**Collaboration Between NOAA’s Science Advisory Board and**

**Hydrographic Services Review Panel**

**Coastal and Marine Transportation and Support Infrastructure**

**Context**

The NOAA Science Advisory Board (SAB) Concept of Operations call for the development of a workplan every 2 years. The work plan is developed based on the agency’s mission and priorities, and grounded in research and development plans of the agency, line offices, and program levels, as appropriate. With guidance from NOAA leadership, the current SAB workplan is organized under two priority areas:

* Priority 1: Reduce the Impacts of Extreme Weather and Water Events.
* Priority 2: Increase the Sustainable Economic Contributions of Our Fishery and Ocean Resources (Blue Economy)

One of the topics under Priority 2. ‘Coastal and Marine Transportation and Support Infrastructure’ is being pursued through collaboration with the Hydrographic Services Review Panel (HSRP).

**Status**

The first step in the development of the work plan topic was engagement among with the SAB champion, Denise Reed, the HSRP Vice-Chair, Ed Saade, Molly McCammon of the SAB Ecosystem Science and Management Working Group, and key NOAA staff – Shep Smith and Rich Edwing, regarding potential issues for focused attention. Several issues we identified which have been narrowed to the following:

1. Leveraging Hydrographic Mapping and Measurements for Fisheries Uses
   * Multibeam surveys are a key tool in keeping charts and navigation services current. As part of this mapping, the collection of backscatter data can be used to provide additional information on seafloor characteristics, as a potential use in aiding mapping fishery habitat and other resources. How can SAB/HSRP increase awareness within NOAA of these data, availability, demonstrate accessibility and utility of applications?
2. Forecasting of Conditions in Nearshore, Coastal and Estuarine Navigable Waters for Multiple Uses
   * Increased availability of real-time data streams, computational platforms and data assimilation techniques enable the development of near-term forecasts of physical conditions, e.g., waves, currents, and use for navigation. Such tools can also be expanded to include biotic elements, assuming the availability of data, and could be used to predict other dynamic phenomena, e.g., algal blooms, fish migration. What is needed to increase the development of such multi-use forecasting tools within NOAA?

**Next Steps**

1. Develop ***an informational webinar*** with invited speakers to discuss the acquisition of multibeam backscatter data, and its potential use in habitat assessment, as part of the HSRP regular webinar series. SAB members and a NOAA staff from several line offices would be invited to participate and discuss how leveraging of survey data for additional purposes can be improved.
   * Timeline – later in 2018 depending on discussion with NOAA staff
2. Review literature and continue discussions with:
   * NOAA personnel involved with data collection, survey and modeling of nearshore and estuarine waters (especially those used for navigation), water quality prediction, and other coastal and resource management,
   * Experts from other agencies and research institutions

to develop the approach for articulating a ***set of best practices*** for multi-purpose nearshore and estuarine forecasting tools that NOAA could utilize to leverage skills and interests across line office in support of navigation and other agency mission areas.

* Timeline – develop approach by December 2018, best practices by Fall 2019.