

Town of Hilton Head Island

Environmentally Friendly Landscaping and Grounds Maintenance Practices

*Community Services and Public Safety Committee
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Environmentally Conscious Best Management Practices Update

Presentation Overview

- Introduction
- Assessment of Current Practices
- Town Actions to Date
- Discussion - Integrated Pest Management (IPM) program
- Discussion - Trial Study
- Next Steps



Environmentally Conscious Best Management Practices

Introduction

- The Town of Hilton Head Island is always looking to be a leader in protecting the environment and establishing best management practices.
- The Town prides itself on being environmentally conscience and being a community that promotes the Island's natural beauty and unique ecosystem.
- The Town and its residents encourage and value eco-friendly practices such as: reduction in plastic, oyster shell recycling and beach clean-up programs, island wide eco-friendly aesthetics and regulations.



Environmentally Conscious Best Management Practices Update

Introduction

2023-2025 Strategic Action Plan item identified by Town Council

Environmental Sustainability

Create a resilient and sustainable environment through planning and policy.

2023

- Work with Public Service Districts (PSDs) on Long-Term Capital Projects
- Establish National Leadership Credibility in Environmental Sustainability & Resource Protection
- Assess and Implement an Environmentally Friendly Landscape and Grounds Maintenance Best Practices Program
- Host/Sponsor a Resiliency Symposium
- Establish a Sustainable Environmental Practices Social Media Campaign

2024

- Develop Town-Owned Property Management, Asset Management and Utilization Plan
- Acquire Audubon International Sustainable Community Recertification (2-year Term)



Environmentally Conscious Best Management Practices Update

Assessment of Current Practices

- Review of Federal and State regulations.
- Review of current contract(s) language and service areas.
- Inventory and assessment of current pesticide use.
- Research and assess various environmentally conscious pest and weed control management practices and products.
 - Palm Beach, FL
 - City of Irvine, CA
 - Marin County, CA
 - City of Tustin, CA
 - Clemson University
 - Non-Toxic Neighborhoods



Environmentally Conscious Best Management Practices Update

Assessment - Federal and State of South Carolina Regulations

- Pesticide products are federally registered by the Environmental Protection Agency under the authority of the Federal Insecticide, Fungicide, Rodenticide Act 7 U.S.C. §136
- In South Carolina, the sole authority to regulate the registration, distribution, sale, and use of any pesticide is the responsibility of the SC State Crop Pest Commission through the Clemson University Department of Pesticide Regulation (CUDPR) under §46-13-10 et al., of the SC Code of Laws.
- Specifically, SC Code §46-9-110 clearly states that the SC State Crop Pest Commission through CUDPR shall occupy entire regulatory space on certain matters such as pesticide use and regulation, and prohibits any local ordinances on such matters.
- § 46-9-110 of the SC Code - Local ordinances void.
Local ordinances pertaining to the subject matter assigned by law to the commission, whether or not in conflict, are void.



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Assessment - Current Contracts

The Town has nine (9) contracts with four (4) contractors to maintain roads, medians, pathways, parks, facilities and grounds, including:

- Town, SCDOT and County roads
 - William Hilton Parkway, Cross Island Parkway, Palmetto Bay Road, Pope Avenue, New Orleans Road, Beach City Road, Mathews Drive and many more
- Town parks, beach parks, open space, and preserved land.
- Town facilities such as Town Hall, Fire and Rescue HQ and seven Fire Stations.
- Landscaping Dashboard:
<https://hiltonhead.maps.arcgis.com/apps/dashboards/dd4d10cfc3d64c5e9d29ccd742b54000>



Environmentally Conscious Best Management Practices Update

Assessment - Current Contracts

- Contract execution dates and terms vary between contracts. Terms and expiration dates should be consistent to provide consistent service for the Town.
 - Town Hall: C06-2023, Executed 2023, 5-year term
 - William Hilton Parkway:
 - South Island, Crossings and Bristol:
 - Chaplin Park:
 - Cross Island Parkway:
 - Lowcountry Celebration Park:
 - Veterans Park:
 - North Island:
 - Mid Island:
- Current contracts have generally the same language with slight variations and can be amended for consistency amongst all contracts.
- Contract service areas can be re-assessed to allow for better management by staff and scheduling by contractors.
- No requirement to post signage after application of pesticides.



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Assessment - Current Pesticide Use

List of pesticides currently used under current contracts:

FERTILIZERS

- **33-0-5** (33.00% Nitrogen, 5.00% Soluble Potash (K₂O), 2.00% Iron, Chlorine (Cl) Max 4.24%)
- **12-0-0** (12.00% urea Nitrogen (N), 4.00% Sulfur (S), 6.00% Iron (Fe) Total, 2.00% Manganese (Mn) Total)

INSECTICIDES

- **Advion (Fire Ant Bait)**
- **Topchoice**



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Assessment - Current Pesticide Use

HERBICIDES

- **0-0-7 w/ Barricade 0.45%**
- **Celsius WG**
- **Dismiss Turf Herbicide**
- **Fusilade**
- **Revolver**
- **Sedgehammer Turf Herbicide**
- **Specticle Flo**
- **SpeedZone Southern EW (Broadleaf Herbicide for Turf)**
- **Maner Selective Herbicide**
- **Ranger Pro**



Environmentally Conscious Best Management Practices Update

Town Actions to Date

- Research environmentally conscious pest and weed control management practices and products.
- The Town's contractors have been instructed to not spray glyphosate (i.e. Roundup™) at Town playgrounds, dog parks, or along water/marsh edges, including buffers, on Town property.
- Town contractor's have been instructed to not broadcast spray on Town sport fields (Chaplin Park, Crossings Park, Barker Field Extension, etc.)
- Worked with certified professionals in the Parks/Landscaping/Public Works industry to determine how to implement these strategies and to continue to foster ever-evolving ecological best practices for the Town's landscape and grounds maintenance.



Environmentally Conscious Best Management Practices Update

Discussion – Integrated Pest Management

- Methods of pest management can be organized into four main categories:
 - Cultural (crop rotation, resistant varieties),
 - Physical/mechanical (discing, screens, traps),
 - Biological (beneficial insects and pathogens), and
 - Chemical (pesticides).
- Pest management is more effective, practical, and safer when all four types of management are employed.
- This is a principle known as **Integrated Pest Management (IPM)**.



Environmentally Conscious Best Management Practices Update

Discussion – Integrated Pest Management

- IPM is a system of managing pests using careful consideration and integration of all available pest control tools and techniques.
- IPM is a tool that will allow Staff and Town contractors to focus on long-term prevention or suppression of pest problems with minimum impact on human health, the environment, and non-target organisms with the limited use of pesticides
- Chemical control is an integral component of IPM, even in organic operations.
- The goal is to minimize the use of chemicals on Town maintained grounds but where required, use them responsibly.
- All forms of chemicals applied to Town properties will follow the principles of this Integrated Pest Management program.



Environmentally Conscious Best Management Practices Update

Discussion – Integrated Pest Management

Current Town IPM Practices:

- Mulching - Horticultural standards of 2-3” to suppress weed germination and retain moisture in the soil.
- Fertilizer - Seasonal and application specifications.
 - Area specifications: corridor turf verses high quality sports fields. Irrigated turf verses non irrigated turf. Soil testing areas with higher rates and demands for fertilizer and nutrition. Applied according to the label.
- Cultural practices - Removal of excessive plant debris (discouraging mold, fungus disease and habits for insect pests.)
- Weed and insect pest control with proper IPM practices, mulching, proper plants, manually, and chemically according to the labels. Seasonal applications based on life cycle and germination cycles.
- Plant Selection
 - Selecting native species that are adapted to our climate and native soils.
 - limiting the use of excessive watering and fertilizer to maintain health plants.
 - Selecting disease and pest resistant plant species.
 - Planting location, wetlands species, drought tolerant species, and considering sun and shade requirements.

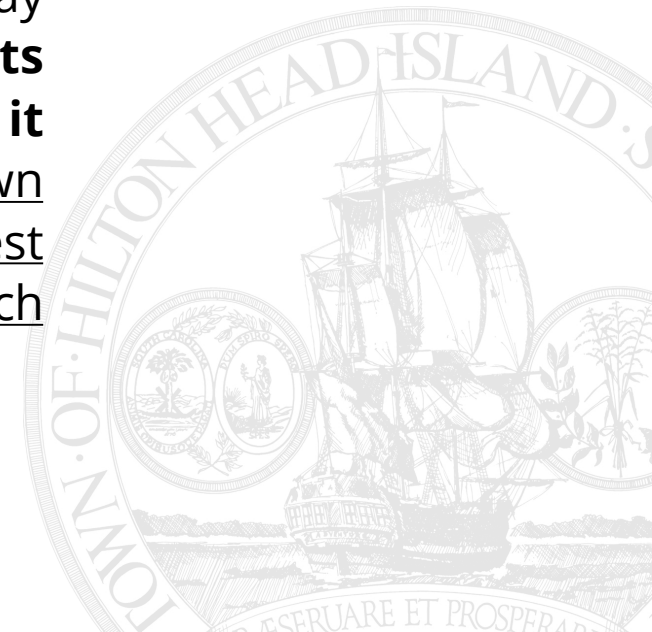


Environmentally Conscious Best Management Practices Update

Discussion – Integrated Pest Management

- **Conventional (or synthetic)** pesticides are materials that are **manmade**, often from materials found in nature, though their chemical structures have been altered in some way. By altering the chemical structure, certain characteristics can be improved. For example, synthetic pyrethroids are altered to be more stable in sunlight than natural pyrethrin.
- **Organic pesticides**, on the other hand, are considered **naturally derived**, meaning their chemical structures are unaltered from the way they exist in nature. **While the chemical structure is unaltered from its natural form, the material is often processed or extracted to make it more effective or easier to use.** Organic pesticides typically break down rapidly in the environment. As a result, when used for persistent pest problems such as plant diseases, organic materials must be applied much more often than their conventional counterparts.

[Gardening Myths: Organic Means Pesticide Free | Home & Garden Information Center \(clemson.edu\)](#)



Environmentally Conscious Best Management Practices Update

Discussion – Integrated Pest Management

- While “organic” insecticides are often less damaging to the environment than conventional insecticides, they are still pesticides.
- All pesticides should be evaluated before selection for level of toxicity, effectiveness, environmental impacts, and costs.
- All pesticide products have a toxicity signal word on the label, which will be “caution”, “warning”, or “danger”. Check the signal words on the label for level of toxicity. **CAUTION - LESS** toxic, **WARNING - MORE** toxic, **DANGER - MOST** toxic. Each should be use according to the instructions on the label.
- Consider products with “caution” on the label.

[Less Toxic Insecticides | Home & Garden Information Center \(clemson.edu\)](#)



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Discussion – Trial Study

- Town staff proposes to undertake a trial study located at one or more Town facilities:
 - Chaplin Park, Crossings Park, other as recommended by Committee
- The trial study will seek to demonstrate the efficacy of synthetic and organic pesticides as well as establish a clear understanding of the cost and schedule involved with maintaining grounds to a desired level.
- Work with a third party to develop an outline and schedule for the trial study for further consideration by the Committee.



Environmentally Conscious Best Management Practices Update

Next Steps

- **November** – Discussion with Community Services and Public Safety (CSPS) Committee
 - Test Program to observe efficacy of different herbicides
 - Integrated Pest Management (IPM) Policy framework
- **December** – Consideration of Resolution adopting IPM plan and policy
- **December/January** – Town Council consideration
- **Early 2024** – Implementation of IPM and assessment of trial study



Environmentally Conscious Best Management Practices Update

QUESTIONS?

