

CENTRAL EVERGLADES PLANNING PROJECT



Biscayne Bay Regional Restoration Coordination Team

Proposed Final Array

PRESENTED BY

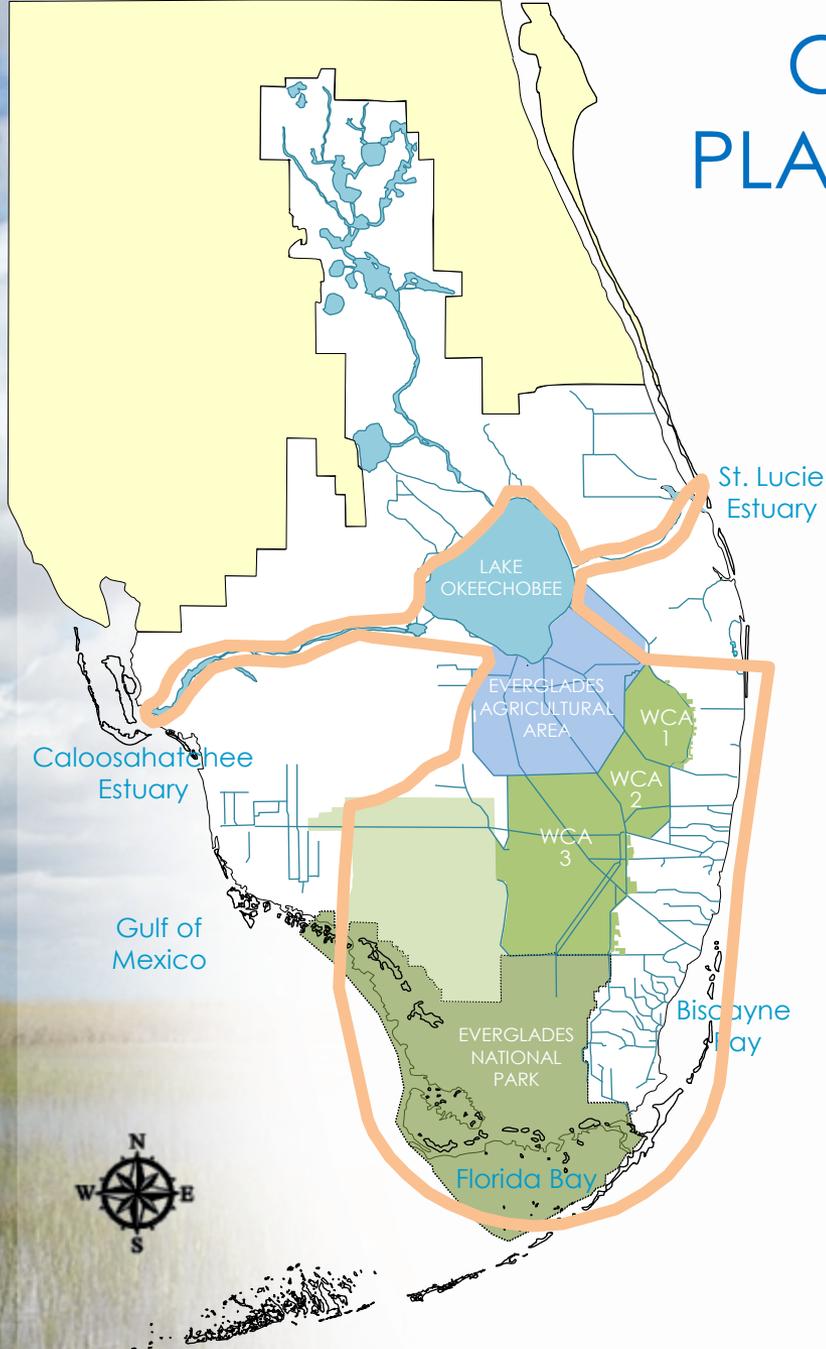
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Everglades Policy and
Coordination

South Florida Water
Management District

December 18, 2012

CENTRAL EVERGLADES PLANNING PROJECT (CEPP) PROPOSES TO:

- Move water south from Lake Okeechobee through Everglades Agricultural Area (EAA)
- Improve benefits to the east and west coast estuaries
- Store and treat flows in facilities within the EAA
- Send treated water south to improve conditions within Water Conservation Area 3A and 3B (WCA 3) and Everglades National Park and Florida Bay



SPATIAL PERSPECTIVE

REDLINE

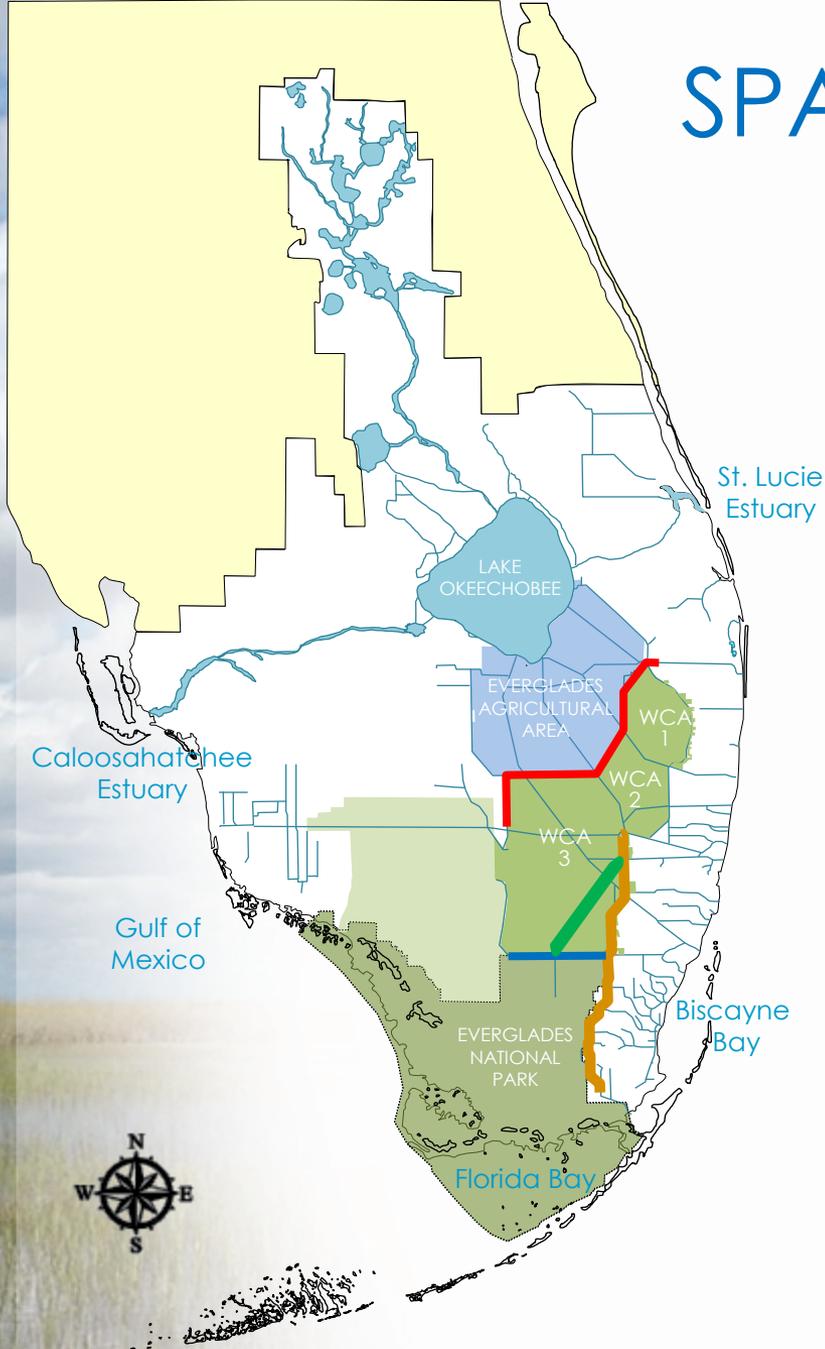
- Flows from EAA into WCA 3A (L-4, L-5 and L-6 levees and canals)
 - EAA Storage and Treatment
 - Northern WCA 3A Hydropattern Restoration
 - L-28 Triangle Rehydration/connectivity

GREENLINE / BLUELINE

- Flows through WCA 3A and WCA 3B (L-67A and L-67C levees and associated canals)
- Flows from WCA 3A/3B into Everglades National Park (Tamiami Trail roadway and L-29)
 - WCA 3A/3B and ENP Conveyance

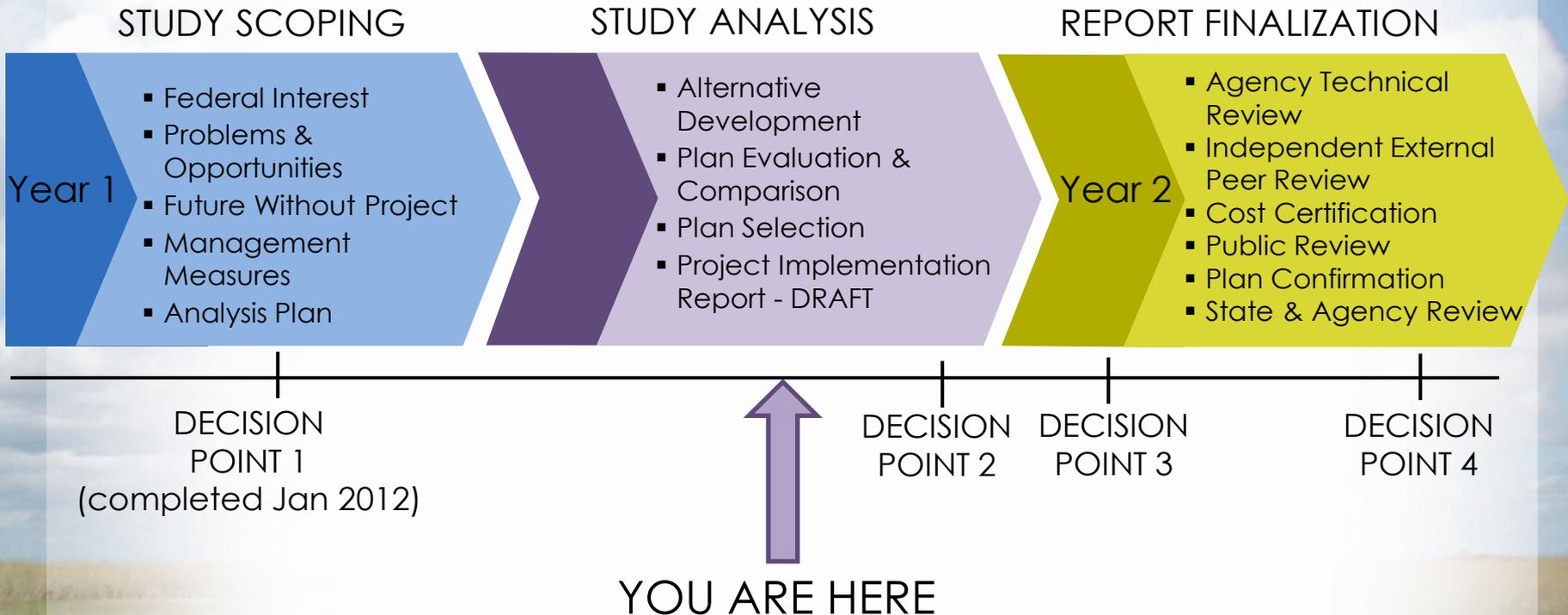
YELLOWLINE

- Flows from WCA 3A/3B and ENP to the lower east coast (east coast protective levee system, the L-30 and L-31N)
 - Seepage Management Options



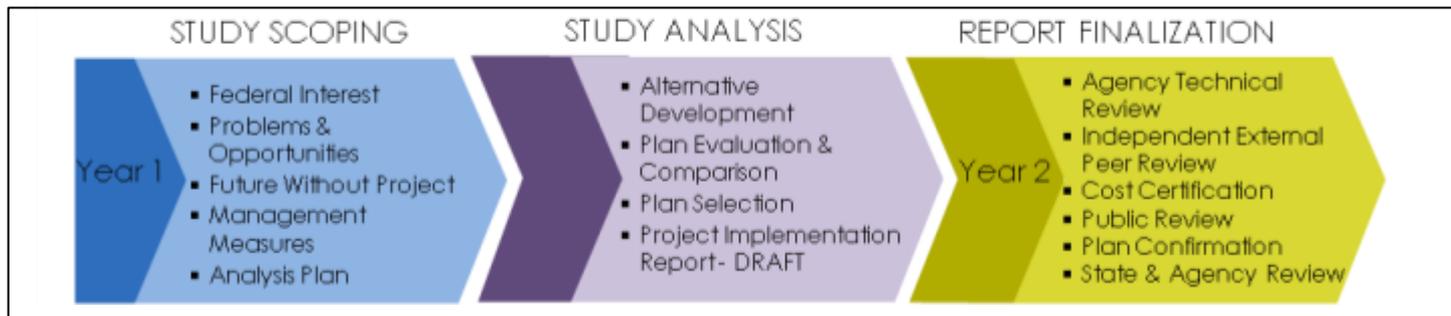
CURRENT STATUS

Study Analysis Phase



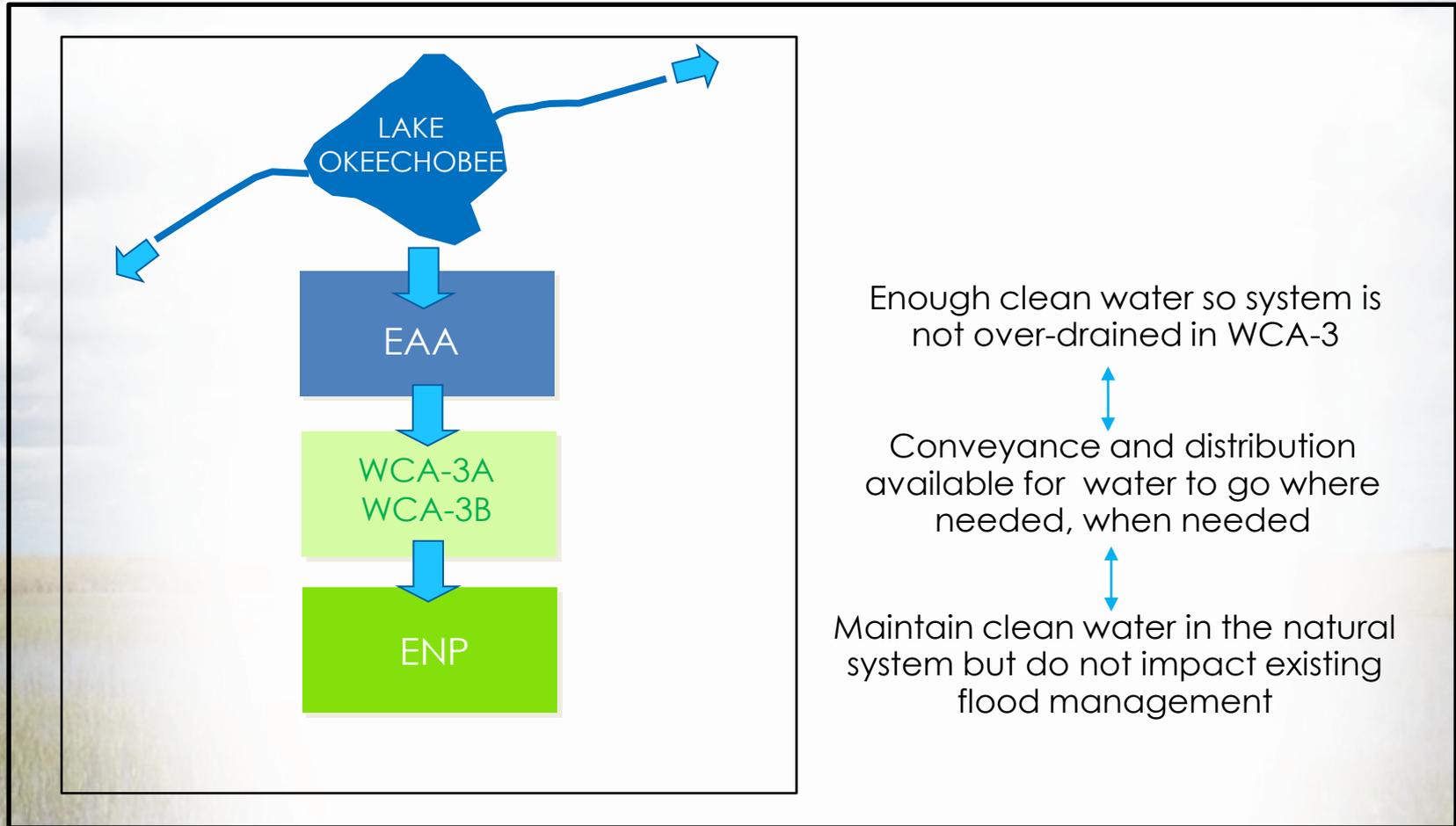
PROJECT FEATURES ARE BEING CONSIDERED AND UNDERGOING MODELING AND EVALUATION

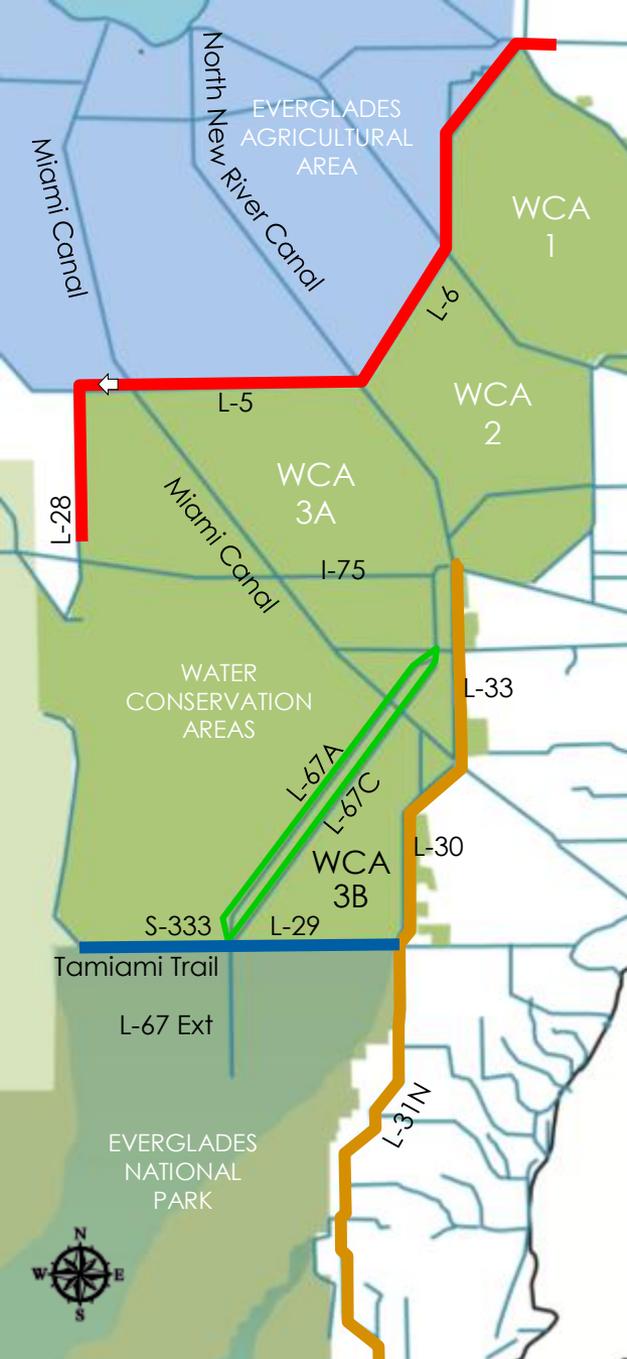
HOW WE GOT HERE



MODELING STRATEGIES

Hydrologic models (computer simulation) are planning tools to facilitate the evaluation of alternative restoration approaches





SCREENING COMPLETED

within considerations and constraints

North of the Redline

- Combination of features to increase water deliveries downstream and improve estuarine benefits

South of the Redline

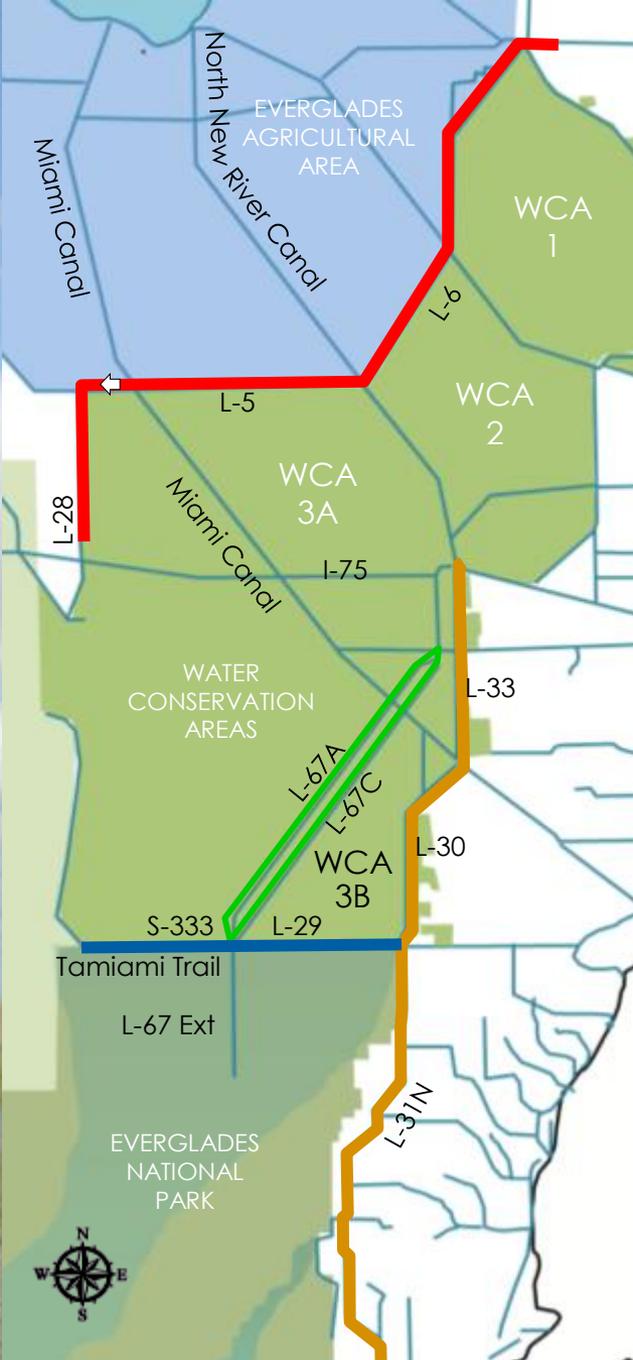
- Features and their locations to best restore sheetflow in northern Water Conservation Area 3A

Greenline/Blueline

- Features to best restore sheetflow through southern WCA-3A and 3B
- Configuration of conveyance features to best restore flows to Everglades National Park

Yellowline

- Features to best compliment rest of project and manage seepage to the eastern urban area without impacting the water supply



INFRASTRUCTURE CONSIDERED

QUANTITY AND QUALITY

Storage/Treatment

- Stormwater Treatment Areas (STAs)
- Flowage Equalization Basins (FEB)
- Deep Storage (various depths)

CONVEYANCE AND DISTRIBUTION

Distribution, Directionality, Timing Controlled versus not Controlled

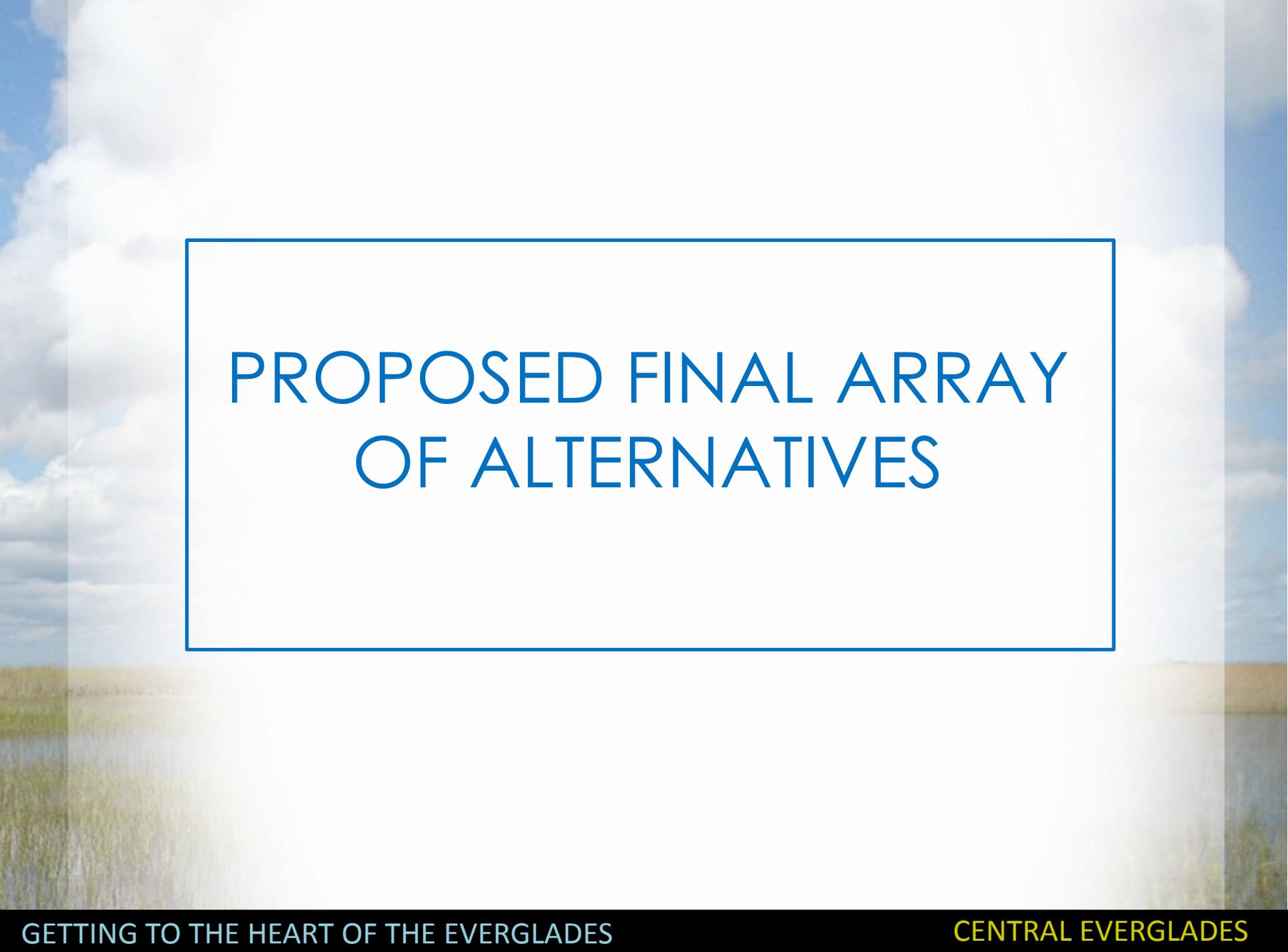
- Spreader Canals
- Pumps
- Canal Filling
- Levee Removal and Gaps
- Culverts / Gated Structures

SEEPAGE MANAGEMENT

Keeping Water in the Natural System

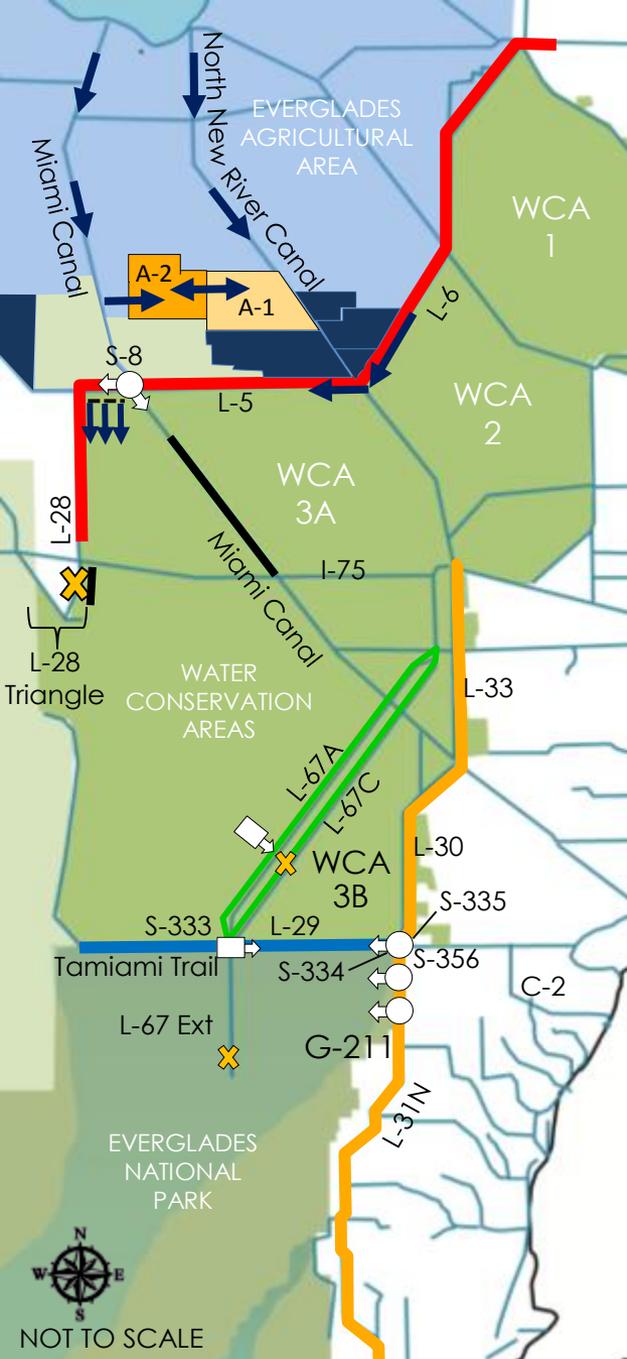
- Walls
- Pumps
- Step down levees





PROPOSED FINAL ARRAY OF ALTERNATIVES

PROPOSED ALTERNATIVE 1



STORAGE AND TREATMENT

- Construct A-2 FEB and integrate with A-1 FEB operations
- Lake Okeechobee operation refinements within LORS

DISTRIBUTION/CONVEYANCE

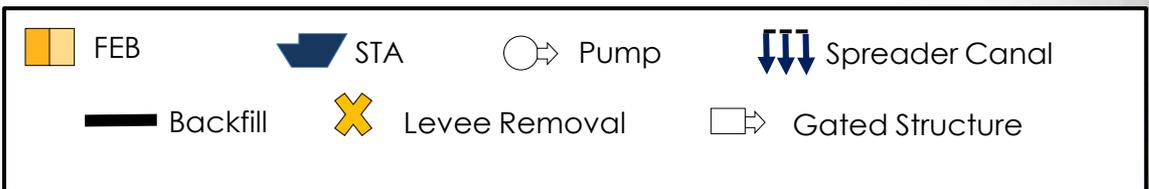
- Diversion of L-6 flows and L-5 canal improvements
- Spreader canal ~3 miles west of S-8 (3,000 cfs)
- Backfill Miami Canal from ~1.5 miles south of S-8 to I-75
- L-28 Triangle – gap levee

DISTRIBUTION/CONVEYANCE

- Increase S-333 capacity to 3,000 cfs
- One 750 cfs gated structure in L-67A, 0.5 mile spoil removal west of L-67A north and south of structures
- One 6000-ft gap in L-67C levee
- Tamiami Trail western 2.6 mile bridge and L-29 canal max stage at 9.7 ft (FUTURE WORK BY OTHERS)
- Degrade southern 1.5 miles of L-67 extension levee

SEEPAGE MANAGEMENT

- Increase S-356 to 1,000 cfs
- Two 250 cfs pumps on L-31N
- G-211 operational refinements; use coastal canals to convey seepage



NOT TO SCALE

PROPOSED ALTERNATIVE 2

STORAGE AND TREATMENT

- Construct A-2 FEB and integrate with A-1 FEB operations
- Lake Okeechobee operation refinements within LORS

DISTRIBUTION/CONVEYANCE

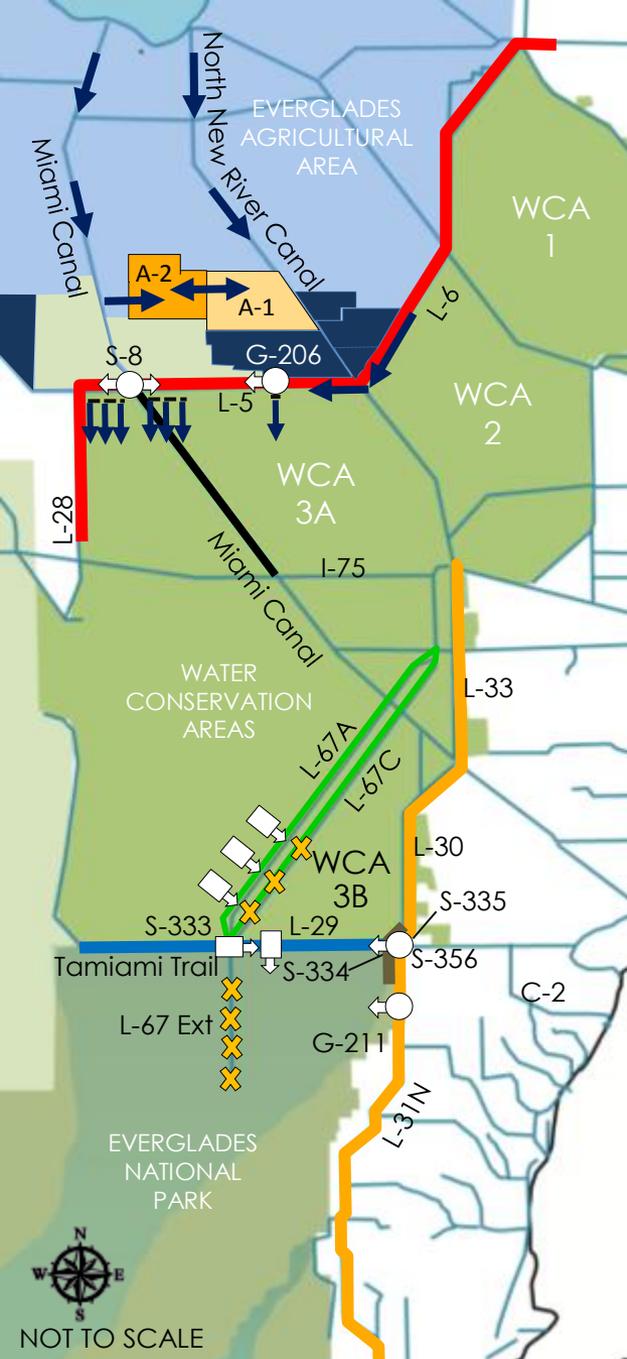
- Diversion of L-6 flows and L-5 canal improvements
- Spreader canal: ~3 miles west of S-8 (3,000 cfs), ~3 miles east of S-8 (800 cfs) and ~1.5 miles east of G-206 (400 cfs)
- Backfill Miami Canal from S-8 to I-75

DISTRIBUTION/CONVEYANCE

- Increase S-333 capacity to 3,000 cfs
- One 750 cfs and two 500 cfs gated structures in L-67A, 0.5 mile spoil removal west of L-67A north and south of structures
- 6,000-ft gaps in L-67C levee at each structure
- One additional 500 cfs gravity structure out of WCA-3B
- Tamiami Trail western 2.6 mile bridge and L-29 canal max stage at 9.7 ft (FUTURE WORK BY OTHERS)
- Degrade entire L-67 extension levee

SEEPAGE MANAGEMENT

- Increase S-356 to 1,000 cfs
- Full depth penetrating seepage barrier from S-335 to S-334
- Partial depth seepage barrier south of Tamiami Trail 2 miles along L-31N
- One 250 cfs pump on L-31N into ENP
- G-211 operational refinements; use coastal canals to convey seepage



NOT TO SCALE

PROPOSED ALTERNATIVE 3

STORAGE AND TREATMENT

- Construct A-2 FEB and integrate with A-1 FEB operations
- Lake Okeechobee operation refinements within LORS

DISTRIBUTION/CONVEYANCE

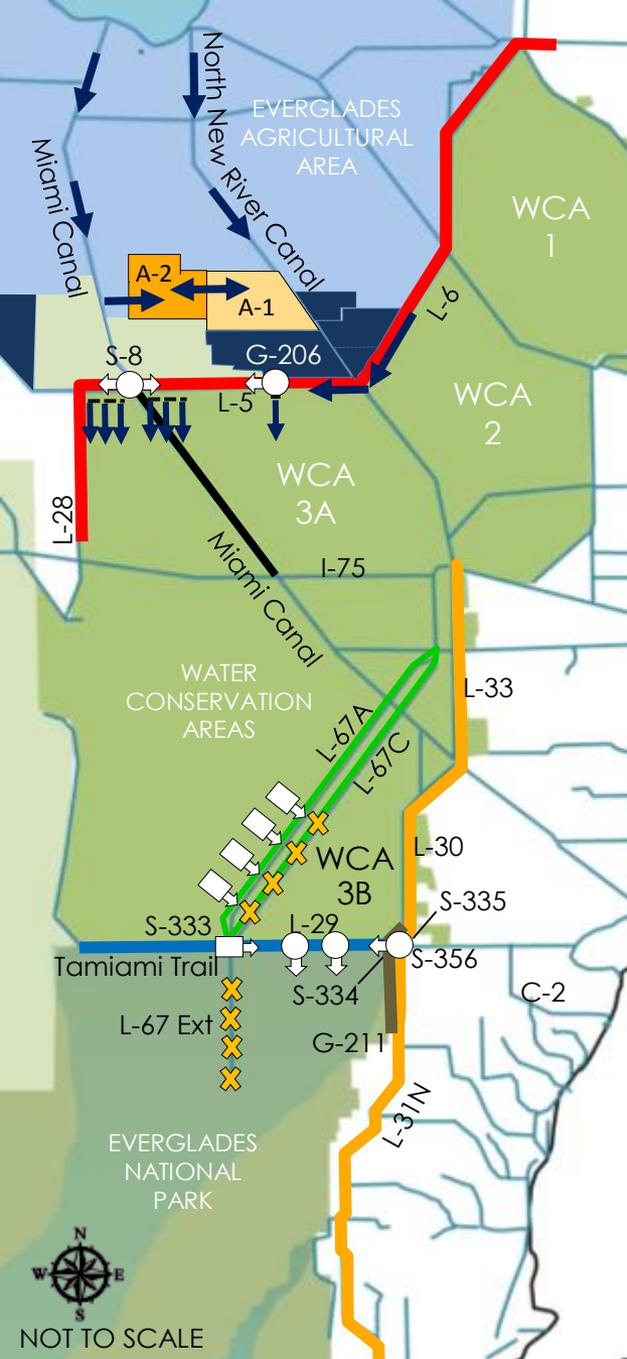
- Diversion of L-6 flows and L-5 canal improvements
- Spreader canal: ~3 miles west of S-8 (3,000 cfs), ~3 miles east of S-8 (800 cfs) and ~1.5 miles east of G-206 (400 cfs)
- Backfill Miami Canal from S-8 to I-75

DISTRIBUTION/CONVEYANCE

- Increase S-333 capacity to 3,000 cfs
- Four 500 cfs gated structures in L-67A, 0.5 mile spoil removal west of L-67A north and south of structures
- 6,000-ft gaps in L-67C levee at each structure
- Two 500 cfs pumps out of WCA-3B at existing agricultural canals with improvements to agricultural canals in WCA-3B
- Tamiami Trail western 2.6 mile bridge and L-29 canal max stage at 9.7 ft (FUTURE WORK BY OTHERS)
- Degrade entire L-67 extension levee

SEEPAGE MANAGEMENT

- Increase S-356 to 1,000 cfs
- Partial depth seepage barrier south of Tamiami Trail 5 miles along L-31N
- Full depth penetrating seepage barrier from S-335 to S-334
- G-211 operational refinements; use coastal canals to convey seepage



PROPOSED ALTERNATIVE 4

STORAGE AND TREATMENT

- Construct A-2 FEB and integrate with A-1 FEB operations
- Lake Okeechobee operation refinements within LORS

DISTRIBUTION/CONVEYANCE

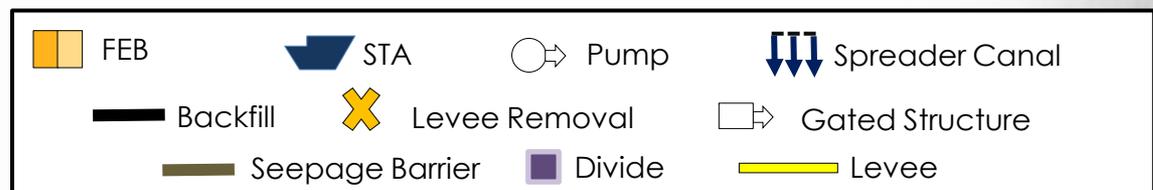
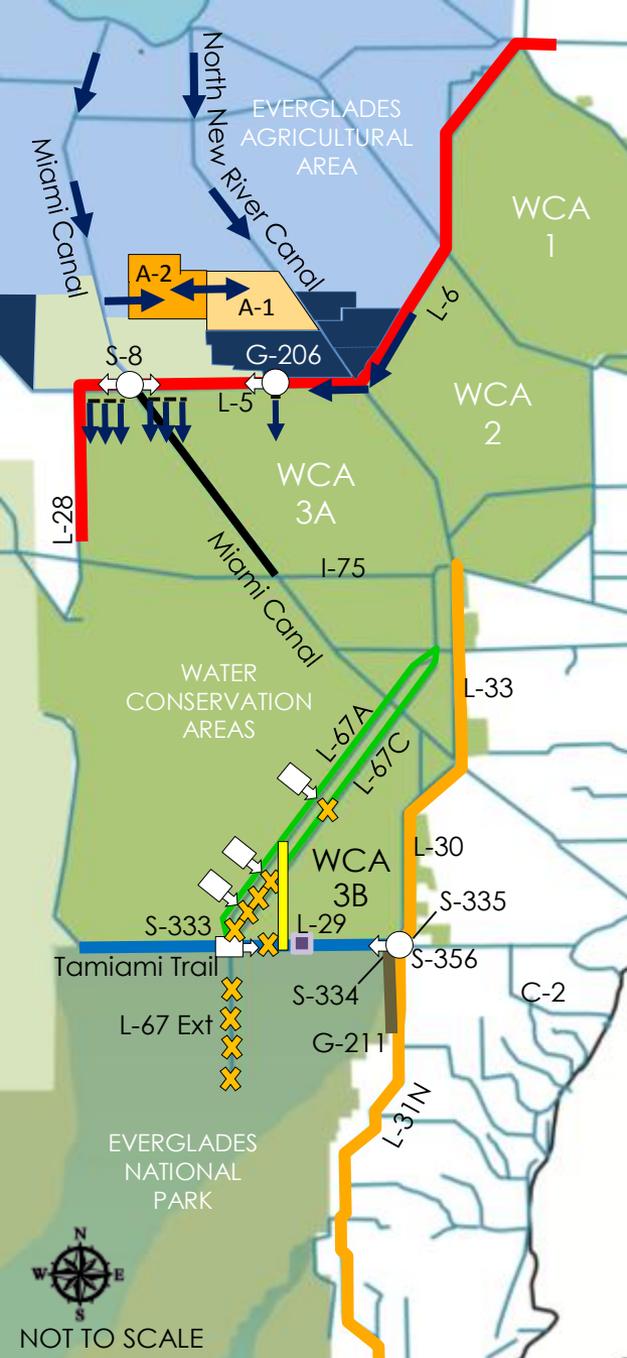
- Diversion of L-6 flows and L-5 canal improvements
- Spreader canal: ~3 miles west of S-8 (3,000 cfs), ~3 miles east of S-8 (800 cfs) and ~1.5 miles east of G-206 (400 cfs)
- Backfill Miami Canal from S-8 to I-75

DISTRIBUTION/CONVEYANCE

- Increase S-333 capacity to 3,000 cfs
- Two 500 cfs gated structures in L-67A, 0.5 mile spoil removal west of L-67A north and south of structures
- Include levee in WCA 3B
- Degrade L-67C levee in Blue Shanty flowway
- One 500 cfs gated structure north of Blue Shanty levee and 6,000-ft gap in L-67C levee
- Degrade L-29 levee in Blue Shanty flowway, divide structure east of Blue Shanty levee at terminus of western bridge
- Tamiami Trail western 2.6 mile bridge and L-29 canal max stage at 9.7 ft (FUTURE WORK BY OTHERS)
- Degrade entire L-67 extension levee

SEEPAGE MANAGEMENT

- Increase S-356 to 1,000 cfs
- Partial depth seepage barrier south of Tamiami Trail 5 miles along L-31N
- G-211 operational refinements; use coastal canals to convey seepage





QUESTIONS?

Visit www.evergladesplan.org for updates and current information