CPB Climate Resiliency Workgroup Meeting

Monday, May 23, 2016
10:00AM – 3:30 PM

Conference Line: (866)299-3188 Code: 267-5715
Adobe Connect: https://epawebconferencing.acms.com/ccw (enter as a guest)
Meeting Materials: http://www.chesapeakebay.net/calendar/event/23786
Location: Maryland Dept. of Natural Resources, C1 Conference room

AGENDA

10:00 a.m. **Welcome & Introductions** (Co-Chair Mark Bennett, USGS and Co-Chair Erik Meyers, The Conservation Fund)

10:05 **Announcements** (Zoë Johnson, CBP Climate Change Coordinator)

10:10 **Chesapeake Bay TMDL and the 2017 Midpoint Assessment: Decision Making Process and Timelines** (Lucinda Power, U.S. EPA Chesapeake Bay Program)

10:30 **2017 Midpoint Assessment Modeling Needs: Simulating Sea Level Rise, Tidal Marsh Loss and Changes in Watershed Loads** (Carl Cerco, U.S. CoE ERDC; Ping Wang, VIMS; Gopal Bhatt, Penn State and Lewis Linker, U.S. EPA Chesapeake Bay Program)

Objective: Speakers will outline the CBP decision maker's specific data and input needs, regarding sea level rise and tidal marsh loss assessments of 2025 and 2050 and will provide an overview of the key timeframes for Midpoint Assessment modeling and decision-making/review processes. The approach to simulating attenuation of nutrients and sediments by the Water Quality and Sediment Transport Model (WQSTM) will be reviewed.

11:00 **Sea Level Rise Trends and Projections for the Chesapeake Bay**
Presentations:

- CAPT Emil Petruncio, USN, PhD, Chair, Oceanography Department, US Naval Academy
- Robert E. Kopp, Ph.D., Rutgers University (by phone)

11:40 **Discussion/Action:** CBP Climate Resiliency Workgroup to provide feedback and guidance on the range of 2025 and 2050 sea level rise scenarios/projections for input into tidal marsh/sea level rise simulations in the Water Quality and Sediment Transport Model (WQSTM).

12:15 p.m. **Lunch Break**

12:45 **Overview of the Chesapeake Bay Sea Level Sentinel Site Cooperative** (Sarah Wilkins, CBSSC Coordinator)

1:00 **Assessing Loss of Tidal Marshes to Sea Level Rise in the Chesapeake Bay**
Presentations:

- Molly Mitchell (VIMS Center for Coastal Resources Management)
- Pat Megonigal (Smithsonian Environmental Research Center)

1:40 **Discussion/Action:** CBP Climate Resiliency Workgroup to provide feedback and guidance on the methodology to estimate loss of tidal marshes in 2025 and 2050 due to sea level rise in the Chesapeake Bay for input into tidal marsh/sea level rise simulations in the Water Quality and Sediment Transport Model (WQSTM).

2:30 **Wrap-Up Discussion** (Zoe Johnson, NCBO; Sarah Wilkins, Chesapeake Bay Sea Level Sentinel Site Cooperative)

The Workgroup will discuss how to make the best use of the current state of our understanding of sea level rise and tidal wetland loss to evaluate management decisions that must be made in the next year as a part of the 2017 Midpoint Assessment. Looking to the future with an eye toward the continued advancement of our understanding of climate change and coastal processes, the following four questions will be posed to the Workgroup:

1) What is the best estimate of sea level rise and associated tidal wetland loss for the years 2025 and 2050?
2) To what extent can estimated tidal wetland loss for 2025 and 2050 be specific to region (Upper Chesapeake, Mid-Chesapeake, Lower Chesapeake, Potomac, James, Upper East Shore, Lower East Shore, etc.) or to wetland type (tidal fresh, oligohaline, mesohaline, polyhaline)?
3) As we look beyond the Mid Point Assessment, what improvements could be made to the future watershed modelling efforts in order to better simulate and predict tidal and shallow water processes as influenced by relative sea level rise and other coastal processes;
4) What steps should be taken to keep abreast of emerging sea level rise research in order to ensure that CBP assessments are using the best available science to assess impacts?
5) What research, laboratory and/or field studies should be undertaken to better understand past trends and project future impacts?
6) What partners can be brought in to engage and assist in this effort?

3:30 **Adjourn**