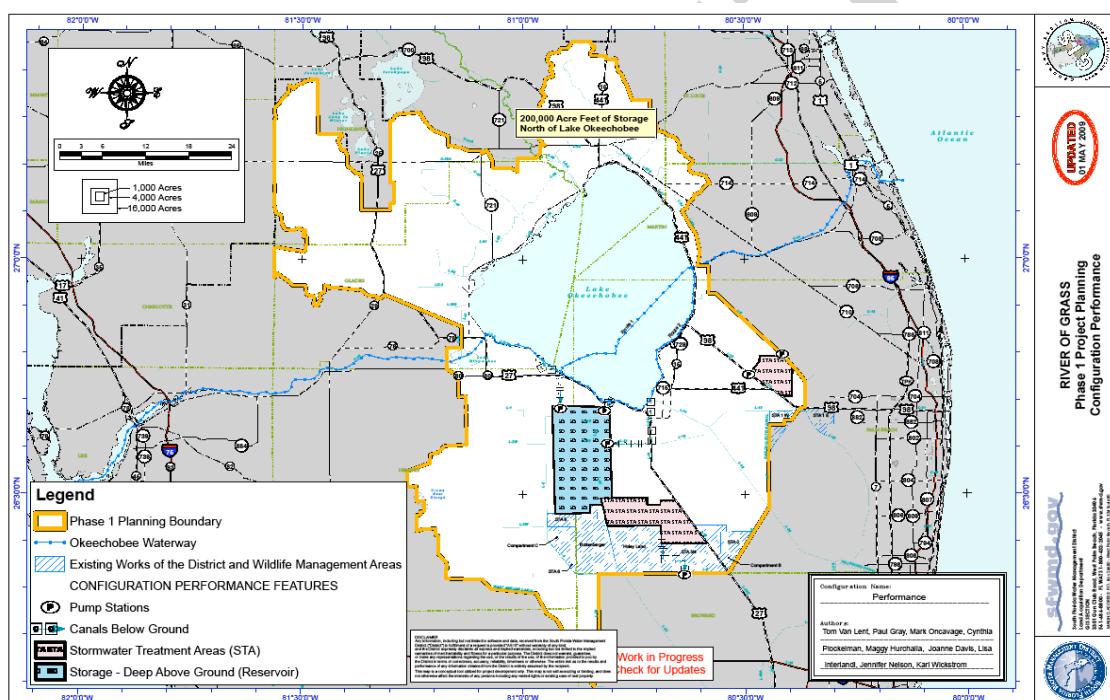


## Performance (P)

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*The purpose of this configuration is to optimize the benefits to the ecosystem. The total storage amount of 1,400,000 acre-feet was identified to meet these performance targets, with 200,000 acre-feet north of Lake Okeechobee, and 1,200,000 acre-feet south of Lake Okeechobee. An additional 32,000 acres of stormwater treatment areas (STAs) are proposed south of Lake Okeechobee to address maximum deliveries. In addition, the team proposed implementation of dispersed storage/treatment north of the Lake, but did not specify the amount of acreage. Upon further refinement, additional STA treatment was proposed to address water quality for Water Conservation Area-1 (WCA-1).*



### Major Components:

- North Deep Storage - 200,000 acre-feet
- South Deep Storage - 1,200,000 acre-feet
- South Stormwater Treatment Area - 32,000 net acres of treatment area
- East Stormwater Treatment Area - 14,000 net acres of treatment area

**General Description of How Water Flows Through System/Operational Intent:** Deep storage north of Lake Okeechobee is operated to store Lake Okeechobee watershed flows until this water is needed by the Lake or the Everglades. Additional STA acreage is provided in the S-5A Basin to treat water before entering WCA-1. Water is pumped from Lake Okeechobee and the Everglades Agricultural Area (EAA) into a deep storage reservoir which then gravity flows into an STA located on the Talisman lands before discharging through a pump station to the Everglades.

**Total Acreage Identified:**

- 15,000 acres north of Lake Okeechobee
- 113,400 acres south of Lake Okeechobee
- 16,180 acres east of Lake Okeechobee

Of the total acreage identified 39,509 acres is in public ownership and the remaining 105,071 acres would need to be acquired.

**Hydrologic Performance:** Achieved 95% (overall result of four (4) months total in Lake-triggered high discharges during the 41-year period of record) reduction in Lake-triggered high discharges to the Northern Estuaries. Received a 84% standard score for Lake Okeechobee Stage Envelope Standard Score Above. Received a 95% standard score for Everglades demand target delivered and a 95% standard score for dry season Everglades demand target delivered.

**Water Quality Performance:** This configuration requires an additional 0 to 5,000 acres of Stormwater Treatment Area depending on inflow phosphorous concentration from Lake Okeechobee.

**Environmental / Ecological Advantages or Benefits:** This configuration incorporates a deep storage feature derived to provide improved wet and dry hydrologic conditions within the Everglades protection area and Everglades National Park.

**Environmental / Ecological Impacts or Concerns:** Uncertainty of effects of reservoirs deeper than 12 feet on the ambient water quality.

**Increased Spatial Extent of Shallow Storage/Treatment (≤ 4 feet water depth):** 52,680 total acres. Results of relative landscape viability comparisons between the alternative configurations (based on maintenance of minimum depths) indicate that this configuration fell in the high range.

**Economic / Recreational Advantages or Benefits:** This configuration is intended to provide system enhancements to benefit the Everglades and estuaries.

**Economic / Recreational Impacts or Concerns:** Results of relative sugarcane production comparison between alternative configurations indicated that this configuration fell in the medium range.

**Major Infrastructure Impacts:** The configuration intended the movement of roads or railways should be limited as much as possible, and the Okeelanta sugar mill should be avoided during the siting process. Power transmission lines, railroad lines, roadways, bridges, and urban areas will be impacted and will need to be replaced. Pump stations, control structures and additional canals will need to be constructed to offset impacts to local 298 drainage districts.

**Operation and Management (O&M) Considerations (if any):** This configuration contains a substantial amount of embankment (both below and above 9 feet height) that will have to be maintained.

**Uncertainty Concerns:** Uncertainty of effects of reservoirs deeper than 12 feet on the ambient water quality.

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