

Information Gathering and synthesizing subcommittee:

Aquaculture Lease Area Siting



Oyster Aquaculture Tiger Team

GIS Planning Goals

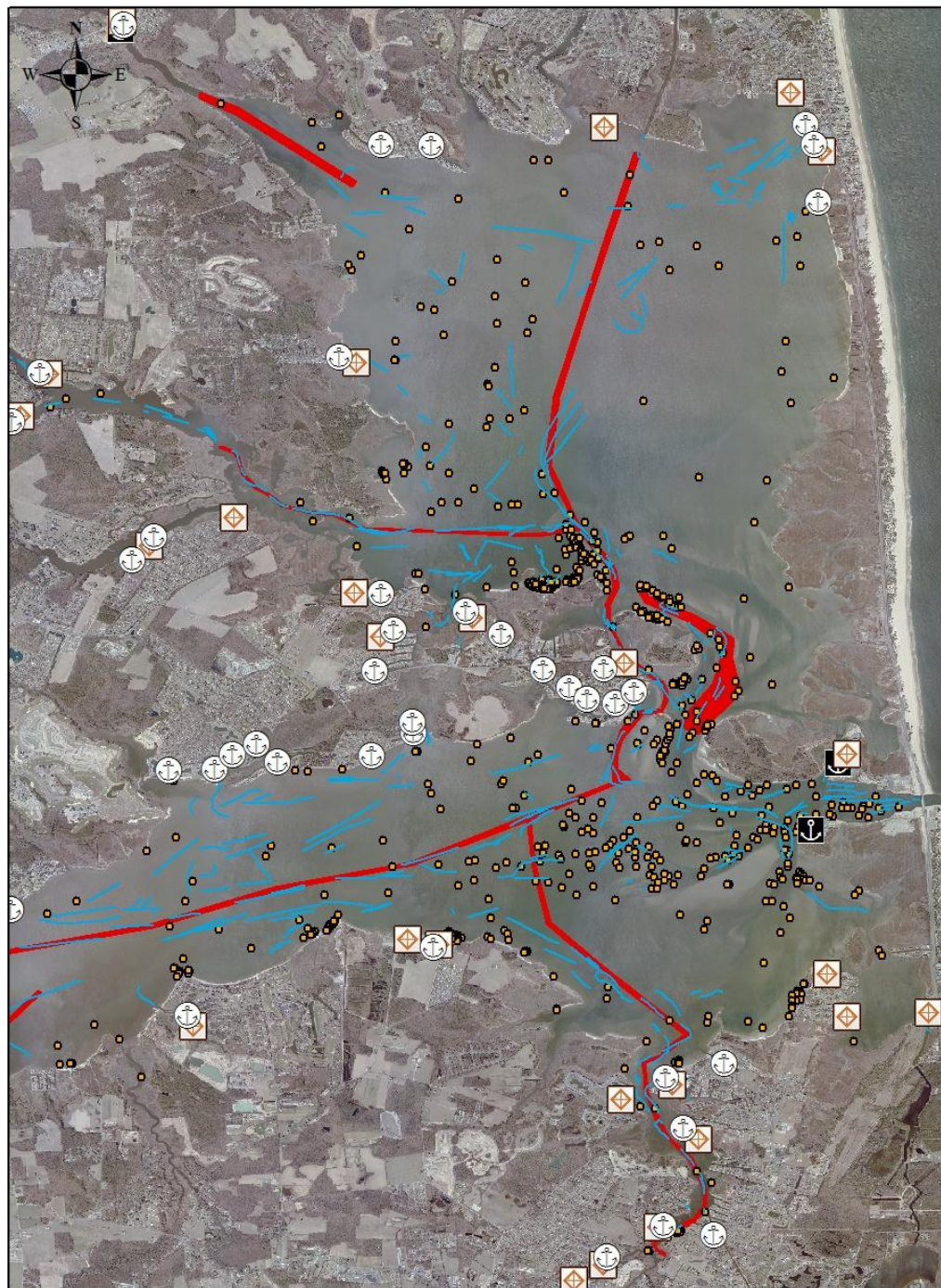
- Decrease user conflicts, improve planning and regulatory efficiencies and decrease costs and delays, and preserve critical ecosystem services
 - Reduce conflicting Interests
 - High Boat use regions and pathways would be primary conflicting use.
 - High density hard clam areas would consist of a conflicted use area.
 - Conflicting uses would be exclusion areas for aquaculture.
 - Optimally aquaculture lease areas would be located in areas with low conflicted interests or highly compatible uses.
- Places science-based information at the heart of decision-making.
- Emphasizes stakeholder and public participation.

Current Data

- Human-Use Considerations
 - Navigational Channels
 - Historic Channel dredging
 - Marinas, public and private boat ramps, high use boat slip regions
- Physical Data
 - Bathymetry
 - Bottom sediment data
 - DNREC Clam Abundance Surveys
 - Chrzastowski (1986)
- Ecological Data
 - Clam abundance and potential habitat
 - Seasonal important Bird Habitat
 - Shellfish Closure Zones


Data (GIS) collection and synthesizing subcommittee

- Determine what data has been collected and what data is still needed to form a Commercial oyster aquaculture suitability map (GIS layer).
- Synthesize data into a GIS layer showing optimal oyster aquaculture areas.
 - Overview reported to team at June 5th meeting
 - First draft potential oyster aquaculture product presented to team
 - Second draft product presented to team at July 3rd meeting



Human-Use Data

Legend

-  High Density Boat Slips
-  Public/Private Boat Ramps
-  Marinas
-  Navigational Channels
-  Stationary Boats
-  Boats in Motion

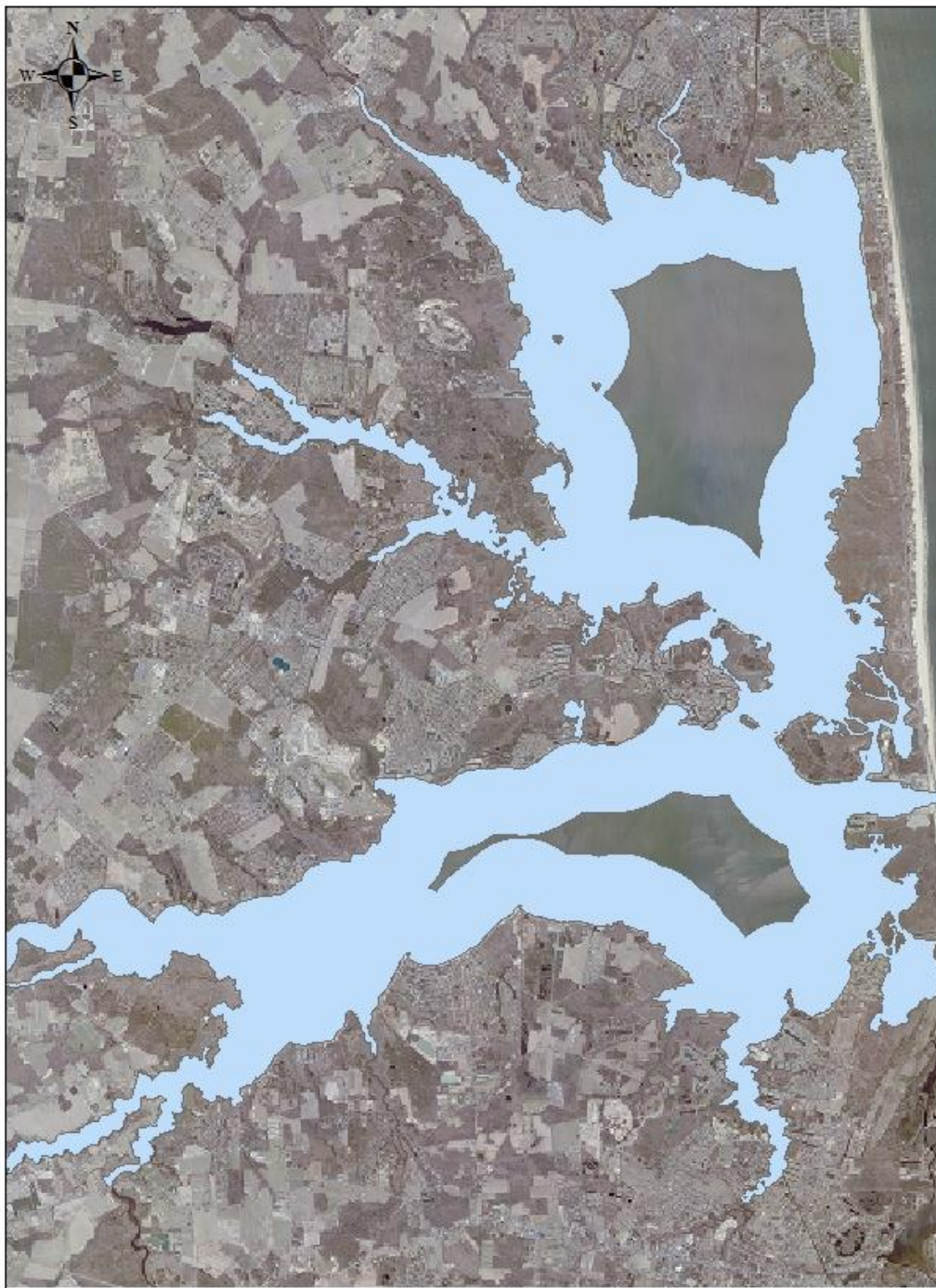
2 1 0 2 Miles

3 1.5 0 3 Kilometers




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Exclusion Areas



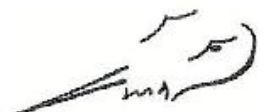
Current Regulatory 1000 ft Exclusionary Shoreline Buffer

Legend

 1000ft Shoreline Buffer






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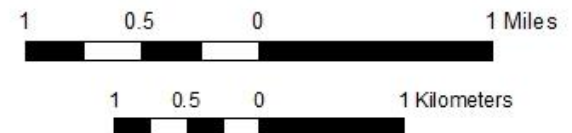




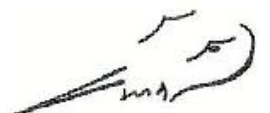
Proposed Buffer Regulations (State of Maryland Buffers): Rehoboth Bay

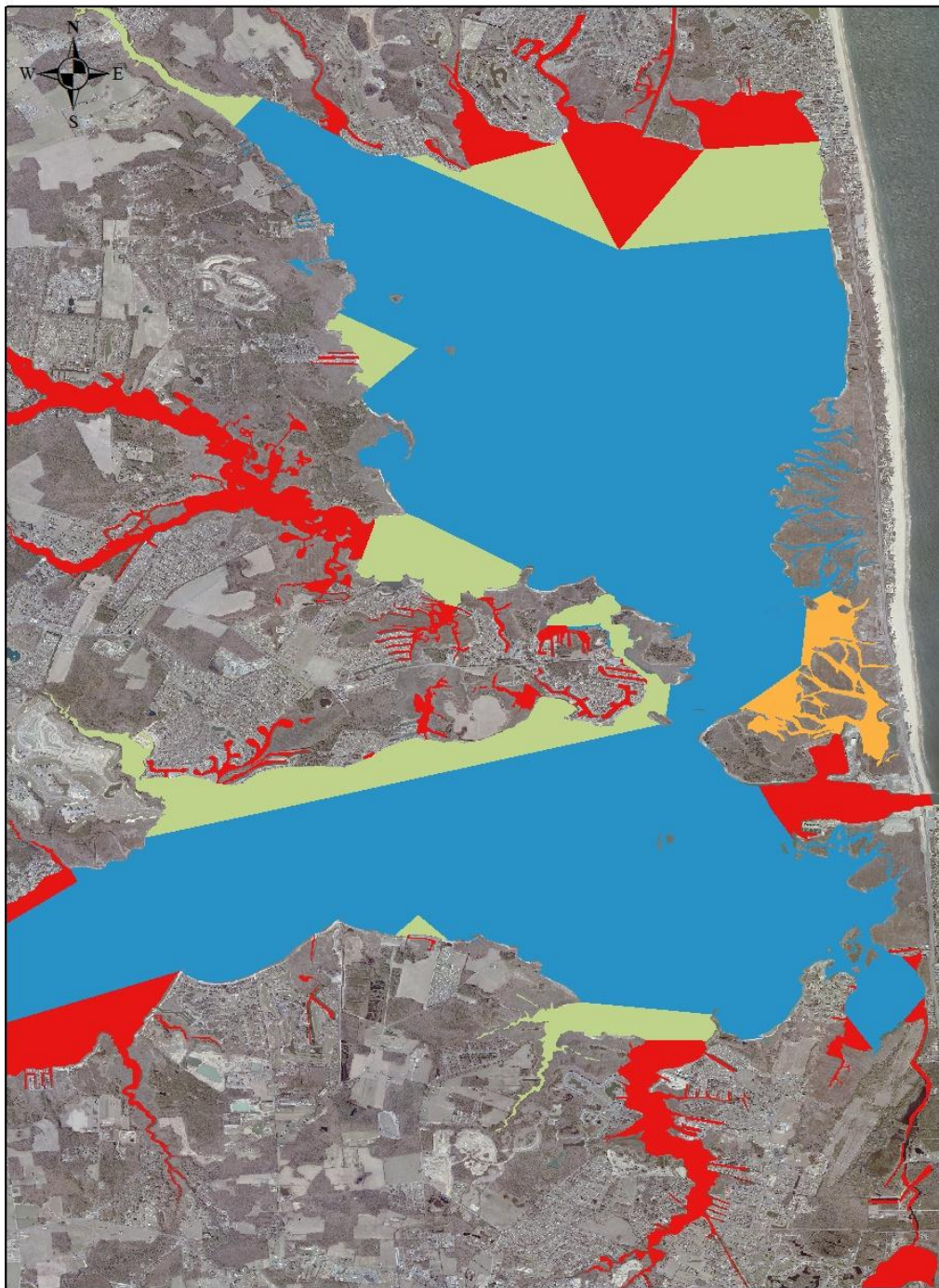
Legend

-  Shoreline 50 ft Buffer
-  Navigational Channels
-  Navigational Channel 150 ft Buffer



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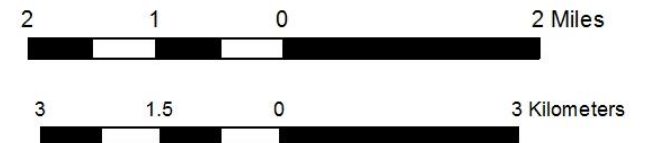


DNREC Clam Harvest Closures

Legend

Working 2010 Shellfish Harvesting Areas STATUS

- Prohibited
- Prohibited (Hatchery)
- Seasonal Closures
- Open



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Barren Bottom Classification

- Rhode Island considers >3 clams per square meter to be the dividing line between productive vs. barren bottom suitable for aquaculture use.
- New Jersey considers > 2.2 clams per square meter the dividing line between productive vs. barren bottom.
- Virginia does not have any specific shellfish density standard
 - Use public versus lease designation
- Maryland does not have any specific shellfish density standard

Potential Aquaculture Lease Areas

Version 4



Rehoboth Bay Potential Aquaculture Lease Area

Legend

 Potential Aquaculture Lease Area v4

Total Area:

166 Acres

2.8% of the total Rehoboth Bay area

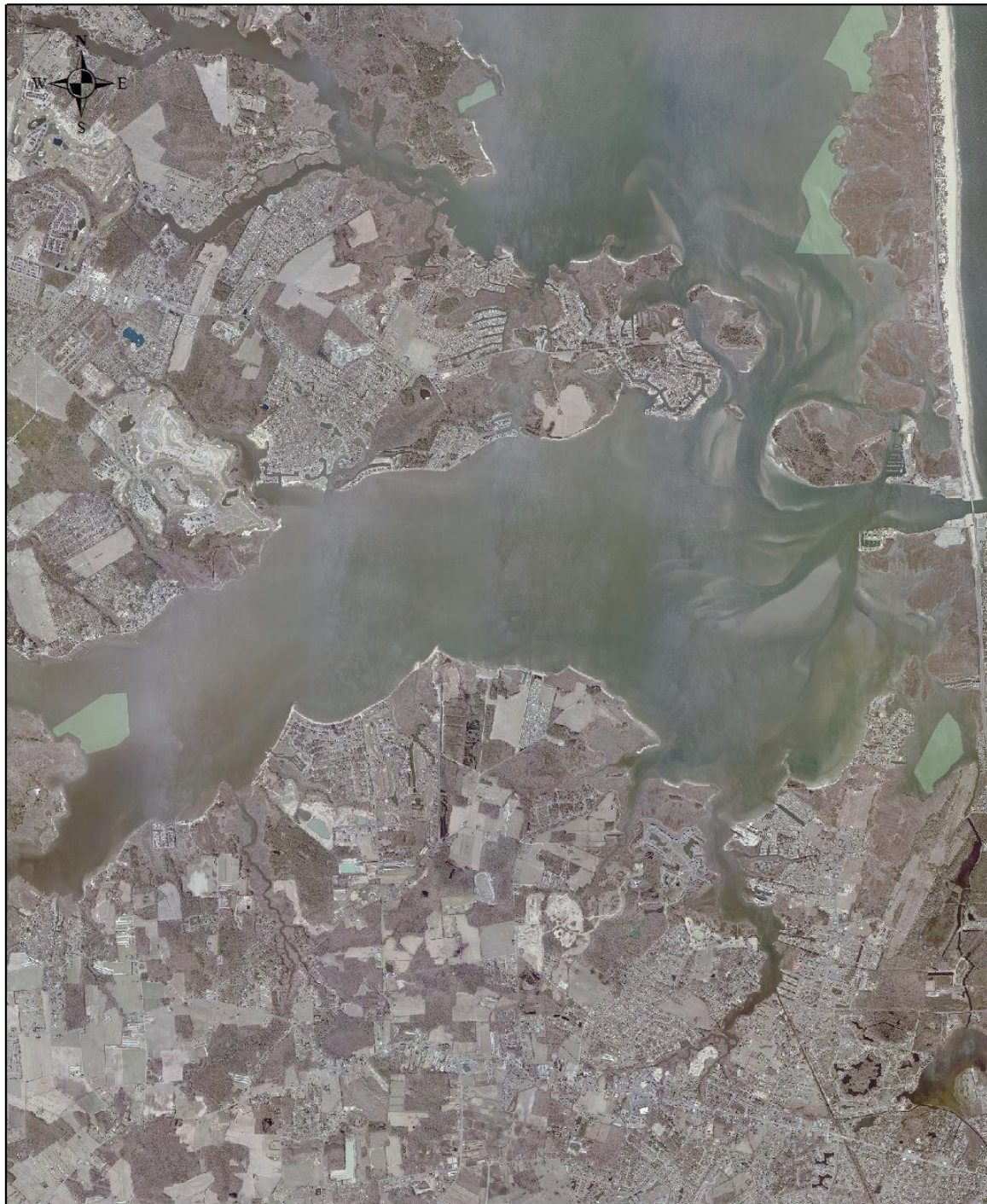
1 0.5 0 1 Kilometers



1 0.5 0 1 Miles



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Indian River Bay Potential Aquaculture Lease Area

Legend

 Potential Aquaculture Lease Area v4

Total Area:

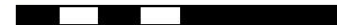
166 Acres

**1.8% of the total Indian River
Bay area**

1 0.5 0 1 Kilometers



1 0.5 0 1 Miles



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Little Assawoman Bay Potential Aquaculture Lease Area

Legend

 Potential Aquaculture Lease Area v4

Total Area:

409 Acres

**17% of the total Little Assawoman
Bay area**

0.8 0.4 0 0.8 Kilometers



0.8 0.4 0 0.8 Miles



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Rehoboth Bay Aquaculture Leased Area Example

Legend

 Example Squares

Total Area:

56 Acres

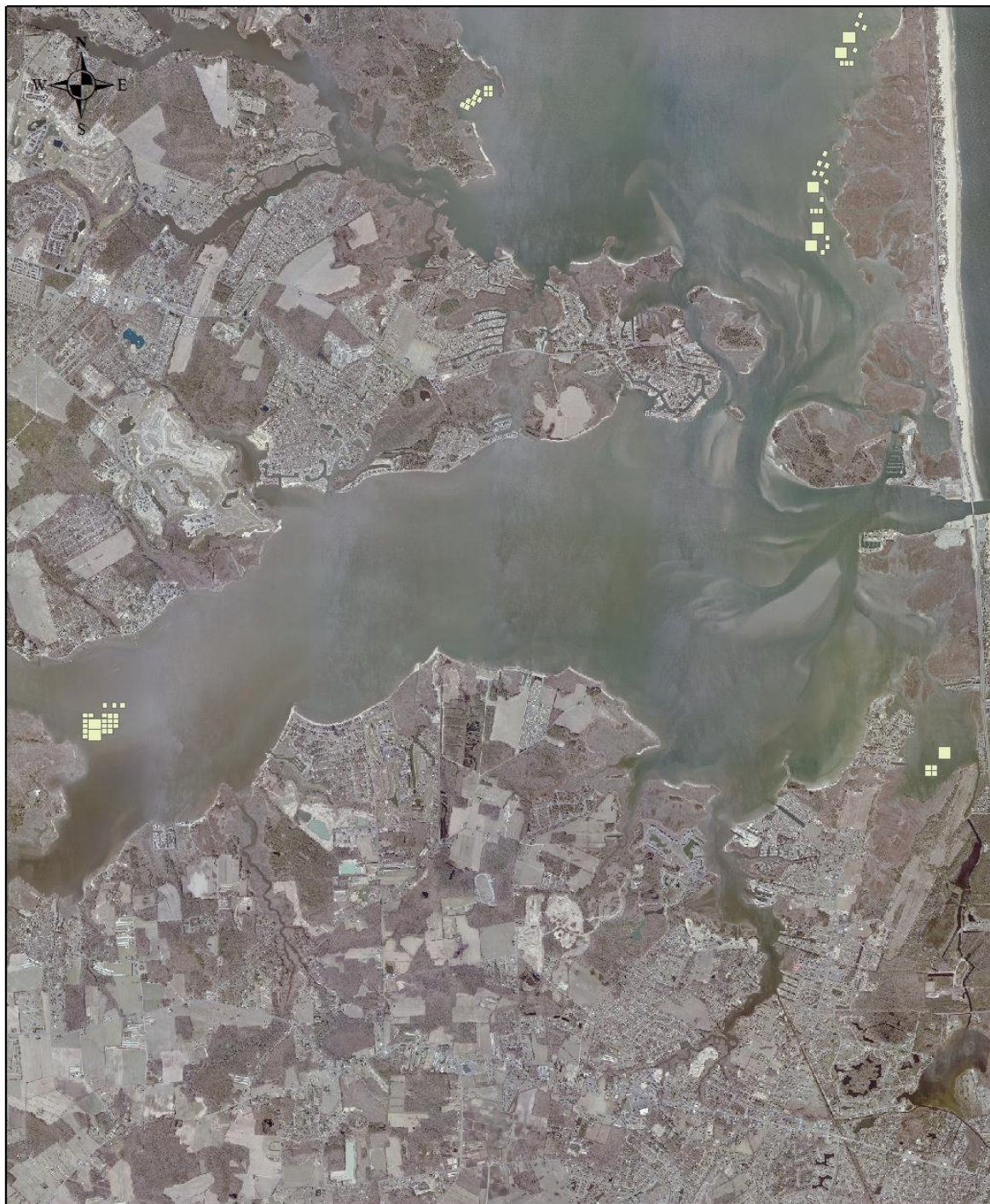
0.6% of the total Rehoboth Bay area

1 0.5 0 1 Kilometers

1 0.5 0 1 Miles



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Indian River Bay Aquaculture Leased Area Example

Legend

 Example Squares

Total Area:

39 Acres

0.6% of the total Indian River Bay area

1 0.5 0 1 Kilometers



1 0.5 0 1 Miles



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Little Assawoman Bay Aquaculture Leased Area Example

Legend

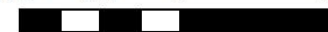
 Example Squares

Total Area:

65 Acres

**2.7% of the total Little Assawoman
Bay area**

0.8 0.4 0 0.8 Kilometers



0.8 0.4 0 0.8 Miles



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