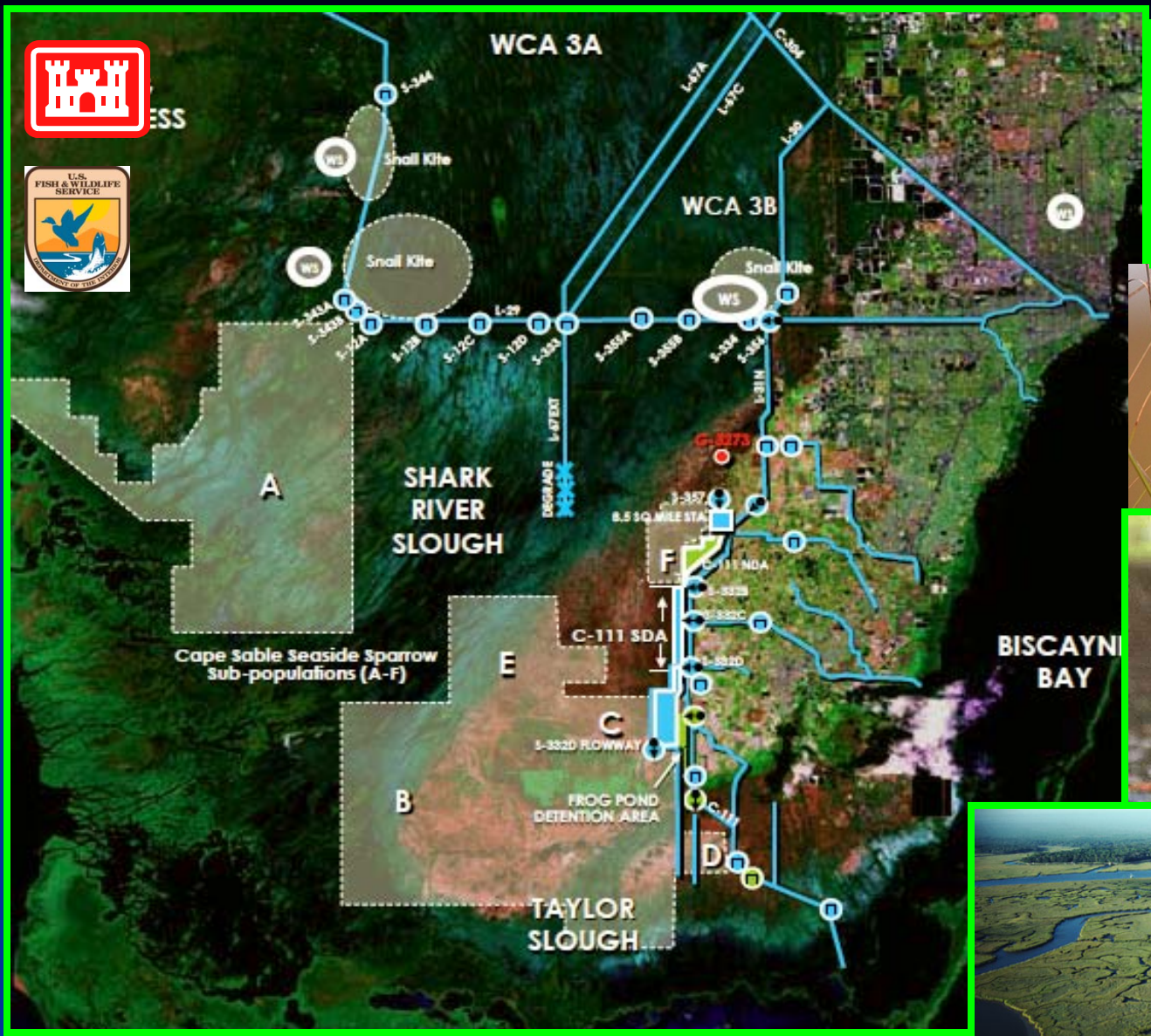
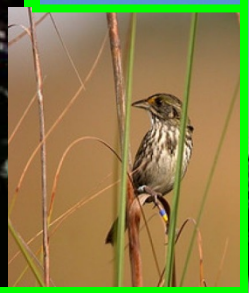
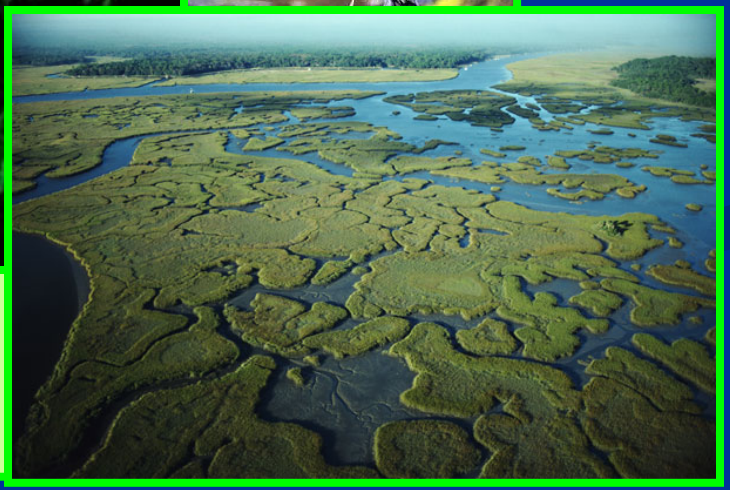
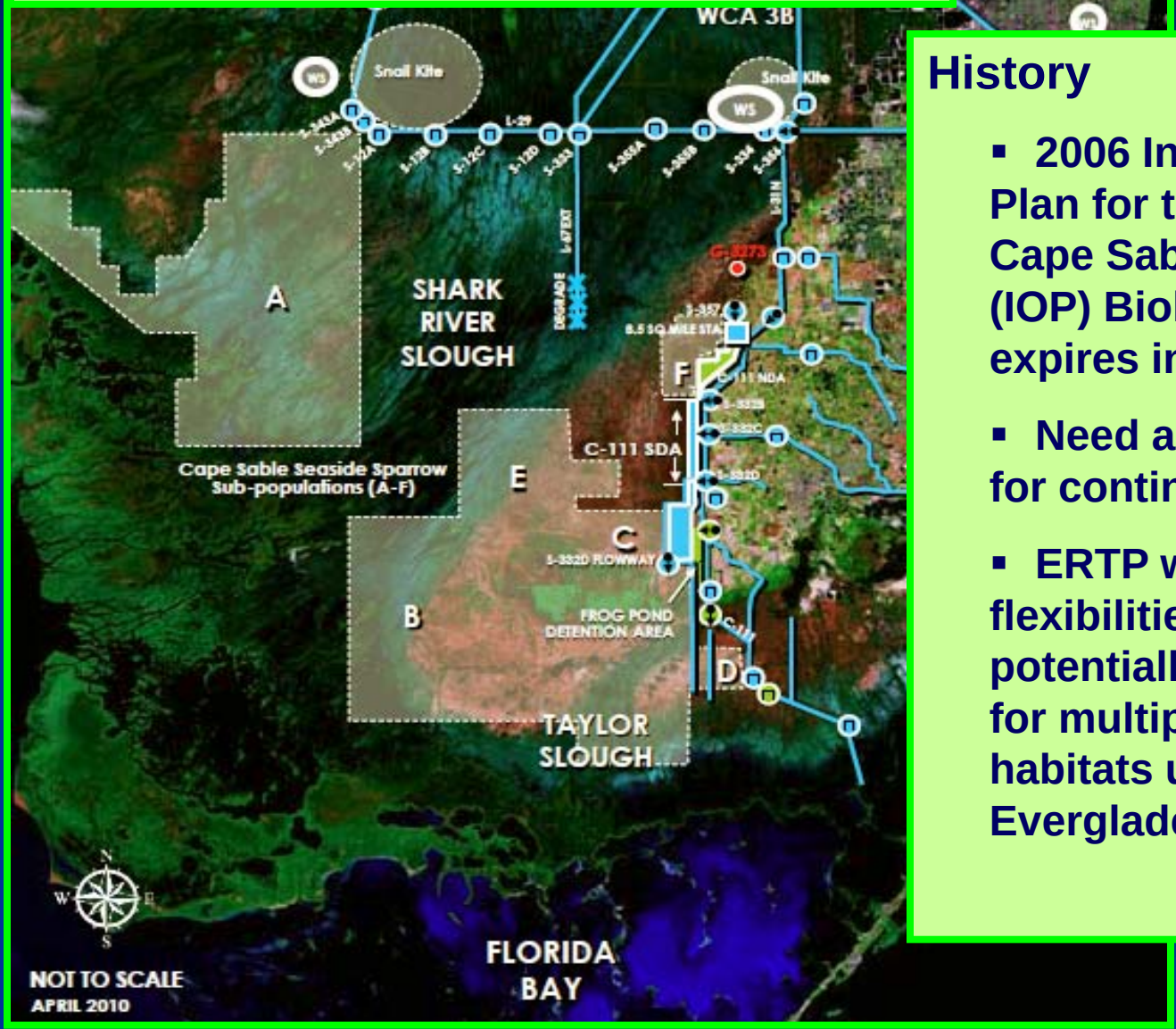






Everglades Restoration Transition Plan – Phase 1

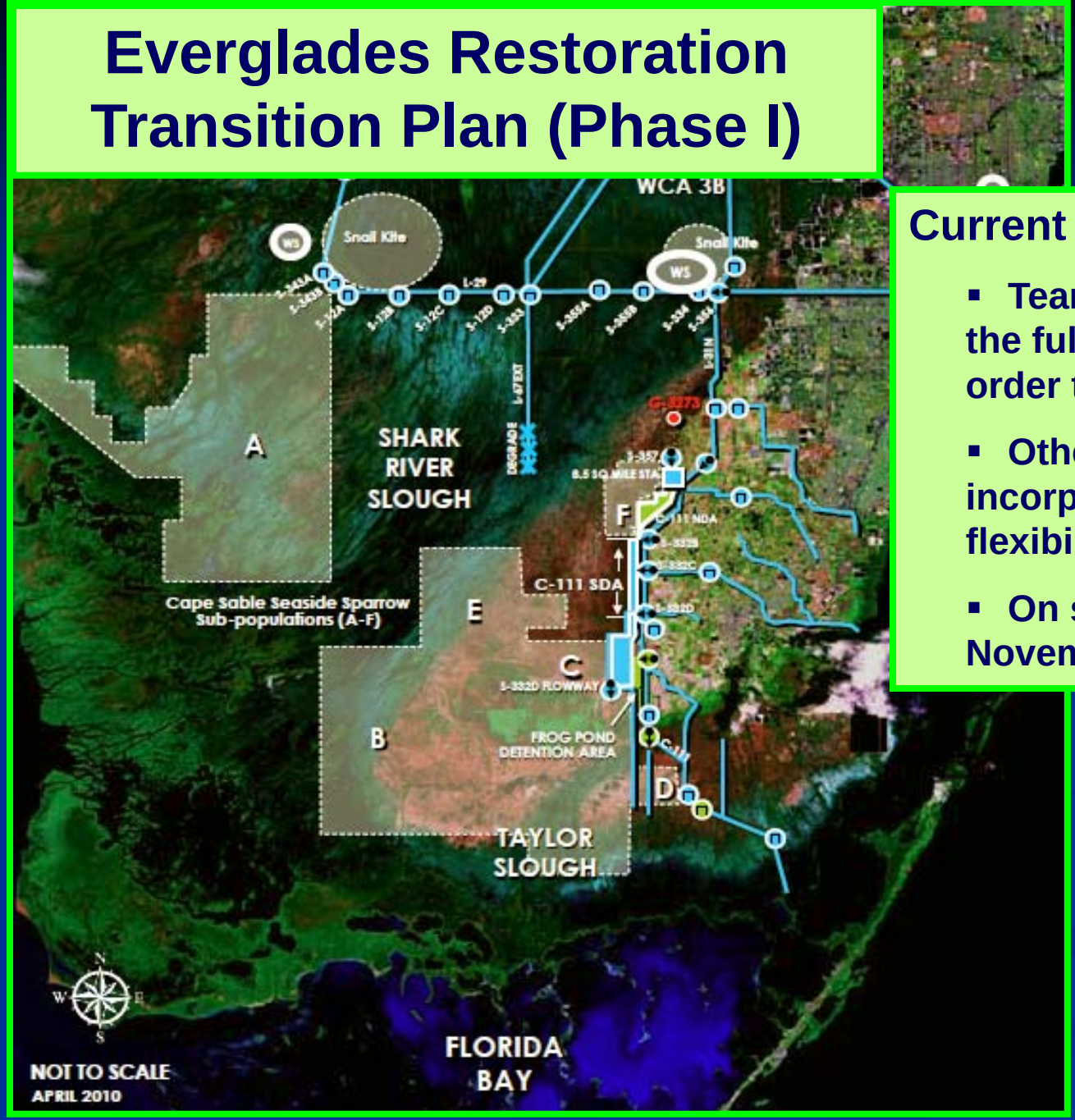
Everglades Restoration Transition Plan (Phase I)



History

- 2006 Interim Operational Plan for the Protection of the Cape Sable Seaside Sparrow (IOP) Biological Opinion (BO) expires in November 2010
- Need a new BA, BO and EIS for continued operations
- ERTP will use operational flexibilities to maintain or potentially improve conditions for multiple species and habitats until completion of Everglades Restoration

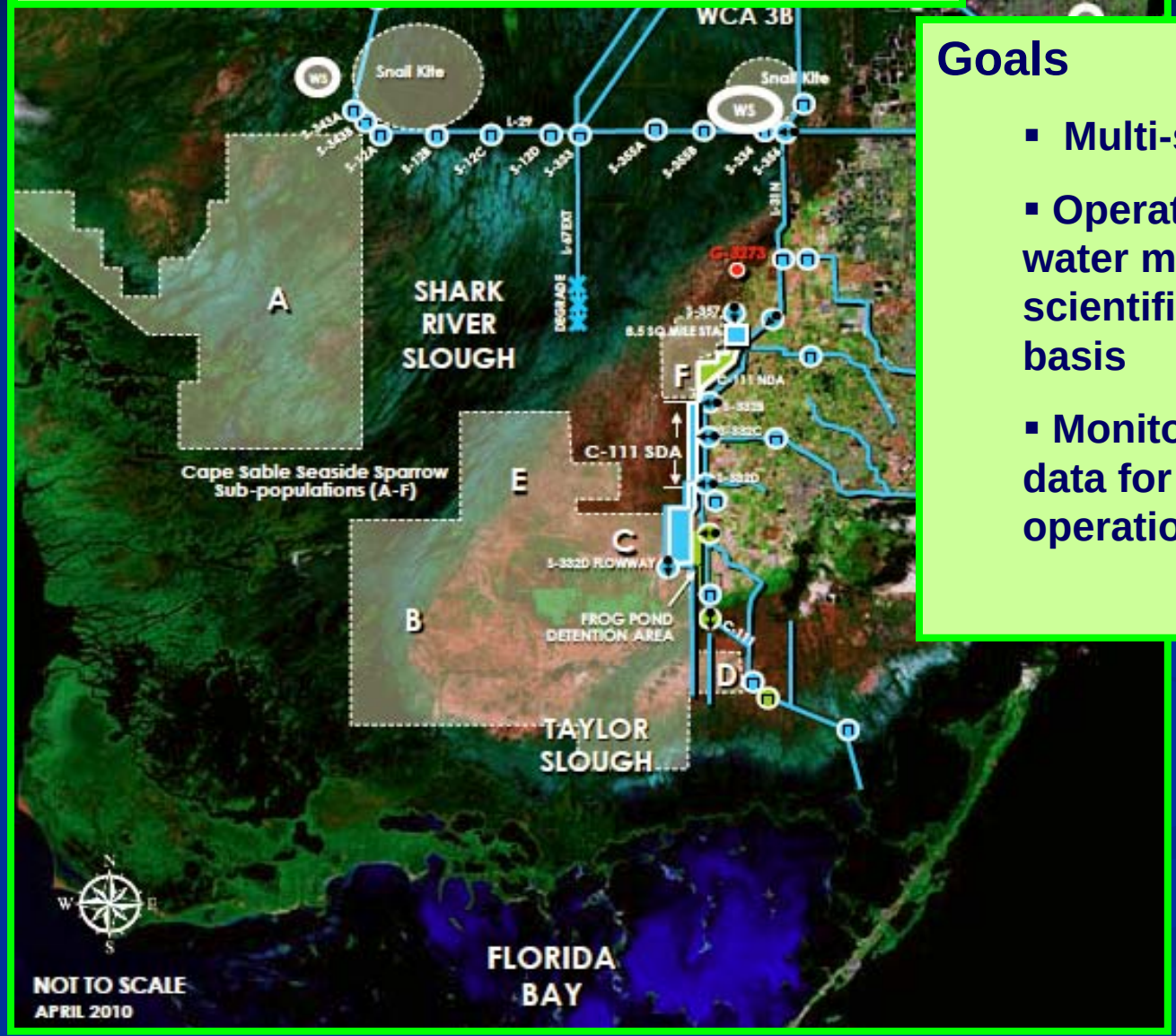
Everglades Restoration Transition Plan (Phase I)



Current Status

- Team currently reviewing the full suite of options in order to recommend a plan
- Other ERTP phases may incorporate additional flexibilities
- On schedule to meet November 2010 deadline

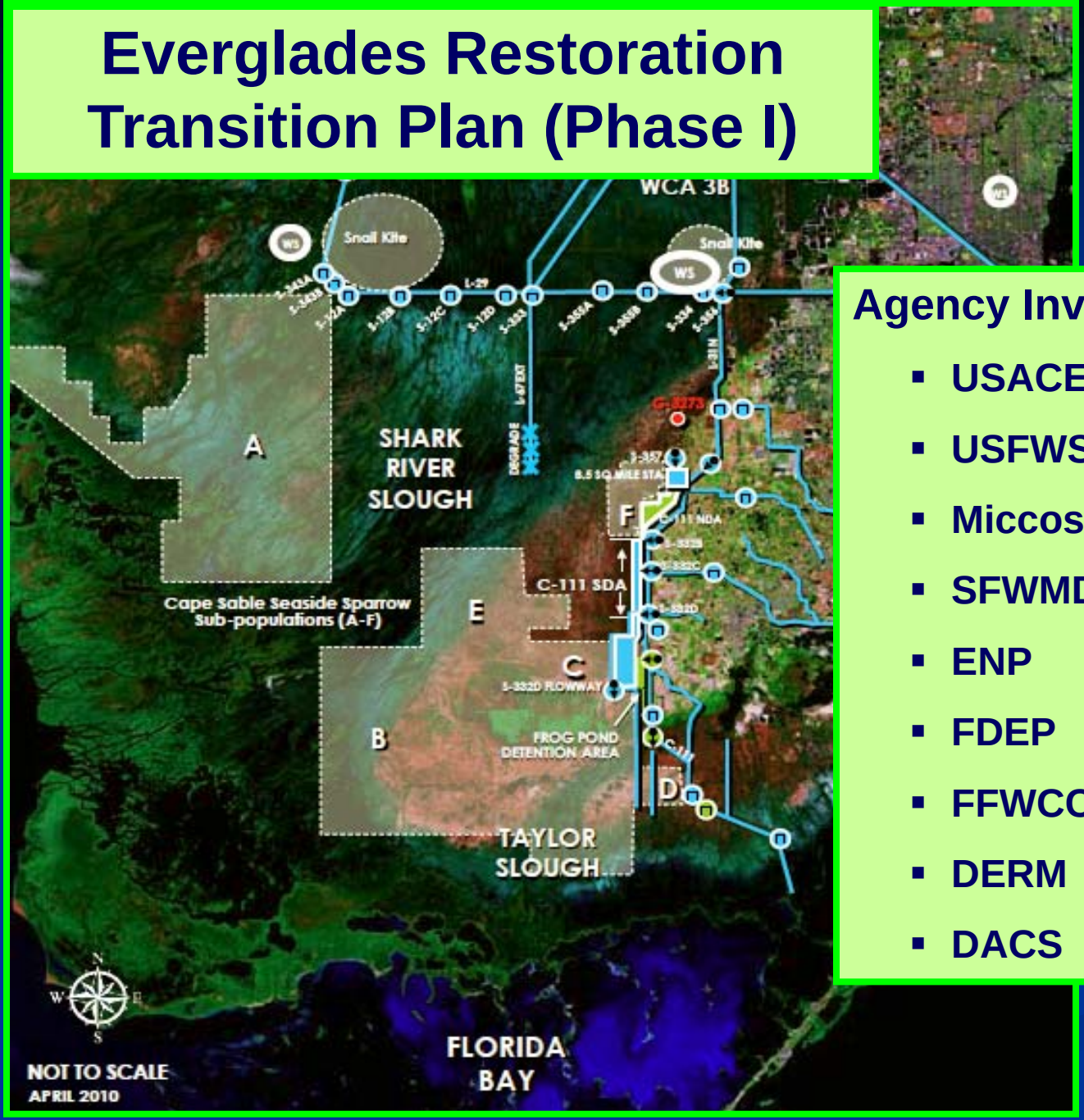
Everglades Restoration Transition Plan (Phase I)



Goals

- Multi-species management
- Operational flexibility to allow water managers to use scientific input on a real-time basis
- Monitor to improve available data for planning of future operational plans

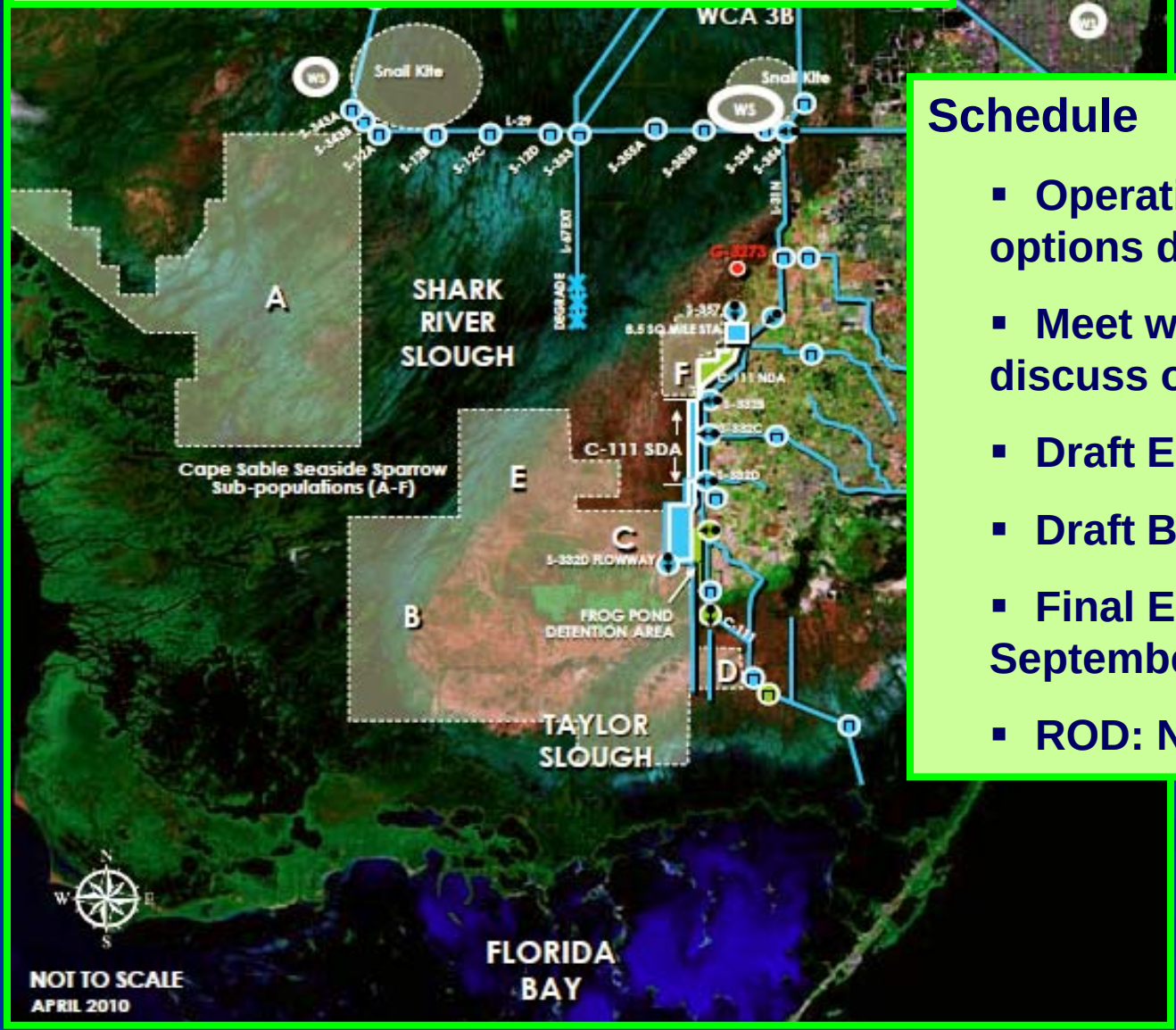
Everglades Restoration Transition Plan (Phase I)



Agency Involvement

- USACE
- USFWS
- Miccosukee Tribe
- SFWMD
- ENP
- FDEP
- FFWCC
- DERM
- DACS

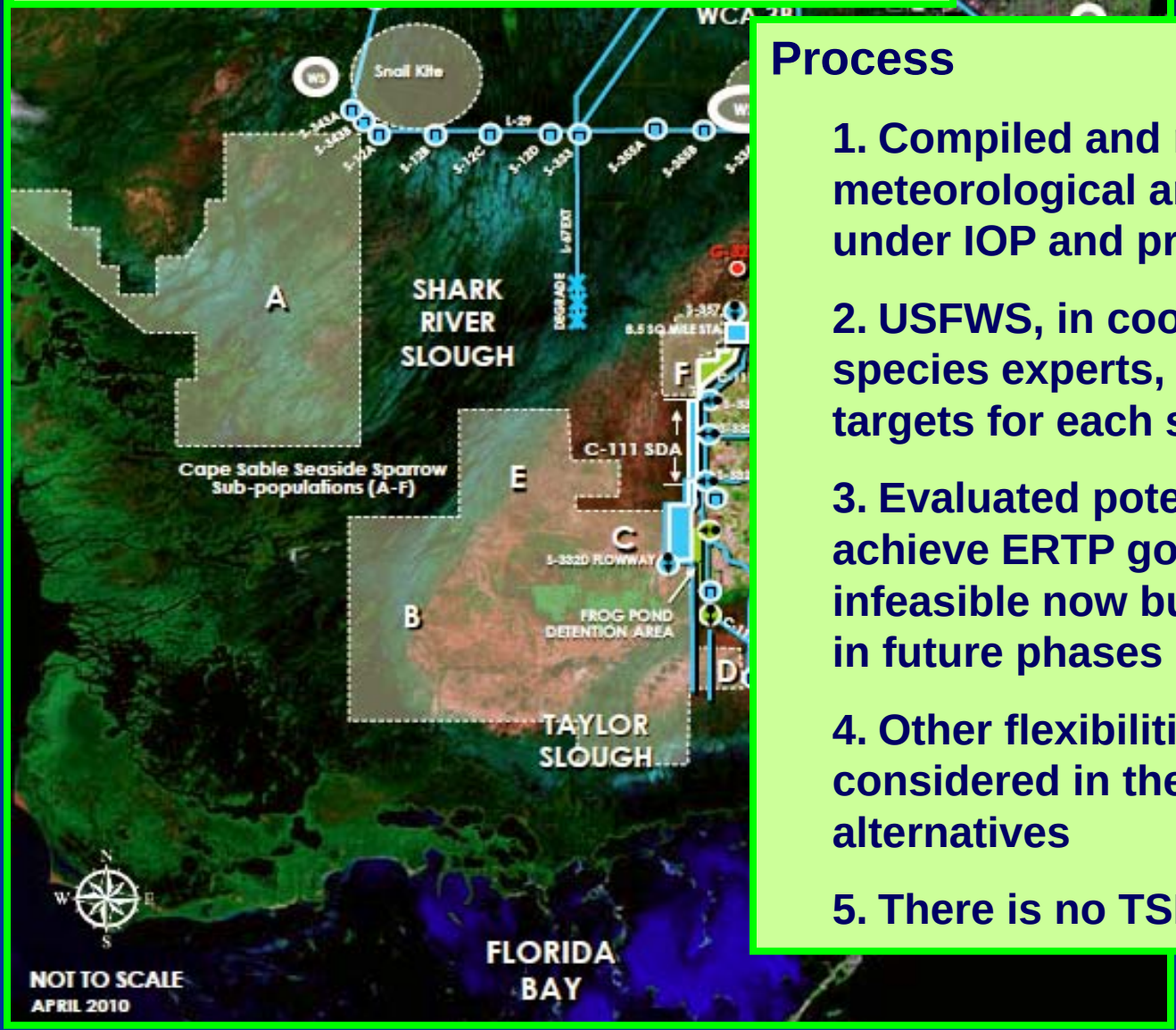
Everglades Restoration Transition Plan (Phase I)



Schedule

- Operational flexibility options defined: March 2010
- Meet with agencies to discuss options: April 2010
- Draft EIS: June 2010
- Draft BO: June 2010
- Final EIS and Final BO: September 2010
- ROD: November 2010

Everglades Restoration Transition Plan (Phase I)



Process

1. Compiled and reviewed hydrologic, meteorological and ecological data under IOP and pre-IOP years
2. USFWS, in coordination with other species experts, proposed ecological targets for each species
3. Evaluated potential flexibilities to achieve ERTP goals; some are infeasible now but may be considered in future phases
4. Other flexibilities continue to be considered in the development of alternatives
5. There is no TSP at this time

Everglade Snail Kite Recommendations

Identify the Probable Cause(s)

Related hydrological parameters to focus on:

Water levels in Fall (Sept-Jan) are too high for too long, resulting in:

- habitat degradation
- delayed/ reduced apple snail egg production

→ Wet season high water
- level
- timing
- duration

→ Pre-breeding water
- level
- timing

Long-term water levels in Spring-Summer are too low for too long, resulting in:

- reduced snail kite reproduction, recruitment, and survival
- reduced apple snail productivity and juvenile survival

→ Dry season low water
- level
- timing
- duration

Recession rates between these water levels are too fast, resulting in:

- reduced apple snail egg production
- reduced snail kite reproduction, recruitment, and survival

→ Recession rate

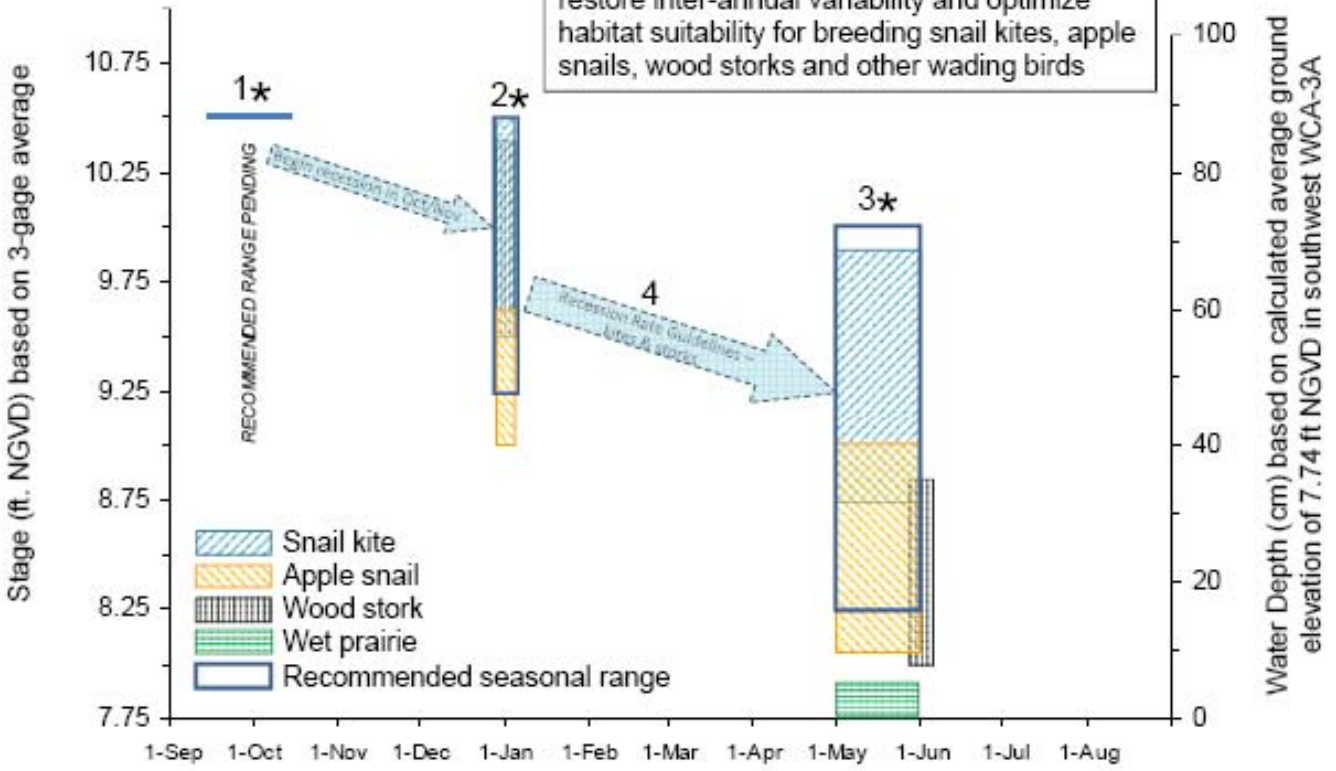
Snail Kite Recommendations

WCA-3A

USFWS Multi-Species Transition Strategy

Draft April 1, 2010

Goal: Through water level management, restore inter-annual variability and optimize habitat suitability for breeding snail kites, apple snails, wood storks and other wading birds



* Management decisions (targets) to be determined by an interagency group meeting regularly throughout the year (minimum October, January and May). Intent is to manage for inter-annual variation with seasonal targets based on an interagency assessment of species needs (evaluated w/monitoring data), forecasted climate in the coming months, and past years' hydrology.

Wood Stork/Wading Birds Recommendations

- Strive to maintain a recession rate of 0.05 to 0.16 feet per week February through May.

- Strive to maintain areas of appropriate foraging depths (5-25 cm) within the Core Foraging Area (18.6 mile radius) of any active wood stork colony.

Cape Sable Seaside Sparrow Recommendations

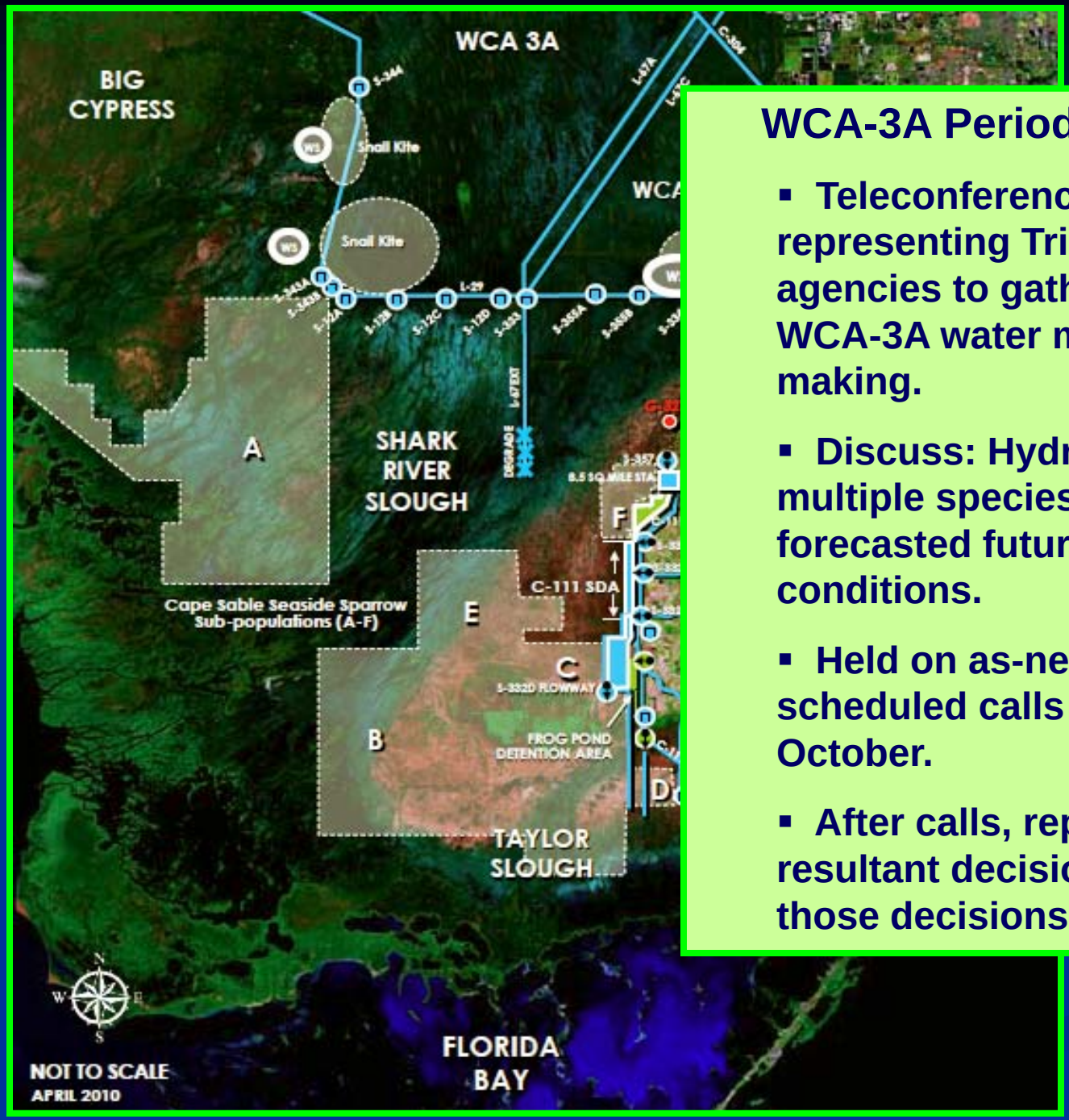
- Provide a minimum of 60 consecutive days at NP205 below 6.0 feet NGVD starting no later than March 15.
- Use flexibilities to reach a water level of 7.0 feet NGVD at NP 205 by December 31 to allow water levels to reach 6.0 feet NGVD by mid-March.
- Use flexibilities to maintain a hydroperiod to sustain marl prairie vegetation.

Tree Island Recommendations

- Avoid high water peaks ≥10.5 feet NGVD or reach water levels < 10.0 feet NGVD by December 31.
- Limit tree island inundation over 2.5 feet for a maximum of 120 days per year.
- Manage for a weekly rate of rise of 0.05 to 0.16 feet June through November to avoid impacts to tree island vegetation.

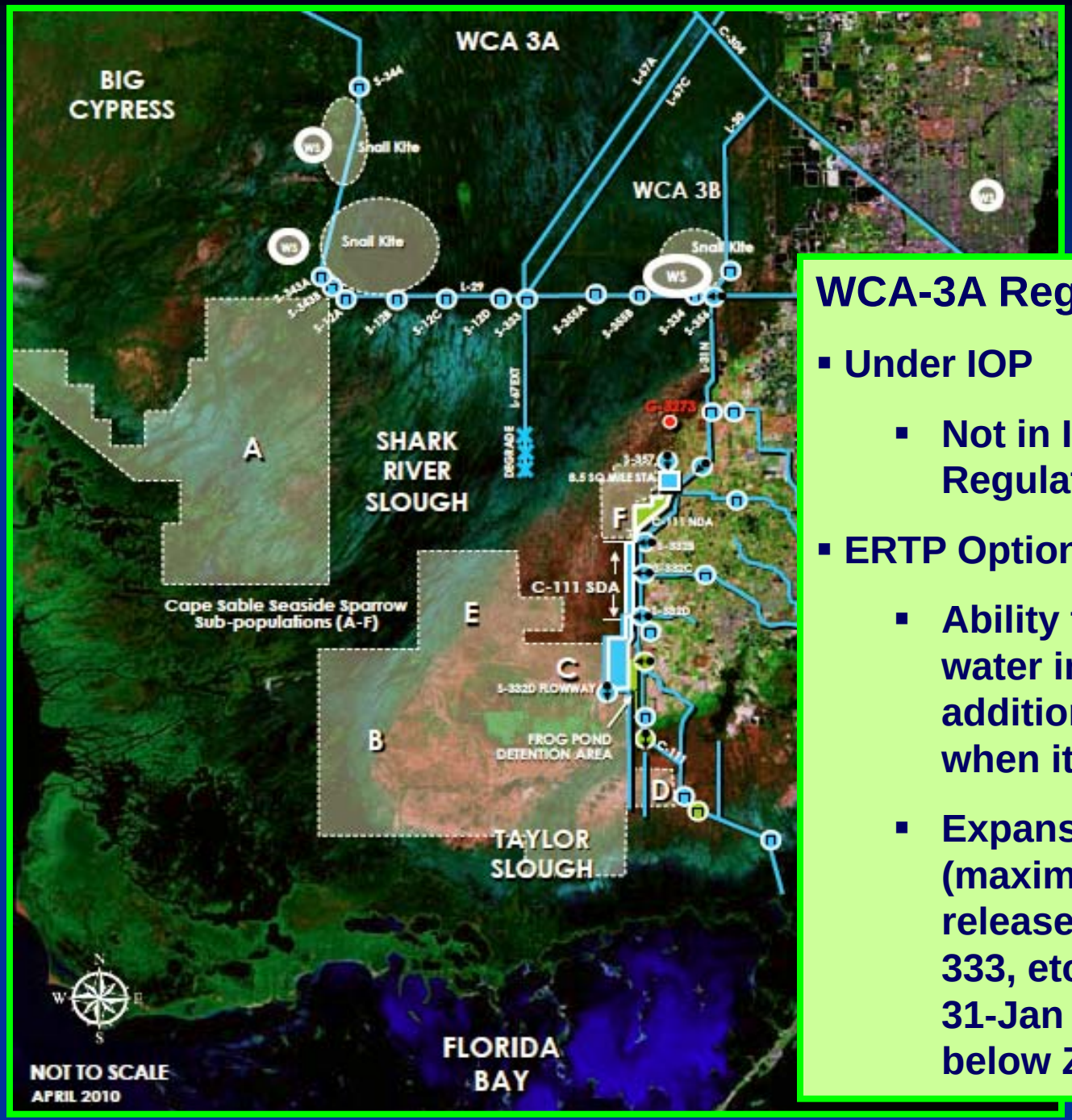
Current Proposed Operational Flexibilities

- This is not yet a final plan
- All options must be reviewed by USACE and USFWS for impacts and may be adjusted as a result of those reviews
- Some options may be recommended for a later phase of ERTP or other efforts



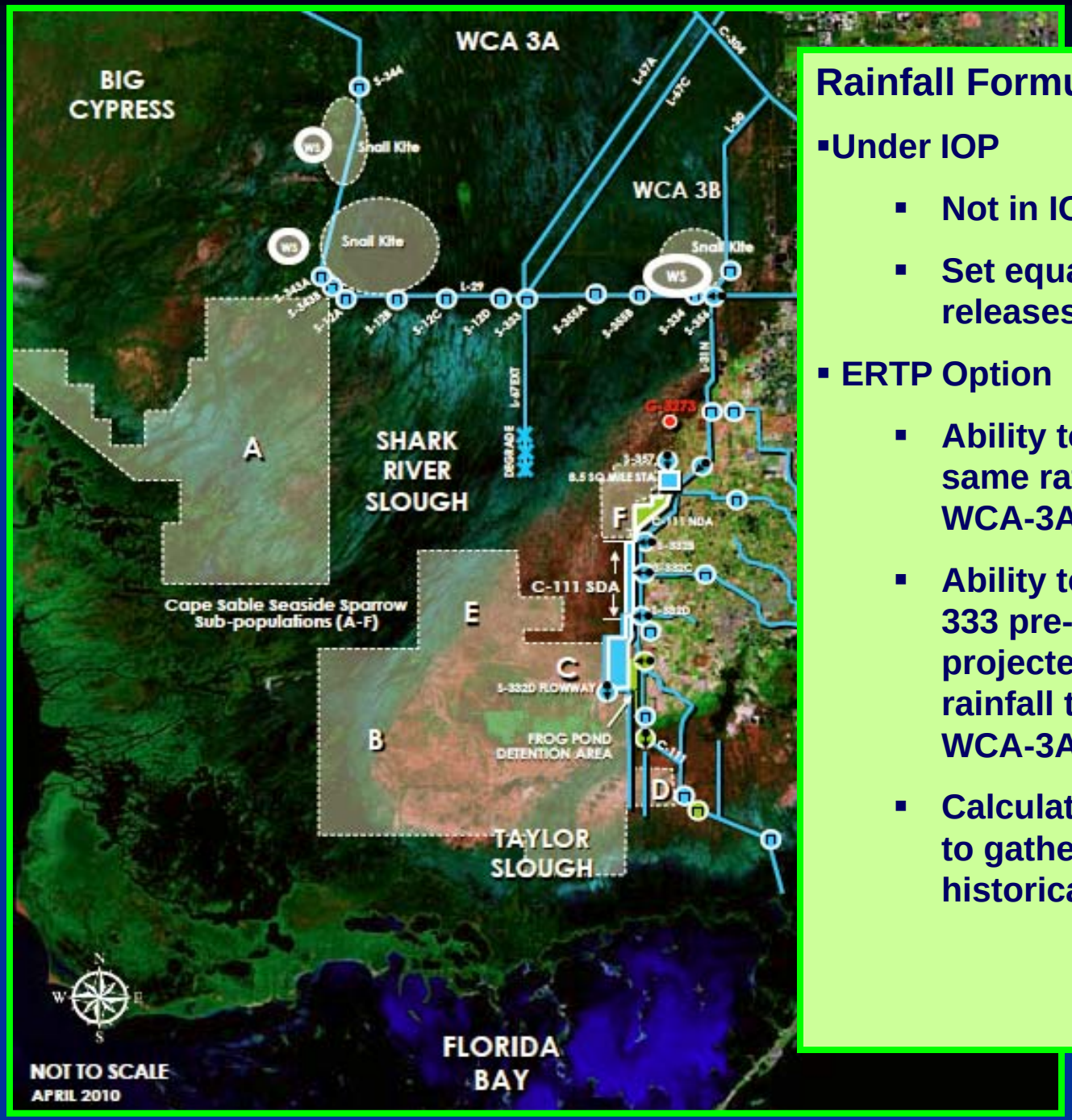
WCA-3A Periodic Scientist Calls

- Teleconference with scientists representing Tribal and Governmental agencies to gather input for Corps WCA-3A water management decision making.
- Discuss: Hydrologic, ecological and multiple species conditions as well as forecasted future desirable conditions.
- Held on as-needed basis as well as scheduled calls in January, May and October.
- After calls, report to participants resultant decisions and input used for those decisions.



WCA-3A Regulation Schedule

- Under IOP
  - Not in IOP Table; See Regulation Schedule Graph
- ERTP Option
  - Ability to relieve the high water in WCA-3A through additional release capability when it is most needed
  - Expansion of Zone E1 (maximum practicable releases from S-12C/D, S-333, etc.) to 1-Nov through 31-Jan (located 0.5 feet below Zone C)

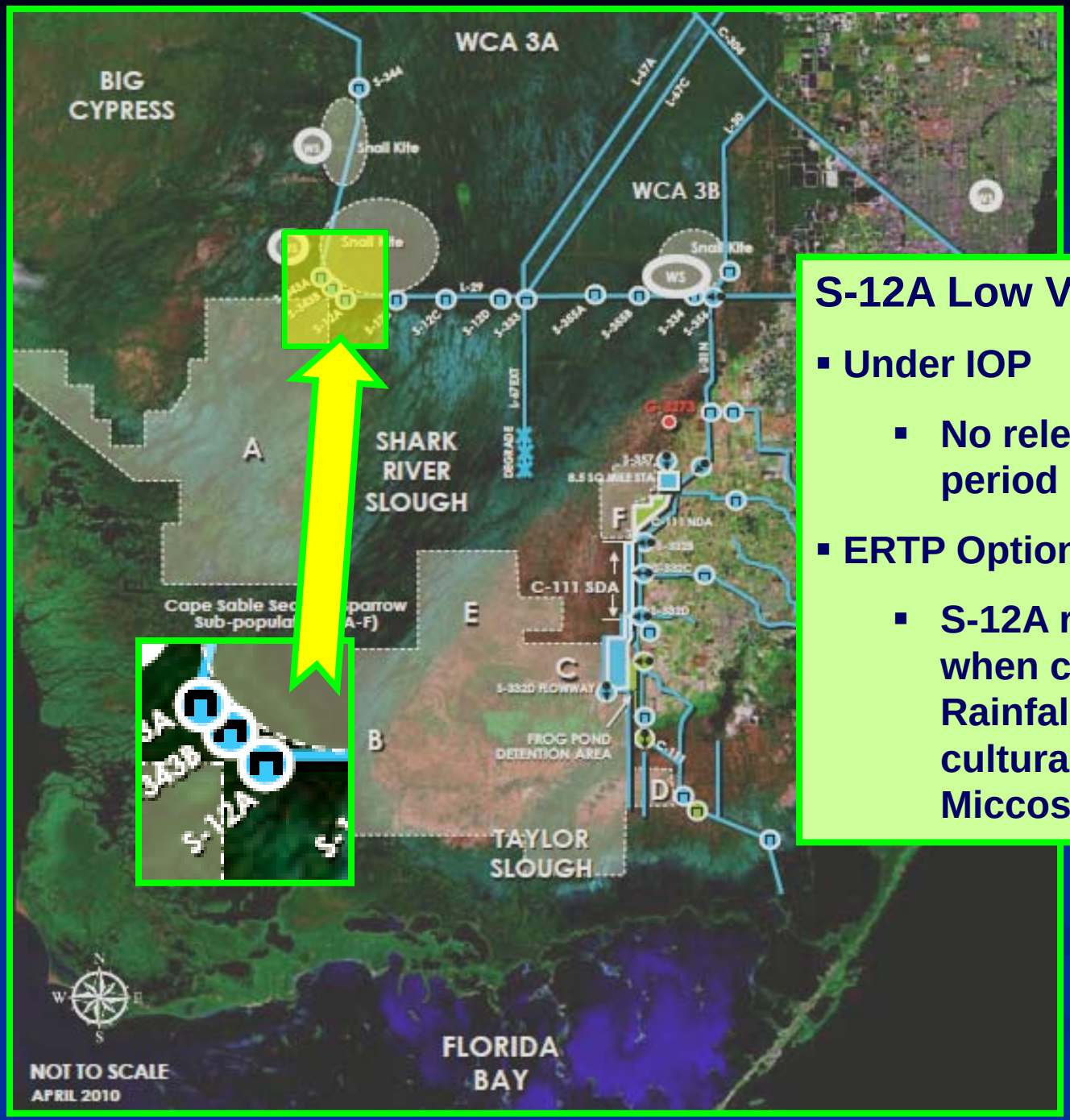


Rainfall Formula

- Under IOP
  - Not in IOP Table
  - Set equation for WCA-3A releases
- ERTP Option
  - Ability to move water out at the same rate that water flows into WCA-3A
  - Ability to make S-12s and/or S-333 pre-emptive release up to projected WCA-3A inflow and/or rainfall to create storage in WCA-3A for expected inflow.
  - Calculate Modified Rainfall Plan to gather comparison and historical information.

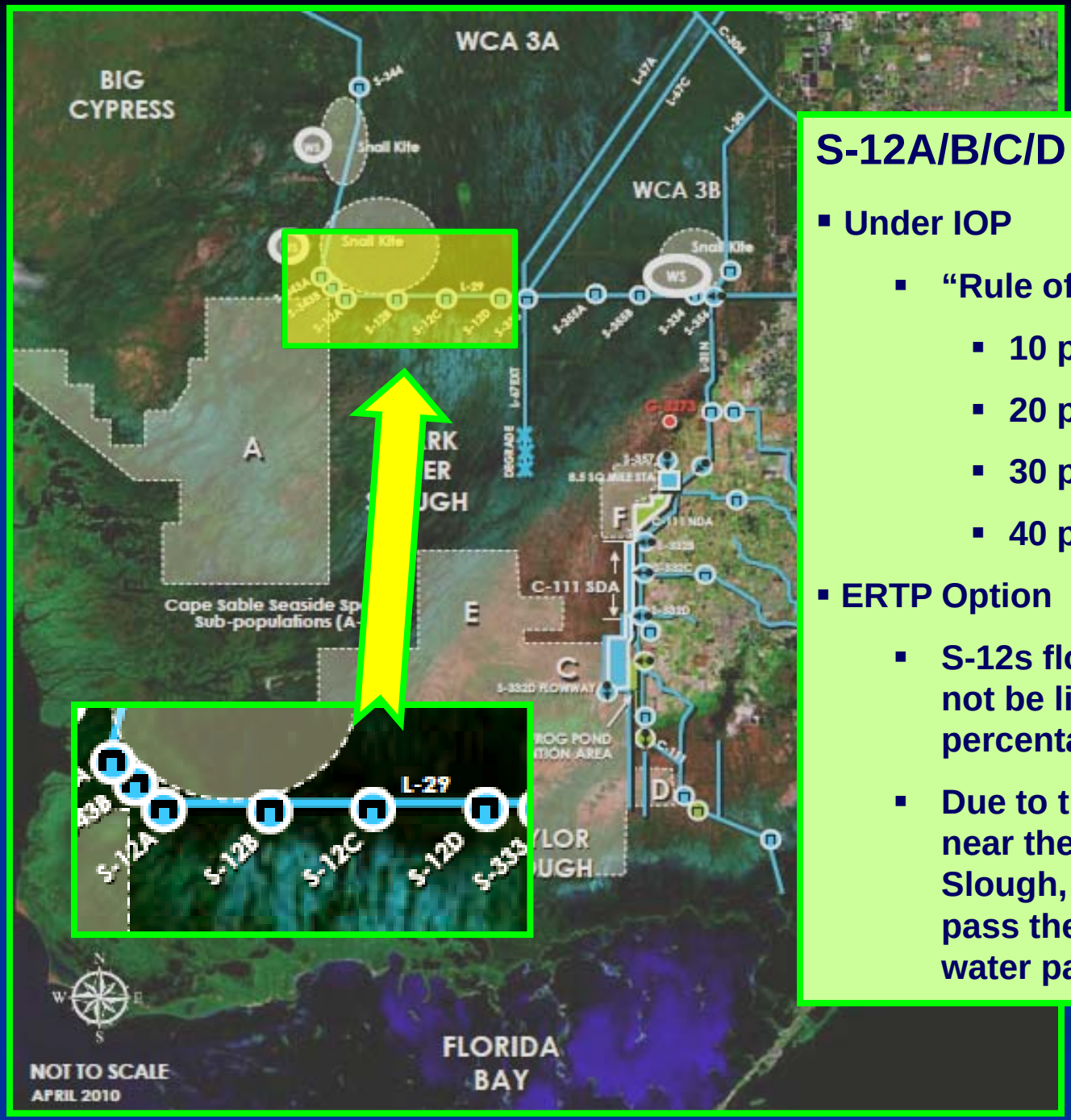
S-12A, S-12B, S-12C, S-12D

- Under IOP
  - S-12A: Closed 1-Nov to 15-Jul
  - S-12B: Closed 1-Jan to 15-Jul
  - S-12C: Closed 1-Feb to 15-Jul
  - S-12D: No closure date
- ERTP Option
  - Conditional action window – use science-based management
  - Openings and closures of S-12A&B based on: Periodic Scientists Call input, NP-205 water levels, zones in regulation schedule (i.e. WCA-3A water levels), Rainfall Plan
  - S-12C&D: Regulation Schedule, Rainfall Plan



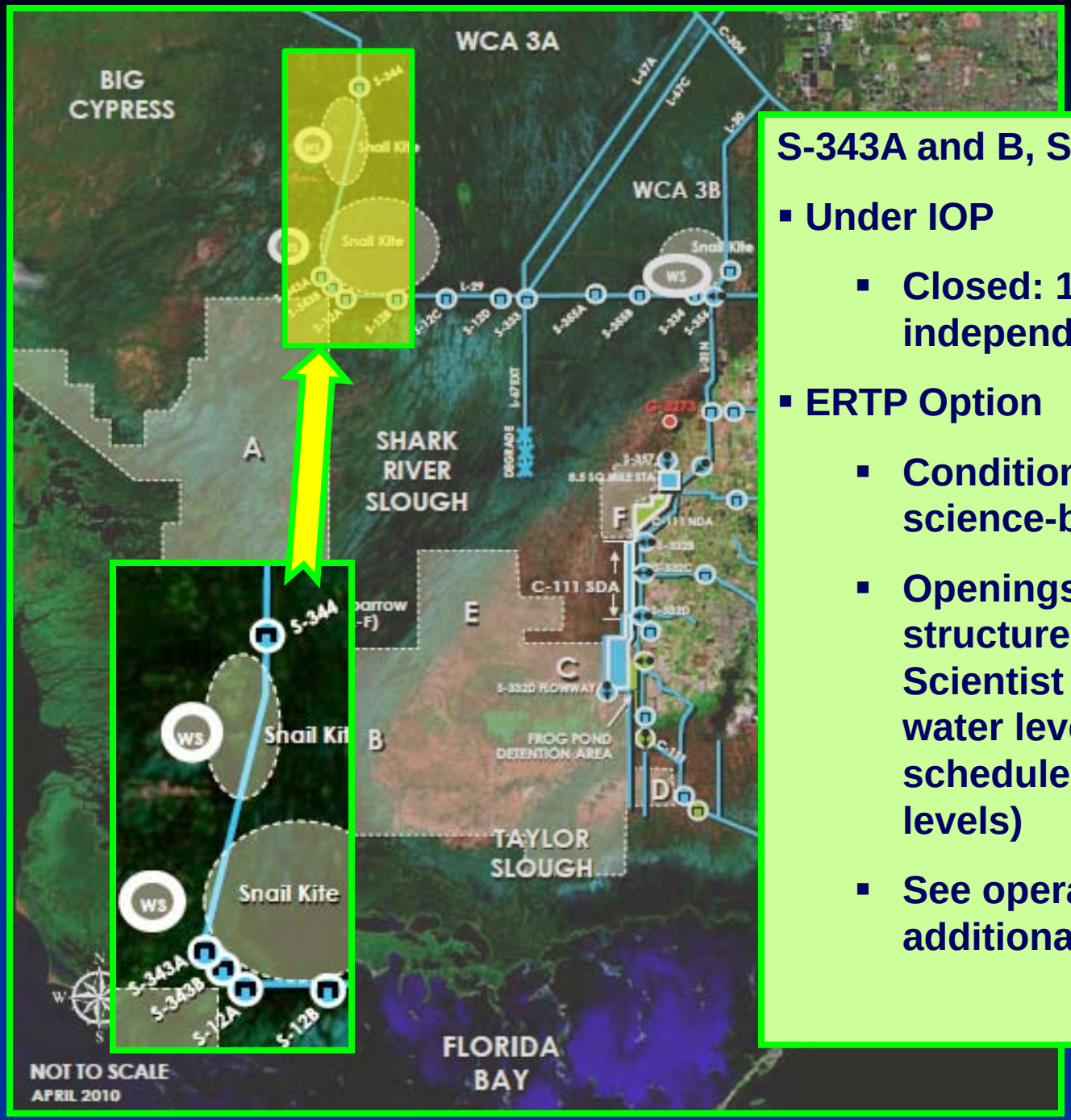
S-12A Low Volume Releases

- Under IOP
  - No releases during closure period
- ERTP Option
  - S-12A release up to 100cfs when called for by the Rainfall Formula – for cultural uses by the Miccosukee Tribe



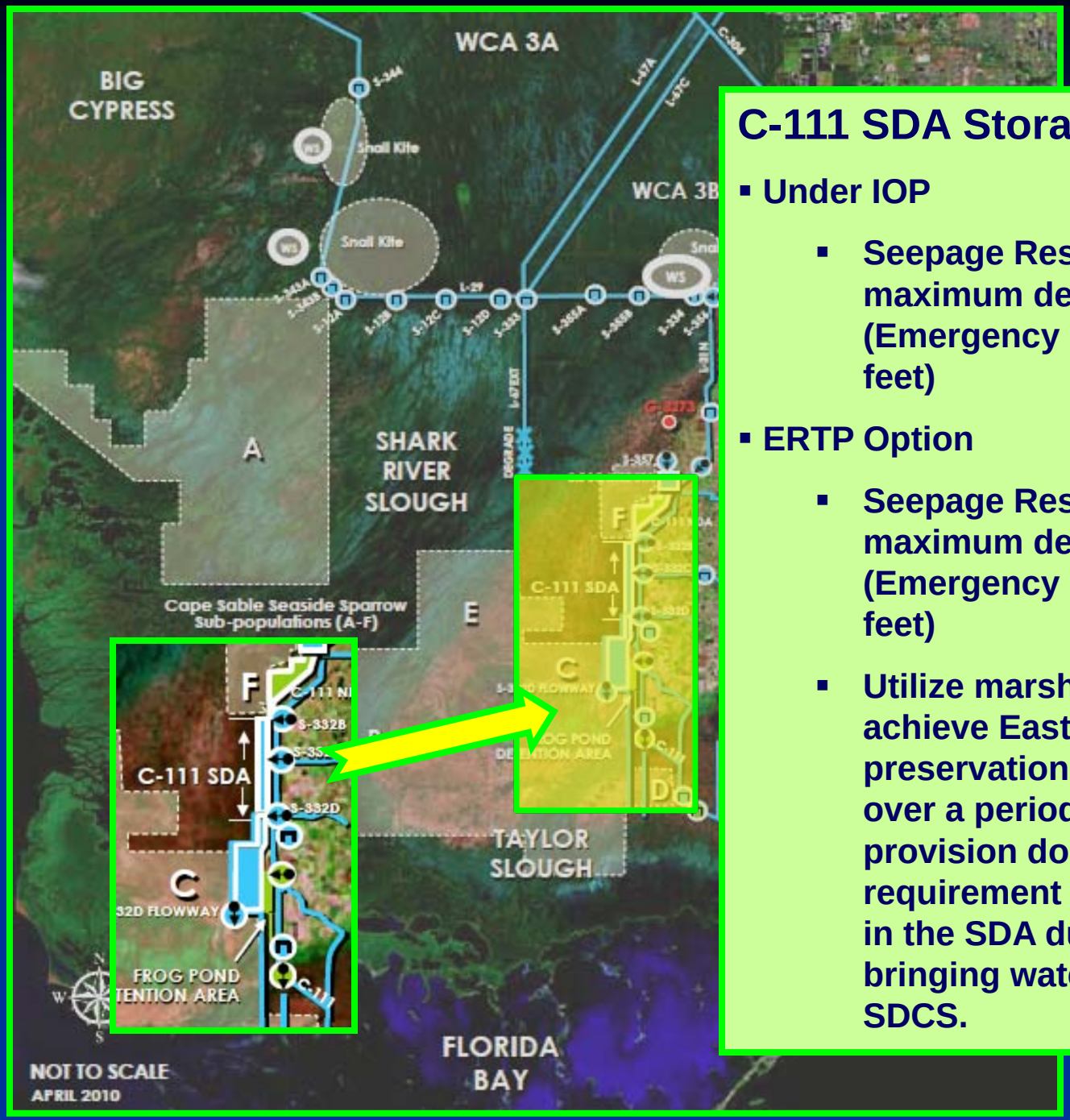
S-12A/B/C/D Distribution

- Under IOP
  - "Rule of Thumb"
    - 10 percent at A
    - 20 percent at B
    - 30 percent at C
    - 40 percent at D
- ERTP Option
  - S-12s flow distributions would not be limited to the historical percentage distribution.
  - Due to the position of S-12D near the center of Shark River Slough, S-12D should generally pass the most water, with less water passed to the west.



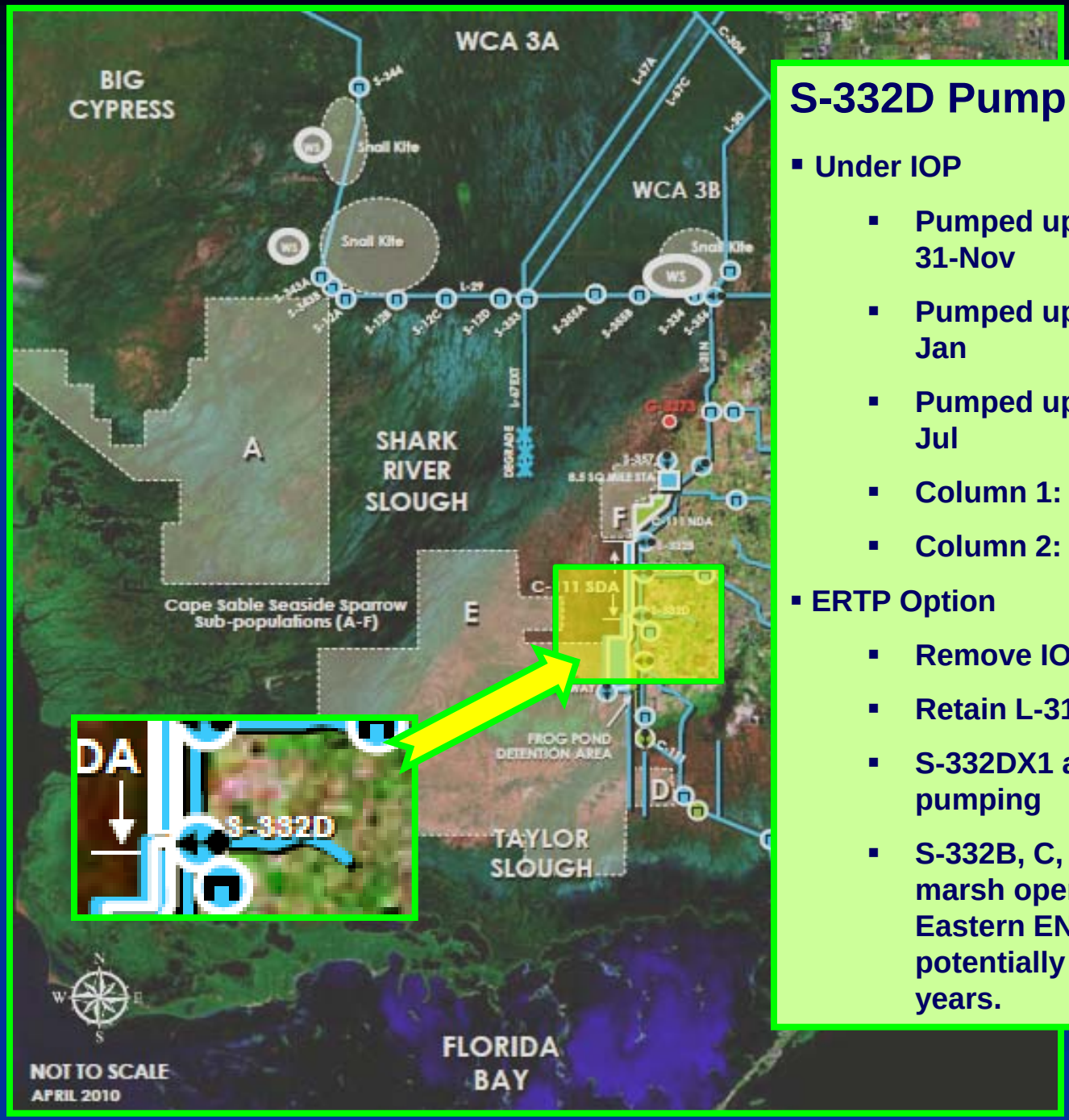
S-343A and B, S-344

- **Under IOP**
  - **Closed: 1-Nov to 15-Jul independent of WCA-3A levels**
- **ERTP Option**
  - **Conditional action window – use science-based management**
  - **Openings and closures of structures based on: Periodic Scientist Call input, NP-205 water levels, zones in regulation schedule (i.e. WCA-3A water levels)**
  - **See operational guidance for additional details**



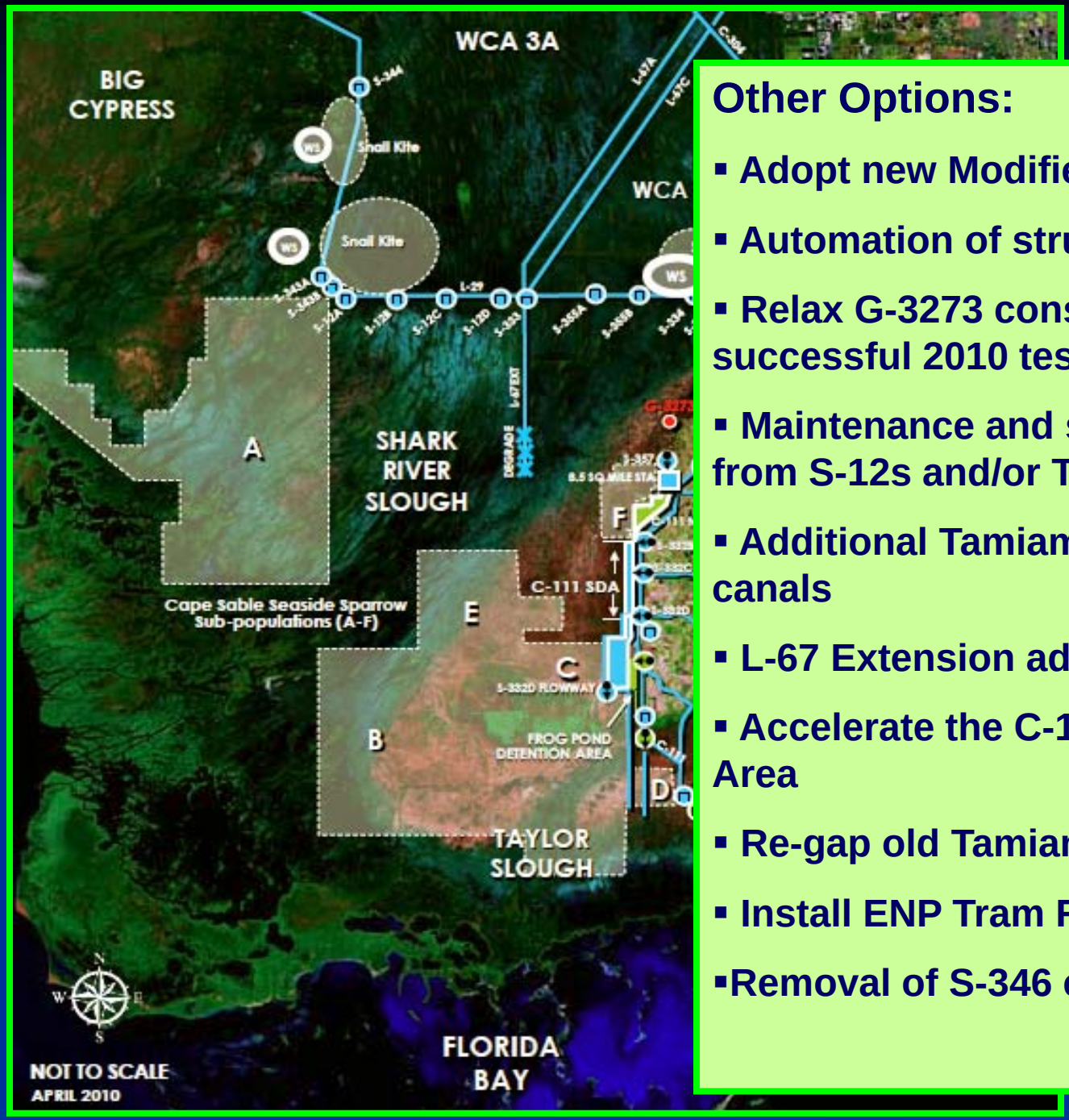
C-111 SDA Storage Capacity

- **Under IOP**
  - **Seepage Reservoir will have a normal maximum depth of 2.0 feet (Emergency Operations can exceed 4 feet)**
- **ERTP Option**
  - **Seepage Reservoir will have a normal maximum depth of 2.5 feet (Emergency Operations can exceed 4 feet)**
  - **Utilize marsh operations defined to achieve Eastern ENP marsh preservation and potentially refined over a period of years. However, this provision does not include a requirement to maintain water levels in the SDA during dry conditions by bringing water in from outside the SDCS.**



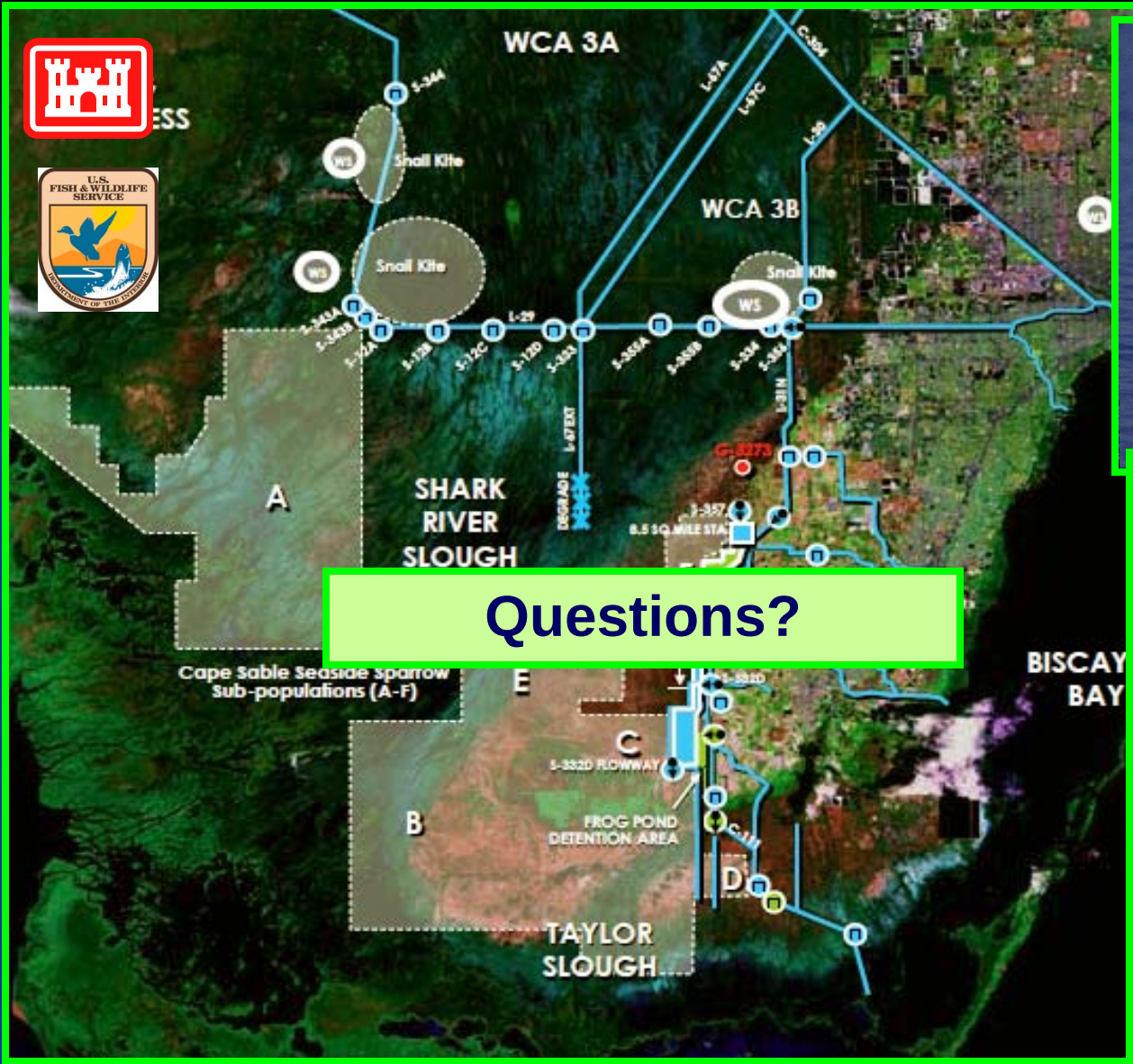
S-332D Pumping Limitation

- Under IOP
  - Pumped up to 500 cfs from 16-Jul to 31-Nov
  - Pumped up to 325 cfs from 1-Dec to 31-Jan
  - Pumped up to 165 cfs from 1-Feb to 15-Jul
  - Column 1: On 4.85 feet, Off 4.65 feet
  - Column 2: On 4.7 feet, Off 4.5 feet
- ERTP Option
  - Remove IOP pumping constraints
  - Retain L-31N on/off triggers
  - S-332DX1 ability to open when S-332D pumping
  - S-332B, C, & D and S-332DX1 utilize marsh operations defined to achieve Eastern ENP marsh preservation and potentially refined over a period of years.



Other Options:

- Adopt new Modified Rainfall Formula
- Automation of structures (S-12, S-11)
- Relax G-3273 constraint after successful 2010 testing
- Maintenance and sediment removal from S-12s and/or Tamiami Trail culverts
- Additional Tamiami culvert spreader canals
- L-67 Extension additional filling
- Accelerate the C-111 Northern Detention Area
- Re-gap old Tamiami Trail
- Install ENP Tram Road riser boards
- Removal of S-346 culvert



Questions?

Everglades Restoration Transition Plan (Phase I)