

**Lake Okeechobee Torpedograss Management Prioritization
Florida Fish and Wildlife Conservation Commission
Fiscal Year 2021-2022**

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The Florida Fish and Wildlife Conservation Commission (FWC) is seeking input on the management of torpedograss (*Panicum repens*) on Lake Okeechobee. The purpose of this document is to provide information and to solicit feedback on a potential torpedograss management project in spring 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 Background:

The northwest marsh of Lake Okeechobee is currently dominated by extremely dense monocultures of torpedograss (*Panicum repens*), which has been classified by the Florida Exotic Pest Plant Council as a Category I invasive wetland species (Fig. 1). This prolific grass is outcompeting native wetland plant species and limiting foraging capabilities of fish and wildlife, including the endangered Everglades snail kite. Previous torpedograss management efforts, using large-scale herbicide treatment (broadcast application) followed by small-scale spot management (direct application by airboat or swamp buggy), have greatly reduced torpedograss coverage and promoted growth of native marsh vegetation. To date, over 1,500 acres of torpedograss have been managed and are being maintained.

Management History:

In March 2019, the Florida Fish and Wildlife Conservation Commission (FWC) and the South Florida Water Management District (SFWMD) conducted prescription burns on an estimated 3,000-5,000 acres of the interior northwest marsh between Pearce Canal and Indian Prairie canal, which included at least 1,500 acres of torpedograss. In May of 2019, an agricultural boom/spreader truck was used to broadcast herbicide over 1,140 acres of torpedograss, which included a portion of the prescribed burn area. The torpedograss in this area encompassed almost 100% of total vegetative cover. Post-management monitoring in April 2020 showed 25-50% re-growth of torpedograss throughout the management area. Through a combination of broadcast and spot-treatments, another 1,243 acres of torpedo grass was managed in May 2020. No broadcast treatments were conducted in the 2020-2021 fiscal year. However, spot-treatments

were conducted in the two management areas from the previous fiscal years (Fig 2). The second round of spot-treatment reduced torpedograss regrowth to approximately 20%.

Observed Management Benefits:

In the years following torpedograss treatment, monitoring of management areas in the northwest marsh documented an increase in coverage of native wetland plants, including spikerush, bulrush, cattail, pickerelweed, duck potato, smartweed and marsh lilies (Fig. 3). Drier lake conditions and sparser torpedograss coverage resulted in a prolific wildflower bloom in the spring of 2020 (Fig 4). Thousands of wading birds, such as ibis, egrets, and spoonbills, were seen foraging in the newly reclaimed marsh habitat, along with dozens of snail kites (Fig 5). In 2021, one of the densest snail kite nesting areas was adjacent to a torpedograss management area. Waterfowl hunters heavily utilized the managed areas in the winter.

Proposed Management Area:

A total of 1,500 acres of torpedograss will be managed in Spring 2022. The proposed management area is located approximately 100 yards south of the Herbert Hoover Dike and directly northeast of the Indian Prairie Canal levee. The management area will be accessed by the Herbert Hoover Dike (no public access). The new acreage will be located adjacent to the former 1,500-acre management area (Fig 6).

Proposed Management Methods:

Broadcast Application

An agricultural boom truck will be used to broadcast herbicide over 1,500 acres of torpedograss in the Northwest Marsh of Lake Okeechobee (Fig 7). Imazapyr, labeled and approved for aquatic use by the U.S. Environmental Protection Agency (EPA) and the Florida Department of Agriculture and Consumer Services (FDACS), will be applied at the recommended label rate of 64 oz/acre. Imazapyr is a broad-spectrum, systemic herbicide that can effectively eliminate torpedograss. The Commission Contract Manager will be on-site throughout the treatment process to ensure the contractor is meeting the specifications set forth in the scope of work. The truck and boom will be equipped with a GPS that tracks when and where herbicide is sprayed.

Direct Application

Airboats or swamp buggies (dependent on water levels) will be used to manage up to 300 acres of torpedograss by “direct application” or “spot treatment”, a precise application of herbicide to control the target species (i.e., torpedograss) and to preserve surrounding desired vegetation. Spot treatments will occur in previously managed areas to control torpedograss regrowth. Although torpedograss will be the only plant species targeted, herbicide application may damage proximal native vegetation. Management via direct application allows for the use of less-selective herbicides, like imazapyr, with reduced risk to non-target vegetation.

Additional management may be conducted as needed if time and funding allow. The Commission Contract Manager will be on-site throughout most of the project to ensure the contractor is meeting the specifications set forth in the scope of work.



Figure 1. Dense, non-native torpedograss dominates vegetation in the northwest marsh of Lake Okeechobee.



Figure 2. Torpedograss regrowth in previously managed areas was abated by airboat-applied spot-treatments. The red, hollow polygon shows the extent of the spot-treatments.

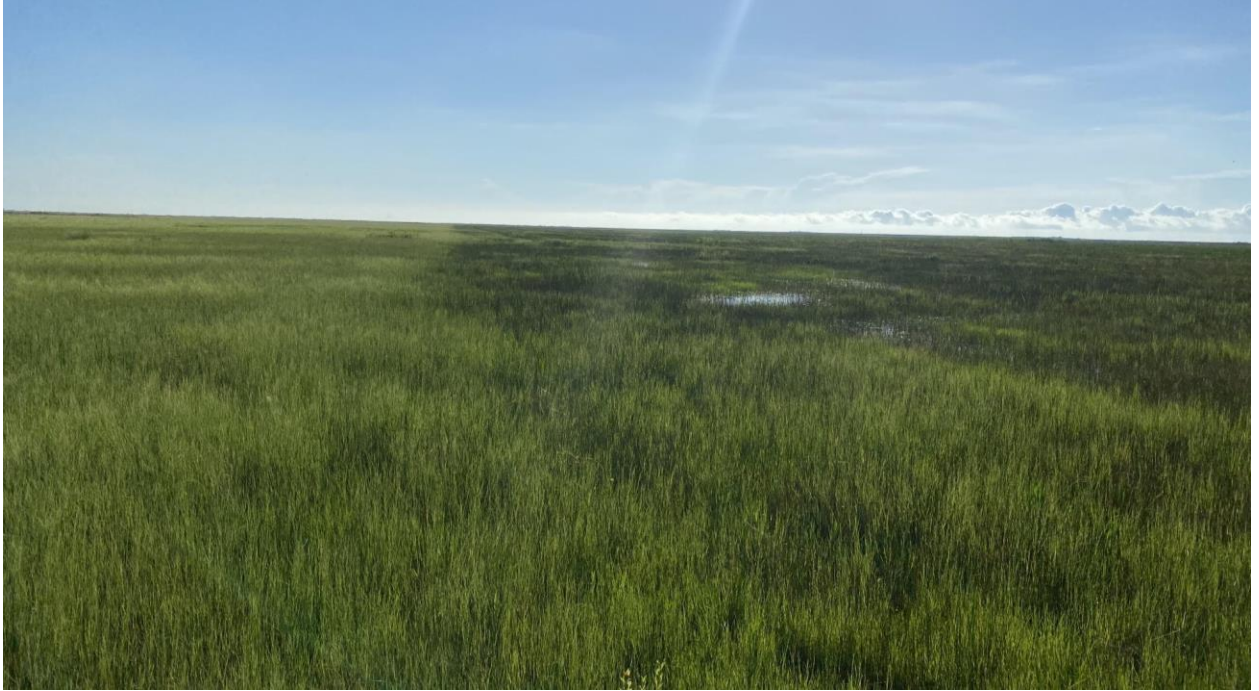


Figure 3. A clear line is visible between healthy, untreated torpedo grass (left) and re-established native marsh vegetation in a previously managed area (right).



Figure 4. Spikerush, a native wetland plant, returns to the marsh following torpedograss removal (above). Salt marsh pink, pineland heliotrope, and tickseed take advantage of drier conditions in areas of the lake where torpedograss has been removed (below).



Figure 5. The removal of torpedograss and subsequent expansion of foraging habitat attracts thousands of wading birds to the northwest marsh (top). An Everglades snail kite searches for food in the newly reclaimed marsh habitat (bottom).

Proposed Torpedograss Management Area

Lake Okeechobee

FY 2021-2022

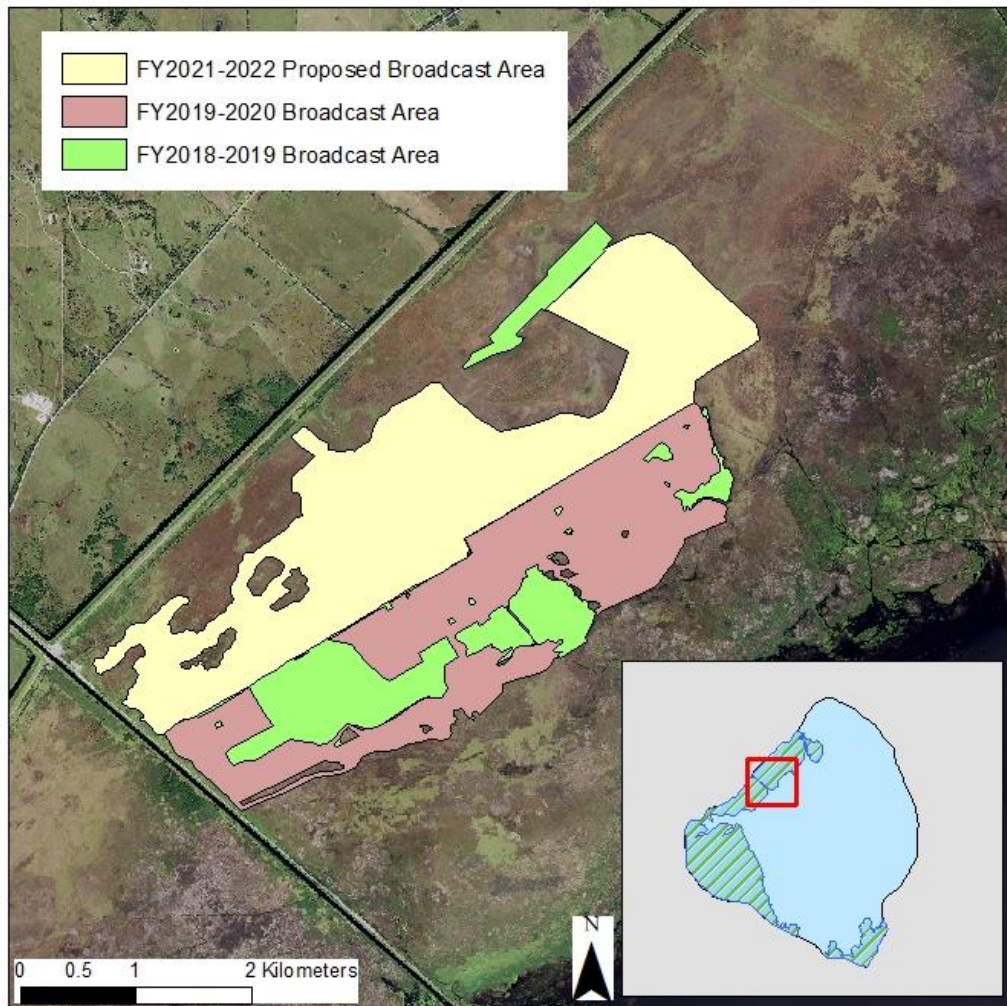


Figure 6. 1,500 acres of torpedograss will be managed in spring 2022 (yellow polygon). The new management area will be located adjacent to previous removal efforts (pink and green polygons).



Figure 7. A “boom” truck applies herbicide to torpedograss while a commission contract manager oversees work from a swamp buggy.