

# 2020 Springs Coast Seagrass Mapping Results

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**<sup>2</sup> Mapping & GIS Section, SWFWMD**

**<sup>3</sup> NV5 powered by Quantum Spatial, Inc.**

**<sup>4</sup> Wood PLC, Inc.**

**<sup>5</sup> Environmental Science Associates, Inc.**

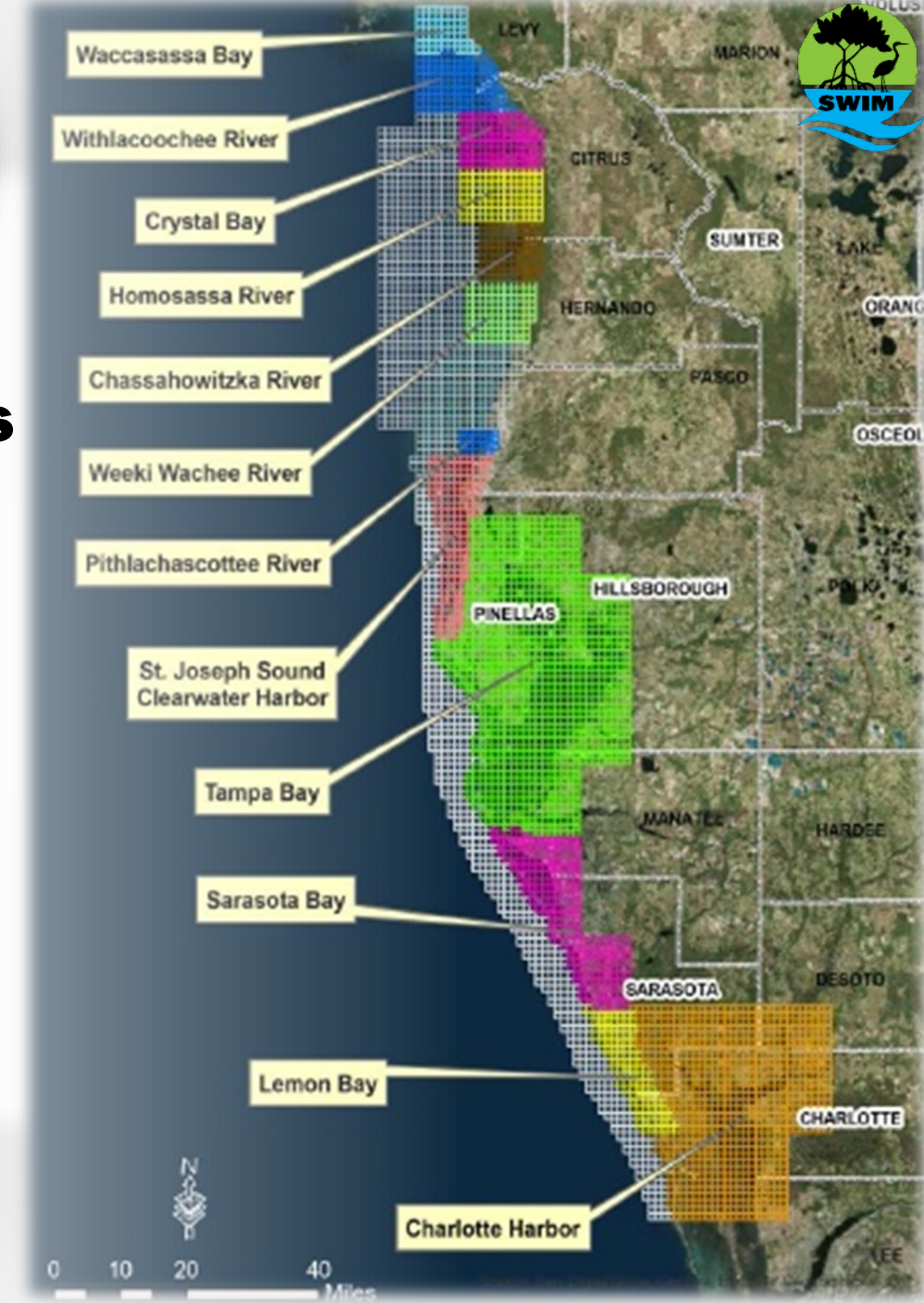
**<sup>6</sup> Surdex Corporation**



# SWFWMD Seagrass Mapping Program



- **One of the most comprehensive seagrass mapping programs in the world**
- **1988 – Present**
- **Springs Coast & Suncoast Regions**
- **3,813 square miles**
  - Suncoast 2,543 square miles
  - Springs Coast 1,270 square miles







# Photointerpretation

**Acquisition**

**Field Verification**



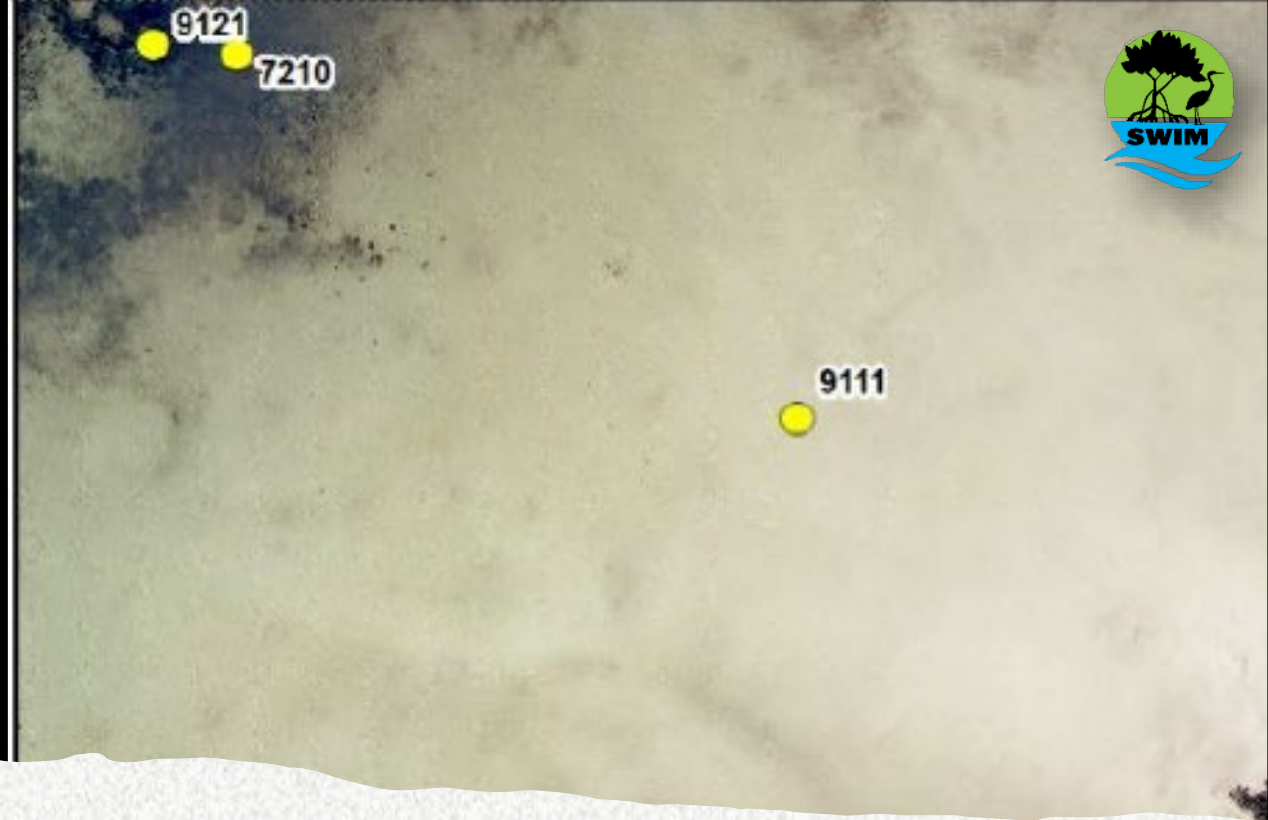
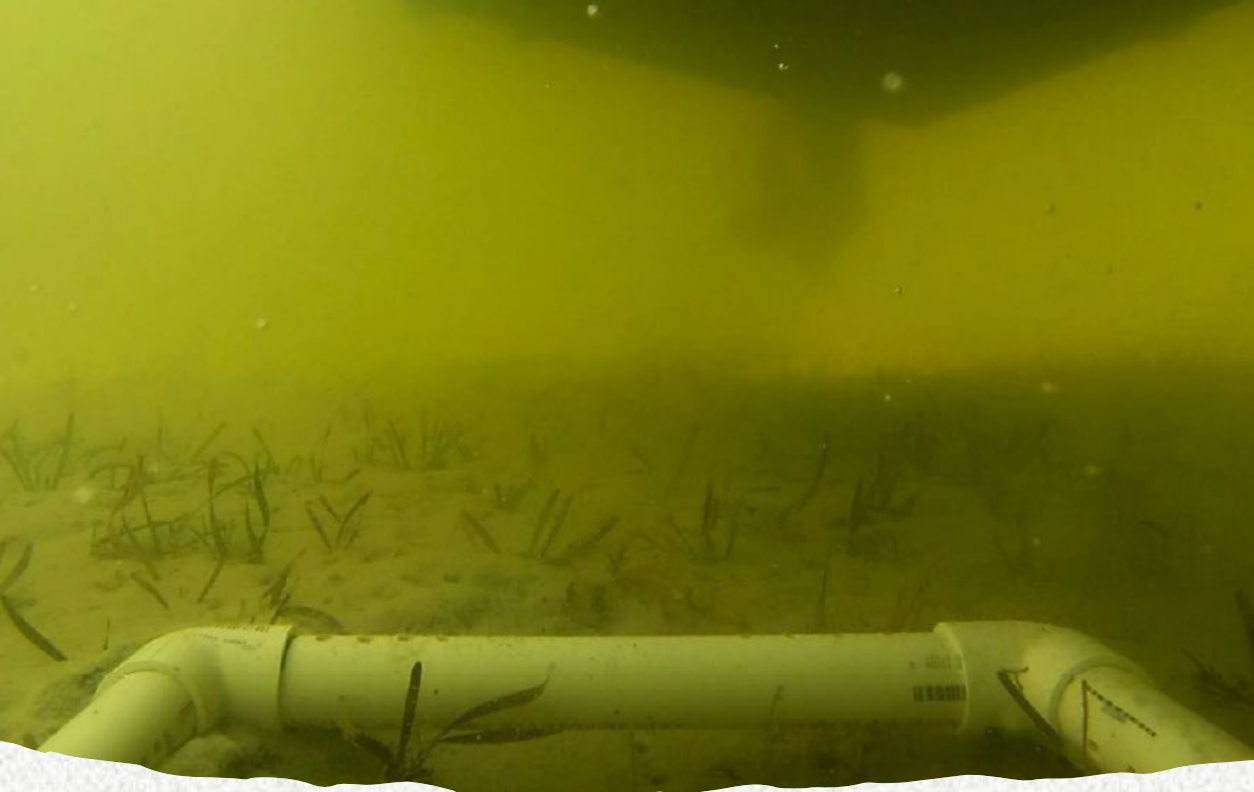




# Continuous Seagrass (9116)

Description: These areas exhibit a continuous and uniform signature of >25% to 100% seagrass coverage, with less than 25% coverage of any area showing up as unvegetated bottom features. The seagrass beds may have variable density. Areas that appear as continuous beds of seagrass communities, regardless of species composition, will be mapped.





# Sparse Seagrass (9111)

Description: Consists of a sparse density of 10% to less than 25% seagrass coverage. Also, may appear as singular, rounded clumps, or elongated strands of isolated seagrass patches mixed with open bottom or sand.





# Composite Colonized Seagrass (9115)

Description: Consists of a combination of beds of seagrass, calcareous algae and areas of consolidated hardbottom colonized by sessile communities such as gorgonian or sponge.

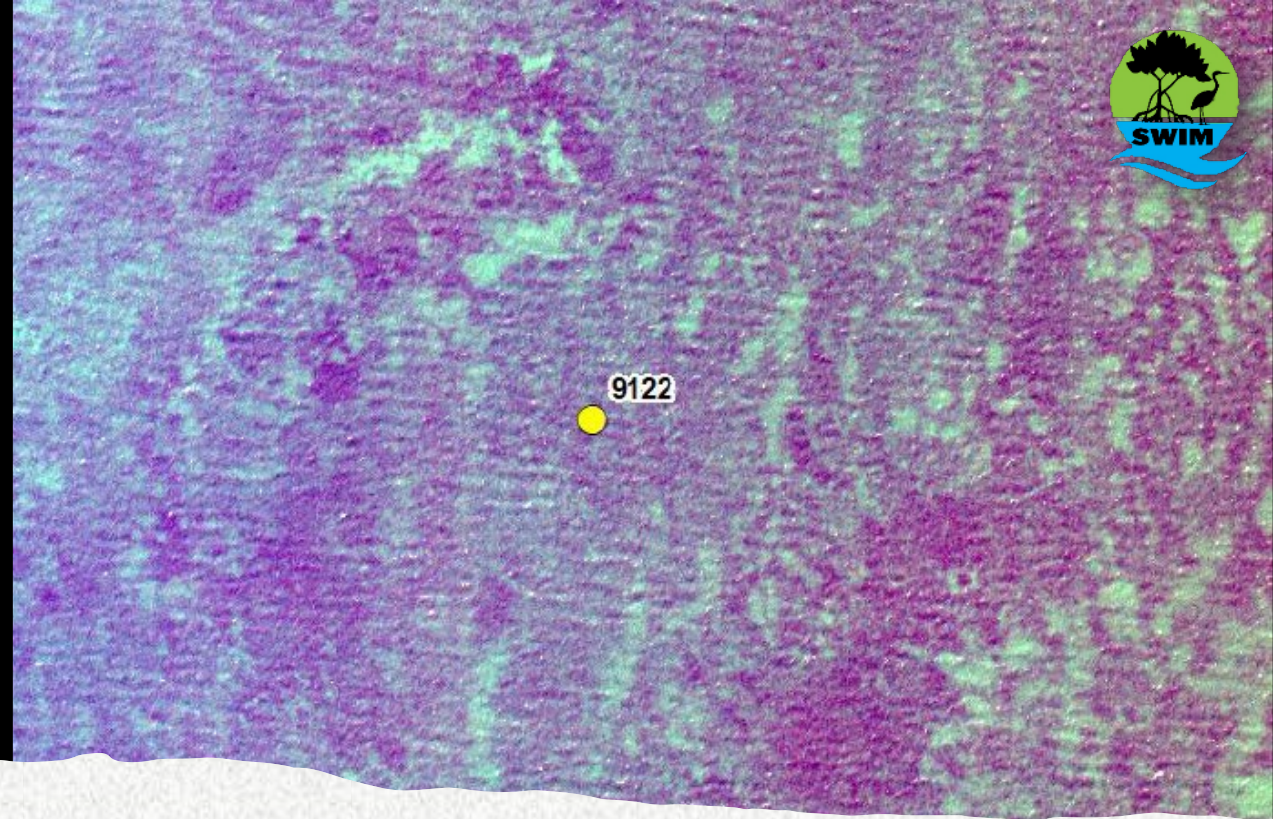




# Attached Macroalgae (9121)

Description: Only homogeneous stands of attached macroalgae are mapped. All polygons mapped as attached macroalgae are field verified during the mapping process. When *Caulerpa* or other rhizophytic attached macroalgae co-exists with seagrass beds, the area is characterized with a seagrass cover type unless beds of attached macroalgae are distinguishable from seagrass. Where feasible, they should be mapped, and field verified if >10% coverage.





# Composite Colonized Macroalgae (9122)

Description: Composite colonization of areas that support a habitat of sparse attached macroalgae of 10% to less than 25% coverage, and sponges or corals.





**RESULTS**

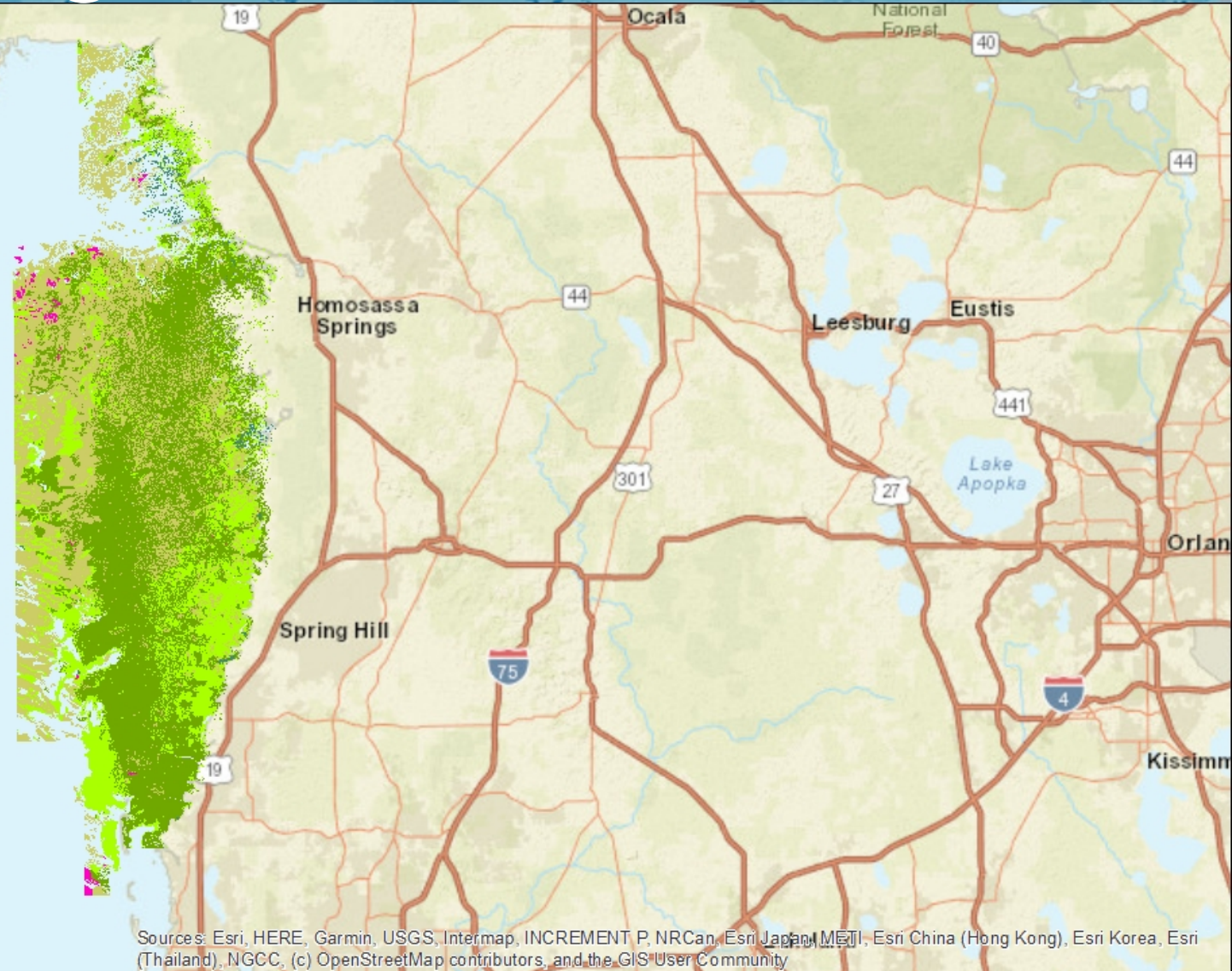
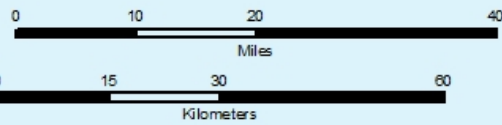
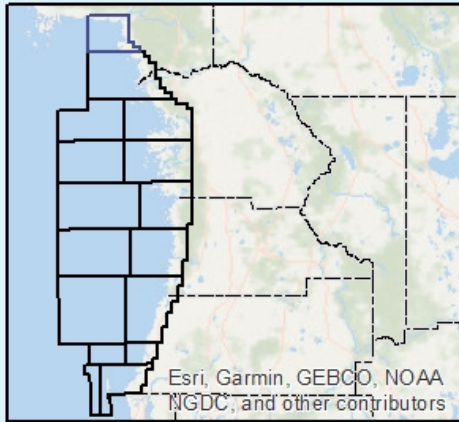


# Springs Coast

2020

Springs Coast

- 9111 Sparse Seagrass
- 9116 Continuous Seagrass
- 9115 Composite Colonized Seagrass
- 9121 Attached Macroalgae
- 9122 Composite Colonized Algae
- 6540 Oyster Bars



| Segment       | 2016    | 2020    | Δ Acres | % Change |
|---------------|---------|---------|---------|----------|
| Springs Coast | 577,920 | 586,512 | 8,592   | 1.5%     |

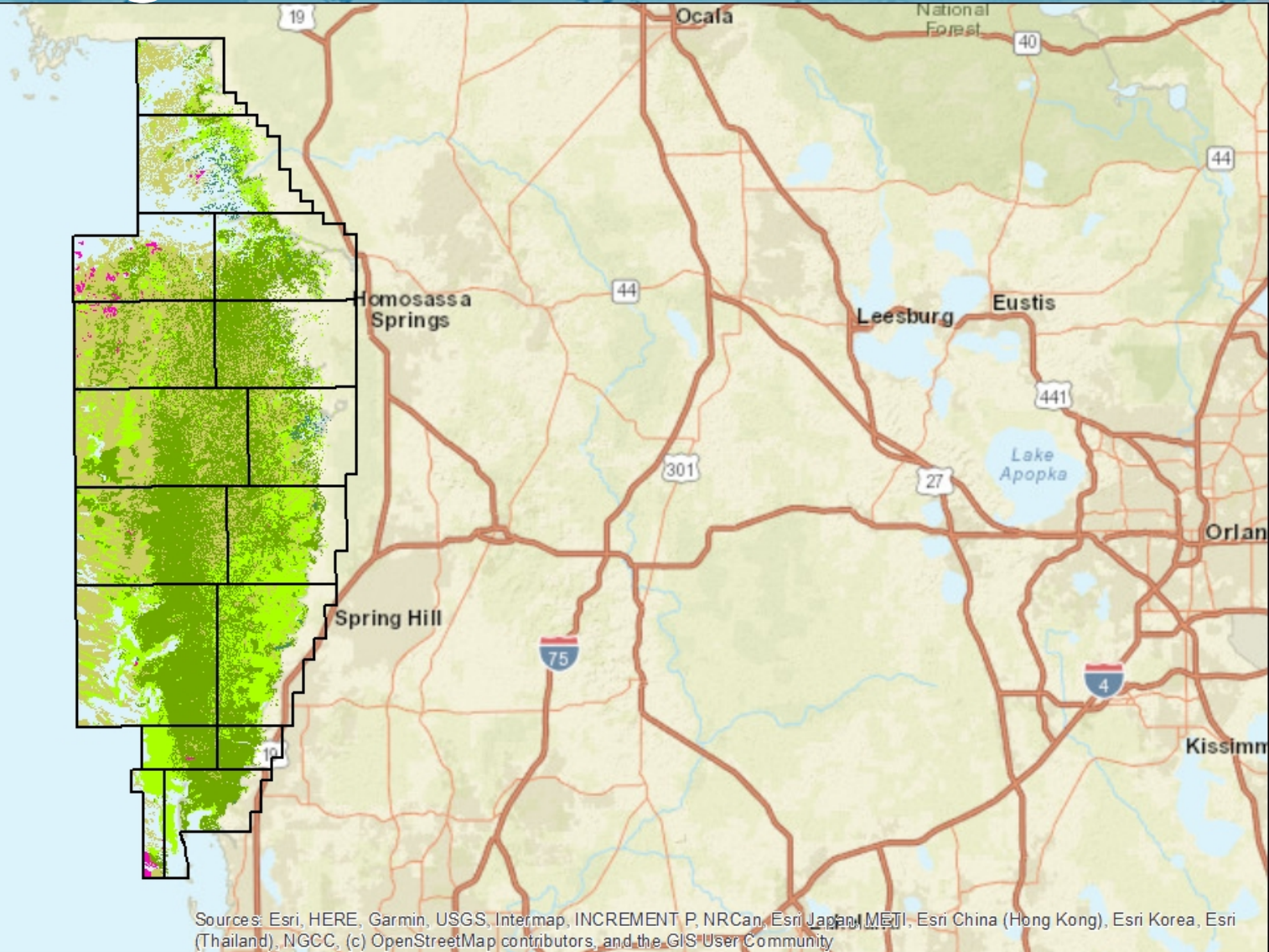
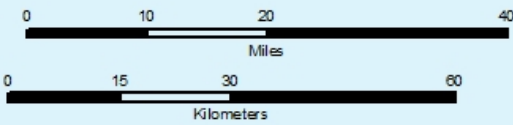
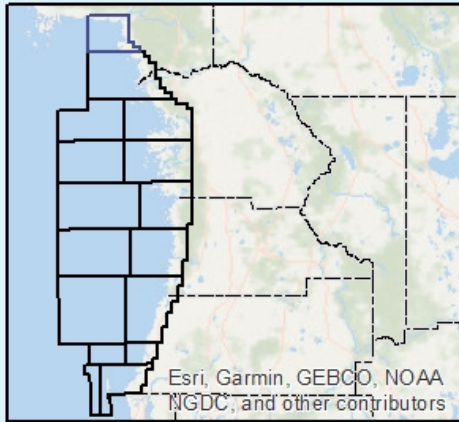


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# 2020 Springs Coast Results

## Inshore



| Estuary Segment | 2016<br>(acres) | 2020<br>(acres) | Acreage<br>Change | % Change |
|-----------------|-----------------|-----------------|-------------------|----------|
| Waccasassa Bay  | 10,934          | 12,807          | 1,874             | +17.1%   |
| Withlacoochee   | 24,338          | 24,369          | 31                | +0.1%    |
| Crystal Bay     | 25,115          | 27,223          | 2,108             | +8.4%    |
| Homosassa       | 32,610          | 32,408          | -202              | -0.6%    |
| Chassahowitzka  | 30,086          | 29,163          | -923              | -3.1%    |
| Weeki Wachee    | 42,484          | 42,249          | -235              | -0.6%    |
| Aripeka         | 47,295          | 46,651          | -644              | -1.4%    |
| Pithlachascotte | 8,506           | 8,427           | -79               | -0.9%    |
| Anclore         | 17,771          | 17,912          | 141               | +0.8%    |



# 2020 Springs Coast Results

## Offshore



| Estuary Segment       | 2016<br>(acres) | 2020<br>(acres) | Acreage<br>Change | % Change     |
|-----------------------|-----------------|-----------------|-------------------|--------------|
| Crystal Bay           | 33,161          | 33,780          | 619               | +1.9%        |
| Homosassa             | 59,176          | 58,639          | -537              | -0.9%        |
| Chassahowitzka        | 81,305          | 81,501          | 196               | +0.2%        |
| Weeki Wachee          | 70,623          | 70,658          | 35                | No Change    |
| Aripeka               | 74,319          | 79,028          | 4,709             | +6.3%        |
| Pithlachascotte       | 15,041          | 15,213          | 172               | +1.1%        |
| Anclote               | 5,156           | 6,483           | 1,326             | +25.7%       |
| <b>Inshore Total</b>  | <b>239,138</b>  | <b>241,210</b>  | <b>2,072</b>      | <b>+0.9%</b> |
| <b>Offshore Total</b> | <b>338,781</b>  | <b>345,302</b>  | <b>6,520</b>      | <b>+1.9%</b> |



# Waccasassa Bay

2016

Waccasassa Bay

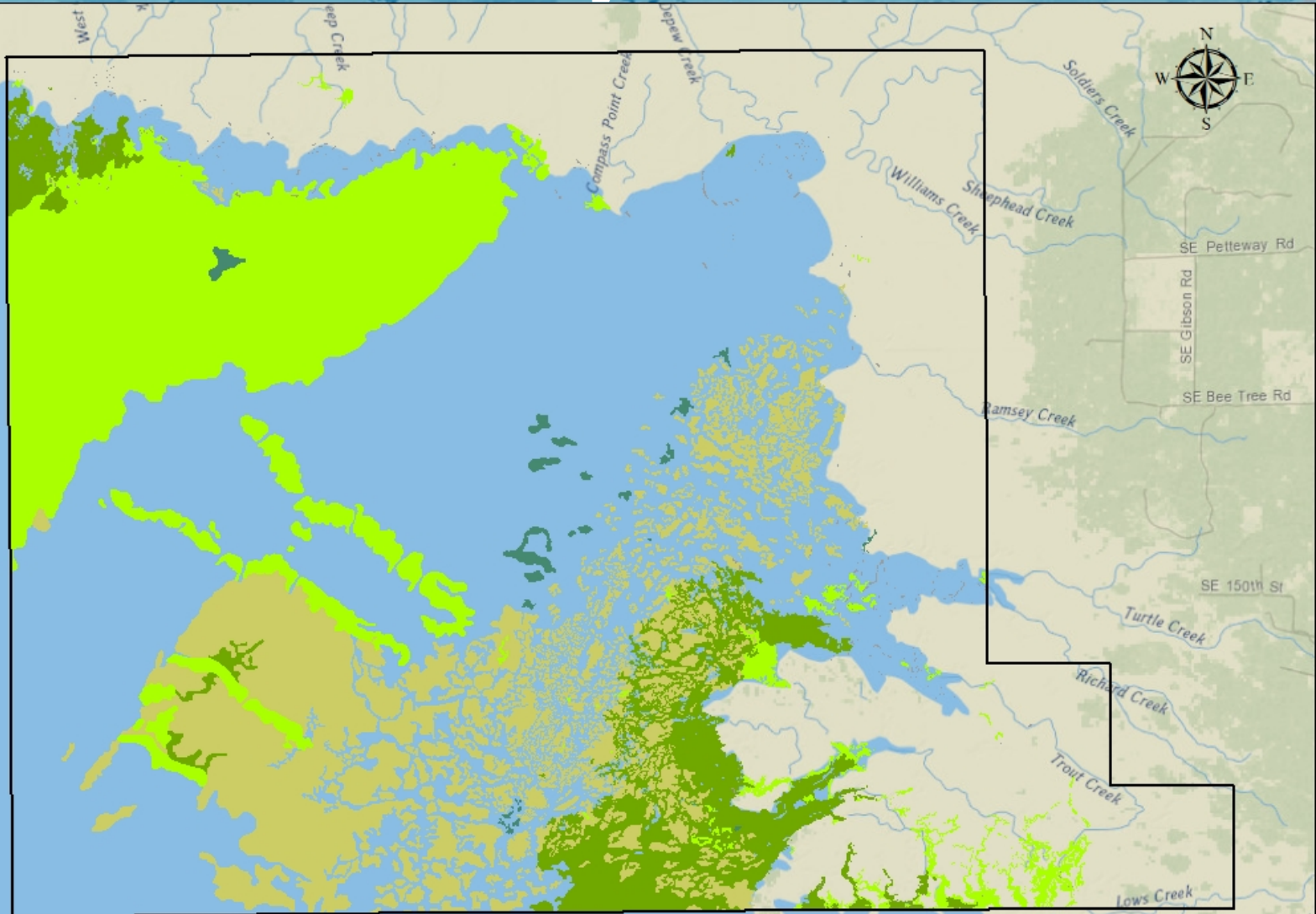
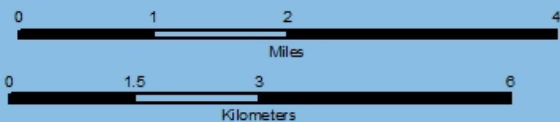
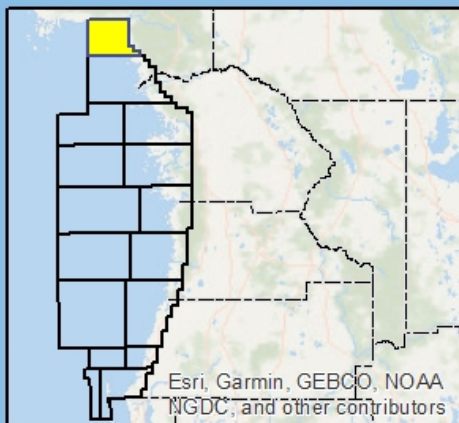
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9115 Composite Colonized Seagrass

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National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

| Segment        | 2016   |  |  |  |
|----------------|--------|--|--|--|
| Waccasassa Bay | 10,934 |  |  |  |

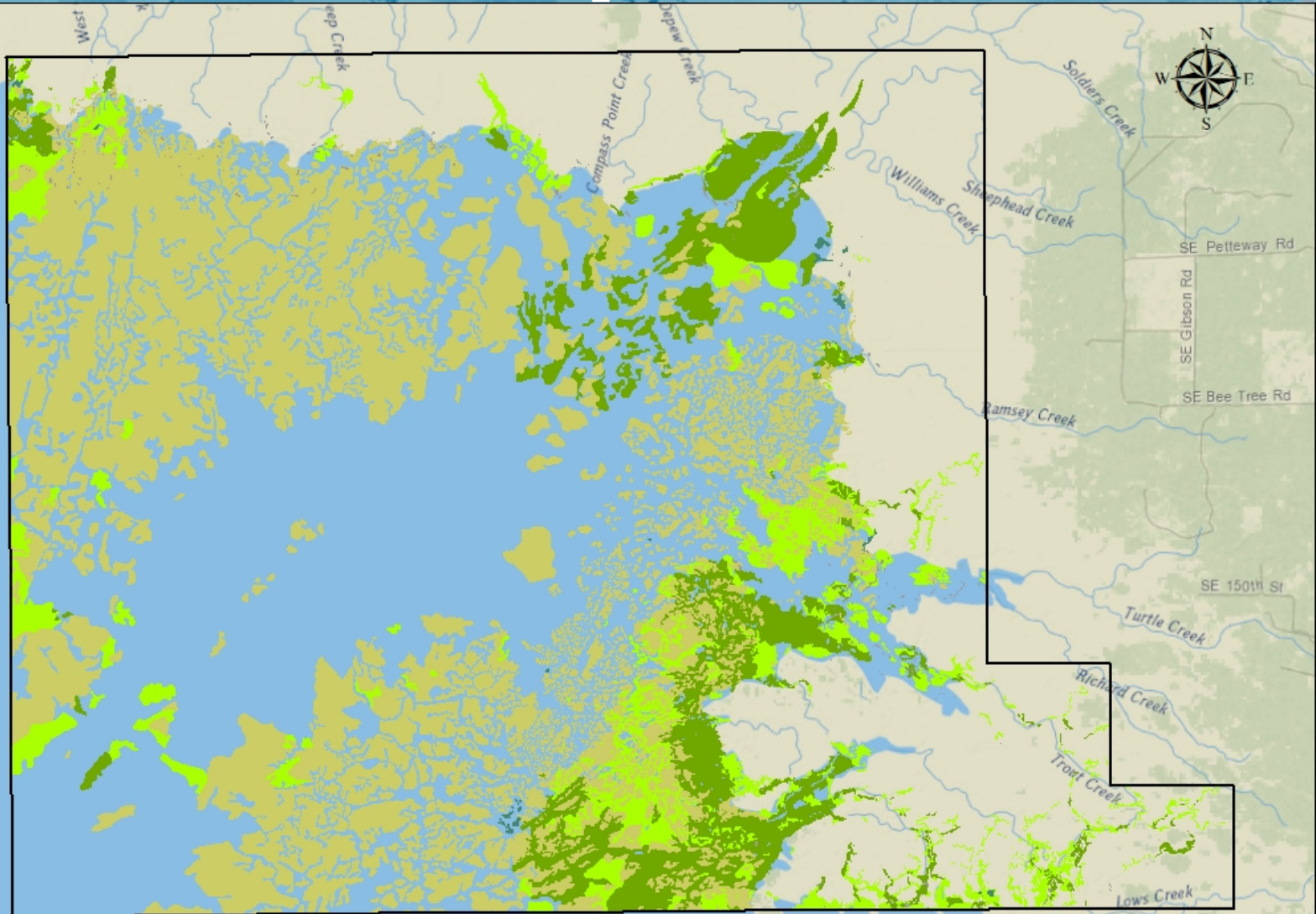
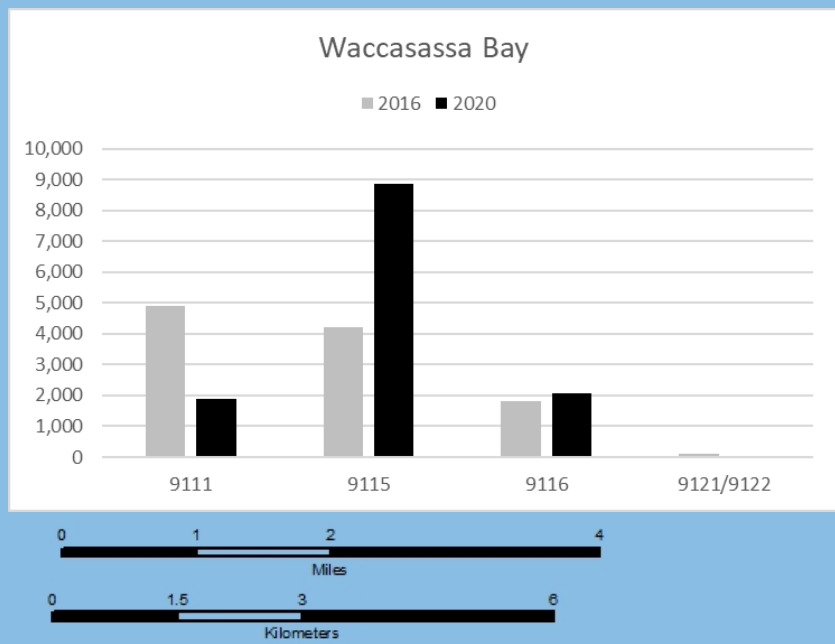


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| Segment        | 2016   | 2020   | Δ Acres | % Change |
|----------------|--------|--------|---------|----------|
| Waccasassa Bay | 10,934 | 12,807 | 1,874   | 17.1%    |

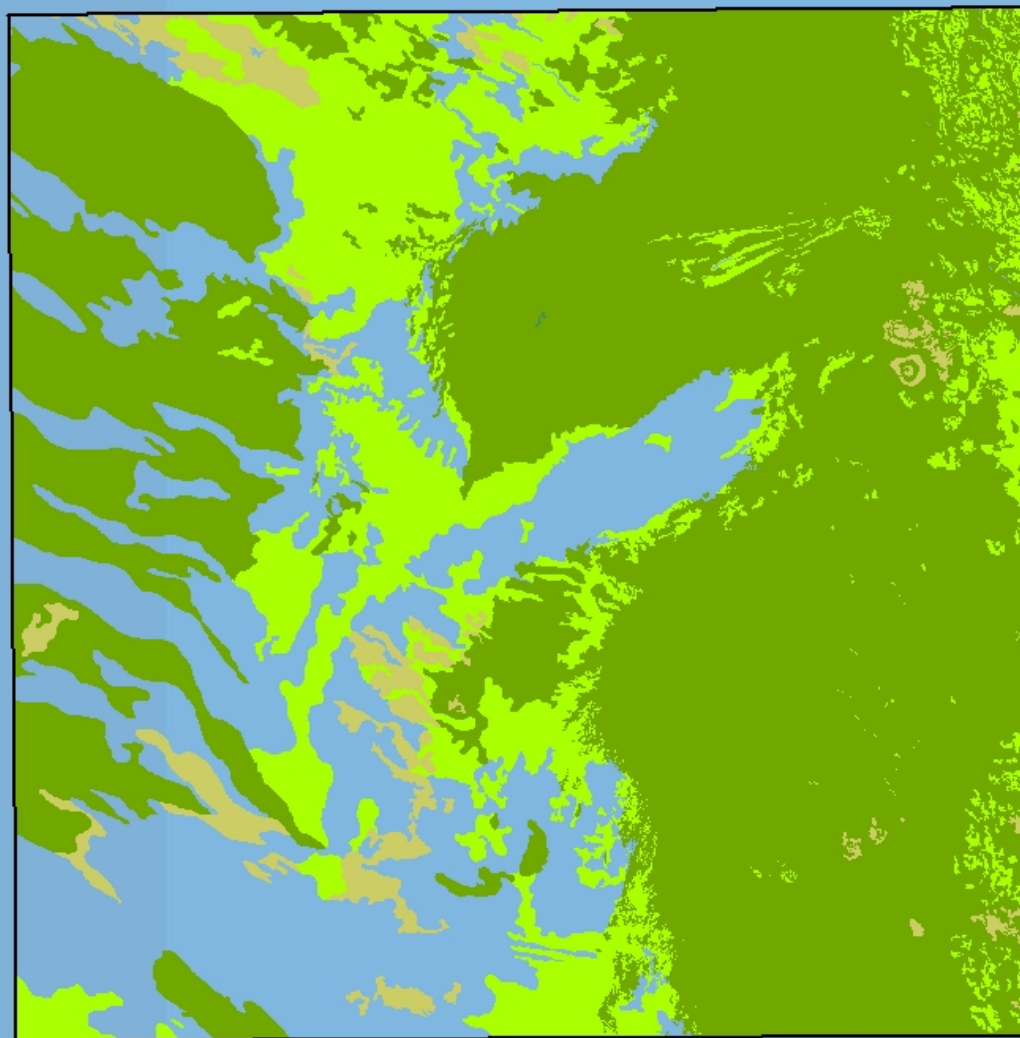
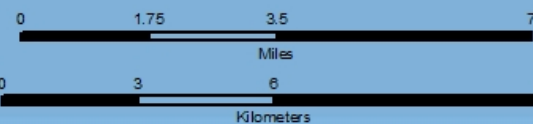
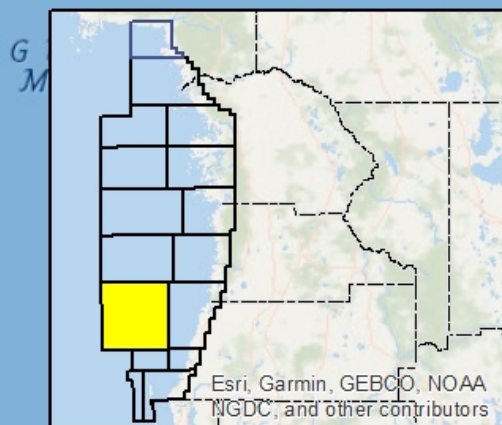


# Aripeka Offshore

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| Segment          | 2016   |  |  |  |
|------------------|--------|--|--|--|
| Aripeka Offshore | 74,319 |  |  |  |

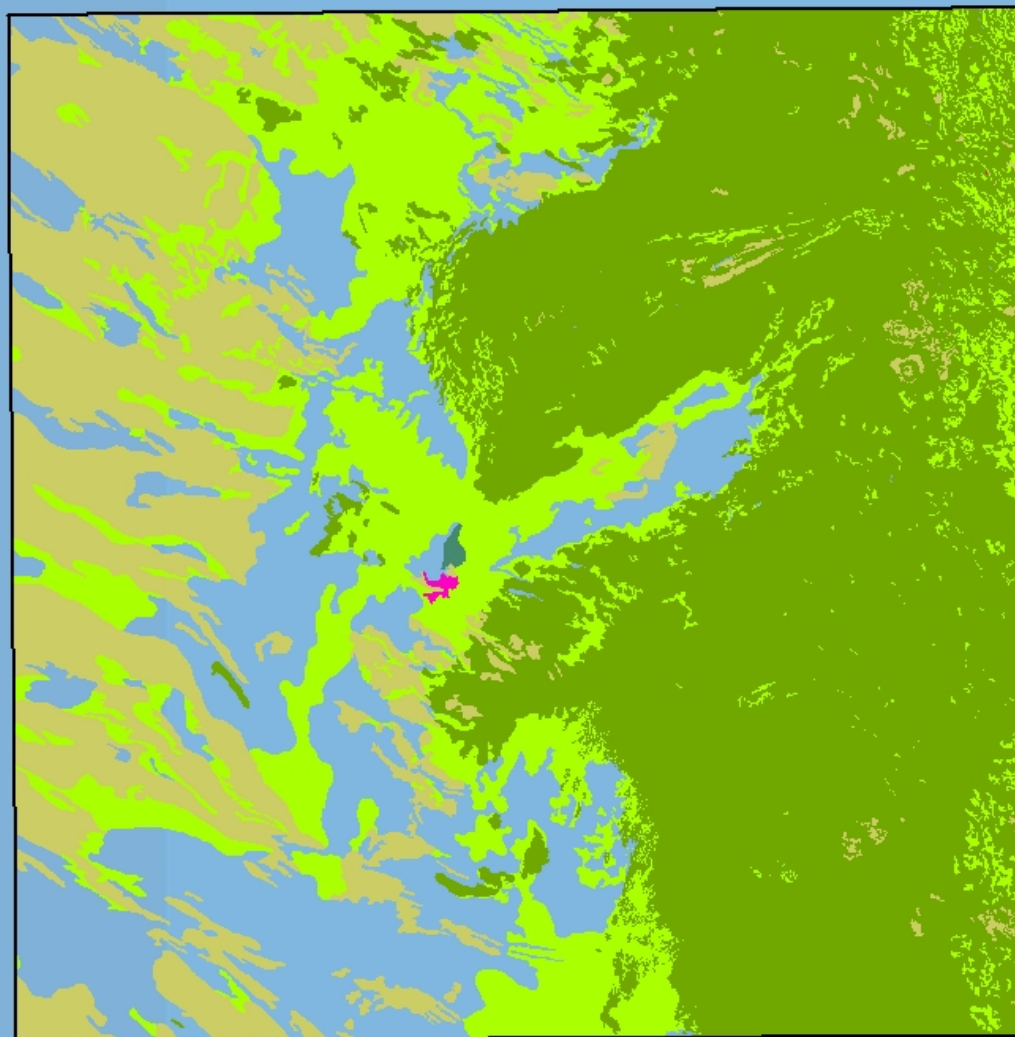
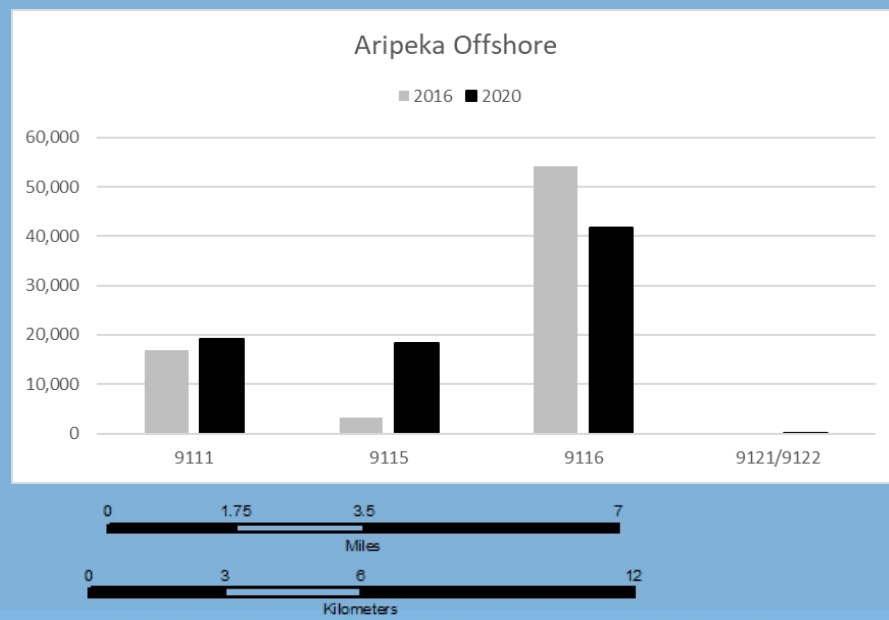


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| Segment          | 2016   | 2020   | Δ Acres | % Change |
|------------------|--------|--------|---------|----------|
| Aripeka Offshore | 74,319 | 79,028 | 4,709   | 6.3%     |

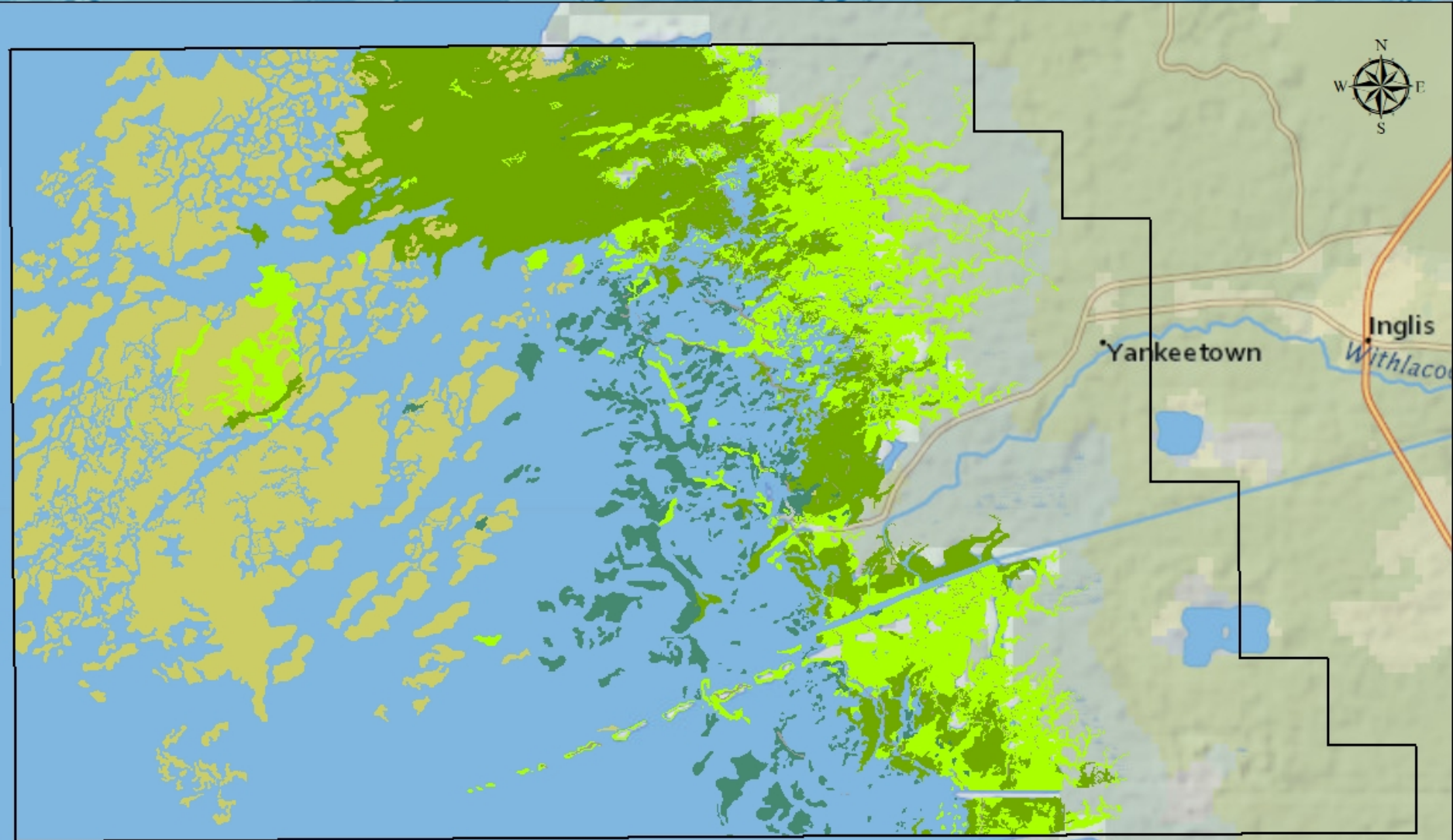
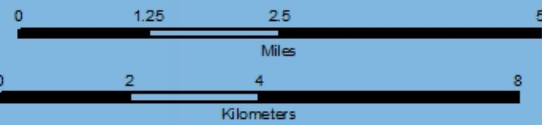
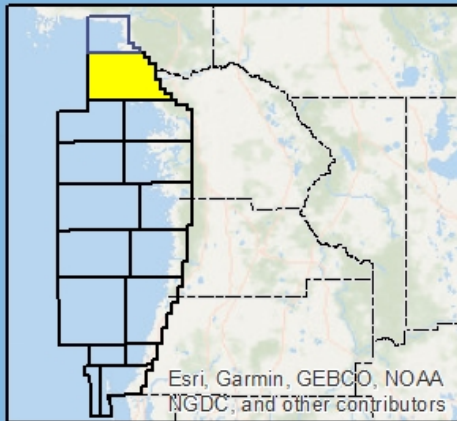


# Withlacoochee

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Withlacoochee

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| Segment       | 2016   |  |  |  |
|---------------|--------|--|--|--|
| Withlacoochee | 24,338 |  |  |  |

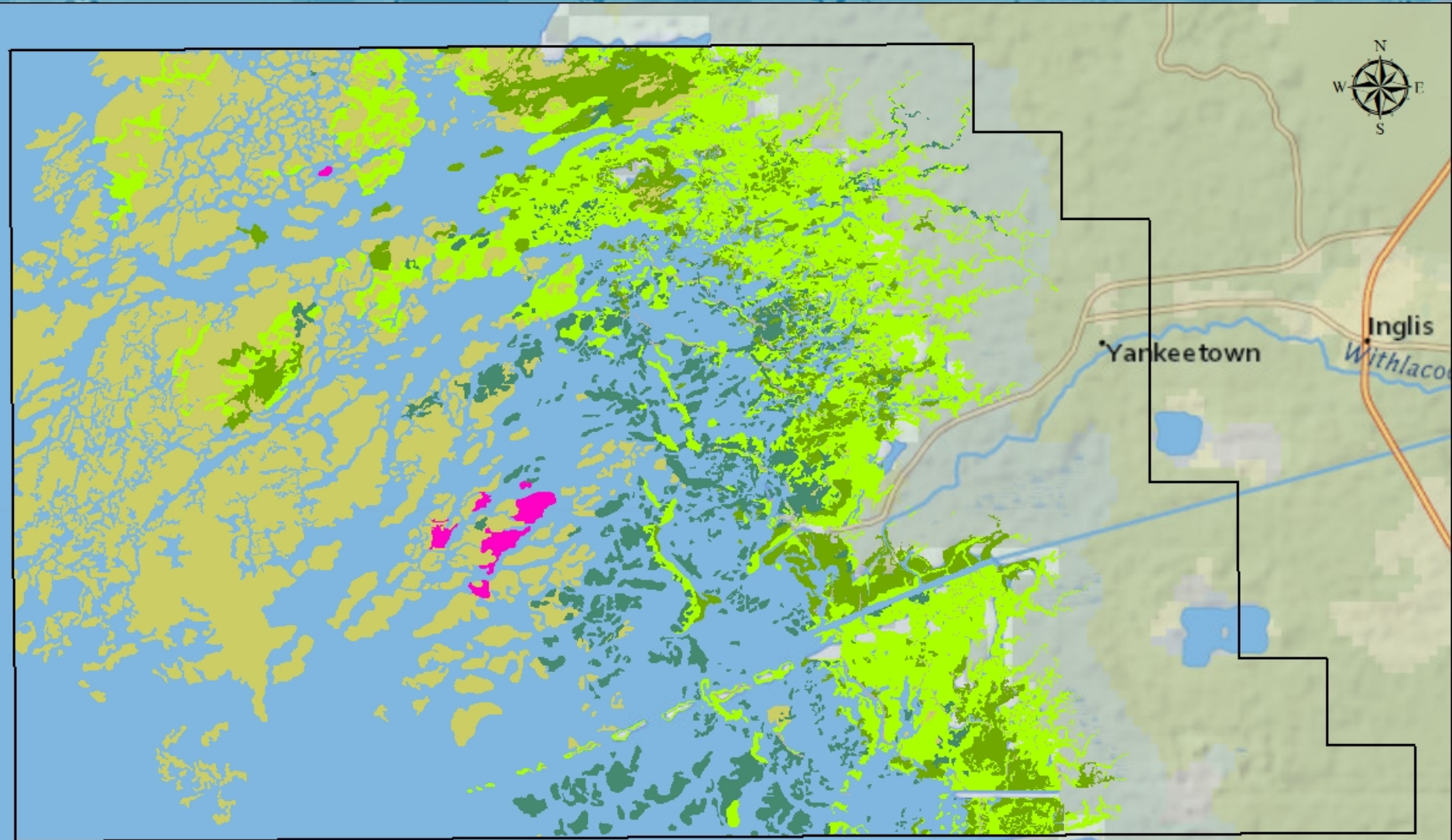
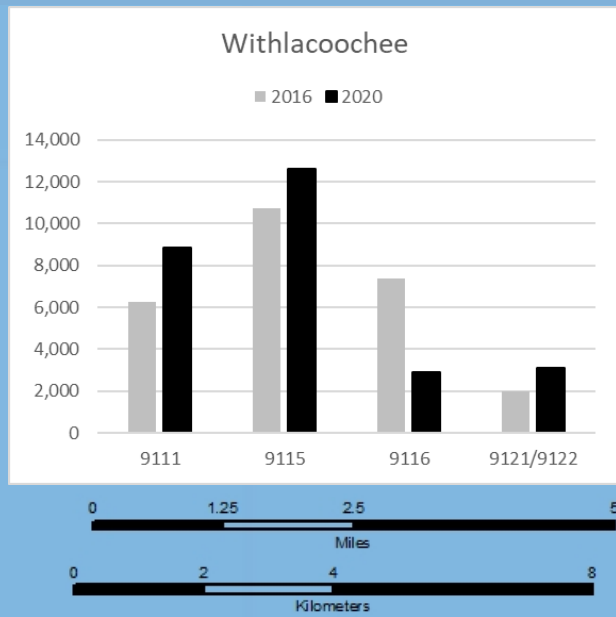


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| Segment       | 2016   | 2020   |  |  |
|---------------|--------|--------|--|--|
| Withlacoochee | 24,338 | 24,369 |  |  |





# Springs Coast Summary

- Little change in overall acreage between 2016 (577,920 acres) and 2020 (586,512 acres)
- Anclote Offshore and Waccasassa Bay had the largest percent increase in seagrass acreage of 26% (1,326 acres) and 17% (1,874 acres), respectively
- Aripeka Offshore and Crystal Bay had the largest acreage gains of 4,709 acres and 2,108 acres, respectively
- Waccasassa Bay, Withlacoochee, and Aripeka Offshore saw significant shift from continuous seagrass (9116) to composite colonized seagrass habitat (9115)

**Next Springs Coast Seagrass Map will be in 2024**



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