

Applying the
Coastal and Marine
Ecological Classification Standard (CMECS)
Biotic Cover / Surficial Geology Component

South Shore of Long Island, New York

National Oceanic and Atmospheric Administration (NOAA)



NOAA Coastal Services Center
LINKING PEOPLE, INFORMATION, AND TECHNOLOGY

Project Background

Purpose

Mapping for resource inventory and change detection

Technology and Methods

- Analog aerial photography (1:20K scale)
- Soft-copy photogrammetric delineation
- 100m² minimum mapping unit

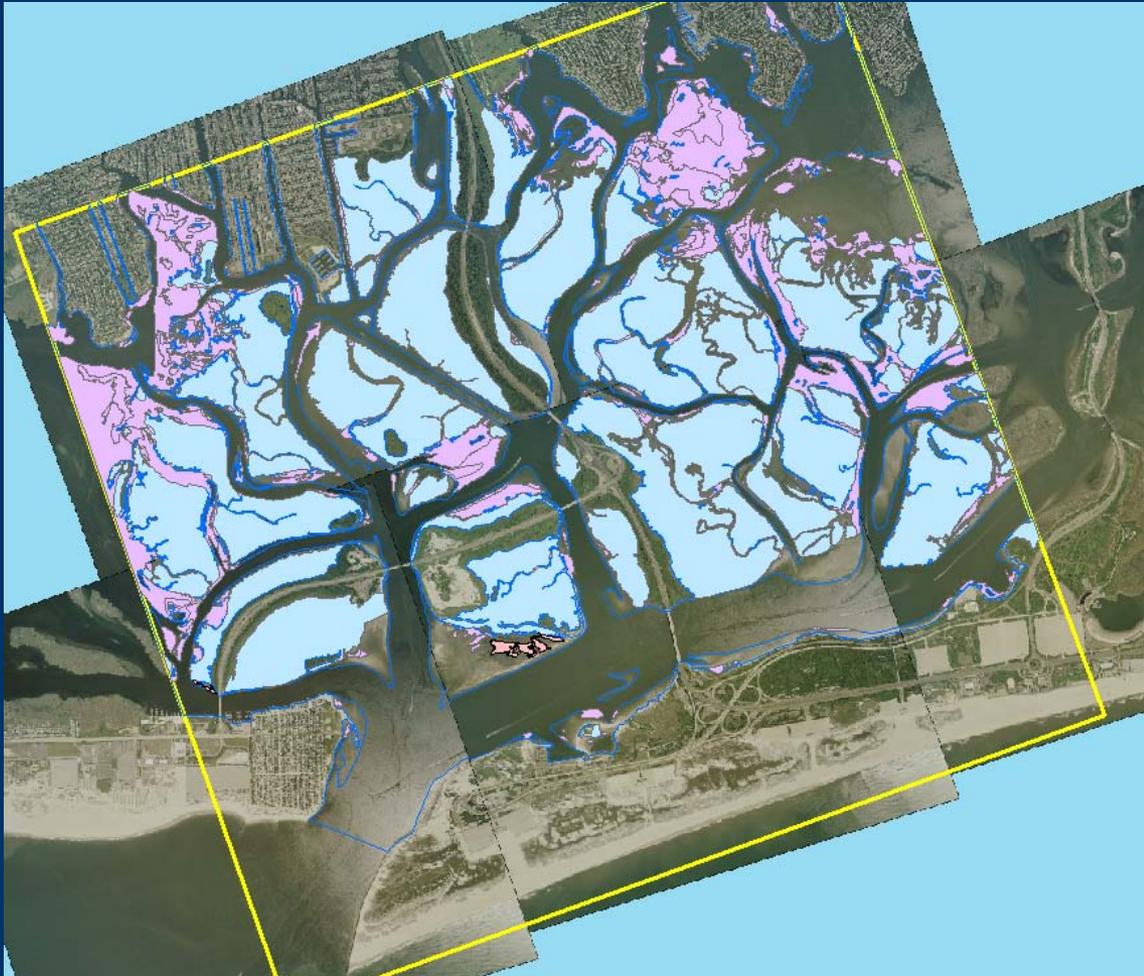


NOAA Coastal Services Center
LINKING PEOPLE, INFORMATION, AND TECHNOLOGY

Project Geography



West Area Data



CMECS Subclasses

 Unknown Benthic Cover

 Macroalgae

 Mussel Reef

 Coastal Marsh



NOAA Coastal Services Center
LINKING PEOPLE, INFORMATION, AND TECHNOLOGY

East Area Data



CMECS Subclasses



Crosswalk

Source classification

- System for Classifying Habitats in Estuarine and Marine Environments (SCHEME)
- Data mapped normally to the subclass 1 level

CMECS version III (Nov. 2008)

Benthic Cover Component

Crosswalk process

Re-attribution, no new delineation



NOAA Coastal Services Center
LINKING PEOPLE, INFORMATION, AND TECHNOLOGY

Crosswalk Successes

- Most classes translate easily from SCHEME to CMECS BCC
- Emergent marsh [coastal marsh] was reasonably easy to assign to subsystem
- Detrital floor [organic] and unknown benthic cover were reasonable proxies for subtidal
- Polygon boundaries remained stable through the crosswalk



Crosswalk Challenges

- Challenges making the intertidal and subtidal distinction
- Some confusion among marine-, estuarine-, and freshwater-influenced distinctions
- Unconsolidated shore versus unconsolidated bottom
- Common definitions needed for patchy attribute in SCHEME versus percent cover categories in CMECS



Issues for Discussion

Subsystem:

- Should intertidal or subtidal be so high in the hierarchy?
- Better as modifier?
- More guidance or standard reference data needed?
- Wind tides?

System:

- Freshwater-influenced versus estuarine

Null Data Values:

- Need for placeholders?

Definitions need to be carefully developed.

More detailed SCHEME data set might have revealed additional issues.

