Lake Okeechobee Cattail Management Prioritization
Florida Fish and Wildlife Conservation Commission
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The Florida Fish and Wildlife Conservation Commission (FWC) is seeking input on the management of cattail (*Typha* sp.) on Lake Okeechobee. The purpose of this document is to provide information and to solicit feedback on a potential cattail management project in the Spring of 2022. Comments and concerns regarding preferred management sites, areas of the lake to avoid, management areas to postpone for future years, project size, or project timing are greatly appreciated. Please direct comments or inquiries to Alyssa Jordan or Christy Soldo.

Project Overview:

We have identified several areas in the marshes of Lake Okeechobee where cattail management would benefit the littoral health of the lake. We would like to prioritize up to 800 acres of cattail for management in spring 2022. Herbicide will be applied to cattail in April or May 2022 followed by prescribed fire 3-6 months later. Prescribed fire will open the area up quickly for wildlife use, and it will also consume the dead organic material, so that it does not drop to the bottom of the lake as it decays. Prescribed fire following pre-treatment with selective herbicide extends the efficacy of the herbicide treatments and reduces the amount of herbicide used over time. Cattail management with selective herbicides and prescribed fire is part of an integrated management approach in coordination with other state and federal agencies on Lake Okeechobee.

Potential Project Area Comments/Concerns/Ideas:

1. First Point and Pleasure Island (Northwest Marsh) – 46.7 and 17.9 acres, respectively (Fig. 1). Low water levels in the early 2000s allowed for “scrape” projects, which removed heavy vegetation growth and organic sediment (i.e. muck) in the northwest marsh. These areas have remained cattail free for almost two decades, and they are often full of dense lily or spikerush stands. Recent encroachment and expansion by dense cattail in these areas makes them a management priority.
2. Tin House Slough (Northwest Marsh) – 223.5 acres (Fig. 1) Adjacent to an area that was managed (herbicide only) in 2020 and a large willow stand that may be used by wading

birds and snail kites. It is located directly west of Buckhead Ridge canal. A 200ft buffer will be left between the management area and the canal. Treatment of this site will complete management on the south side of the trail.

3. South Bay (Southern Marsh) – 505 acres (Fig. 2) This marsh at the southeastern end of Lake Okeechobee is composed primarily of large cattail stands. Historically, expansive areas of lilies and spikerush were in this area. There have been no recent projects led by FWC staff in this area of the lake. Opening these areas for other native plant species may bring additional wildlife and recreational activity to the area.

Management Techniques:

We want to target 800 acres of cattail using imazamox (Clearcast®; herbicide registered with U.S. Environmental Protection Agency and Florida Department of Agriculture and Consumer Service for aquatic use) and methylated seed oil (MSO; adjuvant labeled for aquatic use). Imazamox will be applied at the recommended label rate of 32 ounces/acre with MSO at 32 ounces/acre at a "12.5-gallon-per-acre" mix rate. At this application rate, imazamox is selective for cattail and will not affect bulrush, spikerush, willow, aquatic grasses (e.g., "Kissimmee grass" and maidencane), lilies, and spatterdock. The Commission Contract Manager will be on-site throughout the treatment process to ensure the contractor is treating within project boundaries and meeting the specifications set forth in the scope of work. FWC will also be monitoring refueling activities. Because of the limited accessibility and large size of some of these management areas, helicopters are the only efficient way to apply herbicide (Fig. 3). Approximately 3-6 months after herbicide, prescribed fire will be applied to the management areas.

Benefits of Management:

The management, removal, or thinning of dense, monotypic cattail stands can improve native plant diversity, water quality, and recreational opportunities on Lake Okeechobee (Fig. 4). The reestablishment of a native and diverse aquatic plant community enhances foraging habitat for birds and spawning and nesting habitat for fish. Cattail management using herbicide and prescribed fire prevents the buildup of organic material, thereby increasing dissolved oxygen levels and water flow within the littoral areas of the lake. Cattail removal can also improve lake access for recreational users (anglers, hunters, wildlife watchers, pleasure boaters, etc.) for many years post-treatment. Previous cattail management efforts led to the largest Everglade snail kite nesting event ever recorded on Lake Okeechobee! Furthermore, documentation shows extensive use of these newly opened areas by wading birds and waterfowl.

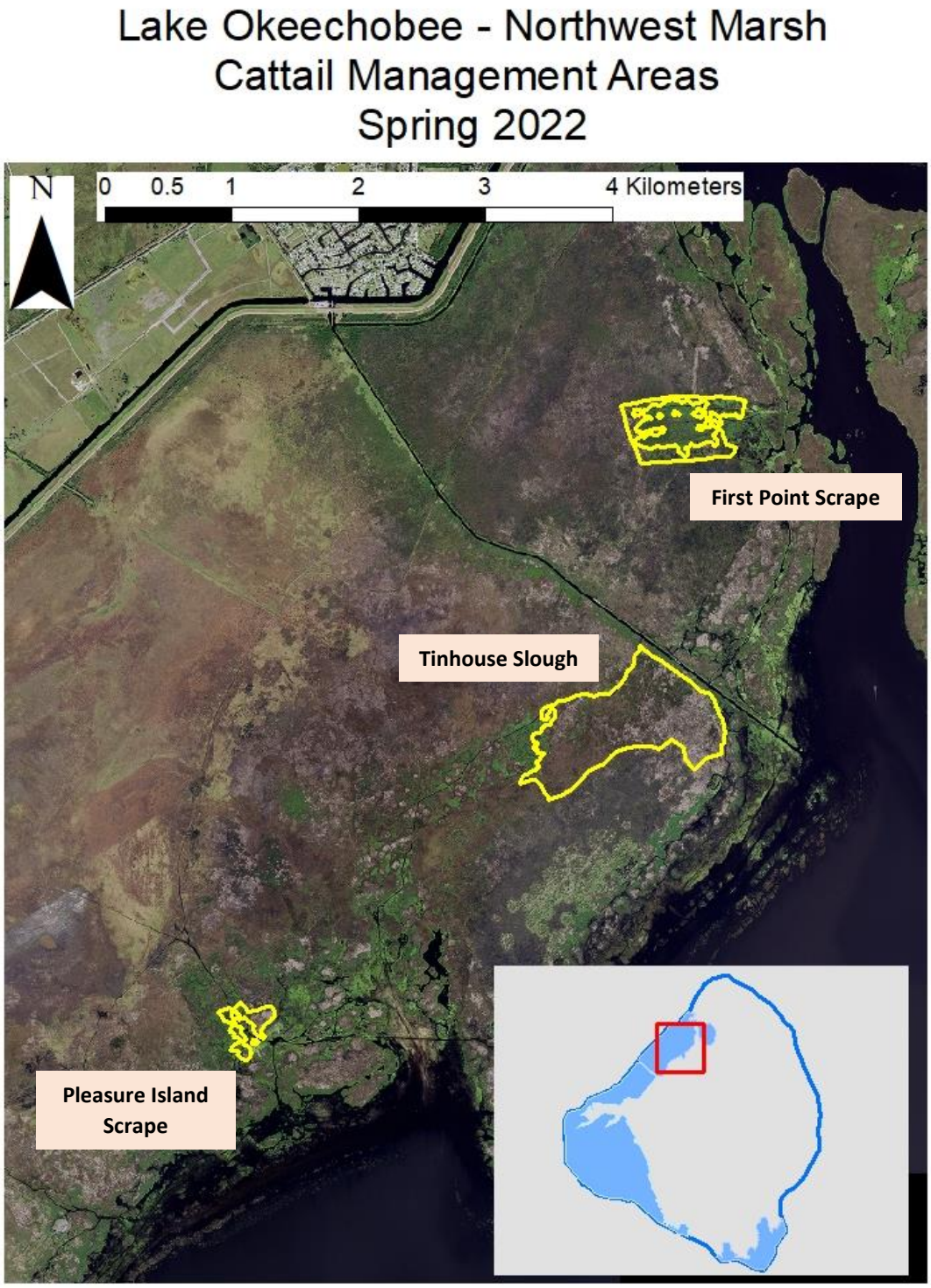

Figure 1. FWC biologists identified three priority areas for cattail management in the northwest marsh of Lake Okeechobee in spring 2022. The proposed management areas total approximately 295 acres.

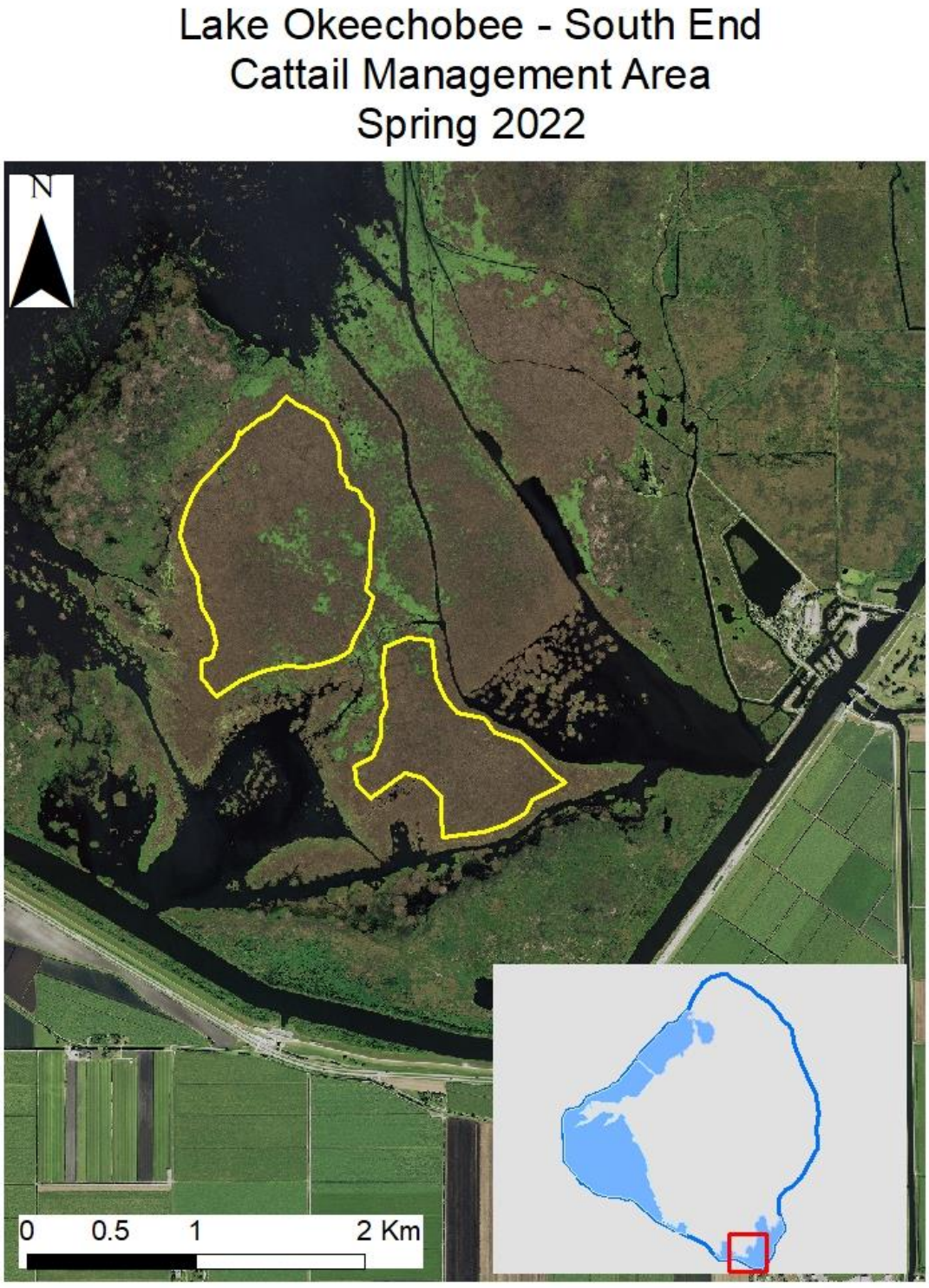

Figure 2. The marsh at the southern end of Lake Okeechobee is composed primarily of dense cattail. FWC biologists propose management of 505 acres of cattail in the southern marsh in the spring of 2022.

Figure 3. Aerial application of herbicide (A) and prescription burn (B) are common methods for cattail management. Both techniques require use of a helicopter.

Figure 4. Post-management monitoring of previous cattail removal efforts shows the return of a diverse aquatic plant community composed of SAV and floating and emergent macrophytes