



Reviving
THE *river* OF *grass*

Hydrologic Restoration Targets

SFER Working Group, January 28, 2009

Greg Knecht, Director, Office of Ecosystem Projects, FDEP

Kenneth G. Ammon, P.E., Deputy Executive Director, SFWMD

Hydrologic Restoration Targets



- Technical workshop held on January 14-16:
 - Hosted by Florida Department of Environmental Protection and South Florida Water Management District
 - Participants included a broad range of governmental and non-governmental Everglades scientists and hydrologists
 - Targets had not been reviewed since 1992

Hydrologic Restoration Targets

- Webcast Participation
- Total 832
 - Florida 515
 - District of Columbia 104
 - Mississippi 71
 - Maryland 53
 - Louisiana 43
 - North Carolina 17
 - Washington 9
 - Georgia 8
 - Virginia 5
 - Colorado 4
 - Other US States 3

Hydrologic Restoration Targets



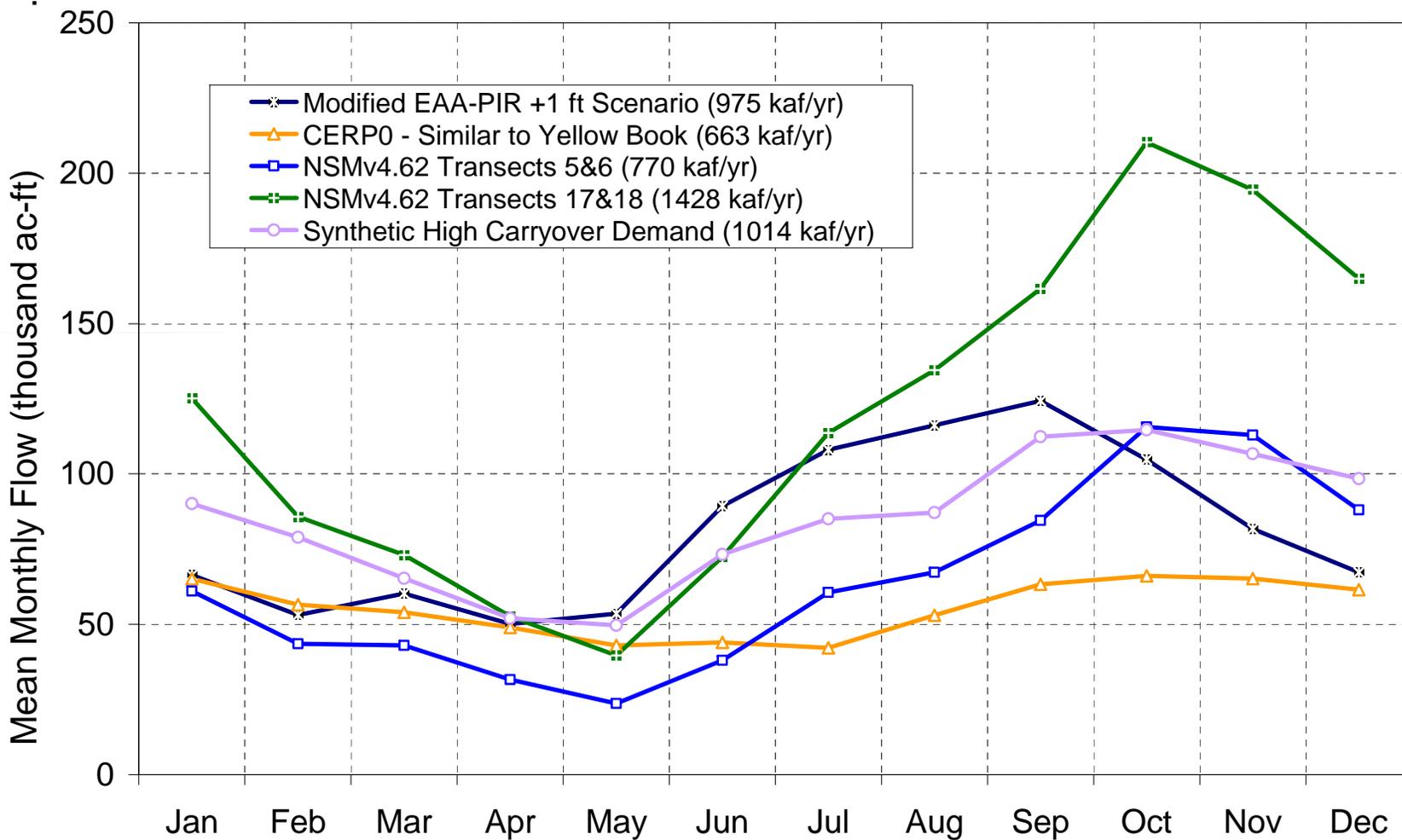
- Purpose of workshop:
 - Establish hydrologic target range for restoration of the Everglades and Florida Bay
 - Review latest science associated with hydrologic stage and flow targets
 - Present hydrologic and ecological data that support restoration of the greater Everglades system
 - Provide input to the State and District to determine policy opinion/position on restoration volumes for use in the River of Grass planning process

Hydrologic Restoration Targets

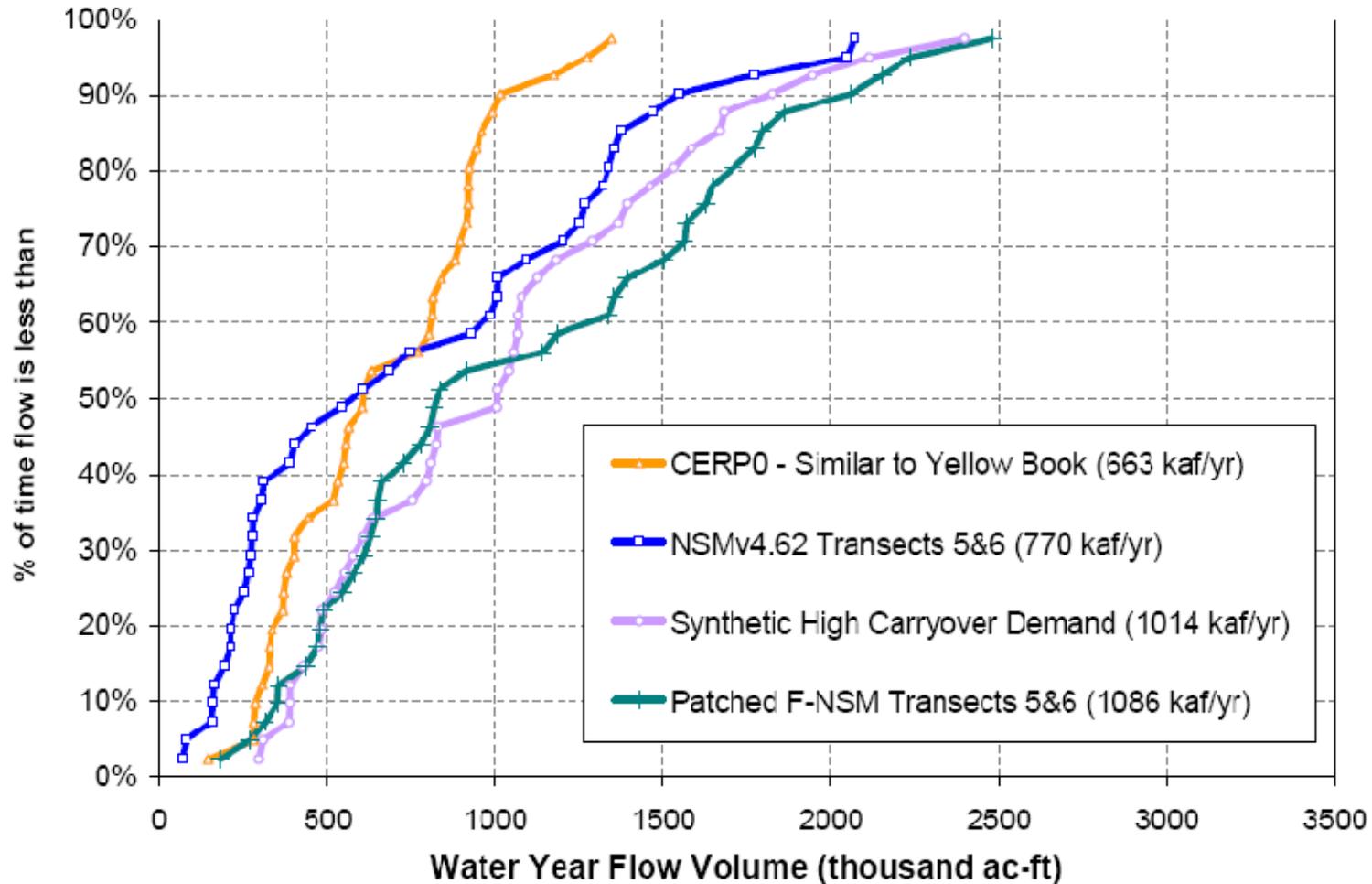


- Discussion items:
 - Constraints “tabled”
 - Discussion of planning tool – Reservoir Sizing and Operations Screening (RESOPS) model
 - Presentations by workshop participants on possible approaches
 - Natural Systems Model (NSM)
 - Paleo
 - Synthetic

Average Monthly Flow Distribution



Cumulative Frequency Distribution of Annual Everglades Flow



Hydrologic Restoration Targets



- SFWMD Policy Opinion Summary:
 - Will use the Fennema version of NSM as upper end of planning target range pending verification
 - Seasonal characteristics as estimated by NSM 4.6.2, especially in average and low rainfall periods, appear reasonable
 - Has been verified and peer reviewed
 - Paleo-salinity data indicates higher flows
 - Included both ground and surface water flow
 - Relationship between NSM data and paleo-salinity needs further technical review
 - Everglades water need estimate derived from this data is very high
 - Synthetic time-series approach in initial work with RESOPS appears reasonable
 - Synthetic flow volume distribution very similar to Fennema NSM in average and dry periods
 - Will help derive the storage amount that will be identified in the Phase 1 Planning Process



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**Phase I Planning Process –
Purpose and Scope**

River of Grass Phase I Planning Process



- Implement Governing Board direction
- Conduct workshops
- Hold individual meetings with stakeholders if requested

Planning Process

River of Grass Phase I Planning

- Evaluate alternative storage and treatment configurations in association with the River of Grass land acquisition
- Consider storage and treatment needs in the Northern Everglades and Everglades Agricultural Area
- Identify viable configurations
- Determine impacts and benefits of identified viable configurations, i.e. environmental, costs, economics

Planning Process

River of Grass Phase I Planning (cont.)

- Develop preliminary implementation costs of:
 - Environmental remediation
 - Planning and engineering
 - Construction, construction management and engineering during construction

Planning Process

River of Grass Phase I Planning (cont.)

- Basic planning process steps to be followed
 - Provide background information on previous work
 - Identify and discuss problems, opportunities/objectives and constraints
 - Identify and discuss alternative configurations
 - Evaluate alternative configurations
 - Present findings to WRAC, Task Force and Governing Board

River of Grass Phase I Planning Timeline and Deliverables



- WRAC Issues Workshops January through July, bi-monthly or monthly as needed
 - Kickoff workshop held January 22, in Clewiston
 - Next workshop February 3, SFWMD auditorium
- Updates to WRAC
- Updates monthly to Governing Board
 - Initial draft alternatives scheduled for June completion
 - Final draft alternatives presented to August Governing Board to support decision making
 - More detailed future planning phases will continue after August Governing Board



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Website:
www.sfwmd.gov
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Restoration Project Planning