

# ***Engineering With Nature Case Examples of Practice***

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# ***Current Projects***

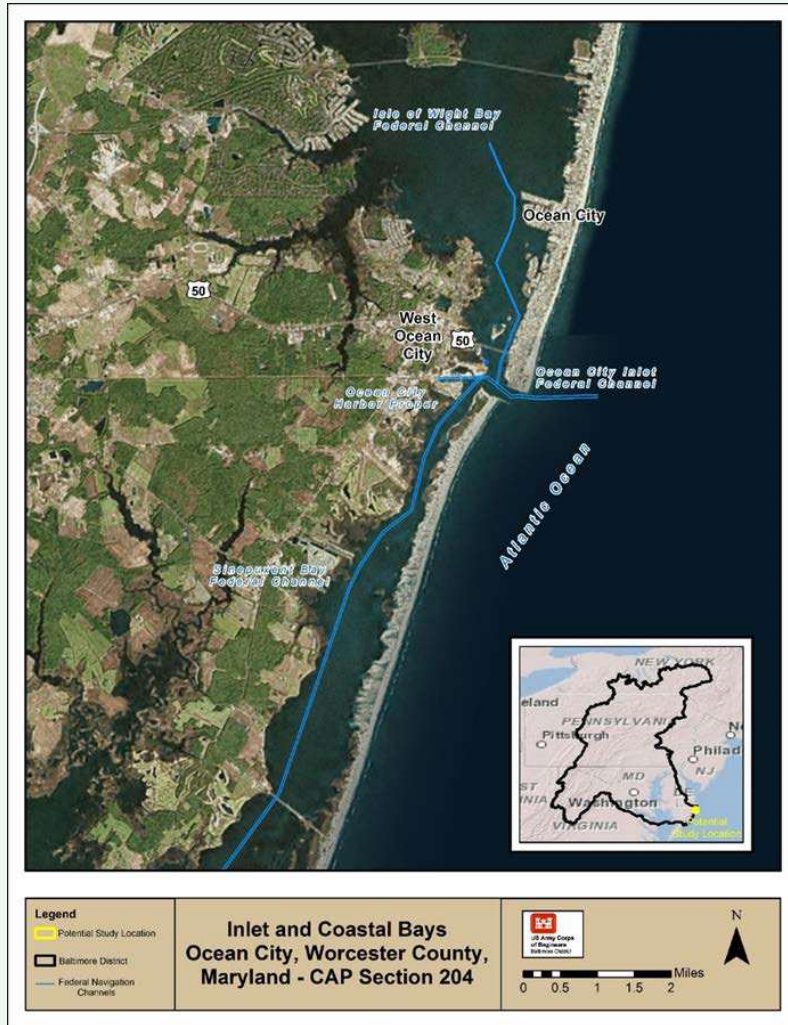
## Ocean City Sinepuxent and Isle of Wight Bay Maintenance Dredging

- FY2014-Present
- Dredged approx. 400,000 cubic yards
  - Unconfined placement
- Restored 4 historic islands
  - Two vegetated, two bare
- Migratory Bird Habitat
- Shallow water habitat creation

## Fishing Battery/ Susquehanna River Maintenance Dredging

- FY2013
- Dredged approx. 200,000 cubic yards
  - Unconfined placement
- Restored 11 acre island
- Wetland, transitional marsh, and high marsh created
- Planted with 11 different species
- Shallow water habitat creation

# Ocean City Sinepuxent and Isle of Wight Bay Maintenance Dredging





# Fishing Battery/ Susquehanna River Maintenance Dredging





# Fishing Battery/ Susquehanna River Maintenance Dredging



**Spring 2013**

**Summer 2014**



# ***Most Significant Contributions***

- Cooperation between federal, state, local agencies from beginning of design
- Unconfined placement of dredged material in open water for island restoration
- Completed Navigation and environment mission
- Creation of new shallow water habitat near islands
- Migratory bird nesting habitat created

# *Challenges*

- Unconfined placement-MD State law
- Public Use
- Environmental window for anadromous fish (Battery Island)
- Post creation monitoring
- Turbidity at cutterhead (SAV, benthics)



# ***Future Opportunities***

## Wicomico River: Ellis Bay Wetland Restoration and Thin Layer Placement



## Smith Island: Swan Island Wetland Restoration

