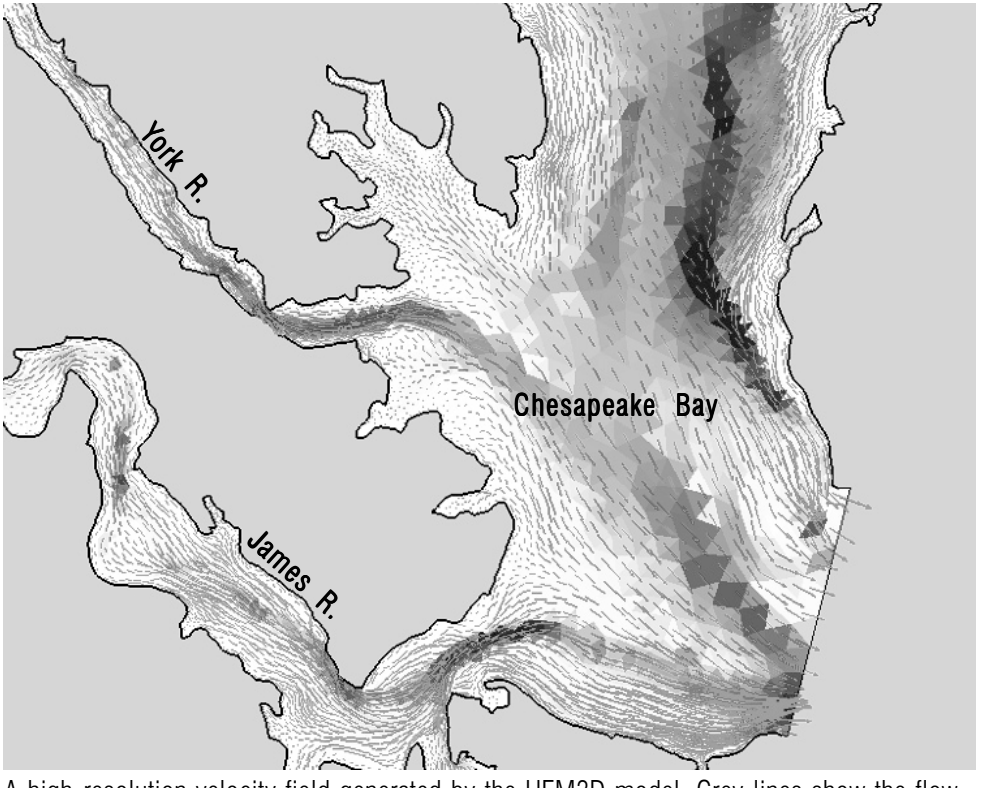
VIMS Acquires New Code for Model

VIMS has been one of the leading institutions committed to the development of numerical models for estuarine and coastal sciences. Private funds enable the Institute to acquire an UnTRIM code for expanding the capability of the second-generation HEM3D (Hydrodynamic Eutrophication Model, Three Dimension) model. The model represents the best technical tool to address issues by providing "what-if" scenarios in an efficient, comprehensive and cost-effective manner. The UnTRIM code also is better able to deal with intertidal environments such as Virginia's tidal marshes. Dr. Harry Wang, Dept. of Physical Sciences, explains, "The beauty of the second-generation HEM3D model is that chemists and biologists can write their own subroutines and run scenarios. This flexibility makes the model very useful for VIMS." Utilizing the new model, researchers have already generated approximately $400,000 in new work over the next three years.



A high-resolution velocity field generated by the HEM3D model. Grey lines show the flow of currents. The shaded areas represent the topography of the Bay.