

Greater Everglades Restoration



WHAT IS THE GREATER EVERGLADES RESTORATION?

- The world's largest ecosystem restoration effort
- Plan to increase water flow through the Everglades National Park
- Plan for a sustainable south Florida by ensuring clean and reliable water supplies to support exponentially growing population
- To provide flood protection

Why Restoration?

- 50% less Everglades
- 90% fewer wading birds
- 69 threatened or endangered species
- 5 feet of organic soil lost from the Agricultural Area
- 1.5 million acres infested by exotic plants
- 40,000 fewer acres of grass in Lake Okeechobee
- Fresh-water releases damage estuaries on both coasts
- Commercial fishing in Biscayne and Florida Bays declines
- 37% less living coral at sites in the Florida Keys

How will we restore?

By getting the water right!



Who is in charge?

- US Army Corps of Engineers
- South Florida Water Management District

"50-50 cost shared between federal and state"

- Expected to take over 20 years
- Cost over \$8 billion dollars

Restoration Leaders

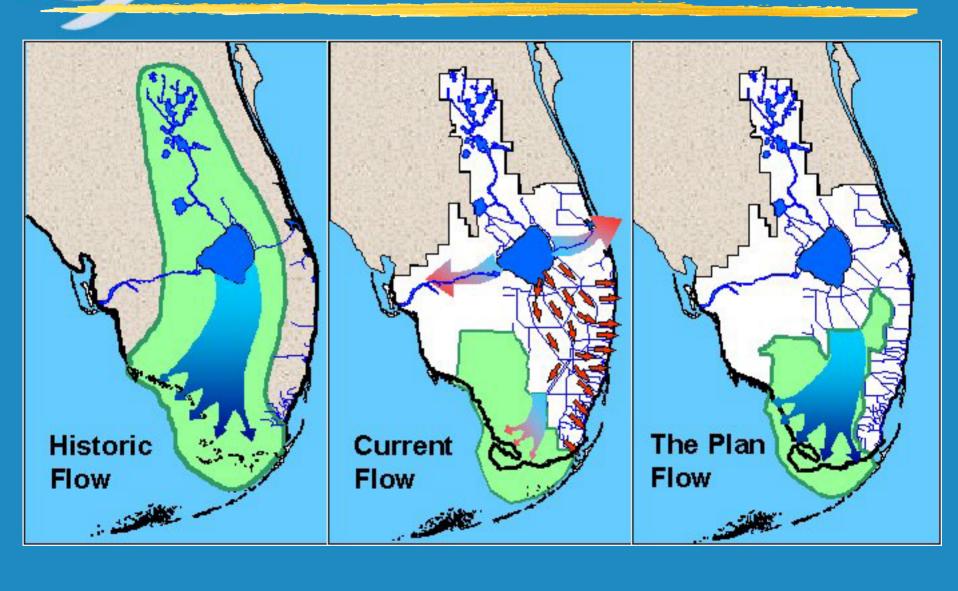
- US Department of Army for Civil Works
- U.S. Department of the Interior
 - National Park Service
 - Fish and Wildlife Service
 - Geological Survey
- U.S. Department of Commerce
 - National Oceanic and Atmospheric Administration
- Environmental Protection Agency
- Seminole Tribe of Florida
- Miccosukee Tribe of Indians of Florida
- Florida Department of Environmental Protection
- South Florida Water Management District

CERP

"Comprehensive Everglades Restoration Plan"

- 6 pilot projects
- 15 surface storage areas (~170,000 acres)
- 3 in-ground reservoirs (~11,000 acres)
- 19 stormwater treatment areas (~36,000 acres)
- 330 aquifer storage and recovery wells
- 2 wastewater reuse plants
- 240 miles of canals, levees and structures removed
- Operational changes

Water Flow



ARE COASTAL AREAS OF CONCERN? WHY?

NOAA's Role

- 1. <u>Protect, restore, and manage</u> the use of coastal and ocean resources through ecosystem-based management approaches.
- 2. Understand climate variability and change to enhance society's ability to plan and respond.
- 3. Serve society's needs for weather and water information.
- 4. Support the Nation's commerce with information for safe and efficient transportation.

From NOAA's 2003 Strategic Plan

NOAA's Trusteeships and Responsibilities

- NOAA Fisheries
 - Magnuson-Stevens Fishery Conservation and Management
 Act (FMCA) for conservation and management of living
 marine resources and critical habitats
 - Endangered Species Act (ESA) for the protection of endangered and threatened marine species
 - The Marine Mammal Protection Act (MMPA) for protection of marine mammals
- NOAA National Ocean Service
 - Florida Keys National Marine Sanctuary and Protection Act.
 - Coastal Zone Management Act- Rookery Bay National Estuarine Research Reserve



Ecosystem Approach Includes the Full Seascape





Downstream effects...





South Florida Ecosystem Restoration must include the Coastal Ecosystem.

- Value to Florida and the U.S.
- Downstream 'sink'
- Showing signs of 'pressure'

This is one interconnected system.



- South Florida Ecosystem Restoration includes the Coastal Ecosystem which is among the most threatened and among the most valuable
- If the health of the coastal ecosystem goes down hill, all upstream restoration fails.



Science and Adaptive Management

- Adaptive management requires a strong science base, models and ongoing monitoring
- These efforts require data and interpretations
- NOAA funded research helps provide the needed data and interpretations
- All the necessary science and outreach cannot be accomplished by a single agency

"NEED COLLABORATION AND PARTNERSHIPS"

Coastal Issues NOAA is tracking

- Water Quality
 - Nitrogen/Eutrophication in Florida Bay, along the SW shelf, and near the FKNMS
 - Mercury levels in Florida Bay fish
 - Endosulfan in South Dade Canals
- Living Marine Resources
 - Pink shrimp sensitivity to salinity in Florida Bay nursery
- Critical Habitat
 - Seagrass habitats
 - Florida Bay Murky Past
 - Coral Reef Tract

How Can We Make This Work?

- Public education
- Formal education
- Community outreach

"Using partnerships and existing networks"



South Florida Ecosystem Education Project

"PARTNERSHIP"

- Florida Sea Grant College Program
- National Sea Grant College Program
- NOAA's Atlantic Oceanographic and Meteorological Laboratory
- NOAA's Florida Keys National Marine Sanctuary
- NOAA's Southeast Fisheries Science Center



Partnership Goals

- Foster two-way communication between south Floridians and the NOAA's research community
- Empower citizens to participate in science-based decisions that affect their local marine ecosystems
- Provide outreach, education and general information about water quality and other issues affecting their coastal ecosystems



What Next?

- Learn more about restoration projects in your area
- Encourage partnerships in education and outreach projects
- Contact local elected officials or other governmental and non-governmental organizations and get involved
- Attend public hearings
- Make sure you have all the facts and make your opinion known
- Help promote education for local restoration projects

www.evergladesplan.org www.aoml.noaa.gov/sfp



