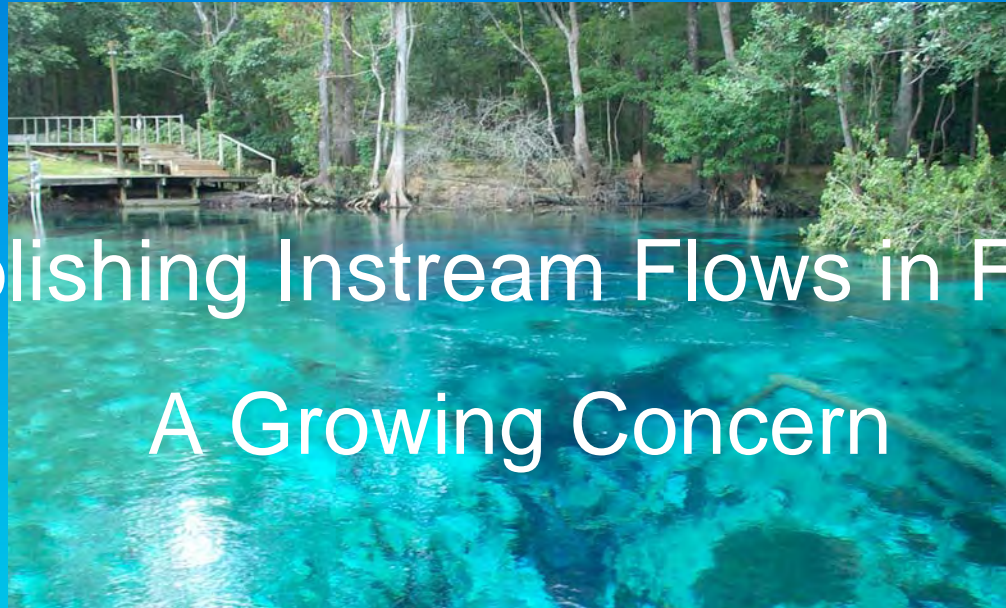




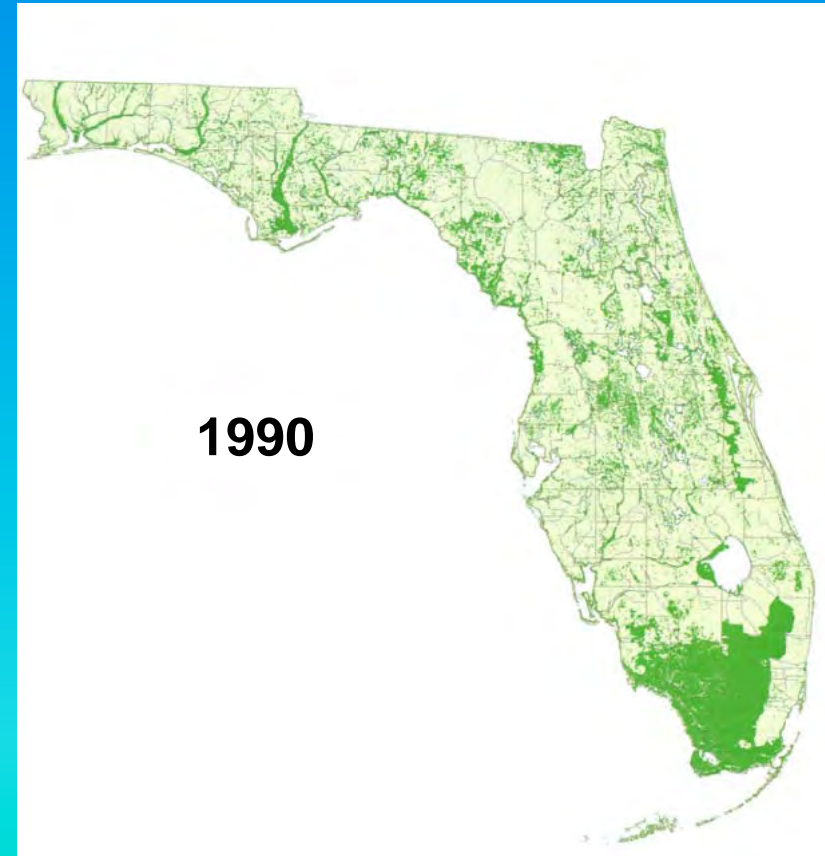
Florida Fish and Wildlife Conservation Commission



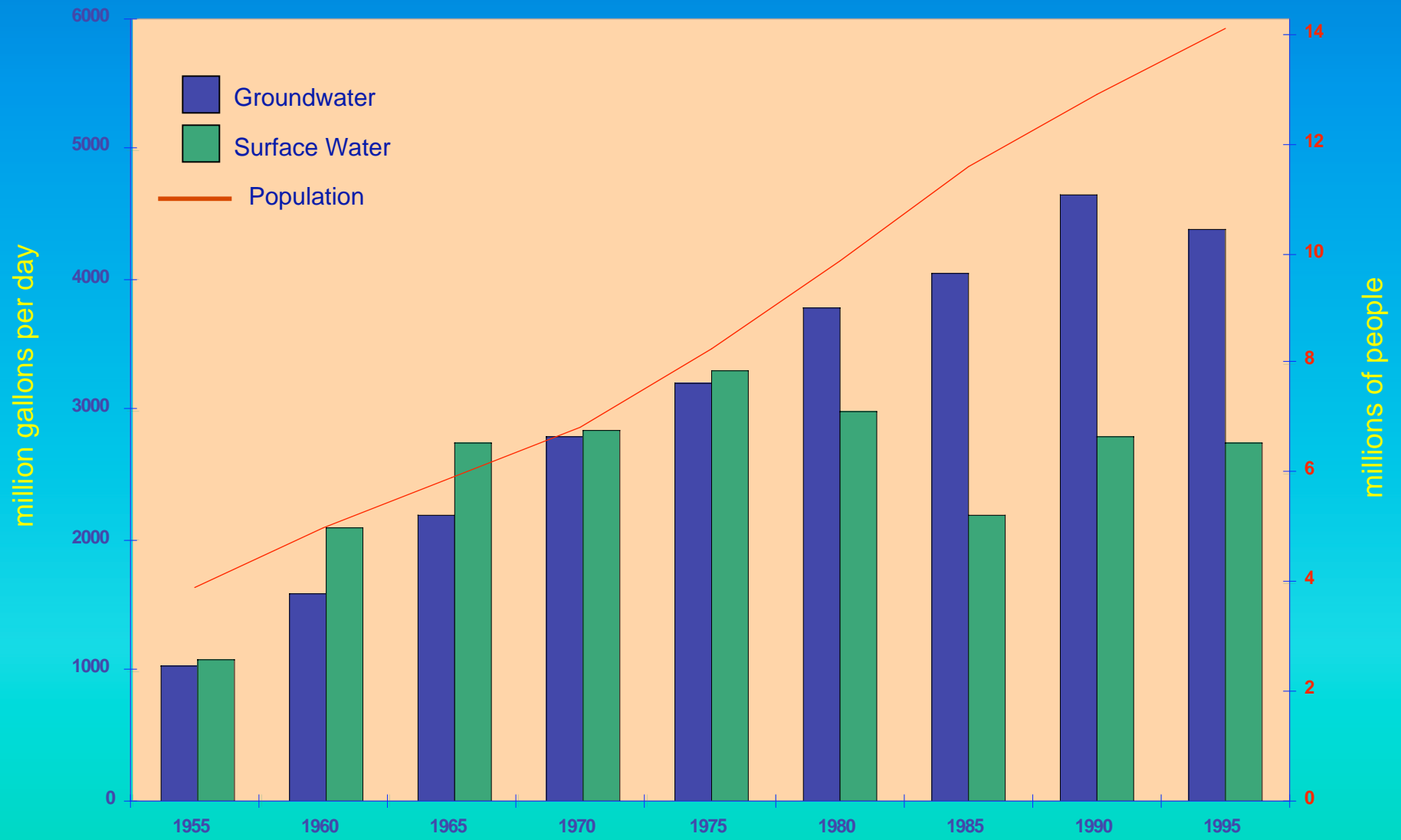
Establishing Instream Flows in Florida: A Growing Concern

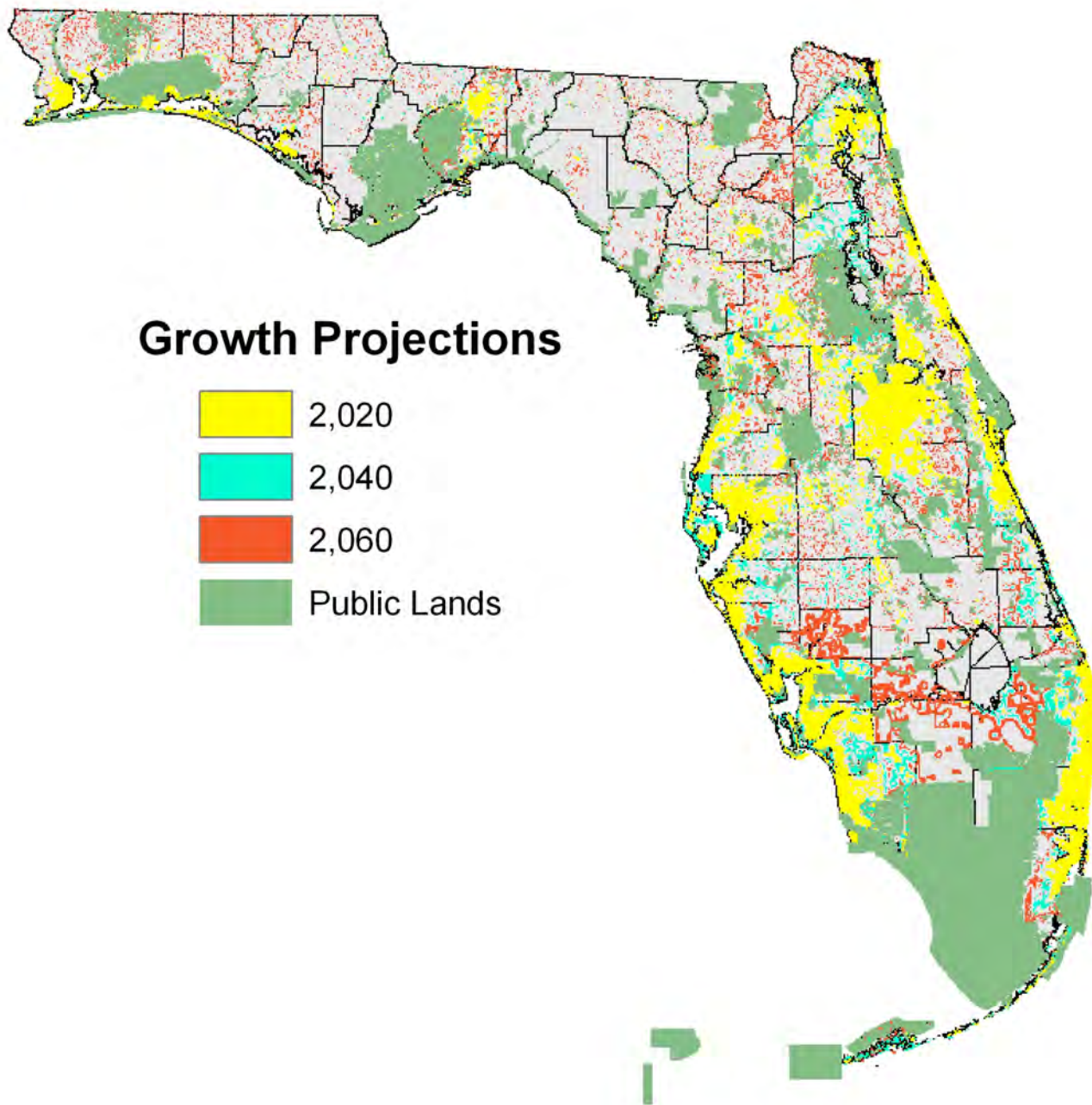


Florida's Disappearing Wetlands



Increasing Demands Upon Florida's Limited Supply of Freshwater





Growth Projections

- 2,020
- 2,040
- 2,060
- Public Lands

Interstate Water Issues



Florida's Minimum Flows and Levels Statute (373.042 FS)

- Defines MFLs as “the limit at which further withdrawals would be significantly harmful to the water resources or ecology of the area.”
- Calculated using “best available information.”
When appropriate, minimum flows and levels may be calculated to reflect seasonal variations.
- Charges water management districts with establishing MFLs for water bodies within their boundaries.

Water Resources Implementation Rule

MFL Considerations (Chapt. 62-40.473 F.A.C.)

- Recreation in and on the water.
- Fish and wildlife habitat and the passage of fish.
- Estuarine resources.
- Transfer of detrital material.
- Maintenance of freshwater storage and supply.
- Aesthetic and scenic attributes.
- Filtration, absorption of nutrients and pollutants.
- Sediment loads.
- Water quality.
- Navigation.

Water Reservations

(Chapt. 62-40.474 F.A.C.)

Reservations may be used for the protection of fish and wildlife to:

1. Aid in a recovery or prevention strategy for a water resource with an established minimum flow or level;
2. Aid in the restoration of natural systems which provide fish and wildlife habitat;
3. Protect flows or levels that support fish and wildlife before harm occurs;
4. Protect fish and wildlife within an Outstanding Florida Water, an Aquatic Preserve, a state park, or other publicly owned conservation land with significant ecological value; or
5. Prevent withdrawals in any other circumstance required to protect fish and wildlife.

Water Reservations

(Chapt. 62-40.474 F.A.C.)

Reservations may be used for the protection of public health and safety to:

1. Prevent sinkhole formation;
2. Prevent or decrease saltwater intrusion;
3. Prevent the movement or withdrawal of groundwater pollutants; or
4. Prevent withdrawals in any other circumstance required to protect public health and safety.

Northwest Florida
Water Management
District

Suwannee River
Water Management
District

St. Johns River
Water Management
District

Southwest Florida
Water Management
District

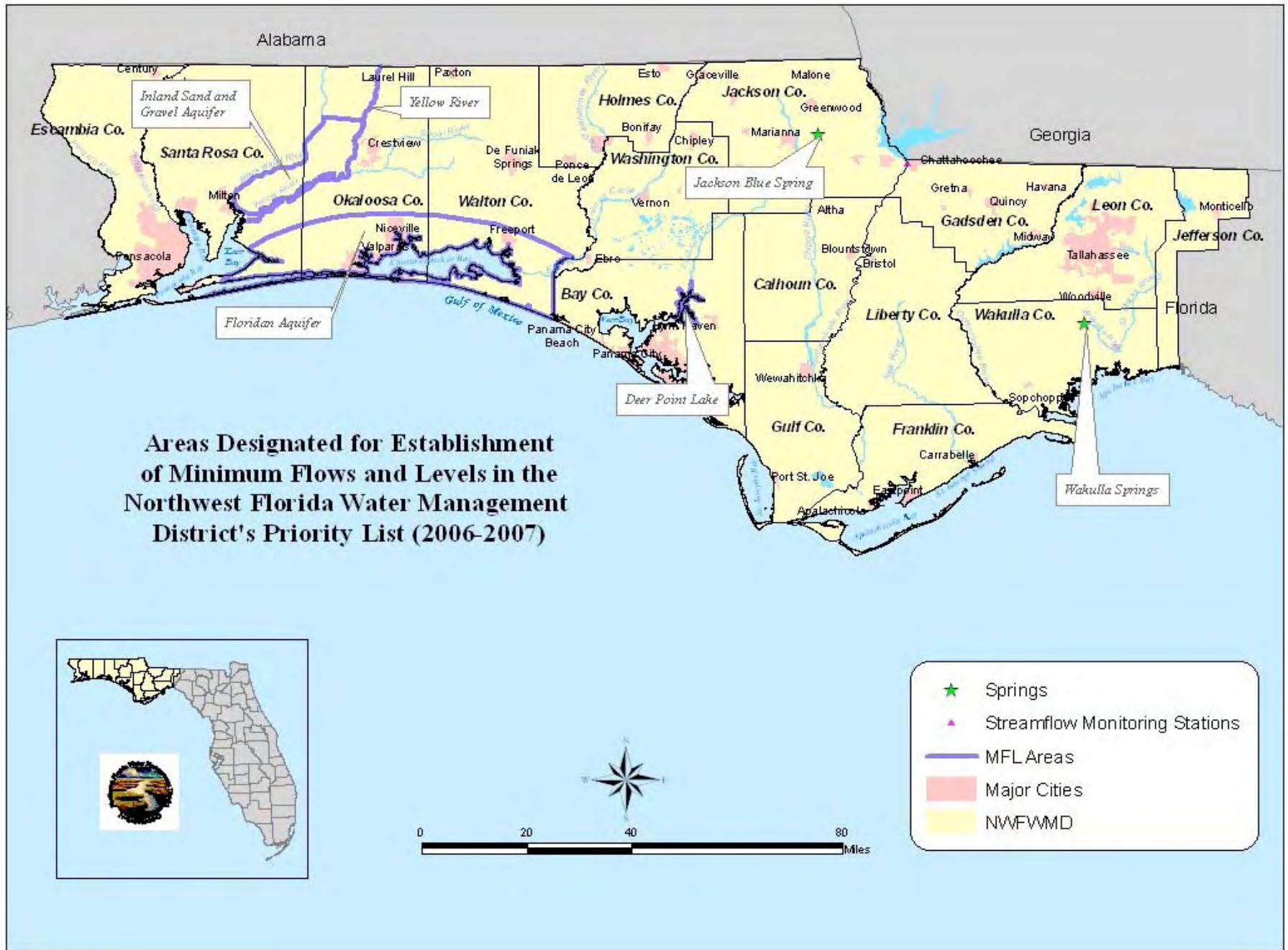
South Florida
Water Management
District

Florida Water Management Districts

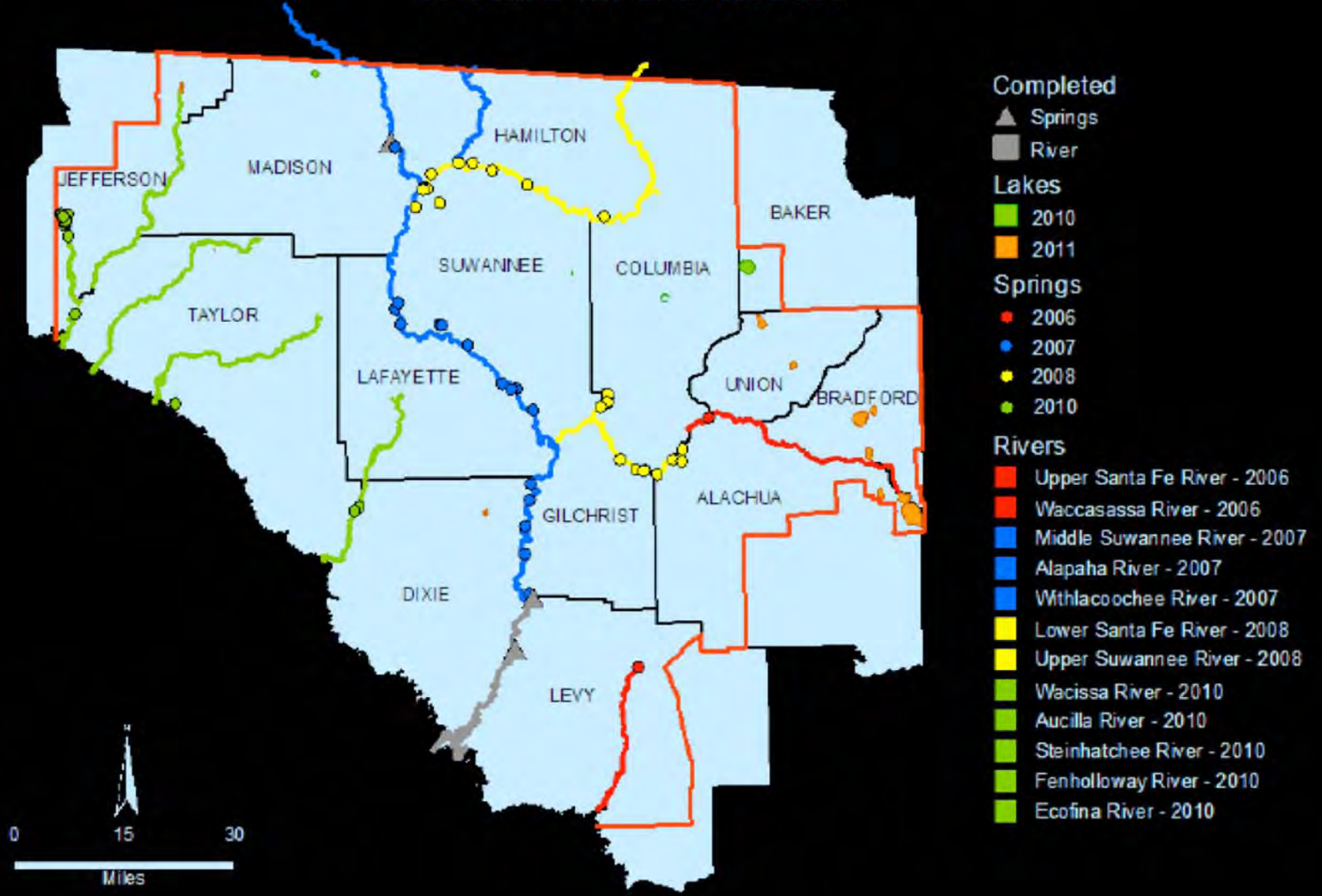
Development of MFL Priorities

1. Based upon the importance of the waters to the state or region,
2. The existence of or potential for significant harm to the water resources or ecology of the state or region,
3. Shall include those waters which are experiencing or may reasonably be expected to experience adverse impacts.

Each water management district's priority list and schedule shall include all first magnitude springs, and all second magnitude springs within state or federally owned lands purchased for conservation purposes.



SRWMD MFL Schedule



Suwannee River WMD Habitat Based MFLs

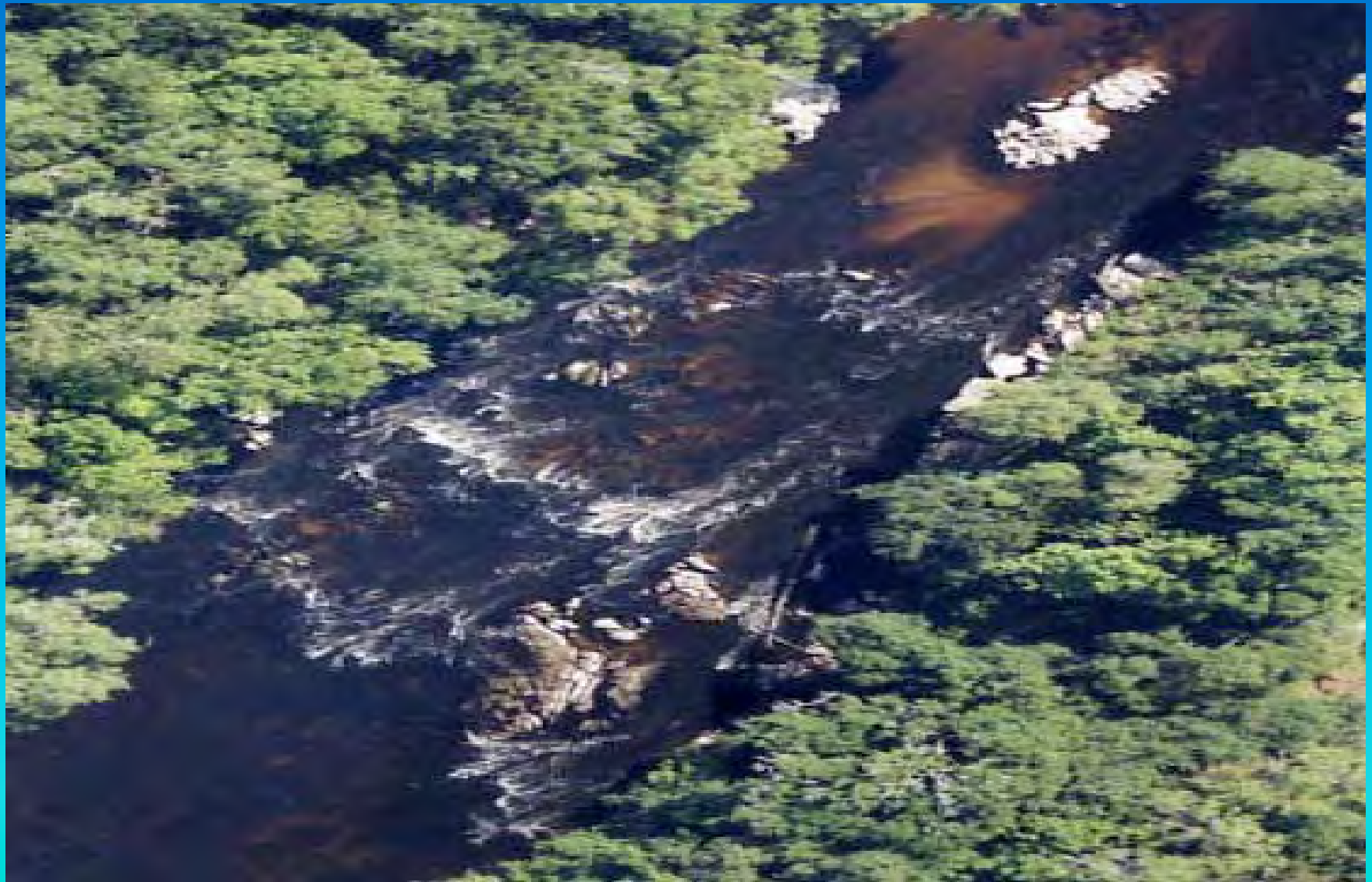
**Target habitats For Middle Suwannee
River MFL**



Floodplain aquatic habitats (ponds, tributary creeks, sloughs)



Riparian snag habitat



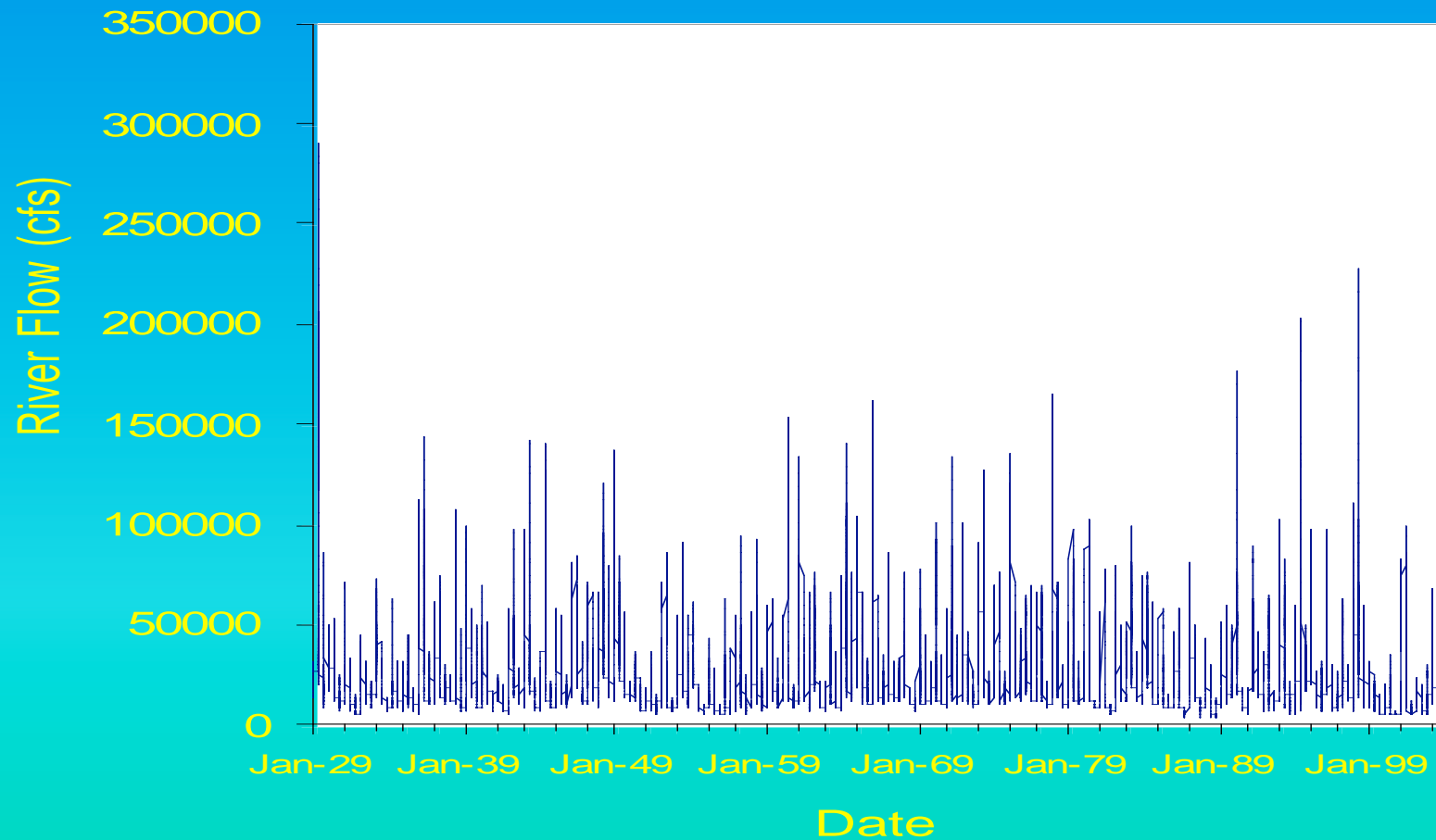
Riverine shoals habitat

FWC Challenges

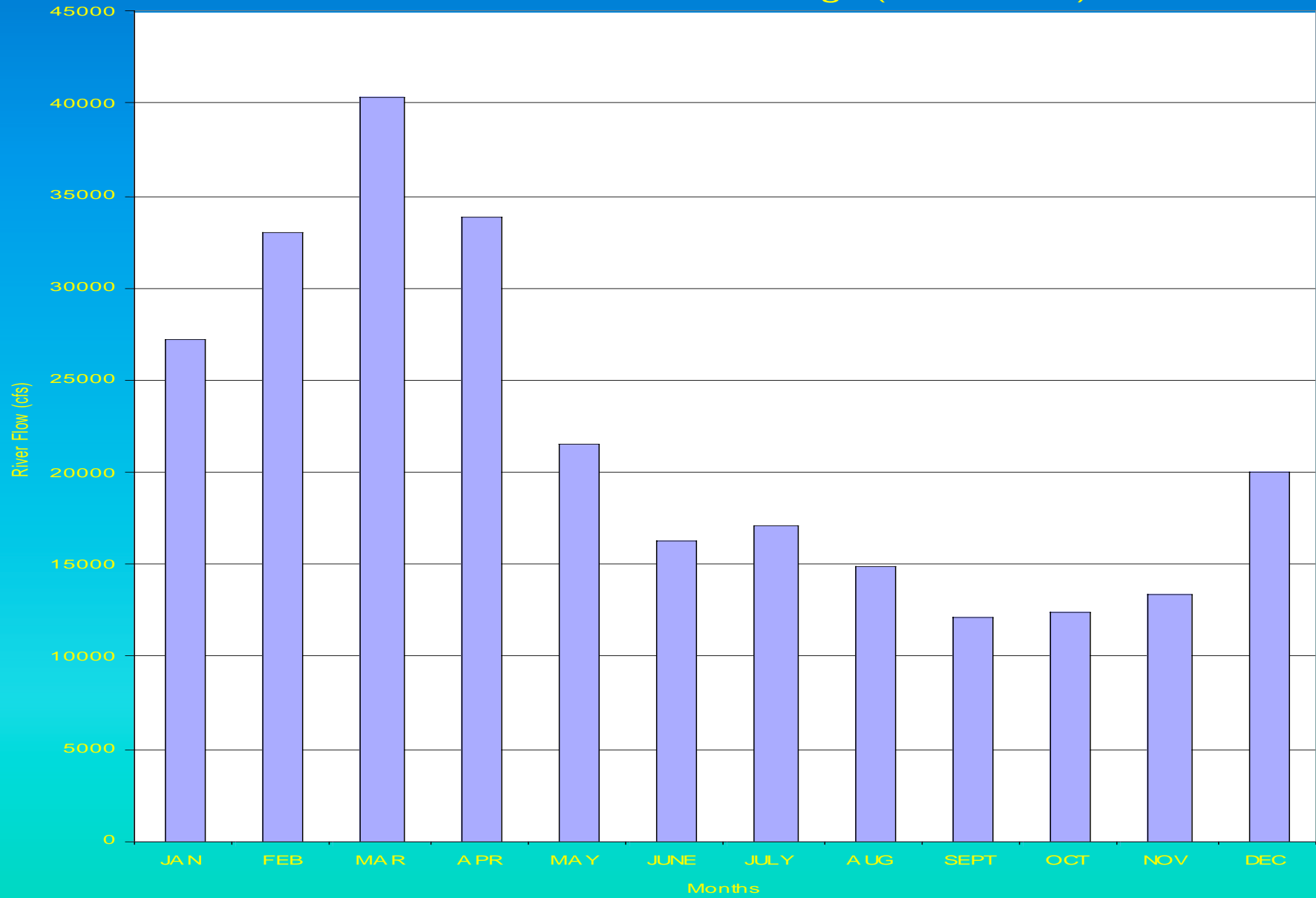
- Promote optimum flow regimes that reflect the levels, timing, duration and frequency of natural hydroperiods.
- Imperative that stream ecologists quantify flow requirements of Florida fish and wildlife species, and their habitats, for inclusion in simulation models.

Hydrologic Regime

**Apalachicola River Discharge (1929-2003)
as measured at the Chattahoochee Gage.**



Mean Monthly Flows on the Apalachicola River as measured at the Chattahoochee Gage (1929-2006)





Various sampling techniques need to be employed for target species





Sampling under various hydrologic conditions

Requires Cooperation from Multiple Agencies



