



INTERAGENCY AGREEMENT WITH UNIVERSITY OF WASHINGTON

Agreement No. IAA 13-164

This Agreement is between the University of Washington, referred to as UW, and the Washington State Department of Natural Resources, referred to as the DNR.

The DNR is under authority of RCW Chapter 43.30 of Washington State, Department of Natural Resources. DNR and UW enter into this agreement under Chapter 39.34, Interlocal Cooperation Act.

The purpose of this Agreement is to provide the DNR with datasets and model results of currents, water conditions and the ecosystem appropriate for use in Marine Spatial Planning for the Washington coast.

Attachment A

STATEMENT OF WORK

Background

University of Washington oceanographers have conducted almost four decades of empirical research and data collection on coastal resources relevant to Marine Spatial Planning (MSP) on the open coast and in coastal estuaries, including those related to the renewable energy, cable installation, and ecosystem habitat evaluation. Recent research has resulted in development of a cutting edge numerical model of currents, water conditions and the ecosystem for the entire region which also will provide relevant data for MSP. The oceanography team includes scientists and staff that have worked in this region for decades and have both access and memory of existing datasets, as well as the skill to assemble both the metadata and data for the MSP process.

It is important that the MSP process should incorporate the latest understanding of both the static features of the ocean and the dynamic, time variable processes that define zones of greatest primary productivity; e.g., critical habitats change with seasons. Oceanography datasets provide information on the monthly, seasonal and decadal changes that characterize coastal ocean processes as well as the degree of variability that can be expected.

Information Base for Marine Spatial Planning

The UW team will assemble and prepare for delivery of ESRI ArcGIS themes and metadata representing existing data sets relevant to the development of the MSP. The UW Coastal Studies Group will generate a final report including sections on the project's purpose, methodology, discussion and conclusions. The team will prepare a DVD containing datasets, metadata, pdf maps and final report.

Scope of Work

Task 1: Prepare and transfer data sets on plankton productivity

Deliverable: mean seasonal cycles of phytoplankton productivity and zooplankton productivity, gridded to 2-5 km

Relevance: food and prey availability, a primary factor in productivity of commercial fisheries and commercial aquaculture

Task 2: Prepare and transfer data on bottom oxygen levels

Deliverable: spatial "hypoxia index" (red-yellow-green classification system) based on the frequency and severity of low-bottom-oxygen events, gridded to 2-5 km

Relevance: seasonal location of "dead zones" where fish and crustaceans may suffocate

Task 3: Prepare and transfer data on current speed

Deliverable: seasonal maps of mean and maximum current speed over the coast, gridded to 2-5 km

Relevance: probable location of alternate energy sites (wind and tides)

Task 4: Prepare and transfer data on bottom bathymetry

Deliverable: map of bottom bathymetry, gridded to 1 km

Relevance: location of submarine canyons, important for nutrient supply, fishing

Task 5: Provide information on ocean processes related to MSP, as needed

Deliverable: attend 2-3 meetings of the WA Coast Marine Advisory Council to present relevant information and advice as needed

Relevance: help ensure that the MSP process has the best possible science-based input on decisions

All deliverables will be provided to the DNR no later than June 30, 2013.