Enhancing Coastal Resilience on Virginia's Eastern Shore Community Leader Workshop

Breakout Session #2: Storm Surge Modeling

Session goal: To solicit information about places on the Eastern Shore where people are most concerned about future storm impacts that want to be addressed by the storm surge model and incorporated in the Coastal Resilience Tool.

Discussion questions:

- 1. What places of importance on the Eastern Shore have been heavily impacted by storm surge in the past?
- 2. Where do you think recurrent flooding may cause the most significant impact on daily life?
- 3. What places are you most concerned will be impacted by storm surge in the future?
- 4. What kind of information would be helpful to planning for future flood protection?

Storm Surge and High Tides Magnify the Risks of Local Sea Level Rise Sea level sets a baseline for storm surge—the Storm surge 2010 potentially destructive rise in sea height that 2010 high tide 1880 floodplain occurs during a coastal storm. As local sea level rises, so does that baseline, allowing coastal storm surges to penetrate farther inland. With higher global sea levels in 2050 and 2100, areas much farther inland would be at risk of being flooded. The extent of local flooding also Storm surge depends on factors like tides, natural and artifi-2050 projected high tide 2050 floodplain cial barriers, and the contours of coastal land. 2010 floodplain 1880 floodplain . Charles Storm surge 2100 projected high tide 2100 Local factors such as tides and coastal profile will influence extent of floodplain. © Union of Concerned Scientists 2013; www.ucsusa.org/sealevelrisescience