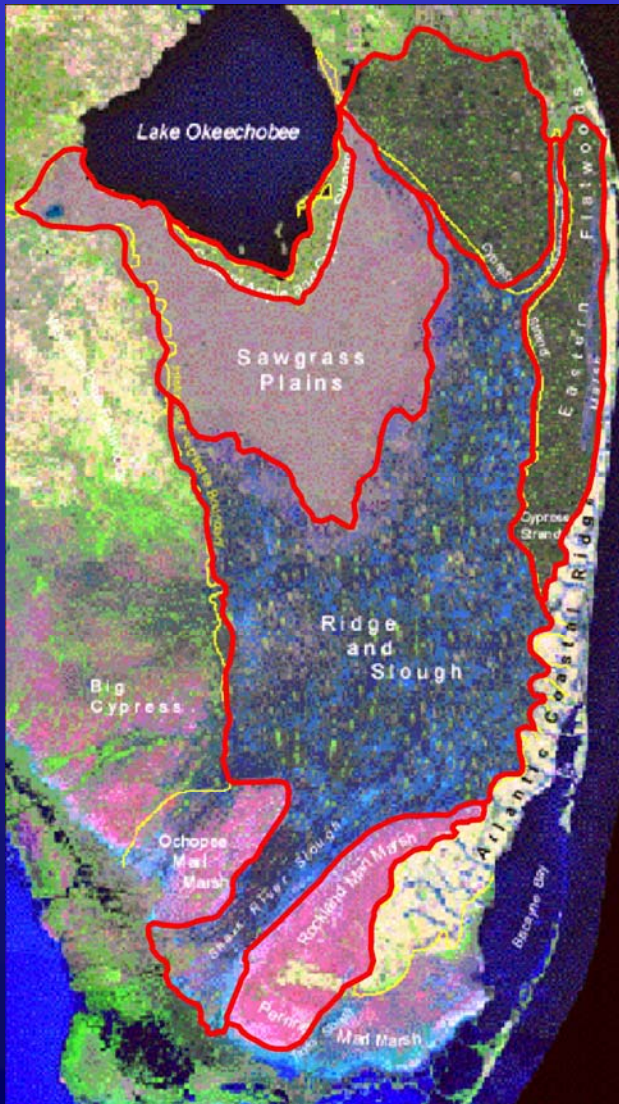


# *Perspectives on the River of Grass Initiative*



U.S. Department of Interior  
August, 2009

# DOI Vision for Restoration



To recover, given modern constraints, a natural system that retains the defining characteristics of the historic River of Grass:

- Ecological functioning,
- Hydrological connectivity,
- Spatial and temporal patterns,
- Diversity and abundance of species.

# ***DOI Restoration Objectives***

- Increase total annual and peak flow volumes from Lake Okeechobee through the Water Conservation Areas and ENP into Florida and Biscayne Bay.
- Improve the distribution and timing of flows to better reflect natural rainfall variability and historical hydro-periods.
- Improve flow continuity and marsh connectivity by degrading or removing all non-essential barriers to sheetflow.
- Improve water quality for existing and future flows in the greater Everglades.
- Reduce damaging discharges to the northern estuaries and the periods of prolonged extreme high or low water depths in Lake Okeechobee.

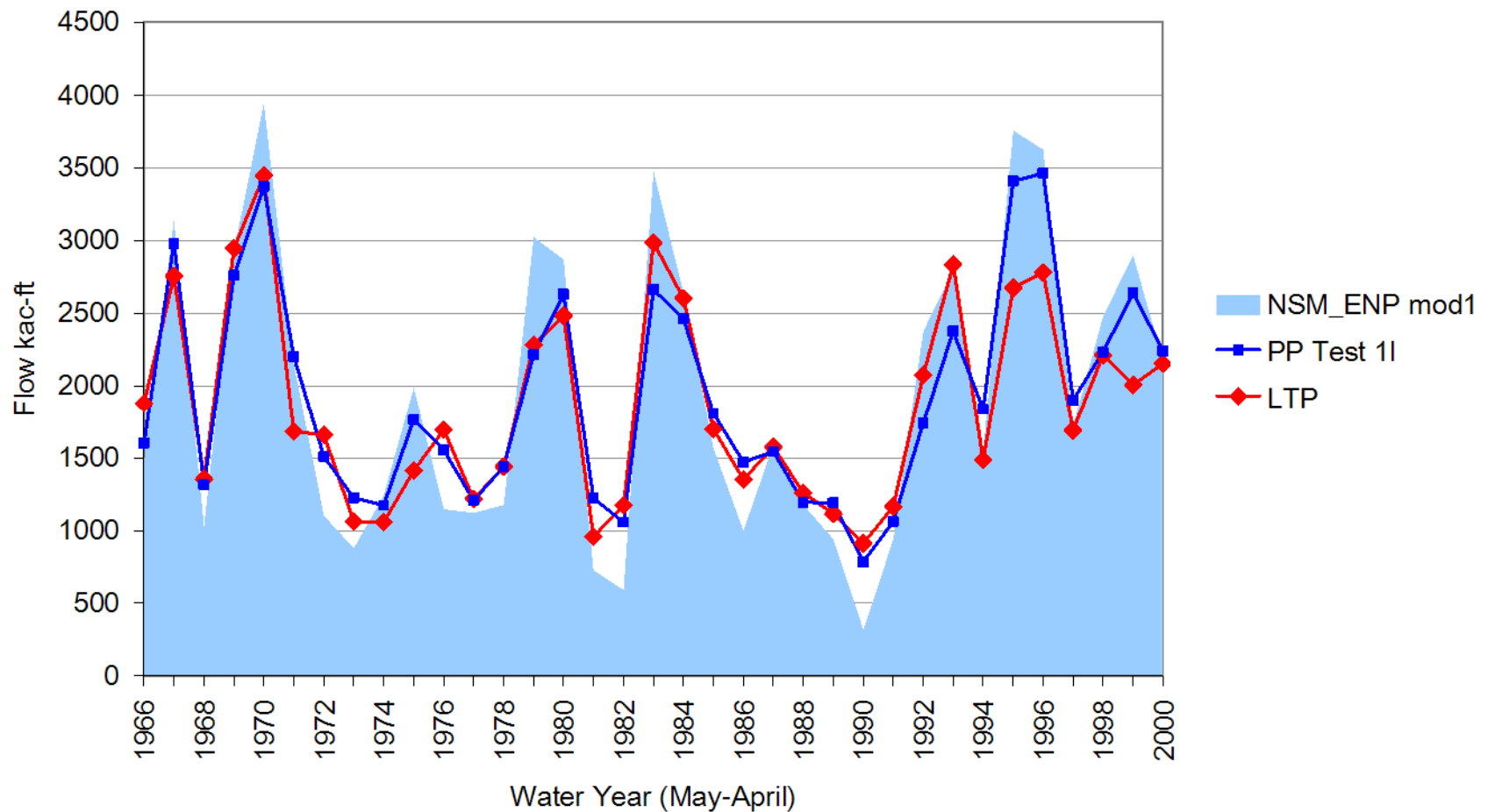
# *Overall ROG Observations*

- Encouraged by the open and inclusive process used to define the objectives, present technical information, and develop and compare options.
- The tools such as RESOPS have been instrumental in our ability to compare options, and direct the next steps of more detailed analyses.
- The early results of the various options provide clear support for land acquisition in the EAA, to enhance regional water storage and water quality treatment.
- A holistic approach of improving water storage and treatment can increase flows of clean water to the central/southern Everglades, while dramatically improving conditions in Lake Okeechobee and reducing damaging discharges to the northern estuaries.

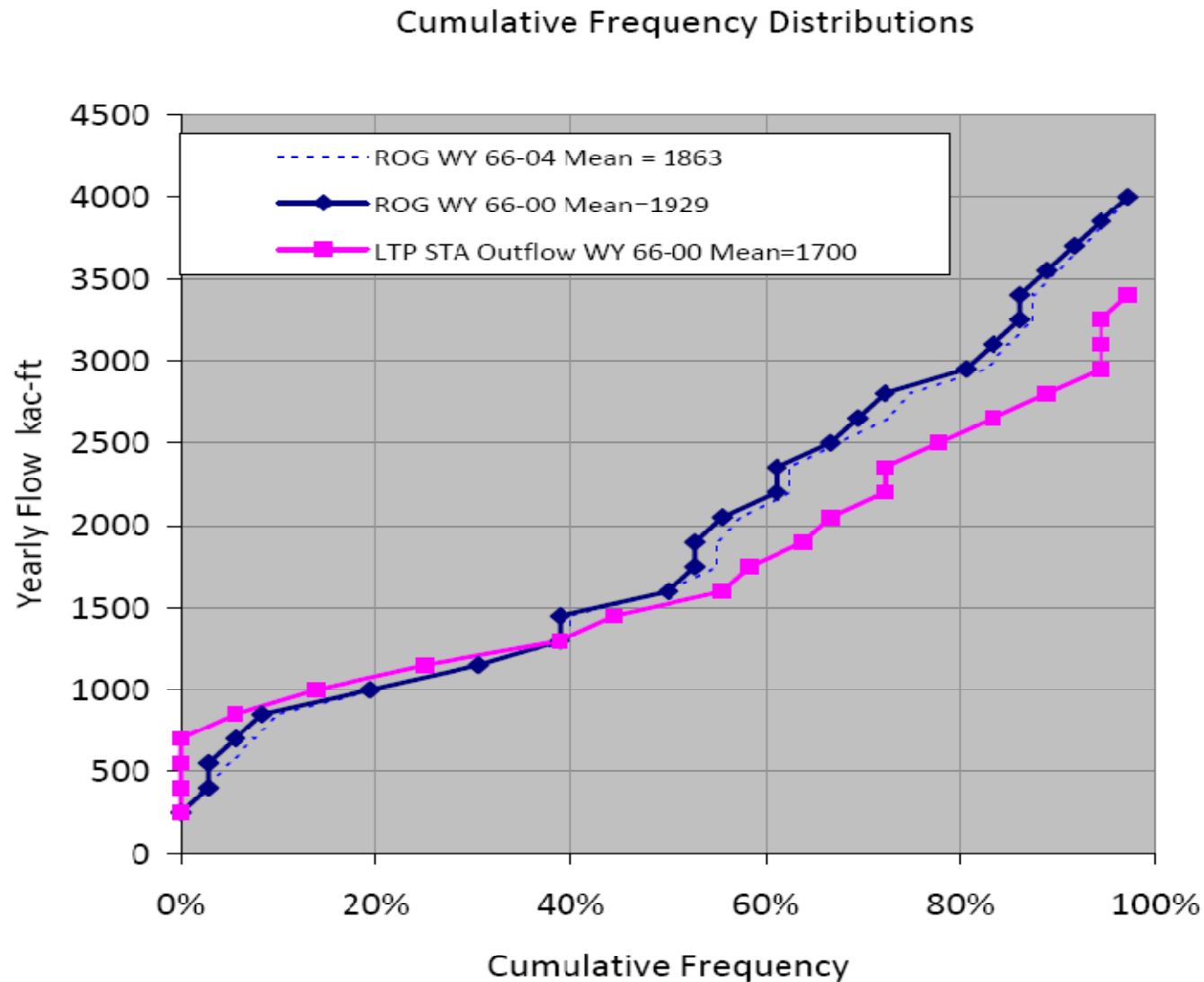
# DOI Specific Comments

- DOI is seeking approximately 1.9 million acre-feet of average annual flows entering the Everglades Protection Area from the north.
- We are seeking upstream water storage of approximately 1.2-1.4 million acre-feet (for dry period carry-over) to provide flow continuity to the EPA, through the removal of downstream flow obstructions (Tamiami Trail road raising/bridging, and WCA 3 Decomp.).
- Our preliminary analyses suggest that the footprint of water treatment areas (STAs) will need to be doubled (from 57,000 acres in the Long Term Plan to 110,000-120,000 acres) to handle the projected ROG average annual flows, to achieve the FDEP Quality Based Effluent Limit (QBEL) = maximum annual FWM = 17 ppb Total Phosphorus (STA 3/4 permit).
- We believe that future ROG planning will need to address peak flow events (i.e. 1-in-5 events), and the impacts of capping Lake O. flows to the south.
- We support the goals of substantially reducing (as much as 90-95%) the frequency of damaging discharges to the northern estuaries.
- We support the goals of substantially reducing (90-95%) the frequency and duration of high and low water depths in Lake Okeechobee.

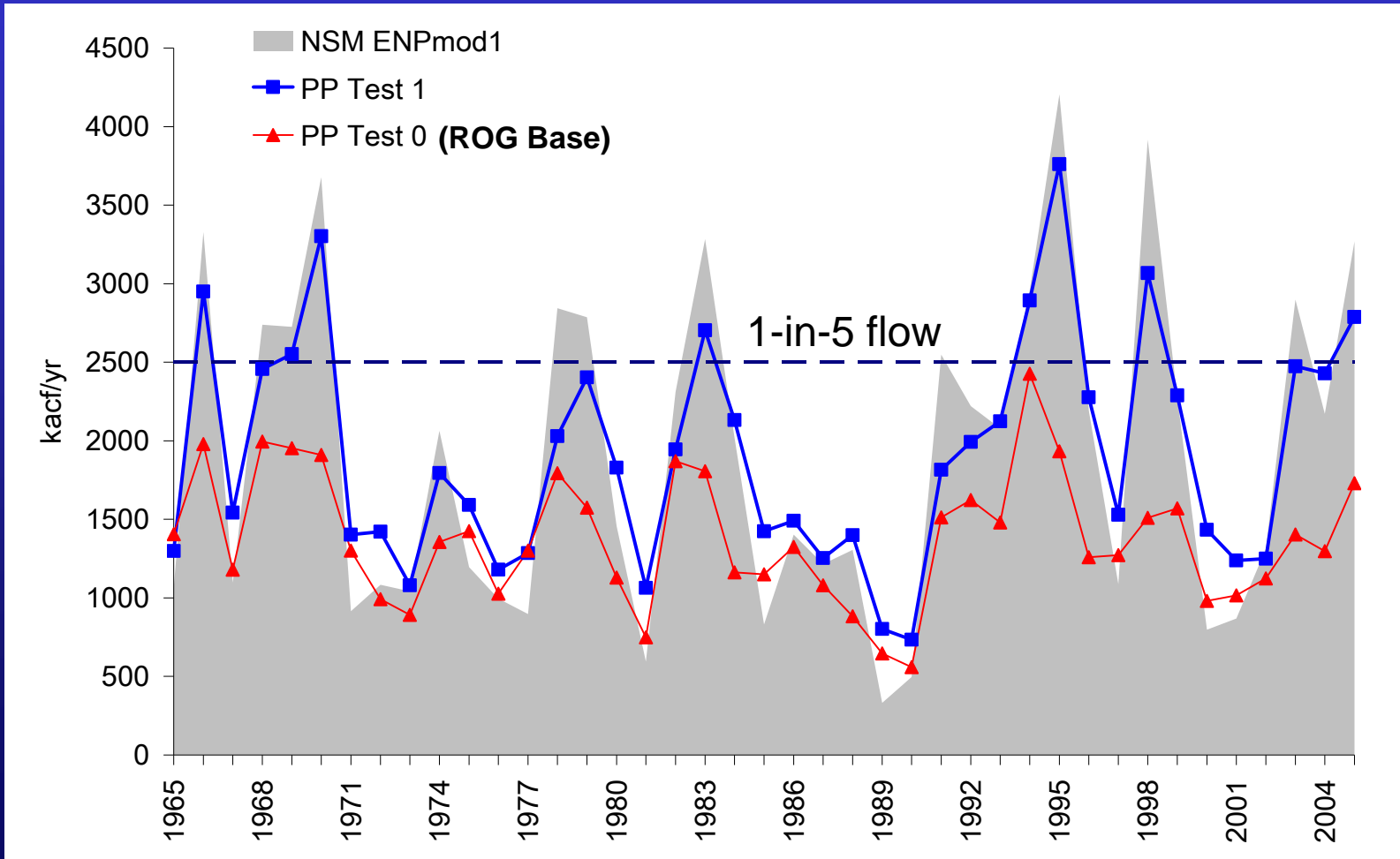
# *Annual Flows to the Everglades would be Highly Variable (Water Years 1966-2000)*



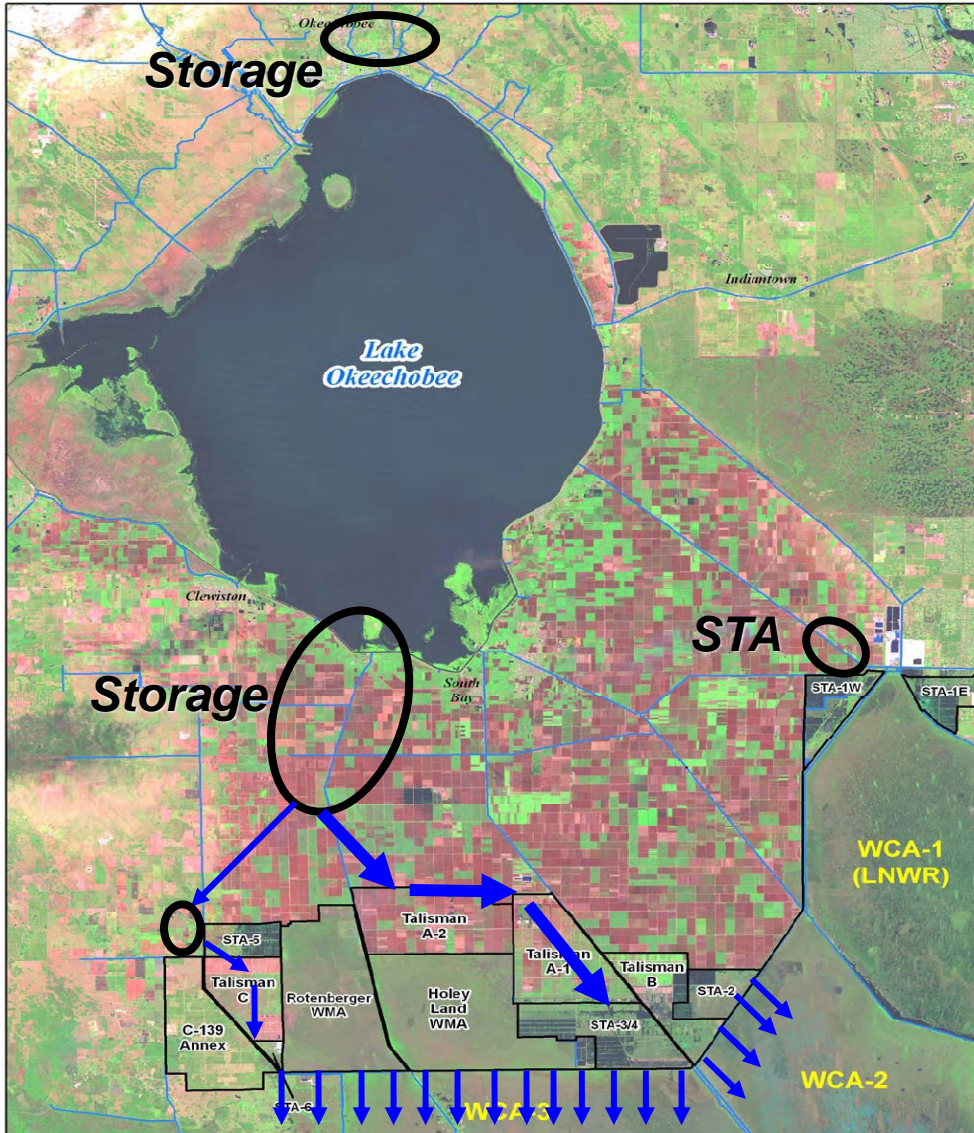
# Peak Flows vs STA Sizing



# Southward Flows from Lake Okeechobee would be Constrained by a Requirement to Treat All Runoff

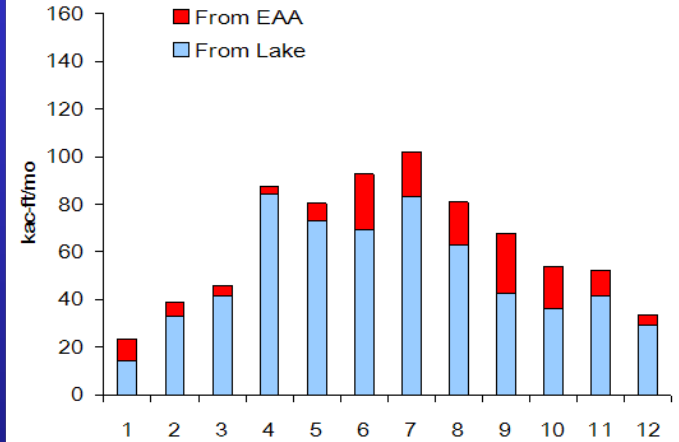


# EAA Storage and STA Footprints



## Monthly Inflow Distribution Performance Plan

Inflow to Reservoir - PP Test 1



Inflow to ROG STA - PP Test 1

