



May 21, 2025

Buzz Smyth
601 Seaway LLC
110 South Ocean Drive
Fort Pierce, FL 34949

VIA Email: smythbuild@gmail.com

Reference: **Benthic Resource Survey – Causeway Cove Marina**
601 Seaway Drive
Fort Pierce, Florida, 34949
Parcel ID: 2402-312-0001-000-5

Dear Mr. Smyth,

Haley Ward, Inc. has completed this Benthic Resource Survey (BRS) for the above-mentioned property. The purpose of this evaluation was to conduct a review of the above listed parcels by means of site visit, and the in water survey of benthic resources.

Please contact the undersigned if you have any questions regarding this report.

Respectfully submitted,

Haley Ward, Inc.

Adam Kobylski, M.S.
Environmental Biologist



BENTHIC RESOURCE SURVEY

Parcel ID Numbers:
2402-312-0001-000-5
601 Seaway Drive
Fort Pierce, FL 34949

Date: May 21, 2025
Project # 22-228

Prepared For:
Buzz Smyth
601 Seaway LLC
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INTRODUCTION

A submerged aquatic vegetation survey (SAV) was conducted within the proposed project area associated with the subject property located at 601 Seaway Drive Fort Pierce, FL 34949.

The purpose of the survey was to ascertain data reflective of the submerged resources within the project area. Seagrass surveys should be conducted during the main growing season April 1st – August 31st. This provides a maximum aerial extent of seagrasses, peak above ground biomass and greatest diversity of species. Within the southeast region, consultants are allowed to extend to August to accommodate for Johnson's Seagrass growing season and period of max abundance pursuant to the Johnson's Seagrass (*Halophia johnsonii*) Recovery Plan (JSRP). Despite this concerted effort, on April 14, 2022, The National Marine Fisheries Service (NMFS), an office of the National Oceanic and Atmospheric Administration (NOAA) within the Department of Commerce, published a finale rule (87 FR 22137) to remove Johnson's Seagrass from the Federal List of Endangered and threatened Plants. The delisting of Johnson's was effective May 16, 2022. The survey conducted by Haley Ward, Inc. extended beyond the footprint of the planned dock facilities as depicted within the following figures.

SITE LOCATION AND DESCRIPTION

The subject property evaluated as part of this Benthic Resource Survey is addressed at 601 Seaway Drive in Fort Pierce, FL 34949. This parcel resides along the southern shoreline of Causeway Island. The shoreline of the subject property has approximately 1830ft of shoreline. Shoreline vegetation was identified waterward of the shoreline consisting of a dominance of Red Mangrove (*Rhizophora mangle*) where vegetated. Please refer to the following figures depicting the generalized subject area.

The subject properties waterward extent is located within the Indian River Lagoon. Much of the area surrounding the subject property has been developed, and manmade modifications to its watershed through the building of canals and drainages, as well as the dredging and straightening of sizeable tracts has altered the surrounding aquatic habitats, hydrodynamic, and tidal activity. This area of the waterbody serves as a commercially important location for the local tourism and boating industry.



Figure 1: Vicinity map of the subject property's location and surrounding geographical landmarks. Obtained from Google: Open Street Map.



METHODOLOGY

Haley Ward staff scientists conducted an in-water survey to ascertain the presence/absence of submerged aquatic vegetation (SAV) amongst other submerged species such as invertebrates and mollusks. The survey was conducted on May 20th, 2025, on an incoming tide using the guidelines established by the Florida Department of Environmental Protection (FDEP) Field Methods Manual for Evaluating Resource (SLER 0856) and the Department of the Army Submerged Aquatic Vegetation Survey Guidelines (dated May 7, 2018). It was noted that the water clarity was cloudy and visibility averaged approximately 1-2 feet.

Transects began at the subject property's western shoreline edge and ran southeast waterward of the subject property's shoreline. Transects ran parallel to the eastern shoreline with the length of each transect measured approximately 1000-feet and the distance between each transect was approximately 3-4-feet. Sampling was conducted every 4-feet along each transect. Additionally, the transects covered the locations immediately adjacent to each transect so that the entirety of the subject area was surveyed. The locations of these transects as well as the distribution of SAV are depicted in the attached figured.

FINDINGS

The in-water conditions at the time of the survey were characterized as 78° F water temperature, high-salinity, sunny with clear skies, moderate visibility (approximately less than 3 ft), minimal current with moderate turbidity. The substrate consisted of opaque white sand, light tan/grey silt, and low in organics. Depths within the survey area ranged from 1-foot to 10-feet mean low water at the waterward extent of the survey. Throughout the survey, several species of fish and invertebrates were observed. During the survey a single manatee was observed near the marina.

Four species of seagrass were observed throughout the survey area. A total area of approximately 0.22 acres of seagrass was identified on site. Additionally, varieties of Green and Red macroalgae's were observed throughout the survey. Please see Figure 2 for detailed descriptions of locations and abundance of benthic resources.

Common Name	Species Name
Manatee Grass	<i>Syringodium filiformes</i>
Shoal Grass	<i>Halodule wrightii</i>
Paddle Grass	<i>Halophila decipiens</i>
Johnson's Seagrass	<i>Halophila johnsonii</i>
Seaweed	<i>Caulerpa prolifera</i>
Sea Grapes	<i>Caulerpa racemosa</i>
Red Drift	<i>Rhodophyta sp.</i>

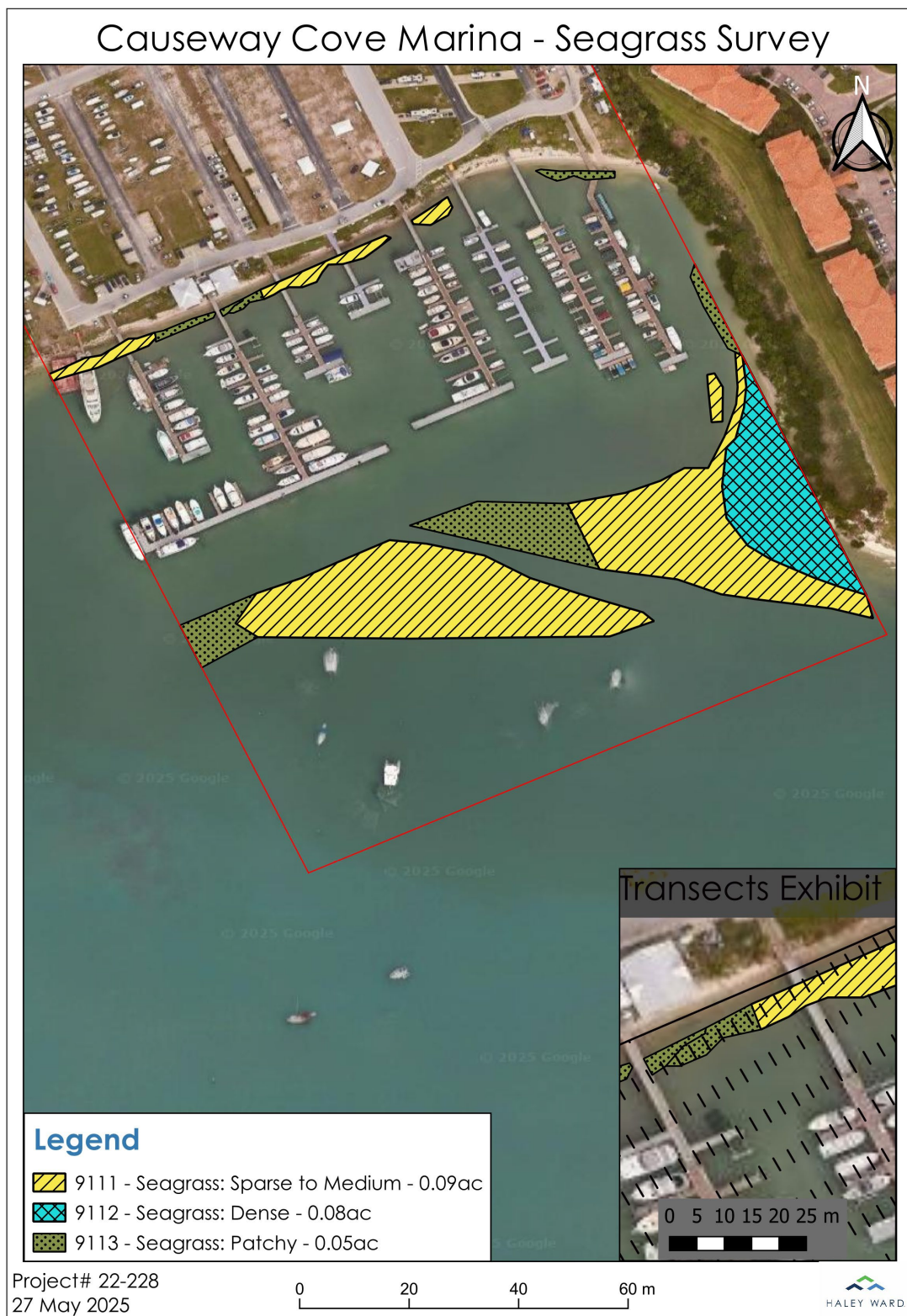


Figure 2: Seagrass survey results map at Causeway Cove Marina. Inset map exhibits a zoomed in view of transect methodology used throughout the seagrass survey.