

The Marine Mammal Protection Act (MMPA) Incidental Take Authorization Process

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www.nmfs.noaa.gov/pr/permits/incidental



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Topics to be Covered

- Overview and Brief Background of MMPA
- Sections 101(a)(5)(A) and 101(a)(5)(D) of the MMPA
 - Substance and Process
 - Types of Authorizations: LOA vs. IHA
- Components of the Incidental Take Application (aka "14 Questions")
 - Mitigation
 - Monitoring and Reporting



MMPA Overview

Congressional Findings and Declaration of Policy (1972):

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



MMPA Overview, Continued

MMPA protects *all* marine mammal species

NOAA's trust species include:

- Cetaceans (Whales, dolphins, porpoises)
 - Mysticetes (baleen whales)
 - Odontocetes (toothed whales)
- *Most* pinnipeds (Seals and sea lions)



MMPA Overview, Continued

MMPA established general **prohibition on take**

Set up system of exemptions and permitting authorities that does allow for take in certain situations:

- commercial fishing permits
- scientific research permits (“directed take”)
- subsistence hunting in Alaska
- protection of personal safety or property
- **incidental take authorizations**

Title I—Conservation and Protection of Marine Mammals

Moratorium on taking and importing marine mammals and marine mammal products

16 U.S.C. 1371

Sec. 101.

(a) Imposition; exceptions

There shall be a moratorium on the taking and importation of marine mammals and marine mammal products, commencing on the effective date of this chapter, during which time no permit may be issued for the taking of any marine mammal and no marine mammal or marine mammal product may be imported into the United States except in the following cases:

MMPA Definitions

Take - to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal

Harassment – any act of pursuit, torment, or annoyance which:

- i. Has the **potential to injure** a marine mammal (**Level A harassment**); or
- ii. Has the **potential to disturb** a marine mammal by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering (**Level B harassment**)

Incidental means not intentional – does not mean unexpected



MMPA Definitions, Continued

Negligible Impact – An impact that is not expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.

Small Numbers – (not defined in implementing regulations).

We may only authorize the incidental taking of *small numbers* of marine mammals. We typically look at whether the total taking will be small relative to the estimated pop size.



Overview of Section 101(a)(5)

Section 101(a)(5) allows for authorization of the incidental taking of marine mammals that occurs during otherwise lawful activities

We issue authorizations for diverse activities, over wide range of spatial and temporal scales:

- Underwater geophysical exploration (industry, academic)
- Active sonar and explosive detonations (military training and testing)
- Pile driving (bridge and port construction; offshore wind)
- Activities that disturb seals / sea lions on land (rocket launches, construction, scientific research)
- Other industry activities (drilling, explosive rig removal)

Majority of activities impact marine mammals via underwater noise

Overview of Section 101(a)(5), continued

Upon request, we shall authorize the **incidental** take of **small numbers** of marine mammals for **specific activities** in **specific places** if:

After **public comment**, we are able to make a finding of **negligible impact** (on species or stocks)

and...



Overview of Section 101(a)(5), continued

We prescribe:

The permissible methods of taking

- What activity will cause the take?
- How will it cause the take?
- What is the expected intensity of the take?



Mitigation measures (“means of effecting the least practicable adverse impact”)

- By law, effects must be mitigated when mitigation measures are available
- Pay particular attention to rookeries, mating grounds, and areas of similar significance

Requirements for monitoring and reporting

2 Types of Authorizations – LOA vs IHA

	Letter of Authorization (LOA)	Incidental Harassment Authorization (IHA)
MMPA Section	101(a)(5)(A)	101(a)(5)(D)
Authorizes	Harassment (Level A or B), serious injury or death	Harassment only (Level A or B)
Structure	<ul style="list-style-type: none"> • Rulemaking required • Two 30-day public comment periods • Cleared through NMFS/NOAA/DOC/OMB • Once regulations in place (effective 5 yrs), LOA(s) can be issued - valid for up to 5 years • Requires mitigation, monitoring and reporting 	<ul style="list-style-type: none"> • No rulemaking • Requires one 30-day public comment period • Clearance within NMFS • Valid for maximum 1 year • Requires mitigation, monitoring and reporting
Processing Time	Not prescribed by statute; typically 12-18 months (with caveats)	120 days by statute (typically 6-9 months)

14 Questions for Applicants

50 CFR 216.104(a)



Application Questions

Applications for authorization must address **14 specific pieces of information** (required by regulation) which may be found on our website (www.nmfs.noaa.gov/pr/permits/incidental).

When addressed appropriately, these 14 points of information are designed to provide a narrative that explains:

- the **specifics of the applicant's action**
- the **nature of the action's anticipated effects** on marine mammals
- the methods of **mitigating, monitoring, and reporting** on the effects of the action.



Application Questions, Continued

1. Description of the activity

- What are you planning to do?
 - Identify specific action components and provide narrative description.
- Whether action components are going to result in take, and why/why not
- Characteristics of acoustic sources
 - may include frequency, source level, duty cycle, duration, directionality

2. Dates, duration, and location of activity

- When and where the action will occur, including description of specified geographic area(s).
 - May not know specific dates, but must specify frequency and duration of action components and seasonality when possible.



Application Questions, Continued

3. Species and numbers of marine mammals likely to be found within the activity area

- Description of all species found in area at any time
 - rule out if appropriate (e.g., seasonal distribution means not there during activity) and explain
- Species / stock abundance estimates
 - stock assessments and other info

4. Description of status and distribution of the species or stocks of marine mammals likely to be affected

- Regional and seasonal distribution
- Density, where necessary to estimate impacts
- ESA & MMPA status, and population trends of species/stock
- Times and places when or where important behaviors, such as calving, breeding, feeding, hauling out or migrating.

Application Questions, Continued

5. Type of incidental take authorization requested and method of taking

- Description of anticipated type of take (e.g., Level A/B harassment) and method of taking (i.e., sound source)
- Level B Harassment (behavioral disturbance)
 - Significant deflection from migratory path
 - Temporary threshold shift (TTS)
- Level A Harassment (injury)
 - Minor lung (or other) tissue damage resulting from explosive exposure
 - Permanent threshold shift (PTS)
- Serious injury or mortality
 - Major tissue damage (broken bones, gashes)
 - Stranding



Application Questions, Continued

6. The number of animals (by species) likely taken and the number of times such taking is likely to occur

- Estimate of the numbers of animals taken and the number of times each animal may be taken, typically considering:
 - Footprint / extent of activity
 - Density / abundance of marine mammals in activity area
 - Area and time over which animals are exposed to the stressor
 - NMFS acoustic guidance, when an acoustic stressor
- Discussion of how take estimates were derived
 - important that the methodology is defensible and that the estimate is not arbitrary
 - not always possible to estimate age, sex, or reproductive condition, but especially important in situations involving dependent young.
 - Be context-specific when possible

Application Questions, Continued

7. Anticipated impact of the activity upon the species or stock

- Take estimates placed into a meaningful context
 - Why the predicted impacts constitute a negligible impact to the relevant species/stocks
- Description of how individual impacts may / may not impact the long-term health of individuals, or the viability of the population, stocks, or species
 - Effects on individual fitness (reproductive success and survivorship)
 - Translation to population



8. The anticipated impact of the activity on the availability of the species or stocks for subsistence uses

Application Questions, Continued

9. Impact of the activity on marine mammal habitat

Description of effects on marine mammal habitat. This may include:

- Physical damage to habitat (sedimentation, etc.);
- Impacts to prey species (fish or invertebrate removal, death, or injury);
- Impacts resulting in permanent or temporary avoidance or abandonment of the area or barriers to movement;
- Permanent effects to acoustic habitat (e.g., increased boat traffic).
- If no impacts to habitat are expected, must explain and provide justification.

10. Impact of the loss or modification of habitat on marine mammal populations

- Impacts placed into meaningful context
 - What do these impacts mean for marine mammal populations?
 - Are populations likely to stop using a significant portion of their habitat?
 - Are food sources permanently affected?

Application Questions, Continued

11. Mitigation measures

The **MMPA requires that effects are mitigated** to the level of least practicable adverse impact, regardless of extent or intensity of take. That is, applicants must employ mitigation measures when effective measures are available.

We evaluate mitigation measures in this context, including consideration of the following factors in relation to one another:

- The manner in which, and the **degree to which**, the successful **implementation** of the measure is **expected to minimize adverse impacts** to marine mammals;
- The proven or likely **efficacy of the specific measure** to minimize adverse impacts as planned; and
- The **practicability of the measure for the applicant** to implement.

Application Questions, Continued

11. Mitigation measures, continued

Mitigation measures should:

- Avoid or minimize **injury or death** of marine mammals
- **Reduce numbers** of individual marine mammals taken
- **Reduce number of times** individual marine mammals are taken
- **Reduce intensity** of takes
- Avoid or minimize **effects to marine mammal habitat**
- For monitoring directly related to mitigation – an **increase in the probability of detecting marine mammals**, thus allowing for more effective implementation of the mitigation



Application Questions, Continued

11. Mitigation measures, continued

Examples of Mitigation Measures:

- Geographic and/or seasonal restrictions to limit exposure and reduce behavioral harassment
- Safety zone around acoustic sources and associated shutdown zone intended to avoid / minimize injury
- "Ramp-ups" for acoustic sources
- Use of sound attenuation devices (e.g. bubble curtains)



Adaptive Management

For 5-year regulations and LOAs, we work with applicants to develop an adaptive management mechanism that allows for modifications to mitigation or monitoring, as applicable, based on previous monitoring results and new science.

Application Questions, Continued

13. Monitoring and reporting

Monitoring measures should result in increased knowledge of:

- Occurrence of marine mammals in the area
- The nature, scope, or context of exposure of marine mammals to a stressor
- How marine mammals respond to stressors
- How responses impact fitness and survival of the individual or the species
- Effects to habitat
- Effectiveness of mitigation measures



Monitoring plans should include a description of the survey techniques that would be used to determine the movement and activity of marine mammals near the activity site(s) including migration and other habitat uses, such as feeding.

Application Questions, Continued

13. Monitoring and reporting (continued)

Reporting measures should discuss the results of the monitoring program as well as implementation of the mitigation measures and include (among other things):

- Summary of the activity (dates, times, and specific locations)
- Summary of mitigation implementation (e.g., number of shutdowns)
- Detailed monitoring results and a comprehensive summary addressing goals of monitoring plan, including:
 - Number / species / age class of marine mammals observed and estimated exposed/taken during activities
 - Description of the observed behaviors (in both presence and absence of activities)
 - Environmental conditions when observations were made
- Assessment of the implementation and effectiveness of prescribed mitigation and monitoring measures

Application Questions, Continued

- 14. Suggested means of learning of, encouraging, and coordinating research opportunities, plans, and activities relating to reducing such incidental taking and evaluating its effects.**

A description of how the applicant will coordinate its activities, and how information will be shared, with other organizations to minimize the take of marine mammals.



Questions?



www.nmfs.noaa.gov/pr/permits/incidental



NOAA FISHERIES

Typical Timeline for IHA

- 120 days by statute (45 days to publish proposed IHA + 30 day comment period + 45 days to issue or deny)
- **Applicant submits** IHA application (**Time 0**)
- We **review** application for adequacy,/completeness, review draft NEPA document/other available information, make preliminary determinations, prepare and clear proposed IHA (**+2-5 months**)
- We **publish proposed IHA** in Federal Register; comments received at end of 30 day review period (**+1 month**)
- Review public comments, complete ESA Section 7 consultation / NEPA findings, work through issues with applicant to make final determinations; **issue final IHA (+1-3 months)**

So, approximately **4-9 months** to issue an IHA

Typical Timeline for LOA

- **Applicant submits** LOA application (**Time 0**)
- We **review application** for adequacy/completeness, prepare Notice of Receipt (**+1-2 months**)
- **Publish Notice of Receipt** in Federal Register; comments received at end of review period (**+1 month**)
- Review public comments, review draft NEPA document/best available scientific information, make preliminary determinations, **prepare and clear proposed rule (+3-6 months)**
- **Publish proposed rule** in FR; comments received at end of review period (**+1 month**)
- Review public comments, complete ESA Section 7 consultation / NEPA findings, resolve issues with applicant, make final determinations. **Prepare, clear, and publish final rule (+3-6 months)**
- **Issue LOA** after cooling off period (**+1 month**)
So, approximately **10-18 months** to promulgate a rule and issue an LOA