Alaska’s Statistical Monitoring Survey- Implementation through Partnerships

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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.
## Dividing up Alaska

<table>
<thead>
<tr>
<th>Category</th>
<th>Million acres</th>
<th>% of Alaska, as of 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Lands</td>
<td>242</td>
<td>65</td>
</tr>
<tr>
<td>National Parks, Refuges and Forests</td>
<td>151</td>
<td>40</td>
</tr>
<tr>
<td>National Petroleum Reserve</td>
<td>23</td>
<td>6</td>
</tr>
<tr>
<td>State Lands</td>
<td>90</td>
<td>24</td>
</tr>
<tr>
<td>Alaska Native Corporation Lands</td>
<td>37</td>
<td>10</td>
</tr>
<tr>
<td>Municipal Land</td>
<td>0.66</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Private Lands</td>
<td>0.14</td>
<td>&gt;1</td>
</tr>
</tbody>
</table>

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!
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
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?

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