



Project Management Plan

The Project Management Plan is a document that authorizes the project manager to apply organizational resources to project activities and to proceed with executing and controlling the project plan.

<i>Program:</i>	Coastal Watersheds (J Program)
<i>Project SAP PS ID</i>	100281
<i>Project Title:</i>	Florida Bay and Coastal Wetlands Project
<i>Project Manager:</i>	David Rudnick
<i>Project Sponsor(s):</i>	Fred Sklar, Division Director, Everglades Division Deborah Drum, Deputy Department Director, Restoration Sciences Linda Lindstrom, Department Director, Restoration Sciences John Dunnuck, Director, Business Services
<i>Mandate(s):</i>	Minimum Flows and Levels, Lower East Coast Water Supply Plan, Everglades Improvement and Management Statute (with reference to Everglades Forever Act, Alligator Alley Toll Road, Florida Bay Restoration), CERP C-111 Spreader Canal Western Features Project, CERP Florida Bay and Florida Keys Feasibility Study, RECOVER Monitoring and Assessment Plan, Interim Operational Plan / Combined Structural and Operational Plan.

Level of Empowerment:

This Project Management Plan is a document that authorizes the project manager to apply organizational resources to project activities and to proceed with executing and controlling the project plan.


Approval:



Fred Sklar, Division Director, Everglades

11-2-09

Date



Deborah Dram, Deputy Dept. Director, Restoration Sciences

11-2-09

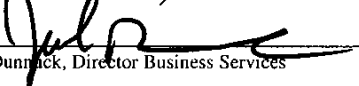
Date



Linda Lindstrom, Director, Restoration Sciences

11-4-09

Date



John Dunnick, Director Business Services

11-5-09

Date

Other Approving Authority if Needed

Date

Revision Sheet

<i>Release No.</i>	<i>Date</i>	<i>Revision Description</i>
<i>Rev. 0</i>	07/25/2008	Project Management Plan Template
<i>Rev. 1</i>	10/27/2009	Florida Bay and Coastal Wetlands Project Management Plan
<i>Rev. 2</i>		
<i>Rev. 3</i>		

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PROJECT TEAM

The project team is the list of team members, by name, directly supporting the project and may be responsible for developing the strategies to deliver the project such as developing the plan elements, including WBS, schedule, resource requirements, and skills. Identify the team below. The form may be modified to meet additional needs. The signature page demonstrates commitment to provide the resources.

USACE Project: Y or N (check one)

Brief Project Description: *This two-year project provides integrative scientific information derived from ecological research, monitoring, and modeling in support of District restoration and operational activities affecting Florida Bay and culminates in the production of the MFL update. Understanding and forecasting the influence of water management on the character and dynamics of Florida Bay requires a large-scale, integrative approach.*

	Required	Optional	FTE Per FY
Everglades Restoration and Capital Projects			
1. David Rudnick	X		.05
2. Robin Bennett	X		.50
3. Steve Kelly	X		.55
4. Christopher Madden	X		.50
5. Amanda McDonald	X		.45
6. Carlos Coronado	X		.10
6. Various Contractors	X		
Operations and Maintenance			
1.			
2.			
Regulatory and Public Affairs			
1.			
2.			
Corporate Resources			
1.			
2.			
Total Resource Requirements			2.15

Signoff for Resource Commitment

Everglades Restoration and Capital Projects		
Print	Sign	Date

Operations & Maintenance		
Print	Sign	Date

Regulatory & Public Affairs		
Print	Sign	Date

Corporate Resources		
Print	Sign	Date

PROJECT MANAGEMENT OVERSIGHT TEAM

The oversight team provides guidance to the project manager. This team is responsible for approving policies, plans, standards, and procedures including quality assurance, risk management and performance measurement plans. The oversight team approves changes, monitors performance and assists the project manager in resolving issues escalated by the project manager. If applicable, identify the name(s), role(s), and responsibilities of the Project Oversight Team. The form may be modified to meet additional needs.

Name	Role	Responsibility
Linda Lindstrom	Director, Restoration Sciences	Provide Project Sponsorship
Deborah Drum	Deputy Director, Restoration Sciences	Provide Project Sponsorship and Communication to upper Management
Fred Sklar	Director, Everglades Division	Provide Project Resources and Communication to Management
Lori Wenkert-Lane	Senior Project Manager	Project Supervisor Role in PS, Provides Contractual and PS guidance

PROJECT LOCATION

Florida Bay and adjacent wetlands within Everglades National Park (salinity transition zone, Taylor Slough, C-111 Canal basin, Shark River Slough)

PROJECT SCOPE

This project provides integrative scientific information derived from ecological research, monitoring, and modeling in support of Florida Bay Minimum Flows and Levels, District restoration, and operational activities affecting Florida Bay. Understanding and forecasting the influence of water management on the character and dynamics of Florida Bay requires a large-scale, integrative approach. This challenge entails understanding the functional linkage of two large and complex systems—the Everglades wetland and the Bay itself. Furthermore, the Bay is strongly influenced by interactions with the Gulf of Mexico, the Florida Keys, and the Atlantic Ocean. Studies in this project include documentation of the status and trends of major ecological components and research to understand the influence of District activities on these components. This includes monitoring and assessment of seagrass habitat within the

bay in adjacent ponds and lakes within southern Everglades National Park, algal blooms within these waters, and the ecological responses of the mangrove dominated wetlands adjacent to the bay (especially regarding nutrient retention and soil dynamics that are sensitive to changing salinity and affect algal blooms in Florida Bay). Please see the attached Everglades Division Strategic Research Plan: Sections on UNDERSTANDING ECOSYSTEM PROCESSES.

PROJECT SCHEDULE

Indicate the estimated start date and estimated finish date for the project.

Estimated Start: 10/01/2009

Estimated Finish: 09/30/2011

PROJECT GOALS/OBJECTIVES

*State the objectives expected to be achieved because of implementing the project. Set **measurable** project goals to be realized and the benefits to be achieved by establishing why the project has been commissioned and what it is expected to achieve for the agency. State the performance measures to be used to track whether the objectives are being met.*

The primary goal of this project is to provide the District with defensible understanding and forecasting of the effects of freshwater flow on Florida Bay, such that District planning and adaptive resource management are based on sound science. Primary objectives for stewardship and restoration of Florida Bay are focused on the restoration of more natural and historical quantities, timing, and distribution of freshwater inflow to the estuary that will prevent harm to the existing system and allow restoration of biological communities. Prevention of significant harm is the purpose of the Minimum Flows and Levels rule and a primary objective of this project is to provide scientific assessment, analysis and reporting required for developing and updating this rule. Specific targets for the restoration of the Bay include the redevelopment of extensive mixed-species meadows of seagrasses and enhanced forage fish base to support both wading birds and sport fish species. A primary objective of this project is to determine what hydrologic and water quality conditions are necessary to meet these biological targets.

PROJECT JUSTIFICATION

Include the business need that the project will address and if applicable, tie it to the District's mission; detail the benefits to the District. Include any historical background or references.

This information is required to complete the first five-year update of the Florida Bay MFL, which is required by the existing MFL rule. Specific scientific components of this MFL update assessment were described in the 2005/2006 Update of the Lower East Coast Water Supply Plan (Appendix H), which was approved by the Governing Board. Florida Bay is also part of the Everglades Protection Area and thus its hydrologic needs and water quality are protected along with its watershed under the Everglades Forever Act. This project provides scientific information on those needs and water quality issues, especially with regard to ongoing operations of the South Dade Conveyance System and operational planning.

PROJECT DELIVERABLES

Identify any measurable, tangible, verifiable outcome(s), result(s), or item(s) that must be produced to complete a project or part of a project, including any deliverable(s) subject to approval by the project sponsor or customer.

Annual Reports in SFER, weekly Operational guidance and environmental updates, Florida Bay MFL Technical Report for MFL update due to Water Supply on 09/30/2011, and RECOVER Monitoring and Assessment updates.

METHODOLOGY

State the approach the project manager or team will take to develop the project plan. This will include the Districts Project Management Methodology as well as any other methodology requirements for the project.

District Standard Methodology regarding Risk Management, Project Change Control, field and laboratory studies, data analysis and modeling.

BUSINESS AREA INVOLVED

This is the organizational scope of the project.

1. *Restoration Sciences Department, Everglades Division – Primary Division completing the Project*
2. *Restoration Sciences Department, Water Quality Division – provision of technical support for ERA coastal water quality assessment, laboratory support*
3. *Water Supply Department – provision of technical support for MFL rulemaking*
4. *Operations – provision of weekly reports and evaluations of performance measures for operational planning*
5. *CERP – the project provides supporting information of the C-111 Spreader Canal Project and RECOVER*
6. *Florida Keys Service Center – this project provides supporting information and interpretation for the Keys*
7. *Restoration Sciences Department, Coastal Ecosystems Division – this project provides supporting information regarding Biscayne Bay (mostly southern Biscayne Bay).*
8. *Regulation and Public Affairs Department – this project provides supporting information regarding major regulatory issues, such as FDOT's U.S. Highway One widening and FPL's Turkey Point Update certification.*
9. *Corporate Resources, Helicopter Charter Services*

FUNDING/COSTS/RESOURCES

Select one: This project is budgeted. This project is not budgeted.

Funding:

JE10, 4413163000, PS 100281, 408000

Note that this Project is closely tied to the C111SC Project (PS 100406) in P129 and funding for contractual resources have been split between the two projects. See attached budget.

Costs:

This two-year project is estimated at \$1,681,311 including staff time. (Detailed Budget is Presented on Page 11)

100281 Budget Summary		
	FY10	FY11
Contractual Budget	\$578,900	\$606,834
Operating Budget	\$44,067	\$45,323
Staff Budget	\$156,924	\$249,264
FY Budget	\$779,891	\$901,421
Total Project Budget		\$1,681,311

Resource Requirements:

Staff and contractors listed above
 Laboratory located at the FOC
 District and Charter Helicopter services

Boats
 Vehicles

Florida Bay & Coastal Wetlands Project Budget PS 100281

Element Code	JE10
Fund	408000
Fund Center	4413163000

Line Item #	Line Item Name	Person Responsible	GL Account	Approved Budget	Proposed FY11 Budget
19516	FLBay SAV Plant Tissue Nutrient Analysis	Kelly	530108	\$10,000.00	\$10,300.00
19529	FLBay - Lab & Field Support Services	Rudnick	530108	\$98,400.00	\$102,970.00
	FLBay- Algal Blooms/Taxonomic ID				
23156	ChemoTa	Kelly Wenkert-	530108	\$5,000.00	\$5,150.00
23226	STS Exist - Everglades Facility Mngmt	Lane	530123	\$88,688.00	\$90,616.00
	FLBay - Mangrove Zone Fish Mesocosm				
20898	Rep	Bennett	530600	\$2,500.00	\$2,575.00
	Southern Everglades Helicopter				
23151	Assesmnt1	Rudnick	530700	\$5,000.00	\$5,150.00
19386	FLTI Supplies for SETs & Boadwalk in Bay	Coronado	541500	\$15,000.00	\$15,450.00
20902	FLBay - Algal Bloom Field Supplies	Kelly	541500	\$1,000.00	\$1,030.00
20903	FLBay - SAV & Ecosystem Field Supplies	Kelly	541500	\$4,000.00	\$4,120.00
20904	FLBay - Mangrove Zone Fish Field Supplie	Kelly	541500	\$4,000.00	\$4,120.00
20905	FLBay - Algal Bloom & Mangrove Zone Lab	Kelly	541506	\$6,000.00	\$6,180.00
	FL Mangrove Zone Fish Key Largo				
19528	Mesocosm	Kelly	543702	\$1,000.00	\$1,030.00
23221	FL Bay - South Florida Estuarine SAV	Rudnick	545000	\$105,437.00	\$108,600.11
19526	FLBay - ENP Key Largo Coop. Agr. C12843	Rudnick	545020	\$15,000.00	\$15,000.00
20908	FLBay - Algal Blooms Algal Identificatio	Kelly	545040	\$5,000.00	\$5,150.00
23158	FL Bay Algal Bloom Nitrogen Analysis	Kelly	545040	\$2,500.00	\$2,575.00
20909	FLBay - Seagrass Computation Paramtriza	Madden	545040	\$64,000.00	\$76,000.00
23213	FL Algal Bloom Nutrient Uptake Bioassays	Madden	545040	\$40,000.00	\$41,200.00
	Sediment-Water Nutrient Fluxes Algal				
23214	Blm	Madden	545040	\$40,000.00	\$41,200.00
	FL Bay ENP Mangrove Zone Lakes Gndwtr				
23217	As	Rudnick	545040	\$35,000.00	\$36,050.00
23218	FL Bay MFL Hydrologic Modeling Support	McDonald	545050	\$50,000.00	\$51,500.00
19519	FLBay - Field Gear	Rudnick	541400	\$750.00	\$775.00
19517	FLBay - CNS Analyzer Service Agreement	Kelly	530600	\$5,775.00	\$6,000.00
19518	FLBay - YSI Maintenance	Kelly	530600	\$2,000.00	\$2,060.00
20901	FLBay - Light Meter,Spectomtr,Fluormtr	Kelly	530600	\$1,000.00	\$1,030.00
20900	FLBay - Boat Engine Maintenance	Kelly	530608	\$3,000.00	\$3,090.00
19515	FLBay - Office Supplies	Rudnick	541510	\$1,000.00	\$1,030.00
21575	Training & Conferences	Rudnick	542000	\$1,717.00	\$1,700.00
20907	FLBay - Field Work & Meetings	Rudnick	542100	\$9,000.00	\$9,270.00
19525	FLBay - Books	Rudnick	541100	\$600.00	\$618.00
23222	FL Bay - Journal Reprints	Rudnick	530118	\$600.00	\$618.00

ASSUMPTIONS

Briefly describe any suppositions or beliefs about the project related to resources, scope, expectations, schedules, etc. that, for planning purposes, will be considered to be true, real, or certain. Add additional lines if needed].

While the District is leading this ambitious synthesis, success depends upon cooperative monitoring, research, and modeling efforts with partner agencies and institutions, particularly the ENP, USGS, NOAA, FFWCC, Miami-Dade DERM,, and the Florida Coastal Everglades LTER.

CONSTRAINTS

Briefly describe any limitations or exceptions under which the project must be conducted. Include time, money, resource availability, skill levels and any physical, political, or environmental constraints Add additional bullets if needed].

1. The District does not have the all of resources needed to complete this project in-house. A portion of this work must be contracted.
2. This project is dependent on water levels for sampling. Weather may be a large constraint to the schedules under this project.
3. This project depends on sampling permits from Everglades National Park.
4. This Project is closely tied to the C111Spreader Canal Western Features Project in P129 and contractual resources are funded in both Projects.
5. A key constraint is that changing fresh water flow must not degrade water quality and thus impair the Bay or Florida Keys' coral reef.

RELATED PROJECTS

If applicable, this section will identify other projects that may affect or constrain this project or any other projects that may be affected or constrained by this project.




































This Project is closely tied to the C111Spreader Canal Western Features Project (PS 100406) in P129 and the development of a PIR for the second phase of the C111 Spreader Canal Project. Contractual resources are funded in both Projects.

WORK BREAKDOWN STRUCTURE (WBS)

The WBS is a deliverable-oriented grouping of project elements that organizes and defines the total scope of the project. The WBS identifies the work 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. Identify the District standard WBS structure template that will be utilized for this project. This information may be inserted from a report produced by the project management system.

Project Structure: Description	Identification
Florida Bay and Coastal Wetlands Project	100281
Florida Bay and Coastal Wetlands Project	100281
Execution	100281-03
Test	100281-03-04
FI Bay Staff Time	100281-03-04-10
FI Bay Staff Time	5001566
FL Bay Staff Time	5001566 0010
Contractor Services	100281-03-04-02
Contractor Services	5001557
FY10 Lab Field Support-Line 19529&23226	5001557 0010
FY11 Lab Field Support	5001557 0020
Research Contracts	100281-03-04-07
University Research	100281-03-04-07-01
Seagrass Computation Parameterization	5001646
FY10 Seagrass Computation - Line20909	5001646 0010
FY11 Seagrass Computation	5001646 0020
Algal Bloom Nut. Bioassays	5001655
FY10 Algal Bloom Nut Bioassay-Line 23213	5001655 0010
FY11 Algal Bloom Nut Bioassays	5001655 0020
Sediment Nutrient Flux - Algal Bloom	5001656
FY10 Sediment Nut Flux - Line23214	5001656 0010
FY11 Sediment Nut Flux	5001656 0020
Mangrove Zone Groundwater Assessment	5001657
FY10 Mangrove Ground Wtr - Line 23217	5001657 0010
FY11 Mangrove zone ground water Assessm	5001657 0020

Project Structure: Description	Identification
▼ ⚠ Other Research Contracts	100281-03-04-07-02
▼ 📁 South Florida Estuarine SAV	5001658
🟢 FY10 S FL Estuarine SAV - Line 23221	5001658 0010
🟢 FY11 S FL Estuarine SAV	5001658 0020
▼ 📁 MFL Hydrologic Modeling Support	5001659
🟢 FY10 MFL Hydrologic Modeling- Line 23218	5001659 0010
🟢 FY11 MFL Hydrologic Modeling	5001659 0020
▼ ⚠ External Lab Analysis	100281-03-04-01
▼ ⚠ Contract labs	100281-03-04-01-01
▼ 📁 SAV Plant Tissue Analysis	5001564
🟢 FY10 SAV Plant Tissue Anal - Line 19516	5001564 0010
🟢 FY11 SAV Plant Tissue Anal	5001564 0020
▼ 📁 Algal Bloom Tax ID Chemotax	5001565
🟢 FY10 Algal Bloom Tax ID Chemotax - 23156	5001565 0010
🟢 FY11 Algal Bloom Tax ID Chemotax	5001565 0020
▼ ⚠ University Labs	100281-03-04-01-02
▼ 📁 Algal Bloom Nitrogen Analysis	5001583
🟢 FY10 Algal Bloom N Anal - Line 23158	5001583 0010
🟢 FY11 Algal Bloom N Anal - Line 23158	5001583 0020
▼ 📁 Algal Blooms Algal ID	5001584
🟢 FY10 Algal Bloom Algal ID - Line 20908	5001584 0010
🟢 FY11 Algal Bloom Algal ID	5001584 0020
Project Structure: Description	Identification
▼ ⚠ ENP	100281-03-04-05
▼ 📁 Mangrove Zone Mesocosm - Line 19528	5001617
🟢 FY10 Mangrove Mesocosm - Line 19528	5001617 0010
🟢 FY11 Mangrove Mesocosm	5001617 0020
▼ 📁 ENP Key Largo Coop Agreement	5001619
🟢 FY10 ENP Coop Agreement - Line 19526	5001619 0010
🟢 FY11 ENP Coop Agreement	5001619 0020
▼ ⚠ Helicopter	100281-03-04-09
▼ 📁 Helicopter Charter	5001702
🟢 FY10 S Evergl Helicopter - Line 23151	5001702 0010
🟢 FY11 S Evergl Helicopter Charter	5001702 0020
▼ ⚠ Maintenance	100281-03-04-03
▼ 📁 CNS Analyzer Service Agreement	5001558
🟢 FY10 CNS Analyzer Agreement - Line 19517	5001558 0010
🟢 FY11 CNS Analyzer Agreement	5001558 0020
▼ 📁 YSI Maintenance	5001559
🟢 FY10 YSI Maintenance - Line 19518	5001559 0010
🟢 FY11 YSI Maintenance	5001559 0020

Project Structure: Description	Identification
▼  Mangrove Zone Mesocosm Repair	5001600
 FY10 Mangrove Zone Mesocosm - Line 20898	5001600 0010
 FY11 Mangrove Zone Mesocosm Repair	5001600 0020
▼  Equipment Repair	5001601
 FY10 Equipment Repair - Line 20901	5001601 0010
 FY11 Equipment Repair	5001601 0020
▼  Boat Maintenance	5001602
 FY10 Boat Maintenance - Line 20900	5001602 0010
 FY11 Boat Maintenance	5001602 0020
▼  Supplies	100281-03-04-04
▼  Field Supplies	100281-03-04-04-01
▼  Algal Bloom Field Supplies	5001603
 FY10 Algal BloomSupplies- Line 20902	5001603 0010
 FY11 Algal Bloom Supplies	5001603 0020
▼  SAV Ecosystem Field Supplies	5001604
 FY10 SAV Field Supplies - Line 20903	5001604 0010
 FY11 SAV Field Supplies	5001604 0020
▼  Mangrove Zone supplies	5001605
 FY10 Mangrove Zone Supplies - Line 20904	5001605 0010
 FY11 Mangrove Zone Supplies	5001605 0020
▼  Field Gear	5001606
 FY10 Field Gear - Line19519	5001606 0010
 FY11 Field Gear	5001606 0020
Project Structure: Description	Identification
▼  Lab Supplies	100281-03-04-04-02
▼  Lab Supplies	5001607
 FY10 Algal Mang Lab Supplies Line 20905	5001607 0010
 FY11 Algal Bloom Mangrove Lab Supplies	5001607 0020
▼  Office Supplies	100281-03-04-04-03
▼  Office Supplies	5001608
 FY10 Office Supplies - Line 19515	5001608 0010
 FY11 Office Supplies	5001608 0020
▼  SET Supplies	100281-03-04-04-04
▼  Set Supplies	5001609
 FY10 SET Supplies - Line 19515	5001609 0010
 FY11 SET Supplies	5001609 0020

Project Structure: Description	Identification
▼ ⚠ Travel	100281-03-04-06
▼ 📅 Training and Conferences	5001620
🟢 FY10 Trng and Conferences - Line 21575	5001620 0010
🟢 FY11 Trng and Conferences	5001620 0020
▼ 📅 Field work and Meetings	5001621
🟢 FY10 Field work and Mtgs - Line 20907	5001621 0010
🟢 FY11 Field work and Mtgs	5001621 0020
▼ ⚠ Books and Reference	100281-03-04-08
▼ 📅 Journal Reprints	5001700
🟢 FY10 Journal Reprints - Line 23222	5001700 0010
🟢 FY11 Journal Reprints	5001700 0020
▼ 📅 Reference Books	5001701
🟢 FY10 Reference Books - Line 19525	5001701 0010
🟢 FY11 Reference Books	5001701 0020
▼ ⚠ FY Milestones	100281-03-04-11
▼ 📅 FY Milestones	5001704
🟢 MS - FY10 Begins	5001704 0010
🟢 MS - FY11 Begins	5001704 0020
▼ ⚠ Analysis	100281-03-01
▼ 📅 MFL Update Report	5001703
🟢 FY11 Staff time for MFL Update Rpt	5001703 0010
🟢 MS - MFL Update Report Complete	5001703 0020
▼ 📅 SFER Reporting	5001752
🟢 MS - FY10 SFER Report	5001752 0010
🟢 MS - FY11 SFER Report	5001752 0020

ORGANIZATIONAL BREAKDOWN STRUCTURE (OBS)

The OBS will specify the person responsible for performing each WBS element in the Project Management Plan. If more than one person is responsible for the WBS elements of the project, provide a breakdown of responsibilities. *The project may utilize the template below or a modified version that supports the needs of the project. As an alternative this information may be inserted from a report produced by the project management system.*

WBS Element	Project object	Person Responsible
100281	Florida Bay and Coastal Wetlands Project	David Rudnick
100281	Florida Bay and Coastal Wetlands Project	David Rudnick
100281-03	Execution	David Rudnick
100281-03-04	Test	David Rudnick
100281-03-04-10	FI Bay Staff Time	David Rudnick
100281-03-04-02	Contractor Services	Steve Kelly
100281-03-04-07	Research Contracts	David Rudnick
100281-03-04-01	External Lab Analysis	Steve Kelly
100281-03-04-05	ENP	David Rudnick
100281-03-04-09	Helicopter	Megan Jacoby
100281-03-04-03	Maintenance	Steve Kelly
100281-03-04-04	Supplies	Steve Kelly
100281-03-04-04-01	Field Supplies	Steve Kelly
100281-03-04-04-02	Lab Supplies	Steve Kelly
100281-03-04-04-03	Office Supplies	Steve Kelly
100281-03-04-04-04	SET Supplies	Carlos Coronado
100281-03-04-06	Travel	Brenda Valente
100281-03-04-08	Books and Reference	Brenda Valente
100281-03-04-11	FY Milestones	Lori Wenkert-Lane
100281-03-01	Analysis	David Rudnick

PROJECT SCHEDULE DEVELOPMENT AND RESOURCE REQUIREMENTS

Provide the following lists from the project management system. The lists should be grouped by WBS with a primary sort by early start. Other groupings and sorts may also be provided where appropriate.

- **Activity list** – *a list of project activities that will be performed with a description of each activity and the initial duration estimate. This list of activities will be the result of the analysis performed during the WBS development.*
- **Resource requirements** – *Determine what physical resources (people, equipment, materials), what quantities of each should be used to perform project activities, and when they are needed.*
- **Activity duration estimates** – *Duration estimates for each activity will be calculated based on estimates of time required to successfully complete each activity. During the estimating process, the team should consider project constraints and assumptions (see project charter), resource requirements, capabilities, and available historical information. All assumptions made during the estimating process will be documented.*
- **Activity dependencies** - *Determine which activities have relationships to other activities or projects where one activity can affect the deliverable, outcome, or schedule of another activity. This list should include predecessors, successors, leads, lags, and constraints.*
- **Project schedule** – *A project schedule will be developed for the project using activity dependencies, duration estimates, constraints, assumptions, along with available resource information (time, money, labor). Project schedule should be presented in Gantt Chart and Network Diagram format identifying the critical path.*

Project: 100281 Florida Bay and Coastal Wetlands Project

S	Hi	ID	Description	November'09		December'09		January'10		February'10		March'10		April'10		May'10		2011				2
				CW 42	CW 44	CW 46	CW 48	CW 50	CW 52	CW 01	CW 03	CW 05	CW 07	CW 09	CW 11	CW 13	CW 15	CW 17	3	4	1	2
<input type="checkbox"/>		100281	Florida Bay and Coastal Wetland	[Gantt bar]																		
<input type="checkbox"/>		100281	Florida Bay and Coastal Wetlands P	[Gantt bar]																		
<input type="checkbox"/>		100281-03	Execution	[Gantt bar]																		
<input type="checkbox"/>		100281-03-04	Test	[Gantt bar]																		
<input type="checkbox"/>		100281-03-04-10	FI Bay Staff Time	[Gantt bar]																		
<input type="checkbox"/>		5001566 / 0010	FL Bay Staff Time	[Gantt bar]																		
<input type="checkbox"/>		100281-03-04-02	Contractor Services	[Gantt bar]																		
<input type="checkbox"/>		5001557 / 0010	FY10 Lab Field Support-Line 19529	[Gantt bar]																		
<input type="checkbox"/>		5001557 / 0020	FY11 Lab Field Support	[Gantt bar]																		
<input type="checkbox"/>		100281-03-04-07	Research Contracts	[Gantt bar]																		
<input type="checkbox"/>		100281-03-04-07-01	University Research	[Gantt bar]																		
<input type="checkbox"/>		5001646 / 0010	FY10 Seagrass Computation - Line	[Gantt bar]																		
<input type="checkbox"/>		5001646 / 0020	FY11 Seagrass Computation	[Gantt bar]																		
<input type="checkbox"/>		5001655 / 0010	FY10 Algal Bloom Nut Bioassay-Li	[Gantt bar]																		
<input type="checkbox"/>		5001655 / 0020	FY11 Algal Bloom Nut Bioassays	[Gantt bar]																		
<input type="checkbox"/>		5001656 / 0010	FY10 Sediment Nut Flux - Line232	[Gantt bar]																		
<input type="checkbox"/>		5001656 / 0020	FY11 Sediment Nut Flux	[Gantt bar]																		
<input type="checkbox"/>		5001657 / 0010	FY10 Mangrove Ground Wtr - Line	[Gantt bar]																		
<input type="checkbox"/>		5001657 / 0020	FY11 Mangrove zone ground water	[Gantt bar]																		

Project: 100281 Florida Bay and Coastal Wetlands Project

S	Hi	ID	Description	November'09		December'09		January'10		February'10		March'10		April'10		May'10		2011					
				CW 42	CW 44	CW 46	CW 48	CW 50	CW 52	CW 01	CW 03	CW 05	CW 07	CW 09	CW 11	CW 13	CW 15	CW 17	3	4	1	2	3
<input type="checkbox"/>		100281-03-04-07-02	Other Research Contracts	[Gantt bar]																			
<input type="checkbox"/>		5001658 / 0010	FY10 S FL Estuarine SAV - Line 23	[Gantt bar]																			
<input type="checkbox"/>		5001658 / 0020	FY11 S FL Estuarine SAV	[Gantt bar]																			
<input type="checkbox"/>		5001659 / 0010	FY10 MFL Hydrologic Modeling- Li	[Gantt bar]																			
<input type="checkbox"/>		5001659 / 0020	FY11 MFL Hydrologic Modeling	[Gantt bar]																			
<input type="checkbox"/>		100281-03-04-01	External Lab Analysis	[Gantt bar]																			
<input type="checkbox"/>		100281-03-04-01-01	Contract labs	[Gantt bar]																			
<input type="checkbox"/>		5001564 / 0010	FY10 SAV Plant Tissue Anal - Line	[Gantt bar]																			
<input type="checkbox"/>		5001564 / 0020	FY11 SAV Plant Tissue Anal	[Gantt bar]																			
<input type="checkbox"/>		5001565 / 0010	FY10 Algal Bloom Tax ID Chemota	[Gantt bar]																			
<input type="checkbox"/>		5001565 / 0020	FY11 Algal Bloom Tax ID Chemota	[Gantt bar]																			
<input type="checkbox"/>		100281-03-04-01-02	University Labs	[Gantt bar]																			
<input type="checkbox"/>		5001583 / 0010	FY10 Algal Bloom N Anal - Line 23	[Gantt bar]																			
<input type="checkbox"/>		5001583 / 0020	FY11 Algal Bloom N Anal - Line 23	[Gantt bar]																			
<input type="checkbox"/>		5001584 / 0010	FY10 Algal Bloom Algal ID - Line 2	[Gantt bar]																			
<input type="checkbox"/>		5001584 / 0020	FY11 Algal Bloom Algal ID	[Gantt bar]																			

Project: 100281 Florida Bay and Coastal Wetlands Project

S	Hi	ID	Description	November'09		December'09		January'10		February'10		March'10		April'10		May'10		2011				2	
				CW 42	CW 44	CW 46	CW 48	CW 50	CW 52	CW 01	CW 03	CW 05	CW 07	CW 09	CW 11	CW 13	CW 15	CW 17	3	4	1	2	3
<input type="checkbox"/>		100281-03-04-05	ENP	[Blue bar spanning from Nov 2009 to May 2010]																			
<input type="checkbox"/>		5001617 / 0010	FY10 Mangrove Mesocosm - Line 1	[Blue bar spanning from Nov 2009 to May 2010]																			
<input type="checkbox"/>		5001617 / 0020	FY11 Mangrove Mesocosm	[Blue bar spanning from Nov 2009 to May 2010]																			
<input type="checkbox"/>		5001619 / 0010	FY10 ENP Coop Agreement - Line	[Red bar spanning from Nov 2009 to May 2010]																			
<input type="checkbox"/>		5001619 / 0020	FY11 ENP Coop Agreement	[Red bar spanning from Nov 2009 to May 2010]																			
<input type="checkbox"/>		100281-03-04-09	Helicopter	[Blue bar spanning from Nov 2009 to May 2010]																			
<input type="checkbox"/>		5001702 / 0010	FY10 S Evergl Helicopter - Line 231	[Blue bar spanning from Nov 2009 to May 2010]																			
<input type="checkbox"/>		5001702 / 0020	FY11 S Evergl Helicopter Charter	[Blue bar spanning from Nov 2009 to May 2010]																			
<input type="checkbox"/>		100281-03-04-03	Maintenance	[Blue bar spanning from Nov 2009 to May 2010]																			
<input type="checkbox"/>		5001558 / 0010	FY10 CNS Analyzer Agreement - Li	[Blue bar spanning from Nov 2009 to May 2010]																			
<input type="checkbox"/>		5001558 / 0020	FY11 CNS Analyzer Agreement	[Blue bar spanning from Nov 2009 to May 2010]																			
<input type="checkbox"/>		5001559 / 0010	FY10 YSI Maintenance - Line 19518	[Blue bar spanning from Nov 2009 to May 2010]																			
<input type="checkbox"/>		5001559 / 0020	FY11 YSI Maintenance	[Blue bar spanning from Nov 2009 to May 2010]																			
<input type="checkbox"/>		5001600 / 0010	FY10 Mangrove Zone Mesocosm -	[Blue bar spanning from Nov 2009 to May 2010]																			
<input type="checkbox"/>		5001600 / 0020	FY11 Mangrove Zone Mesocosm R	[Blue bar spanning from Nov 2009 to May 2010]																			
<input type="checkbox"/>		5001601 / 0010	FY10 Equipment Repair - Line 2090	[Blue bar spanning from Nov 2009 to May 2010]																			
<input type="checkbox"/>		5001601 / 0020	FY11 Equipment Repair	[Blue bar spanning from Nov 2009 to May 2010]																			
<input type="checkbox"/>		5001602 / 0010	FY10 Boat Maintenance - Line 2090	[Blue bar spanning from Nov 2009 to May 2010]																			
<input type="checkbox"/>		5001602 / 0020	FY11 Boat Maintenance	[Blue bar spanning from Nov 2009 to May 2010]																			

Project: 100281 Florida Bay and Coastal Wetlands Project

S	Hi	ID	Description	November'09		December'09		January'10		February'10		March'10		April'10		May'10		2011		2	
				CW 42	CW 44	CW 46	CW 48	CW 50	CW 52	CW 01	CW 03	CW 05	CW 07	CW 09	CW 11	CW 13	CW 15	CW 17	3	4	1
<input type="checkbox"/>		100281-03-04-06	Travel	[Gantt bar spanning from start to end of project]																	
<input type="checkbox"/>		5001620 / 0010	FY10 Trng and Conferences - Line	[Gantt bar]																	
<input type="checkbox"/>		5001620 / 0020	FY11 Trng and Conferences	[Gantt bar]																	
<input type="checkbox"/>		5001621 / 0010	FY10 Field work and Mtgs - Line 20	[Gantt bar]																	
<input type="checkbox"/>		5001621 / 0020	FY11 Field work and Mtgs	[Gantt bar]																	
<input type="checkbox"/>		100281-03-04-08	Books and Reference	[Gantt bar]																	
<input type="checkbox"/>		5001700 / 0010	FY10 Journal Reprints - Line 23222	[Gantt bar]																	
<input type="checkbox"/>		5001700 / 0020	FY11 Journal Reprints	[Gantt bar]																	
<input type="checkbox"/>		5001701 / 0010	FY10 Reference Books - Line 1952	[Gantt bar]																	
<input type="checkbox"/>		5001701 / 0020	FY11 Reference Books	[Gantt bar]																	
<input type="checkbox"/>		100281-03-04-11	FY Milestones	[Gantt bar]																	
<input type="checkbox"/>		5001704 / 0010	MS - FY10 Begins	[Gantt bar]																	
<input type="checkbox"/>		5001704 / 0020	MS - FY11 Begins	[Gantt bar]																	
<input type="checkbox"/>		100281-03-01	Analysis	[Gantt bar]																	
<input type="checkbox"/>		5001703 / 0010	FY11 Staff time for MFL Update Rpt	[Gantt bar]																	
<input type="checkbox"/>		5001703 / 0020	MS - MFL Update Report Complete	[Gantt bar]																	
<input type="checkbox"/>		5001752 / 0010	MS - FY10 SFER Report	[Gantt bar]																	
<input type="checkbox"/>		5001752 / 0020	MS - FY11 SFER Report	[Gantt bar]																	

RISK MANAGEMENT PLAN

All projects have risk. Define the approaches, tools, and information sources that may be used to identify, analyze, and resolve risk. Potential risk areas include risks associated with the organization, project staff, project scope, and operating/ working environment. Define when the risk management process will be performed and the thresholds under which the risk management process would be initiated. A template is provided below to identify risks associated with the project scope and quantify them. The project may utilize the template below or a modified version that supports the needs of the project. If additional procedures are required, list them.

Below are the constraints that pose possible risk to the project. The project will be evaluated quarterly to determine if there will be schedule delays greater than 30 to 90 days associated with these constraints.

1. The District does not have the all of resources needed to complete this project in-house. A portion of this work must be contracted.
2. This project is dependent on water levels for sampling. Weather may be a large constraint to the schedules under this project.
3. This project depends on sampling permits from Everglades National Park.
4. This Project is closely tied to the C111SC project in P129 and contractual resources are funded in both Projects.
5. A key constraint is that changing fresh water flow must not degrade water quality and thus impair the Bay or Florida Keys' coral reef.

MONITORING AND CONTROL PLAN

Monitor the project's status relative to the established baseline project management plan. Provide an understanding of the project's status relative to established baseline plan. For deviations determine the issue and then determine if the issue may be resolved within the current plan. If the issue cannot be resolved within the current plan, follow the Districts standard change control procedure. An issue management form and log follow which may be modified to meet specific project needs. If additional procedures are required to monitor the plan list them.

N/A – No additional procedures needed.

CHANGE CONTROL PROCEDURES

A project management plan is a living document that will be updated or revised as necessary throughout the life of the project. The project will utilize the Districts standard change control process to perform these revisions. This process is posted on the District's website which denotes the process, criteria for change, review cycles, and approval levels. The District's Change Control Request Form for both Projects and Processes is located on this site and is a standard District form which is not to be modified. Use the form from this site to insure use of the latest version. If additional information is required that is not on the form it should be referenced on the form and attached.

An SAP Project System change control form is also attached. This form does not duplicate the information on the Districts standard Change Control Request form. This form is intended to document SAP project specific information (project being changed, which project is the change reflected in, etc.) for projects which are tracked in Project System. This form may be modified to include additional information if needed.

If additional procedures are required list them.

N/A – No additional procedures needed.

QUALITY MANAGEMENT PLAN

Quality review procedures include identifying the quality review team members and their areas of expertise relating to this project and a schedule of quality reviews tied to milestones and significant project activities. The quality management plan also identifies the required sign offs for each quality check. If applicable define the quality plan for the project. The project may utilize the template below or a modified version that supports the needs of the project. If additional procedures are required, list them.



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

QUALITY MANAGEMENT / CONTROL PLAN

Program Name Coastal Watersheds (J Program)
 Project Name Florida Bay and Coastal Wetlands Project

Project ID 100281

QC Signoff Codes:	E= Execution Team N/A = Qc not Required 1 = Execution Team, & SFWMD	2 = QC by Execution Team, SFWMD, & Customer 3=QC by SFWMD & Customer Note: Shaded cells require signature	
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WBS	WBS Description (Defined the work the quality test is associated with)	QC Code	Execution Signoff	SFWMD Signoff	Customer Signoff	Test for Quality	Acceptance Criteria	Test Scheduled Date
100281-03-04-10	<i>FI Bay Staff Time</i>	1				<i>Review Time validation report</i>	<i>No errors</i>	<i>Monthly</i>
100281-03-04-02	<i>Contractor Services</i>	1				<i>Review Monthly Reports</i>	<i>Meets SOW Deliverable Requirements</i>	<i>Per SOW</i>
100281-03-04-07	<i>Research Contracts</i>	2				<i>Review Deliverables</i>	<i>Meets SOW Deliverable Requirements</i>	<i>Per SOW</i>
100281-03-04-01	<i>External Lab Analysis</i>	E				<i>Review Data</i>	<i>Data meets QA/QC check</i>	<i>As received</i>
100281-03-04-05	<i>ENP</i>	N/A						
100281-03-04-09	<i>Helicopter</i>	N/A						
100281-03-04-03	<i>Maintenance</i>	E				<i>Monthly status check</i>	<i>All systems operational</i>	<i>Monthly</i>
100281-03-04-04	<i>Supplies</i>	E				<i>Monthly status check</i>	<i>Supplies in-house as needed</i>	<i>Monthly</i>
100281-03-04-06	<i>Travel</i>	1				<i>Travel Forms</i>	<i>Forms Approved</i>	<i>As needed</i>
100281-03-04-08	<i>Books and Reference</i>	N/A						
100281-03-04-11	<i>FY Milestones</i>	N/A						
100281-03-01	<i>Analysis</i>	2				<i>Peer Review</i>	<i>Publication of Reports</i>	<i>- Annually SFER -End of Project MFL Update</i>

PROJECT ACCEPTANCE CRITERIA

The essential characteristics and/or performance requirements for the deliverables that have to be present for the project deliverables to be considered acceptable. These are based on objective and not subjective criterion. The project may utilize the template below or a modified version that supports the needs of the project. If additional procedures are required, list them.

A project completion and acceptance signoff form is also attached to formally confirm completion and acceptance of the project by the customer, sponsor and project manager. This form may be modified to meet specific project requirements.

Deliverable	Criteria
2010 SFER Report	Acceptable Peer Review
2011 SFER Report	Acceptable Peer Review
MFL Update	Acceptable Peer Review

COMMUNICATIONS PLAN

The Communications Plan provides a communication framework for informing and involving all stakeholders. Determine the information and communications needs of the stakeholders: who needs what information, when they need it, and how it will be provided to them. The form below is provided as a starting point and may be modified to meet the specific needs of the project.



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

COMMUNICATION PLAN

Program Name Coastal Watersheds (J Program)
 Project Name Florida Bay and Coastal Watersheds Project

Project ID 100281

<u>Project Communication Template</u>	Frequency	Medium	Project Mgr	Project Team	Contract Specialist	Outreach Specialist	Program Manager	Project Sponsor	Sr. Mgmt	MAT	DLT	Other Stakeholders
Required Communications												
Project Charter Review	Prior to charter submission	Meeting	O	A			A/C	A				
Project Charter Approval	Initial & Revisions	Meeting	O	A			A/C	A				
PMP Development Meeting	During PMP development	Meeting	O	A			A/C	A				
PMP Approval Meeting	At PMP approval						A/C					
PMP Review Meeting	At kickoff, & revisions	Meeting	O	A			A/C	A				
Project Kickoff meeting	At kickoff	Meeting	O	A	A	A	A/C	A	C			
Status Reports	Weekly	Email	O	A			C	C				
Weekly Meeting	Weekly	Meeting	O	A			C					
Weekly Meeting Minutes	Weekly	Email	O	A			C	C				
Monthly Progress Report	Monthly	Email	O	A			C	C				
As Needed" Communications												
Procurement Review Meetings	As Needed	Meeting	O	A	A	A	C					
Issues Review Meeting			O	A			C					
Change Control Requests	As Needed	Email	O	A			C	C				
Change Management meetings	As Needed	Meeting	O	A			C	C				
Issues Review Meeting	As Needed	Meeting	O	A			C					
Executive Staff One-on-Ones	As Needed	Meeting	O				C					
One-on-one meetings	As Needed	Meeting	O				C					
Project Presentations	As Needed	Meeting	O				C					
Outreach Meeting with DPI	As Needed	Meeting	O			A	C					
Newsletter	As Needed	Email					C					
											O:	<i>Originator/Organizer</i>
											A:	<i>Attendee</i>
											C:	<i>Courtesy Copy</i>

PROJECT CLOSEOUT PROCEDURES

Final project closeout activities include closeout of any contracts associated with this project, final audits, financial accounts balancing, and notice of project completion, and documentation of lessons learned. The project may utilize the closeout checklist and lessons learned form below or a modified version that supports the needs of the project. If additional procedures are required, list them.

N/A – No additional procedures needed.



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

LESSONS LEARNED SORT BY WBS

Program Name Coastal Watersheds (J Program)
 Project Name Florida Bay and Coastal Watersheds Project

Project ID 100281

WBS	WBS / activity Description where the issue occurred.	Issue description.	What was the root cause? (process, people, communication, dependencies)	How was the Issue Corrected? How may the issue be avoided in the future?	Estimated cost to be saved.	Estimated time to be saved.
100281-03-04-10	<i>Fl Bay Staff Time</i>					
100281-03-04-02	<i>Contractor Services</i>					
100281-03-04-07	<i>Research Contracts</i>					
100281-03-04-01	<i>External Lab Analysis</i>					
100281-03-04-05	<i>ENP</i>					
100281-03-04-09	<i>Helicopter</i>					
100281-03-04-03	<i>Maintenance</i>					
100281-03-04-04	<i>Supplies</i>					
100281-03-04-06	<i>Travel</i>					
100281-03-04-08	<i>Books and Reference</i>					
100281-03-04-11	<i>FY Milestones</i>					
100281-03-01	<i>Analysis</i>					



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

CLOSEOUT CHECKLIST

Program Name Coastal Watersheds (J Program) Project ID 100281
 Project Name Florida Bay and Coastal Watersheds Project

AREA	YES	NO	SIGNATURE
Were project objectives met? (see charter for objectives)			
If no, explain:			
Are deliverables acceptable to client?			
If no, explain:			
Have contract closeout forms been completed?			
If no, explain:			
Have disencumbrance forms been completed?			
If no, explain:			
Have the lessons learned been completed?			
If no, explain:			
Have all change requests been finalized? (see change control log)			
If no, explain:			
Have all issues been closed?			
If no, explain:			
Are the project management system elements closed and the final project report been completed and approved?			
If no, explain:			
Have all the assets been properly turned over to the District?			
If no, explain:			
Have the evaluations of the contractors been forwarded to procurement?			
If no, explain:			
Has the team celebrated the end of the project?			
If no, explain:			



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

PROJECT COMPLETION AND ACCEPTANCE SIGNOFF

Program: Coastal Watersheds (J Program)			
Project Name:	Florida Bay and Coastal Wetlands Project	Project Number:	100281
Project Manager:	David Rudnick	Date:	

The undersigned agree in principle that the completed project satisfactorily meets the Acceptance Criteria set forth in the Project Management Plan.

Client Signature

Date

Client Name

Title

Sponsor

Project Manager

Name & Title

Name & Title

ROLES AND RESPONSIBILITIES

Modify the following roles and responsibilities based on the scope, assumptions, and constraints of this project. Under the project team section, include a statement spelling out the skills needed for the team.

The **project sponsor** is responsible for;

- Communicating District objectives
- Overseeing cross-organizational participation
- Providing a focal point to resolve issues escalated from the management oversight and guidance to the project manager

The **project manager** is responsible for,

- The project's overall performance and success
- Approving policies, processes, and procedures developed by project team members
- Being the focal point for communication between the project manager oversight
- Escalating to the management oversight team issues that cannot be resolved at the project level
- Developing and maintaining the project plan

The **Functional Manager (Department Director)** is responsible to:

- Provide the resources for the project
- Ensure the quality of the resources provided to support the project
- Contribute to the performance evaluation of the project manager

The **Program Manager** is responsible for:

- Developing Annual Work Plan and Strategic Plan input for the Program
- Monitoring project status during the fiscal year
- In conjunction with the Department Director, reviewing and signing the Project Charter and Project Management Plan
- Leading the Program's team of project managers and professionals to accomplish programmatic objectives
- Assisting in the development of Project Managers
- Reporting on, and communicating, Program and project status to Sr. Managers