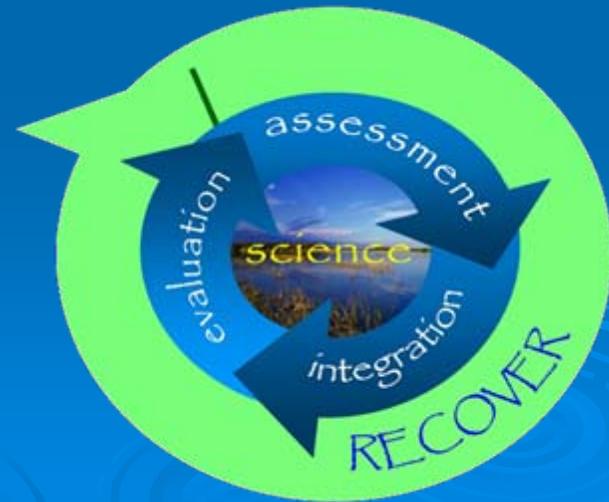


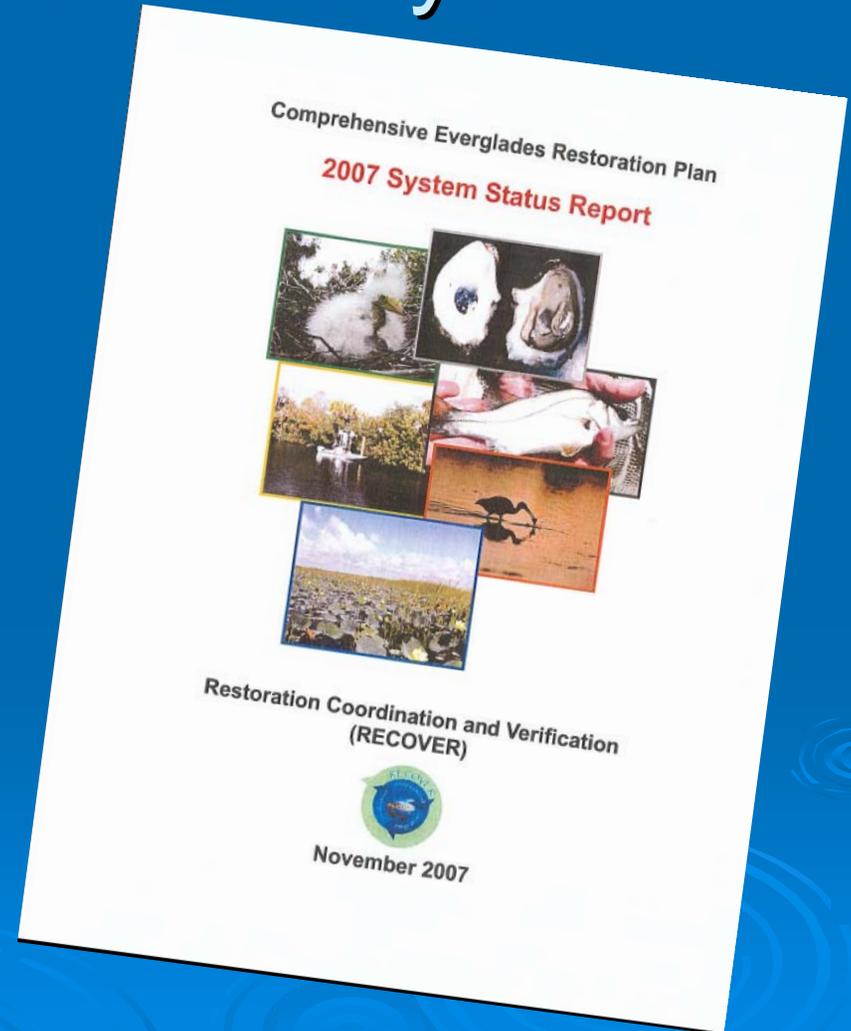
2007 System Status Report

Bruce Sharfstein Ph.D.
Director RECOVER
SFWMD



Biennial Report on the Health of The South Florida Ecosystem

- Uses many different data sources
- Integrated approach
- Baseline against which restoration success is measured
- Basis for adaptive management decisions
- Information source for mandated reports to Congress



Geographic Regions Covered

➤ Lake Okeechobee

➤ Northern Estuaries

- Southern Indian River Lagoon & St Lucie River/Estuary
- Loxahatchee River/Estuary
- Caloosahatchee River/ Estuary
- Lake Worth Lagoon

➤ Greater Everglades

➤ Southern Estuaries

- Biscayne Bay
- Florida Bay

LAKE OKEECHOBEE



- ✓ Phytoplankton ratios have changed since 2003 in a way which would have been anticipated to occur only after restoration suggesting they may be a poor tool for judging restoration success.
- ✓ Bottom dwelling macroinvertebrates have shown a clear trend towards more pollution tolerant species in the last decade in response to deteriorating water quality and may prove to be sensitive indicators of lake health.
- ✓ Hurricane effects have resulted in persistent and unanticipated changes to the SAV community



NORTHERN ESTUARIES

- ✓ Key fish spawning locations in the SLE have been identified. Hydroacoustic monitoring is an easy, cost effective way of monitoring fish spawning
- ✓ New data shows that seasonality of oyster spawning on both coasts is more similar than previously thought. This may help refine salinity flow targets.
- ✓ Natural events such as hurricanes overshadow environmental changes due to human activities. Suggests need to extend baseline sampling data sets.

GREATER EVERGLADES



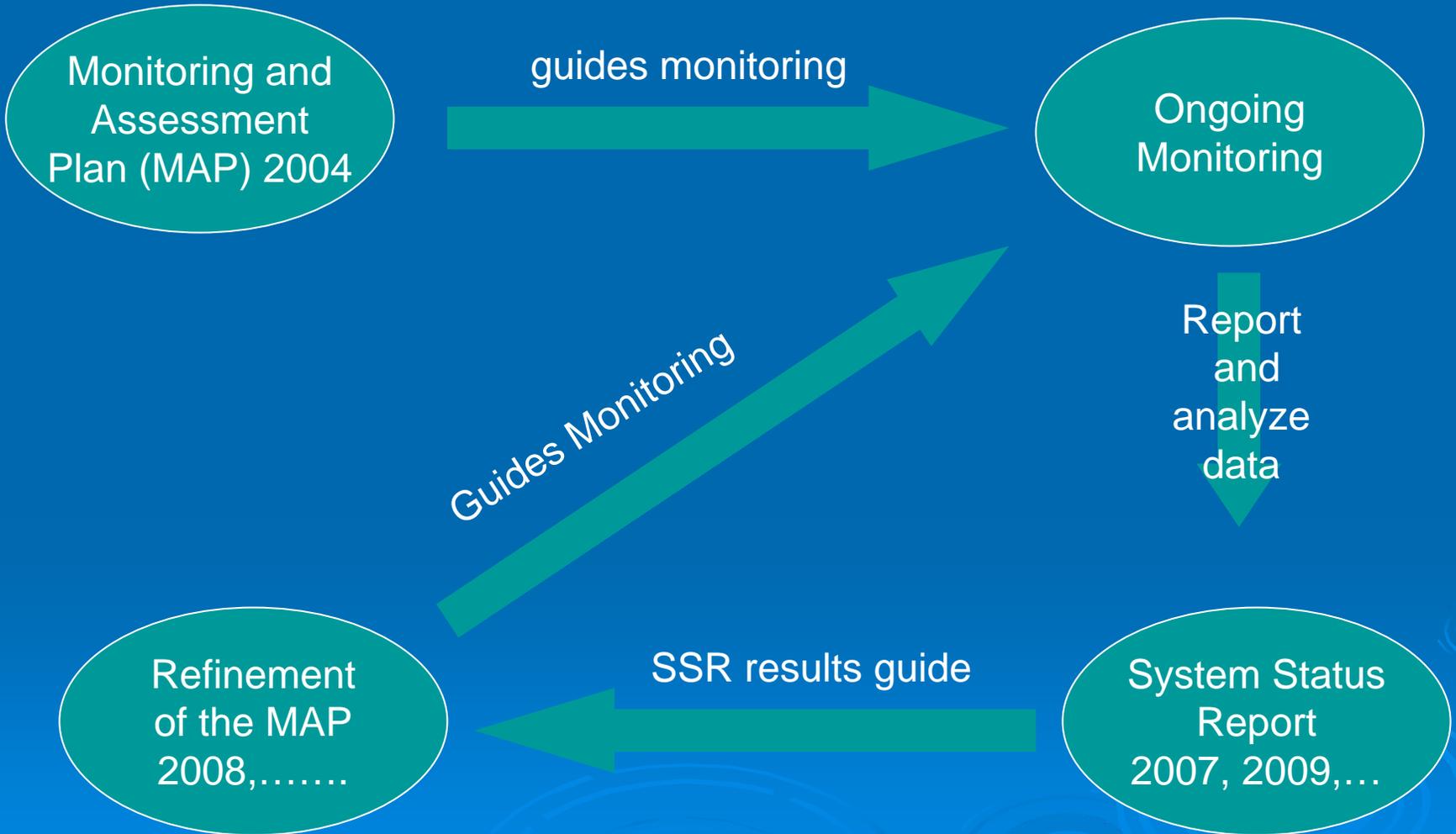
- ✓ Periphyton Phosphorus may be a better indicator of nutrient loading than water column Phosphorus in the Everglades
- ✓ An increase in crocodile nests has followed salinity reductions resulting from plugging East Cape & Buttonwood canals
- ✓ Previously unknown relationships between hydroperiod, prey species and wading bird nesting success are being uncovered



Southern Estuaries

- ✓ Monitoring indicates that small changes in water column P (1ppb>10ppb) can trigger phytoplankton blooms.
- ✓ SSR reflects progress in quantifying relationship between species of economic importance and salinity regime.
- ✓ Analysis of in place monitoring programs shows excellent temporal and spatial integration of all components.

Monitoring Refinement Process



Questions?

