**Summary of the Climate Thresholds Initiative**

The NOAA National Ocean Service (NOS) would like input on the concept of "climate thresholds" or "tipping points", especially as it applies in coastal management. A workshop in 2014 examined the concept of tipping points and thresholds with regard to near-coastal ecosystems. The workshop provided NOS offices with information from other examples of tipping point research and their applications, and subsequent discussions resulted in the identification of several potentially useful research products:

- Climate scenarios that project potential thresholds and future ecosystem states;
- Identification of indicator species that might provide early warning of impending change from one ecosystem state to another;
- Development of a threshold detection and warning capability;
- Advice for monitoring to detect impending ecosystem shifts;
- Graphical products showing tipping points for coastal systems;
- Guidance on habitat restoration and adaptive management approaches that account for ecosystem state transitions; and
- Recommendations for management that provide justification for reducing other stresses to help mitigate climate impacts. If other stresses are reduced, what is gained in avoidance of climate thresholds?

In order to get stakeholder perspectives, we taking a regional approach to convene webinar meetings with a relatively small number of people with the following intent:

- Identify priority resources and habitats at risk from climate-related thresholds;
- Consider what research products (potentially a subset of the list above) could help to identify when a system is approaching a threshold, or when it has passed a threshold; and
- Discuss how coastal managers could utilize the concepts of climate thresholds in management approaches to mitigate impacts and what tools they would need.

The intent is to use the responses to the above to develop an extramural Request for Proposals. Any proposals would be multi-year and multi-investigator, and involve both academic and management input to develop research results and management tools to help predict ecosystem change and manage coastal systems to either prevent deleterious climate thresholds or manage through a transition successfully.

The IOOS Regional Associations are assisting with this effort to convene regional stakeholders. PacIOOS is helping to convene webinars for the Pacific Islands region, the first of which will be held on **October 25, 2016, from 12:00 to 2:00 PM (Hawaii Time).**