

# STA Vegetation Management and Enhancement

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Term Plan for Achieving Water Quality  
Goals for Everglades Protection Area  
Tributary Basins  
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# Healthy EAV



# Highly Stressed EAV



# Objective

## Maintain sustainable vegetation-based phosphorus uptake processes



- Vegetation Enhancement
  - Establish/maintain appropriate vegetation communities
  - Improve stability and functional redundancy
- Selective Management
  - Increase desirable species
  - Control Invasive/Undesirable species
  - Control exotic populations

# Vegetation Function



Emergent plantings after cattail failure

- **Emergent Aquatic Vegetation**
  - Re-establish stable soils
  - Re-direct flow
  - Nutrient uptake
  - SAV stabilization
  - Increase diversity/decrease clonal populations
  
- **Submerged Aquatic Vegetation**
  - Water column nutrient uptake
  - Replenish seasonal die-off
  - Replenish loss due to predation
  - Repair man-made damage
  - Establish new SAV bed
  - Increase species diversity



SAV Inoculation in new SAV cell

# Adaptive Management Process

- **Monitor vegetation health**
- Coordinate with water management
  - Stage, flow rates (cfs), redirecting flow
- Proactively manage vegetation
  - Increase cover and health of desired species at a specific location
  - Control growth of undesirable species
- Repair and restore
  - Emergent vegetation enhancements where vegetation is damaged or undesirable



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Invasive FAV Treatment

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STA 1W Cell 1A: EAV decline and restoration plantings

# Rehabilitation: STA-1W Cell 1A

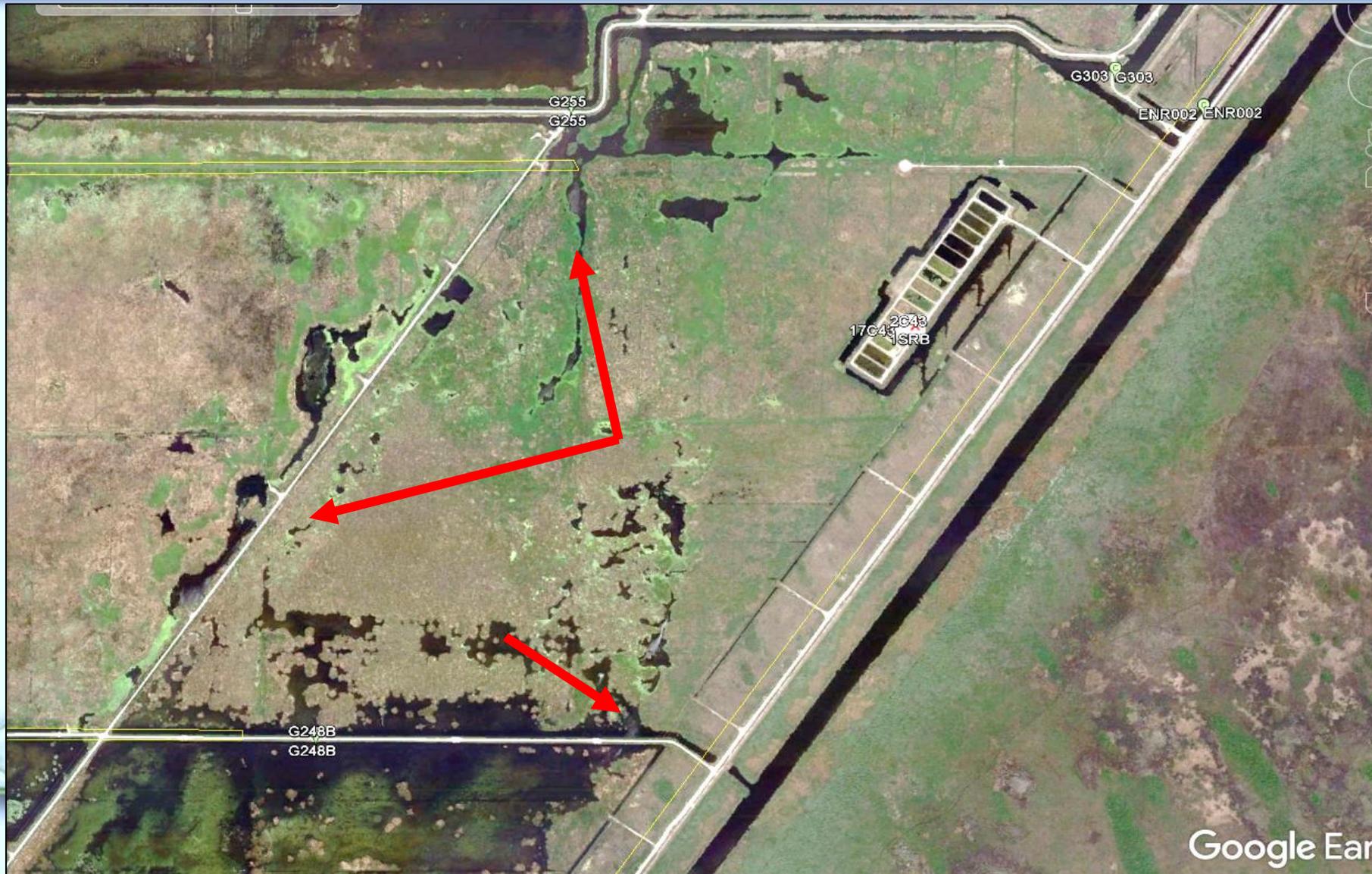


# Rehabilitation: STA-1W Cell 1A 2008



- New cattail growth
- Limited control of inflow results in chronic high water

# Rehabilitation: STA-1W Cell 1A 2011



- As cattail expands short circuits develop
- Weak emergent expansion at bottom of cell

# Rehabilitation: STA-1W Cell 1A 2014



- Cattail failing
- Delaminated soil
- Increased undesirable FAV
- SW short circuit repaired with plantings

# Rehabilitation: STA-1W Cell 1A 2106



- Cattail failed
- Physically “re-worked” floating soils
- Inflow pattern changed
- Undesirable FAV treated
- Large-scale plantings started

# Rehabilitation: STA-1W Cell 1A 2017



- Cattail recolonizing
- Delaminated soil back on the bottom
- Large scale plantings maturing

# Rehabilitation: STA-1W Cell 1A



# Questions

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