

Alaska's Statistical Monitoring Survey- Implementation through Partnerships

Terri Lomax
Alaska Department of Environmental Conservation
May 4th, 2012



Alaska Monitoring & Assessment Program

The Division of Water is responsible for water quality monitoring, assessment and protection. In order to meet the Water Quality Monitoring & Assessment Strategy DEC has implemented AKMAP.

2001 ADEC joined in the Western States Coastal EMAP, since then we have participated on a regional basis in the National Aquatic Resources Surveys.

First survey in 2002, contracted with Cook Inlet Regional Citizens Advisory Council.

In 2004, DEC formed the Alaska Monitoring & Assessment Program (AKMAP).

Alaska's Resources

- 375 million acres
- 570,640 mi²
- 16% of land area of USA
- Population of 722,718
- ~1 person per mi²
- 4th least populous state, least densely populated
- 40% of the freshwater resources of USA
- 50% of the coast line of USA
- Half of the world glaciers, ~100,000
- Over 3 million lakes
- Millions of acres of wetlands
- 15,000 salmon streams

Example: To characterize 3 million lakes it would every man, woman and child in Alaska to visit 5 or 6 different lakes each.

AKMAP staff of 2

Dividing up Alaska

	Million acres	% of Alaska, as of 2000
Federal Lands	242	65
National Parks, Refuges and Forests	151	40
National Petroleum Reserve	23	6
State Lands	90	24
Alaska Native Corporation Lands	37	10
Municipal Land	0.66	>1
Private Lands	0.14	>1

Source: Hull, T and L. Leask. 2000. Dividing Alaska, 1867-2000: changing Land Ownership and Management. Institute of Social and Economic Research, University of Alaska Anchorage.

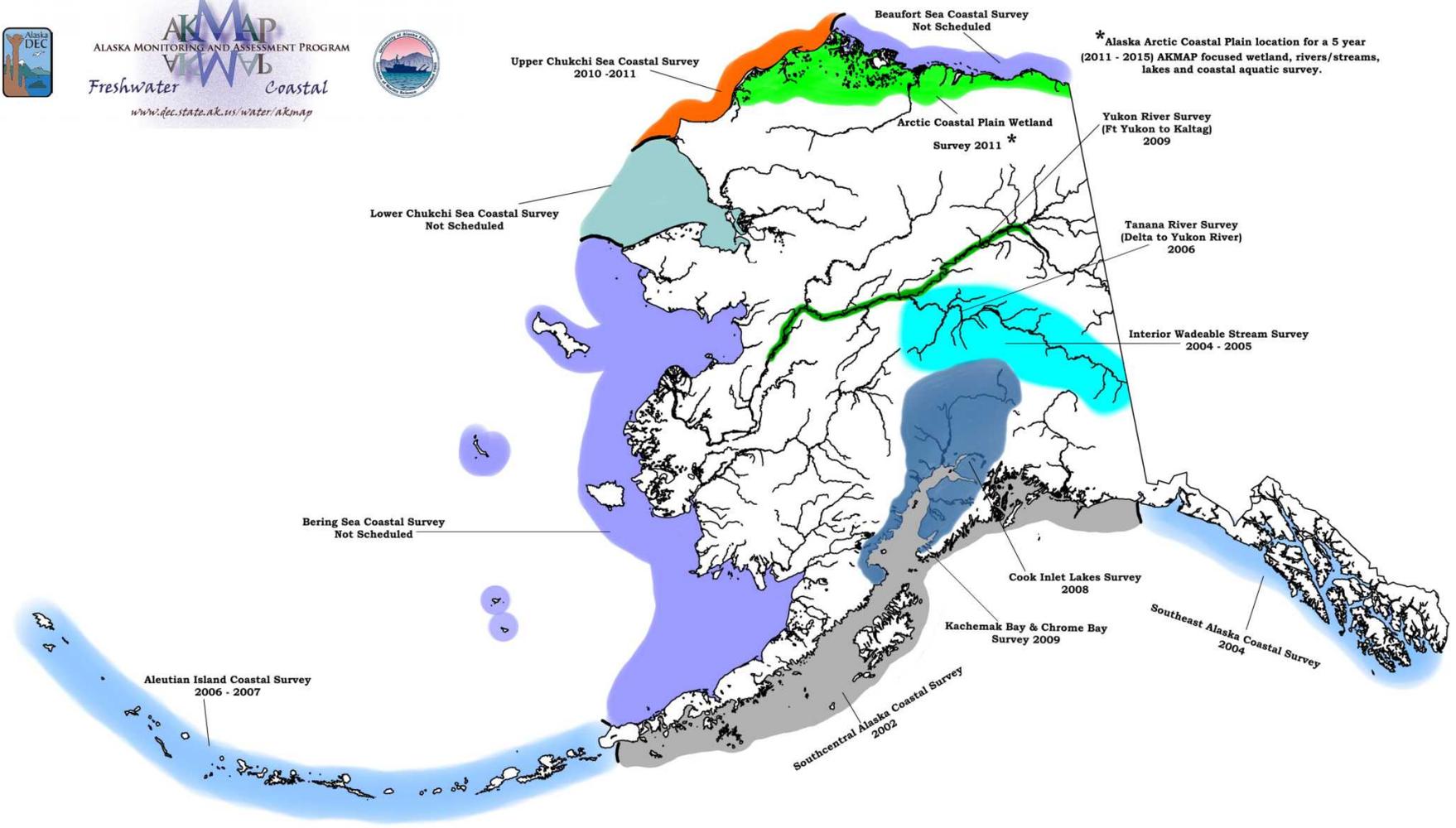
Overcoming Obstacles

- Regional approach
- Early research and planning
- Partnerships are critical
 - MOU with the University of Alaska
 - Tribal consultation
 - Community Involvement
- Long term involvement (repeated studies)
- Focus Areas
- Lots and lots of meetings!





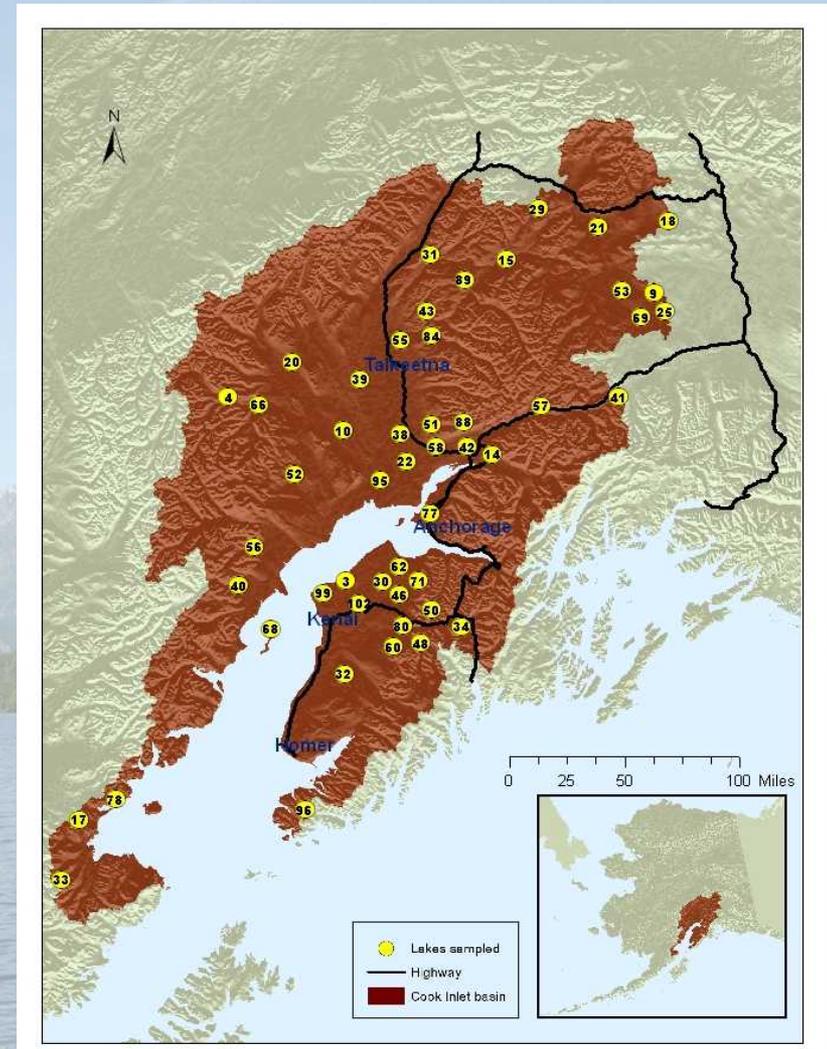
AKMAP
ALASKA MONITORING AND ASSESSMENT PROGRAM
Freshwater Coastal
www.dec.state.ak.us/water/akmap



* Alaska Arctic Coastal Plain location for a 5 year (2011 - 2015) AKMAP focused wetland, rivers/streams, lakes and coastal aquatic survey.

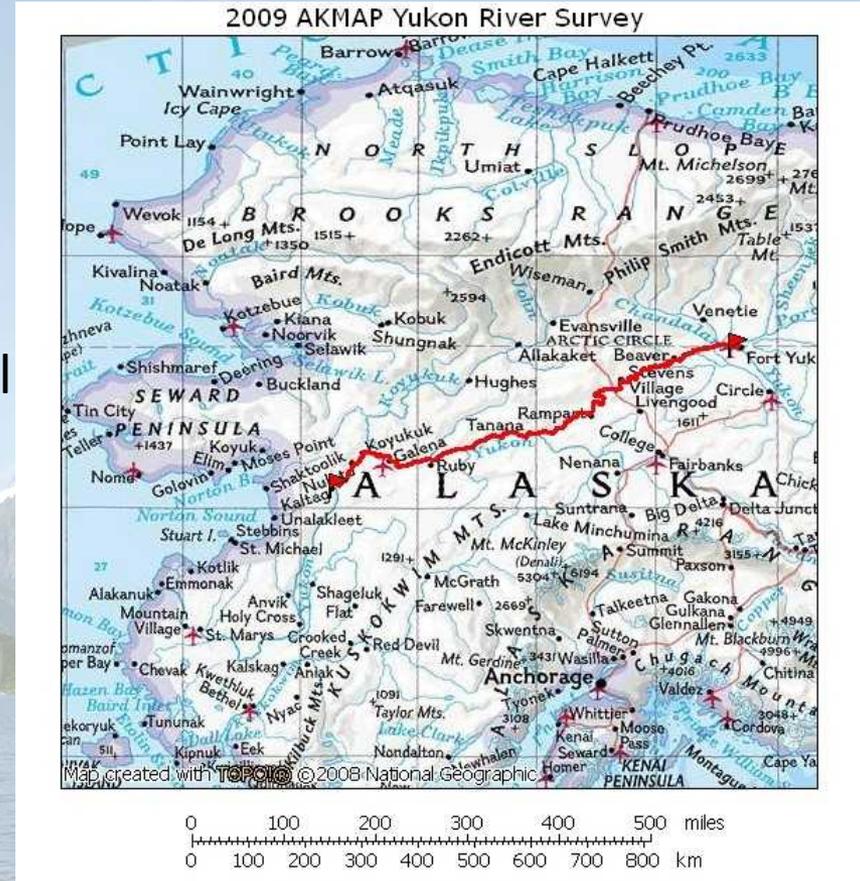
2008 Cook Inlet Lakes

- Cook Inlet Ecoregion 115 selected
- EPA 2007 National Lakes Assessment
- Stratified random design, target of 50 lakes
- Partnerships
 - DEC EH Fish Monitoring Program
 - Volunteers- reduced costs for field support and assisted in field collections: DIAS, DOW, UAA
 - UAA - field support, GIS analysis, identification and analysis of biological collections, report writing
 - DEC Remote Maintenance Worker- lab space



2009 Yukon River

- Main stem Yukon River
- EPA 2009 National Rivers and Streams Assessment
- Stratified random design, target of 50 lakes. WQ taken every 12 miles, Physical habitat taken every mile
- Partnerships
 - Yukon River Inter-Tribal Watershed Council
 - UAA
 - U.S. Geological Survey
 - U.S. Fish and Wildlife Service
 - Council of Athabascan Tribal Governments
 - National Park Service
 - DEC Environmental Health Laboratory, Fish Monitoring Program

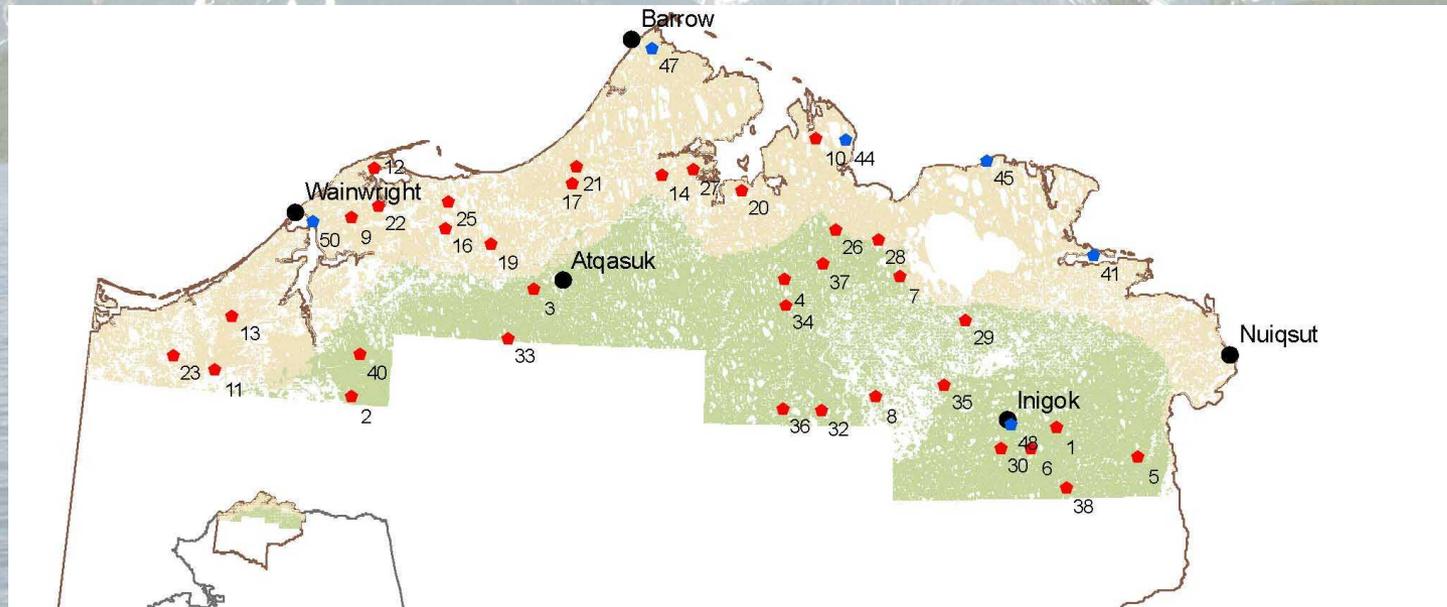


2011 Arctic Coastal Plain Wetlands

- Arctic Coastal Plain of the National Petroleum Reserve
- Part of EPA 2011 National Wetland Condition Assessment
- Stratified random and targeted design, 40 random and 10 targeted sites.

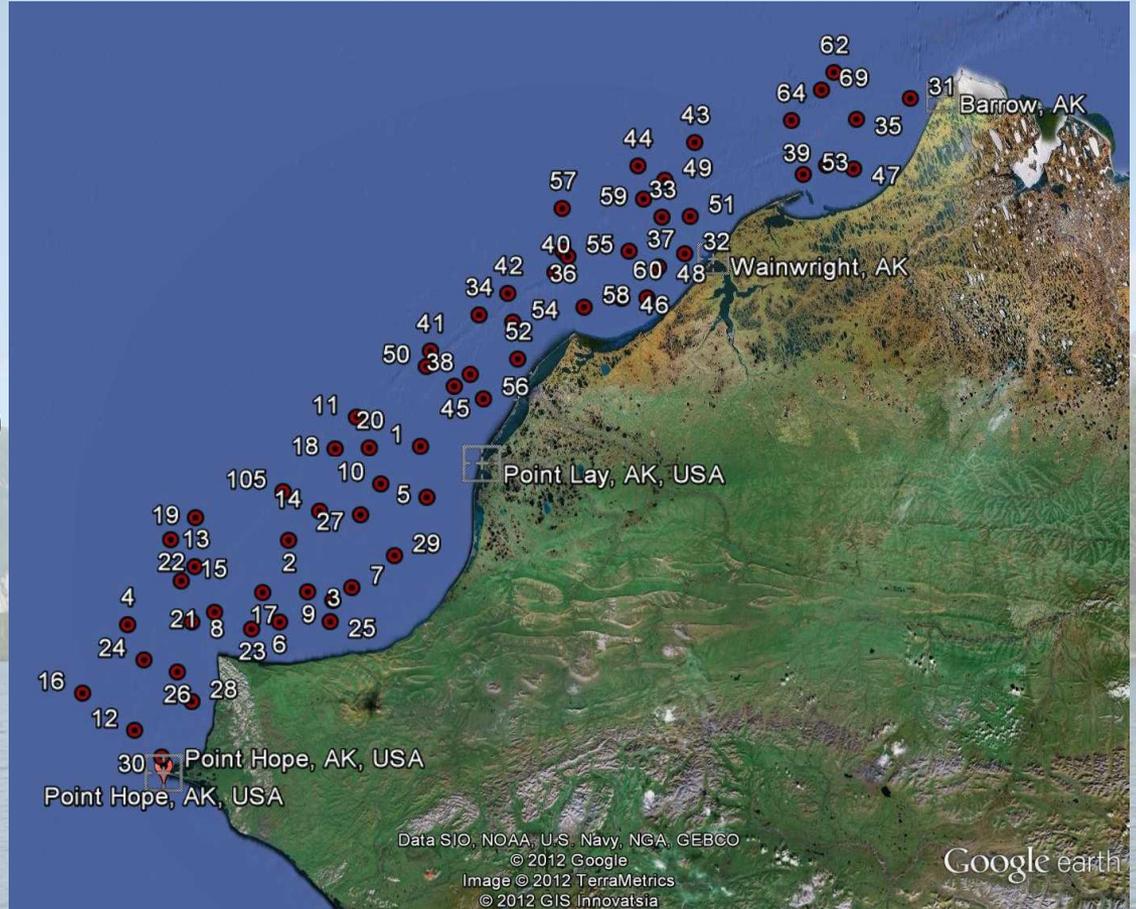
• Partnerships

- UAA
- North Slope Borough
- Oolgonik Native Corporation
- EPA
- Natural Resource Conservation Service,
- AK Natural Heritage Program
- Dr. Gary Laursen
- NSSI /DNR /BLM



2010-2011 Chukchi Sea Survey

- Beaufort/Chukchi Shelf Ecosystem
- Point Hope to Barrow
- 10-50m deep
- Stratified random design, 60 sites
- Partnerships
 - UAF, School of Fisheries and Ocean Sciences
 - NOAA
 - Oolgonik Native Corporation
 - Shell



North to the Future!

- Can you jump start trend analysis with historical data?
- Utilize permit data?
- Share resource more effectively? Within DEC and other agencies
- Incorporate statistical survey data into Integrated Report?

Questions?



Terri Lomax
DEC, Alaska Monitoring & Assessment Program
555 Cordova St
Anchorage, AK 99501
907-269-7635
Terri.lomax@alaska.gov