

AGENDA NOTE – HRPDC EXECUTIVE COMMITTEE MEETING

ITEM #6 LAND SUBSIDENCE

SUBJECT:

The HRPDC staff will discuss the need for better data to predict future rates of land subsidence.

BACKGROUND:

The HRPDC partnered with U.S. Geological Survey (USGS) in 2012-13 to evaluate the existing measurements of land subsidence in the region. The USGS report, [*Land subsidence and relative sea-level rise in the southern Chesapeake Bay region*](#) notes that land subsidence has been observed since the 1940s in the southern Chesapeake Bay region at rates of 1.1 to 4.8 millimeters per year, and subsidence continues today. Data indicates that land subsidence has been responsible for more than half the relative sea-level rise measured in the region.

The HRPDC staff discussed this issue with the regional Recurrent Flooding and Sea-Level Rise Committee on September 26, 2014. HRPDC Staff suggested developing a specific project proposal defining the best method of monitoring and predicting future land subsidence. The Committee agreed that the proposal was needed along with a cost estimate to implement the recommendations.

The region could proceed with one of two options:

1. The HRPDC could fund USGS to assess the methods of monitoring land subsidence and develop cost estimates. The resulting report could be used to support a state budget request or future grant opportunities. Estimated costs = \$50,000.
2. The HRPDC could issue a request for proposals for InSar analysis. The analysis would compare land elevations from the 1990s to 2000s to create a map of historic land subsidence across the region. Estimated costs = \$250,000.

The second option would require new funding from the state or localities. The advantage of the first option is to have a complete assessment of the technology and costs. The advantage of the second option is to spend funding on actual data collection and less on process and planning.

RECOMMENDED ACTION:

The HRPDC staff recommends the Commission approve the development of a project to assess land subsidence and select option one or two. If the Commission votes for option two, the Commission should approve a revenue source such as requesting state funding through legislation or a local government special assessment.