What's at Risk?

The southeastern Bering Sea supports some of the most valuable commercial fisheries in the world for salmon and walleye pollock. High numbers of seabirds, whales, walrus, seals and other marine mammals live in or visit these cold waters seasonally. In an area considered remote to most Americans, Alaska coastal communities continue a traditional way of life based on subsistence hunting that has endured for centuries. Climate-related changes in ocean and coastal ecosystems likely will impact the zooplankton, fish, seabirds, and marine mammals of the southeastern Bering Sea, and the people, businesses, and human communities that depend on them.

Regional Action Plan for Southeastern Bering Sea

This Regional Action Plan identifies key actions to address priority information needs over the next five years to better understand, prepare for and respond to climate changes in the Bering Sea ecosystem.

NOAA Fisheries’ Alaska Fisheries Science Center is collaborating with NOAA Research’s Pacific Marine Environmental Laboratory to acquire needed scientific data and information for science-based strategies that sustain fisheries, healthy ecosystems, marine mammals, and coastal communities in a changing climate.

The Regional Action Plan, part of the NOAA Fisheries Climate Science Strategy, focuses on seven science objectives. Figure 2 shows how the Plan’s actions address each of the seven Climate Science Strategy Objectives.

This science will be used to inform policy and management decisions. “Climate-ready” management will be precautionary, preemptive, and flexible enough to respond rapidly to changing environmental conditions.
More than 30 projects are ongoing including:

• NPFMC Bering Sea Fish Stock Ecosystems Project. Approval for development by the North Pacific Fishery Management Council in December 2015. This plan is to support more encompassing climate change project outcomes and develop management measures for affected species and their habitat at a scale that reflects the natural ecosystems. Over a 3-7 year cycle, nimilists will assess an eastern Bering Sea and Chukchi Sea Climate Change and Ecosystem Observations Environment. This will include updated data and information from ongoing research that will be used to guide future management actions. (Objectives 4–6)

Alaska Climate Project (AACLIM). This multi-year project in 1997 was a model of designed to provide forecasts of marine fish production under a variety of climate and fishing scenarios. On a 5-7 year cycle, scientists will produce an eastern Bering Sea Climate Change and Fisheries Assessment Report which will be used to guide future management actions. (Objective 2)

Future Efforts

The Alaska Fisheries Science Center, the Pacific Marine Environmental Laboratory and other partners already have the scientific infrastructure needed to produce the analyses and deliver benchmarks for the eastern Bering Sea.

The Center and its partners have long-standing, regular field surveys. Socio-economic studies, regional and ocean modeling and ecosystem process studies complement this time series of physical and biological observations. All use are produced to timely information on short-term changes and long-term trends in the abundance and distribution of federally managed species.

Current Efforts

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