

# Chesapeake Bay Hydrodynamic Modeling Workshop: A Proactive STAC proposal

---

## **Workshop Steering Committee:**

Carl Cerco  
Carl Friedrichs (STAC)  
Marjy Friedrichs (STAC)  
Raleigh Hood  
David Jasinski  
Wen Long  
Kevin Sellner (STAC)  
Gary Shenk

**Time:** 9-10 June 2011

**Location:** Smithsonian Environmental Research Center  
Edgewater, Maryland

# Chesapeake Bay Hydrodynamic Modeling Workshop: A Proactive STAC proposal

---

## **Justification:**

- CBPO has initiated discussions of a *“Next Generation Chesapeake Bay Model”*
- CBPO is planning for a fully calibrated and operational new model by 2015
- USACE has suggested that the CBP transition to using the USACE Adaptive Hydraulics Model (ADH; currently two-dimensional)

**Now is ideal time for a community-wide discussion as to what a *“Next Generation Bay Model”* should entail**

# Chesapeake Bay Hydrodynamic Modeling Workshop: A Proactive STAC proposal

---

## **Objectives:**

- Review existing state-of-the-art estuarine hydrodynamic models
- Compare relative skill of various CB models
- Compare strengths/weaknesses of various models
- Assess how model differences affect water quality simulations

**What should a “*Next Generation Bay Model*” entail?**

# Chesapeake Bay Hydrodynamic Modeling Workshop: A Proactive STAC proposal

---

## **Deliverables:**

- Workshop report summarizing advantages/disadvantages of various modeling strategies (ROMS, SELFE, EFDC, CH3D, FVCOM, ECOMSED, ADH) and how these affect water quality simulations
- Provide background needed for establishing an RFP that the CBP might consider issuing for the purpose of identifying and implementing a new hydrodynamic model(s) for the Bay

# Chesapeake Bay Hydrodynamic Modeling Workshop: A Proactive STAC proposal

---

## **Workshop specifics:**

~40 participants:

Chesapeake Bay Program

Chesapeake Community Modeling Program

NOAA IOOS Testbed Project

Community Surface Dynamics Modeling System

other universities from across U.S.

**Invited Speakers:** R. Hood, L. Linker, M. Friedrichs, R. Patchen, C. Cerco, C. Chen, J. Shen, N. Georgas, G. Savant, J. Wilkin, N. Ganju, W. Long, S. Peckham

**Panel:** D. DiToro, C. Friedrichs

# Chesapeake Bay Hydrodynamic Modeling Workshop: A Proactive STAC proposal

---

## **Workshop costs:**

- Venue: no charge
- Catering: \$3000
- Travel for invited speakers: \$8000
- Total cost for workshop: \$11,000
- Contributions for funding partners  
possibly up to \$3000 (CSDMS, USACE, NCBO)
- STAC request: \$8000