

## **C1. Vertical Control**

The vertical datum for this project is Mean Lower-Low Water (MLLW). The operating National Water Level Observation Network (NWLON) primary water level stations at Windmill Point, Virginia (863-6580) and Lewisetta, Virginia (863-5750) served as control for datum determination and provided water level correctors for the project. *Concur with clarification. Final surfaces generated from ERS-VDatum data, in lieu of the data corrected via the above referenced water level station.*

## **C2. Discussion of Tide Zoning**

Tide zoning was included within the Tide and Water Levels Instructions for OPR-E349-KR-2009. A modified version of the HIPS Zone Definition File (ZDF) *E349KR2009\_RevisedCORP*

provided by CO-OPS was used to apply zoned tides to the multibeam data. The modified file, named *E349KR2009\_RevisedCORP\_1s*, used a HIPS Interval value of 1 second rather than the default value of 360 seconds which was used in the file received by CO-OPS. The interval value controls the frequency of tide zoning interpolation. The default value of 360 seconds is too infrequent to properly correct for the assigned zoning boundaries where it would be possible for the survey vessel to pass through a zone without a zoned tide corrector being applied if the vessel was not within the zone boundary for longer than 359 seconds. No modifications were made to zone boundaries or time and range correctors. ***Concur with clarification. Final surfaces generated from ERS-VDatum data, in lieu of data corrected with the above referenced ZDF.***