



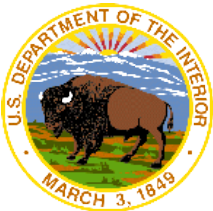
**Environmental Sciences  
Alaska OCS Region**

**Dee Williams, PhD  
907-334-5283**



## Arctic as Exciting Science Frontier:

- ❖ March – June average temperature rising
- ❖ Sea Ice Extent declining
- ❖ Glaciers Shrinking and feeding riverine discharge
- ❖ Permafrost warming
- ❖ Landscape Drying → wildfires
- ❖ Invasive species and regime shift
- ❖ Ocean becoming more acidic
  
- ❖ Multilateral & Interdisciplinary efforts underway: IARPC, SEARCH, NOPP
  
- ❖ Management Planning is increasingly process focused:  
Arctic Management Report, Arctic Council “Arctic Resilience Report”



## **Interagency Arctic Research Policy Committee (IARPC)**

- ❖ Consortium of 13 agencies across Federal system
- ❖ 2013-2017 Research Plan identifies 7 areas for collaboration:
  - Sea ice and marine ecosystem studies
  - Terrestrial ice and ecosystem studies
  - Atmospheric studies
  - Observing systems
  - Regional climate models
  - Adaptation tools for sustaining communities
  - Human health studies
- ❖ 12 “Implementation Teams”
  - Conceptual Model Workshop in DC (May 2013)
  - Develop a set of testable hypotheses



## Current Ongoing Partnership Studies

NOAA	13	~ \$ 23,000,000
ADFG	3	~ \$ 12,400,000
CESU	3	~ \$ 6,800,000
Canada/DFO	2	~ \$ 6,300,000
UAF/CMI	12	~ \$ 4,500,000
USGS	6	~ \$ 2,703,000
NSSI	1	~ \$ 373,000
FWS	1	~ \$ 138,000
NPRB	1	~ \$ 20,000
<b>TOTAL</b>	<b>42</b>	<b>~ \$ 56,234,000</b>



## Quick Figures:

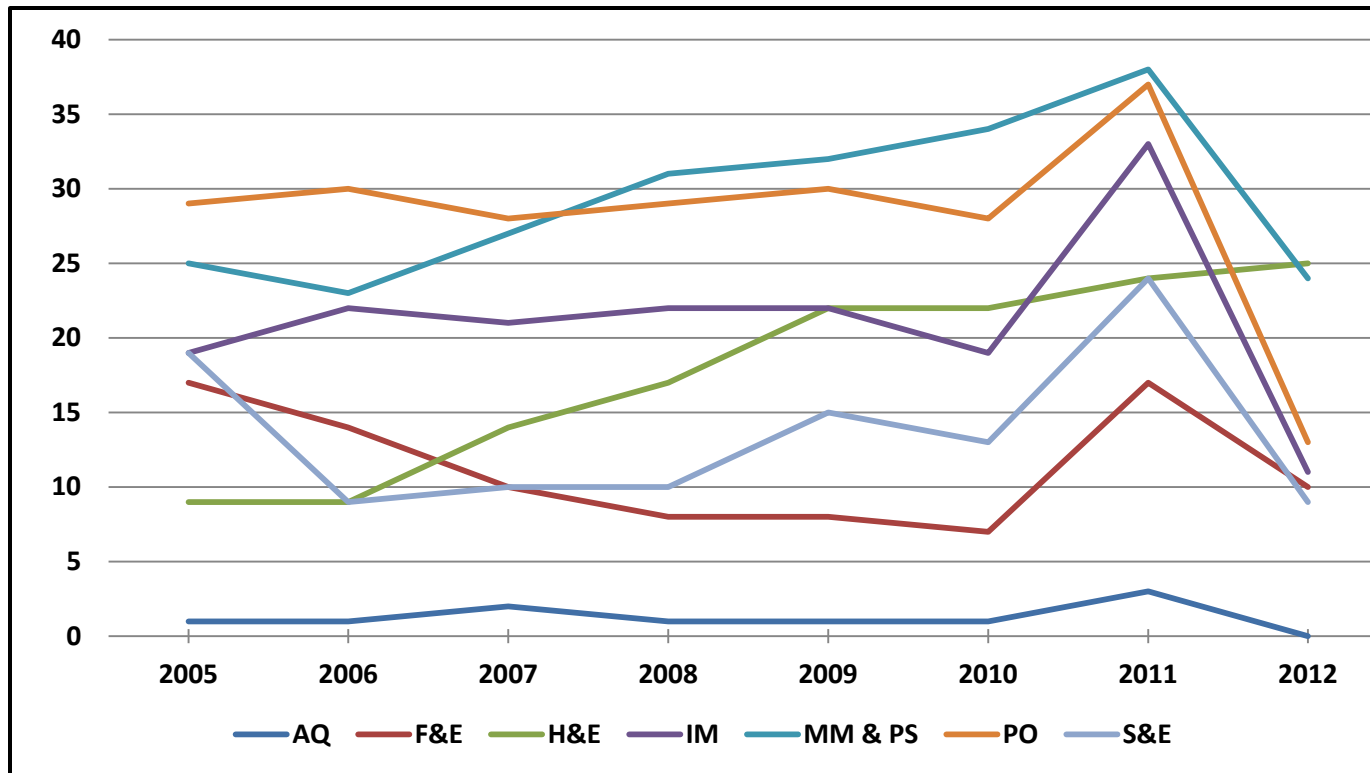


- ❖ 500 Studies Completed at >\$425M  
300+ peer- reviewed pubs since 1990

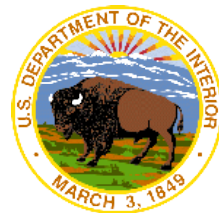
- ❖ 60 Ongoing Studies

- ❖ 10 Additional Studies Proposed ~ \$23M

## Alaska Active Studies by Discipline, 2005-2012



**AQ:** Air Quality, **F&E:** fates & Effects, **H&E:** Habitat & Ecology, **IM:** Information Management, **MM & PS:** Marine Mammals & Protected Species, **PO:** Physical Oceanography, **S & E:** Sociocultural & Economics



# Alaska Proposed Sales:



## ALASKA LEASING SCHEDULE:

**2016**      **Chukchi**              **LS 237**  
                  **Cook Inlet**              **LS 244**

**2017**      **Beaufort**              **LS 242**

- \* Late in 5 year program
- \* “targeted leasing” strategy



- **No exploration drilling to occur in the Chukchi or Beaufort seas in 2013**
  
- **TGS proposing a Geological & Geophysical (G&G) survey in the Chukchi Sea**
  - BOEM is evaluating the permit application
  - BOEM is preparing an Environmental Assessment (EA) and is *seeking public comment* on issues to consider in the EA from now until May 10, 2013
  - G&G activities proposed from July 15 – October 31, 2013
  - The website is: [www.regulations.gov](http://www.regulations.gov). Docket ID: BOEM-2013-0018
  
- **SAExploration proposing a G&G survey in the Beaufort Sea**
  - G&G activities proposed from July 1 to October 15, 2013 (application not yet complete)
  
- **Shell is considering ‘*ancillary activities*’ on some of its Chukchi Sea leases**
  - Geophysical surveys to gather data on ice gouges, shallow hazards, and other seafloor conditions on select Chukchi Sea leases; mid-July to mid- October 2013
  - BOEM is in the environmental review process
  
- **BPXA conducting ancillary activities at Liberty Prospect (Beaufort Sea)**
  - Activities proposed to be conducted from April 1 to May 31, 2013



## Exploration Activities – Chukchi Sea

- Shell, ConocoPhillips, Statoil and others have active leases in the Chukchi Sea and may propose to explore their leases
- G&G Permit Applications possible
- Ancillary Activities possible

## BOEM Actions

- Chukchi Sea lease sale is scheduled for 2016.
  - We want your feedback. Opportunities include:
    - Call for Information and Nominations
    - Draft EIS and Final EIS
    - Proposed Notice of Sale
- Track *proposed mitigation* at:

<http://boem.gov/Oil-and-Gas-Energy-Program/Leasing/Five-Year-Program/Lease-Sale-Schedule/Tracking-Table.aspx>



## *Reaching into our communities takes many forms*



### BOEM stays in touch with –

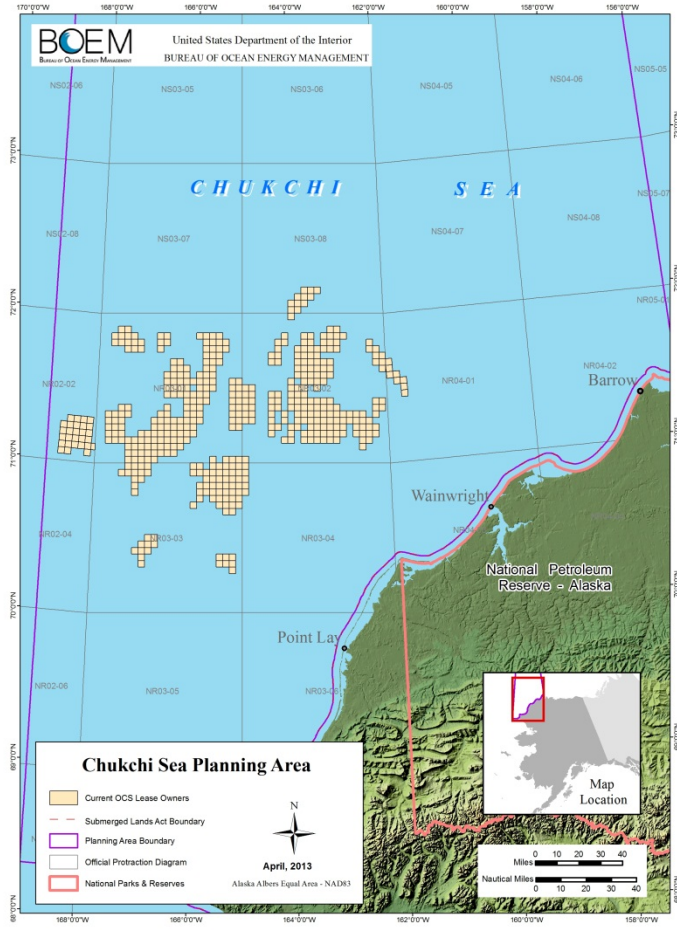
- Invitation e-Letters to leaders (for events)
- Calls, Post Cards, Posters & Handbills
- Use of Public Radio Stations – KOTZ, KBRW with interviews, announcements
- Use of CB Radio
- Teleconferencing
- Published notices in *Arctic Sounder*, *Nome Nugget*, or *Daily News*  
...and more



## Proposed Studies Beaufort Sea Planning Area

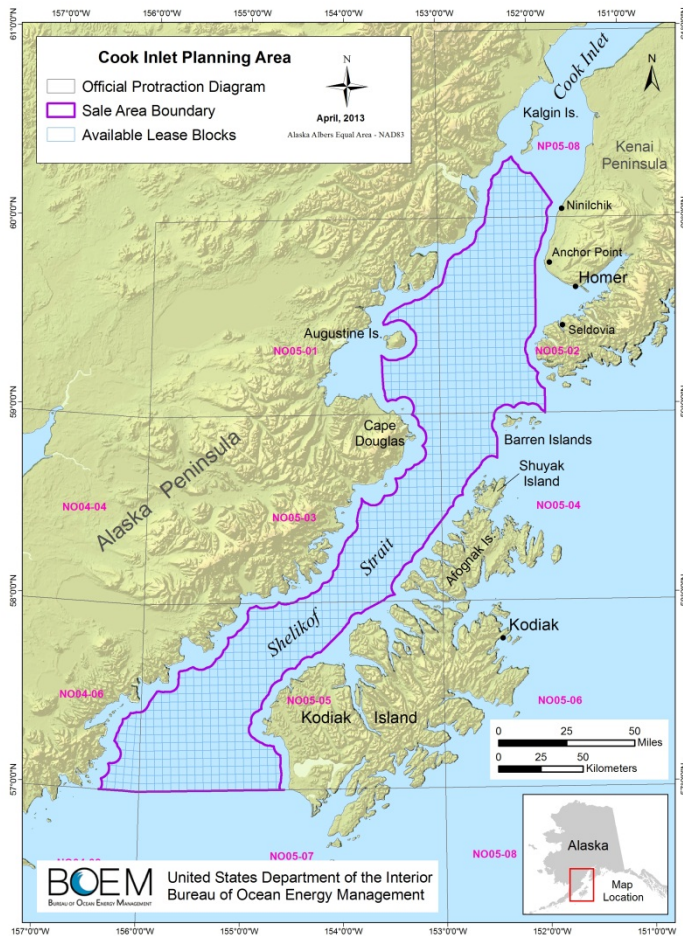
- ❖ Data Interface Tools to Support Environmental Analyses: Interpretation of Existing Marine Mammal Data (includes: Chukchi Sea & Cook Inlet Planning Areas)
- ❖ Genomics of Arctic Cod: A Sentinel Species in a Changing Environment (Includes: Chukchi Sea Planning Area)
- ❖ Physical and Chemical Analyses of Crude and Refined Oils: Laboratory and Mesoscale Oil Weathering (Includes all Alaska Planning Areas)

## Proposed Studies Chukchi Sea Planning Area



- ❖ Subsistence Mapping of Wainwright, Point Lay, and Point Hope
- ❖ Polar Bear Habitat Use, Ecology, and Population Status in the Chukchi Sea
- ❖ Integrated Seabed Surveys in the Arctic Ocean: Bathymetry, Archaeological Resources, and Ice Gouge Magnitude and Recurrence Rates





## Cook Inlet Planning Area: LS 244

### Proposed Studies Cook Inlet Planning Area

- ✦ Cook Inlet Circulation Model Calculations
- ✦ Ecological Processes in Lower Cook Inlet and Kachemak Bay: Monitoring Partnership
- ✦ Benthic Invertebrate Habitats in Cook Inlet
- ✦ Baleen Whale Distribution, Abundance, and Ecology in Cook Inlet and Shelikof Strait