Restoring the River of Grass flow will require additional Storage, Treatment, Conveyance and Operations

Operational changes in and around Lake Okeechobee

Operational changes in the EAA

Conveyance through water conservation areas (WCAs)

Operational changes in the WCAs and ENP

Storage north, east and west of Lake

Conveyance from Lake to storage

Storage south of the Lake

Treatment south of the Lake

Conveyance into Everglades National Park

Seepage management along WCAs and ENP

Storage North, East and West

- **"Storage" facilities are actually flow-through systems (dynamic)**
  - Reported volume is often static = depth times area
  - Depending on flow rate, dynamic volume could be 2-3 times static volume

- **Deep reservoirs**
  - C-44 Reservoir/STA along St. Lucie Canal
  - C-43 Reservoir along Caloosahatchee Canal
  - Corps of Engineers evaluating other options

- **Shallow reservoirs**
  - Ten Mile Creek Reservoir (526 acres) followed by STA (132 acres)
  - Originally 10-ft deep, now 5-ft deep

- **Dispersed water management (shallow)**
  - Private lands (e.g., Caulkins Water Farms along C-44)
  - Public lands (e.g., Dupuis along C-44)
  - State is increasing use of dispersed water management

- **Aquifer Storage and Recovery (ASR) wells**
  - Originally 200 wells, now perhaps 78 wells (upwards of 140 billion gallons per year)
    - Loss of 60% of storage (upwards of 220 billion gallons per year)

Conveyance South of Lake

- **Outlet structures**
  - Existing structures leading to EAA
  - New structure(s) to replace capacity of existing structures (S-308 and S-77) leading to estuaries
    - Upwards of 10 billion gallons/day
    - Would reduce risk of dike failure
- **Canals to storage facilities**
  - Existing canals – used for Lake discharges, but not when there is risk they'll be needed for EAA flood protection (e.g., rainfall forecast)
  - New canal(s) – priority will be given to Lake discharges
    - Would reduce risk of Lake dike failure
- **Connection to Western Basins**
  - Basins west of EAA need water
  - STA-5/6 needs water to prevent dryout
  - Potential to send flow to Caloosahatchee Estuary

Storage South of Lake

- **Shallow storage**
  - Existing: A-1 flow equalization basin (FEB); 4-ft deep: 20 billion gallons of storage
    - Originally was to be 12-ft deep – 62 billion gallons: **loss of storage: 42 billion gallons**
  - Proposed:
    - C-139 FEB (portion of initial US Sugar purchase; Restoration Strategies):
      - 3.5 billion gallons of storage
    - A-2 FEB (CEPP); 4-ft deep: 18 billion gallons of storage
      - Originally 12-ft deep – 55 billion gallons: **loss of storage: 37 billion gallons**
- **Deep storage**
  - Existing: L-8 FEB; east of the EAA
    - Below ground storage on 1,000 ac former rock pit
    - 15 billion gallons of storage

- **Sen. Negron's proposal**
  - 60,000 acres, average of 6 ft deep: 120 billion gallons of storage
  - Will offset loss of storage originally contemplated in CERP for EAA Reservoir ("Existing project")
  - Could be a combination of deep and shallow storage

Treatment South of Lake

- **Existing: 57,000 acres of stormwater treatment areas (STAs)**
  - Constructed wetlands that efficiently remove nutrients from basin runoff and Lake discharges, and store nutrients in new peat soil
  - Six (6) STAs located between developed lands (e.g., EAA) and Water Conservation Areas
  - STAs are necessary to reduce phosphorus levels to very stringent water quality criterion (10 parts per billion) for Everglades and Tribal lands
- **Under construction:**
  - 4,500-acre expansion of STA-1W
- **Future:**
  - New storage south of Lake will require STA(s)
  - Size will be dependent on type, size and location of new storage

Conveyance through WCAs and Everglades National Park to Florida Bay

- Modifications for additional flow under Tamiami Trail, e.g., bridges

- "Decompartmentalization"
  - remove/lower levees within WCAs
  - Will enhanced natural sheetflow

- Additional structures to remove water from WCAs, as was done during high water period of 2016

Operational Changes

- **Lake Okeechobee Operation Schedule (LORS)**
  - LORS2008 was a temporary schedule
  - Revise operation schedule based on reduced risk of dike failure
  - Revise schedule as additional storage around Lake become operational
  - One of the key aspects will be to ***send Lake water south 52 weeks each year***

- **Revise operation of Kissimmee Chain of Lakes and restored Kissimmee River**

- **Integrate operation of existing storage and treatment areas with new facilities**

- **Modify operation of WCAs and Everglades National Park to accommodate additional flow *from Lake to Florida Bay***

Summary:

- Additional Storage, Treatment and Conveyance is necessary to stop destructive Lake discharges
- Sen. Negron's plan will replace lost storage originally anticipated in the CERP EAA storage reservoir – an "existing project"
- Rivers Coalition looking forward to participating in plan development