Joanne Lee Haughey
DNREC
Wetlands and Subaqueous Lands Section

Regulatory Review

DNREC Wetlands and Subaqueous Lands

- Subaqueous Lands Permit
- Wetlands Permit
- Water Quality Certification

DNREC Coastal Zone Program

- Coastal Zone Consistency

Federal Army Corps of Engineers

- Individual Permit


PROPOSED STONE RIP-RAP
+1' to +5' Elevation:
Iva frutescens
Baccharis halimifolia
Myrica cerifera or M. pensylvanica
Prunus maritima
> +5' Elevation:
Ammophila breviligulata
1
C3
2
C3

Proposed Construction

- Rock (all new) – 7,942 cy → 33,246 sq. ft.
- Beach – 8,800 sq. ft. → 41,472 sq. ft.
- Marsh – 114,830 sq. ft. → 146,145 sq. ft.

Division of Fish and Wildlife

- Fisheries Section
- Natural Heritage Group

Division of Soil and Water

- Coastal Zone Management Program

Division of Parks

- Natural Areas Program

Water Resources

- Environmental Lab
- Watershed Assessment

Habitat Impacts

Rock

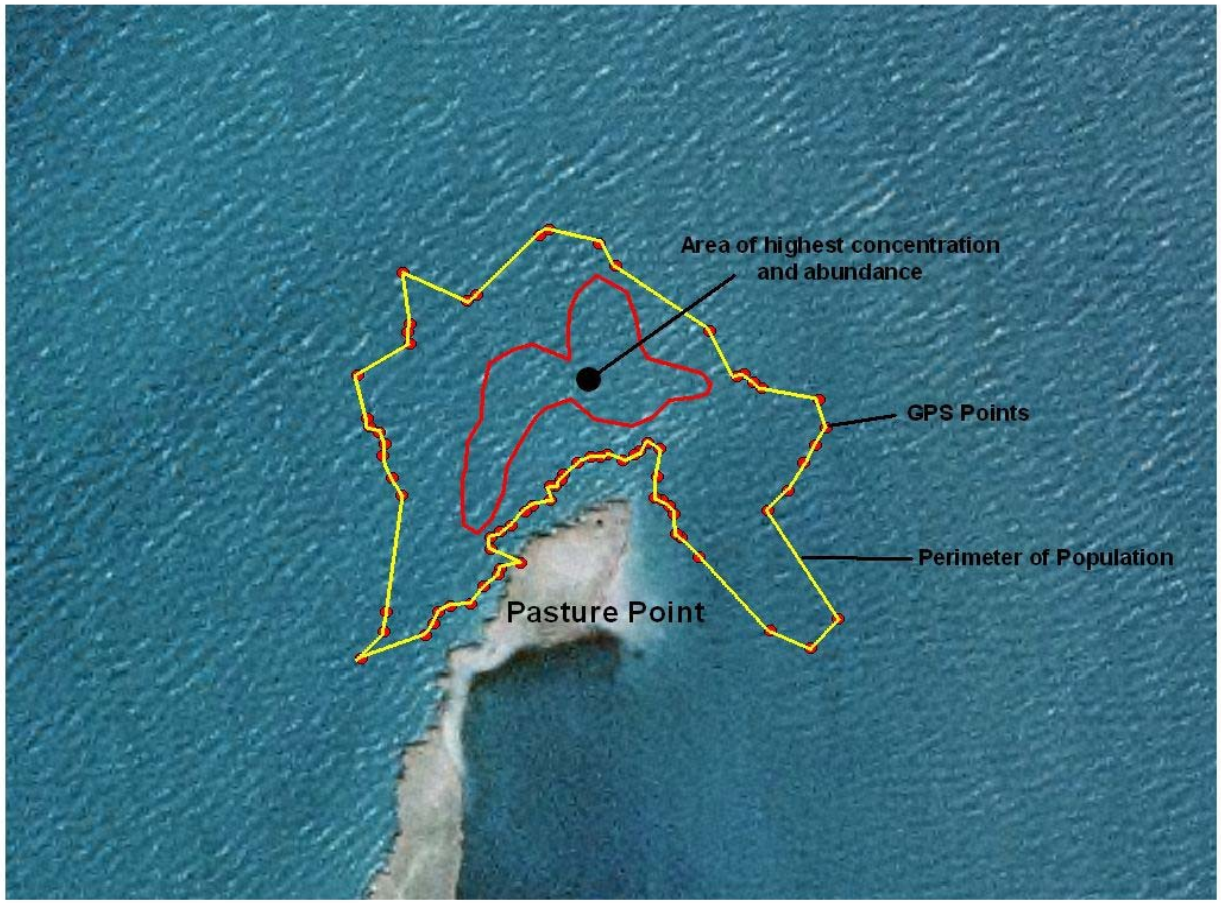
- has negative impact on horseshoe crab and diamondback terrapin
- provides habitat for non-native Japanese shore crab
- navigation hazard

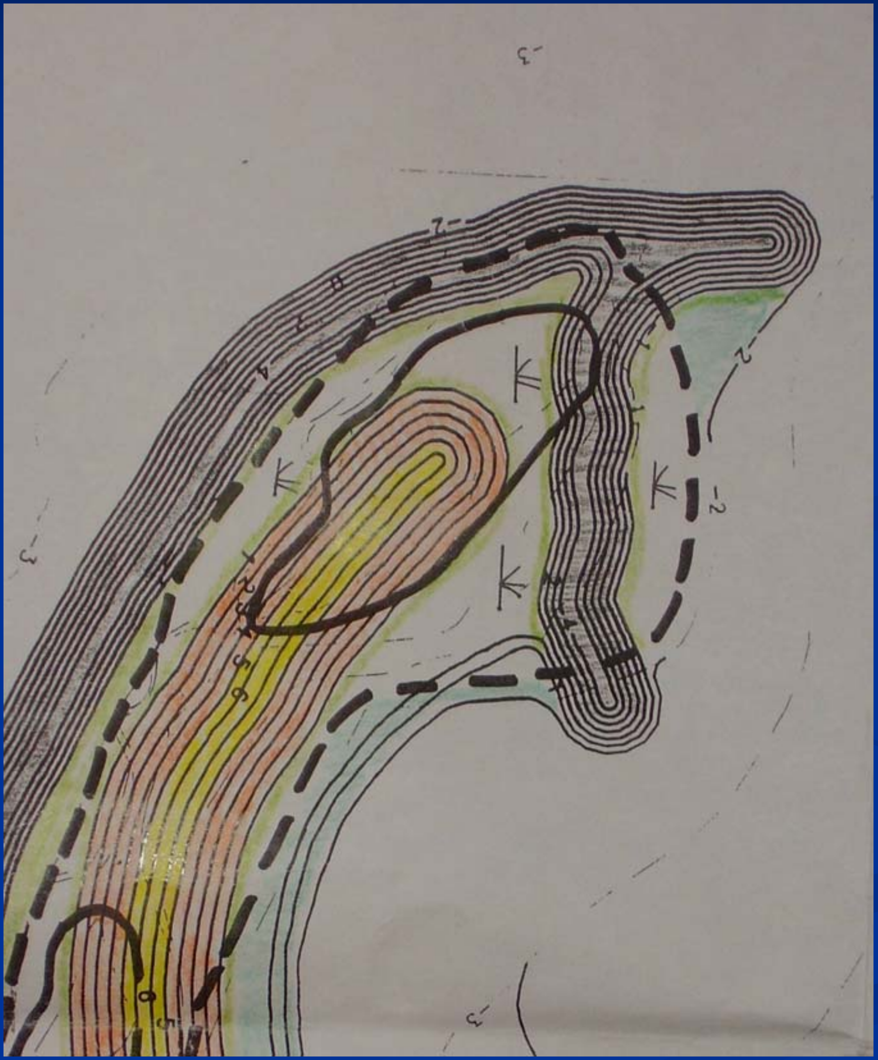
Shallow Water Habitat

Fill and Riprap → Loss of shallow water habitat

- Fish nursery habitat loss
- Shellfish habitat loss
- Wading bird feeding habitat loss
- Eel grass loss

Eel Grass at Pasture Point
Indian River Bay
Sussex Co., Delaware
10 May 2007





Marsh Habitat

- Large areas of marsh will be filled
- Proposed marsh may not be as extensive as predicted due to high energy at inlets

Dune Creation

- May be useful for ground nesting birds – American oystercatcher and terns

Public Education

- Wrong message to send to the public – Rock is not natural habitat for the Inland Bays
- Should not be used as a demonstration project

Natural Process

- Natural erosion forces
- Sea level rise

Brainstorming ideas…..

- Bank stabilization using biologs – too high energy
- Bank stabilization using biologs and low toe rock sill – habitat impacts
- Beach replenishment – analysis of sand movement necessary; eel grass impacts; difficulty of work
- Island creation – improve habitat for ground nesting species; likely hasten erosion of peninsula
- Rock breakwater – navigation hazard

Shell Bar Creation

- Shell bar would act as breakwater
- Avoid negative impact of rock
- Would not directly impact shallow water habitat
- A wave diffraction-refraction analysis would need to determine feasibility

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