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VERSAR



NOAA OFFICE OF SCIENCE AND TECHNOLOGY
NATIONAL MARINE FISHERIES SERVICE



NOAA HABITAT CONSERVATION
NATIONAL MARINE FISHERIES SERVICE



The Chesapeake Atlantis Model

A Holistic Ecosystem Model

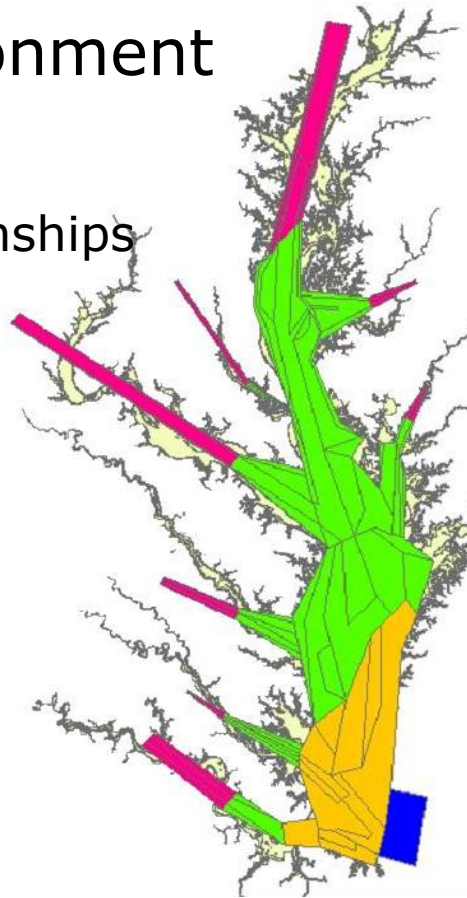
Incorporating:

Biological environment

- ✓ Primary production
- ✓ Trophic interactions
- ✓ Recruitment relationships
- ✓ Age structure
- ✓ Size structure
- ✓ Life History
- ✓ Biogenic Habitat

Fisheries

- ✓ Multiple sectors
- ✓ Gears
- ✓ Seasons
- ✓ Spatially explicit



Physical environment

- ✓ Geology
- ✓ Chemistry
- ✓ Circulation & currents
- ✓ Temperature
- ✓ Salinity
- ✓ Water clarity
- ✓ Climate variability

Nutrient Inputs

- ✓ Currency is Nitrogen
- ✓ Oxygen
- ✓ Silica
- ✓ 3 Detrital forms
- ✓ Bacteria-mediated recycling