US Army Corps
of Engineers®

LORSS

Lake Okeechobee Regulation Schedule Study

Study Performance Objectives







Public Health & Safety	Lake Ecology	Waterway Navigation	Estuaries – Caloosahatchee & St. Lucie	Greater Everglades	Water Supply
Herbert Hoover Dike Structural Stability	Flora/ Fauna Threatened/ Endangered Species	Commercial/ Recreational Traffic Regional Economy	Flora/Fauna Threatened/Endangered Species Regional Economy	Flora/ Fauna Threatened/ Endangered Species	Human & Agricultural Consumption Needs of Environment

Agenda

- Background
- Revisions to Tentatively Selected Plan (TSP) for Lake Regulation Schedule
- Revisions to Draft Supplemental Environmental Impact Statement (SEIS)
- Summary
- Comments

Study Progress

2003 - 2005
High Water/ Hurricane Activity

Aug 2005
Initiated LORSS Study

Aug - Oct 2006
Released draft SEIS & TSP for Public Review

Oct 2006
Received Public Comments

Nov- Mar 2007
Revised draft SEIS and TSP

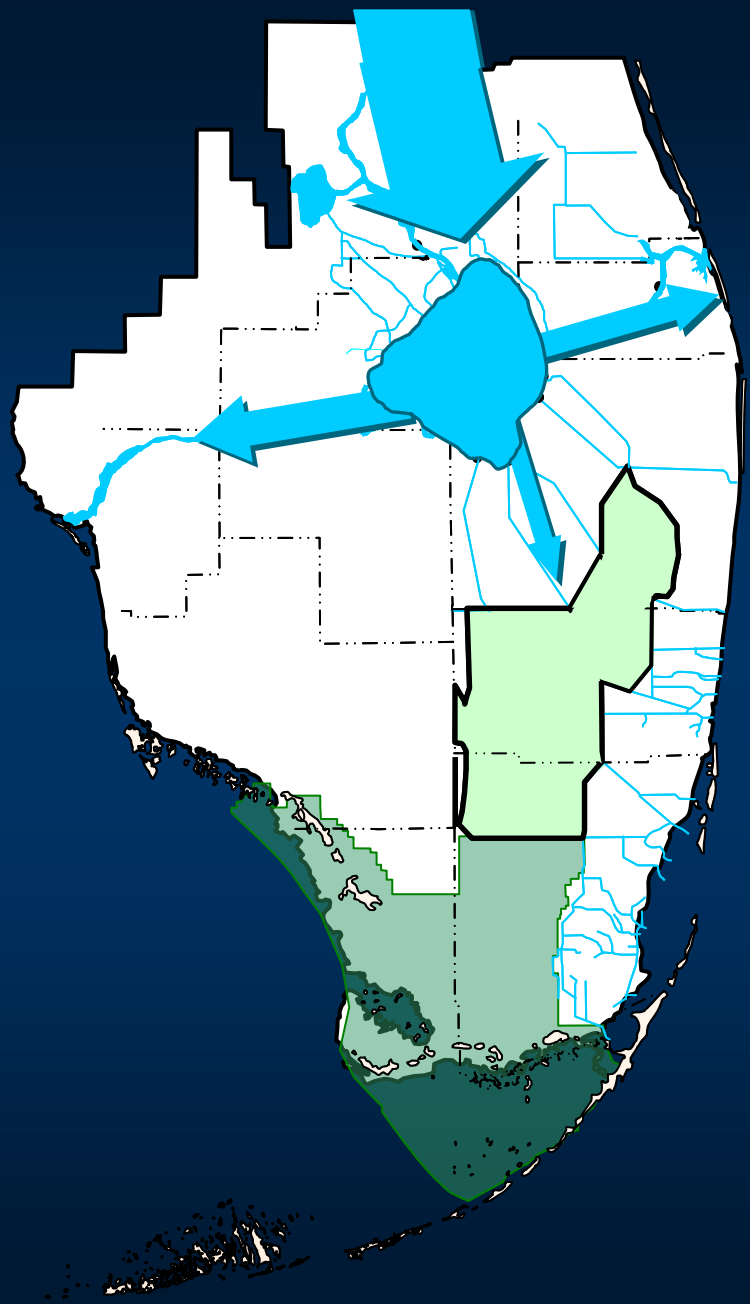
6 Jul – 20 Aug 2007
Released revise draft SEIS & TSP for 45 Day Public Review

Oct 2007
Release final SEIS & TSP for 30 Day Public Review

Nov – Dec 2007
Approve new Lake Okeechobee Regulation Schedule

Lake Management Challenges

One foot of rainfall in an already wet Okeechobee / Kissimmee basin equals about a *four-foot rise* in Lake Okeechobee. It would take about 75 days (max flow) to 230 days (preferred estuary flow) to return the lake to its original elevation.



Study Goals & Objectives

- Ensure public health and safety
- Manage Lake Okeechobee at lower lake levels
- Reduce high regulatory releases to the estuaries
- Meet Congressionally authorized project purposes

Key Study Assumptions & Constraints

- SFWMD - temporary forward pumps
- SFWMD - implement new Lake Okeechobee Water Shortage Management Plan (DRAFT)
- Herbert Hoover Dike integrity
- Existing C&SF infrastructure
- Storm Water Treatment Area (STA) 3 & 4 capacity
- Simulation period-of-record 36 years (1965 - 2000)

What We Heard

- 17.25 high lake constraint
- Consider SFWMD public / private lands for Lake water storage
- Water supply concerns
- Non-Typical Operations
- More equitable discharges to estuaries and WCA
- Release more low flows to reduce high discharges
- Concerns due to extreme high releases to Caloosahatchee Estuary
- Economic costs of high releases
- Account for wet weather cycle
- Release more water south
- Increase storm water treatment areas and storage reservoirs

What We've Done

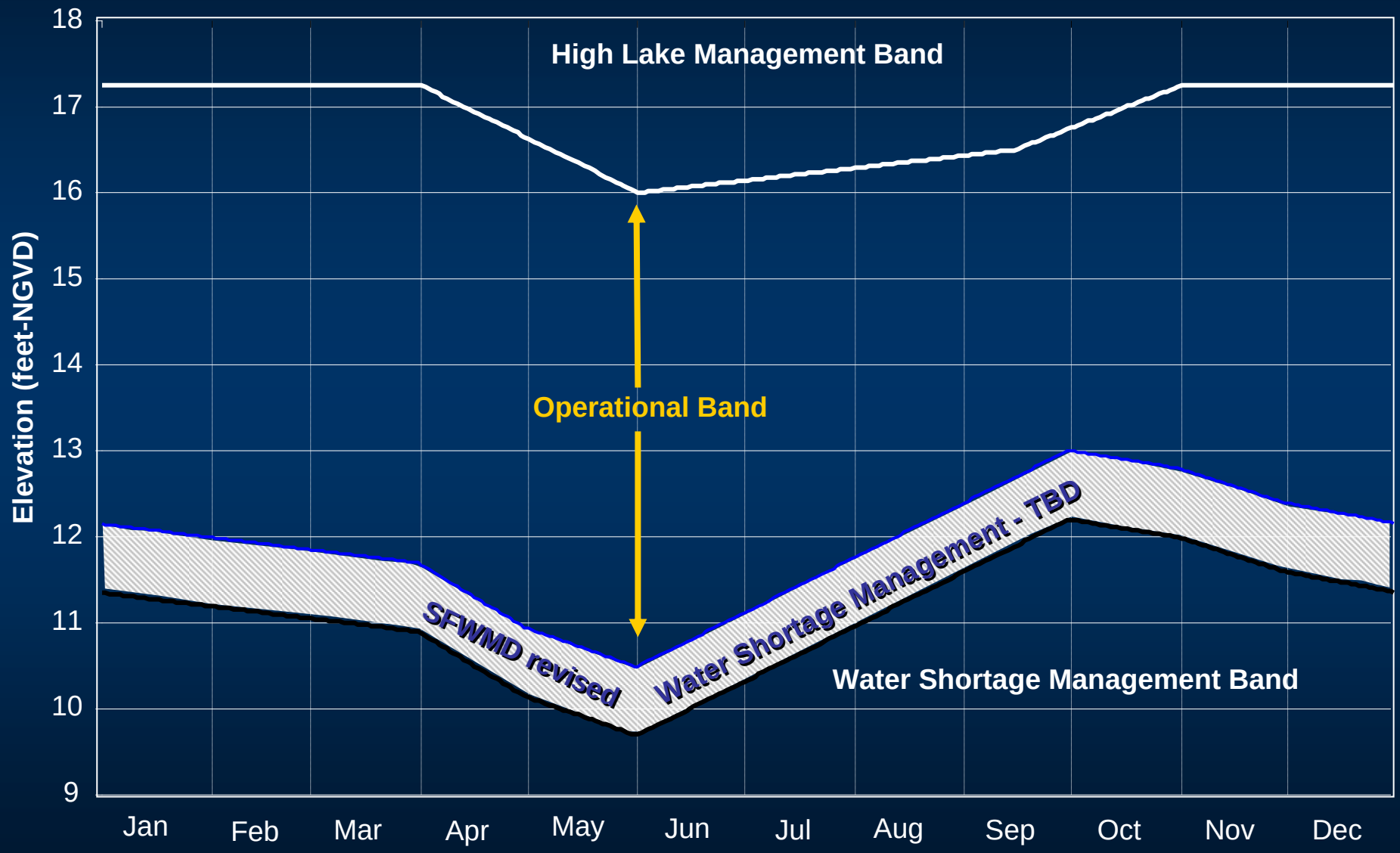
- Treats 17.25 as performance measure
- Manages the lake at lower elevations
- Allows for quicker response and operational flexibility to lake conditions and tributary inflows
- Improves preferred flow to the coastal estuaries
- Is equal to (extreme) and modestly improves (intermediate) high flow discharges to coastal estuaries
- Provides for base flow to the Caloosahatchee and St Lucie estuaries
- Measures pulse releases at S-79
- Allows for use of SFWMD lands for storage
- Expanding agency coordination on lake operations

Tentatively Selected Plan

Revised

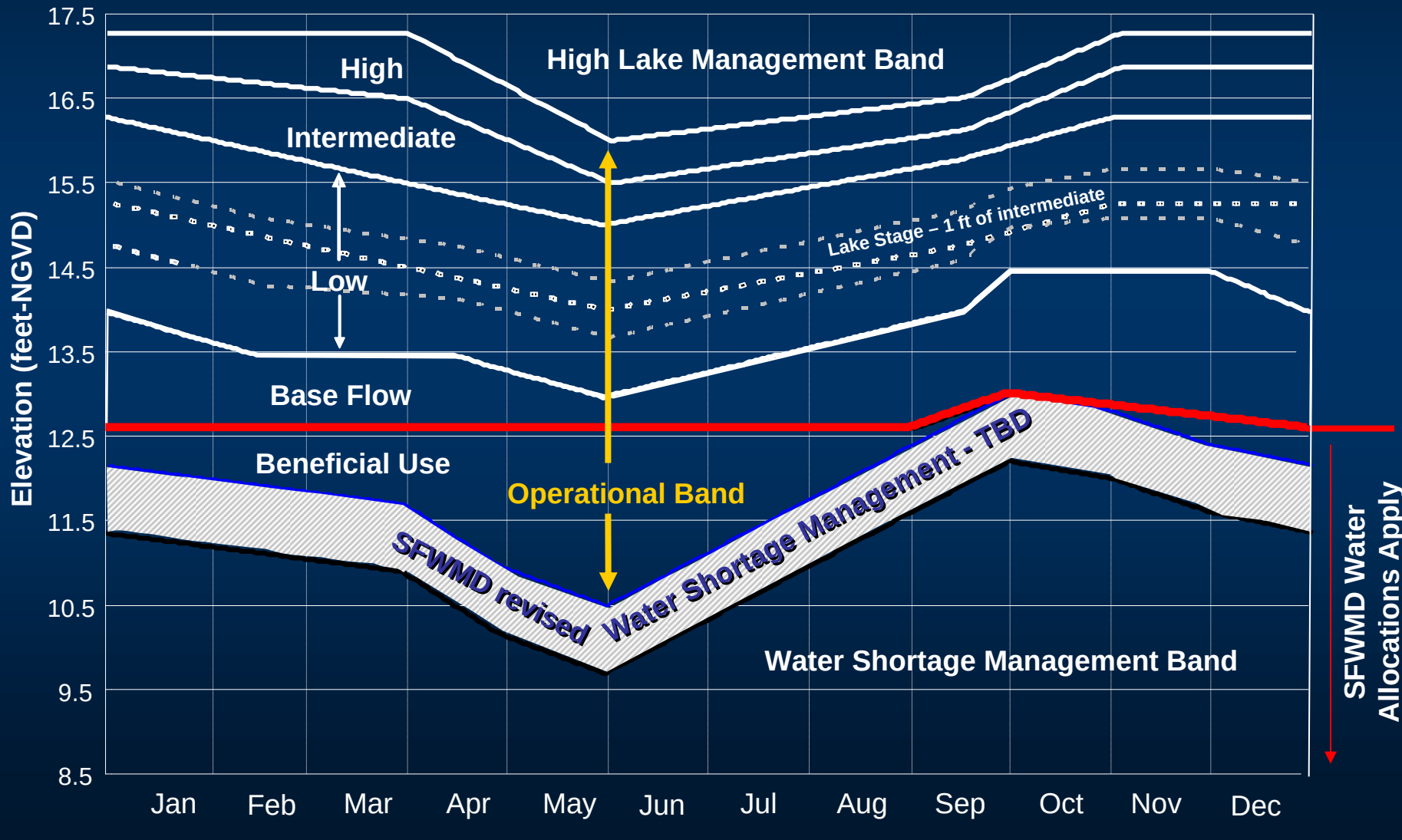
Revised TSP

Part A



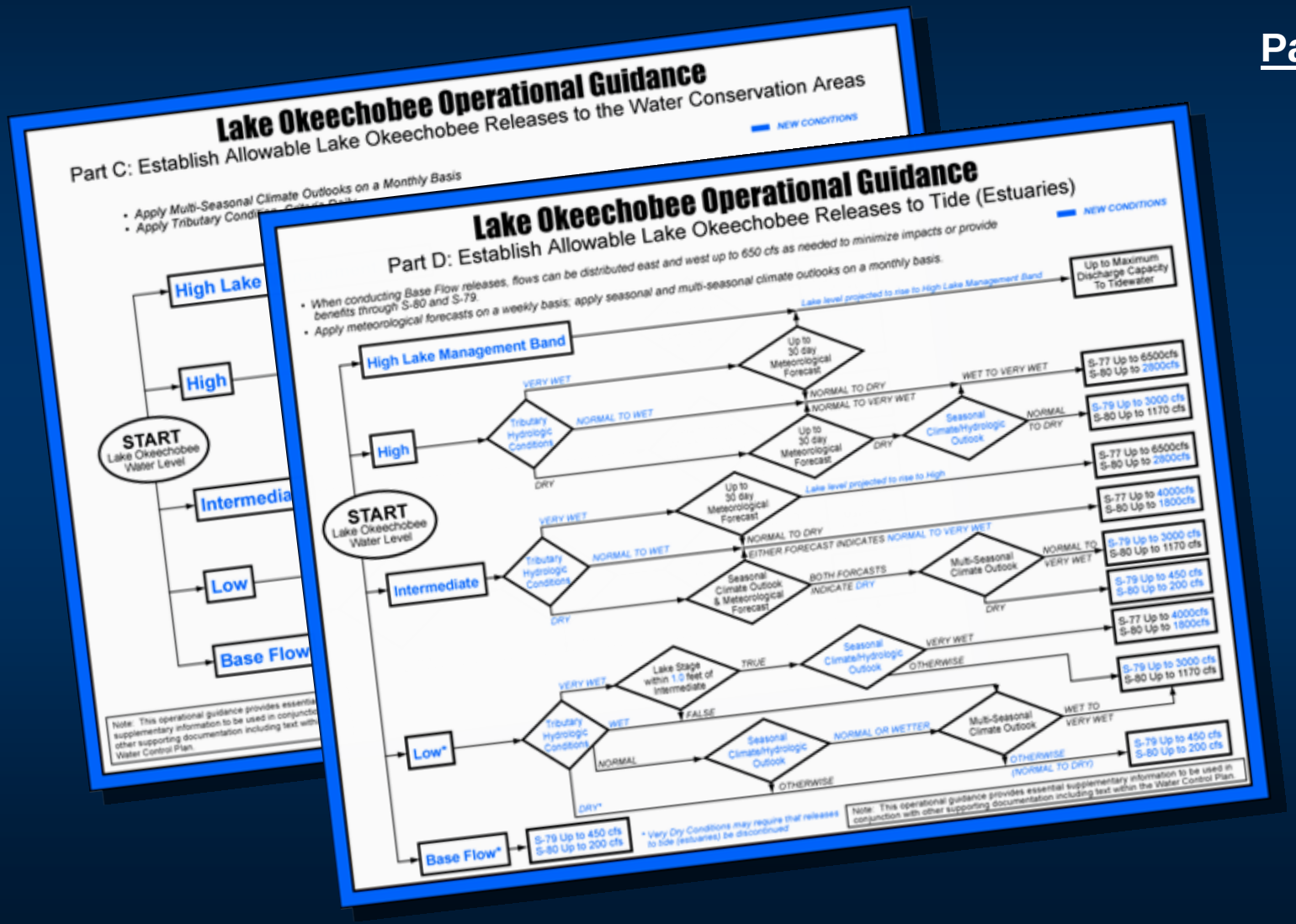
Revised TSP Regulation Schedule Management Bands

Part B



Revised TSP - Operational Guidelines

Parts C&D



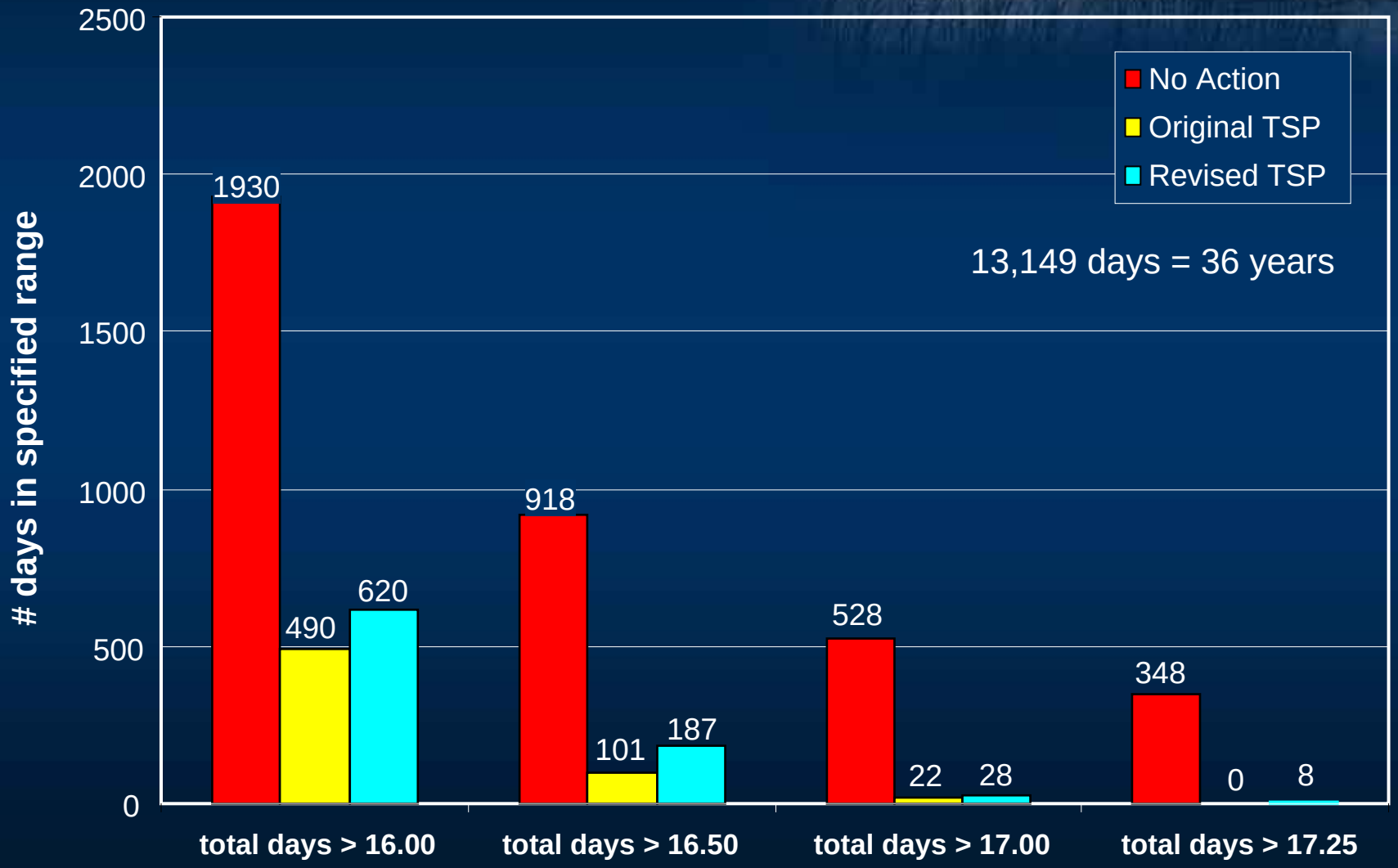
TSP Performance
Lake Okeechobee

Revised

TSP Performance

Lake Okeechobee - Public Safety

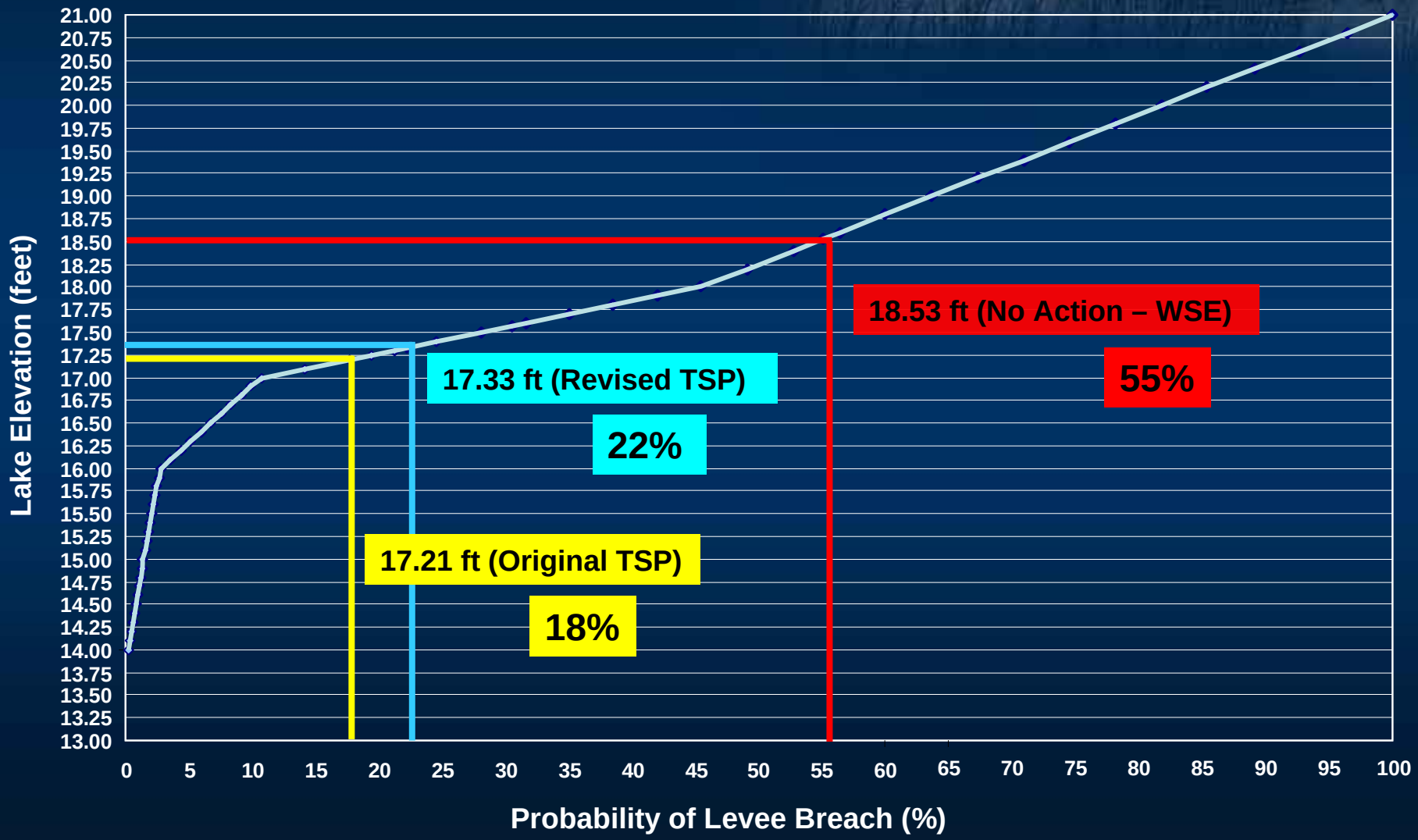
Summary of Lake High Stages (>16.00)



TSP Performance

Lake Okeechobee - Public Safety

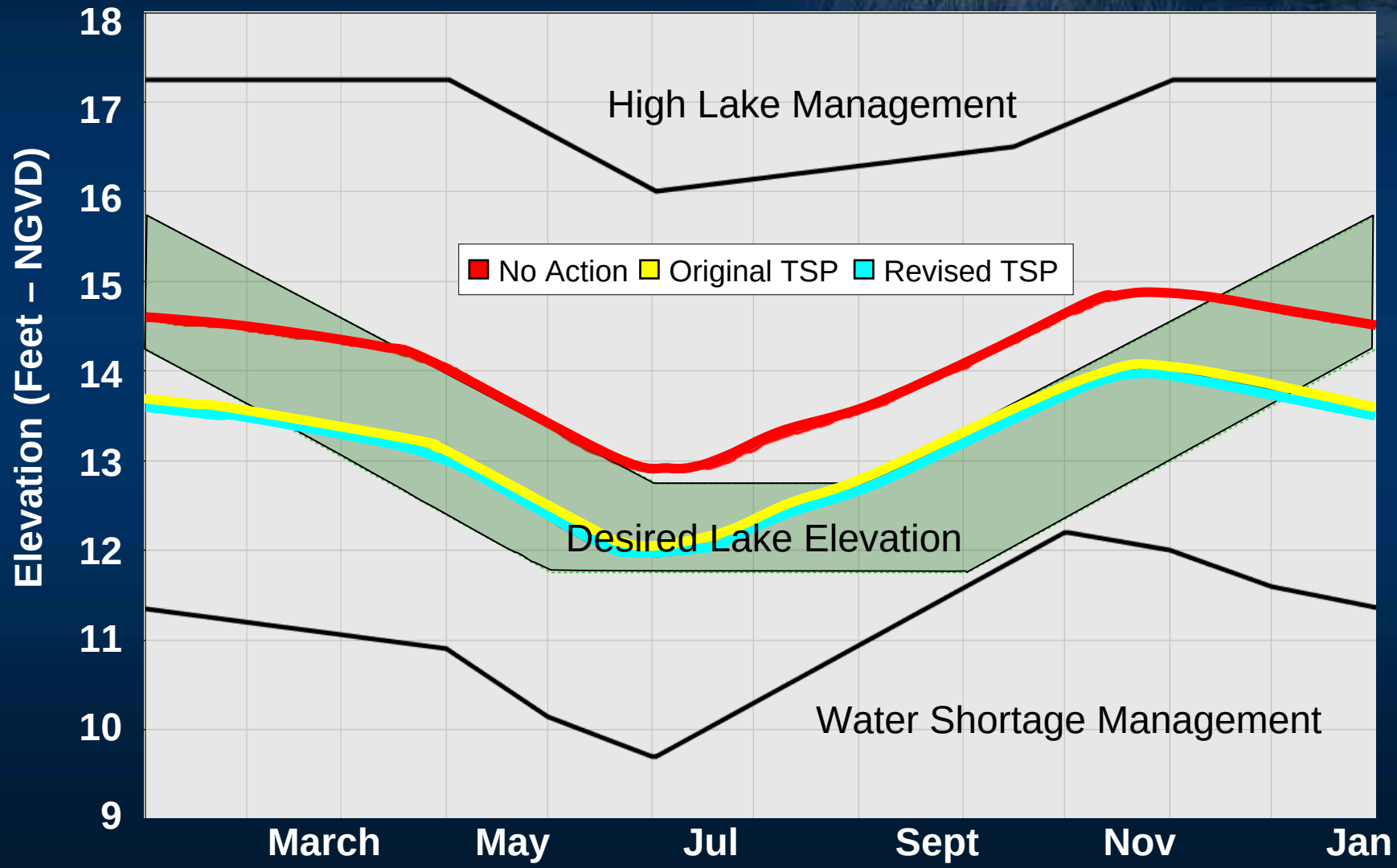
Combined probability of a levee breach at selected lake stages (without intervention)



TSP Performance

Lake Okeechobee - Ecological

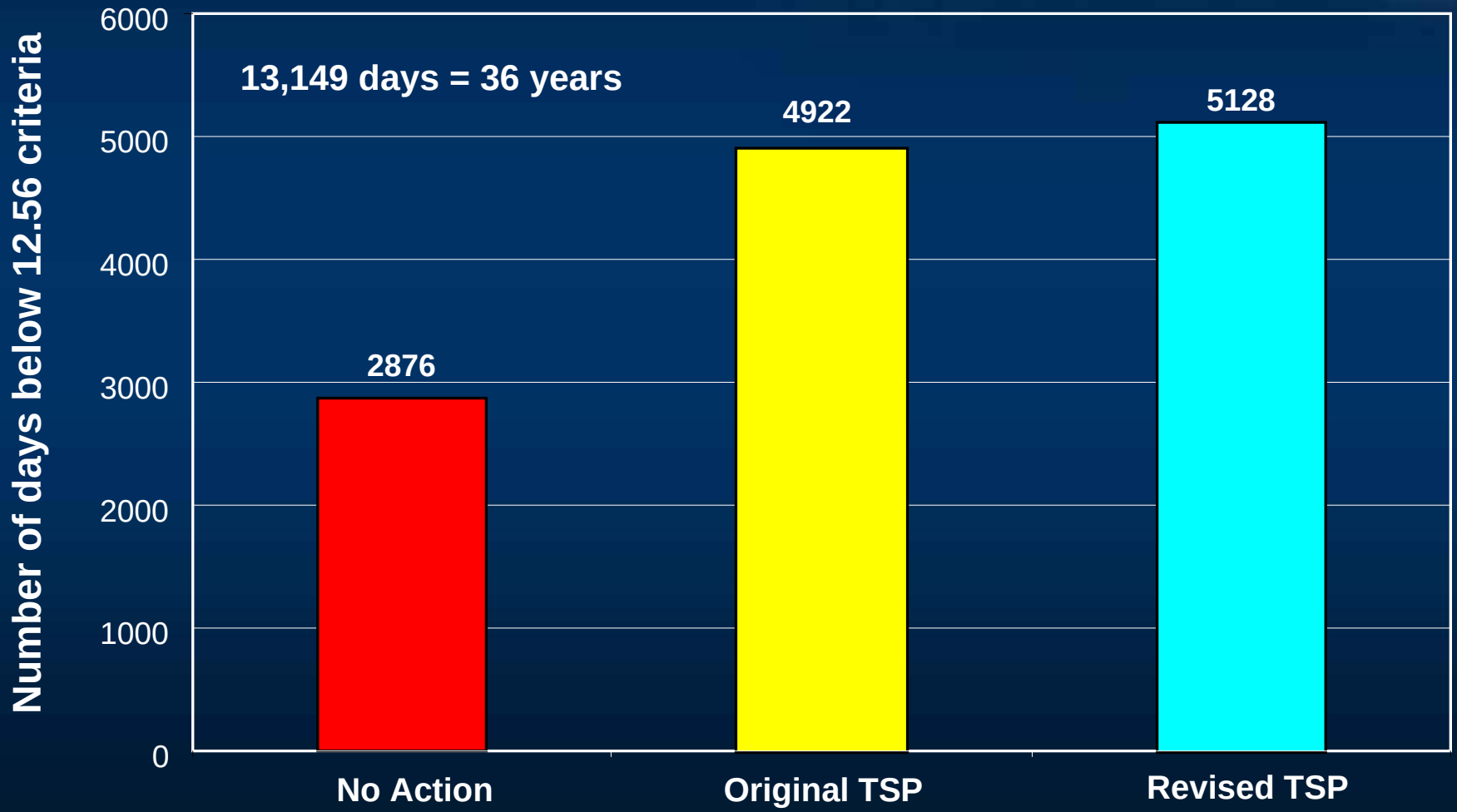
Lake Daily Average Elevation



TSP Performance

Lake Okeechobee Waterway - Navigation

Summary of Navigation Criteria, 12.56 feet



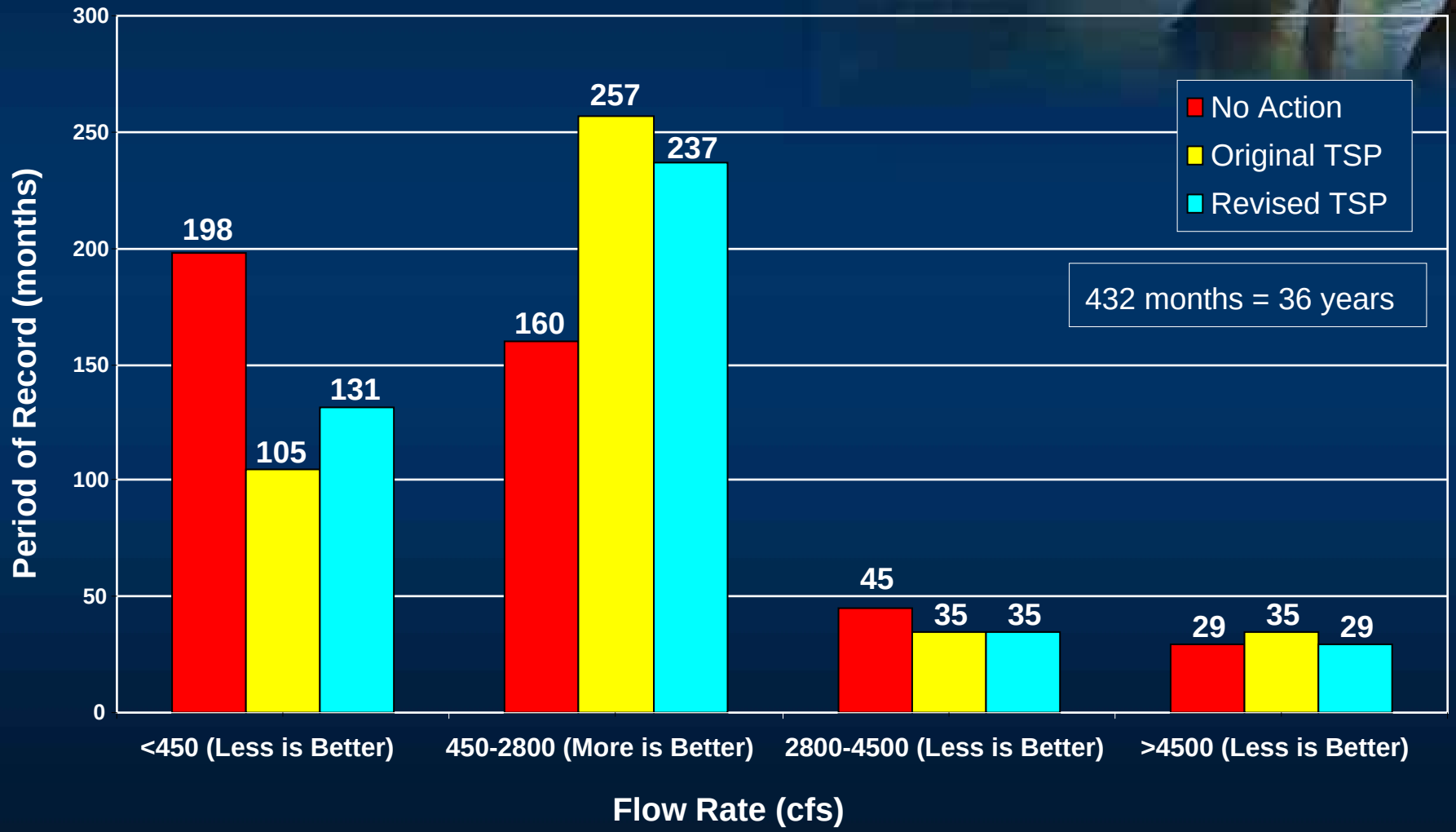
TSP Performance
Estuaries
Greater Everglades

Revised

TSP Performance

Caloosahatchee Estuary

Distribution of Mean Monthly Estuary Inflows



TSP Performance

St. Lucie Estuary

Distribution of Mean Monthly Estuary Inflows

Greater Everglades

Performance Measures: Peat-dry out, tree island inundation, recession rates, water reversals, and snail kite habitat

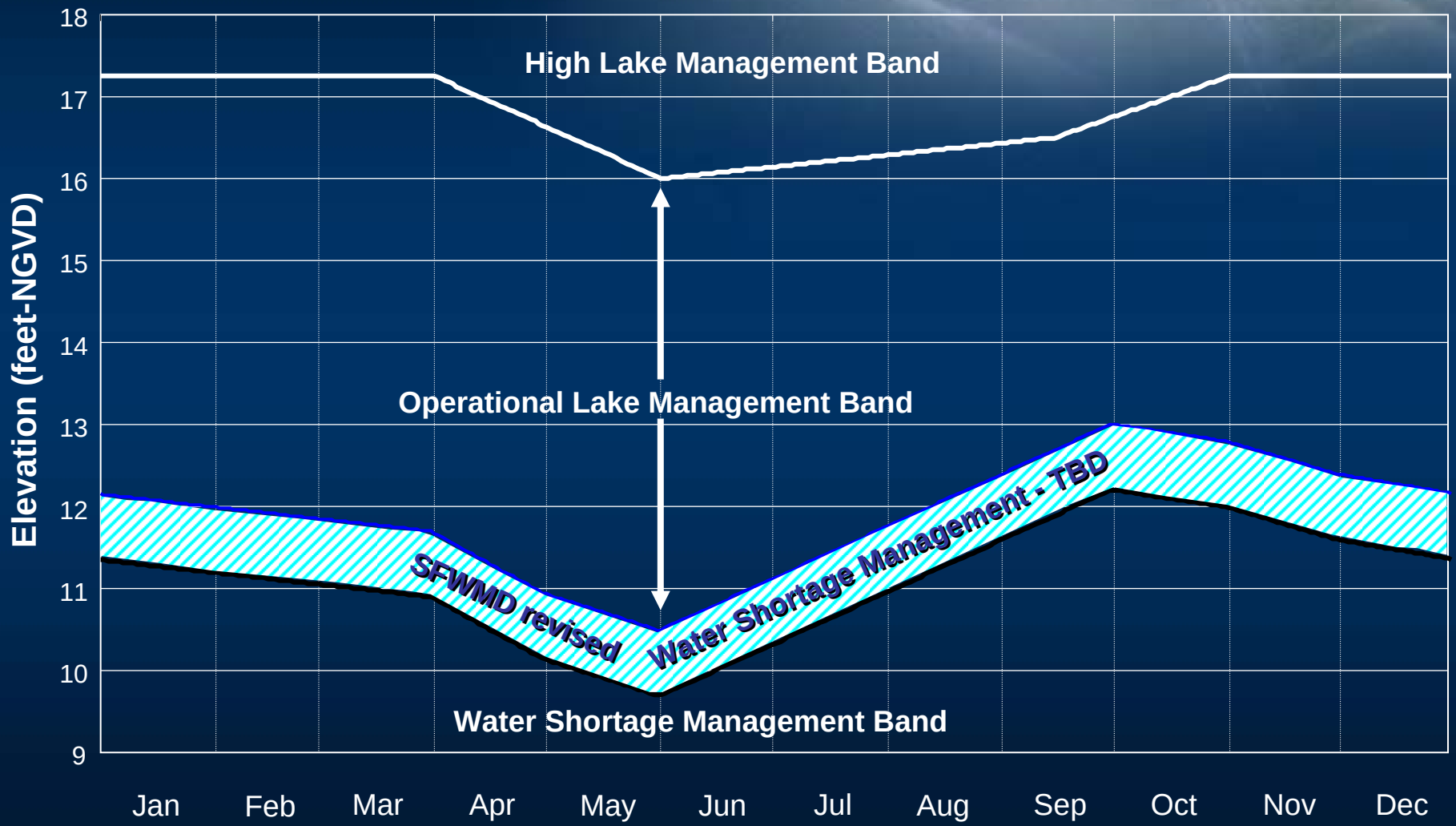
- Results show only minor differences between the alternatives analyzed
- Ecologically, none of the differences are significant

TSP Performance

Water Supply

Revised

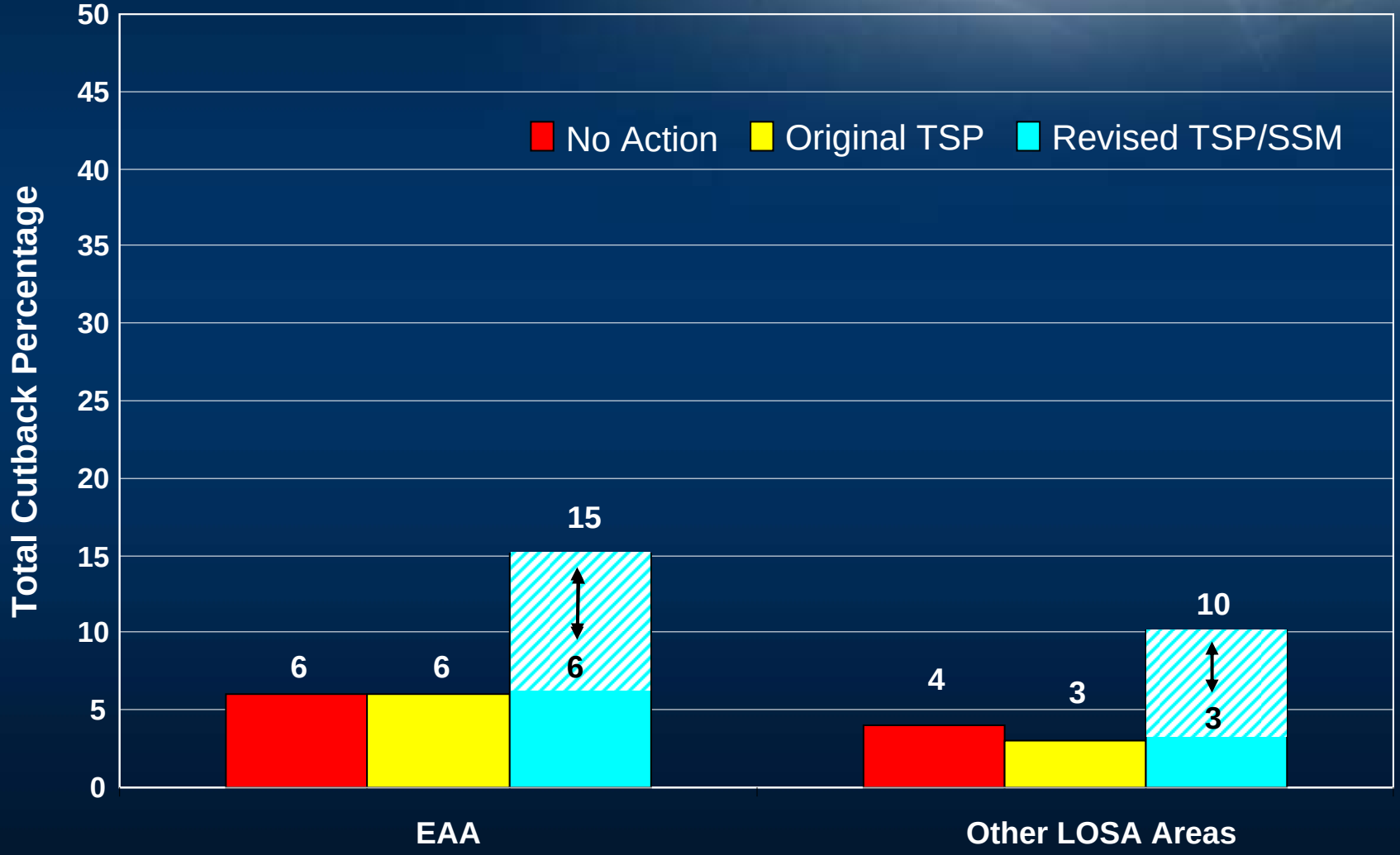
Water Supply – Revised TSP



TSP Performance

Water Supply

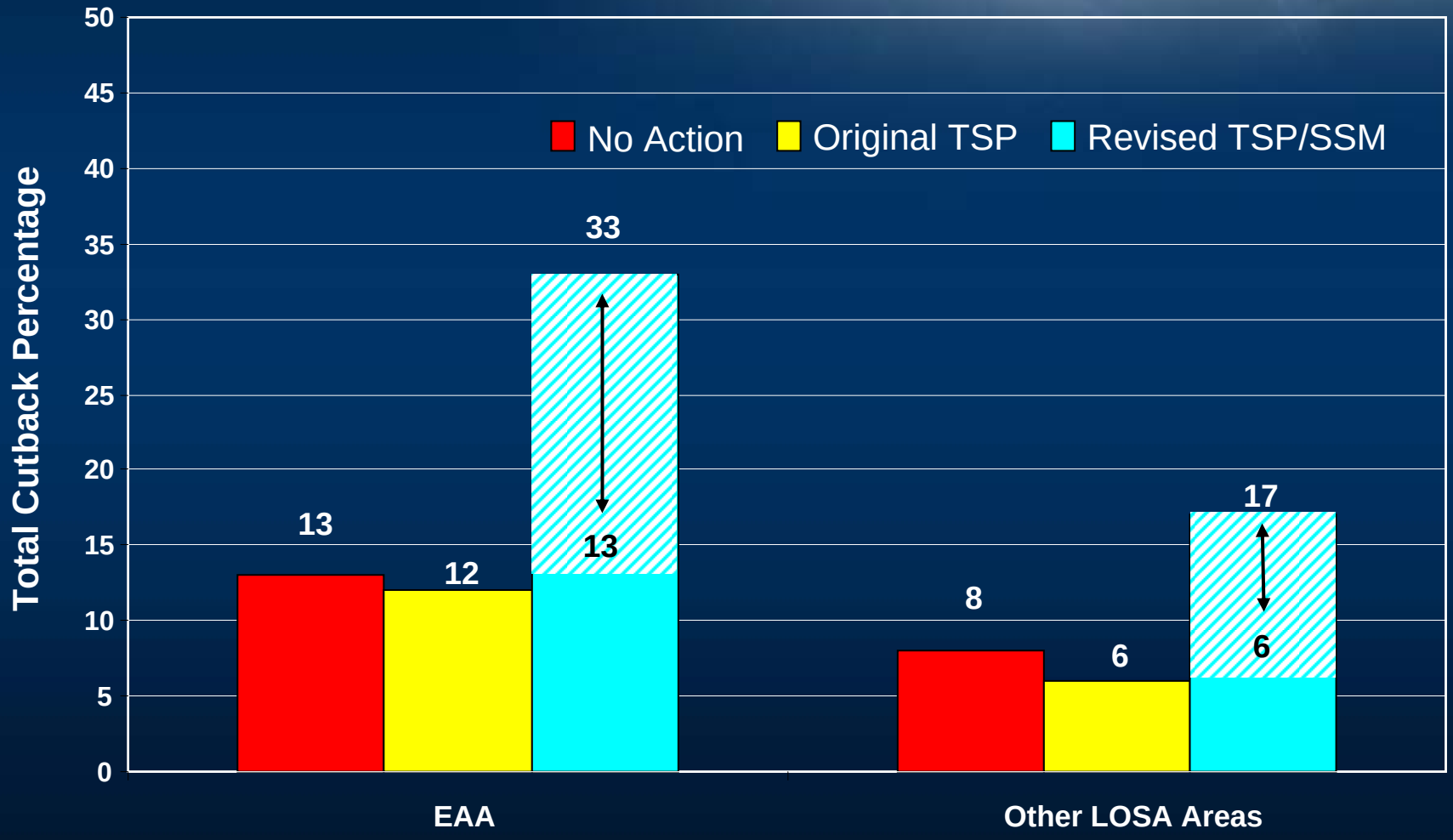
Mean Annual EAA / LOSA Supplemental Irrigation Demands not met for 1965-2000



TSP Performance

Water Supply

Mean Annual EAA / LOSA Supplemental Irrigation
Demands not met for five drought years 1971, 1975, 1981, 1985 and 1989



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Minimize High Lake Stages	Minimize Extreme Lake Stages (High & Low)	Minimize Lake Stages < 12.56 ft.	Minimize Extreme Rates of Flow	Maintain Desirable Water Depths & Hydroperiods	Meet Demand

LORSS Schedule

Task	Begin	End
Revised DSEIS in Fed Register	6 July 2007	
45 Day Public Comment Period	6 July 2007	20 Aug 2007
NEPA and WCP Public Meetings	7, 8, 13 & 14	Aug 2007
Final SEIS compiled	20 Aug 2007	20 Sept 2007
Final SEIS in Fed Register	5 Oct 2007	
30 Day Public Comment Period	5 Oct 2007	5 Nov 2007
FSEIS ROD & WCP Approval	Nov - Dec 2007	
Implement Interim Schedule	Jan 2008	

Public Comments

Jacksonville District website

www.saj.usace.army.mil

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Comments