

**“Coasts, Estuaries and Harbors” sector excerpts**  
**Draft UW Climate Impacts Group 1301 Contract Amendment 1**  
**(Dated November 2, 2007)**

**III. MOTIVATING QUESTIONS:**

The overarching motivating question for the study is “How will the State of Washington be affected by the range of climate change possibilities over the next century as identified by IPCC AR4, and what mitigation and adaptation strategies are most feasible in the near term (next 10-25 years) and in the medium term (25-50 years)?”

Motivating questions for each of the sectors are:

**Coasts, Estuaries, and Harbors:** *To what extent will rising sea levels and ocean temperatures impact the coasts, estuaries, and harbors of the state through inundation, increased flooding, and/or erosion?*

**IV. WORK PLAN**

Task 2c: Coasts, Estuaries, and Harbors (*note: Bullet points added for clarity*)

This research will build upon previous work by CIG and CIG affiliates that has quantified the likely impacts in Washington State of sea level rise, and associated coastal erosion and saltwater intrusion into coastal freshwater aquifers. The research will focus on specific regions and economic sectors expected to experience high levels of impact including:

- Puget Sound ports,
- The Skagit Delta and Fidalgo Island, and
- One or more coastal estuaries, possibly including Willapa Bay and Grays Harbor.

For each of these regions, UWCIG will accumulate available evidence from published and un-published information. Further, UWCIG will collect site-specific information and perspectives through conversations and collaboration with key local personnel. Coastal maps will be updated, as feasible, with tide gauge data, and coastal flooding will be forecasted consistent with the range of predicted sea level rise. Potential effects on salinization of coastal freshwater aquifers, and hence water supplies, will also be examined.

The baseline assumption will be no adaptation by local communities to sea level rise, but UWCIG will also seek to develop reasonable expectations for future human actions, through alternative assumptions that will be developed through consultation with local collaborators.