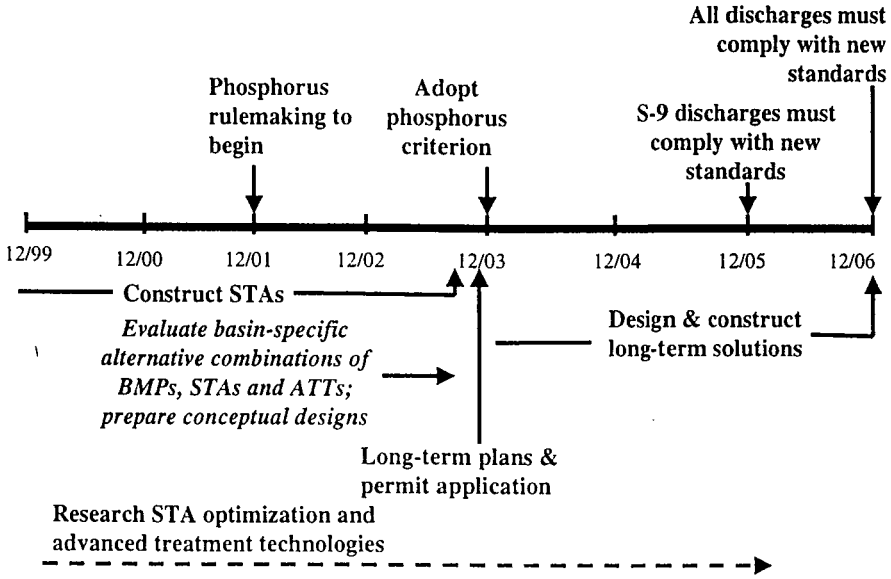
Water Quality Improvement Strategies: Basin-Specific Feasibility Studies

TOC Presentation
October 9, 2001

Background

- Goal - Evaluate alternative combinations of source control and regional public works to achieve compliance with water quality standards by 12/31/2006
- Results will assist in completion of integrated water quality plan and application for long-term water quality compliance permit by 12/31/03

ACHIEVING EVERGLADES WATER QUALITY
Mandated time frames



ECP Basins:

STA-1E

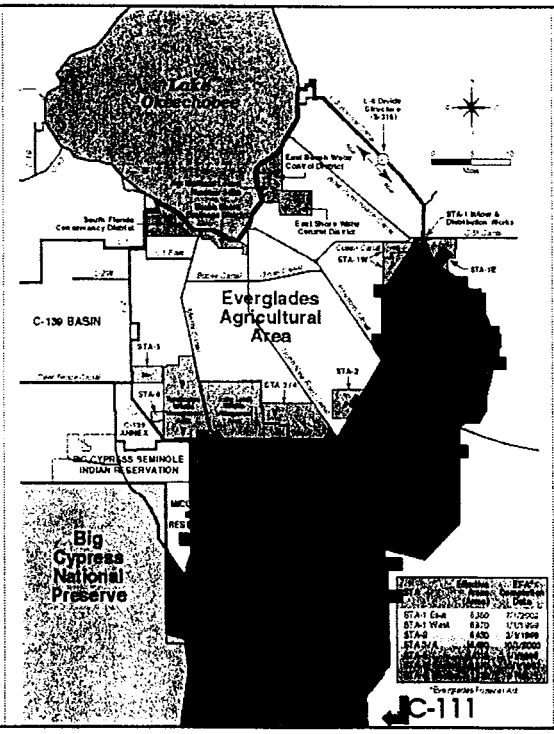
STA-1W (incl. L-8)

STA-2

STA-3/4

STA-5

STA-6



ESP Basins:

ACME Basin "B"

North Springs Improvement District

North New River Canal (G-123)

C-11 West

L-28

Feeder Canal

Contract Support

- ECP Basins: Burns & McDonnell and Nova Consulting
- ESP Basins: Brown & Caldwell, HSA Engineers, Milian Swain & Assoc., DB Environmental, Wetland Solutions, Inc.

Scope of Work

- 1st Task - Peer review Evaluation Methodology
- 2nd Task - Peer review alternative combinations of BMPs, STAs, and ATTs for each basin
  - Burns & McDonnell - ECP basins
  - Brown and Caldwell - ESP basins
- 3rd Task - Evaluate alternative combinations
  - Burns & McDonnell - ECP basins
  - Brown and Caldwell - ESP basins

Evaluation Methodology

- Goal is to develop a method to evaluate alternative combinations of source control and regional public works to achieve water quality compliance

- Draft document in external review
  - seeking input by October 17, 2001

Technical Performance Criteria

- Level of Phosphorus load reduction
- Level of Phosphorus concentration reduction
- Level of reduction in non-phosphorus parameters
- Implementation schedule
- Operational flexibility
- Resiliency to extreme conditions
- Assessment of full-scale constr. & operation
- Management of side streams

Economic Criteria

- Private costs
- Public costs
- Cost-effectiveness
- Impact on South Florida jobs

CERP Integration Factors

- Purpose: to assess the impact of integrating an alternative with the CERP project planned for the basin
- Cost savings resulting from integration with CERP project
- Time in years after 12/31/06 EFA deadline that alternative with CERP project is operational
- Water quantity, timing and distribution for the EPA addressed by CERP project

Development of Preliminary Alternative Combinations

- Goal: For every basin, define 2-4 alternative combinations of source control and basin-scale treatment to achieve compliance with long-term water quality standards
- Time frame for developing alternative combinations - as soon as possible, no later than November

Key Variables

- Operational changes to District's primary system, including diversion scenarios
- Source controls
- Basin-scale treatment facilities
  - biological treatment
  - chemical treatment
- Integration with CERP projects

Stakeholder Involvement Critical

- Comments on Evaluation Methodology by next STA Design Review Staff meeting - October 17, 2001
- For more information on the Basin-Specific Feasibility Studies, including documents, see: http://www.sfwmd.gov/org/erd/bsfboard/bsfsboard.htm
- For meeting information, see: http://www.sfwmd.gov/gover/3_mtgcalndr.html

Next Steps

- Finalize Eval. Methodology - October 2001
- Finalize basin alternatives - December 2001
- Update TOC - February 2002
- Finalize evaluation of alternatives - June 2002