



**NOAA**  
**FISHERIES**

Alaska Region

# ESA, MMPA, and Science in the Arctic

Using science and regulations to  
reduce “take” of marine mammals

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## As per the MMPA, NMFS has regulatory responsibility for:

- Marine Mammals, except Sea Otters, Walrus, Polar Bears and Manatees (rare in the Arctic)

## As per the ESA, NMFS has regulatory responsibility for these listed Arctic species:

- Bearded seals
- Bowhead whales
- North Pacific right whales
- Fin whales
- Humpback whales (ENP and Mexico DPS)
- Western DPS Steller sea lions
- Also sperm, blue, sei and WNP gray whales

# Ringed Seals:

- 2012: final rule listing Arctic, Okhost and Baltic subspecies as threatened
- 2015: Proposed critical habitat rule published
- 2016: U.S. District Court (Alaska District) vacated listing of Arctic subspecies
- 2018: Appeal to be heard by 9<sup>th</sup> Circuit Court in San Francisco

# Marine Mammal Protection Act:

## Findings and Declaration of Congress:

- Marine Mammals are resources of great international significance
- Certain species are, or may be, at risk of extinction or depletion as a result of man's activities
- Marine mammals should not be permitted to diminish beyond the point at which they cease to be significant functioning element of the ecosystem
- Primary objective of their management should be maintain health & stability of marine mammals and their ecosystem
- In particular, efforts should be made to protect essential habitats, including rookeries, mating grounds, and areas of similar significance

# MMPA prohibits take unless exempted by MMPA (subsistence) or authorized under a permit

Types of MMPA permits:

- Commercial Fishing
- Scientific Research
- Protection of Personal Safety or Property
- **Incidental Take Authorizations (IHAs and LOAs)**
  - **IHA = 1 year permit**
  - **LOA = 5-year rulemaking**

# To Cross the Bridge of Death, you need to know

- Your name
- Your quest
- Your favorite color, the capitol of Assyria, or the wing velocity of an unladen swallow



# To get an IHA or LOA, you need to know:

- Description of Specified Activity
- Dates and Duration, Specified Geographic Region
- Species and Numbers of Marine Mammals
- Affected Species Status and Distribution
- Type of Incidental Taking Authorization Requested
- Take Estimates for Marine Mammals [Note new NOAA acoustic guidance]
- Anticipated Impact of the Activity
- Anticipated Impacts on Subsistence Uses
- Anticipated Impacts on Habitat
- Anticipated Effects of Habitat Impacts on Marine Mammals
- Mitigation Measures
- Arctic Subsistence Plan of Cooperation
- Monitoring and Reporting
- Suggested Means of Coordination

# MMPA incidental take permits criteria:

- Take must be for small number of individuals
- Must have no more than a negligible impact on marine mammal stocks
- Must not be an unmitigatable adverse impact on the availability of the species or stock for subsistence uses
- IHA for short duration projects (180 days), LOA for longer duration (5 year regulations)



# Some definitions:

- Take = To harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal.
- Harassment (for all but “military readiness activities”) = Any act of pursuit, torment, or annoyance, which--
  - Has the potential to injure a marine mammal or marine mammal stock in the wild (Level A Harassment) or
  - Has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including but not limited to , migration, breathing, nursing, breeding, feeding, or sheltering (Level B Harassment)
- Negligible Impact = An impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through annual rates of recruitment or survival

# ESA process

## (concurrent with MMPA permit process)

- If take of a listed species is likely to occur, Federal permitting agency conducts formal S7 consultation
- Resulting incidental take statement sets forth non-discretionary measures that:
  - minimize take and
  - authorize a given level of take of listed species

# Minimizing take:

- Most take is due to acoustic harm or harassment
  - **Sound source verification and acoustic modeling** will help determine amount of take and size of mitigation zones. Otherwise, default practical spreading loss model yields big zones.
  - **Adequate mitigation** may preclude the need for an MMPA incidental take permit (IHA/LOA) and ESA formal consultation (biological opinion).
  - Adequate mitigation will also help keep take numbers small, with negligible impact.

# Minimizing take:

- Vessel traffic in the wrong place at the wrong time can exacerbate level of take
  - Ice-breaking is LOUD
  - Avoid critical habitat completely
  - Avoid seasonal concentrations of animals (climate change may make this more difficult)
  - Avoid use of DPS/thrusters if feasible
  - Use PSOs to help vessels avoid animals
  - Certain environmental conditions can set up krill concentrations and draw in feeding whales. Avoiding these feeding concentrations is essential.
  - Bubble curtains or similar can dramatically reduce impacts

# Minimizing take:

- Vessel strikes and gear entanglement
  - 10% of living bowheads show signs of past entanglement in lines.
  - Most vessel strikes occur from faster-moving vessels. Speeds of 10 kts or less dramatically minimize strikes.

# Minimizing take:

- Ice road construction on non-shorefast ice creates a crushing hazard for seals in lairs. Prior detection of lairs is needed.
- Low-flying aircraft can flush young into water and cause thermal stress at certain times of year.
- Good project timing can help avoid take of bowheads AND seals.

# Early consultation

- Allow ample time for obtaining permits (6 months minimum for IHAs and a year for LOAs)
- IHAs go through one public comment period, LOAs go through two and require a formal rulemaking.
- Work with NOAA Fisheries in the project planning stage to grease the permitting skids and keep project effects to a minimum before letting contracts (e.g., establish conservative shut-down zones in advance and build delays into contracts).

# And finally: Monitoring and Reporting

- Applicants are required to monitor and report takings, to the extent possible, to verify the level of taking and the level of impacts on marine mammal populations or to gain knowledge of the species
- Should be able to accomplish one or more of the following goals. Increase understanding of:
  - How animals respond (behaviorally or physiologically) to stressor expected to result in take;
  - How anticipated takes of individuals may impact the population, species, or stock;
  - The affected species or stock; and
  - The effectiveness of certain mitigation and monitoring measures.



[http://www.nmfs.noaa.gov/pr/permits/mmpa\\_permits.html](http://www.nmfs.noaa.gov/pr/permits/mmpa_permits.html)  
or search “MMPA permits”



Not likely to adversely affect