

COMPREHENSIVE EVERGLADES RESTORATION PLAN

WESTERN EVERGLADES RESTORATION PROJECT (WERP)

SOUTH FLORIDA ECOSYSTEM RESTORATION TASK FORCE MEETING

October 19, 2022



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U.S. ARMY



US Army Corps of Engineers
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PRESENTATION PURPOSE

Consult with the Task Force on the 4 Aug 2022 Tentatively Selected Plan (TSP)

LEGEND

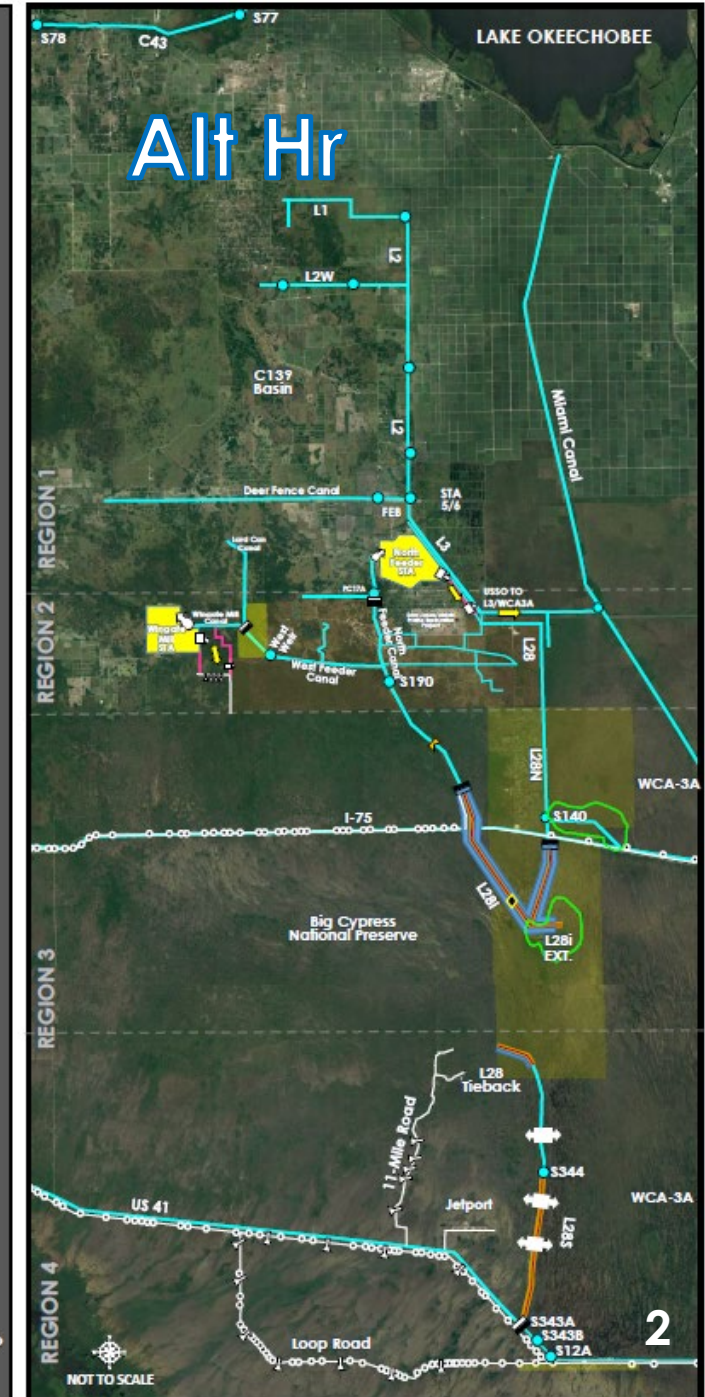
- Seminole Tribe of Florida Reservation
- Miccosukee Tribe of Indians of Florida Reservations
- Existing Culverts
- Existing Structures
- Existing Canals
- Existing Roads

Measures*

- Water Treatment
- Inline Weir
- Embankment
- Pump
- Bi-Directional Control Structure
- Gated Culvert
- Culvert
- Plug
- Plug with Levee Tie-In
- Treated Water
- Canal Backfill
- Canal Backfill/Degrade Levee
- Vegetation Restoration
- McCormack's Landing Restoration

*Features are not to scale and do not represent final placement

Last Updated: 16-May-2022



Regional Significance of WERP



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LEGEND

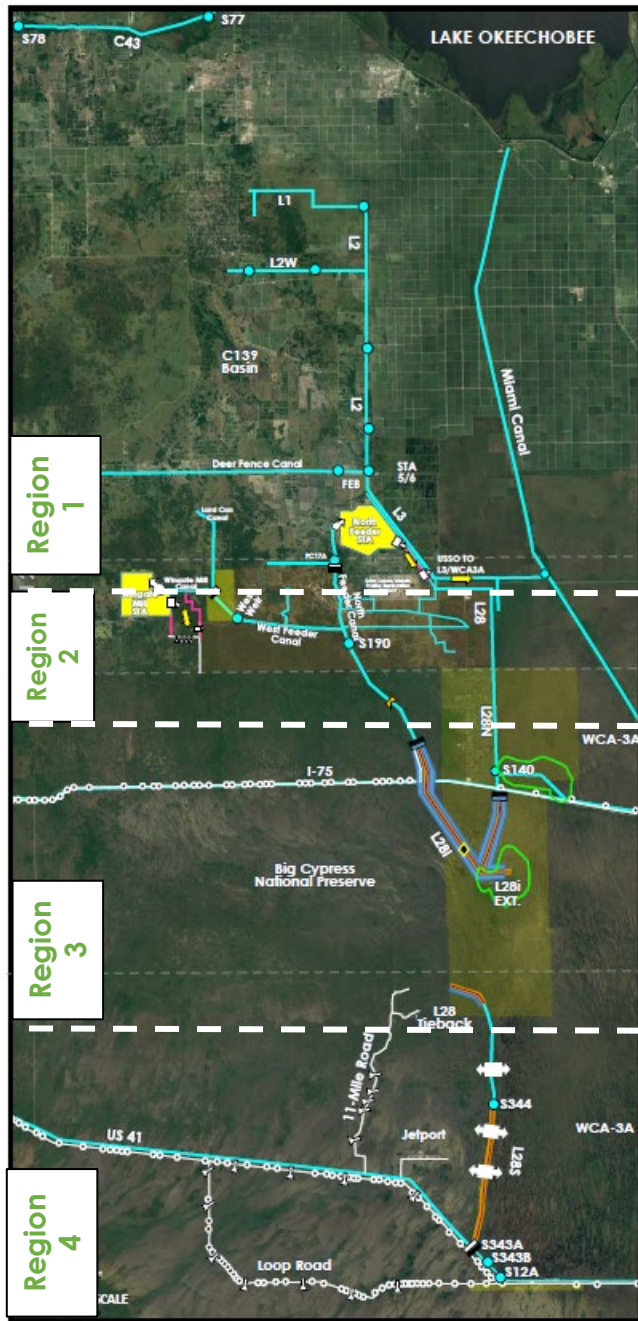
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Last Updated: 14-May-2022



- Rehydrates the Native Area within the Seminole Tribe of Florida's Big Cypress Reservation based on the Tribe's Indigenous Traditional Ecological Knowledge (ITEK)
- Decompartmentalizes the "Triangle" Area to reconnect areas of the Miccosukee Tribe of Indians of Florida's Alligator Alley Reservation and treat thousands of acres of nuisance vegetation.
- Provides water quality treatment for stormwater runoff from the West Feeder Basin to rehydrate natural areas with clean, low-nutrient water

Regional Significance of WERP (cont.)



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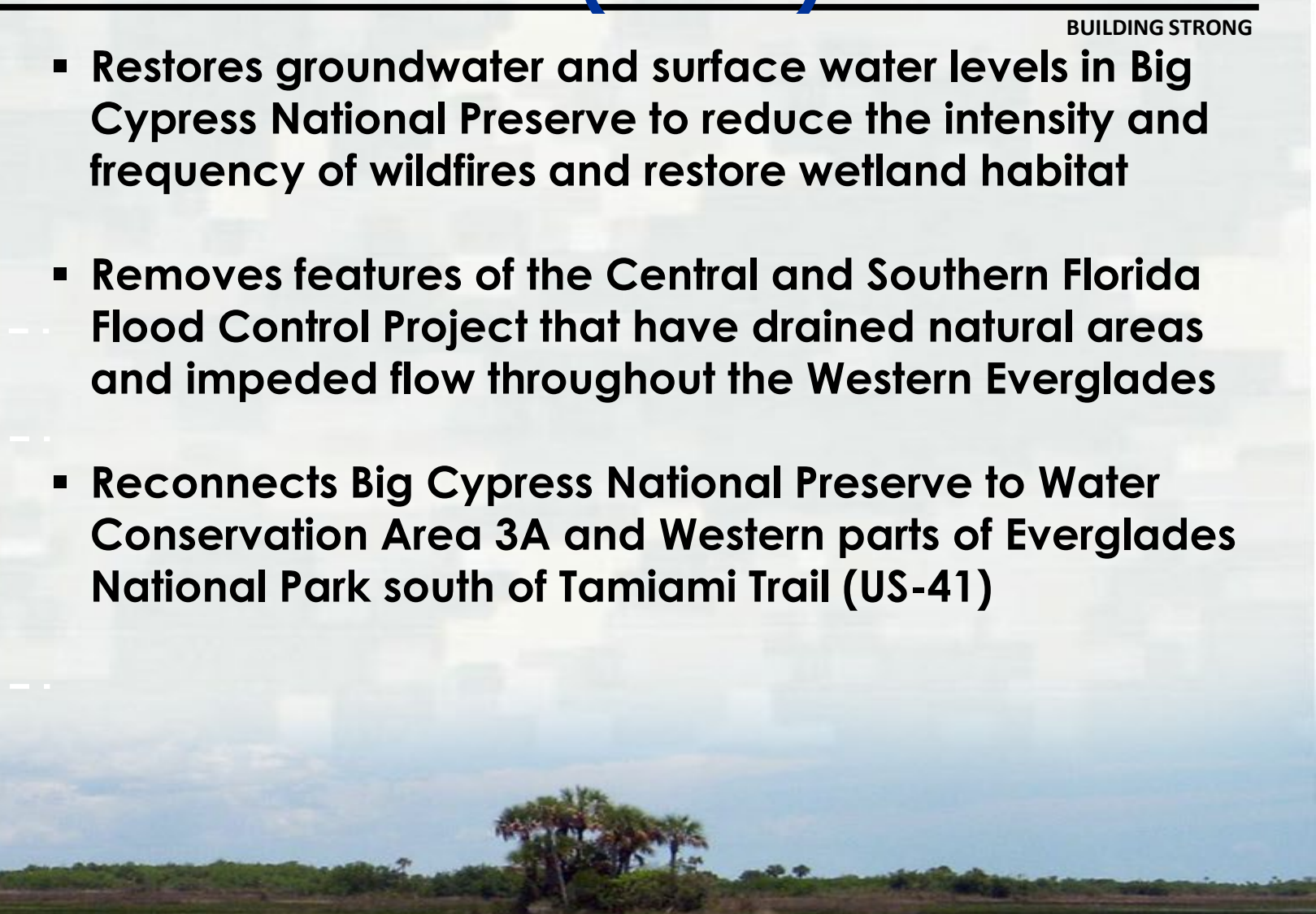
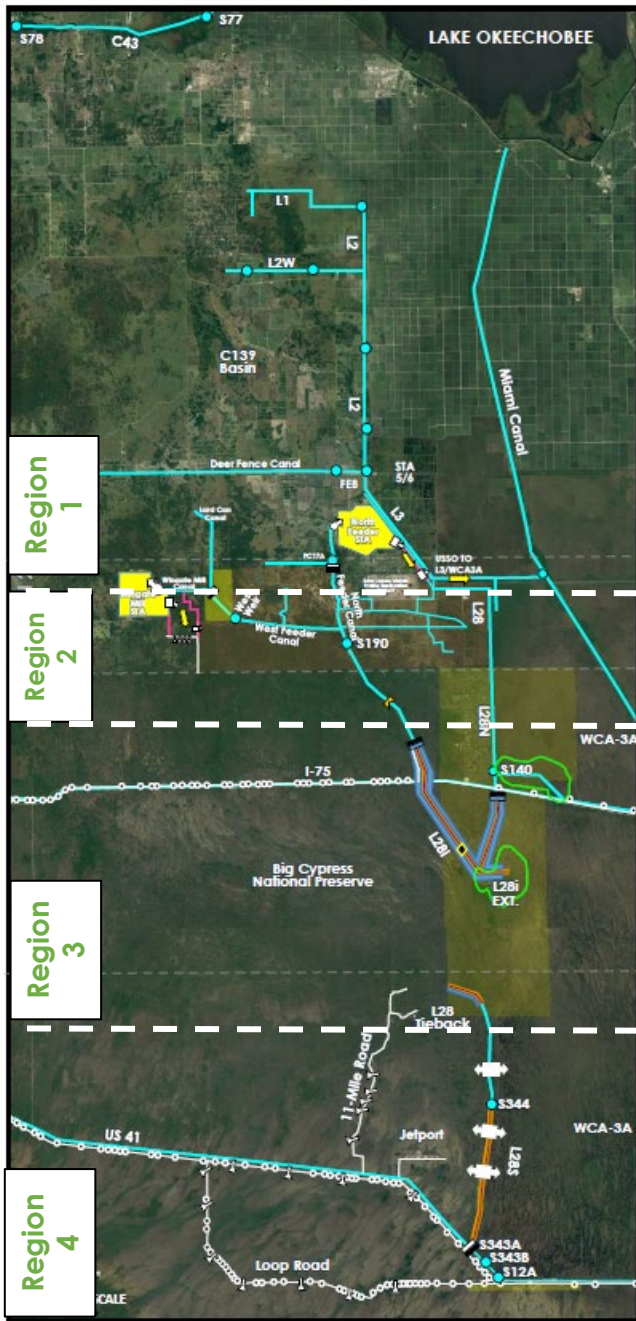
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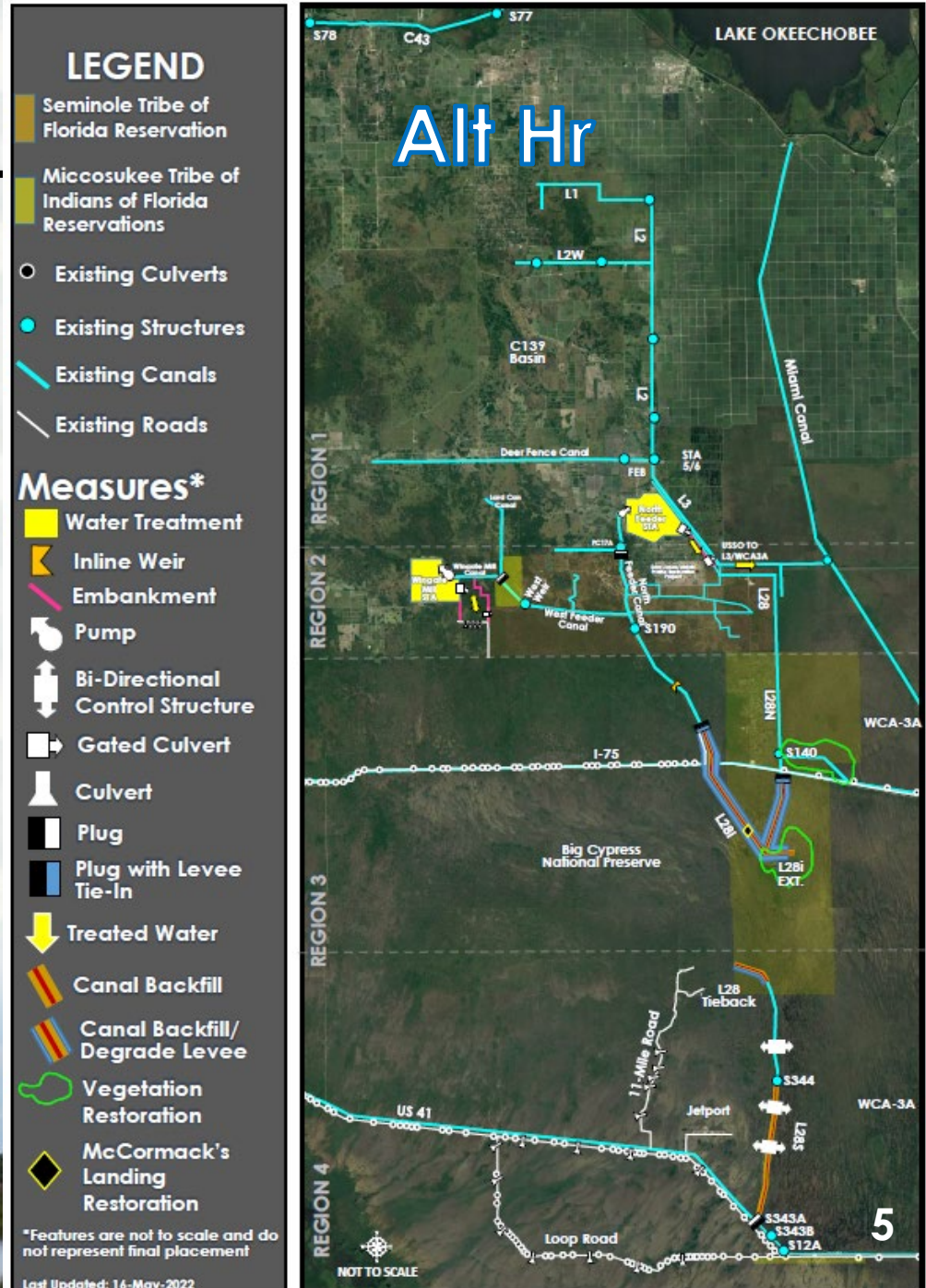


- Restores groundwater and surface water levels in Big Cypress National Preserve to reduce the intensity and frequency of wildfires and restore wetland habitat
- Removes features of the Central and Southern Florida Flood Control Project that have drained natural areas and impeded flow throughout the Western Everglades
- Reconnects Big Cypress National Preserve to Water Conservation Area 3A and Western parts of Everglades National Park south of Tamiami Trail (US-41)



PROPOSED TENTATIVELY SELECTED PLAN (TSP)

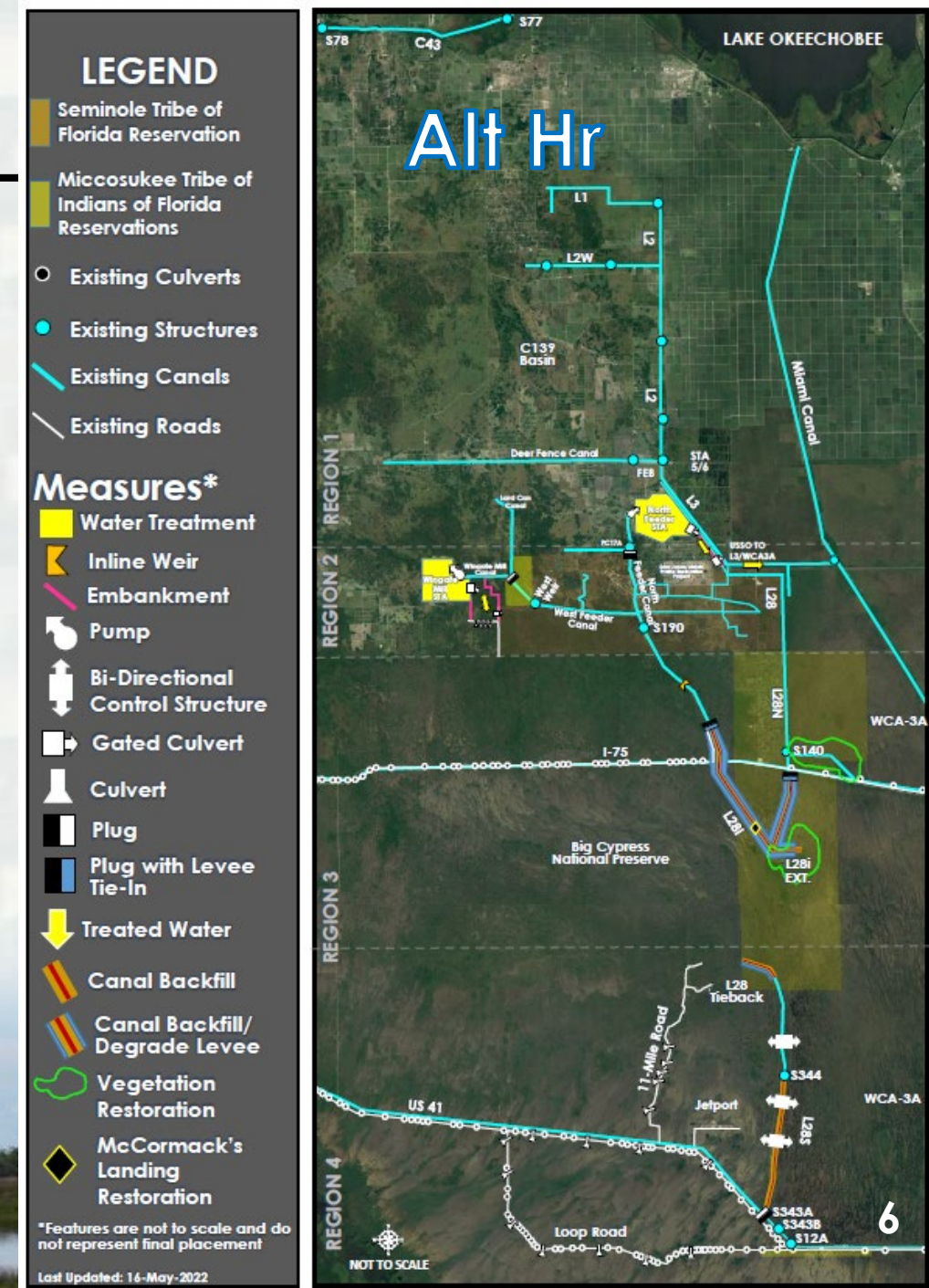
Alternative Hr: Hybrid revised
Includes a blend of features assembled from the final array of alternatives, as well as changes based on updated modeling information, Tribal consultation and stakeholder engagement.





BENEFITS SUMMARY

- Restoration of freshwater flow paths to reestablish connection of ecological areas
- Restoration of low-nutrient conditions in the water
- Rehydration and restoration of water levels to reduce intensity and frequency of wildfires





CURRENT PROJECT RISKS



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- **Wingate Mill Stormwater Treatment Area water availability and dry-out**
- **High-quality forested wetlands located within the proposed Wingate Mill Stormwater Treatment Area footprint**
- **Accurate implementation of water quality cost share policy**
- **Savings clause and real estate analysis**
- **National Historic Preservation Act consultation**



WINGATE MILL STORMWATER TREATMENT AREA (WMSTA)



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- It has been determined that the WMSTA will not function as needed because:
 - Water is not consistently available to ensure plant survival or effective treatment
 - Soils are very sandy causing high seepage rates leading to a potential STA dry out
 - Footprint includes high-quality natural lands
- Release of Draft Report for public review delayed to address feature
- The Corps and the South Florida Water Management District (SFWMD) are investigating potential solutions to meet the project objectives (water quality) and to also preserve the high-quality forested wetlands
- The Corps is currently considering potential courses of action for Wingate Mill STA and maintain the proposed benefits of WERP.



COURSES OF ACTION TO ADDRESS WINGATE MILL STA



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1. Terminate study
2. No change to Alternative Hr (Wingate Mill Stormwater Treatment Area (WMSTA) as proposed)
3. Remove WMSTA and complete Draft Report (assumes State of Florida addresses Water Quality)
4. Incremental: Restoration by region
5. Incremental: Look at Yellow Book components (hydrologic benefits)
6. Additional iteration of WMSTA formulation
7. Reformulation

USACE, SFWMD collaborating to find path forward to preserve the proposed benefits of WERP

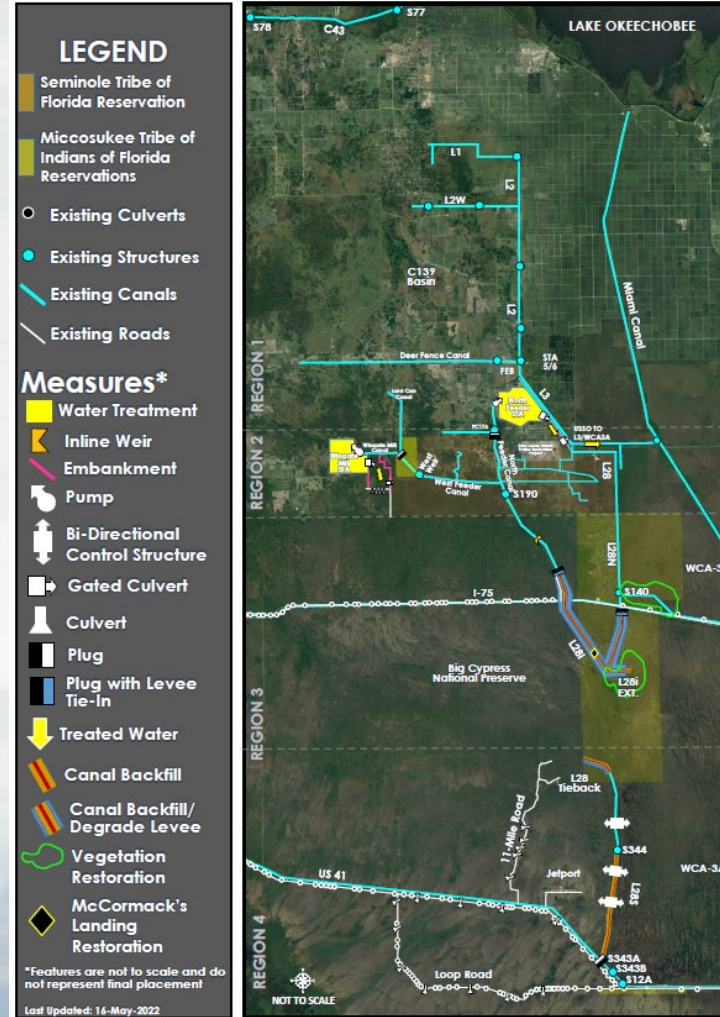


QUESTIONS?



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ALTERNATIVE Hr: RESTORE RAIN-DRIVEN SYSTEM WITH EXISTING WATER / PASSIVE MANAGEMENT

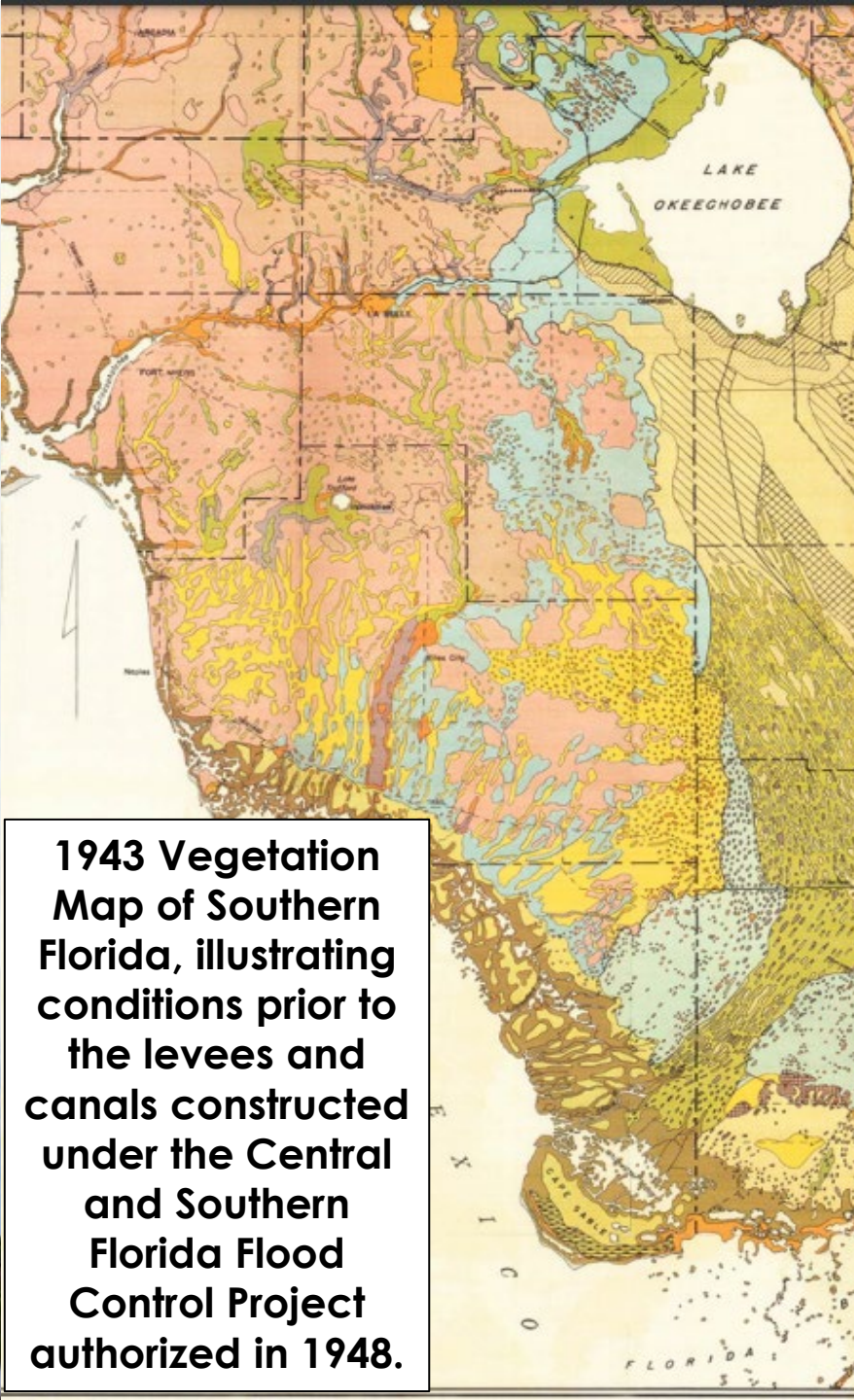




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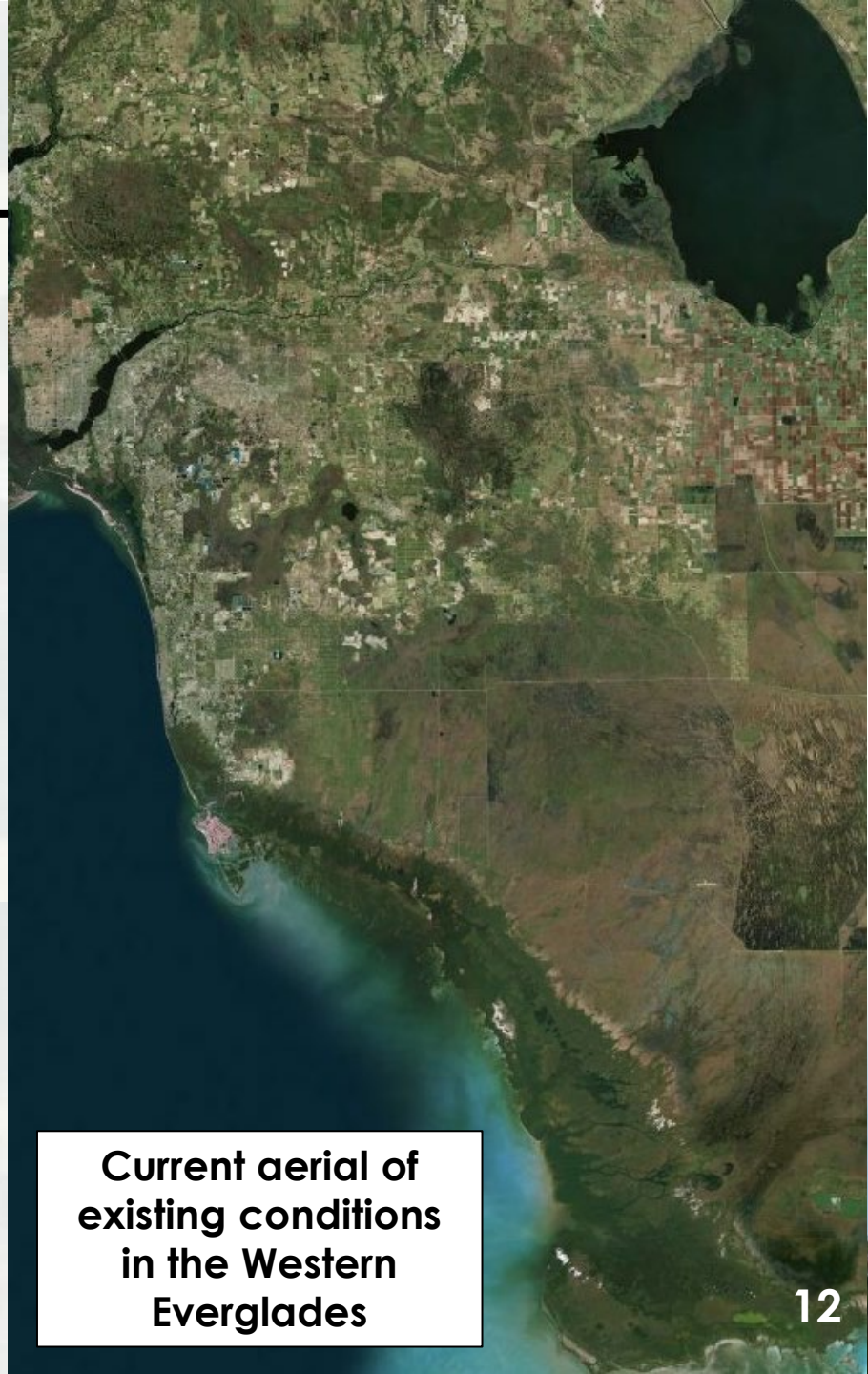
Supplemental information

For reference only



BENEFITS FROM WERP

- ✓ Restore historic flow paths of sheetflow and **improve** seasonal hydroperiods across approximately **644,400 acres** in the Western Everglades by **degrading levees** and **backfilling 385 acres** of man-made canals.



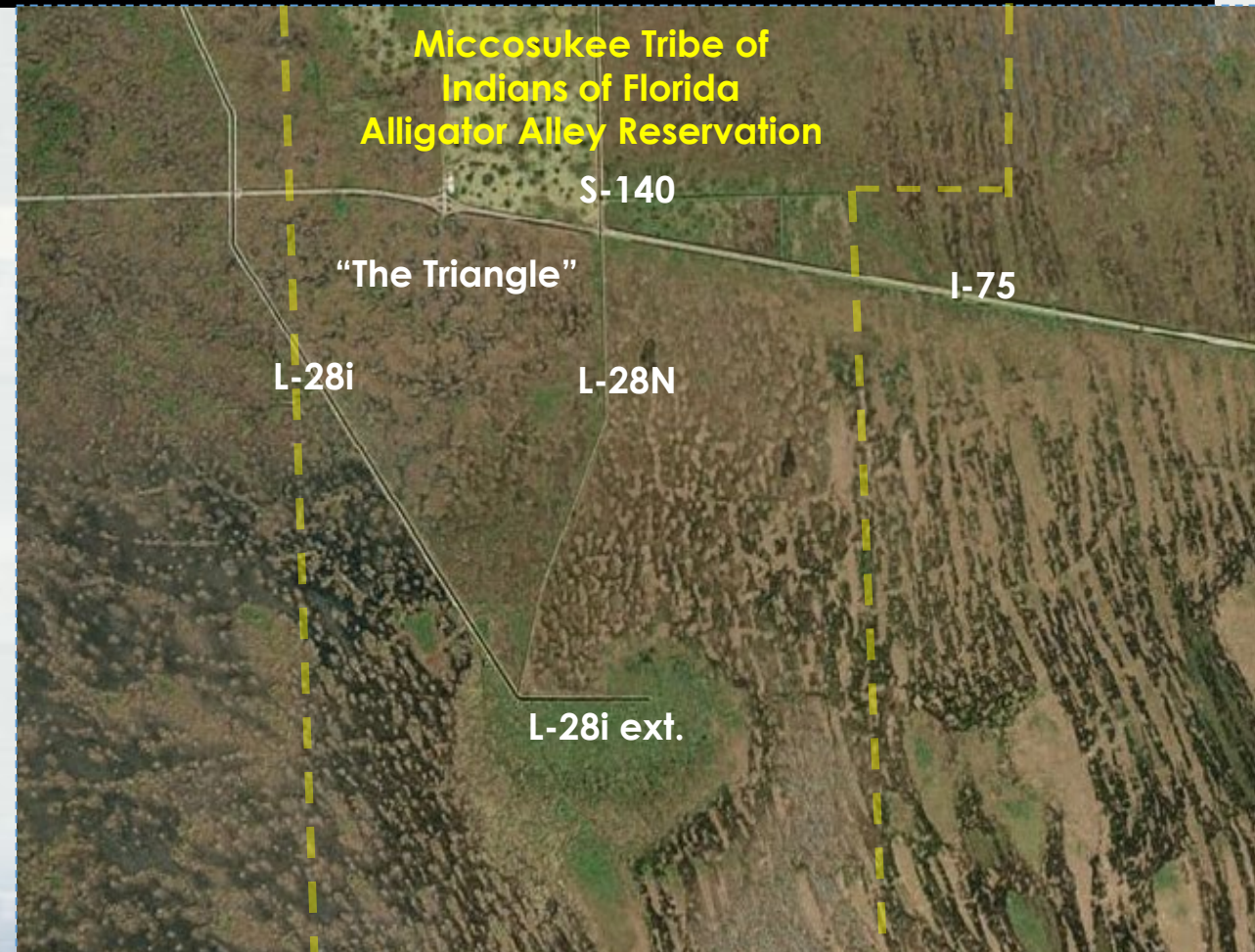
Current aerial of existing conditions in the Western Everglades



BENEFITS FROM WERP



- ✓ Reconnect/rehydrate approximately 7,850 acres of wetlands within “the triangle” by removal of manmade features associated with the L-28i, L-28i extension, and L-28N south of I-75.
- ✓ Promote plant and animal diversity and foster conditions for native species by **treating** approximately **7,500 acres** of nuisance vegetation at the terminus of the **L-28i extension** and approximately **4,900 acres** downstream of S-140.



Current aerial of existing conditions in the Western Everglades. Shows extent of nuisance vegetation and compartmentalization in the triangle.



BENEFITS FROM WERP



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- ✓ Restore low nutrient conditions by constructing two stormwater treatment areas (STAs) with an estimated combined total of approximately 7,500 acres of treatment area, which will treat an estimated 40,000 acre feet per year of flows entering Big Cypress National Preserve and the Big Cypress Seminole Reservation Native Area and 38,000 acre feet per year of flows entering Water Conservation Area 3A (WCA 3A).



Wingate Mill Stormwater Treatment Area (WMSTA), North Feeder Stormwater Treatment Area (NFSTA), and flows are illustrated in yellow above. WMSTA will treat water before entering BCNP via open culverts and before entering the Big Cypress Seminole Reservation Native Area via gated culverts. NFSTA outflows will enter a 3.8-mile outlet canal, then flow into WCA 3A by way of the L-3 Canal.



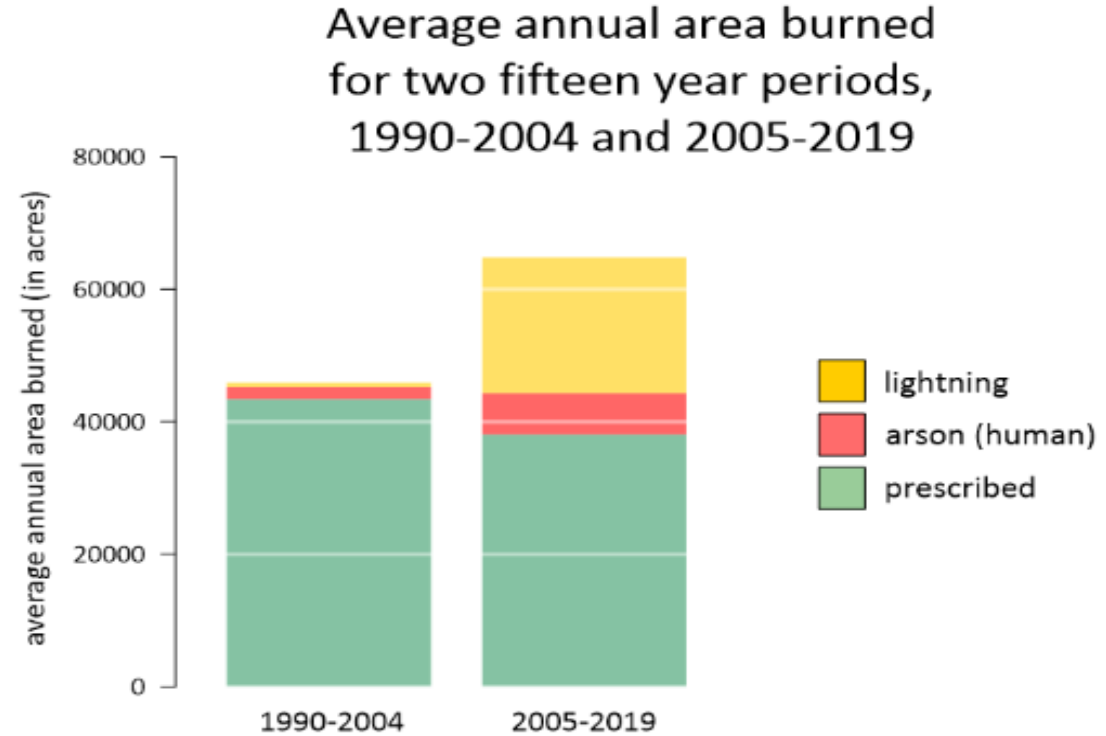
BENEFITS FROM WERP



- ✓ Reduce the intensity and duration of damaging fires by **improving surface water and groundwater elevations and hydroperiods** in areas affected by over-drainage.



Damaging wildfire in BCNP



In Big Cypress National Preserve (BCNP) from 2005-2019, spring wildfires accounted for nearly 1/3 of totally burned area during the months of April-June when the water table is lowest and surface water is least present. This is a 31% increase and includes a 20,000 acre increase in burned area due to spring lightning-caused wildfire from the prior observation period from 1990-2004.



INDIGENOUS TRADITIONAL ECOLOGICAL KNOWLEDGE (ITEK)



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- A memorandum entitled “Indigenous Traditional Ecological Knowledge and Federal Decision Making” was issued by the Executive Office of the President on behalf of the Office of Science and Technology Policy and the Council on Environmental Quality dated 15 November 2021.
- Indigenous Traditional Ecological Knowledge (ITEK) is a body of observations, oral and written knowledge, practices, and beliefs that promote environmental sustainability and the responsible stewardship of natural resources through relationships between humans and environmental systems.
- The Seminole Tribe of Florida (STOF), Miccosukee Tribe of Indians of Florida (MTIF), and WERP PDT incorporated ITEK throughout the Feasibility Phase



REAL ESTATE ANALYSIS



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- The Corps has preliminary Real Estate Analysis based on current Tentatively Selected Plan. The Real Estate analysis is a conservative approach (worst case).
- Pursuing the **MINIMUM REAL ESTATE** interest necessary to implement the project. That is, flowage easements instead of fee.
- Submitted a waiver for the Corps Ecosystem Restoration requirement to acquire all real estate in fee and received approval for 10 of 14 non-standard estates. Additional information has been submitted for the 4 outstanding non-standard estates to USACE Headquarters for review.
- Briefed Real Estate analysis results to all parties – South Florida Water Management District (SFWMD), Seminole Tribe of Florida (STOF), Miccosukee Tribe of Indians of Florida (MTIF), U.S. Department of the Interior (DOI), National Park Service (NPS), Big Cypress National Preserve (BCNP), Miami-Dade County, and private landowners.