

BOEM

Bureau of Ocean Energy
Management

SCIENCE AND TRADITIONAL KNOWLEDGE

A Federal Agency Shares Its Experience in Alaska

ARCUS WEBINAR SERIES

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Purpose and Outline

- **Share our applied definition of traditional knowledge**
- **Share examples of how we have applied traditional knowledge**
- **Summarize our decision-making process**



Definition

Traditional knowledge is a body of evolving practical expertise based on observations and personal experience of indigenous people over an extensive, multi-generational period.

- **Linked to places**
- **Shared**
- **Respected**
- **Anchors values and identities**
- **Unity between people and places**
- **Way of knowing tied to a way of life**



https://pame.is/mema/MEMAdatabase/007_OS_12_apr_may_jun.pdf

The Integration Debate

- **Traditional knowledge and science are based in different worldviews.**
- **We tend to be preoccupied with concerns over how and if the two should be integrated.**
- **This is an unnecessary dilemma and debate.**



Our Approach

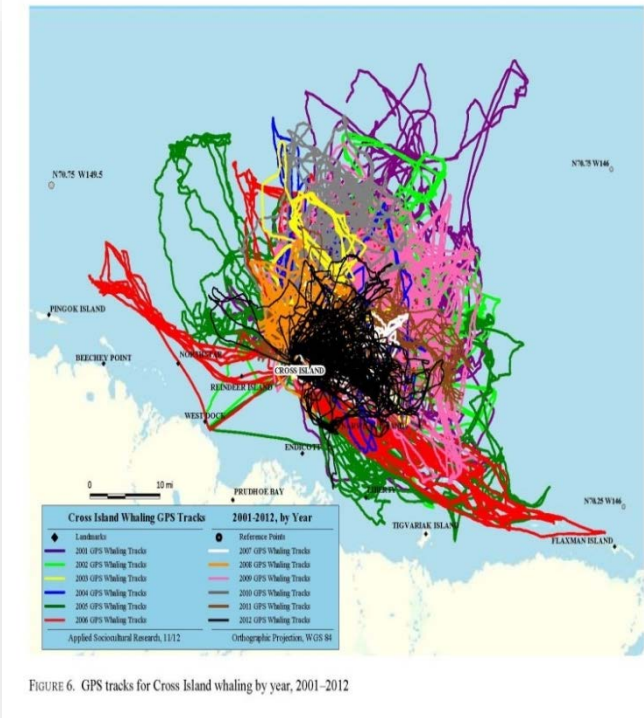
For application to management, we treat traditional knowledge and science as complementary.

- May use different methods
- May ask different questions
- Based in observation
- Equally valuable
- Provide a more complete picture together



Cross Island Whaling Study

- Traditional knowledge about whale behavior drives Iñupiaq concerns that industrial activities lower whaling success.
- Hunters were provided GPS Units to record boat tracks and whale strikes from 2001-2012.
- Commercial barges found to have the greatest impacts.
- Traditional knowledge and mapping of whaling effort enabled conflict avoidance.



<https://marinecadastre.gov/espis/#/search/study/23150>

Environmental Impacts Analysis

In NEPA, we obtain traditional knowledge from three sources.

- **Public comments/scoping**
- **Social science studies**
- **Tribal consultations**

We apply traditional knowledge to:

- **Describe the affected environment**
- **Formulate alternative actions**
- **Assess potential impacts to subsistence activities**
- **Design mitigation measures to avoid impacts**

Liberty Project

- **Whalers identified potential conflicts between fall whaling and development of a gravel island in Beaufort Sea.**
- **Mitigation measures provided by the whalers were described in the draft environmental impact statement.**
 - **Set quiet periods during whale migration and harvest**
 - **Maintain communication center for whalers and industry to proactively avoid or minimize conflicts**
 - **Establish best practices for vessels to avoid whalers**
 - **Agree to a conflict avoidance/resolution process**



<https://www.boem.gov/about-boem/environmental-impact-statements-and-major-environmental-assessments>

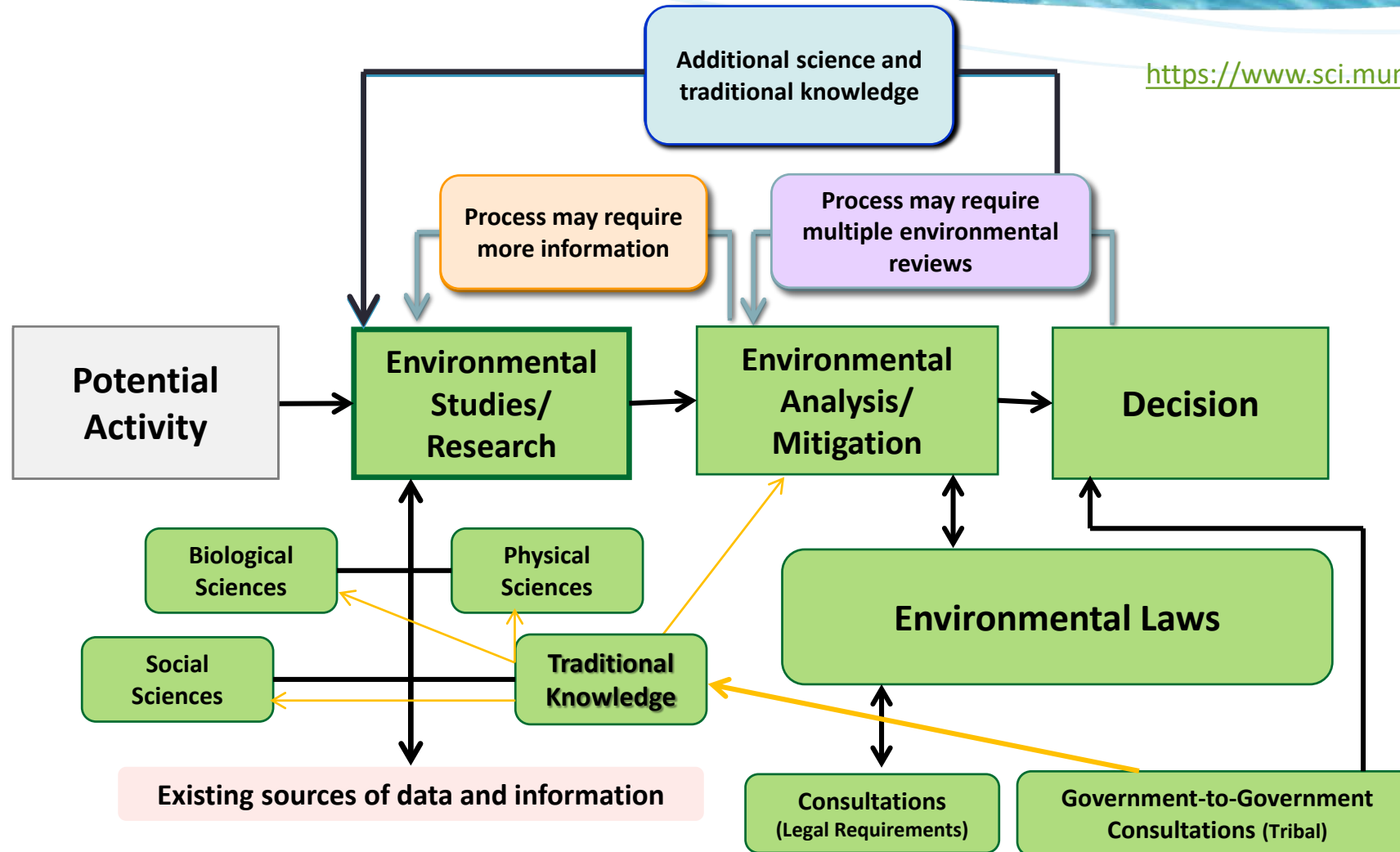
Why Do We Apply Traditional Knowledge?

- **Produces more inclusive decisions**
- **Creates mutual awareness and understanding**
- **Enhances respect for both worldviews**
- **Allows more complete use of information**



Adaptive Process

https://www.sci.muni.cz/CPR/14cislo/Kendall-ASSW_web.pdf




Outreach and Communication

TRADITIONAL KNOWLEDGE & SCIENCE in Decision Making

Over time, BOEM has developed a decision-making process that strives to use both science and Alaska Native traditional knowledge. We do this to better understand the local environment and potential impacts of proposed activities. Here we highlight our partnership with Nuiqsut whaling crews. Each fall, they travel to camp at Cross Island to look for whales to bring home to their community. Working with whaling captains and an anthropologist, BOEM sponsored a 12-year project that combined the whalers' knowledge of the hunt with GPS technology. Our study recorded whalers' observations and documented the importance of hunting areas. Applying the traditional knowledge of our Alaska Native partners in the decision-making process provides a more complete view of the environment. BOEM gains a greater understanding of the potential impacts of proposed projects and learns how to prevent possible conflicts with subsistence practices. BOEM is looking for more partnerships with Alaska Native communities and new ways to apply traditional knowledge to reach better decisions.

<https://www.boem.gov>
<https://marin cadastre.gov/espis/#/search/study/23150>

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Poster presentations and handouts

- Alaska Federation of Natives Convention
- Arctic Futures 2050 Conference



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QUESTIONS



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