

**INTEGRATED PEST MANAGEMENT
SUB-COMMITTEE
MEETING AGENDA
MONDAY, MARCH 22nd, 2021 – 2:00 P.M.
COUNCIL CHAMBERS
1225 MAIN STREET, SEBASTIAN, FL**

- I. CALL TO ORDER
- II. PLEDGE OF ALLEGIANCE
- III. ROLL CALL
- IV. ANNOUNCEMENTS
- V. PUBLIC INPUT
- VI. NEW BUSINESS
 - Item A. Meeting Schedule Modification –ACTION ITEM**
 - i. Moving the April 5th meeting to April 12th.
- VII. OLD BUSINESS
 - Item A. Section V. Ditches/ Rights-of-Way/ Dry Retention Areas**
 - i. Review and Discussion
 - ii. City Mowing Contract
 - Item B. Section VI. Further Non-Chemical Recommendations**
 - i. Review and Discussion
 - ii. Stormwater Fee Credit Program
- VIII. SUB-COMMITTEE MEMBER MATTERS
- IX. STAFF MATTERS
- X. ITEMS FOR NEXT AGENDA
 - Item A. Vote for Approval on sections II-VI, regarding non-chemical controls**
 - Item B. Herbicide Methodology**
- XI. ADJOURNMENT

ANY PERSON WHO DECIDES TO APPEAL ANY DECISION MADE ON THE ABOVE MATTERS, WILL NEED A RECORD OF THE PROCEEDINGS AND MAY NEED TO ENSURE THAT A VERBATIM RECORD OF THE PROCEEDINGS IS MADE, WHICH RECORD INCLUDES THE TESTIMONY AND EVIDENCE UPON WHICH APPEAL IS TO BE HEARD. SAID APPEAL MUST BE FILED WITH THE CITY CLERK'S OFFICE WITHIN TEN DAYS OF THE DATE OF ACTION. (286.0105 F.S).

IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA), ANYONE WHO NEEDS SPECIAL ACCOMMODATIONS FOR THIS MEETING SHOULD CONTACT THE CITY'S ADA COORDINATOR AT (407)-589-5330 AT LEAST 48 HOURS PRIOR TO THIS MEETING.TWO OR MORE ELECTED OFFICIALS MAY BE IN ATTENDANCE.



IPM SUB-COMMITTEE AGENDA TRANSMITTAL FORM

Board Meeting Date: March 22nd, 2021

Agenda Item Title: VI. NEW BUSINESS
Item A. Meeting Schedule Modification –ACTION ITEM
i. Moving the April 5th meeting to April 12th

Recommendation: Submitted for Committee Member Approval

Background:

If Agenda Item Requires Expenditure of Funds:

Total Cost: n/a

Attachments: Amended Meeting Schedule

**SW IPM PROPOSED EXTENDED
COMPREHENSIVE MEETING SCHEDULE**

3/8/21: SW IPM Meeting, 2PM

3/10/21: City Council Meeting, 6PM

3/22/21: SW IPM Meeting, 2PM

3/24/21: City Council Meeting, 6PM

4/5/21: SW IPM Meeting, 2PM *(changed to 4/12/21)*

4/6/21: NRB Meeting, 6PM

4/12/21: SW IPM Meeting, 2 PM

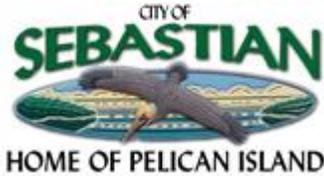
4/14/21: City Council Meeting, 6PM

4/24/21: NRB Arbor Day and Earth Day Celebration

4/28/21: City Council Meeting, 6PM

5/3/21: SW IPM Meeting, 2PM

5/4/21: NRB Meeting, 6PM



IPM SUB-COMMITTEE AGENDA TRANSMITTAL FORM

Board Meeting Date: March 8th, 2021

Agenda Item Title: VII. OLD BUSINESS
Item A. Section V. Ditches/ Rights-of-Way/ Dry Retention Areas
i. Review and Discussion

Recommendation: Submitted for Committee Member Review and Discussion

Background: Originally submitted to sub-committee at February 8th, 2021 Meeting, in which it was decided by consensus that deeper review was needed

If Agenda Item Requires Expenditure of Funds:

Total Cost: n/a

Attachments: Draft Section V. of the SW IPM Plan

V. DITCHES, RIGHTS-OF-WAY, DRY RETENTION AREAS

Overview

The stormwater conveyance system is an expansive spider web connected by a massive 80 mile network of **ditches**. Vegetation in the ditches assists with the infiltration of the water through the soil and stabilizes the steep banks. However, the growth of vegetation must also be controlled enough to preserve the connectivity of the entire stormwater system.

Along-side many of the City's water retaining assets are the **rights-of way** areas such as designated access roads and drainage easement buffer zones. In these areas, groundcover is important to stabilize the soil from erosion; however, it is critical that the vegetation not become so overgrown that it blocks maintenance access to the ponds, canals and ditches.

Dry retention areas are located throughout the City and they are areas of lower elevation, which only hold water during periods of heavy rainfall. They are designed to overflow excess water into nearby water features through catch basins and pipes. Keeping dry retention areas vegetated is important to preventing compaction and increasing water infiltration. Too much vegetation can decrease the storage capacity and block the flow of stormwater towards other features.

Do Nothing Option

The overgrowth of aquatic vegetation around in the ditches and dry retention areas can eventually decrease their storage capacity, creating localized flooding problems. The ditch vegetation can cause very costly blockages in the road crossing culvert pipes. Many of the ditches bisect blocks of residential lots and an overgrowth of woody vegetation from the ditches threatens utility and residential structures. Overgrowth in rights-of-way areas prevents staff and contractors from performing proper maintenance of structures, canals, ponds, and ditches. The tolerance threshold for pest activity, before action is taken is considered very high for these assets.

Non-Chemical Methods

In order to control vegetation, the following cultural and mechanical methods will be conducted routinely as part of standard proactive maintenance procedures within the City's stormwater system. These assets are virtually never treated with herbicides. The City maintains a separate mowing contract (**Appendix Z**) to address the control of vegetation in these areas:

- **Dredging.** When the ditches are at their lowest storage, the City can access the ditch bottoms with equipment and mechanically remove the vegetation and accumulated sediments.
- **Sediment and Erosion Control at Development Sites.** In compliance with **City Ordinance No. 54-3-11.2. (Appendix X)** and the City's NPDES Permit (Appendix Y), proper erosion and sediment control at all sites of development is required to be established and maintained throughout the duration of the project and is inspected regularly for

compliance. Sediments directly washing off a site, and into the ditches create a mound of substrate for vegetation to establish and carry nutrients which many invasive species thrive on. These sediments can travel with stormwater and enter the canals as well.

- **Mowing.** The City maintains a contract for mowing of all right-of-way areas and ditch banks. Mowing the ditch banks reduces the self-seeding of the pest vegetation while still allowing the vegetation to remain established as it plays an important role in stabilizing the banks and filtering nutrients and sediments.
- **Mow at correct height.** Mowing too low can thin out and starve the vegetation and mowing too high or not often enough can facilitate the further spread of the plants.
- **Always mow with sharp blades and Sanitize Tools.** Dull mower blades cause uneven cutting and weaken the grasses. Vegetation can easily spread among sites by hitchhiking seeds and plant fragments on un-sanitized mowing and maintenance equipment. Cleaning these tools between areas minimizes pest transport

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IPM SUB-COMMITTEE AGENDA TRANSMITTAL FORM

Board Meeting Date: March 8th, 2021

Agenda Item Title: VII. OLD BUSINESS
Item B. Section VI. Further Non-Chemical Recommendations
i. Review and Discussion

Recommendation: Submitted for Committee Member Review and Discussion

Background: Originally submitted to sub-committee at February 8th, 2021 Meeting, in which it was decided by consensus that deeper review was needed

If Agenda Item Requires Expenditure of Funds:

Total Cost: n/a

Attachments: Draft Section VI. of the SW IPM Plan

VI. FURTHER NON-CHEMICAL RECOMMENDATIONS

Future Considerations

In addition to the cultural and mechanical pest control methods currently being implemented within the City's stormwater conveyance system, observations of the areas and sub-committee member research prompted the following recommendations for future consideration (Figure 4):

- **Seawall Reconstruction.** Reconstruction of **seawalls** that border most of the canal system. The seawalls hold back nutrient laden sediments from residential and commercial landscapes from entering the waters while keeping the banks stabilized.
- **Skimmer Device.** Large device that requires electricity and is easily movable between ponds. Water and material are pumped into an onshore filtration unit which is effective in removing duckweed, water meal, azolla, but not larger aquatic plants. Should these species become a frequent problem in the ponds, the purchase of this device is recommended.
- **Expanded Dredging of Open Water Areas.** **Dredging** of canal, pond, and ditch bottoms to de-muck the nutrient rich deposits that comprise the top layer of the **substrate** and remove seawall sediments, which readily accommodate **emergent** vegetation growth
- **Environmental Enhancements.** Creation of a self-maintaining **littoral shelf** with native aquatic vegetation, which will provide healthy habitat and nutrient filtration for the
- **Pathogens.** The control of some pest vegetation can be aided by aerobic pathogens, such as specific bacteria or fungus, which are amended to the pesticides or the water itself. While these bio herbicides are currently under research and review, many studies have shown that when partnered with added aeration, they may help provide more effective long-term control. It is also recommended that the pathogens be added fresh daily which will also require specialized equipment and dedicated staff. The best candidates for this method are small to medium sized ponds, during periods of very little in/outflow, which have existing aeration.
- **Stormwater Fee Credits.** Utilize the existing Stormwater Fee Credit Program to incentivize private property owners to install a buffer zone of emergent vegetation along stormwater ponds and natural canal boundaries