

September 3, 2008

MEMO

To: Council Members

From: Karl T. Weist

RE: Presentation by Doctor Antonio Baptista

Dr. Antonio Baptista, Director of the Center for Coast Margin Observation and Prediction of the Oregon Graduate Institute, will present recent observations by the Center about the estuary and ocean plume and near shore environment. Dr. Baptista's organization recently received a significant grant from the National Science Foundation to advance the understanding of coastal margins in general and of the Pacific Northwest coastal margin in particular by creating the scientific infrastructure necessary to obtain reliable quantitative descriptions and analysis of integrated physical, chemical, and biological variables in estuaries, freshwater plumes, and continental shelves.

The Center has developed a computer model, CORIE, an observation and prediction system for the Columbia River ecosystem. The CORIE observation network includes an extensive array of stations in the Columbia River estuary, and one station in the nearby coastal ocean. In addition, Clatsop Community College's M/V Forerunner serves as a mobile station of opportunity, and several cruises have been conducted over the years.

Early applications of CORIE have, in particular, addressed issues combining salmon habitat and passage, hydropower management, navigation improvements and habitat restoration. These applications show that there is a role for objective science to engender consensus across agencies with conflicting mandates. They also suggest that coordinating resources of multiple users of a waterway in the development of a shared scientific infrastructure, readily adaptable to evolving needs, might be a practical way to develop affordable management tools.