

# Preliminary Blue Carbon Stock Estimates for Lower Hudson Marshes

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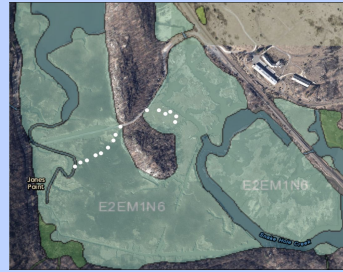
## Why Marshes?

- Wetlands sequester the most carbon/area of any ecosystem (McLeod et al., 2011)
- Wetlands are threatened by anthropogenic disturbance and sea level rise

## Approach

- Carbon stock (total carbon stored) was calculated using:
  - Dr. Peteet's existing probe (depth) and loss-on-ignition (LOI) of sediment cores (carbon content)
  - National Wetland Inventory spatial area data of three lower Hudson wetlands

- Further probe and LOI data is needed to verify these preliminary estimates



U.S. Fish and Wildlife.

**Iona Marsh**  
**Carbon Storage Estimate (kg):**  
**1.90E+08**

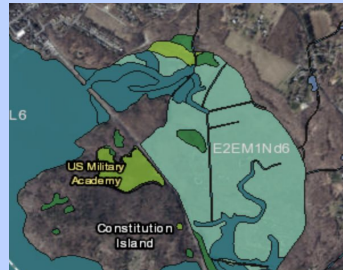
This is equivalent to the annual C emissions of 150,000 cars



U.S. Fish and Wildlife.

**Haverstraw Marsh**  
**Carbon Storage Estimate (kg):**  
**4.68E+07**

This is equivalent to the annual C emissions of 37,000 cars



U.S. Fish and Wildlife.

**Constitution Marsh**  
**Carbon Storage Estimate (kg):**  
**3.65E+08**

This is equivalent to the annual C emissions of 289,000 cars

## Works Cited:

EPA (2019). Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2017. Chapter 3 (Energy), Tables 3-13, 3-14, and 3-15. Environmental Protection Agency, Washington, D.C. EPA #430-R-19-021  
McLeod, E., Chmura, C. L., Bouillon, S., Salm, R., Björk, M., Duarte, C. M., ... & Silliman, B. R. (2011). A blueprint for blue carbon: toward an improved understanding of the role of vegetated coastal habitats in sequestering CO<sub>2</sub>. *Frontiers in Ecology and the Environment*, 9(10), 552-560.  
U. S. Fish and Wildlife Service. Publication date (found in metadata). National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. <http://www.fws.gov/wetlands/>