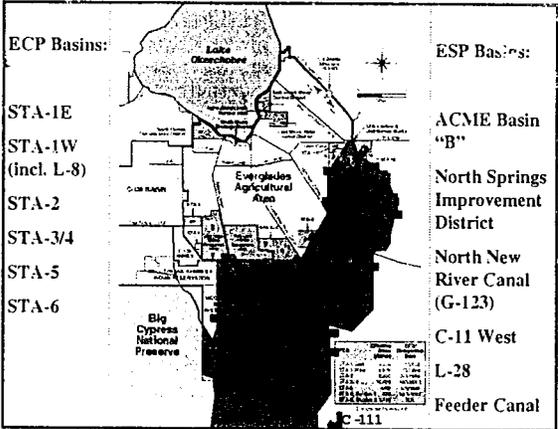
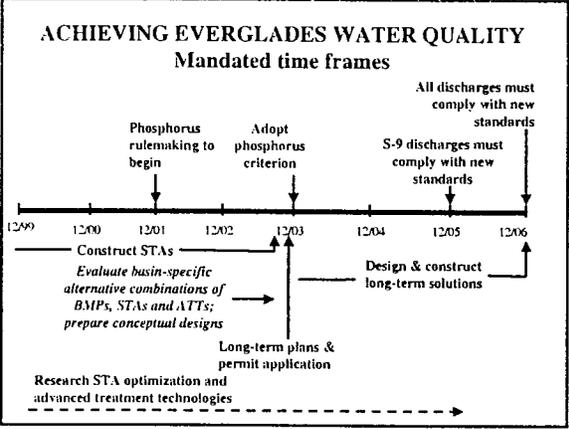


Water Quality Improvement Strategies: Basin-Specific Feasibility Studies

TOC Presentation
January 29, 2002

- ### 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
 - Fact-gathering exercise



- ### 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 was to develop a method to evaluate alternative combinations of source control and regional public works to achieve water quality compliance
- Draft document reviewed by public and consultants
- Improvements made to final document

Technical Performance Criteria

- Level of Phosphorus load reduction
- Level of Phosphorus concentration achieved
 - flow-weighted mean and geometric mean
- Implementation schedule
- Operational flexibility
- Resiliency to extreme conditions
- Assessment of full-scale constr. & operation
- Management of side streams

Other Criteria

- Environmental
 - level of improvement in non-phosphorus parameters
- Economic:
 - Public costs
 - Cost-effectiveness

Alternative Combinations

- For every basin, defined 2-4 alternative combinations to achieve compliance with long-term water quality standards
- Alternatives posted on web in October
 - public and peer-reviews conducted
 - extensive discussions at STA Design Review meetings
- 42 alternatives identified for 13 basins

Key Variables

- Operational changes to District's primary system, including diversion scenarios
- Source controls
- Basin-scale treatment facilities
 - Expansion of existing STA footprints to achieve lowest sustainable P concentrations
 - biological treatment (emergent, SAV and PSTA)
 - chemical treatment
- Synchronization with CERP projects

Stakeholder Involvement Critical

- STA Design Review Staff meetings
- Basin workshops with stakeholders
- Website for Basin-Specific Feasibility Studies:
<http://www.sfwmdd.gov/org/erd/bsfboard/bsfboard.htm>
- For meeting information, see:
http://www.sfwmdd.gov/gover/3_mtgcalndr.html

Critical Uncertainties

- *The District is doing everything possible to meet EFA mandates, in light of uncertainties:*
 - * Magnitude and timing of discharge targets
 - * Need before final alternative selection and design
 - * Will have significant cost ramifications
 - * Research still underway on STA optimization and advanced treatment technologies
 - * Effectiveness of source controls
 - * Influence of CERP projects on flows and P
- *Will re-assess prior to final go/no go decisions*

Next Steps

- **Evaluate basin alternatives (including estimated costs, performance, etc.) - January to June 2002**
 - STA Design Review meetings (monthly beginning 3/27/02)
 - results to be posted on website
- **Summer 2002 - Bring results to Governing Board**
- **Begin conceptual design of solutions -**
 - *contingent upon having sufficient information on*
 - discharge targets
 - research results
 - influence of CERP projects
 - *funding*

