



the journey to restore
America's Everglades



Programmatic Regulations Implementation Activities

Working Group Meeting January 7, 2004



Topics

- Introduction
- Guidance Memoranda
- Initial CERP Update
- Pre-CERP Baseline
- Master Implementation Sequencing Plan

Programmatic Regulations



Federal Register

Wednesday,
November 12, 2003

Part II

**Department of
Defense**

Department of the Army, Corps of
Engineers

33 CFR Part 385
Programmatic Regulations for the
Comprehensive Everglades Restoration
Plan; Final Rule

- Regulations become effective on December 12, 2003
- Added new Part 385 to Title 33 of Code of Federal Regulations
- Regulations provide Establish the framework and understanding for guiding CERP implementation

Completion Dates Required by Programmatic Regulations

June 14, 2004

- RECOVER recommendations on interim goals & interim targets
- Establish Independent Science Review Panel
- Pre-CERP Baseline
- Initial CERP Update

December 13, 2004

- Guidance Memoranda
- Interim Goals Agreement
- Master Implementation Sequencing Plan

December 31, 2005

- System Operating Manual

Annual Document to the Public

Describe -

- Components of the Plan, including any approved changes to the Plan
- Estimated cost of the Plan, including any approved changes to the Plan
- Water budget for the Plan
- Water that has been reserved or allocated for the natural system under State law for the Plan

Annual Corps Information to OMB

- Updated estimate of total cost of the Plan
- Costs of individual project components
- Explanation of any changes in these estimates from the estimates in the Yellow Book

Other Required Products

Every 5 Years

- Report to Congress
- Review of ProRegs
- Periodic CERP Update
- Assessment Report (adaptive management)
- Review of interim goals and interim targets
- Review of MISP

Periodic

- Effectiveness of public outreach
- Effectiveness of outreach to socially and economically disadvantaged individuals and communities



Guidance Memoranda

Comprehensive Everglades Restoration Plan

Guidance Memoranda

- Purpose: Provide specific procedures, processes, or other guidance for CERP
- Programmatic regulations require 6 guidance memoranda to be prepared
- Guidance memorandum to be jointly developed by Corps and SFWMD in consultation with others for approval by Secretary of the Army, with the concurrence of Secretary of the Interior and Governor
- Guidance memorandum to be developed not later than December 13, 2004
- Secretary of the Army to afford public opportunity to comment on proposed guidance memoranda through notice of availability in Federal Register

Guidance Memoranda Development Process

- Guidance memoranda to be developed by interagency Guidance Memoranda Task Team and 4 smaller technical sub-teams
- Letters to agencies and tribes inviting participation on Guidance Memoranda Task Team is forthcoming
- Anticipate initial drafts of GMs to be ready in May-June timeframe

Guidance Memoranda Sub-Teams

- Sub-Team 1
 - GM 1: Format and content of PIRs
 - GM 2: Formulation and evaluation of alternatives for PIRs
- Sub-Team 2
 - GM 3: Content of Operating Manuals
- Sub-Team 3
 - GM 4: Conduct of assessment activities of RECOVER
- Sub-Team 4
 - GM 5: Procedure for identifying appropriate quantity, timing, and distribution of water to be dedicated and managed for the natural system
 - GM 6: Procedure for identifying if elimination or transfers of existing legal sources of water will occur as a result of implementation of the Plan

Sub-Team 1

- Team met on 12 December
- Outlines for GM 1 and GM 2 being prepared
- Definitions to be developed for key terms:
 - Maximum net benefits
 - Optimize the tentatively selected plan
 - Screening

Sub-Team 2

- Team to meet in mid-January
- Team to review RECOVER OPT protocol paper of August 2003 and OPT draft Operating Manual format
- Outline of memoranda to be developed

Sub-Team 3

- Team has developed preliminary draft outline of memoranda
- Memoranda to lay out processes and procedures for development of assessment technical report by RECOVER
- Next sub-team meeting scheduled for 20 January

Sub-Team 4

- Team met on 16-17 December
- Outlines for GM 5 and GM 6 prepared
- SFWMD April 2003 white paper on water resource protection strategies starting point for initial discussions
- Definition for “existing legal sources” being drafted
- Definitions to be developed for key terms:
 - Water made available
 - Elimination
 - Transfer



Initial CERP Update

Comprehensive Everglades Restoration Plan

Initial CERP Update – Purpose

- Evaluate Plan based on updated modeling that includes latest scientific, technical, and planning information
- Provide basis for determining if operational or structural modifications to the Plan should be considered

Initial CERP Update Model Runs

- 2000 Existing Condition (completed September 2003)
- Updated 2050 Without Project Condition (completed December 2003)
- Updated D-13R (scheduled for completion in January)
- D-13R sea-level rise scenario

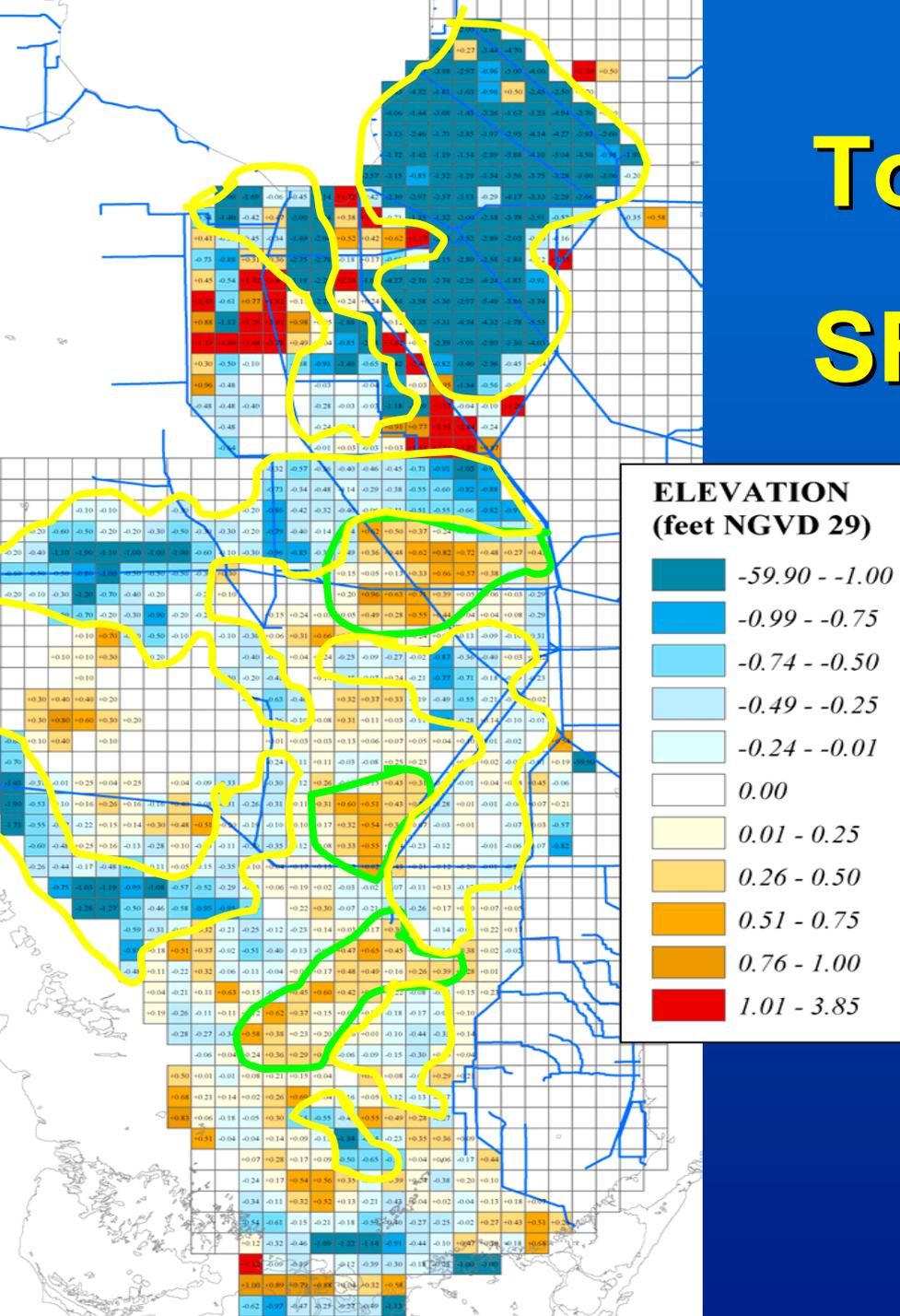
About Modeling

- Improvements to models may change previously reported performance measures/indicators. New estimates are considered to be more accurate.
- Changes in the input assumptions will change previously reported performance measures. New estimates reflect current “existing conditions”.
- The utility of the model is its ability to quantify the differences between alternatives or scenarios run with the same version of the model. **Comparison across model versions and for different time periods is not recommended.**
- Primary focus should be on comparing CERP and PDT alternatives with respect to each other and future without project condition.

Model Changes

- SFWMM Version 3.5 and NSM Version 4.5 used for Yellow Book
- Updated SFWMM Version 5.x for Initial CERP Update
 - Extension of climatic record by 5 additional years for 36-year period of record (1965-2000)
 - Updated topographical and land cover data
 - Improved methods for rainfall and ET estimation
 - Improved modeling capabilities (e.g. small reservoir simulation, ASR recovery simulation, etc.)
- Updated NSM model version 4.6 incorporates SFWMM changes

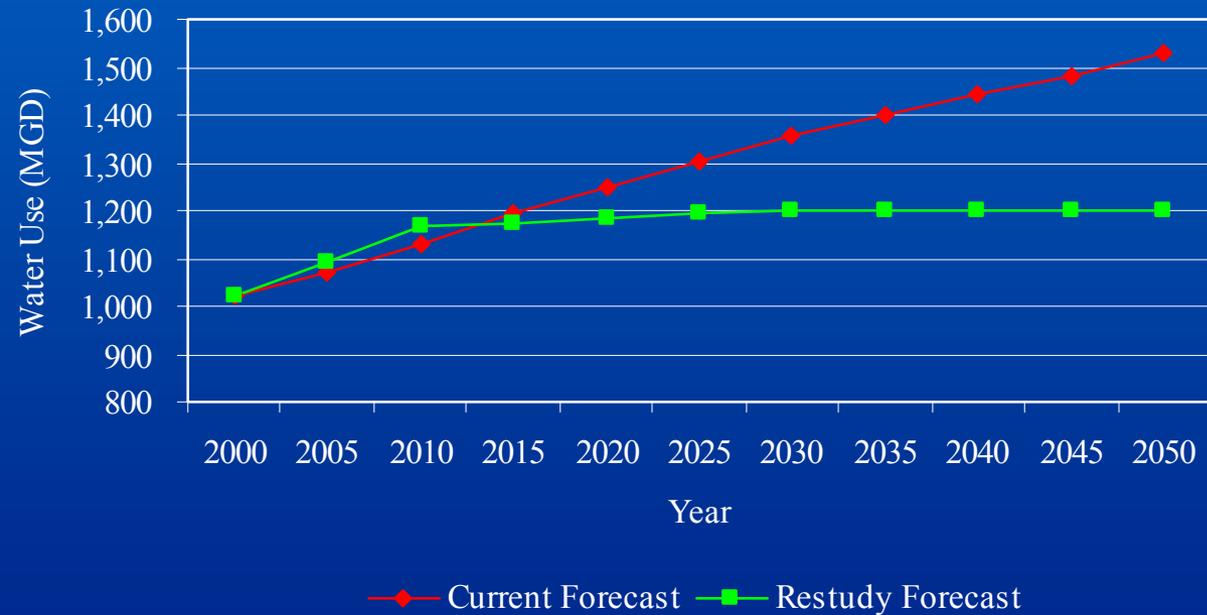
Topo Differences SFWMM V5.0 – V3.5



Updated Population Information

- 2000 census data used for 2000 Existing Condition
- Population projections for 2050 recalculated based on updated information and methodology
 - Higher population than used in Restudy
- Urban water demands adjusted for revised population projections

Comparison to Restudy Forecast



Water Use (MGD)		
	2025	2050
Current		
Forecast	1,304	1,528
Restudy		
Forecast	1,192	1,198

2000 Existing Condition - Key Changes from Restudy Assumptions

- 2000 census data instead of 1995 estimated
- WSE regulation schedule for Lake Okeechobee
- Partial ECP in place
- LOSA simulated demands instead of historical demands
- No EAA runoff reduction due to BMPs (recent data)
- BMP makeup water based on recent data
- Simulated tribal demands

2050 Future Condition - Key Changes from Restudy Assumptions

- Revised population and projected urban water demand
- 15% Increase in urban demand due to alternative treatment technologies
- Lake Okeechobee operations
- LOSA simulated demands
- No EAA runoff reduction due to BMPs (recent data)
- BMP makeup water based on recent data
- Simulated tribal demands
- Alt 6D for 8.5 sq. mi. area

Yellow Book Performance Issues

- Increase total overland flow to Florida Bay, NESRS and Taylor Slough to more fully reach NSM depth and duration targets
- Improve ecological performance in the WCAs by eliminating damaging high and low water conditions
- Improve targets and performance measures for Biscayne Bay and identify alternatives to wastewater reuse for fresh water inflows to Biscayne Bay

Yellow Book Performance Issues (Continued)

- Develop features that allow greater operational flexibility to address uncertainty in ecological responses within the WCAs (for example, S-140 and the associated spreader-canal system allows CERP to discharge water into central WCA 3A while by-passing northern WCA 3A)
- More closely meet targets in the St. Lucie Estuary
- Improve ecological performance in the Model Lands and C-111 Basin by providing adequate freshwater to maintain target hydropatterns

Initial CERP Update – Status

- 2000 Existing Condition model run and evaluation completed
- Updated 2050 Future Without Project Condition model run completed
- RECOVER evaluating 2050 model run results
- Updated D-13R model run due in January
- D-13R updated sea-level rise scenario to be modeled
- Initial CERP Update scheduled for completion in May



Pre-CERP Baseline

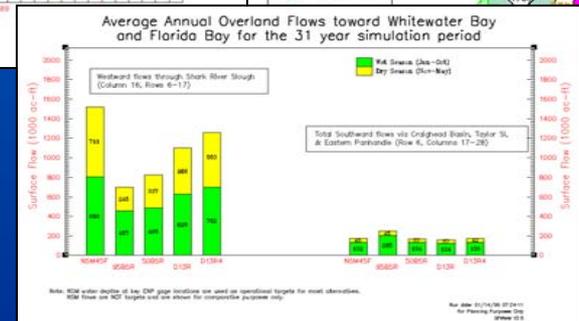
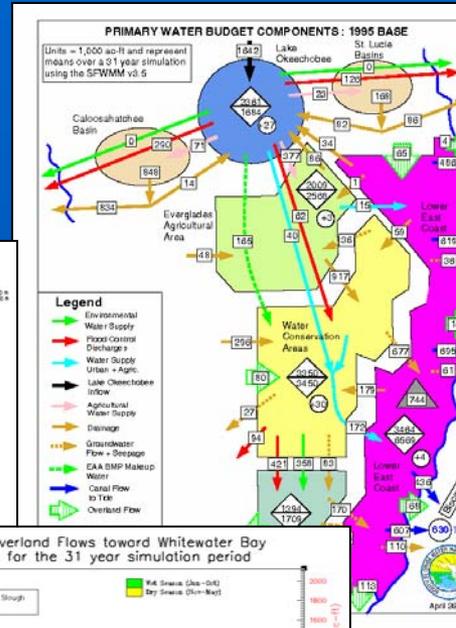
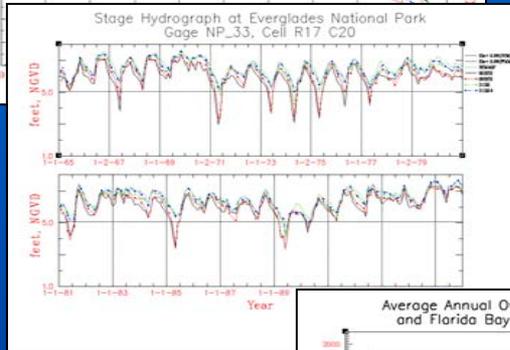
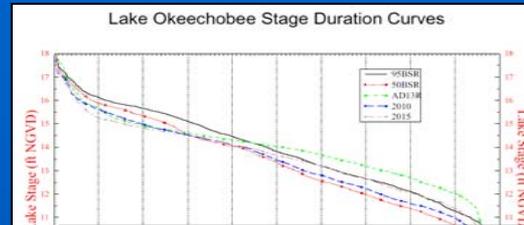
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Pre-CERP Baseline Definition

Pre-CERP baseline means the hydrologic conditions in the South Florida ecosystem on the date of enactment of WRDA 2000, as modeled by using a multi-year period of record based on assumptions such as land use, population, water demand, water quality, and assumed operations of the Central and Southern Florida Project.

What is the Pre-CERP Baseline?

PRE-CERP BASELINE DOCUMENT



- Background and Process
- Model Assumptions
 - Landuse/Landcover
 - Water Demands
 - Operating Criteria

Model Output

- Water Budget
- Volume-Frequency Curves
- Performance Measures

Pre-CERP Baseline

- Purpose: Provide an aid in determining if existing legal sources of water will be eliminated or transferred as a result of project implementation
- Corps and SFWMD to develop by June 14, 2004 in consultation with others, including Task Force
- Public to be provided opportunities to review and comment on pre-CERP baseline
- Concurrence of Secretary of the Interior and Governor required
- In addition to pre-CERP baseline, SFWMD and Corps to conduct other analyses deemed necessary to determine if an existing legal source of water has been eliminated or transferred or if a new source is of comparable quality

Development of Pre-CERP Baseline Assumptions

- WRAC subcommittee had discussions beginning in late 2002 on pre-CERP baseline
 - Group did not reach consensus on assumptions
- Team from Corps, SFWMD, DOI, and DEP established to develop draft set of assumptions for pre-CERP baseline
- Assumptions for 2000 Existing Conditions model run not necessarily the same as pre-CERP baseline; however, team will likely use assumptions of 2000 Existing Conditions model run (developed for Initial CERP Update) as starting point for developing pre-CERP baseline assumptions
- Team is working to have assumptions ready for review by Working Group, Task Force, and WRAC in February

Key Assumptions Issues

- Urban and agricultural water demands
 - Urban demands - actual withdrawals vs. amount permitted as of December 2000
 - Agricultural demands - actual crop acreage permitted vs. actual acreage irrigated as of December 2000
 - Blaney-Criddle vs. Agricultural Field Scale Irrigation Requirements (AFSIRS) for estimating irrigation demand requirements
- How to address certain projects not constructed/operational in December 2000, but Federally authorized or state mandated as of that date (e.g., C-111, Modified Water Deliveries, STA's 1 East and 3/4)
- How to address certain operations considered “experimental”, or under legal review, or development as of December 2000 (e.g., south Dade operations, backpumping to Lake Okeechobee, S-9 litigation, etc.)

Possible South Dade Operations Assumptions

- Minimum Deliveries Schedule
- Base 83
- Test 7 Phase 1
- ISOP
- IOP
- CSOP



MISP

Comprehensive Everglades Restoration Plan

Master Implementation Sequencing Plan (MISP)

- Purpose:
 - Update sequencing and scheduling for implementation of all projects of the Plan
- Programmatic regulations require projects to be sequenced and scheduled to maximize achievement of goals and purposes of Plan at earliest possible time and in most cost-efficient way, including achievement of interim goals and targets
- MISP will include discussion of logic, constraints, and other parameters used in developing the sequencing and scheduling of projects

Why Review Sequencing and Scheduling?

- Project justification on next-added increment basis
 - Review component groupings
- Elimination or transfer of existing legal sources (savings clause)
 - Review component packages and sequencing to avoid eliminations or transfers until alternative sources are available
- Provide updated information for development of interim goals and targets

Factors to be Considered in Sequencing and Scheduling

- Technical dependencies and constraints
- Benefits to be provided by the project
- Availability of lands required for the project
- Avoiding elimination or transfers of existing legal sources of water until alternative sources are available

	4	7	8
2	13	1	11
9	5	3	12
10	6	15	14

Master Implementation Sequencing Plan Process

- Review component packaging
- Review project sequencing
- Develop draft sequencing and scheduling
- Conduct Implementation modeling based on draft sequencing and scheduling
- Revise sequencing and scheduling as appropriate
- Prepare draft MISP
- Public review of draft MISP
- Finalize MISP

MISP Current Status

- Component packaging review underway
- MISP development on accelerated schedule due to need to support development of interim goals and targets
- Meeting with stakeholders held on 6 January
- First phase of sequencing plan available end of January



Thank you