



BOARD OF COUNTY COMMISSIONERS

**Public Works Department**

2725 Judge Fran Jamieson Way  
Building A, Room 201  
Viera, Florida 32940  
321-617-7202

**Inter-Office Memo**

**TO:** Frank B. Abbate, County Manager

**THRU:** John Denninghoff, Assistant County Manager

**FROM:** Marc Bernath, Director of Public Works

**SUBJ:** Citizen Efficiency and Effectiveness Recommendation (CEER) #2024026

**DATE:** 04/01/2024

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CEER #2024026 was received by the County from Lora Losi.

**Citizen Statement:**

There is excessive money spent on needless and potentially harmful grounds maintenance. There are several cost cutting measures that will save money and help the environment.

**Citizen Recommendation:**

Eliminate the use of herbicides in and around county ponds. This will prevent possible runoff to the IRL and again save money by not having to revegetate any seagrass effected. The county already owns 3 harvesters for aquatic vegetation removal. One is even small enough to remove unwanted and invasive vegetation in small ponds. Edge vegetation filters, cleans, and slows runoff.

Likewise, drop or lower the use of excessive pesticides, especially on lawns, The treatment of potable water supplies to remove these and other pollutants is EXTREMELY costly.

Reschedule mowing and tree trimming on county properties for MANY fewer repetitions. Longer grass holds water better and therefore reduces runoff. Trees with lower branches and mass are more wind resistant.

**Staff Analysis:** Public Works - Natural Resource Management - Parks and Recreation – Mosquito Control

Aquatic vegetation management in stormwater ponds and drainage systems throughout the County is conducted by multiple county departments and preventative maintenance is undertaken to address public health & safety, flooding concerns, and improve downstream water quality.

**Public Works:** The Road and Bridge Program maintains 85 stormwater ponds and employs a variety of mechanical methods as well as limited herbicide treatments. In 2020, our herbicide spray program was outsourced to an approved licensed contractor that sprays two (2) retention ponds on a spray interval of

six (6) times a year at an annual cost of \$1,369.56 (<1% total maintenance budget). A ½ mile No Spray Zone buffer was established around major bodies of water, such as the Indian River Lagoon. The contractor is not allowed to apply herbicide treatments within this No Spray Zone.

Each year the Public Works Department reviews the spray frequency and locations as part of the contract renewal process, making adjustments to ensure the appropriate combination of herbicide and mechanical equipment are being used in consideration of the environment and available resources.

**Natural Resource Management (NRM):** In 2019, NRM launched an aquatic vegetation harvesting program, which is currently expanding from one team of three employees to two teams, each with a dedicated harvester. Note that the third harvester mentioned in the citizen-recommended action is only suitable for limited use due to its small capacity. It is primarily intended for smaller projects. Several local cities have also initiated similar programs.

Subsequent to launching its aquatic vegetation harvesting program, the use of aquatic herbicides in NRM-maintained ponds has all but been eliminated: staff who are licensed applicators limit aquatic herbicide use only to those locations where mechanical equipment would risk damage to stormwater infrastructure. During 2023, less than one (1) gallon of herbicide was used throughout all NRM-maintained stormwater ponds.

NRM does not broadcast pesticides or fertilizers on any turf areas it maintains. Mowing specifications at NRM-maintained locations call for the maintenance of a three-to-five-foot buffer of higher turf and/or appropriate vegetation immediately upslope of pond shorelines. Mowing at NRM-maintained stormwater pond sites is performed on a monthly cycle. Tree trimming at NRM-maintained sites is performed infrequently, always under the supervision of an International Society of Arboriculture certified arborist and is only conducted when necessary to assure vehicular maintenance access or to address public safety concerns.

**Parks and Recreation:** Parks Operations coordinates with Mosquito Control for the treatment of cattails only in park ponds. Cattails harbor mosquito larvae as well as contribute to shallowing out ponds where a determined depth is preferred. Moreover, Parks Operation ponds are maintained with vegetative filter strips to intercept undesirable contaminants from runoff before they enter a water body. Steps are taken to protect water bodies by maintaining a minimum ten (10) foot buffer zone for any pesticide applications.

The Environmentally Endangered Lands Program uses a limited amount of aquatic herbicide in wetland environments to control invasive and non-native species.

Parks Operations' maintenance plan includes regular mowing that helps the grass stay healthy and strong. Grass blades are maintained at an ideal height to promote photosynthesis and nutrient absorption and allow early signs of disease or insect infestations to be seen. Additionally, Parks Operations prunes young trees and manages tree architecture. As the tree matures, removal of lower branches is practiced where branches may interfere with pedestrian and vehicle travel, drainage flow, or grounds maintenance equipment.

**Mosquito Control:** Ponds are often not a source of mosquito breeding due to natural predation of local fish and invertebrates, so limited herbicide applications are needed in ponds. If a pond is found to breed mosquitoes (e.g., newly constructed ponds), Mosquito Control normally first tries to stock native mosquitofish from one of its fish hatcheries to help establish the fish population. However, if significant mosquito or mosquito-borne disease levels are detected in or around a pond and fish are not deemed effective (e.g., when vegetation is too dense for fish to access larvae), the Department may apply herbicides to cut off mosquito breeding quickly and at the source.

Mosquito Control supports the County's harvesting program whenever and wherever harvester applications are practical for aquatic vegetation management. However, the mosquito life cycle is very brief, often less than a week, so harvesting alone cannot keep up with widespread mosquito production to sufficiently protect public health, especially once mosquito larvae or pupae are detected.

Mosquito Control does not control shoreline vegetation unless it is found to harbor significant mosquitoes and/or is determined to be a public health risk due to associated diseases. Local mosquitoes are known to utilize the shelter of aquatic vegetation during their immature (i.e., larval and pupal) life stages, so dense areas are sometimes treated to allow access of predators to mosquitoes. The Department normally considers native shoreline vegetation to be a benefit to water quality and, therefore, supportive of native mosquitofish, invertebrates, and other natural predators of mosquitoes.

Mosquito Control normally doesn't apply pesticides to lawns directly since they are usually not sufficient habitat for mosquitoes. Nevertheless, any pesticides used by the Department are tested and approved by the US Environmental Protection Agency (EPA) to help reduce mosquitoes and associated disease risk. Pesticide spraying is only conducted as needed, when state surveillance thresholds are reached, not on a predetermined schedule. An integrated management approach is employed which also includes various non-pesticide methods such as water level management in salt marsh breeding areas (i.e., mosquito impoundments), native mosquitofish stocking (from the Department's hatcheries), waste tire disposal, and even public education to encourage residents to eliminate water holding containers.

Mosquito Control conducts only the minimum mowing and tree trimming required for access to mosquito management areas (e.g., mosquito impoundments) and office facilities. Office facilities are only maintained to safely store vehicles, equipment, and supplies, and to support operations overall.

**Staff Recommended Action:**

It is recommended that the Board of County Commissioners reject the recommendation as the County continues to utilize a variety of vegetation control methods and treatments to provide expected service levels to citizens in an environmentally and fiscally responsible manner.

## Recommendation Details

## Contact Information

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**Group/Organization** space coast audubon

## Recommendation Information

**Recommendation Title:** Landscaping savings

**Areas Affected:**

**Department:** PUBLIC WORKS DEPARTMENT

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**Problem Description:**

**Recommendation Description**

## Attachments

There are no attachments for this recommendation.

## Administrative Action

## Evaluation

## Recommendation Timeline

User	Status	Date	Remarks
CEER WebUser	Citizen Submitted	Dec 27, 2023	
Karen Conde	Department Assigned	Jan 3, 2024	PUBLIC WORKS DEPARTMENT Assigned

Awaiting action from department director