



FWC PRESENTATION

Florida Fish and Wildlife Conservation Commission

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REORGANIZATION

- **Game and Fresh Water Fish Commission**
- **Merged With Marine Fisheries Commission and Florida Marine Research Institute**
- **Became Fish and Wildlife Conservation Commission (FWC)**
- **New Division Created – Habitat and Species Conservation (HSC)**
- **Subsection – Aquatic Habitat Restoration and Enhancement Section (AHRES)**





AHRES

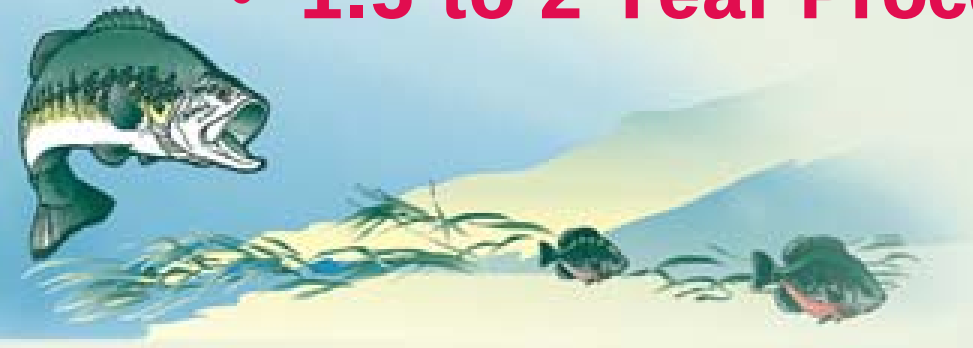
- **Formerly Lake Restoration Section**
- **Now - Aquatic Habitat Restoration and Enhancement Section (AHRES)**
- **Addresses Fish and Wildlife, Game and Non-Game via Guild Review Process**





BUDGET PROCESS

- **Approximate \$10 M Annual Budget**
- **Budget Application Process**
- **Guild Review** (Non-Game, Alligators, Ducks, Endangered Species, etc.)
- **AHRES Standing Team Review**
- **Executive Staff and Legislative Review**
- **Budget Decisions and Prioritization**
- **1.5 to 2 Year Process**





EXAMPLE PROJECT

Lowrie Brown Marsh – One Phase of Lake Griffin and Harris Chain Restoration

Breach Berms to Reconnect Marsh to Lake Griffin

Total Project Cost \$603,000 – FWC Contributing \$200,000 to Project

Lake County Water Authority
Multi-Agency Projects Preferred





SOURCE OF FUNDS

- **Portion of Fresh Water Angler License Sales**
- **Portion of Documentary Stamps**
- **Occasionally Line Item Appropriations by the Florida Legislature**





STATUTORY AUTHORITY

- **State Constitution, Article IV, Sec. 9**
- **Florida Statutes, Chapters 20, 327, 370 and 372**
- **Laws of Florida, Chapter 2004-264**





Constitution, Article IV, Sect. 9

- There shall be a fish and wildlife conservation commission, composed of seven members appointed by the governor, subject to confirmation by the senate for staggered terms of five years. **The commission shall exercise the regulatory and executive powers of the state with respect to wild animal life and fresh water aquatic life, and shall also exercise regulatory and executive powers of the state with respect to marine life**, except that all license fees for taking wild animal life, fresh water aquatic life, and marine life and penalties for violating regulations of the commission shall be prescribed by general law. The commission shall establish procedures to ensure adequate due process in the exercise of its regulatory and executive functions. The legislature may enact laws in aid of the commission, not inconsistent with this section, except that there shall be no special law or general law of local application pertaining to hunting or fishing. The commission's exercise of executive powers in the area of planning, budgeting, personnel management, and purchasing shall be as provided by law. Revenue derived from license fees for the taking of wild animal life and fresh water aquatic life shall be appropriated to the commission by the legislature for the purposes of management, protection, and conservation of wild animal life and fresh water aquatic life. Revenue derived from license fees relating to marine life shall be appropriated by the legislature for the purposes of management, protection, and conservation of marine life as provided by law. **The commission shall not be a unit of any other state agency and shall have its own staff, which includes management, research, and enforcement.** Unless provided by general law, the commission shall have no authority to regulate matters relating to air and water pollution.





Florida Statutes – Chap. 20

- 7) ASSIGNMENT OF DUTIES AND RESPONSIBILITIES.--The commission, and the Legislature as provided in s. 9, Art. IV of the State Constitution, shall assign to the:
 - c) **Division of Habitat and Species Conservation** such powers, duties, responsibilities, and functions as are necessary to protect and conserve the state's diverse and unique fish and wild animal life. Powers, duties, responsibilities, and functions of the division must be focused at the ecosystem or landscape level and must include the management of public lands, habitat restoration on public lands, development and implementation of nongame species management plans, development and implementation of imperiled species recovery plans, providing scientific support and assistance on habitat-related issues to public and private landowners, **aquatic habitat restoration, habitat management assistance**, land acquisition, and exotic species coordination focused on measures that prevent and control the introduction of exotic species. **The division shall utilize scientific data to develop resource management plans that maintain stable or increasing populations of fish and wild animal life.**





F.S. – Chap. 20

- **Freshwater Fisheries Management Program Also Coordinates Its Management Activities With The Commission's Habitat and Species Conservation Division (HSC)**





Florida Aquatic Weed Control Act

Florida Statutes – Chapter 369.20

- **(3) It shall be the duty of the department to guide and coordinate the activities of all public bodies, authorities, agencies, and special districts charged with the control or eradication of aquatic weeds and plants. It may delegate all or part of such functions to the Fish and Wildlife Conservation Commission.**





FWC Overall Mission

- **Manage Fish and Wildlife Resources for Their Long-term Well-being and Benefit of People**





HSC Sub-Mission

- **Protect and Conserve the State's Diverse and Unique Fish and Wildlife Populations and Their Habitats**





AHRES Sub-Section Policy Regarding Organics Removal

- Deposit on Upland Disposal Sites
(Preferred)
- In Lake Disposal (Islands)
- Other





Upland Disposal – Although Preferred

- **Upland Sites May Not Be Available**
- **Upland Sites May Not Be Within Reasonable Distance**
- **Expensive > Cost and/or Logistics May Not Be Practicable**
- **Material Quality Undesirable (Such as Heavy Metal Content)**





BENEFICIAL USE STUDY

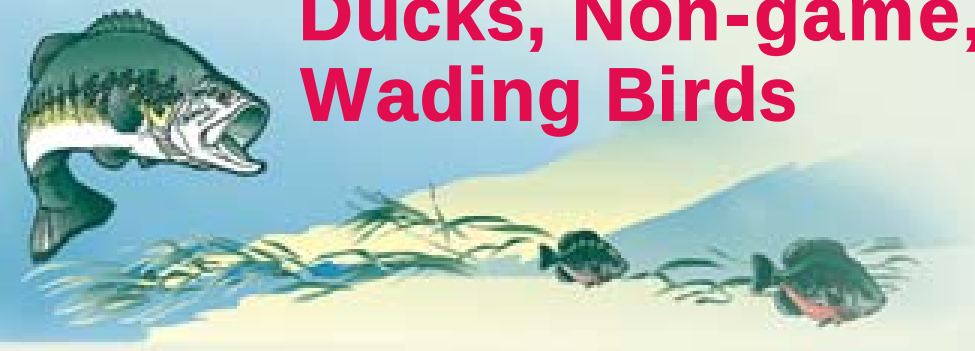
- **Project Currently in Progress to Determine Beneficial Uses of Organic Lake Materials**
- **Goals – Find Positive Uses for the Material and Offset Handling and Hauling Costs**





Orange Lake APM Goals

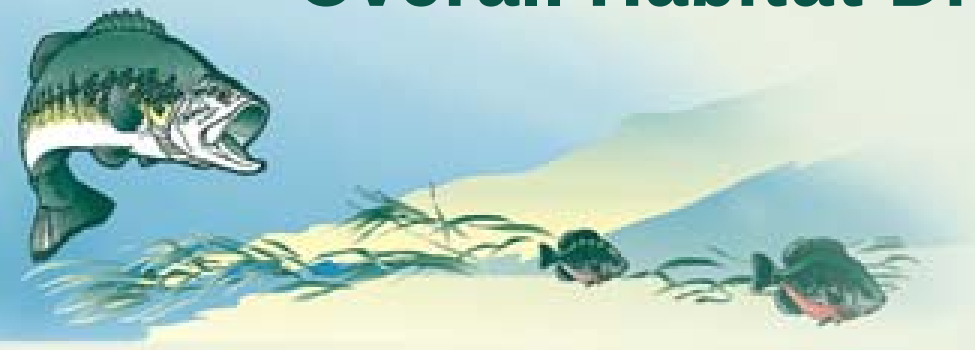
- **Encourage Conservation, Establishment and Expansion of Beneficial AP Species such as Spatterdock, Maidencane and Submersed Aquatic Plants (SAV)**
- **Promote Overall Diversity of Aquatic Habitat (Including Firm Substrates in Selected Areas for Fish Spawning)**
- ❖ **Guild Review Process Utilized to Set Goals for 2004-05 Work– Alligators, Ducks, Non-game, Fisheries, Herps and Wading Birds**





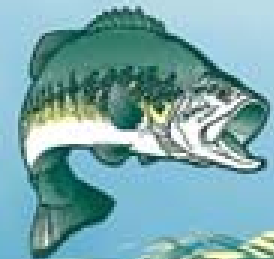
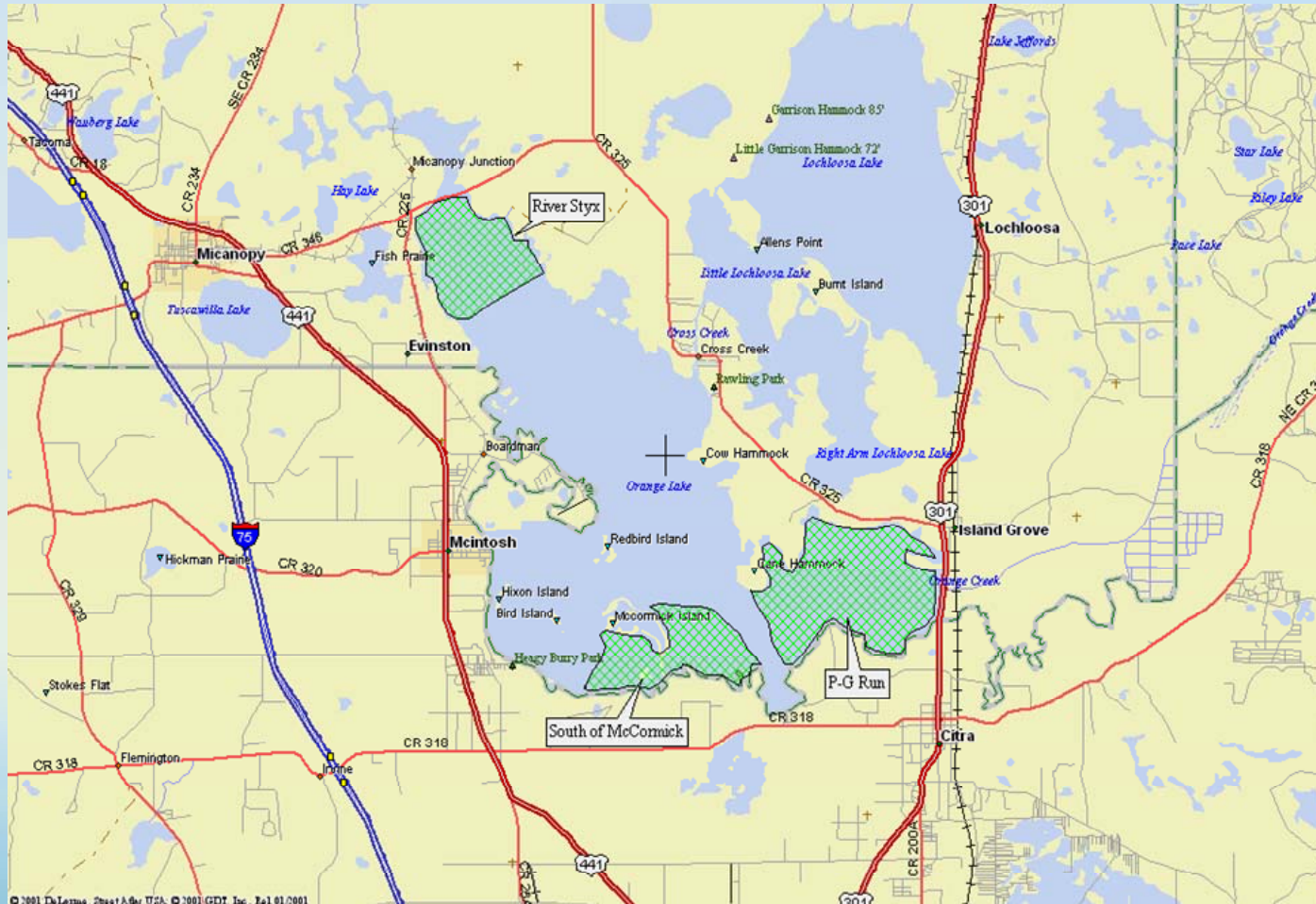
Action Plan to Achieve Goals

- **Muck Scraping and Shoreline Tussock Removal**
- **Reduce Overall Coverage of Free-floating Tussocks and Mat-forming Species Negatively Impacting More Beneficial Fish and Wildlife Habitat**
- **Tussock “Conservation” Areas Identified in 3 Areas (~5,000 acres) to Maintain Overall Habitat Diversity**





Tussock Conservation Areas





Orange Lake – FWC APM Operations

- 1997-98, 63 acres tussocks, barge mounted track hoe
- 2001-02, 160 acres muck (630,000 cubic yards), mechanical scraping during low water
- 2003, 400 acres willow, aerial herbicide application

❖ 2004-05

- airboat herbicide application
 - frog's-bit, 326 acres
 - tussocks, 35 acres
 - water hyacinth, 6 acres
- 255 acres tussocks, cookie cutter
- 36 acres tussocks, mechanical harvesting with upland disposal





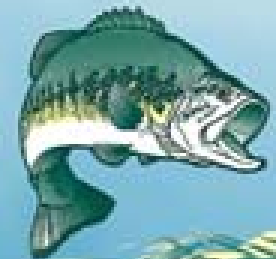
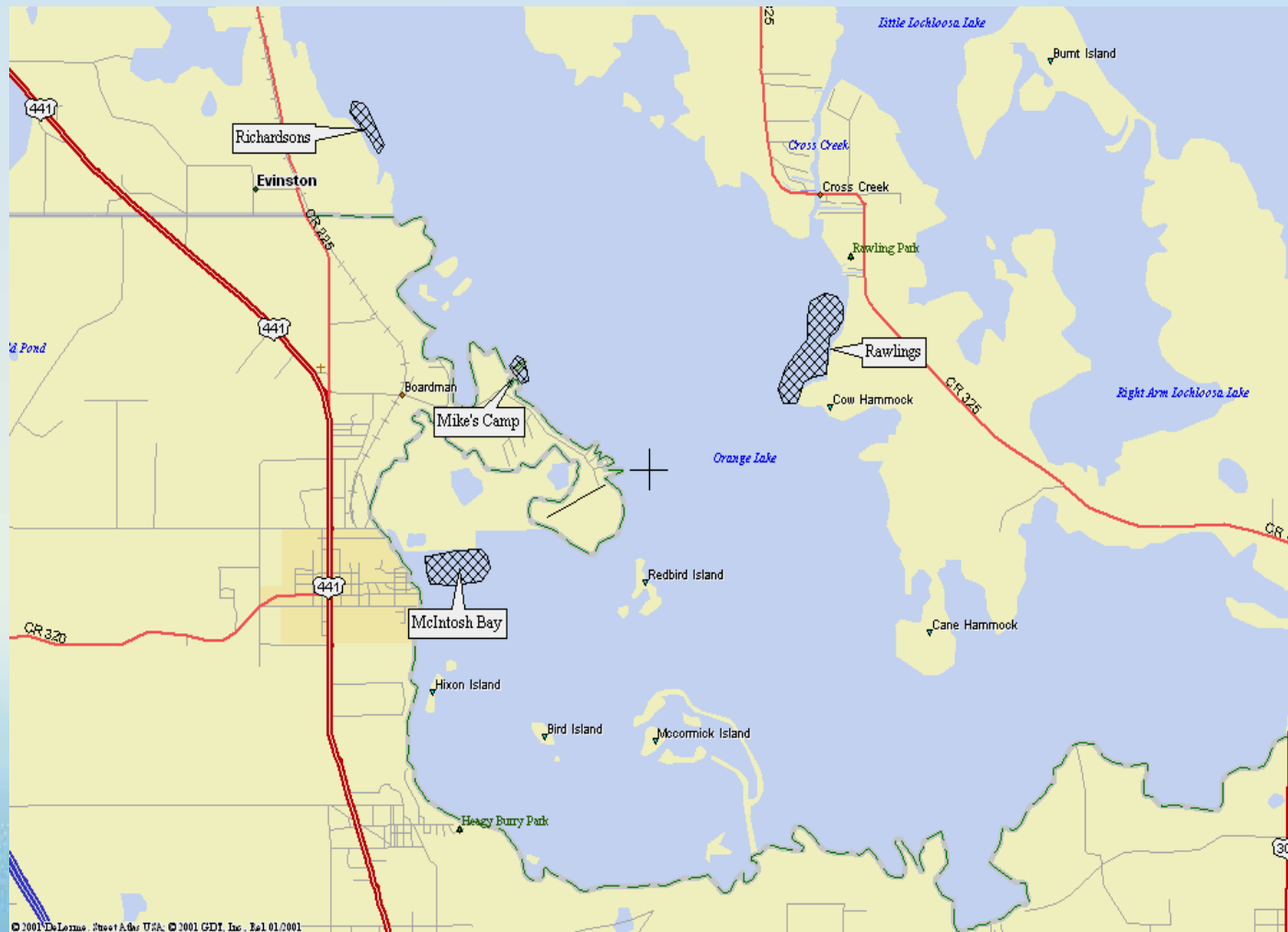
2001-02 Muck Scraping

- **Out of 630,000 Cubic Yards Scraped
Only 150,000 Yards of Material Could be
Deposited Upland**
- **Remaining 480,000 Cubic Yards Stored
In Lake**





2001-02 Muck Scraping





Tussocks – Impacting User Groups





Control Tussocks – Free Moving



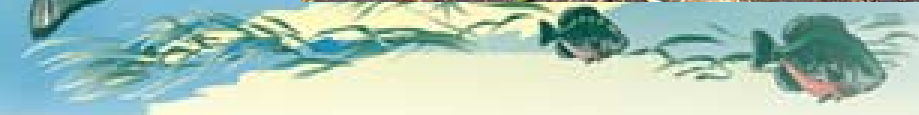
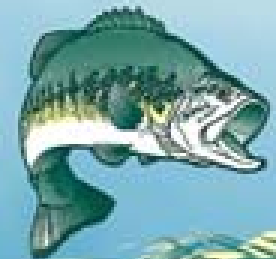


Tussocks Impacting Beneficial Species





Tussocks Impacting Beneficial Species



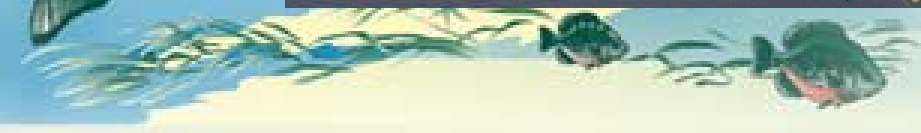


Tussocks Impacting SAV





Tussocks Impacting Beneficial Emergents



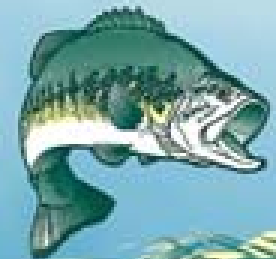


Control Mat-Forming Species





Expand Beneficial Species



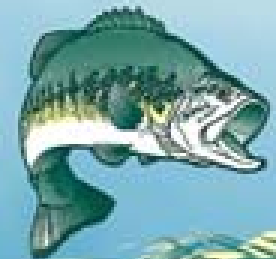


Conserve Beneficial Species





Encourage SAV to Re-establish





Revegetate When Necessary





Areas Worked 2004-05





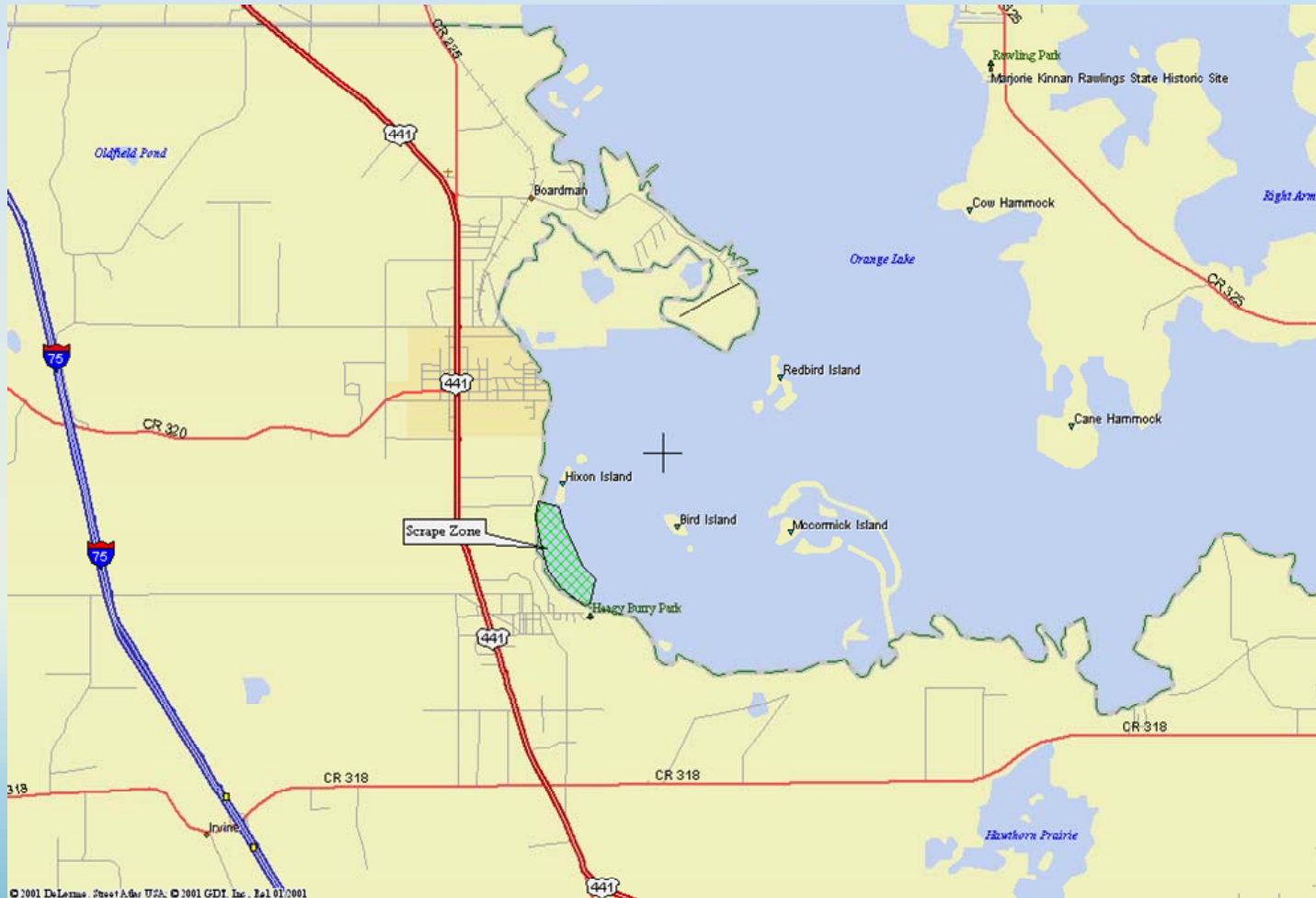
Additional Benefits

- Improved Water Quality, Particularly Improved Oxygen Profiles and Associated Processing of Nutrients
- “Mats of Water-hyacinth, Intermixed With Native Vegetation From Drought Years, Impeded Navigation By Most Watercraft and Caused a Decline In Submersed Aquatic Vegetation. In Addition, the Thick Mats of Vegetation Created Undesirable Conditions for Many Native Wildlife Species. Water Beneath These Mats Was Anaerobic and Unsuitable for Fish and Most Other Invertebrates.” Curry (2005) re: District Goals on Orange Creek





Future Work?

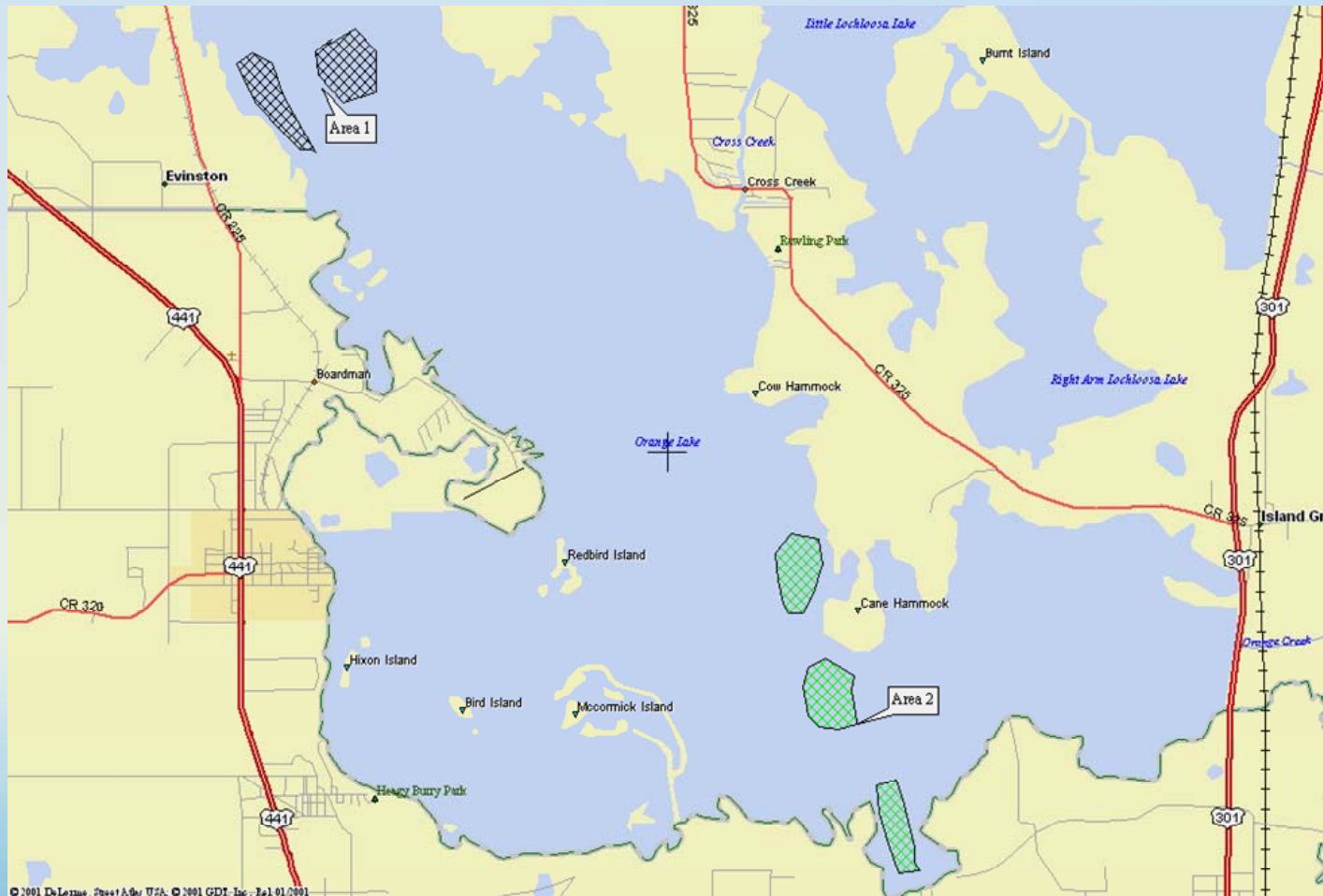


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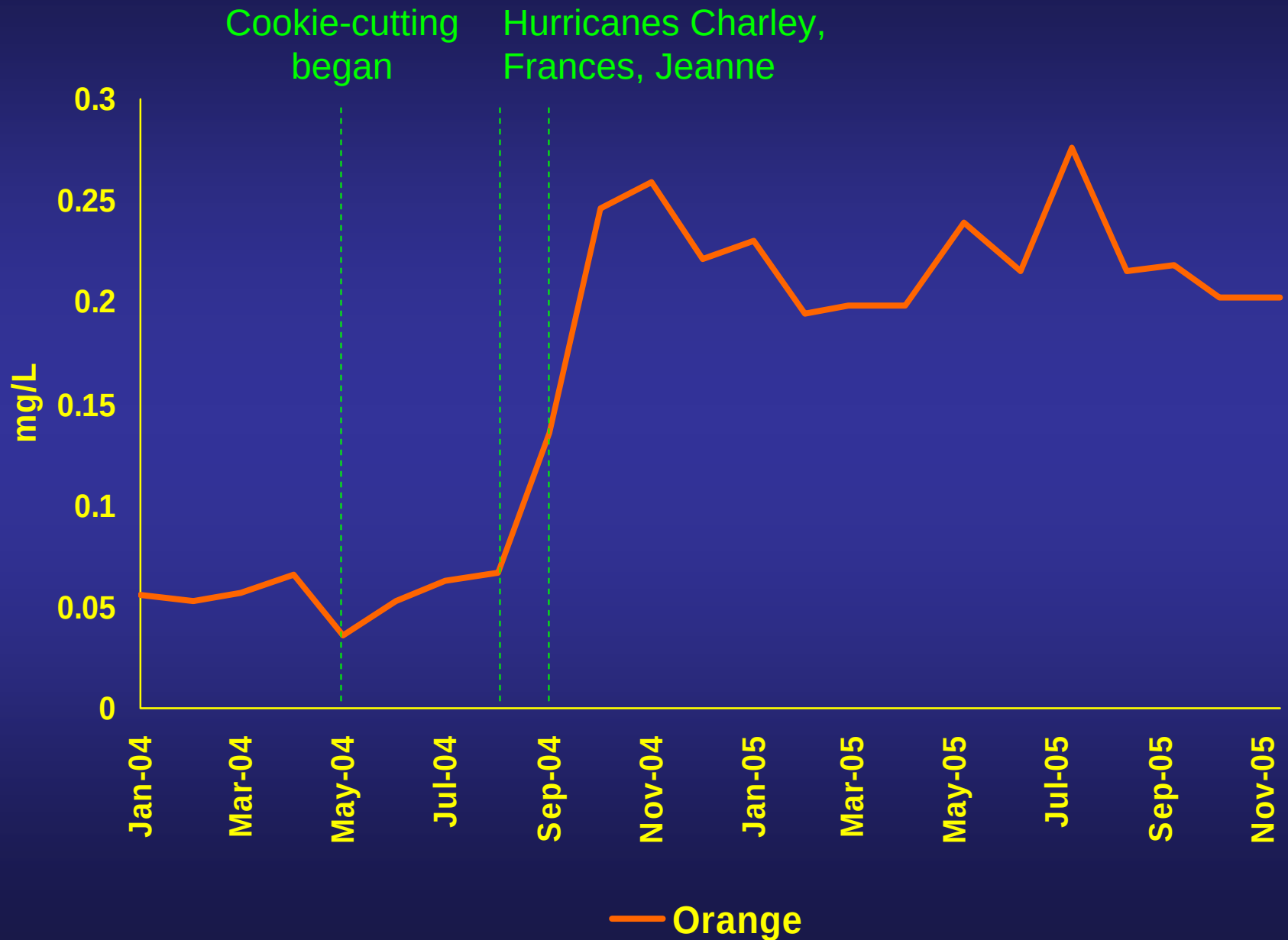




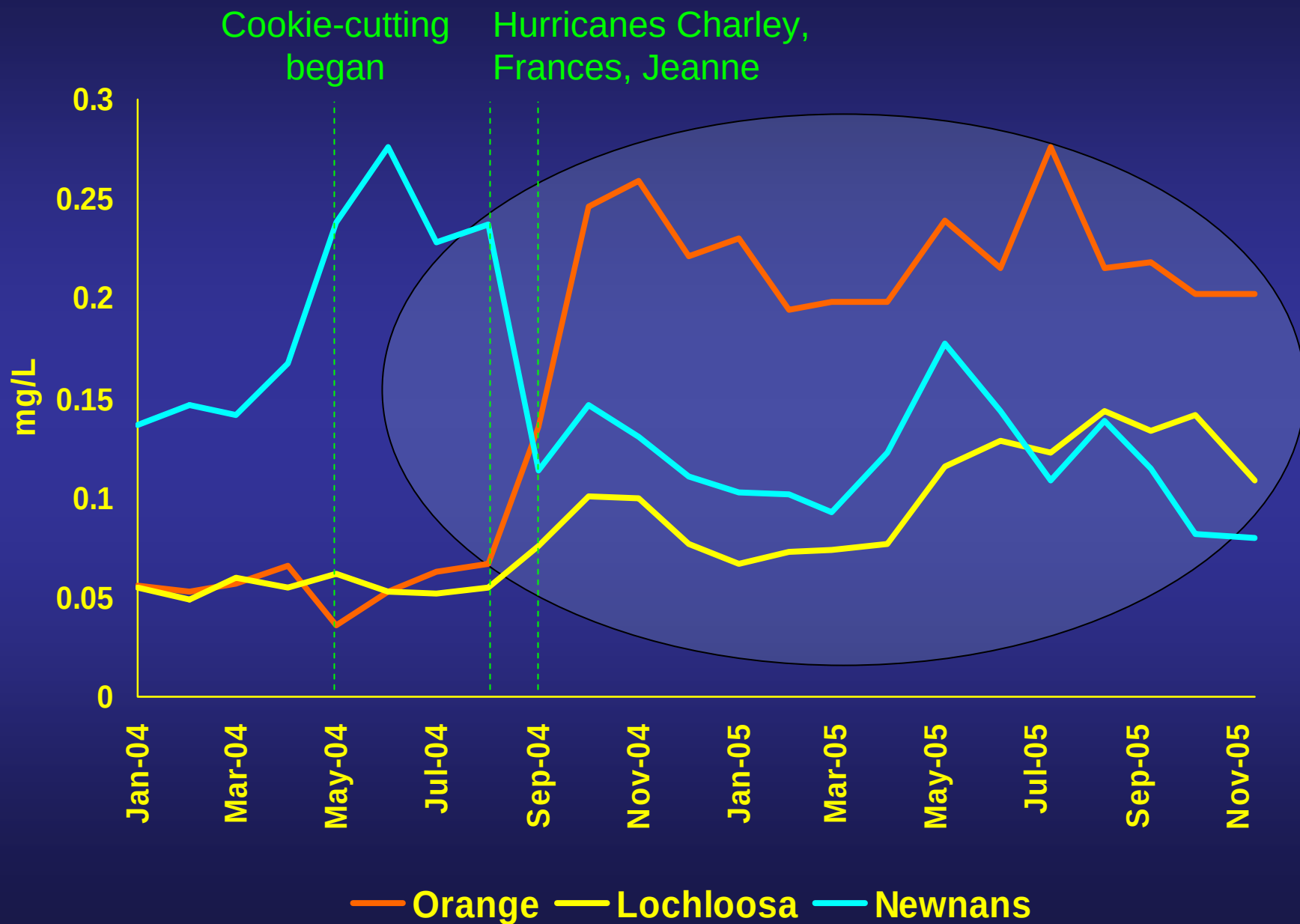
Future Harvest Work



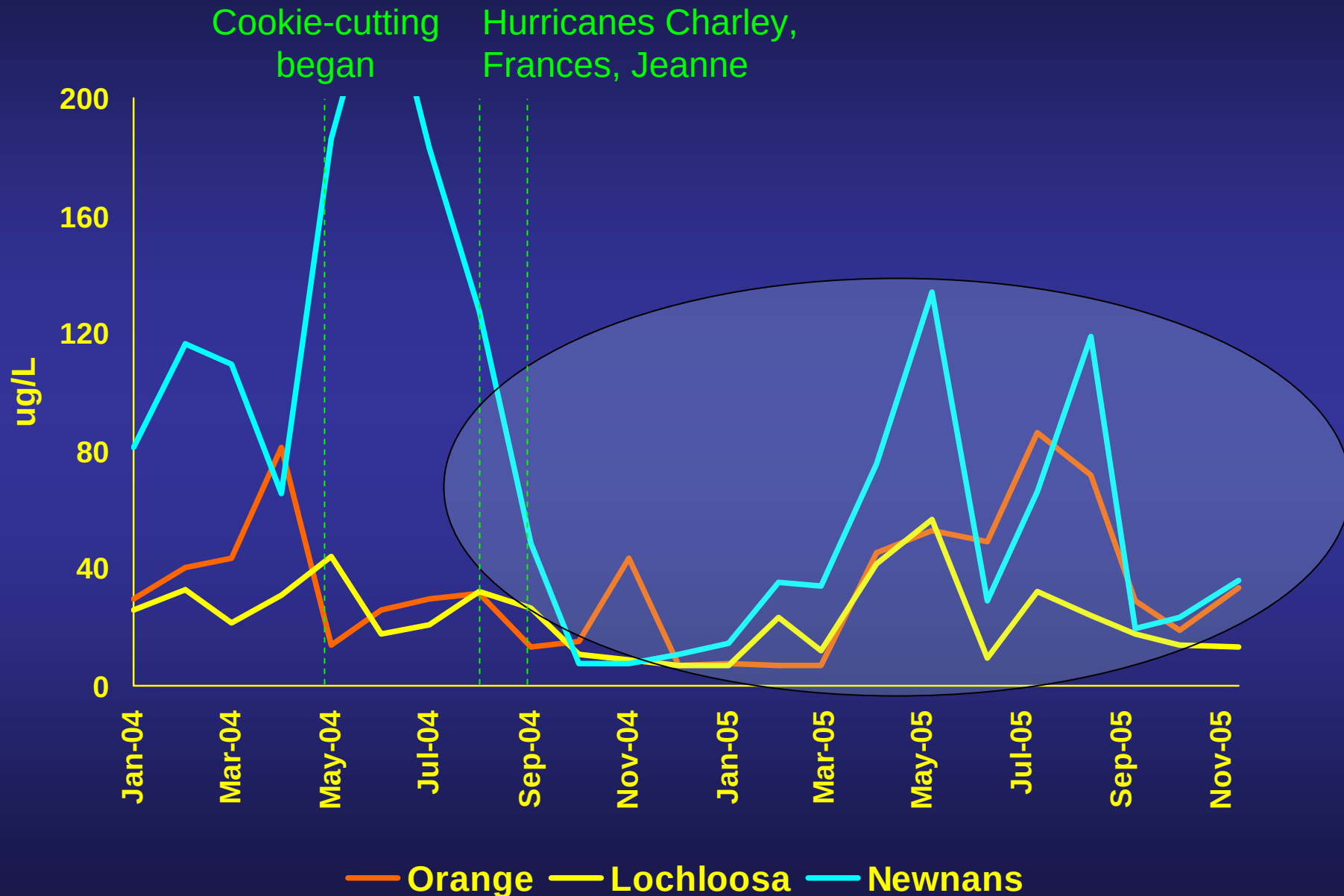
Total Phosphorus in Orange Lake, January 2004-November 2005



Total Phosphorus in Lakes Orange, Newnans, and Lochloosa from January 2004-November 2005



Chlorophyll in Lakes Orange, Newnans, and Lochloosa from January 2004-November 2005





IMPROVE FISH AND WILDLIFE

