

If a significant portion of the project is to be completed by an A/E firm, then include the following:

- A/E's Quality Management Plan
- A/E's Organization Chart with names and positions identified
- List of A/E's Project Delivery Team and their agency counterparts
- List of A/E's Independent Technical Review Team members

Plan Objective:

The Plan sets forth the review requirements for the Plans and Specifications (P&S) and other engineering and design documents (E&D) developed by the USACE and the SFWMD. There will be an independent technical to review of all P&S and E&D conducted by the SFWMD and USACE to ensure quality control before completion. The technical review will verify the reasonableness of the results, including whether the products meet the needs consistent with law.

Quality Control Manager (QCM) for the Project shall be responsible for the following quality control activities:

Maintaining a file of pertinent correspondence and project guidelines.

Developing a central location to store in-house review sets of plans, design calculations, quality computations, reports, specifications, etc.

Monitoring and evaluating the design activities of the Design Team and conduct follow-up where necessary.

Reviewing submittals for completeness and accuracy.

Document activities relating to quality control and routing to all affected parties.

The USACE will make an appointment of **Engineering Division Project Engineer** (PE) for supporting the preparation of the P&S who will be the Engineering Division point of contact with the Project Manager and the coordinator of the technical engineering and design support requirements for the project. The PE's responsibilities are:

Ensuring that the project requirements are fully understood, clear accurate criterions are established, and guidance and direction for the designer is fully documented.

Coordination of the Engineering Division's work on assigned technical products.

Closely monitoring progress of the work and costs for technical products against the project schedules.

Advising the PM of the status periodically, and of all significant developments as they arise.

Technical Coordination:

ITR team members will meet regularly to coordinate technical efforts between the various disciplines, to discuss and work toward resolving outstanding issues, and to examine work progress and expenditures. These meetings will keep team members updated on the status of the project and any significant developments, as well as encourage a team-building and partnering spirit that will enhance successful completion of a quality product on schedule and within budget.

Site Visits by ITR team members will be taken as necessary.

Project Review Process:

Design team members will provide their input for the plans and specifications to the Project Managers. When all the information for the plans and specifications has been received, A&E Consultant Team will have the project documents reproduced and disseminated for review by the USACE and SFWMD.

Review comments and actions will be recorded on SAD Form 3058-R or similar form, and maintained in file folders and/or electronically. Forms submitted during the in-house review of the plans and specifications will be maintained by Specifications Section (CESAJ-EN-DC). The project will be reviewed with respect to biddability, constructibility, operability, and environmental compatibility in accordance with ER 415-1-11.

Biddability, Constructibility, Operability, and Environmental (BCOE) Review Meeting:

After the review period is completed, a review meeting will be convened by Project Managers to address the project comments. The Design team members will be present at this meeting along with other concerned Construction, Operations, Engineering, and Project Management personnel.

Design team members will provide input or make any necessary changes to the contract documents in a timely manner as a result of the BCOE meeting.

Independent Technical Review for USACE and SFWMD E&D Products (ER 1110-2-1150)

All engineering and design products shall have an ITR. The ITR team shall be established when work is started on a product and shall conduct such reviews as necessary to insure that the product is consistent with established criteria, guidance, procedures, and policy. The ITR process shall be a continuous process with reviews coordinated with the PDT to minimize lost design effort.

The ITR team shall document its actions and recommendations and furnish reports to the PDT at critical points during project formulation, design, and construction. Five review options are available to USACE districts for conducting independent technical reviews. The reviews may be conducted within the USACE Jacksonville district, by another USACE district(s), by Centers of Expertise, by USACE teams, or by contract.

A statement of technical and legal review should be completed for all final products and final documents. In the case of decision documents forwarded to HQUSACE for review a statement of technical and legal review should accompany both draft and final documents. A sample statement of technical and legal review is included in TAB B. The statement shown is a sample and may be modified to include PDT members and ITR team members or to include other functional chiefs or the USACE District Commander or members of the SFWMD CERP staff. These modifications shall be justified and included in the QCP. When the ITR is performed by contract, the appropriate members of the contractor's staff shall sign the statement.

In developing an ITR and quality control program, the USACE Districts are encouraged to prepare standard **Guidelines** for the independent technical review:

Objectives:

To ensure that the engineering concepts are valid,

To ensure that the recommended plan is feasible and will be safe and functional,

To ensure that a reasonable cost estimate has been developed,

To ensure that the engineering analysis is correct,

To ensure that it complies with engineering policy requirements, and

To ensure that it complies with accepted engineering practice within USACE.

Reviewers must identify any significant deficiency. Comments should be limited to those that are required to ensure adequacy of the product; it is not the reviewer's responsibility to enforce personal preferences.

A secondary review objective is to ensure that the recommended plan is an economical solution.

The following simple checklist should be used as the basis for performing engineering technical reviews:

Is the proposed solution safe, functional, constructable, economical, and reasonable?

Does the design follow USACE engineering criteria? (If not, have proper waivers been obtained?)

Are appropriate analysis methods being used?

Are the basic design assumptions valid?

Are the calculations initialed by designers and checkers, and are results essentially correct?

For the current phase of the project, is the engineering content sufficiently complete, and does it provide an adequate basis for the baseline cost estimate?

Is the documentation adequate?

Technical reviewers should not comment on inconsequential items, such as the following:

Spelling, grammar, format or language in the report. (This type of comment may be made informally, in parallel with the official technical review process.)

Minor numerical errors, which do not affect adequacy of the results.

Alternate design solutions or analysis methods, where the designers have already used appropriate methods to develop an adequate solution.

Any other issues which will not add value by making the project safe, functional, or more economical.

REVIEW PROCEDURES - The Chief of Engineering should provide written objectives and procedures for use by independent technical review teams. The chief is also responsible for selecting qualified review team members, appointing a team leader, and in cooperation with the project manager providing the time and funding resources necessary for an adequate review. The team leader should discuss with the team their responsibilities and objectives. When the review is completed, the team leader should verify that each comment is appropriate. When comments seem inappropriate, the team leader should discuss them with the reviewer, and should have inappropriate comments withdrawn by the reviewer. The team leader should also eliminate any mutually conflicting comments, after consulting with the agencies with the conflicting viewpoints, and consolidate similar or related comments. The final review comments should be submitted to the design team for resolution.

COMMENT RESOLUTION - Use of the guidelines should result in a reasonable volume of review comments. Comments do not necessarily have to be complied with, but each comment must be resolved, not ignored. When the designer disagrees with a comment, the best means of resolution is a discussion between designer and reviewer. When this does not result in an appropriate resolution, the issue should be elevated through the designer's chain of command. The review team does not have authority to enforce comments; authority for comment resolution lies in the design chain of command. The USACE/SFWMD Senior

Leadership Team is the final authority for resolution of engineering technical review comments. The design team leader and the review team leader should jointly ensure that each comment has been resolved. The final comments, and the resolution of these comments, should be included in the project documentation. Significant issues raised by the reviewers, and the resolution of these issues, should be included with the submittal of the decision document.

CERTIFICATION - A certification by Project Managers, the Chief of Engineering, other functional chiefs (USACE), and by the SFWMD counterparts that the issues raised by the technical review team have been resolved is required. This certification must be included with submittal of decision documents and should be included with the design documentation for subsequent phases of design.

ARCHITECT/ENGINEERS - When engineering work is performed under contract, ITR is still an essential component of the process. The A/E contract will include provisions for providing QC, including ITR. In these cases, the contract should define the scope for proper execution of these requirements.

TAB B – Statement of Technical and Legal Review -- SAMPLE --

STATEMENT OF TECHNICAL AND LEGAL REVIEW

COMPLETION OF INDEPENDENT TECHNICAL REVIEW

The District has completed the (type of study) of (project name and location). Notice is hereby given that an independent technical review, that is appropriate to the level of risk and complexity inherent in the project, has been conducted as defined in the Quality Control Plan. During the independent technical review, compliance with established policy principles and procedures, utilizing justified and valid assumptions was verified. This included review of assumptions; methods, procedures, and material used in analyses; alternatives evaluated; the appropriateness of data used and level of data obtained; and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing USACE policy. The independent technical review was accomplished by (an independent district team/personnel from XX District/by A-E contractor).

(Signature) (Date)

Technical Review Team Leader

CERTIFICATION OF INDEPENDENT TECHNICAL REVIEW:

Significant concerns and the explanation of the resolution are as follows:

(Describe the major technical concerns, possible impact, and resolution) As noted above, all concerns resulting from independent technical review of the project have been considered. The report and all associated documents required by the National Environmental Policy Act have been fully reviewed.

(Signature) (Date)

Project Manager

(Signature) (Date)

Chief, Planning Division

(Signature) (Date)

Chief, Engineering Division

(Signature) (Date)

Chief, Operations Division

(Signature) (Date)

Chief, Real Estate Division

CERTIFICATION OF LEGAL REVIEW:

The report for, including all associated documents required by the National Environmental Policy Act, has been fully reviewed by the Office of Counsel, District and is approved as legally sufficient.

(Signature) (Date)

District Counsel

APPENDIX K: PUBLIC INVOLVEMENT

TAB A – Public Outreach Plan

The Public Outreach Plan will guide the conduct of the public outreach – information and involvement – effort for this project. Outreach work will be conducted with the input and involvement of both the USACE and SFWMD Outreach Project Delivery Team members as well as SFWMD outreach staff.

In addition to relying upon standard methods of communication and involvement, the outreach activities for the EAA Storage Reservoir project will include activities aimed at informing and engaging minorities and other traditionally under-represented communities and socially and economically disadvantaged persons, including those with a limited ability to communicate in English. This plan consists of the following task groups:

Task Group 1: Public Information

Task Group 2: Public, Stakeholder and Agency Involvement

Task Group 3: Outreach to Minority and Socially and Economically Disadvantaged Communities

Task Group 4: Internal Management and Communication

Task Group 1 - Public Information.

Raising awareness, and informing and educating people is at the heart of any successful outreach program. Public information materials are an essential form of communication in any outreach program. They consist of print, electronic, display, slide show, and other materials of widespread use or availability. Effective public information materials are designed for the appropriate target audience, and are usually visually attractive, non-technical and brief. When developing public information materials, the project managers will work with appropriate outreach staff to ensure the materials and activities are customized to different groups.

Task 1.1 Hold Public Meetings.

Periodic public meetings will be included as an important component of the project-level public outreach activities. These meetings, aimed at engaging the general public, will be held at key junctures during the planning and implementation processes. These meetings are intended to engage a broader audience than is traditionally defined by stakeholders and interest groups.

It is anticipated that the following series of public meetings will be held: a scoping meeting (conducted at the beginning of the PIR process); a meeting at the draft plan stage; and a meeting at the final plan presentation stage.

Task 1.2 Develop Publications and Presentation Materials. Print, electronic and other materials will be an important part of the public outreach efforts. These materials will be used by the SFWMD and the USACE, by other groups engaged in outreach activities, and will be posted on the Internet.

Public Information Products

Brochures. Two brochures will be prepared for the project. The first brochure will be prepared at the beginning of the PIR. Information in the first brochure will define what the project is and explain the process of developing the PIR. The second brochure will be prepared after the PIR is complete. Information in this brochure will explain the final plan, how it was developed, and how implementation will occur.

Fact Sheets. Fact sheets on project goals, objectives, significant issues and progress will be prepared and distributed through a variety of venues. Fact sheets will be a particularly important tool for issue management activities.

Other Print Documents. Other printed documents (e.g., issue papers, frequently asked questions, status reports) will be produced and distributed as needs are identified.

Maintain Mailing Lists. A computerized mailing list of all individuals and groups interested in being informed on the progress of the EAA Storage Reservoir project will be prepared. This list will consist of individuals; elected officials and representatives; local, state and federal government agencies; citizen groups; community organizations; and others. Existing stakeholder lists available from organizations and government agencies will be used as a starting point and then modified as needed for the project. The list of stakeholders will be extensive and will include groups both within and adjacent to the study area. The list will be updated as needed.

Displays. A small tabletop or large free-standing display will be produced for use at in agency offices, local libraries, civic centers, and taken to speaking engagements.

Utilize Evergladesplan.org web site. Many people have come to rely on the Internet as a means of gathering information. This is particularly true of those interested in the progress of Everglades restoration. All printed public information materials will be posted on the Evergladesplan.org website.

Task 1.3 Coordinate Media Activities

Many people rely on print and electronic media for information about events, plans or projects that affect them as their primary source of information. The media are an important resource for people who have little time to attend meetings or to participate in public involvement activities. The print and electronic media will provide a primary mechanism through which the general public will obtain information regarding the project. Providing and disseminated information to the public will be done through a variety of venues. The tasks listed in the following paragraphs will be utilized.

Media Activities and Products

Identify Key News Outlets. With the assistance of outreach, service center and public affairs staff, a list of the key news outlets for the study area will be developed. The list will include newspapers (both regional and community), television and cable stations, and appropriate radio stations. Information regarding demographics and distribution will also be collected.

Identify Issues and Develop Messages. The print and electronic media will provide important opportunities for the SFWMD and USACE to disseminate information on key issues. This will allow Project Managers to provide the latest information regarding the project, address misinformation and ensure project information consistency. Topics of interest may include the following:

Project purpose, goals and objective

Project impacts/benefits

Project background

Emerging and controversial issues

Project progress

Project results

Project schedule

Related projects/program information

Issue News Releases and Meeting Notices. News releases will be utilized to inform the media about story ideas, meetings, workshops, accomplishments, etc. Meeting notices will be placed in regional and local newspapers, as appropriate. All news

releases and meeting notices will be coordinated with project- and program-level outreach staff.

Brief Reporters and Editorial Boards. At critical milestones in the project, reporters and editorial boards will be briefed. In addition, throughout the course of the project, guest editorial commentary for local newspapers and radio may be prepared. All media contacts and requests will be documented. All media activities will be coordinated with program-level outreach staff and with the each agency Public Affairs and Communications Offices.

Task 1.4 Coordinate Guest Speakers/Lecturers.

It is anticipated that Project Managers and other agency representatives will be asked to speak to the public on the EAA Storage Reservoir project. Every effort will be made to respond to these requests. As a means of furthering public awareness of this project, the project managers will seek opportunities to speak to interest groups, community-based organizations, and others that may be interested in or potentially affected by the project. Slide shows or PowerPoint presentations may be developed for individual projects for these presentations. A log of these speaking and other related engagements will be maintained.

Task Group 2 – Public, Stakeholder and Agency Involvement.

The outreach components above largely focus on raising awareness, informing and educating people. Other major aspects of outreach endeavors include seeking input; and involving and coordinating with the public, agencies, and interest and stakeholder groups. The overall objective of this task group is to ensure that potentially affected and interested parties are provided opportunities to be engaged in the PIR development process.

Involvement Activities

Task 2.1 Identify Target Audiences. Some members of the public have a far greater interest in the EAA Storage Reservoir project than does the public at large. These are the members of the public who want to have an actual voice in the process. These individuals are often associated with "interest" or "stakeholder" groups." To determine target audiences, the following factors will be used:

Self identification (those who have made their interest known)

Proximity (those who live near a proposed feature)

Mandate (agencies that have some authority or groups that have related missions)

Use (people who may gain or lose some use)

Economics (those who gain or lose something in the process)

One key mechanism for identifying new interested parties and groups is to conduct interviews with key community leaders and activists. These people can also be asked to provide input on the most effective means of engaging traditionally underrepresented groups. Some groups are already known or have revealed themselves as being more actively interested in this project. These can be found in TAB B of this appendix.

Task 2.2 Hold Workshops and Community Meetings. Throughout the duration of the project, ample opportunities will be developed for the interested public to get information outside of formal public meetings. These meetings will allow the attendees to gather more detailed information and to provide input into the planning and implementation processes.

Task 2.3 Hold Stakeholder Group Activities. Stakeholder group meetings, small group briefings, focus groups, technical workshops, and local government briefings will be held throughout the design period of the project, as needed.

Task 2.4 Identify and Manage New and Emerging Issues. Much of the outreach work that is conducted for interest groups, stakeholders and public entities, revolves around "issue identification and management."

The Project Managers and PDT members will work with agency outreach staff to proactively identify public issues of concern. They will engage regularly in the following process:

1) Identify and analyze new issues

2) Set goals and priorities for addressing the issues

3) Develop strategy for addressing the issue

4) Implement a program of action and communication and

5) Evaluate effectiveness of actions

Task 2.5 Brief SFWMD Governing Board. As the non-federal sponsor of this project, the SFWMD Governing Board provided policy guidance during the development of the CERP. The Board will continue to do so as each individual component project is planned and implemented. The Governing Board invites stakeholder and public input at its meetings. Regular updates on the EAA Storage Reservoir project will be given to the Governing Board at its workshops and meetings.

Task 2.6 Brief SFWMD Water Resources Advisory Committee. The SFWMD has established a Water Resources Advisory Committee (WRAC). The WRAC's charge is to serve as an advisory body to the Governing Board, and as a forum considering policy issues and improving public outreach. The WRAC regularly requests presentations on issues of concern to policy makers and the public. The Project Managers will make presentations, if requested. Furthermore, if the need arises, the Project Managers will consider requesting an opportunity to present before the WRAC.

Task 2.7 Brief South Florida Ecosystem Restoration Task Force and Working Group. Federal and state agencies and tribal and local governments involved in the South Florida ecosystem are represented on the South Florida Ecosystem Restoration Task Force. Task Force federal agencies include the Departments of Interior, Commerce, Army, Justice, Transportation, and Agriculture, and the Environmental Protection Agency. Tribal representatives include the Seminole Tribe and the Miccosukee Tribe of Indians. State agencies include the Office of the Governor, the Florida Department of Environmental Protection, the SFWMD, and there are two representatives of local government. The Task Force established a local-level "Working Group" consisting of Florida-based representatives of the same agencies noted above. Throughout PIR development and project implementation, the Task Force and Working Group represent viable venues for dissemination of information and discussion of key issues. The Task Force and Working Group may either request briefings, or the Project Managers may request an opportunity to present before these groups.

Task Group 3 – Outreach to Minority and Economically and Socially Disadvantaged Communities.

Outreach to minority and low-income communities can be viewed as examples of outreach to two specific stakeholder groups. Many of the activities utilized for other stakeholders are the same that are used for outreach to minority and low-income communities. On the other hand, minority and low-income communities should never be considered as one and the same. Special consideration must be given to

unique barriers to involvement experienced either jointly or separately by these communities. For example, some members of minority and low-income communities may have limited time to expend on involvement in community meetings. They may also have limited ability to travel to meetings, making agency decisions about meeting times and locations very important. This is particularly true of low-income communities, whether its members are minorities or not. Finally, minority community members may have language difficulties that affect program managers' decisions regarding how information is made available and presented.

In all activities relating to outreach to minority and low-income communities care will be taken to consider meeting times, locations and the language needs of the target audience.

The need for project-level outreach to minority and socially and economically disadvantaged communities may be greater if there is either agency or community concern regarding environmental justice, i.e., that the project may have negative impacts on these communities. In this case, additional community engagement will be needed. More community meetings, workshops, small group briefings, and other types of meetings may be required. Furthermore, as part of the process of identifying and considering avoidance and mitigation options, participatory public outreach activities will be utilized.

Minority and Low-income Community Outreach Activities and Products

Task 3.1 Identify Target Audiences. The Project Managers will work with the outreach and service center staff and the agency minority outreach specialists to determine both the minority and low-income populations interested in or potentially affected by the project.

Task 3.2 Engage Key Community Leaders, Activists, and Opinion Leaders. The Project Managers will work with agency staff to identify key community members who should be engaged at the earliest possible point of PIR development. These community leaders will be informed of the project. Their input regarding potential impacts, community views and interest, mechanisms for engaging the community and message development will be solicited.

Task 3.3 Hold Small Group Briefings. Based on the input of community leaders, it may be determined that meetings with small groups of community members may

be in order. These meetings will provide an opportunity for staff to inform community members in a more personal and interactive setting than provided through public meetings. It is hoped that the small group meetings will also facilitate development of trust and long-term relationships with the community.

Task 3.4 Hold Community Workshops and Meetings. Larger meetings may be required at certain times within PIR development. These may be held during the scoping phase of the project. These meetings may also be held at the draft and final plan stages. Finally, the need to hold larger meetings may arise if one or more issues of concern arise and require a broad information dissemination effort.

Task 3.5 Identify and Manage New and Emerging Issues. Much of the outreach work involving minority and low-income communities will require "issue management." Throughout the duration of PIR development and implementation, care will be taken to proactively identify issues of concern and develop and implement strategies for addressing these issues.

Task 3.6 Prepare Public Information Materials. Public information materials, whether written or electronic are critical to effective outreach programs. For both the minority and low-income communities, care must be taken ensure the message is properly developed and delivered. Utilization of appropriate distribution methods is critical. For example, radio is a primary means of communication within communities where English is not the language of choice. Local community papers also serve a key role in dissemination of information. The Project Managers will work with the outreach and service center staff, as well as with the minority outreach specialists to fully consider appropriate venues for delivery of information. Community leaders will also be asked to provide input regarding this issue.

Task Group 4 – Internal Management and Communication

Effective management and internal communication between the SFWMD, the USACE, other agency team members, and program level outreach staff is essential to the success of the EAA Storage Reservoir project. The overall objective of this task group is to enhance staff communication and coordination efforts.

Internal Management and Communication Activities and Products

Task 4.1 Coordinate with Program-Level Outreach Staff. The public outreach effort for the EAA Storage Reservoir project will be coordinated with

program-level outreach staff to ensure project-level outreach efforts are planned correctly with those of other projects and organizations involved.

Task 4.2 Manage Project Materials. All print, electronic, and graphic materials created for the project will be documented. Copies of the materials will be presented for inclusion in the permanent library of permanent materials.

Task 4.3 Inventory Existing Resources and Activities. Many other groups and organizations are either involved in community outreach activities or would like to be involved. An inventory of current activities and potential partnering opportunities will be developed. Special efforts will be made to coordinate and consolidate outreach activities where appropriate.

Task 4.4 Maintain Project Calendar. A calendar of important dates, deadlines, events, and outreach activities will be maintained and provide for inclusion in the Public Outreach Master CERP Calendar.

Task 4.5 Revise and Update Public Outreach Plan. As implementation of the project proceeds, the need to revise and update this public outreach plan may arise. Staff will make revisions, as needed. Significant changes will be vetted to the public and reviewed by the PDT and DCT.

TAB B - Stakeholders Mailing List

Mary Allen
South Bay, FL

Paul Allen
Belle Glade, FL

Charles Aller, Director
FL Dept. of Agriculture & Conservation Service
Tallahassee, FL

Charles Anderson
Belle Glade, FL

Clarence Anthony
City of South Bay
South Bay, FL

Bruce Arrington
USFWS/Loxahatchee Natl. Wildlife Refuge
Boynton Beach, FL

Blunzell Augusting
PB County Health Dept.
Belle Glade, FL

Nick Aumen
Loxahatchee National Wildlife Refuge
Boynton Beach, FL

Keith Babb, Jr. , Commissioner
City of Pahokee
Pahokee, FL

Lester B.Baird. Sr.
County Administrator
Hendry County
Labelle, FL

Ed Barber
Ed Barber & Associates
Macclenny, FL

Stephan Baumgartner
Finance Director
City of Pahokee
Pahokee, FL

Galand Beard
Assistant Vice President
Parsons Brinckerhoff
Juno Beach, FL

Belle Glade Civitan Club
Belle Blade, FL

Belle Glade Elks Lodge# 1716
Belle Glade, FL

Belle Glade Lions Club
Belle Glade, FL

Belle Glade Rotary Club
Belle Glade, FL

Gerald Benock
Benock Consulting
Pt. Charlotte, FL

Angela Berry
Brown & Caldwell
West Palm Beach, FL

Dr. Esther Berry,
City Commissioner
South Bay, FL

Hugh H. Branch, Commissioner
City of Pahokee
Pahokee, FL

Laura Brandt
USFWS/Loxahatchee Natl. Wildlife Refuge
Boynton Beach, FL

Richard Bray
Department of Environmental Protection
Tallahassee, FL

John Bretz
Sverdrup Civil
Jacksonville, FL

Fred Brockman
Belle Glade, FL

Sandra W. Brown
South Bay, FL

Susan Brown
US Sugar Corp
West Palm Beach, FL

Rick Burgess, Esq.
Fort Lauderdale, FL

Gary Burroughs
Fire Chief
City of Pahokee
Pahokee, FL

Joe Canales
South Bay, FL

Laurene T. Capone,
EAA Research & Management, Inc.
Wellington, FL

Jack Casler
Wellington, FL

Elizabeth Hernandez Cayson
P.B. County Health Care District
Belle Glade, FL

Sandra Chamblee
Glades Health Initiative
Belle Glade, FL

Thomas Cherizard
PBC Health Dept.
Belle Glade, FL

Dan Clark
Lindahl, Browning, Ferrari & Hellstrom
West Palm Beach, FL

Community United Methodist Church
Belle Glade, FL

Steve Coughlin
FL Fish & Wildlife Conservation Commission
North Palm Beach, FL

Mrytle Coulon
Belle Glade, FL

Henry Crawford, Jr., Commissioner
City of Pahokee
Pahokee, FL

John Davis
Environmental Services & Permitting
Gainesville, FL

Michael L. Davis
U.S. Department of the Interior
West Palm Beach, FL

Angela J. Dinkla, P.E.
HDR Engineering, Inc.
Miami, FL

Ken Dodge
Lewis, Longman, & Walker
West Palm Beach, FL

John Dumeyer
Schreuder, Inc.
Tampa, FL

Gene Duncan
Miccosukee Tribe of Indians
Miami, FL

Doug Dunkelberger
Dunkelberger Engineering
West Palm Beach, FL

Karis Engle
Glades Community Development Corp
Belle Glade, FL

Shannon Estenoz
World Wildlife Fund
Hollywood, FL

Tony Federico
MacVicar, Federico & Lamb, Inc.
West Palm Beach, FL

Irene Figueroa
East Cost Head Start
Belle Glade, FL

First Baptist Church
Belle Glade, FL

Gary Frechette, Police Chief
City of Pahokee
Pahokee, FL

S. C. Fry
Clewiston, FL

Donald D. Garrett, Commissioner
City of Belle Glade
Belle Glade, FL

Charles Geer
Kimley-Horn
West Palm Beach, FL

Glades Community Development Corporation
Belle Glade, FL

Glades Democratic Club
Belle Glade, FL

Glades Health Initiative
Belle Glade, FL

Pat Gleason
Camp Dresser & McKee, Inc.
West Palm Beach, FL

Marvin Glover
NAACP
South Bay, FL

Steve Gong
CH2MHILL
Deerfield Beach, FL

Joe Guerry
Belle Glade, FL

April Gromnicki
National Audobon Society Everglades Campaign
Miami, FL

Anne Haskell
Belle Glade, FL

J.R. Harris
Belle Glade, FL

Richard Harvey
USEPA
West Palm Beach, FL

Jeffrey P. Hawkins, Vice-Mayor
City of Belle Glade
Belle Glade, FL

Carol Head
Friends of Lake Okeechobee
Okeechobee, FL

I. Lorraine Heisler
US Fish & Wildlife Service
Ecological Services Field Office
Vero Beach, FL

Carlos Hernandez
Nova Consulting
Coral Gables, FL

Mary Beth Hilliard
Hilliard Brothers
Clewiston, FL

Anthony Hui
Broward County Office of Environmental Services
Pompano Beach, FL

Vinnie Ingarra
Rosenwald Elementary
South Bay, FL

Michael Jackson
City of South Bay
South Bay, FL

Zunilda Jackson
South Bay, FL

Bob Johnson
Everglades National Park
Homestead, FL

Keturah Joseph, Manager,
Commission on Affordable Housing
Palm Beach County Board of County Commissioners
Department of Housing & Community Development
West Palm Beach, FL

Dr. Robert Kadlec
Wetlands Ecosystem Research Group
Chelsa, MI

Richard Kaminska
Metcalf & Eddy
Miramar, FL

Mary Kendall
Belle Glade, FL

Peggie S. King
South Bay, FL

Shawn B. Komlos
USEPA
West Palm Beach, FL

Joe Kyles, Sr.
South Bay, FL

Steve Lamb
MacVicar, Federico & Lamb, Inc.
West Palm Beach, FL

Cynthia Larrimore
ACTION
Belle Glade, FL

Charles Lee
Florida Audubon Society
Winter Park, FL

Fitzgerald Limontas
Belle Glade, FL

Kathy Durrell Lockhart
Sugar Can Growers Cooperative of Florida
Belle Glade, FL

Edward W. Lowery
Manger,Planning & ECO Development
Palm Beach County Board of County Commissioners
Department of Housing & Community Development
West Palm Beach, FL

David MacIntyre
Parsons Brinckerhoff
Orlando, FL

Tom MacVicar
MacVicar, Federico & Lamb, Inc.
West Palm Beach, FL

Aldric & Kim Marshall
West Palm Beach, FL

Tony Masilotti
Palm Beach County Board of County Commisioners, District 6
West Palm Beach, FL

Bill Mathis, Mayor
City of Belle Glade
Belle Glade, FL

Jeremy McBryan
Brown & Caldwell
West Palm Beach, FL

Paula McDonald
Belle Glade, FL

Greta McLaughlin
Metcalf & Eddy
Miramar, FL

Melissa Meeker, District Director
Florida Department of Environmental Protection
West Palm Beach, FL

Stan Meiburg
Acting Regional Administrator
USEPA, Region IV
Atlanta, GA

Barbara Miedema
Sugar Cane Growers Cooperative of Florida
Belle Glade, FL

Father John Mericantante
Pahokee, FL

Galen Miller
Burns & McDonnell
Kansas City, MO

Jack Moller
Everglades Coordinating Council
Pembroke Pines, FL

W. Pete Moore, Vice Mayor
City of Pahokee
Pahokee, FL

Tammy Moore
Community Program Specialist
Glades Community Development Corporation
Belle Glade, FL

Doug Morrison
National Audubon Society
Miami, FL

Mitch Murray
US Geological Survey
Miami, FL

Frank Nearhoof
FDEP
Mail Station Tallahassee, FL

Warren Newell
Palm Beach Board of County Commissioners
West Palm Beach, FL

Jim Nissen
Brown & Caldwell
Maitland, FL

Debra Palmer, City Clerk
City of Pahokee
Pahokee, FL

Nancy Pantoja
Citizens for a Better South Florida
Miami, FL

Phil Parsons, Esq.
Landers & Parsons
Tallahassee, FL

Charles Pattison
1000 Friends of Florida
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South Bay, FL

Albert Peterson
Belle Glade, FL

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U.S. Fish & Wildlife Service
Vero Beach, FL

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Belle Glade, FL

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Environmental Resources Management
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League of Women Voters
Miami, FL

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Belle Glade, FL

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Loxahatchee Groves WCD
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West Palm Bch, FL

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City of Pahokee
Pahokee, FL

Hazel Scott
Pahokee, FL

Charles F. Schoech, City Attorney
City of Belle Glade
Belle Glade, FL

Dan Shalloway
Shalloway, Foy, Rayman & Newell
West Palm Beach, FL

Earl Shannon
Canestoga Rovers & Associates
Waterloo, Ontario, Canada

Dave Silverstein
Burns & McDonnell
Kansas City, MO

Roy Singletary, Mayor
City of Pahokee
Pahokee, FL

Bobby Antonio "Tony" Smith
City Manager
City of Belle Glade
Belle Glade, FL

Barbara Bell Spence
Assistant to City Manager
City of Belle Glade
Belle Glade, FL

Morales St. Hilaire, Reverend
Belle Glade, FL

Dave Stewart
Hutcheon Engineers
West Palm Beach, FL

Stuart Strahl
Audubon of Florida
Miami, FL

The Sun
Belle Glade, FL

Houston L. Tate
Assistant Director of Public Services
City of Belle Glade
Belle Glade, FL

Craig Tepper
Seminole Tribe, Brighton Reservation
Okeechobee, FL

Kenneth A. Vanderjagt, PE
Orlando, FL

Malcolm "Bubba" Wade
U.S. Sugar Corporation
Clewiston, FL

Bill Walker
Concord, MA
Shirley Walker
L.S.F./PEPPI Head Start
Belle Glade, FL

Jeff Ward
Belle Glade, FL

Ken Weaver
DEP, Div. of Water Facilities
Tallahassee, FL

J. Stephen Weeks, Commissioner
City of Belle Glade
Belle Glade, FL

Alan Wertepny
Mock, Roos & Associates
West Palm Beach, FL

Dr. George White
Belle Glade, FL

Mary Wilkerson
Belle Glade, FL

Autrie Moore Williams
Glades Community Development
Corporation
Belle Glade, FL

Steve B. Wilson, Commissioner
Belle Glade, FL

Brent Woodham
Sugar Cane Growers Cooperative of Florida
Belle Glade, FL

Larry Worth
United States Sugar Corporation
Clewiston, FL

Mike Zimmerman
Everglades National Park
Homestead, FL

APPENDIX L: VALUE ENGINEERING PLAN

This section is reserved for documents that will be developed and made available at a later date.

APPENDIX M: WATER CONTROL PLAN

This section is reserved for documents that will be developed and made available at a later date.

APPENDIX N: WATER QUALITY CERTIFICATION PLAN

This section is reserved for documents that will be developed and made available at a later date.

APPENDIX O: OPERATIONS AND MAINTENANCE PLAN

This section is reserved for documents that will be developed and made available at a later date.

APPENDIX P: ENVIRONMENTAL AND ECONOMIC EQUITY PLAN

ENVIRONMENTAL PLAN

Federal environmental laws create not one but a series of compliance requirements during project planning, engineering, construction and operations. Under USACE planning and policy guidance, the "NEPA Compliance" document (EA or EIS), whether stand-alone or integrated into the Project Implementation Report (PIR), must also document full compliance with eight or nine additional and distinct Federal laws, regulations or Executive Orders to be acceptable for authorization/funding by USACE decision-makers. An evaluation methodology will be developed to predict environmental outputs and to support a comparison of environmental benefits of the different alternative plans. Impact assessment will be required in order to determine the anticipated environmental effects of plans on significant resources within the study area needed to complete the EIS. Interactions will continue with agency personnel, scientists and others to obtain input on specific impact assessment techniques throughout the project development. The PIR/EIS will be so screened for policy compliance and additionally subjected to Independent Technical Review (ITR) in-house, so in effect NEPA compliance documents will address all or most of the following laws:

1. The National Environmental Policy Act (NEPA)

Two key requirements or directives of this law are:

a. The Public must be informed and offered an opportunity to comment on significant Federal expenditures or controversial actions - (this "full disclosure" provision of NEPA, in addition to the Federal Environmental Justice Executive Order and Florida "sunshine" statutes, is the engine driving the outreach activities of the PMP). Federal regulations to implement NEPA require early public notice of likely Environmental Impact Statement preparation, and opportunities for public participation in issue identification, alternatives development, planning and decision-making during project development. NEPA is the Federal "sunshine law."

b. Probable impacts on "significant" resources must be fully documented (this is also called "full consideration"). There are three parts to this task according to Federal planning procedures, and their completion would be considered a minimal effort to comply with NEPA: i. Identify significant resources and describe their current condition; ii. Describe the most likely future condition of significant resources, absent any new action ("future without project"); and iii. Describe the effects (impacts) of each alternative action on each significant resource ("future with project"). NEPA documents are either an Environmental Impact Statement (EIS), which would conclude in the signing of a Record of Decision (ROD) by the Federal decision-maker, or an Environmental Assessment (EA), which would conclude with

the signing of a Finding of No Significant Impact (FONSI) by the Jacksonville District Commander.

NEPA PROCESS

The following activities are required to conduct an impact assessment as required by the NEPA:

Initiate Scoping - Initial coordination consists of publishing a Notice of Intent to prepare an EIS in the Federal Register, or "scoping" issues, concerns, opportunities and constraints related to the project, as defined in the Council on Environmental Quality (CEQ) Regulations. In its initial stages this information-gathering will serve to exchange information among team members and assist in the development of alternative plans, as well as pointing out potential constraints to project development.

Biological and Field Investigations - A literature search of environmental resources of the area will be conducted. Site information will also be obtained through use of the National Wetland Inventory, GIS and available aerial photography. Field investigations of each project site will include inventory of habitats and species occurrence to determine existing conditions. All work will be accomplished in cooperation with the FWS and FWC and will be done in conjunction with fieldwork to be performed by the FWS for the Fish and Wildlife Coordination Act Report (CAR), described further below.

Select Impact Assessment Method(s) - This effort involves meeting with the SFWMD, FWS and FWC to determine the impact assessment method(s) or performance measures to be used to evaluate specific environmental responses to project alternatives in the Fish and Wildlife CAR. A meeting will also be held with regulators to determine methods to be used for evaluating regulated actions.

Impact Assessment - Project sites and impacts will be evaluated according to the impact assessment method(s). All work will be done cooperatively with the FWS and FWC.

Aesthetic and Recreation Resource Analysis - An aesthetic and recreation resource analysis, through consultation with FWC, will be completed and will include a discussion of existing conditions, a comparative resources analysis of impacts of study alternatives and the selected plan and a delineation of any mitigative design measures if needed.

Draft EIS/EA - A draft EIS or EA is prepared and filed with the EPA. This will be completed in accordance with the *National Environmental Policy Act (NEPA) of 1969, as amended (91-190)* and the Council on Environmental Quality (CEQ) NEPA regulations *(40 CFR Parts 1500 - 1508).* The NEPA document will follow the format described in *ER 1105-2-100, Appendix C, and ER-200-2-2.* In the case of a Draft EIS (DEIS), the EPA publishes a Notice of Availability in the Federal Register when the DEIS is mailed to agencies and the public for a 45-day review (which actually lasts 60 days in Florida because the State always requests an additional 15 days). A Final EIS (FEIS) addressing any comments received on the draft is prepared and sent to SAD or HQUSACE (depending on the level at which the PIR is approved). SAD or HQUSACE will file the FEIS with EPA and the FEIS will be mailed to all parties that responded to the DEIS, plus Washington-level review agencies. These parties have 30 days to respond, and Jacksonville District will be asked to respond to any comments received.

Record of Decision (for EIS) - The Record of Decision (ROD) is prepared and signed by Assistant Secretary of the Army for Civil Works or the commander of a Major Subordinate Command (in this case, SAD). The response package and a proposed ROD are prepared in the Jacksonville District and sent to the approving official for signature. The ROD is a summary document, requiring only a few days to prepare, but it is signed at the level at which the report is approved, and Jacksonville District staff has no control over timing. No administrative action, such as signing a contract, may proceed until the ROD is signed. Once project planning is complete it often takes a year or more to complete an EIS and sign a ROD.

An EA covers uncontroversial actions not likely to lead to significant environmental impacts. It requires less coordination and is concluded by a FONSI signed by the District Commander. Most EAs can be completed in approximately 8-9 months. Although the steps in the EA process are similar to those in the EIS process, the timeline is shorter due to the shortened coordination requirements. No publication of notices in the Federal Register is involved. However, if a project modification appears likely to be highly controversial, or lead to large or potentially serious impacts to any identified resource, an EIS would be the NEPA document required. Individual tasks under NEPA compliance are summarized in Table 1 below:

Table 1 Steps to NEPA compliance for an EA or non-controversial EIS:

TASK	PERSON DAYS (MIN.)	RESOURCE	Comments
1. Scope EIS, EA (letter, publish NOI in Fed Register)	30 days	Interdisciplinary	If NOI for EIS, publish, wait 30 days.
2. Prepare draft EA or EIS	60 days	Arch, Biol, Inter, Engr.	Begins same time as 1 (S-S)
3. ITR review Draft EA or EIS	3 weeks	ITR team	After Draft finished
4. Correct/finish DEA or DEIS	2 weeks	Interdisciplinary	After ITR review
5. Print/Mail DEA or DEIS	9 days	Print shop in-house	After 4 complete
6. Publish NOA DEIS or	9 days	EPA, Federal Register	After 5 complete #
7. Public Comment period	60 days *	public/agencies	Upon publication of NOA
8. Prepare FEIS, EA	30 days	Arch, Biol, Interdiscp. Engr.	Upon end of comment period.
9. ITR review of FEIS, EA	3 weeks	ITR team	After draft final doc finished.
10. Finalize EA, EIS	2 weeks	Interdisciplinary (all)	After ITR finished
11. Print/mail EA, FEIS	9 days	Print shop in-house	After (10) finished.
12. Pub NOA in Fed Register	9 days	EPA, Federal Register	After mailing complete#
13. Final Public Comment period	60 days*	public/agencies	After FR notice (EIS) or after mailing (EA)
14. Sign FONSI (EA only) or	5 days	Office Counsel, internal review	FONSI may be signed as soon as NEPA, CZM, SHPO review complete and State indicates WQC application will be accepted (USACE policy).
14. Prepare response to final comments, draft Record of Decision (ROD)	4 weeks	OC, PD staff, Project Managers, SFWMD	Prepare brief summary of project features and impacts, resolution of any controversies.
15. Sign ROD	2 weeks	SAD staff, OC	This timing is not under District control.

2. National Historic Preservation Act (NHPA).

Cultural resource studies will include an evaluation of the impacts of the alternative plans upon historical, architectural and archaeological resources. It is anticipated that various historic resources may be present within the study area, including National Register of Historic Places (National Register) sites, middens and possibly burial sites. Extensive coordination with the Florida State Historic Preservation Office (SHPO) has occurred during previous studies within the study area. All studies will be coordinated with the SHPO in accordance with the *National Historic Preservation Act, as amended (PL 89-665)* and the *Archeological and Historic Preservation Act, as amended (PL93-291)*. This early coordination ideally begins at the same time as public issue scoping. Cultural resources studies will begin with an intense literature survey of both resources and previous coordination of these studies with the SHPO. If we suspect such sites may exist, we investigate to determine the eligibility of the site for nomination to the National Register of Historic Places. Both National Register and National Register-eligible sites are given the same protection. Such sites will be avoided whenever possible. If that is not possible a mitigation plan will be developed in consultation with the SHPO. Documentation will be submitted for review to the SHPO. An assessment of the impacts of the proposed project upon cultural resources will be prepared as part of the NEPA analysis. Costs attributable to work under this account include the effort required to prepare input for the draft and final *PIR*, as well as participation in each of the required review conferences and resolution of comments as a result of the conferences.

Initial Assessment - An initial archaeological assessment, including cultural resources background literature and records check will be performed. During this activity a records check will be conducted to determine the extent of present knowledge of cultural resources in the project areas. Project areas will be visited to determine field conditions. This initial assessment will be completed prior to the Technical Review Conference.

Scope of Work - A scope of work for Phase I archaeological reconnaissance will be prepared. It is assumed for purposes of preparing this cost estimate that the Phase I report will be done by a separate contract.

Phase I Investigation - This work activity allows for a Phase I reconnaissance of those areas that the assessment identifies as requiring this level of investigation. This effort will be performed by contract.

NHPA assessments and coordination should be concluded by the end of the NEPA compliance process, and preliminary coordination should be documented in the Draft PIR/NEPA document. A professional archeologist familiar with the requirements of the NHPA should conduct NHPA studies and coordination.

3. Fish and Wildlife Coordination Act (FWCA).

The central objective of the FWCA is to allow for equal consideration of wildlife conservation with other features of water resource development programs. Under provisions for the FWCA, the FWS has the authority to investigate and report on all proposals for work and/or other related activities affecting the waters of the United States that are sanctioned, permitted, assisted, or conducted by the Federal government. Section 2(b) of the FWCA allows the FWS to make recommendations to the USACE that establish measures to prevent loss of or damage to wildlife resources, as well as to provide concurrently for the development and improvement of such resources.

The USACE and the FWS have established coordination procedures and policy for funding of FWS involvement. The USACE provides transfer funds to support the activities of the FWS as set forth in a Scope of Work (SOW). The SOW includes provisions for the FWS's attendance at meetings scheduled in conjunction with the USACE' planning process, and for the FWS's provision of timely letters or longer reports containing FWS recommendations. The SOW also defines the USACE' responsibilities.

As determined in the SOW, the Service will provide Planning Aid Letters (PALs) or Planning Aid Reports (PARs) to the USACE. The purpose of PALs and PARs is to identify problems and opportunities related to the conservation and enhancement of fish and wildlife resources. The Service may review conceptual alternatives, provide recommendations for development of new conceptual alternatives, and recommend the course for future coordination. Key objectives for these reporting documents are to ensure that a process for promoting conservation and restoration of "unique or scarce" resources and/or habitats is introduced early in the planning process and carried through detailed design, construction, and post-construction monitoring.

The purpose of the 2(b) Report (FWCA report) is to provide the views and recommendations of the Secretary of the Interior in his/her report to Congress prior to Congressional authorization and funding. The report should document the results and findings of the Service's studies, planning, and coordination. It should recommend those actions considered necessary by the Service to accomplish the fish

and wildlife conservation goal of the FWCA. The 2(b) Report addresses those alternatives evaluated in the PIR, but focuses on the selected plan. A draft 2(b) Report is generally provided to the USACE early enough such as to influence and be attached to the PIR submitted to Division. The draft 2(b) Report and its findings and recommendations are then available for public release during the public comment period. To the extent that the selected plan is modified as a result of the public review process, the draft 2(b) Report is revised and finalized early enough to be made an integral part of the final EIS and PIR.

Formal reporting requirements are authorized in Section 2(b) of the FWCA. Presented in both a draft and final format, the 2(b) Report is that report prepared in specific response to the Congressional directive of Section 2(b) of the FWCA. The purpose of the 2(b) Report is to provide the views and recommendations of the Secretary of the Interior in his report to Congress prior to Congressional authorization and funding. The report should document the results and findings of the Service's studies, planning, and coordination. It should recommend those actions considered necessary by the Service to accomplish the fish and wildlife conservation goal of the FWCA. The 2(b) Report addresses those alternatives evaluated in the PIR, but focuses on the selected plan. A draft 2(b) Report is generally provided to the USACE early enough so as to influence and be attached to the PIR submitted to Division. The draft 2(b) Report and its findings and recommendations are then available for public release during the public comment period. To the extent that the selected plan is modified as a result of the public review process, the draft 2(b) Report is revised and finalized early enough to be made an integral part of the final EIS and PIR.

The FWS will also make recommendations during the planning process regarding mitigation of impairments to fish and wildlife habitats. Avoidance and minimization of any adverse effects is the initial focus of the FWS's early planning assistance. The Programmatic EIS for the Comprehensive Plan (USACE 1999) stated that the construction features will be designed to first avoid and then minimize impacts to wetlands or other aquatic sites and natural upland habitats. The USACE concluded that separable mitigation features were not included in the Comprehensive Plan, but a commitment was made to provide separable compensatory mitigation under two conditions: (1) unavoidable impacts on "unique or scarce" habitats; or (2) impacts on existing wetland compensatory mitigation sites that were established by authorized regulatory permits.

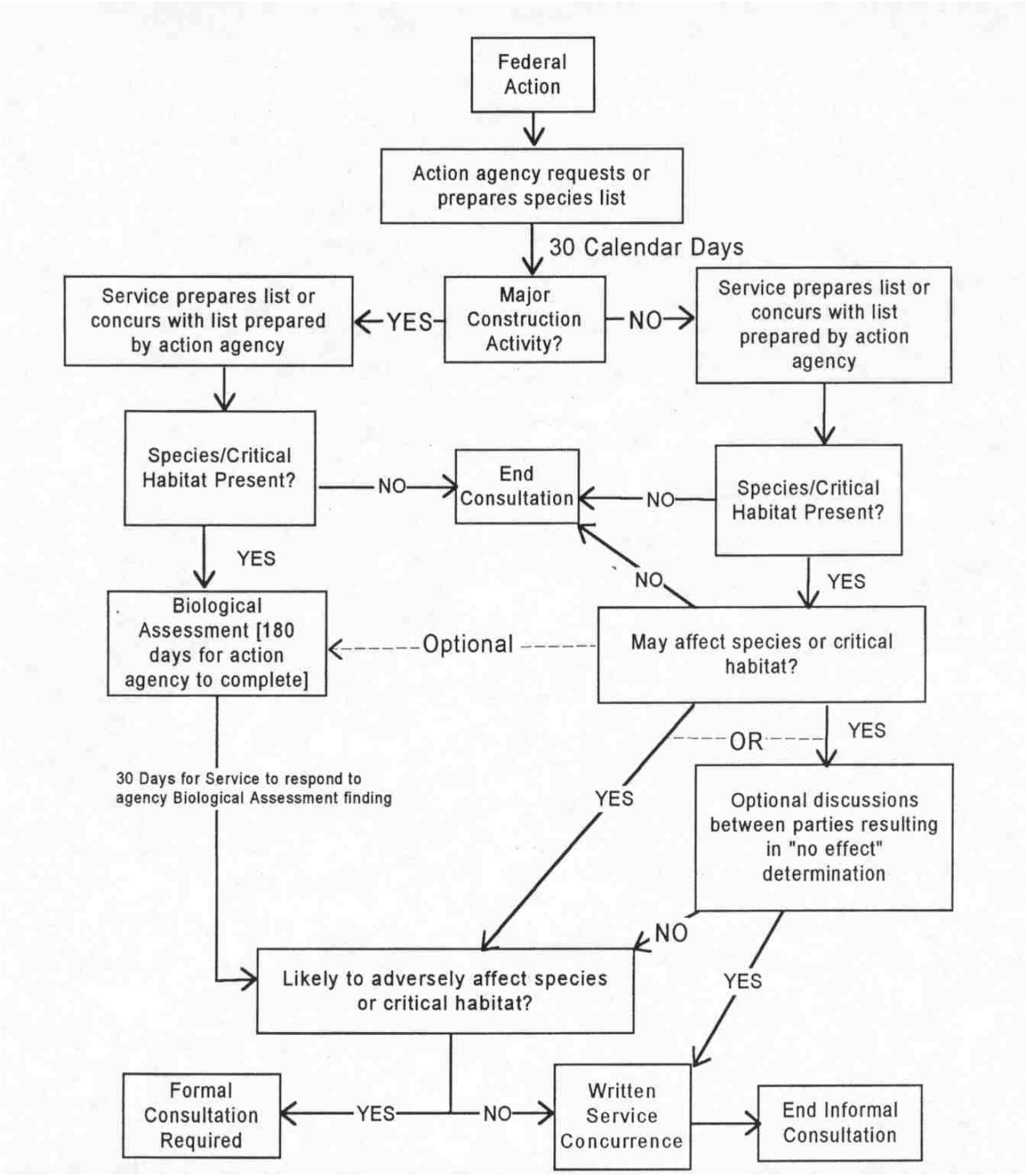
4. U.S. Endangered Species Act

A. Informal Consultation Process

The USACE will consult or confer with the FWS and the National Marine Fisheries Service (NMFS) regarding federally listed and candidate species. Within 30 days of receipt of the notification of, or request for, a species list, the FWS will either concur with or revise the list, or advise the USACE, based on the best scientific and commercial data available, whether any listed or proposed species or designated or proposed critical habitat may be present in the action area. Informal consultation determines the likelihood of adverse effects on a listed species or critical habitat. Informal consultations: (1) clarify whether and what listed, proposed, and candidate species or designated or proposed critical habitats may occur in the action area; (2) determine what effect the action may have on these species or critical habitats; (3) explore ways to modify the action to reduce or remove adverse effects to the species or critical habitats; (4) determine the need to enter into formal consultation for listed species or designated critical habitats, or conference for proposed species or proposed critical habitats; and (5) explore the design or modification of an action to benefit the species.

If informal consultation occurs early in the planning process (*i.e.,* prior to the development of project alternatives), it may avoid the need for formal consultation and greatly increase the potential for project success.

Figure 1. Informal Consultation Process under the Endangered Species Act



B. Biological Assessments

The USACE is required under the ESA to provide the best scientific and commercial data available concerning the effects of the proposed project on listed species or designated critical habitat. This may require the preparation of a Biological Assessment (BA) by the USACE, which would have to be submitted within 180 calendar days of receipt of a species list from the FWS/NMFS. The BA would describe the project, project area (with relevant maps), proposed management activities, and may include supporting documents, particularly those that provide an assessment of the proposed site. It would indicate the listed species that may occur in the project area, including past surveys for such species. The BA would also evaluate how the project may affect listed species or critical habitat that occurs in the project area. This will include direct, indirect, and cumulative effects. The BA would describe measures to avoid, reduce, or eliminate adverse effects or enhance beneficial effects to the species, and would state the USACE' decision.

The USACE will provide to the FWS/NMFS its decision as to the effects to listed species as follows: "no effect" means that there are absolutely no effects of the project, positive or negative. If effects are insignificant (in size) or discountable (extremely unlikely), a "may affect, but not likely to adversely affect" determination is appropriate. These determinations require written concurrence from the FWS/NMFS. "May affect, likely to adversely affect" means that all adverse effects cannot be avoided. This requires formal consultation with the FWS and NMFS. A fourth finding is possible for proposed species or proposed critical habitat - "is likely to jeopardize/adversely modify proposed species/critical habitat," which is the appropriate conclusion if the USACE identifies situations in which the proposed action is likely to jeopardize the proposed species, or destroy or adversely modify the proposed critical habitat. In this case, conference will be required.

C. Formal Consultation Process

Formal consultation will be necessary if: (1) the USACE requests consultation after determining the proposed action may affect listed species or critical habitat, or (2) the FWS or NMFS, through informal consultation, do not concur with the action agency's finding that the proposed action is not likely to adversely affect the listed species or critical habitat.

Through the formal consultation process, the FWS/NMFS responsibilities include: (1) review of all relevant information provided by the USACE or otherwise

available, (2) evaluation of the current status of the listed species or critical habitat, and (3) evaluation of the effects of the action and cumulative effects on the listed species or critical habitat. The FWS/NMFS then formulates a biological opinion as to whether the action, taken together with cumulative effects is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. The FWS/NMFS determines the amount or extent of anticipated incidental take in an incidental take statement included in the biological opinion. Formal consultation is concluded within 90 days after its initiation unless extended in accordance with the provisions of 50 CFR § 402.14. Within 45 days after concluding formal consultation, the FWS/NMFS delivers its biological opinion. For more detailed information on the consultation process required by the ESA, see the Endangered Species Consultation Handbook (U.S. Fish and Wildlife Service and National Marine Fisheries Service 1998), which is posted on the World Wide Web at http://endangered.fws.gov/consultations/s7hndbk/s7hndbk.htm.

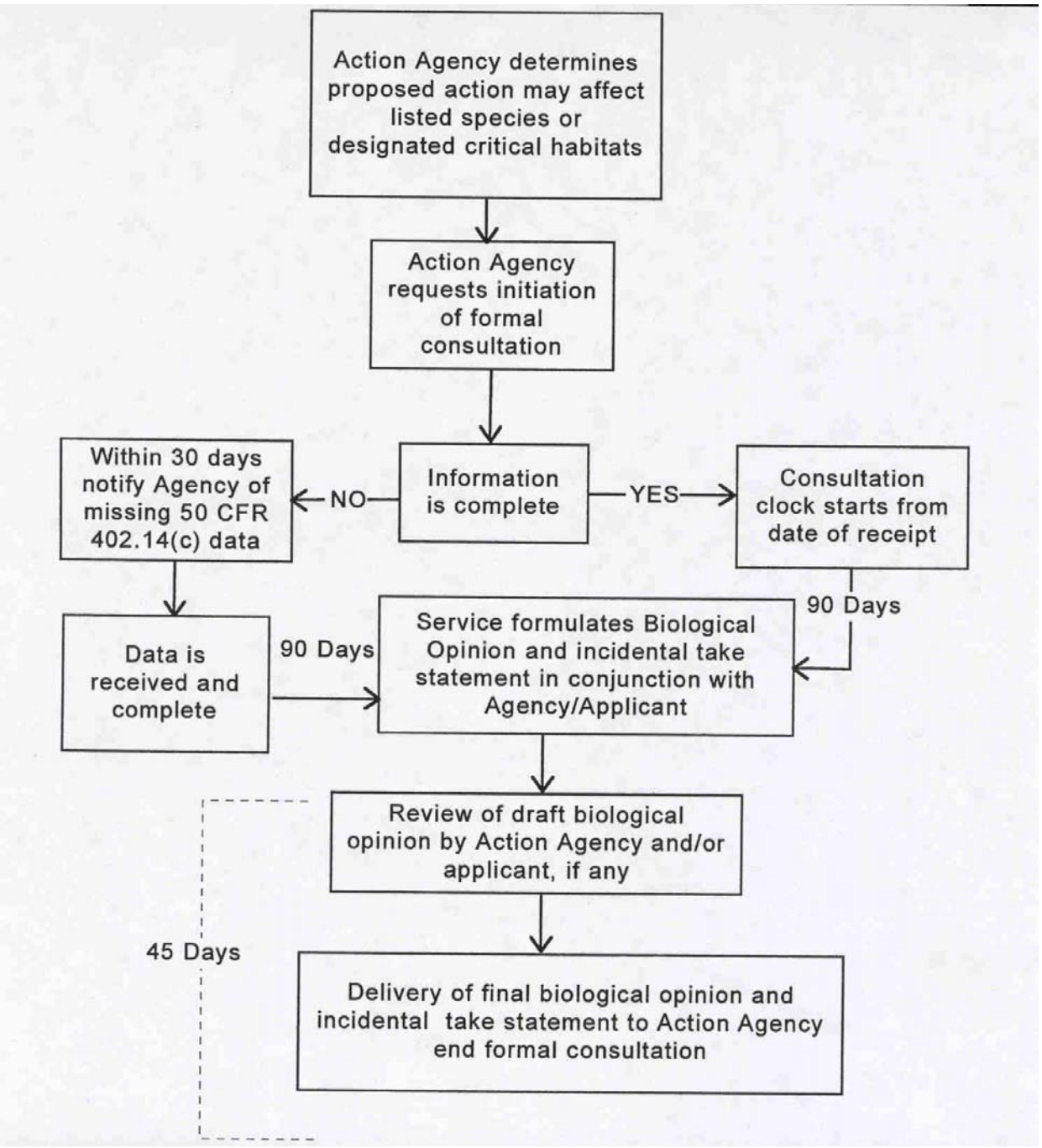


Figure 2. Formal consultation process under the Endangered Species Act.

5. Magnuson-Stevens Fishery Conservation and Management Act

For Federal projects, Section 305 of this act requires the preparation of an Essential Fish Habitat (EFH) Assessment to address specifically how proposed actions might affect the habitats needed by federally managed fish species. The Federal agency must coordinate with the NMFS of the National Oceanic and Atmospheric Administration (NOAA). An independent EFH Assessment may be coordinated prior to preparation of the NEPA document. Alternatively, the NEPA document may serve as this assessment if it includes the required elements. The NMFS may reply to the EFH Assessment with recommendations, objections, or other comments. We have 30 days to respond (or at least provide an interim response). The response must include a description of measures proposed by the agency for avoiding, mitigating, or offsetting the impact of the activity on EFH. In the case of a response that is inconsistent with the recommendations of the NMFS, we must explain its reasons for not following the recommendations. If we indicate that we do not intend to follow the recommendations of the NMFS, the act gives them the opportunity to elevate that decision to higher authority.

Coordination with the NMFS should be concurrent with the scoping process. The EFH Assessment is included as an appendix or attachment to the NEPA document. Consideration of the recommendations from the NMFS should be incorporated into the main body of the PIR or NEPA document.

6. Clean Water Act (CWA)

This law is triggered whenever material is discharged to waters of the United States. The CWA, Section 1344(b) (previously cited as 404 (b)(1)) requires an evaluation of such discharges. The "1344(b)" evaluation is a stepwise determination of the effects of a proposed action on water quality and the aquatic ecosystem. It is included as an appendix or attachment to the NEPA document. Water Quality Certification (WQC; reference Section 1341 of the Clean Water Act, previously cited as 401) is sought from the State, and in some cases a National Pollutant Discharge Elimination System (NPDES) permit is also requested. Formal coordination with the State will occur at several points during the study to insure consistency with State-administered programs, including the Lake Okeechobee Protection Act (LOPA) and the Everglades Forever Act (EFA). It is anticipated that coordination will be accomplished by scoping and follow-up letters and subsequent meetings to insure State participation in the study process, plan development, and evaluation.

WQC requires a fairly detailed description of the proposed action and we usually do not obtain it until fairly late in project design (after the NEPA coordination is complete). A WQC should be obtained before a project is advertised because

conditions in the certificate may influence project design and timing of construction, and it must be obtained before construction can proceed. A NPDES permit is required for point sources and for non-point activities that require clearing at least 5 acres. The application for water quality certification will be completed and submitted to the Florida Department of Environmental Protection (FDEP). The application will be submitted as part of the State CERPRA application pursuant to the Florida Administrative Code 62-302 and Clean Water Act Section 1341.

Large-scale ecosystem restoration efforts in the Everglades will not be successful unless the natural oligotrophic water quality conditions in the Everglades marsh and slough systems are maintained and protected. To meet this requirement, the quality of the water is critical but timing, duration and quantity of the water are just as important. The scope of this effort will initially involve the investigation of all pertinent water quality data and databases of the region. This will be for the purpose of establishing a baseline monitoring dataset to be used for model development and water quality certification. The water quality data analysis effort will include: a literature search, review of existing water quality data, identification of localized point/nonpoint nutrient and contaminant sources, and on-going research studies of transport mechanisms. Data collected would be used to assess the benefits to water quality provided by the proposed combination of storage compartments and stormwater treatment areas.

7. Farmland Protection Policy Act

This law is applicable to projects with proposed features that would affect identified tracts of "prime" or "statewide unique" farmlands identified by the Natural Resources Conservation Service (NRCS). A form AD-1006 must be filled out and coordinated with NRCS, and impacts on prime or unique farmland soils have to be documented in the NEPA document.

Agricultural soils in the east everglades are Statewide Unique farmlands (peat soils with a 12-month, frost free growing season). Many CERP features, including ASR and surface water retention areas, may affect unique farmland soils, and will require completion of a Form AD-1006 consultation. This consultation process ends in the completion of the form and receipt of a concurrence letter from the NRCS. NRCS prefers to be involved early enough to provide input into alternative plan selection.

8. Resource Conservation and Recovery Act, Comprehensive

Environmental Response, Compensation and Liability Act (RCRA, CERCLA) and USACE Regulations on Hazardous, Toxic and Radioactive Waste (HTRW)

The purpose of this evaluation is to facilitate early identification and appropriate consideration of Hazardous, Toxic and Radioactive Waste (HTRW) problems. There are two reasons for this inventory: 1) such foci of contamination may be sources of contamination to natural lands or state waters, and may affect the description of existing conditions or the siting of project features; 2) the Federal agency would generally avoid siting project features on lands containing known HTRW. Initial HTRW surveys use existing state and federal databases, supplemented by field investigations if appropriate. Information developed during this phase should provide the rationale for proceeding with the next phase of project implementation.

Civil works project funds are not to be employed for HTRW-related activities except as provided in *ER 1165-2-132*, *Hazardous, Toxic and Radioactive Waste (HTRW) Guidance for Civil Works Projects*, or otherwise specifically provided in law. Plan formulation and plan selection may be substantially influenced by the presence of HTRW in the project area.

Low levels of pesticides appear to pose an ecological risk when former agricultural lands are placed into wetlands or are flooded. Consequently, the following activities will be investigated:

Perform a transect across the site, sample for pesticides and herbicides. Even though the concentrations may be below regulatory levels, these residuals pose an ecological risk.

Based on the sample analysis results, perform eco-toxological studies (similar to bio-assays).

Perform a risk assessment for the representative affected species, using the sampling and eco-toxological data. If significant risks are present, plan for remediation (phytoremediation, etc.).

9. Coastal Zone Management Act (CZMA)

The CZMA requires that activities in the coastal zone be consistent with approved State programs. Florida exerts CZM in all coastal counties, including Palm Beach County, regardless of whether a project is strictly coastal. Consequently, almost all Florida projects fall under CZMA. The Governors Clearing House Review, conducted by the Florida Department of Consumer Affairs, will provide a process by which the Recommended Plan can receive preliminary approval from the State of Florida. Copies of the PIR/NEPA document are coordinated at both Draft and Final stages with the Florida Department of Consumer Affairs in Tallahassee. Sixteen (16) copies of the document are required. The DCA serves as the state clearinghouse for

Coastal Zone comments, and sends the reports to all affected agencies and Water Management Districts. The State may determine that a project is not consistent with the State Coastal Management Plan (in Florida, codified State laws and regulations) at any stage of a project's life. Inconsistent projects will not receive water quality certification. The USACE has never built or recommended an inconsistent project. A State finding of inconsistency usually is accompanied by a statement of what needs to be done to gain consistency. A determination of consistency will be included in the NEPA document as an appendix, addressing each codified law or regulation related to the Coastal Management Plan.

APPENDIX Q: RESTORATION COORDINATION AND VERIFICARTION INTEGRATION PLAN

This section is reserved for documents that will be developed and made available at a later date.

APPENDIX R: PROJECT COOPERATION AGREEMENT

Examples of the draft (and final) PCA package will be included after the DDR is approved.

A model Project Cooperation Agreement can be downloaded from the USACE official website at: *www.hq.usace.army.mil/cecc/6008.pdf* .

The USACE's Project Cooperation Agreement Checklist can be found at: *www.usace.army.mil/inet/functions/cw/cecwa/branches/review/pdf/pcachk.pdf* .

The USACE's Project Cooperation Agreement guidance can be found at: *www.usace.army.mil/inet/functions/cw/cecwa/branches/review/pcaguide.htm* .

TAB A – Project Cooperation Agreement Checklist

(Dec 96)

PCA CHECKLIST

I. BASIC INFORMATION:

a. Name of Authorized Project:_____

b. Name of Separable Element: _____

c. CWIS Number: _____

d. Project Report Reviewed by OMB: ___Yes ___ No Any special conditions imposed by OMB? ___ Yes ___ No Describe conditions_____

e. Date Chief's Report Transmitted to Congress: _____

f. Authorizing Document: _____

g. Law/Section/Date of Project Authorization:_____

h. Laws/Sections/Dates of Any Post-Authorization Modification:_____

i. PCA Covers: ___ (1) Authorized Project
___ (2) Separable Element
___ (1) or (2) plus (for example Locally Preferred Plan) _____

j. Construction New Start: ___ Budgeted
___ Congressional Add

k. Non Federal Sponsor(s): _____

l. Project/Separable Element Purpose(s): _____

m. Scheduled date for execution of the PCA: _____

n. Scheduled Advertisement Date: _____ Scheduled Award Date: _____

II. PROJECT DOCUMENTS:

a. Title/Date/Approving Authority of Project Report Supporting PCA: _____

b. Project Management Plan Approval Date: _____

c. Mitigation Authorized: ___ Yes ___ No Cost of Mitigation _____
Describe Type of Mitigation and Whether Included in Project Report and PCA:_____

d. Current M-CACES Estimate: $ ____ Date Prepared and Price Level: _____

e. Section 902 Cost Limit: $ _____ Fully Funded as of 1 Oct FY ____

f. Date of Latest Economic Analysis: _____

g. Current Economics: BCR ____ @ ____ % FY ___

RBRCR ____ @ ____ % FY ___

III. COST SHARING SUMMARY:

Purpose (s)	Non- Fed Cash	Non-Fed LERRD	Non-Fed Const. Credit	Total Non-Fed Share	Federal Share (%)	Total Project Cost
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

Total

a. Projected Credit for Section 215 Work and Date 215 Agreement Signed: _____

b. Projected Credit for Section 104 or Other Authorized Creditable Work and Date Work Approved by ASA(CW) or Agreement Addressing Work Signed: _____

c. Annual Non-Fed OMRR&R Costs (1 Oct FY _____ Price Levels): _____

d. Source of Non-Federal Funds: _____

e. Source, Amount, & Date of Authorization From Granting Agency for Other Agency Funds (Attach Authorizing Letter) : _____

f. Status of Obtaining Funds:_____

g. Describe Sponsor's Financial Capability (Attach Documentation Required By ER 1105-2-100) :_____

IV. FUNDING HISTORY

a. Construction, General or MR&T Construction Budget and Appropriations History for Project/Separable Element:

Fiscal Year	Budget Amount	Appropriated Amount
_____	_____	_____
_____	_____	_____

V. SPECIAL CONDITIONS

a. Sub-agreement Required for Sponsor to Perform: ___Yes ___ No Describe the Sub-agreement and How It Relates to the Sponsor's Requirements Under the PCA _____

b. As Applicable, Describe the Allocation of Costs Among the Multiple Sponsors:_____

c. As Applicable, Describe Special Cost Sharing IAW Section 103(m) or Section 1156, Public Law 99-662: _____

d. List and Provide Cost Estimates For Betterments to be Funded by the Sponsor: _____

VI. REVIEW BY NON-FEDERAL SPONSOR AND ITS COUNSEL

a. Does the non-Federal sponsor concur in the PCA as submitted? ___Yes ___No

b. Has PCA as submitted, including the Certificate of Authority, been reviewed by the non-Federal sponsor's counsel? ___ Yes ___ No

VII. OTHER REQUIREMENTS:

a. Attach current Federal/Non-Federal Allocation of Funds Table Using Format Prescribed by Appendix B, ER 1165-2-131.

b. Notify Affected Congressional Delegation , Including Senators' Offices , Once the PCA Has Been Approved for Signature.

VIII. CERTIFICATION FOR DELEGATED PCA's: YOU MUST ANSWER "YES" TO ALL OF THE FOLLOWING QUESTIONS TO SIGN THE PCA UNDER DELEGATED AUTHORITY.

a. **PROJECT PLAN**

Has the Project Report (Item IIa) been approved by ASA(CW) or other official to which authority has been delegated? ___ Yes ___ No

If there were conditions associated with the approval, have they been resolved with the organizational level attaching the conditions? ___ Yes ___ No

If the project to be described in the PCA deviates from the approved project document plan, was it approved by the approving authority? ___ Yes ___ No

b. **FUNDING**

Have funds to initiate construction been appropriated? ___ Yes ___ No

If funds were added by Congress has guidance been furnished by HQUSACE regarding the scope of the project to be built and any limiting language to be included in the PCA? __ Yes ___ No

Does the proposal comply with HQUSACE Congressional add guidance?
___ Yes No ___

c. **AUTHORITY**

Is authority adequate to complete the project as proposed? ___ Yes ___ No

Is the project (GNF cost plus LERRD for navigation projects) cost estimate to be entered into the PCA less than the Section 902 limit (for projects authorized by WRDA 1986 and thereafter)? ___ Yes ___ No

d. **ENVIRONMENTAL COMPLIANCE**

Have all applicable environmental requirements been met and clearances received?
___ Yes ___ No

Dates of Environmental Compliance :

FONSI Signed _____ EIS Filed _____ ROD Signed _____
ESA Sec. 7 Concluded _____ CZM Consistency Determination _____
401 Certification _____ or 404(r) _____ 404(b) (1) _____
Sec 103 MPRSA Eval _____
Sec 106 NHPA (SHPO and/or ACHP) _____ USFWS Coord. Act Rpt. _____
Clean Air Act _____

Have the costs of compliance with the above clearances been adequately defined and included in the project cost estimate to ensure the 902 cost cap is not exceeded and that the sponsor is not required to provide unexpected funds? ___ Yes ___ No

e. **FINANCING PLAN**

Has the Project Manager certified that the sponsor has the funds to share in the project costs as required by the PCA? ___ Yes ___ No

f. **PCA**

Is the PCA in accordance with the model PCA for this type project? ___ Yes ___ No

g. **DISTRICT COUNSEL REVIEW OF PCA**

Has the District Counsel reviewed and approved the draft PCA for legal sufficiency?
___ Yes (Certification included in PCA package submittal) ___ No

IX. PCA NOT DELEGATED FOR APPROVAL: PCA MUST BE SUBMITTED TO HQUSACE FOR ASA(CW) APPROVAL WHEN THERE ARE DEVIATIONS FROM THE MODEL PCA OR THE FOLLOWING APPLY:

a. If the PCA includes any deviation from the approved model, describe and provide the rationale.

b. If the PCA includes any deviation from the approved Project Report, describe them and the reasons why.

c. If there are issues/controversies that must be resolved to enable the PCA to be signed, describe how and when they will be resolved.

If the project is a Congressional add and the PCA covers more than the limit of Federal appropriations, describe why and how this can be recommended.

X. AUTHENTICATION:

_____ Date: _____
Project Manager

_____ Date: _____
DDE (PM)

_____ Date: _____
District Commander

TAB B – Working/Executed PCA Document

This section is reserved for documents that will be developed and made available at a later date.

APPENDIX S: PERMITTING AND MONITORING PLAN

Permitting.

Pursuant to the Design Agreement Between the Department of the Army and the South Florida Water Management District, the parties have committed to design CERP projects, including preparation of documentation required for the National Environmental Policy Act and other applicable Federal and State laws, preparation and processing of applications for any Federal, State or local permits required for design through construction and activities required to comply with permit conditions as appropriate, and attendance at conferences with state and Federal regulatory agencies. Project costs do not include permit application fees charged to the sponsor except to the extent that those fees would apply to the Corps.

The Corps and the SFWMD will determine the need to obtain permits pursuant to any federal or federally delegated programs and will evaluate the following for applicability to the EAA Storage Reservoir Project, Phase I project components:

(1) Everglades Forever Act (EFA; s. 373.4592, F.S.) (for project components discharging into the Everglades Protection Area);

(2) Lake Okeechobee Protection Act (LOPA; s. 373.4595, F.S.) (for project components discharging into Lake Okeechobee or identified in the Lake Okeechobee Construction Project; however, projects identified in s. 373.4595 (3)(b)1.b. that qualify as exempt pursuant to s. 373.406 shall not need permits under this section);

(3) FDEP rules on the reuse of reclaimed water; and

(4) Comprehensive Everglades Restoration Plan Regulation Act (CERPRA; s. 373.1502, F.S.).

The EFA, LOPA and CERPRA all provide comprehensive permitting vehicles which include provisions that allow construction activities to begin prior to final agency action or notice of intended agency action on permit applications. The permit applications under the EFA, LOPA and CERPRA will be for construction, operation, maintenance or modification of the project component.

The Florida Department of Environmental Protection (FDEP) has permit authority for all projects under the Comprehensive Everglades Restoration Plan Regulation Act (CERPRA) Ch. 373.1502. The department shall issue a permit for a term of 5 years for the construction, operation, modification, or maintenance of a project component based on the criteria set forth below. The permit application must provide reasonable assurances that:

1. The project components will achieve the design objectives set forth in the detailed design documents submitted as part of the application
2. State water quality standards will be met to the maximum extent practicable. Under no circumstances shall the project component cause or contribute to violation of state water quality standards
3. Discharge from the project components will not pose a serious danger to the public health, safety, or welfare
4. Any impacts to wetlands or threatened or endangered species resulting from implementation of the project component will be avoided, minimized, and mitigated as appropriate

Permit requirements will be further defined through the PIR process, and the PMP will be updated accordingly.

Monitoring.

Permits referenced under this appendix must contain reasonable conditions to ensure that water quality resulting from construction and operation of project components is adequately and accurately monitored. This monitoring plan requires an established set of WQ parameters and monitoring locations for the project during construction and operation. The monitoring plan will ensure the project or project components are in compliance with the water quality conditions of the permit and that the project meets all applicable water quality standards.

Periodic analysis of the monitoring data (a) will improve our understanding of the hydrologic and ecological relationships in hydraulically linked aquatic systems by showing which of the structural and operational components of each project increment produce predicted (as compared to unpredicted responses) and (b) will lead to improvements in the design of each sequential increment by showing which components contribute to the presence of compliant water supplies and the maintenance of healthy wetland communities.

A comprehensive, regional monitoring program has been summarized in the report entitled *Baseline Data for the Basin Specific Feasibilty Studies to Achieve the Long-*

term Water Quality Goals for the Everglades (SFWMD, 2001). This report characterizes the monitoring efforts that have been in place prior to the initiation of the restoration project separable elements. This ongoing study serves both to establish the complete pre-project baseline condition, while, at the same time, fostering continued monitoring during and beyond the period of project implementation. The use of this data and data from other sources should promote positive design, construction, and operations adaptation.

A federal NPDES permit application may also be required depending on discharge locations and/or receiving bodies. The EPA has given FDEP primacy for issuance of NPDES permits. Such NPDES permits must be issued prior to the commencement of operation of the project component. The monitoring scheme will allow for analysis of samples from suspected pollutant discharge points. The following set of tasks describe a framework of the monitoring plan:

Develop Monitoring Plan – Monitoring activities are being conducted as part of several on-going projects in the study area. An initial activity in support of developing a monitoring plan will be to evaluate the adequacy of existing monitoring protocols, both for the spatial and temporal features of each, and for the quality of the resulting databases for use in statistical treatments for trend analyses. Protocols for any new monitoring projects to be added to the comprehensive, regional program should also be developed. Coordination meetings would be held to identify monitoring objectives, existing data, additional parameters to be monitored, how data will be shared, and required actions based on monitoring findings. This study assumes that joint workshops will be held to insure that a comprehensive monitoring plan will be developed that will include any existing plans developed. Development of a final monitoring plan will include several iterations. Many of these activities will be accomplished progressively as a result of a series of meetings that involve data and information exchange will be continuous throughout the process.

Existing Hydrologic Data Evaluation – Requirements of the future hydrologic modeling efforts will be evaluated to determine any necessary changes or modifications required for the existing data collection network. This will provide for identification of additional baseline hydrologic monitoring needs to support future restoration activities. It is assumed that no additional monitoring sites (beyond those already planned as part of ongoing activities) are needed to support the project implementation modeling effort.

Ecologic Data Analysis and Evaluation – Data analysis and evaluation includes efforts needed to support model development and baseline monitoring in support of

future restoration activities. Monitoring plan development has been initiated as part of on-going projects within the study area. Due to the extensive data collection efforts currently underway within the study area (SFWMD, 2001), the cost estimate for this activity does not include funds for additional data collection. The cost estimate for this activity is for the analysis and evaluation of existing data.

Develop Matrix of Actions Based on Monitoring Findings – The results of monitoring activities should be evaluated and assessed. The monitoring databases will be used to evaluate the affects of the structural and operational components of project alternatives on the physical and ecological components and characteristics of the study area. If results are as predicted, then monitoring can proceed. However, if results are unexpected and/or unexplained, then the monitoring activities and hypothesis(es) should be re-evaluated and possibly modified. The monitoring program itself must be re-evaluated periodically for completeness and technical merit. The monitoring program should be designed to support the use of the monitoring results to modify or fine-tune the monitoring program as well as to determine implementation of future project compartments.

APPENDIX T: REFERENCE DOCUMENTS AND FORM

TAB A – List of Reference Documents

1.0 Documents:

a. U.S. Army Corps of Engineers, Jacksonville District, 1999, Central and Southern Florida Project Comprehensive Review Study, Final Integrated Feasibility Report and Programmatic Environmental Impact Statement; South Florida Water Management District, West Palm Beach, FL, April 1999

b. Master Program Management Plan, Comprehensive Everglades Restoration Plan (CERP), Final, August 2000, www.evergladesplan.org

c. Project Management Plan for Restoration Coordination and Verification (RECOVER), Draft, February 2001, www.evergladesplan.org

d. 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, May 2000, www.evergladesplan.org

e. Engineering Regulations (ER), U.S. Army Corps of Engineers
   1) ER 5-1-11, U.S. Army Corps of Engineers Business Process, 14 Feb 01
   2) ER 405-1-12, Real Estate Handbook, Chapter 12, 20 Nov 85 (Change 31, 1 May 98)
   3) ER 415-1-11, Biddability, Constructibility, Operability, and Environmental Review, 1 Sep 94
   4) ER 1105-2-100, Planning Guidance Notebook, 22 Apr 00
   5) ER 1110-1-12, Engineering and Design, Quality Management, 1 Jun 93
   6) ER 1110-1-8156, Engineering and Design, Policies, Guidance, and Requirements for Geospatial Data and Systems, 1 Aug 96
   7) ER 1110-2-1150, Engineering and Design for Civil Works Projects, 31 Aug 99
   8) ER 1110-2-1302, Civil Works Cost Engineering
   9) ER 1165-2-132, HTRW Guidance for Civil Works Projects

f. Engineering Manuals (EM), U.S. Army Corps of Engineers
   1) EM 1110-1-2909, Engineering and Design, Geospatial Data and Systems,

g. Engineering Circulars (EC), U.S. Army Corps of Engineers
   1) EC 1110-2-8159,

h. Engineering Publications

1) EP 1165-2-1, Digest of Water Resources Policies and Authorities, 30 Jul 99

i. Federal Acquisition Regulations (FAR)

1) 52.248-3,

j. Water Resources Development Act (WRDA)

1) 1999, CERP

2) 2000, Everglades Provision, Title VI, 11 Dec 00

k. Walker, W.W. 1998. STA & Reservoir Performance Measures for the Everglades Restudy. Prepared for the U.S. Army Corps of Engineers & U.S. Department of the Interior. Internet website at: http://www2.shore.net/~wwwalker/restudy

l. Zahina, John G., Kurt Saari, and Dale Woodruff. 2000. A water quality functional assessment of South Florida wetlands. Draft Technical Publication, South Florida Water Management District, West Palm Beach, FL. A brief description of the assessment can be found at the following website address: http://www.sfwmd.gov/org/pld/proj/wetcons/waterq/wq_home.htm

m. Kadlec and Knight. 1996. Treatment Wetlands (text).

n. U.S. Fish and Wildlife Service and National Marine Fisheries Service. 1998. Endangered species consultation handbook. Procedures for conducting consultation and conference activities under Section 7 of the Endangered Species Act. U.S. Government Printing Office; Washington D.C.

o. Goforth, Gary, and Tracey Piccone. 2001. Baseline Data for the Basin-Specific Feasibility Studies to Achieve the Long-term Water Quality Goals for the Everglades. South Florida Water Management District, West Palm Beach, FL.

2.0 Forms:

a. State of Florida Environmental Resource Permit Application.

TAB B – Standard Project Milestones

TAB C – Code of Accounts

TAB D – Work Breakdown Codes

APPENDIX U: CONSTRUCTION MANAGEMENT PLAN

This section is reserved for documents that will be developed and made available at a later date.

APPENDIX V: PLAN FORMULATION PLAN

The process described below is compatible with work which has already been accomplished through the Restudy. This will build on the modeling work that was completed and will make use of the data gathered during the Restudy. The purpose of the PIR is to affirm, reformulate, or modify the project as described in the recommended plan for the Everglades Agricultural Storage Reservoir, Part 1.

Step 1 – Identify Problems and Opportunities
Initial study efforts will involve recapitulating the problems, opportunities, goals and objectives that were identified during the Restudy, with the intent of updating or refining them if necessary. As part of this effort, public concerns will be identified, technical analyses will be initiated to investigate the public and scientific concerns, and the planning objectives and constraints will be developed. Performance measures also will be identified for the goals and objectives developed. This will be accomplished through public workshops and PDT meetings.

Step 2 – Inventory and Forecast Conditions
This step includes developing an inventory of resources and forecasting conditions (e.g., physical, environmental, economic, and social) within the study area relevant to the identified problems and opportunities. This information will be used to identify the historic, existing, base year, and future without-project conditions to which alternative plans will be compared and evaluated in terms of the extent to which they meet the planning objectives. Also included in this effort are the identification of data needs, the collection of data, and the development of models to be used in the subsequent analysis of plan alternatives. The PDT will assist in this task through participation in team meetings.

Base Year Condition
The base year condition describes the most likely future condition at the time the project construction is complete and the project is operational. The forecasted without-project condition in the base year will be used for water reservation and allocation decisions. The forecasted with-project condition in the base year will be important in water operations.

Forecast Future Without-Project Conditions
The without-project condition describes the condition that is expected to exist in the study area in the future if the no-action alternative is selected. For evaluation purposes, the future without-project condition assumed for this study is expected to include at least the Lake Okeechobee Water Supply and Environmental regulation schedule and projects that are planned for implementation by local governments. Recommendations and data identified in local government comprehensive plans and in several water supply plans conducted by the SFWMD may be included, as appropriate. Other CERP components and critical projects affecting the study area will be incorporated into the without-project condition based on the status and detail of design at the time that the without-project condition is defined.

Step 3 – Formulate Alternative Plans
Alternative plans will be formulated to identify specific ways to achieve planning objectives within constraints for the purpose of solving the problems and realizing the opportunities identified in Step 1. During the formulation process, alternative components will be identified and combined to meet the study-specific planning objectives. Subsequent iterations will involve alternatives based on additional information that has been learned from earlier alternative evaluations. Participation by the Project Delivery Team is crucial during this step.

Identify Components
A component is a feature or activity that can be implemented at a specific geographic site to address a planning objective. Such components can be structural or non-structural and are the building blocks of which alternative plans are made.

Formulate Alternatives by Combining Components
For this project, the components identified during the Restudy are conceptual in nature and lack detail and specific form. Initial study efforts will refine these conceptual components, and additional components that may be identified, to meet the study-specific planning objectives. Completion of this activity is critical for numerous activities to begin, including hydrologic modeling, engineering design, and real estate appraisals.

Reformulate Alternatives
Plan formulation is a dynamic process with various steps that can be iterated one or more times. The resultant alternative plans will become more refined through reformulation and subsequent iterations.

Step 4 - Evaluate Alternative Plans
The evaluation of effects is a comparison of the with- and without-project condition for each alternative. At a minimum, costs and outputs, in terms of ecosystem restoration benefits, will be evaluated. This evaluation of plan alternatives will incorporate five general tasks, as described in the next subsection.

An ecosystem restoration project must be justified on the basis of its contribution to restoring the structure and function of a degraded ecosystem when considering the costs of the project. For the this project, a plan that reasonably maximizes ecosystem restoration benefits, compared to costs, will be selected.

Through quantitative and/or qualitative analysis, Project Delivery Team meetings, and public workshops, the plans will be screened to identify the most viable components for detailed study. Results of the screening effort will be presented in a public workshop format. This process will ensure that the plans to be evaluated are consistent with local interests and perspectives with regard to wetlands; fish and

wildlife conservation and restoration; economic development; comprehensive land planning; maintenance of agricultural, environmental water supplies; and flood damage reduction. This effort will be extremely important to the process of developing the components and plan alternatives to be evaluated in detail.

Modeling will be used for detailed design and environmental output evaluation purposes. Hydrologic model development, environmental model development, water quality analyses, water supply analyses, and flood damage reduction analyses will be required to refine alternative plan formulation. Cost-effectiveness and incremental cost analysis will be used to compare different outputs resulting from the various levels of expenditures.

The evaluation of plans will yield information for use in the decision process as well as the iterative plan formulation process. Plans will be evaluated according to their costs, environmental benefits, social effects, effects on significant resources, ability to meet planning objectives, and other findings. During plan evaluation, the results will be analyzed to determine which types of actions provide the most benefits as well as to identify which actions will accomplish compliance with statutory requirements.

Forecast With-Project Condition for Each Alternative
The most likely with-project condition for each alternative must be developed to describe all important project resources, outputs, and effects.

Compare With- and Without-Project Conditions
In order to compare with- and without-project conditions for each alternative, values must be forecasted for a common set of resources, outputs, and effects. Only important effects that are believed to be significant based on the institutional considerations, technical analyses, and public opinion should be compared.

Describe the Difference Between the Two Conditions
Describing differences between with- and without-project conditions is the primary means of measuring a plan's effects. Such measurement should be quantitative whenever possible, but subjective assessments can also be made.

Characterize the Beneficial and Adverse Effects
This evaluation step requires a determination be made regarding the value and significance of the differences described.

Qualify the Plan for Further Consideration or Drop It
A potential plan must meet some minimum standards in order to qualify for additional consideration. Criteria must be established to determine those minimum standards. Subsequently, each individual plan is evaluated against the criteria to determine whether or not it merits further consideration.

Risk and Uncertainty Analysis

Risk and uncertainty are inherent in water resources planning and design. Risk and uncertainty arise from measurement errors and from the innate variability of complex physical, biological, social, and economic situations. This is particularly true for the evolving nature of ecological restoration. Ecological risk analysis likely will not be conducted quantitatively unless an accepted quantitative methodology becomes available during the study. Envelopes of uncertainty can describe meterologic and hydrologic inputs, which will drive environmental models. Similarly, this range of hydrologic values could be used to evaluate the sensitivity of ecological output. Alternatively, uncertainty analysis using output from the environmental models may be conducted using a "what if" approach. Uncertainty analysis will be based on outputs for the different variables. Outputs from the environmental models will be used to predict the range of potential effects for the different alternatives. The uncertainty of parameters used in hydrological and ecological evaluations of proposed project outputs will be described during the course of the study, and the form of the risk and uncertainty analysis will be based on reliability of the data collected and model sensitivity. Risk and uncertainty factors will be considered as they relate to the evaluation of alternatives. Appropriate techniques will be applied to evaluate risk and uncertainty for this study.

Step 5 - Compare Alternative Plans

During the comparison of plan alternatives, the differences among the plans will be examined, weighed, and traded-off. Plans will be compared against each other with emphasis on the outputs and effects that will have the most influence in the decision-making process. These include monetary and non-monetary benefits and costs. A plan-effects matrix will be developed to illustrate the relative effects of plan alternatives in meeting the stated planning objectives for the decision-makers. Multiple criteria decision-making software may be utilized to aid the tradeoffs, sensitivity, prioritization, and contribution analysis. The decision matrix will be useful to planners, members of the public, and decision-makers alike. As discussed above, many activities (including workshops, meetings, etc.) will involve identifying items, which will be addressed on the decision matrix. The output of this comparison step will be a ranking of plans. This effort will ultimately identify the plan, which provides the optimum level of benefits to meet the study objectives.

Step 6 – Select Recommended Plan

The culmination of the planning process is the selection of the recommended plan or the decision to take no action. One alternative plan will be selected for recommendation from among all those that have been considered. It is likely that the recommended plan will be comprised of features from multiple alternatives that were evaluated. The criteria for selecting the recommended plan differ, depending on the type of plan and whether project outputs are NED, NER, or a combination of

both. For projects that produce both NED and NER benefits, the plan will attempt to maximize the sum of net NED and NER benefits and offer the best balance between the two Federal objectives. The Project Delivery Team will be actively involved in selection of this plan.

Optimization of the Recommended Plan

Cost effectiveness and incremental cost analyses will be used to compare different outputs resulting from various levels of expenditures. This effort will include development of an implementation process that incorporates an adaptive assessment strategy for project implementation. This strategy will recognize that once restoration components are implemented and monitoring begins, feedback is provided based on new insights gained from the response of the ecosystem and that sequential adjustments may be made to the project and future elements.

Planning Technical Leadership

The management of the execution of the Project Implementation Report phase will be accomplished by the USACE and the SFWMD. Tasks will include preparation of work orders, specific work requests, funding, and overseeing the timely completion of study tasks and monitoring schedules. This includes: preparation of correspondence required to initiate and conclude study coordination with Federal, state, Tribal, and local agencies; preparation and conduct of briefings, workshops, and informal meetings with Federal, state, Tribal, and local officials, various agencies, and the public; and coordination and dissemination of review comments on the completed products and draft Project Implementation Report.

Project Delivery Team Meetings

The Project Delivery Team is an interdisciplinary group of representatives from various local, state, Federal, and Tribal governments; the SFWMD; and the USACE. The team will meet several times during the study to ultimately develop the Project Implementation Report. The Project Delivery Team will coordinate with the RECOVER teams throughout the study process to ensure compatibility between project and system-wide objectives. Unresolved issues that arise within the Project Delivery Team will be elevated to the Design Coordination Team.

Scoping Meeting/In-Progress Review

To ensure the study is focused and tailored to meet specific objectives, a Scoping Meeting/In-Progress Review will take place early in the study. The Scoping Meeting will bring USACE Headquarters, Division, and District staffs; the SFWMD; and resource agencies together to focus the study on key alternatives, to further define the depth of analysis required, to refine study constraints, and to discuss definition of the future without-project condition.

In-Progress Review

An In-Progress Review (IPR) is an informal or formal meeting conducted at key points during the study to ensure delivery of a quality product which meets the agreed-upon requirements of the SFWMD, is on schedule, and is within budget. The product should also comply with all laws, policies, and technical criteria; establish clear lines of accountability; and include provisions for independent technical review (ITR). Appropriate functional and review team members will attend all IPRs after the start of the study. It is anticipated that several IPRs will be conducted during the study. At a minimum, an IPR will be conducted each time the ITR team is asked to review and comment on a product. Appendix J provides additional information on the role of the ITR.

Alternative Formulation Briefing

The Alternative Formulation Briefing (AFB) will be scheduled when the USACE District and SFWMD have identified a selected plan and are prepared to present the formulation and evaluation of alternatives. USACE Headquarters will confirm the alternative formulation and selection process, the identified preferred plan, and the definition of Federal and non-Federal responsibilities conform to current policy guidance.

Report Preparation

The PIR will consist of the main report with an integrated *NEPA* document and numerous technical appendices. This PIR will be prepared in compliance with Federal *ER 1105-2-100*, *Planning Guidance Notebook* and the *Master Program Management Plan, Volume I – Management Processes*. The PIR will be a complete decision-making document and, as such, will include a complete presentation of problem identification, alternative formulation and evaluation, and recommended plan selection. The level of detail for plan components determined to be feasible and cost-effective, will be sufficient to proceed with detailed design studies upon completion of the study. The appropriate *NEPA* documentation will address specific impacts for all recommended plan components. The Project Implementation Report will be based on all studies and investigations conducted and on published reports applicable to the study area.

The main report, which summarizes the study finding(s) and recommendation(s), will be direct, concise, and written in a user-friendly style using sufficient graphics, illustrations, and photographs to convey the information. The Project Implementation Report will identify a recommended plan and a process for its implementation. The report will describe the economic, environmental, social, and engineering benefits and costs of the recommended plan and the alternatives evaluated. The report will also describe the purpose, scope, scale, public acceptability, and Federal and non-Federal participation for the recommended plan. The report will document that the state, other non-Federal interests, and Federal agencies have been consulted in the development of the recommended plan. For the purpose of estimating costs, the main report is assumed to be 200 pages. The *NEPA*

document will be integrated with the main report and will conform to the regulations contained in *ER 200-2-2*, *Procedures for Implementing NEPA*, dated 4 March 1988.

The technical appendices will document, in detail, technical information developed for the study and the evaluations conducted to support the conclusions of the study. The final version of each appendix will be submitted to the planning technical leader for inclusion in the final document. The estimated size of all appendices combined is 1000 pages, including foldout maps.

The base maps used to show study features will be the same for all versions of the Project Implementation Report, including both the main report and the appendices. All maps and drawings will be in either Computer Aided Drafting & Design format or Geographic Information System format, and will be developed in layers to facilitate color separation for reproduction by off-set press. All graphs, illustrations, and photographs should be developed with a view toward offset printing or photocopy. For example, while a graph with color lines "looks good", in most cases, a variety of line widths and symbols in black and white will accomplish the same purpose at a fraction of the cost. Color will be used sparingly.

The entire Project Implementation Report, including the main report and the technical appendices, will be posted on the USACE' and SFWMD's website. In addition, multiple copies will be printed on paper and on compact discs.

Preliminary Draft Project Implementation Report

This activity involves preparation and submission of the preliminary draft Project Implementation Report and draft Micro-Computer Aided Cost Estimating System (M-CACES) cost estimate to USACE higher authority.

Draft Project Implementation Report

This activity involves preparation of the draft Project Implementation Report, including the integrated *NEPA* document. The USACE will transmit the draft Project Implementation Report with integrated *NEPA* documentation and M-CACES cost estimate to the independent technical review team, USACE higher authority, and the public for comment. Other activities will include preparing responses to USACE higher authority and incorporating the results of the AFB.

Final Project Implementation Report

This activity includes the tasks necessary to produce and transmit a final integrated Project Implementation Report and *NEPA* document. Any changes necessary to respond to comments received during the review period will be incorporated. A draft Chief of Engineers Report for submittal to the Assistant Secretary of the Army for Civil Works will be prepared.

Washington Level Review
By regulation, five percent of the study cost or $50,000, whichever is less, must be set aside to cover SFWMD and USACE, Jacksonville District expenses during Washington level review of the Project Implementation Report. If the costs for this work item exceed this limit, then the issue will be elevated to the Design Coordination Team.

SFWMD will be responsible for responding to comments on that portion of the work provided as in-kind service. In addition, representatives of SFWMD, along with representatives of the USACE, will attend one meeting at the project site with USACE, Headquarters staff involved in the Washington level review process. The Washington level review process begins upon the Division Engineer's issuance of the public notice announcing completion of the Project Implementation Report. The activities performed during the Washington level review process are as follows:

Division Engineer's Public Notice
The Division Engineer issues a public notice announcing the completion of the Project Implementation Report, based upon the endorsement of the findings and recommendations of the USACE Jacksonville District Engineer, which indicates that the Project Implementation Report has been submitted for Washington level review. The notice provides a 30-day period for comments on the Project Implementation Report and indicates that comments are to be submitted to USACE, Headquarters and that the report's final *NEPA* document is available to the public. The USACE, South Atlantic Division will furnish the public notice to all interested parties.

Report Submittal
The USACE, South Atlantic Division will submit copies of the Project Implementation Report concurrently to USACE, Headquarters and the Assistance Secretary of the Army for Civil Works. The submittal will include a transmittal letter stating the names and congressional district numbers of the interested congressional delegation, the names and mailing addresses of the state point of contact and SFWMD, and the names and telephone numbers of the USACE Division and District points of contact for the Project Implementation Report. The USACE, South Atlantic Division will prepare a draft report by the Chief of Engineers, which will concur with the recommendations of the USACE, South Atlantic Division Engineer.

Fact Sheet and Slides Submittal
USACE, South Atlantic Division will submit a project fact sheet to USACE, Headquarters which outlines the problems and opportunities identified in the study; the alternative plans considered; planning principles used; a description of the recommended plan; map of the project; physical data on project features; views

of the state, non-Federal interests, and other Federal agencies; status of the *NEPA* documentation; and financial data on the recommended plan. The Jacksonville District will provide slides to USACE, Headquarters within 30 days after the Division Engineer's Public Notice has been issued. The fact sheet and slides will be used to support testimony before authorization committees of Congress.

USACE, Headquarters Review

USACE, Headquarters will perform a policy compliance review of the PIR. The staff will also consider the views expressed by interested parties at public meetings and workshops and in written correspondence received in response to the Division Engineer's public notice. Upon completion of its initial review, the staff will draft an assessment summarizing its findings on the Project Implementation Report indicating any additional information needed to address specific concerns. The assessment will be submitted to the Assistant Secretary of the Army for Civil Works to solicit any additional views and comments on the Project Implementation Report. The draft assessment will also include a tentative target date for a staff field visit.

30-Day State and Federal Agency Review

USACE, Headquarters will initiate the 30-day review within a few days after receipt of the Project Implementation Report if the document complies with procedural requirements of law and does not indicate significant interagency conflict. USACE, South Atlantic Division will be responsible for filing the *NEPA* document with the Environmental Protection Agency. USACE, South Atlantic Division will also be responsible for the local distribution of the *NEPA* document to parties not included on the USACE, Headquarters mailing list for the normal 30-day review. The 30-day review occurs concurrently with the 30-day state and agency review period.

Washington Level Final Assessment

The final Washington level assessment will be a consolidation of the review comments of all Washington echelons and will identify any aspects which need to be addressed before the Project Implementation Report is considered by decision-makers.

Field Visit and Meeting

Upon receipt of the Washington level final assessment, a field visit/meeting will be scheduled. The field visit is intended to provide an opportunity for the USACE District and SFWMD to furnish information to the USACE, Headquarters review staff to address review comments and resolve potential issues.

Documentation of Report Review
Based upon information obtained during the field visit, USACE, Headquarters review staff will prepare written documentation of the results of the PIR review. The documentation will discuss how each comment in the Washington level assessment was resolved; what back-up information is available to support the comment resolution; and indicate any revisions made to the PIR. The documentation will also note any concerns, which have not been completely resolved.

Washington Level Decision-Making Process
USACE, Headquarters review staff will conduct a briefing for the senior representatives of USACE, Headquarters and the Assistant Secretary of the Army for Civil Works. The purpose of the briefing is to present results of the review and to permit opportunity for participants to discuss the PIR. Facts pertaining to the report will be presented. These include any available comments provided by the state and other Federal agencies during the 30-day review, and identification of those agencies who have not responded and whose comments, if submitted, would need to be considered during later decision-making. Representatives to attend the briefing include the following:

USACE, Headquarters - major Division staff Chiefs;

Assistant Secretary of the Army for Civil Works - Deputy for Policy, Planning, and Legislative Affairs;

Staff representatives from the USACE, Jacksonville District and USACE, South Atlantic Division;

Representatives from the SFWMD.

Chief of Engineers Report
Prior to transmittal of the report to Congress and signing of the Record of Decision by the Assistant Secretary of the Army for Civil Works, the SFWMD, the state, interested Federal agencies, and other parties will be advised of any modifications made to the recommendations and will be afforded an opportunity to comment further. In such circumstances, an additional 30-day review period will be provided for further comment before finalizing the recommendations in the final report of the Chief of Engineers.