



Northern Everglades

Southern Everglades

Northern Everglades Initiative Update
Kenneth G. Ammon, Deputy Executive Director

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Lake Okeechobee Phase II Technical Plan Requirements

- **Identify facilities to achieve TMDL**
 - **Size**
 - **Location**
 - **Schedule**
 - **Budget**
 - **Costs**
- **Provide additional measures to increase water storage and reduce excess water levels in lake and discharges to tide**
 - **Identify storage goal to achieve desired lake levels and inflow volumes to estuaries while meeting other water related needs**

Lake Okeechobee Phase II Technical Plan

Objectives

- **Meet Lake Okeechobee Watershed Total Maximum Daily Loads**
- **Manage Lake Okeechobee levels within an ecologically desirable range**
- **Manage flows to meet desirable salinity ranges for the St. Lucie and Caloosahatchee Estuaries**
- **Identify opportunities for alternative surface water supply sources in the watershed**

Progress to Date

- **Assembled SFWMD and cooperating agency team**
- **Management measures for consideration identified**
- **Phosphorus reduction analysis for base cases and alternatives ongoing**
- **Regional Simulation Model for water budget analysis operational**
- **Base Cases and Alternative 1 complete**

Phase II Technical Plan Lake Okeechobee Watershed

Compiled and sorted management measures by levels

- **Levels of management measures**
 - **Level 1- Already constructed/implemented or construction/implementation imminent**
 - **Level 2- Construction/implementation likely; Detailed design/activity development ongoing; Location well defined**
 - **Level 3- Implementation certainty unknown; Conceptual level of design/activity development complete; Location defined**
 - **Level 4- Implementation certainty unknown- Conceptual idea; May have rough order of magnitude cost and/or general basin location**
 - **Level 5- Implementation certainty unknown-Conceptual idea with limited information**

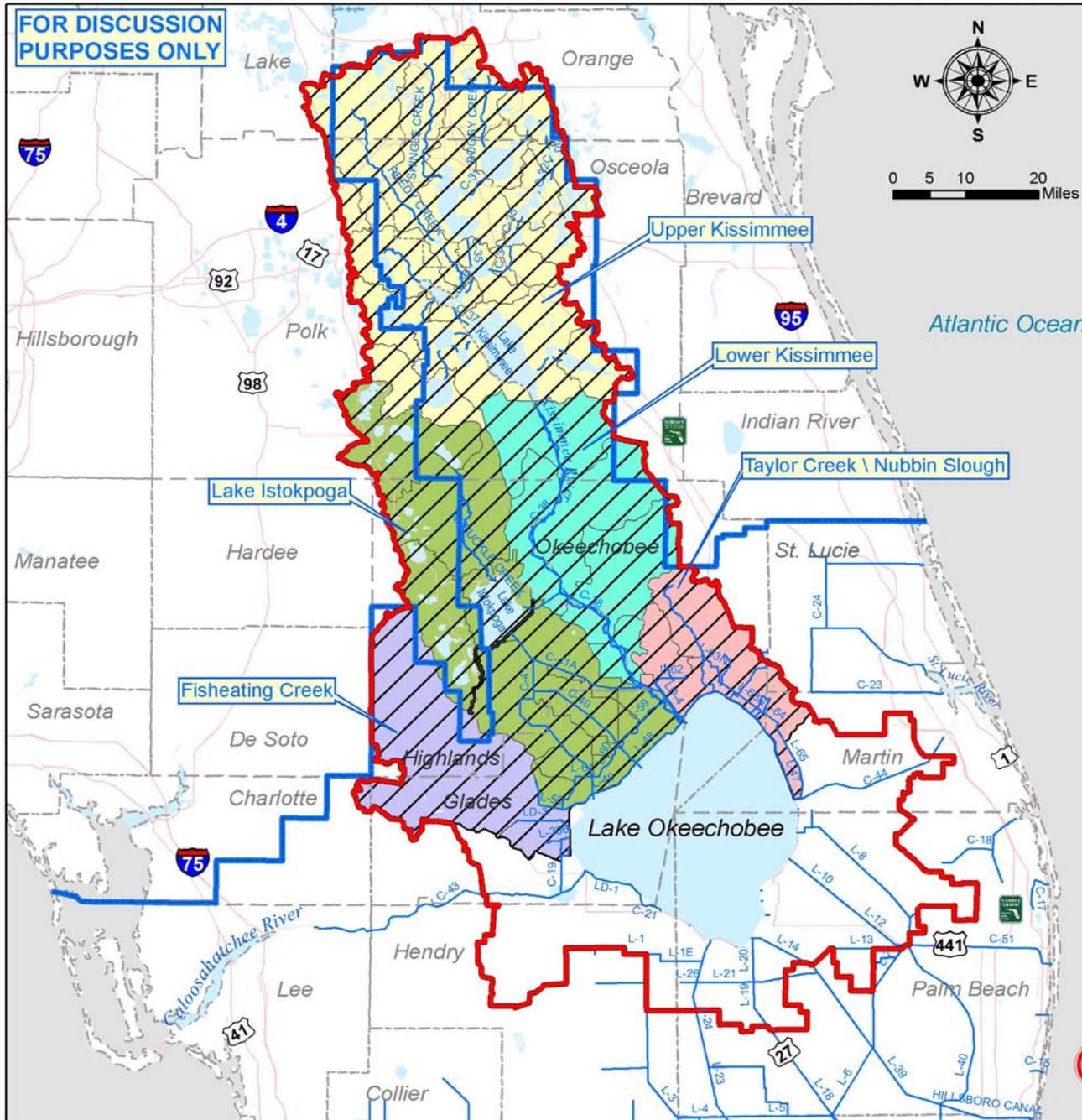
Water Quantity and Quality Analyses

- **Water Quantity**
 - **Water Budget analysis using Regional Simulation Model**
- **Water Quality**
 - **Spreadsheet evaluation of phosphorus reduction**
 - **Builds upon 2007 Lake Okeechobee Protection Plan Update**

Water Quantity Analysis

- **Water Budget analysis using Regional Simulation Model**
- **Period of record: 1970 - 2005**
- **Area north of Lake Okeechobee subdivided into 5 sub-watersheds**
 - **Upper Kissimmee**
 - **Lower Kissimmee**
 - **Lake Istokpoga**
 - **Fisheating Creek**
 - **Taylor Creek/Nubbin Slough**
- **Management measures with affect on water budget such as reservoirs or STAs are generally simulated as one facility per sub-watershed**

FOR DISCUSSION
PURPOSES ONLY



Northern Everglades Ecosystem Phase II Lake Okeechobee Watershed Construction Project

- Roads
- SFWMD Northern Border
- Lake Okeechobee Watersheds
 - Caloosahatchee River
 - EAA Basins
 - East Lake O. Basins
 - Fisheating Creek
 - Lake Istokpoga
 - Lower Kissimmee
 - St. Lucie Estuary
 - Taylor Creek/Nubbin Slough
 - Upper Kissimmee
 - West Lake O. Basins
- SFWMD Major Canals
- County Boundary
- LOPP Hydrologic Boundary
- Basins
- Regional Simulation Model - Sub Watersheds

This map is a conceptual tool utilized for project development only. This map is not self-executing or binding, and does not otherwise affect the interests of any persons including any vested rights or existing uses of real property and is not a survey.

UPDATED
11 SEP 2007



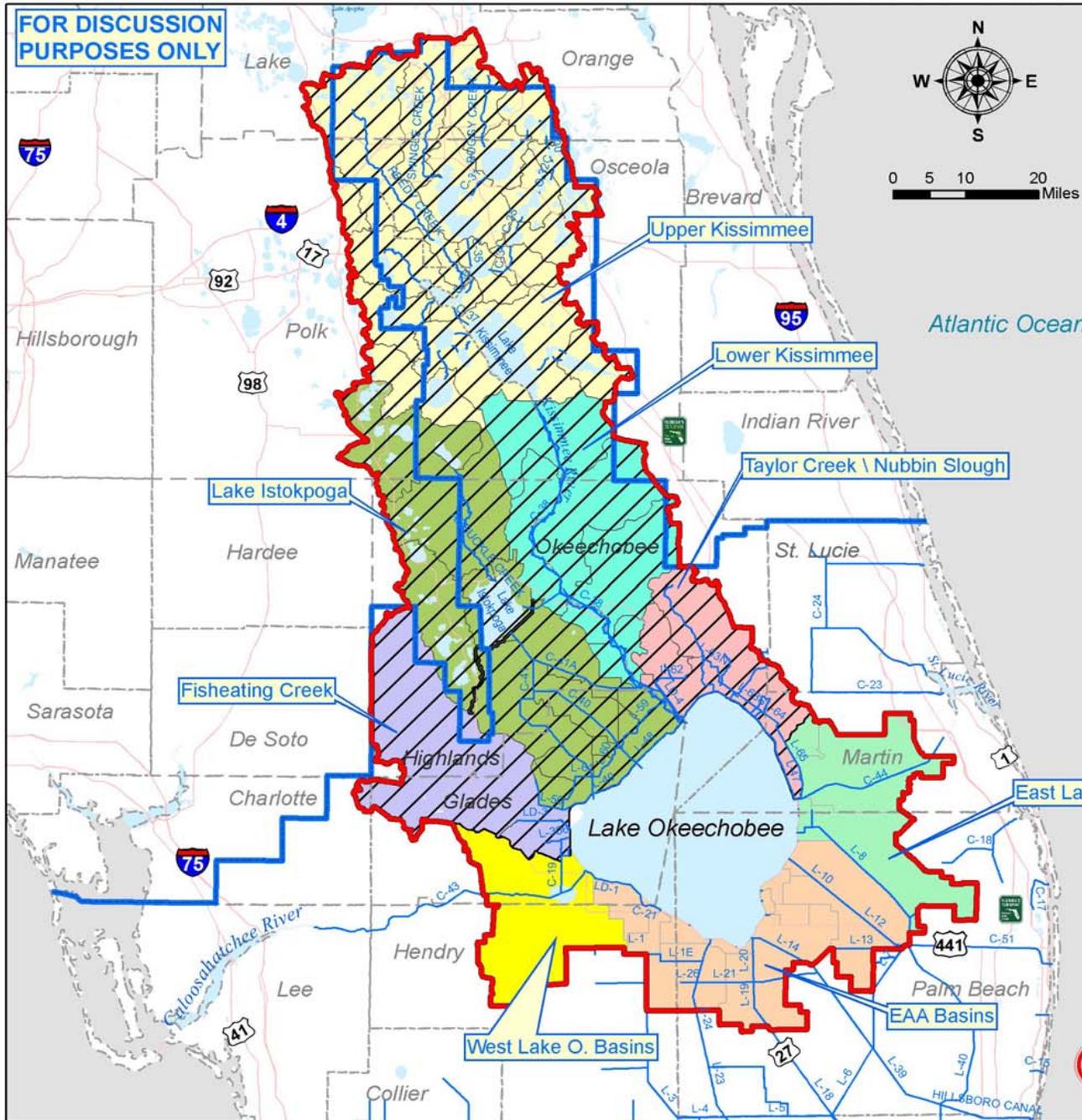
Examples of Performance Measures for Water Quantity analysis

- **Lake Okeechobee**
 - **Extreme Low and High Lake**
 - **Lake Stage Envelope**
 - **Lake Minimum Water Levels**
- **Estuaries**
 - **High/Low Discharge Criteria**
 - **Salinity Envelop Criteria**
- **Kissimmee River**
 - **Comparison with Pre-Channelization Seasonal Flow Distribution**
- **Water Supply**
 - **EAA and LOSA water supply cutbacks**

Water Quality Analysis

- **Spreadsheet analysis process**
 - **Period of record: 1991- 2005**
 - **Phosphorus reduction for each management measure estimated based upon best available information**
 - **Phosphorus reductions applied on a sub-watershed basis (9 sub-watersheds)**
 - **Shows incremental progress toward meeting Lake Okeechobee Total Maximum Daily Load**

**FOR DISCUSSION
PURPOSES ONLY**



0 5 10 20 Miles

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Phase II Lake Okeechobee
Watershed Construction Project**

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Alternative 1 Summary

- **Alternative 1 includes-**
 - **Level 1, 2, and 3 Management Measures**
 - **CERP Lake Okeechobee Watershed Project Tentatively Selected Plan features**
 - **Kissimmee Reservoir**
 - **Istokpoga Reservoir**
 - **Istokpoga STA**

Rivers Watershed Protection Plan Process

- **Project managers for District**
 - **Janet Starnes- Caloosahatchee River Watershed Protection Plan**
 - **Mike Voich- St. Lucie River Watershed Protection Plan**
- **Expanding Interagency Group to help coordinate planning**
- **Identifying the District team and developing work plan**
- **Formally kick-off in October**

An aerial photograph of a rural landscape. The foreground is dominated by a patchwork of vibrant green agricultural fields, separated by thin, light-colored roads or ditches. In the middle ground, a small cluster of buildings, likely a farm or a small town, is visible, surrounded by trees. Beyond this, a large, calm body of water, possibly a lake or a wide river, stretches across the horizon. The sky is a deep, clear blue, filled with large, billowing white cumulus clouds that cast soft shadows on the water below. The overall scene is peaceful and scenic.

Questions