

National Marine Fisheries Service

Marine Mammal Scientific Research and Enhancement Permit Application

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Introduction

This application is for requesting a **Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA) scientific research or enhancement permit** to take,¹ import, or export National Marine Fisheries Service (NMFS) marine mammals:

- Cetaceans (dolphins, porpoises, and whales)
- Pinnipeds (seals and sea lions)

For work with endangered species, please see our [webpage on programmatic permitting](#) to determine if your methods qualify and when to submit your application on the appropriate cycle.

Need help or have questions?

Visit our [MMPA scientific research and enhancement permit web page](#), see [Additional Information](#) on p. 34, or contact us at nmfs.pr1.apps@noaa.gov.

When filling out your application:

- Your application must be a stand-alone document, readable to a layperson.
- If you do not follow these instructions, your application will be returned.
- We will not consider your application if you have overdue reports.

Entering your application in APPS

- **Save your application every 20 minutes or you will lose information!**
- An * indicates a required field.
- Consider using these instructions as a template to draft your application in Word. Then cut and paste into APPS.
- Special characters may be either lost or migrated incorrectly.
- Refer to [Chapter 2](#) for how to navigate APPS.
- Your application will remain in draft mode until you submit.
- Attachments cannot be larger than 20MB – contact us if you need to attach larger files.

¹A take under the MMPA means to harass, hunt, capture, collect, or kill, or attempt to harass, hunt, capture, collect, or kill any marine mammal. This includes, without limitation, any of the following: the collection of dead animals, or parts thereof; the restraint or detention of a marine mammal, no matter how temporary; tagging a marine mammal; the negligent or intentional operation of an aircraft or vessel, or the doing of any other negligent or intentional act which results in disturbing or molesting a marine mammal; and feeding or attempting to feed a marine mammal in the wild. Under the ESA, a take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to do any of the preceding.

- You will need to enter this information in our online permit system, APPS <https://apps.nmfs.noaa.gov/>.

Application Instructions

Project Information

File Number: This number is generated by APPS and cannot be changed. To facilitate processing, reference this File Number in correspondence with our office.

***Project Title** (up to 255 characters): Provide a concise title that includes activities, species (or taxa if multiple species), location, and purpose. For example:

- *Vessel surveys, sampling, and tagging cetaceans in the Gulf of Mexico to characterize population structure, foraging ecology, and movement patterns.*

***Project Status:** The project status (New or Renewal) is automatically selected based on your answers in the APPS pre-application guide (PAG). Do not change this.

Previous Federal or State Permit #: If applicable, enter your most recent and closely related NMFS permit number. Otherwise leave blank.

***Permits Requested:** One or more permits will be listed based on your answers in the APPS PAG. If the options are incorrect, please contact us at nmfs.pr1.apps@noaa.gov.

***Where Will the Activities Occur?** One or more general locations will be listed based on your answers in the APPS pre-application guide.

***Research Timeframe:** Enter the desired start and end dates of the entire project in the following format: MM/DD/YYYY. See [Additional Information](#) on p. 34 for details about when to apply. Consult our [programmatic permitting web page](#) if studying threatened and endangered species.

***Duration Justification:** Justify your requested permit duration. The duration should be reasonable in scale, based on your objectives, study design, and available resources. If your proposed activities may be covered under a programmatic ESA Section 7 consultation, you cannot request a permit for more than 10 years.

***Sampling Season/Project Duration** (up to 1,000 characters): Describe in which months or seasons you will work. If year-round, indicate when activities are most likely to occur. How frequently will you conduct your activities?

***Abstract** (up to 2,000 characters): provide a short summary that should include:

- Purpose of the research or enhancement.
- Species that may be taken, imported, or exported (common names). If you are requesting takes of a large number of species, you may list taxa instead of all species. For example: *20 species of cetaceans and 10 species of pinnipeds*.
- Take activities (e.g., vessel based surveys, remote biopsy sampling, tagging), import, or export.
- Where your activities will occur and where animals or samples will be imported or to where they will be exported.

Project Description Page

***Project Purpose: Hypothesis/Objectives and Justification** (up to 64,000 characters)

We recommend you provide the information in this order:

1. Discuss the **need for the research** and your **research objectives or hypotheses**.
2. Explain how your proposed research is *bona fide*, including how likely the results of your research are likely to: 1) be accepted for publication in a refereed scientific journal; 2) contribute to the basic knowledge of the species biology or ecology; or 3) identify, evaluate, or resolve conservation problems.
3. Briefly summarize **published findings** related to your research.
 - If you previously held or worked under a permit, use literature citations from that work to discuss how you previously met your objectives;
 - If you previously held or worked under a permit and have not published your findings or made them publicly available, explain why; and
 - Use other published literature on the subject.
4. Describe how this study is different from, builds upon, or duplicates past research.
5. If proposing **novel procedures**, include a discussion on results from pilot studies or studies on other species, if available.

6. For research on **ESA-listed and MMPA-depleted species**:

- Discuss why your project must involve ESA-listed or MMPA-depleted species (e.g., explain why similar results could not be obtained by using a surrogate or captive species).
- Discuss how your project will, as applicable:
 - Contribute to fulfilling a research need or objective identified in the [species' recovery or conservation plan](#) or if no plan exists, a research need or objective identified in the relevant stock assessments;
 - Contribute significantly to understanding the basic biology or ecology of the species;
 - Contribute significantly to identifying, evaluating, or resolving conservation problems; and/or
 - Contribute significantly to fulfilling a critically important research need.

7. If your goals are to **directly enhance the survival or propagation** of an ESA-listed or MMPA-depleted species, you must:

- Explain how your project will:
 - Contribute to maintaining or increasing distribution or abundance,
 - Enhance the health or welfare of the species,
 - Enhance or benefit the wild population, or
 - Ensure the recovery of the species in the wild.
- For captive maintenance for enhancement, explain how you will:
 - Maintain a viable gene pool,
 - Increase productivity,
 - Provide necessary biological information, or
 - Establish animal reserves.

- How does the benefit of removing animals from the wild into captivity outweigh alternatives that do not require removal from the wild? What plans are in place for returning animals and any offspring to the wild? Justify maintaining animals in permanent captivity.

8. **Take Number Rationale:** Explain how you determined your sample size or take numbers and why they are needed to meet the objectives (see guidance on pages 24-26 for how to count take). Discuss serious injury and mortality in the [Mortalities](#) section below.

- For example, did you base your numbers on previously reported encounter rates or abundance estimates for your study area and the number of surveys to be conducted?
- If appropriate for your study, include a power analysis or other sample size estimation to show whether the sample size is sufficient to provide statistically significant or otherwise robust results.
- Your take numbers should be realistic based on your future research plans as well as your previous experience. We will examine reported take numbers from your annual reports and compare those to the take numbers you are requesting in your new application.
- For activities such as remote biopsy sampling and tagging of cetaceans, please discuss your expected hit vs. miss rate and how you incorporated that factor into your proposed take numbers. For example, if your goal is to obtain 30 samples, but you're requesting 40 takes, explain that the additional 10 takes are to allow for some shots that contact the animal but do not take a sufficient sample.²
- Discuss whether the **same individual animals may be taken more than once** a year.
 - If individual animals **cannot be identified in real time**, estimate how many animals may be taken repeatedly, maximum number of times an animal may be taken annually, and under what circumstances (e.g., multiple surveys in the same location).

² If all tagging or biopsy attempts are unsuccessful on a single day and you do NOT make contact with the animal, you will count that take on your Level B harassment take row. If any attempts make contact with the animal, even if unsuccessful, you will count the take against your sampling or tagging row. Report one take per animal per day regardless of the number of attempts or approaches.

- If individual animals **can be identified in real time**, indicate the number of times known individuals may be intentionally taken in a year (e.g., repeat surveys in the same area for identifiable individuals). Explain why multiple takes of the same individual are needed to meet your objectives

*Project Description (up to 64,000 characters)

For work with **endangered species**, please see our [webpage on programmatic permitting](#) to determine if your methods fall under a programmatic ESA Section 7 biological opinion with expedited processing. If you wish to have your work covered by a programmatic opinion, please ensure that your described methods fit within its scope. Please contact us if you have questions.

Overview

Provide a **brief overview of a typical day** in the field or facility and the suite of activities you intend to perform on each animal during an encounter or capture event. Discuss the order in which you'll perform the different methods. Include where your work will happen, especially if different projects occur in different locations.

Methods

Describe your methods following the guidance below. Your narrative description must match your APPS take table (see [Take Table](#) section below).

When describing your methods, keep in mind:

- [Table 1](#) (see pages 9-14) lists specific details you should provide for commonly used methods.
- If you have **multiple projects**, it is helpful to name them by project number or title and include project names in the Details column of the [Take Table](#).
- It is also helpful to reference take table lines in the narrative that correspond to the take actions and procedures.
- **Mitigation measures** that are inherent to your methods may be included in this section or in the [Effects and Mitigation](#) section below.
- **Figures and photographs** that illustrate your methods are useful. You can attach them on the [Project Supplemental Information](#) page.

- **Cite references** for the methods where applicable, but do not substitute a literature citation for a complete description. You can attach a Literature Cited on the [Project Supplemental Information](#) page. References must be made available upon request.

You must provide the following information in the narrative description of your methods (i.e., the take actions, observe/collect methods, and procedures in the APPS take table):

- **Clear descriptions of all methods** (i.e., each take action, observe/collect method, and procedure in your APPS take table). See Table 1 below for guidance on what details to include.
- A brief statement of **how each procedure or suite of procedures relate to meeting your objectives**.
- A description of how you **differentiate age classes** (e.g., neonate, calf/pup, juvenile, subadult, adult). If applicable, distinguish by taxa or species.
- State if and how you will target:
 - Calves/pups (specify age/dependency);
 - Females accompanying calves/pups (specify age/if lactating);
 - Pregnant females, and if so, include estimated trimester; and/or
 - Compromised animals.
- A list of the **suite of procedures** that will be performed on a subset of animals. Explain how you will decide which animals will receive which procedures. Is this based on sex, life stage, body size, body condition, health or appearance, needed sample size, etc.?
- If your work will occur **concurrently with other legal takes of marine mammals** (e.g., tagging an animal following its exposure to an acoustic trial under another authority), clarify which activities you are requesting and how they will occur in relation to the other legal action. Specify how the associated activities are legally covered under the MMPA and/or ESA.
- **Opportunistic research:** If there are species that are not your main research focus, but that you would approach and study if opportunistically encountered, include a discussion of them in this section. Describe how the research would fit within your objectives and which methods you would use to study these species. Include rows for these species in your take table.

- Discuss **whether animals of the same species (i.e., conspecifics) may be taken** (e.g., harassed, captured) during your work. [Note that you should discuss other non-target marine mammals in the [Non-Target Marine Mammals](#) section. You should address non-target taxa (e.g., sea turtles, seabirds, corals,) in the [Effects and Mitigation](#) section.]
- **Data analysis:** Provide a brief description of how data and/or samples will be analyzed.

Table 1. Guidance on Describing Commonly Used Methods

When describing your methods, include the following information, as applicable:

Take action/ procedures	Method Description Guidance
Active acoustics (all)	Sound source (e.g., echosounder, underwater speaker, acoustic deterrent device) Beam width Water depth or depth range if applicable Frequency (bandwidth) Maximum source level (specify metric SEL _{cum} or SPL RMS) Maximum received level Distance of source to target and non-target animals Signal duration and duty cycle Number of exposures/trials in a day and whether you will target the same animal(s) more than once Duration of each sound exposure and maximum total duration of sound emission per 24-hr period How many sound source types might be used within a 24-hr period Ambient sound level, when known Distance to the relevant 120 dB/ 160 dB re 1µPa Level B Harassment thresholds and permanent threshold shift (Level A harassment threshold) Post playback monitoring (monitoring distance and duration)
Active acoustics (for behavioral response studies)	Please include all of the details above in the Active Acoustics section. If working with a variety of sound sources, be sure to include these details for a “typical” playback scenario as well as a worst-case scenario (e.g. source level, received level, duty cycle, frequency, maximum exposure duration, etc.). Make sure to consider all functional hearing groups, including target and non-target exposures. We strongly recommend consulting the NMFS 2018 User Spreadsheet and accompanying instructions . Be sure to specify if your source is impulsive (direct from source) or non-impulsive (playback via speaker).
Active acoustics (for playbacks of natural sounds/ vocalizations)	Species of vocalization Source level of the call playback Estimated source level of the call in nature and any supporting evidence Duration of the vocalization

Take action/ procedures	Method Description Guidance
	<p>Frequency of the vocalization (if a range, include highest and lowest frequencies)</p> <p>If the vocalizations do not exceed the expected source level, frequencies, or duration of natural calls in the wild, no further detail is required.</p> <p>If the vocalizations are being manipulated, please include the details described in the “Active Acoustics (all)” section above.</p>
Administer drugs or other substances (e.g., stable isotopes)	<p>Name of each drug/chemical and its purpose, including for reversal/recovery</p> <p>Emergency response and euthanasia drugs and protocols</p> <p>Dosage of each drug/chemical</p> <p>Delivery method and route (e.g., dart gun, inhalation, intramuscular, intravenous, subcutaneous, topical); if dart gun: distance of pinniped to water</p> <p>Location of administration on body</p> <p>Duration of anesthesia or sedatives</p> <p>Post drug administration monitoring</p> <p>Optional: you may include a drug table with the information requested above</p>
Aerial and vessel surveys (manned)	<p>Number of surveys per year</p> <p>Type and size of survey aircraft or vessel</p> <p>Number of aircrafts and/or vessels to be operated at the same time</p> <p>Type of survey (e.g., line transect, photogrammetry)</p> <p>Minimum altitude/approach distance</p> <p>Air/vessel speed</p> <p>Protocols for breaking track to ID species</p> <p>Duration spent with group or individual per day</p>
Aerial surveys using unmanned aircraft systems (UAS)	<p>Number of surveys per year</p> <p>Type of and size of UAS and/or vessel</p> <p>Number of aircrafts and/or vessels to be operated at the same time during an encounter</p> <p>Type of survey (e.g., line transect, photogrammetry)</p> <p>Minimum altitude</p> <p>Air speed</p> <p>Protocols for breaking track to ID species</p> <p>Duration spent with group or individual per day</p> <p>Type of UAS – fixed wing or vertical takeoff and landing (VTOL)</p> <p>Payload components – what is the UAS carrying and for what purpose (e.g., camera, sensor)?</p> <p>Ground control station description (what it is, where it will be located-on shore or on vessel, number of stations, and how close the station will be to animals)</p> <p>Do you have the appropriate FAA permits/authorizations (including pilot licenses)?</p>
Auditory brainstem response or	<p>Type of sounds emitted (e.g., pips, clicks, tones)</p> <p>Maximum source level</p> <p>Whether animal will be transported to a facility (complete the Transport Section in Take Table)</p>

Take action/ procedures	Method Description Guidance
evoked potential	Distance and position from speaker relative to target animal Signal duration, duty cycle, and frequency of sound emitted Total duration of sound emission (including total exposure duration within a 24-h period) Handling/restraint methods (including anesthesia/sedation, see above) Type of measurement equipment (suction cup or needle electrodes) and location on animal? Handling duration
Capture and restraint	Type of capture (e.g., hand, hoop net, trap) and gear description (e.g., net dimensions and mesh size) Deployment methods (e.g., on foot or boat approach, number of boats, net deployment, soak times) Configuration, duration, and monitoring of net sets (how often net set is checked) Additional equipment or personnel necessary for capturing and handling excess numbers Number of animals captured at a time Number of animals processed at a time Dimensions and type of holding container/manner of restraint Anesthesia/sedation (see Administer Drugs above) If capturing females with calves/pups, describe how calves/pups would be held, what procedures would be conducted on the moms and the calves/pups, duration separated, and how they would be reunited Manner of release Duration of restraint/holding from capture to release If recapturing animals, indicate under what circumstances they will be immediately released without processing or fully or partially processed (i.e., what will be done to them on recapture).
Export/ import/ receive samples	Type of activities: <ul style="list-style-type: none"> • Export samples collected under the requested permit or received from other legal sources • Re-import exported samples • Import samples from foreign countries • Receive samples from other U.S. legal sources Sample type (e.g., skin/blubber, blood, muscle, DNA) U.S. or foreign sources of samples: <ul style="list-style-type: none"> • Authorized persons or collections, including your own research; • Animals in captivity (samples from routine husbandry procedures or under separate authorization); • Animals in foreign countries stranded alive or dead or that died during rehabilitation; • Animals killed during legal subsistence harvests; or • Animals killed incidental to legal commercial fishing operations How the sample or animal was originally taken The legal authority for the original take for imported/received samples Sample preservation, storage/shipping/analysis What country are samples being exported to?

Take action/ procedures	Method Description Guidance
	<p>Where are samples being imported or received from: high seas, name and affiliation, or country</p> <p>Designated port of entry/import or export</p> <p>See also Disposition of Tissue Samples below</p>
<p>External instruments (e.g., external instruments attached with epoxy, suction-cup, dart, or deep-implants; a table is helpful for multiple tag types)</p>	<p>Type of instrument</p> <p>Type of data collection (e.g., archival requiring retrieval)</p> <p>Dimensions of instrument and attachment</p> <p>Mass in air or water</p> <p>Percentage of body mass for all tags combined</p> <p>Maximum footprint/maximum number of tags per animal</p> <p>Criteria for determining tag types and number of tags on an animal (e.g., body condition, life stage)</p> <p>Whether tags will be coated with antifouling paint</p> <p>Attachment method (e.g., remote deployment of suction cup or dart barb fired from crossbow; restraint and epoxy or harness)</p> <p>For remote deployment:</p> <ul style="list-style-type: none"> • minimum approach distance and angle • number of attempts per animal per day (<i>i.e.</i>, success rate) • include total number of attempts needed for all work if requesting multiple procedures (e.g., tag and biopsy) on same animal during same day <p>Location on body</p> <p>For cetacean deep-implant tags with external instrumentation, please include the tag penetration depth and describe if the tag is intended to penetrate the blubber/muscle interface</p> <p>Duration of procedure</p> <p>Duration of instrument retention</p> <p>Release mechanism or recapture to remove</p> <p>Post-tag monitoring</p>
<p>Internal instruments (e.g., stomach temperature pills, life history tags, internal deep-implant tags)</p>	<p>Type of instrument</p> <p>Instrument dimensions</p> <p>Mass in air</p> <p>Percentage of body mass for all tags combined</p> <p>Criteria for determining tag types and number of tags on an animal (e.g., body condition, life stage)</p> <p>Use of local anesthetic or anesthesia/sedation (see Administer drugs)</p> <p>Insertion method (describe e.g., surgical implant, injection, stomach tube, remote deployment)</p> <p>Location within body</p> <p>For cetacean deep-implant tags include the tag penetration depth and describe if the tag is intended to penetrate the blubber/muscle interface</p> <p>For remote deployment: minimum approach distance and angle</p> <p>Duration of procedure</p> <p>Duration of instrument retention</p> <p>How instruments are voided</p> <p>Type of data collection (e.g., archival requiring retrieval)</p> <p>Post-tag monitoring</p>

Take action/ procedures	Method Description Guidance
Invasive sampling (e.g., blood, blubber, muscle, skin); remote or under restraint	Type of tissues Equipment (e.g., dart and stopper depth, needle, punch, scalpel) Size or volume of sample (diameter and depth or total volume) Equipment sterilization or disinfection Location on body If restrained: cleansing site; left open or wound closure If remote: <ul style="list-style-type: none"> • collection method (e.g., dart fired from rifle) • minimum approach distance • number of attempts per animal per day (i.e., success rate) Number of samples per animal per capture event and per year Sampling intervals (e.g., for serial blood or biopsy samples) Sample preservation and storage
Marking (e.g., bleach, flipper tag, freeze brand, hot brand, paint, PIT tag)	Type of mark Dimensions of tag or mark Total number of tags, marks, or brands per animal Location on body Method of application Disinfection procedures Duration of mark (e.g., until molt) Whether marks would be reapplied, if lost
Non-invasive sampling (e.g., breath sampling, collecting sloughed tissue, focal follows, passive acoustics, photographic methods)	Approach method Sampling method Minimum approach distance For pinnipeds: within sight of animals or not (e.g., from a blind)? For underwater photography/videography: specify the method (e.g., snorkeling, underwater pole cam, or divers that could use typical gear or rebreathers) and number of individuals in the water at a given time, including safety divers Frequency of observations/sampling per day Number of approaches per animal per day for biological sampling Duration of observations/sampling per day
Remotely operated vehicle (ROV), (vessel or amphibious)	For underwater and amphibious ROVs, same details as for vessel surveys and also: <p>Description and size of ROV Whether it is tethered or wireless, tether material and length Deployment method, in relation to capture and release of animal, if applicable Describe any light sources Whether there will be a live video feed monitored Encounter duration</p>

Non-target Marine Mammals

Discuss whether and how non-target marine mammals may be unintentionally harassed, captured, or otherwise affected. These are species that co-occur with your target species and that could be harassed or taken during your research but that you will not opportunistically incorporate into your study.

Include these non-target marine mammals on separate rows in the [Take Table](#) if you expect take (e.g., unintentional harassment or capture). For ESA species designated by DPS, specify the DPSs.

Other non-target taxa (e.g., sea turtles, seabirds, corals,) should be addressed in the [Effects and Mitigation](#) section below.

Project Supplemental Information

Attach a Supplemental Information File

You can attach up to 10 files to provide additional information.

- Preferred file formats: Microsoft Word, Excel, or PDF.
- The maximum file size allowed is 20 MB.
- Audio and video files (such as mp3, m4b, wav) cannot be uploaded. Contact us if you need assistance.
- On the Location screen you will be asked to attach a map.

Status of the Affected Species (up to 2,000 characters)

If choosing “range-wide” in the Stock/Listing Unit column in your take table, indicate the specific stocks or DPSs you are targeting, their status under the MMPA and/or ESA, and location. Otherwise, put N/A and choose the specific stock or DPS in the take table.

***Mortalities** (up to 5,000 characters)

If authorization for serious injury³ or mortality⁴ (euthanasia/intentional⁵ or accidental/unintentional) is proposed:

- **What take actions, observe/collect methods, or procedures** could result in serious injury or mortality?
 - Explain **how** these activities or procedures may result in serious injury or mortality (e.g., drowning, capture myopathy).
 - Explain **why it's not feasible to use other methods** that won't result in serious injury or mortality.
- Would you **euthanize** animals under any circumstances? If so, how is it decided, conducted (including use of drugs or firearms), and who conducts it?
- Briefly summarize serious injuries or mortalities that have occurred **during the previous ten years** of your permitted activities using the same or similar techniques.
 - What were the circumstances that led to death or euthanasia?
 - What was the cause of death?
 - What steps will you take to reduce the potential for additional serious injury or mortality?
- What is the **maximum number of animals** of each species/stock/DPS that could be seriously injured, unintentionally die, or be euthanized annually and over the life of the permit? For example, two serious injury/mortalities per year, not to exceed four over the life of the permit.
- **Justify the number** of mortalities requested. Explain how the requested number of serious injuries or mortalities is **reasonably likely to occur**.

³ A serious injury is an injury that will more likely than not result in mortality.

⁴ Caused by the presence or actions of researchers including but not limited to deaths or serious injuries sustained during capture and handling, while attempting to avoid researchers or escape capture, or resulting from infections related to intrusive procedures such as sampling or tagging. This does **not** include a fetus if a pregnant female dies.

⁵ This includes euthanasia for humane reasons (e.g., due to serious injury during research).

- If authorization for serious injuries or mortalities of **ESA-listed or MMPA-depleted species** is proposed, explain how the project will directly benefit the species or stock or fulfill a critically important research need.
- What are the protocols for **necropsy and carcass disposal**? If necropsy cannot occur, explain why.
- What are the protocols for **disposition of dependent pups or calves** if lactating females may die as a result of your actions?

***Effects and Mitigation** (up to 64,000 characters)

Discuss how Take Table actions (Take Actions, Observe/Collect Methods, and Procedures) **will affect target and non-target animals**. You should discuss serious injury and mortality in the [Mortalities](#) section above.

Cite the **best available science** (i.e., peer-reviewed literature or other published data sources) and your experience (e.g., personal communication, annual permit reports). References must be made available upon request.

Group together take actions with similar responses and describe, as applicable:

- Typical behavioral and physiological responses
 - Worst-case responses
 - % of animals that typically exhibit each response type
 - Average/estimated recovery time
 - Wound healing time (e.g., from invasive sampling or tagging)
 - Condition of animals on recapture/resight
 - Recovery from sedation and/or handling
 - Post-release behavior (immediate and long-term)
 - Time it takes to resume normal behavior after harassment
 - Time it takes to repopulate rookeries/haul outs after flushing
 - Tag retention and tag breakage
 - Effects on lactating females and their dependent young or other sensitive life stages
- For **novel procedures**, discuss the most likely anticipated responses based on literature from studies on other species, if available, and any results from testing, if applicable.

- Discuss the anticipated **effects on the species or stock**, especially if mortalities or reproductive effects are possible. On what is your determination based?

You may **include mitigation and monitoring protocols here or in the [Methods](#)** section above. Do not restate them here if they are included above; simply reference the section where the following information appears.

- For **intrusive procedures**, including biological sampling and instrumentation, describe your steps to prevent infection. For example, describe if and how you will:
 - Prepare the sampling site by cleaning and disinfecting the fur or skin (for captured animals).
 - Use single-use, sterile instruments (e.g., needles).
 - Sterilize⁶ other devices prior to use and in the field if contaminated including but not limited to use of cold sterilization.
 - Use prophylactic antibiotics to coat instruments.
 - Administer prophylactic antibiotics to animals (include the drug, dosage, and route of administration).
- Describe what **mitigation measures** you will employ to **minimize adverse reactions**. If you will use the same mitigation measures for a suite of activities, such as those resulting in Level B harassment, you may provide one discussion for each suite of activities (e.g., close approach by vessel for photo-identification, acoustic recordings, collection of voided feces, and behavioral observations).
- If working with dependent calves/pups, their moms, or known pregnant females, give specific protocols for working around them. For example, how will you avoid separating mothers from calves/pups?
- Describe your short- and long-term **post-procedure monitoring** protocols.
- Explain if and why monitoring or mitigation is not feasible for specific procedures, species, situations, etc.

⁶ **Sterilization** destroys or eliminates all forms of microbial life and is carried out by physical or chemical methods ([CDC 2008](#)). **Disinfection** eliminates many or all pathogenic microorganisms, except bacterial spores, on inanimate objects usually by liquid chemicals ([CDC 2008](#)).

- **Humane⁷ determination:** Explain how you determined your methods involve the least possible degree of pain and suffering possible and why there are no feasible alternative methods.
- When an **IACUC (Institutional Animal Care and Use Committee) review** is required for your research facility⁸, to support a humane determination under the MMPA and compliance with the Animal Welfare Act, attach:
 - The IACUC protocols submitted
 - Any IACUC comments or recommendations
 - The signed IACUC approval (or status of your application)
- Describe any mitigation you will take to avoid or minimize impacts to non-target protected species (e.g., sea turtles, corals, U.S. Fish and Wildlife Service species). Discuss whether and how they may be unintentionally harassed, captured, or otherwise affected. For ESA species designated by DPS, specify the DPSs. Identify if you require takes of these species.

Research Coordination

- Describe how you will coordinate with other permit holders in your action area.
 - List their names and affiliations.
 - Explain how you will work together. For example, will you share vessels or coordinate the timing of surveys to avoid repeated takes of the same animals? If you will be collaborating with another researcher and using two aircraft, vessels, or different platforms at the same time, be sure to describe that in your methods.
- Will you collaborate with other permitted researchers to share data? Will you contribute your data to relevant catalogs and databases (e.g., photo-ID, telemetry)? If so, list names and affiliations and explain your collaboration plans.

⁷ Humane means using the method that involves the least possible degree of pain and suffering possible.

⁸ Research facility is defined as an organization that uses live animals in research and receives Federal funding. Any marine mammal research facility that uses invasive procedures which can harm or materially alter the behavior of the animals under study **requires an IACUC review and approval**. If an applicant does not have an IACUC, an alternate IACUC (e.g., of a Co-Investigator or a local university/research institution) may be used.

Attach a References File

Attach a **bibliography** of references cited in this application. Referenced materials must be made available upon request, as needed for evaluation of the application and preparation of MMPA, ESA, or NEPA analyses. If a link to your referenced material is available, add the link to your References File.

***Resources Needed to Accomplish Objectives** (up to 4,000 characters and attach files if necessary)

- Explain how your expertise, facilities, and resources⁹ are adequate to accomplish your proposed objectives and activities.
- List relevant proposals, contracts, grant awards, or letters of agreement that would demonstrate your resources. If funding is not yet secured, provide a history of funding over the past 5 years. Copies must be made available upon request.
- Indicate the status of other international, federal, state, or local authorizations and permits you have applied for, secured, or will apply for.

***Disposition of Tissue Samples** (up to 4,000 characters)

Outline what will be done with the biological samples during your research or enhancement and after your project is complete, as follows:

1. If you are performing your analyses in-house, state whether the samples will be consumed, destroyed, or curated.
2. If you are sending samples to another entity:
 - List the name, affiliation, and location of any person or institution that will receive, analyze, or curate samples.¹⁰
 - Include the sample type and purpose of transfer (type of analysis and/or curation). State whether samples will be consumed in analysis, destroyed, curated, or returned.

⁹ **Expertise** includes a summary of the cumulative experience of you and your personnel. **Facilities** include such things as your existing infrastructure or laboratories. **Resources** include financial (e.g., current funding and/or history of securing funding); material (e.g., sampling equipment, UAS, boats); and other resources (e.g., collaborative partnerships that can be drawn on to support your work).

¹⁰ Persons or institutions authorized to receive samples for analysis or curation related to the objectives of your permit are known as **Authorized Recipients**.

3. If samples will remain after the completion of your research, indicate if you will retain legal custody of the curated samples or if you will permanently transfer custody of the samples.

***Public Availability of Product/Publications** (up to 800 characters)

Describe the end products of your proposed project and how they will be made available to the public.

Captive Information

If you will be working with animals in captivity (permanent or temporary), including removing animals from the wild into captivity and research or enhancement on captive or rehabilitating animals, address the following (explain if not applicable):

1. If removing animals from the wild, explain why removal is necessary and why you cannot obtain suitable animals from captive or rehabilitated stock.
2. If the animals are beached/stranded marine mammals undergoing rehabilitation, indicate the name and location of the rehabilitation facility, whether the animals will be transferred to your facility for research, and plans for release after research.
3. If the animals are already in captivity (other than animals in rehabilitation) indicate the name and location of the facility, age and sex of the animals, and identifiers of the specific animals (by NOAA ID number if applicable).
4. Attach a copy of any license or registration issued by the Animal and Plant Health Inspection Service (APHIS) of the U.S. Department of Agriculture, any outstanding variances granted, and the most recent APHIS inspection report.
5. Attach the protocol forms submitted to the appropriate Institutional Animal Care and Use Committee (IACUC) established under the Animal Welfare Act (AWA), any IACUC comments and recommendations, and the signed IACUC approval (or status of your application).
6. Attach a written statement from the responsible veterinarian or expert certifying that the facilities, methods of care and maintenance, and methods of transport will be adequate to ensure the well-being of the animals and will comply with all care and transport standards established under the AWA.

7. Describe the care and maintenance of the animals, including a complete description of the facilities where they will be maintained. This includes:
 - Dimensions of the pools or other holding facilities
 - Water supply, amount, and quality
 - Sanitation practices
 - Number, sex, and age of animals by species to be held in each
 - Quarantine procedures
 - Acclimation plan for introducing new and currently held animals and contingency plans if adverse responses are observed
 - Diet, amount and type.
8. Will a captive breeding program be established? This includes allowing animals to naturally breed, without assisted reproduction or other manipulation.

If you do not intend to breed, describe how you will effectively prevent breeding (e.g., by physical separation or other means).

If you do intend to breed, describe the objectives and purpose of breeding in the Project Purpose section. For MMPA-depleted and/or ESA-listed species, include justification in accordance with goals or objectives as identified in the species status review, final rule, conservation plan, and/or recovery plan, as applicable. In the Project Description section (Methods), describe how breeding will be managed and monitored. In the Effects and Mitigation section, describe what mitigation will be in place to ensure animals will not be harmed during mating, etc. What special care will be provided for females during pregnancy and parturition? How will neonates be cared for? Include any contingency plans.

9. Indicate the disposition of captive animals at the end of your research or enhancement activities.
10. If you're proposing to release of captive animals into the wild, state how long the animals will be held, no matter how temporary. Describe the protocols for the release, which must address:
 - Post-release monitoring protocols
 - Disease transmission between released animals and the wild population
 - Potential genetic exchanges between introduced and endemic stocks
 - Ability of the released animals to forage and protect themselves from predators
 - Elimination of behavioral patterns acquired during captivity that could prove detrimental to the released animals or the social structure of local populations.

Importing Marine Mammals into the United States (If Applicable)

For importing marine mammals into the United States, include the following information:

1. Identify the animal(s) to be imported including:
 - Animal identification
 - Estimated or known age
 - Size (length and/or weight)
 - Sex
 - Reproductive condition (pregnant or lactating)
2. Locations:
 - Country of origin
 - Exporting facility
 - Ports of entry (<https://www.fws.gov/le/designated-ports.html>)
 - Whether you will be requesting a port of entry exemption
 - Final destination/facility.
3. The animal's previous transport history (e.g., attach a NOAA Marine Mammal Data Sheet, Species 360 specimen report, or statement from the shipping facility) including dates.
4. For wild-caught animals:
 - Describe how the animal was captured and maintained in the country of origin, including how the captures and captive holding were conducted in a humane manner.
 - Indicate the wild stock and the geographic location the animal was collected from. Include latitude/longitude coordinates and/or waterbody location.
 - Provide documentation that the take was legal in accordance with the capture country's laws.
5. For captive-born animals:
 - Provide documentation of the animal's birth.
 - Identify the parents of the animal and, to the extent practicable, provide documentation of their origin (e.g., lineage), including the wild stock and geographic location the animals were collected from.
 - Use NOAA ID numbers, if applicable.

6. Attach a statement from the exporting facility and, to the extent practicable, documentation concerning whether the marine mammal to be imported is presently being held in compliance with the laws of the country of exportation.
7. Attach a statement from the exporting facility explaining if the requested import will likely result in the taking of marine mammals beyond those proposed.
 - Will marine mammals be acquired to replace the marine mammals to be imported?
 - Will the proposed import result in an increased demand for marine mammals?
 - Provide justification for these statements.
8. If the import is necessary for the protection or welfare of the marine mammals, discuss the circumstances involved and any alternatives considered.

*Project Locations

First, follow the guidance below to describe where you plan to work. Then, for each location, use the [Take Table](#) to list the species you expect to encounter and the procedures you will conduct in each location.

1. Add **New Location**: provide information about one or more study areas
 - General area (ocean basin)
 - State(s), as applicable.
2. Enter **Location Details**, as applicable:
 - Waterbody: enter names of rivers, estuaries, bays, etc.
 - Latitude and longitude of your study area
 - River miles (Begin Mile and End Mile)

How to count takes of pinnipeds

Count 1 take per pinniped per day for those **hauled-out animals** that react to the research, regardless of the number of approaches or responses, including:

- movements of twice the animal's body length or more,
- changes of direction greater than 90 degrees, or
- retreats (flushes) to the water.

Count 1 take per animal per day for those **pinnipeds in water** that exhibit a noticeable adverse behavioral response from your activities

Do not count alert behaviors such as:

- turning head towards the disturbance,
- craning head and neck while holding the body rigid in a u-shaped position,
- changing from a lying to a sitting position, or
- brief movements of less than twice the animal's body length.

- Limits of your study area (e.g., to the U.S. EEZ, to the edge of the continental shelf, to 50m depth)
- Names of land masses where research will occur (e.g., islands, rookeries).

Attach File: Include a map(s) to scale that clearly shows the location(s) of your proposed activity. If requested, provide a shapefile or Google Earth kmz/kml, with lat/long data and the associated basic metadata with your application.

*Take Table

The take table represents the **estimated** number of animals you propose to take, import, or export **annually** during your research.

For intrusive¹¹ procedures, **sensitive life stages** (e.g., obviously pregnant females, calves/pups) should be on separate rows in the take table if they will be sampled or handled differently to other life stages.

Columns you will fill out in the take table in APPS:

1. **Select:** Leave this box blank unless you need to copy, move, or delete the row.
2. **Species:** Use the drop down list.
3. **Listing Unit/Stock:** Select the applicable MMPA stock or ESA listing unit. Only choose Range-wide if your location has multiple populations of the same species and you cannot distinguish between them while in the field.
4. **Production/Origin:** Select from the drop-down list. Categories include Wild, Captive, Rehabilitation Facility, or All.

¹¹ Intrusive research means a procedure conducted for bona fide scientific research involving: A break in or cutting of the skin or equivalent, insertion of an instrument or material into an orifice, introduction of a substance or object into the animal's immediate environment that is likely either to be ingested or to contact and directly affect animal tissues (i.e., chemical substances), or a stimulus directed at animals that may involve a risk to health or welfare or that may have an impact on normal function or behavior (i.e., audio broadcasts directed at animals that may affect behavior).

For captive animals held for public display, this definition does not include: (1) A procedure conducted by the professional staff of the holding facility or an attending veterinarian for purposes of animal husbandry, care, maintenance, or treatment, or a routine medical procedure that, in the reasonable judgment of the attending veterinarian, would not constitute a risk to the health or welfare of the captive animal; or (2) A procedure involving either the introduction of a substance or object (i.e., as described in this definition) or a stimulus directed at animals that, in the reasonable judgment of the attending veterinarian, would not involve a risk to the health or welfare of the captive animal.

5. **Life Stage:** Select from the drop-down list. You may enter take information for more than one life stage (e.g., adult versus juvenile) on separate rows or select a combination of life stages on the same row.
6. **Sex:** Select from the drop-down list. If your suite of activities targets only one sex, indicate which. Otherwise, select Male and Female.
7. **Expected Take:** This represents a reasonable estimate of the maximum number of animals you will take, import, or export, annually.
8. **Take Action:** The “take action” is a generalized overview of how animals will be taken by your activities over the course of the year (e.g., harass/sample). If more than one action is proposed for your project, you must enter the takes on separate rows.
9. **Observe/Collect Method:** Select the method of observation (e.g., survey, vessel) or collection/capture. Select only one observe/collect method per row.
10. **Procedures:** You will open a separate pop-up window with a species-specific list of activities. Check the boxes to select all activities to be performed concurrently on the same animals.
 - a. Choose “Other” if your proposed activity is not listed. In the Details box (see below), briefly describe what the “Other” means. For example, Other = pole cam.
 - b. If some animals will only get a **subset of procedures**, list this subset on a separate row.
 - c. Use “unintentional harassment” for species or animals that could be harassed or taken during your research but that you will not opportunistically incorporate into your study.

How to count takes of cetaceans

Count every cetacean approached regardless of whether a behavioral reaction has occurred.

During vessel surveys, only count 1 take per animal per day including all approaches. An “approach” is defined as a continuous sequence of maneuvers involving a vessel, equipment, or researcher’s body, including drifting, directed toward a cetacean or group of cetaceans closer than 100 yards for baleen and sperm whales and 50 yards for all other cetaceans.

During aerial surveys (manned or UAS) flown at an altitude lower than 1,000 feet, count 1 take per cetacean observed per day, regardless of the number of passes over the same animal.

11. **Transport:** If you chose Transport as a Procedure, a Transport button will appear in the Transport column.

- Click the button to enter information about how you plan to transport animals.
- First, you will be given the option to choose an existing transport method (if you have already entered one for this application) or to Add a New Transport Information Record to the List.
- When you click the link to add a new record, you will be asked to provide the following information:
 - a. **Mode(s) of transportation:** Describe the vehicle or other platform used to transport animals.
 - b. **The name of the transportation company, if applicable, and the qualifications of the common carrier to transport live animals:** If a contractor or other entity will do the transportation, enter information in the box. Otherwise, click on N/A.
 - c. **Maximum length of time from capture to arrival at destination:** How long will the animals be in transport?
 - d. **Description of the container (e.g., cage, tank) used to hold the animal during transit:** Include the material and design of the container and its dimensions.
 - e. **Any special care procedures (e.g., moisture, medicines) to be administered during transport:** How will the animals be cared for during transport?
 - f. **A statement as to whether the animals will be accompanied by a veterinarian or some similarly qualified person:** If so, give the name, affiliation, contact information for each person.

Acoustic Playbacks

For acoustic playback trials in the wild, estimate take for each target and non-target species based on the isopleth distances that result from the following thresholds:

- Level B harassment behavioral threshold of a received level of 120db re 1μPa (continuous sounds) and 160 dB re 1μPa (intermittent sounds), and
- Level A harassment threshold for permanent threshold shift (injury). This varies by functional hearing group. Refer to our acoustic guidance at: <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance>

- g. **Destination:** Use the alphabetical drop down list to select the destination. You can start typing to jump to the appropriate section. If your destination is not on the list, click on the “New Destination” button to add it. If the animals will be taken to a laboratory or aquarium, provide details of the location. If the animals will be released in another waterbody, provide details of the location.
 - h. **How will the animals be contained at the destination facility?** Discuss the quarantine procedures. Describe the quarantine and holding spaces, including effluent treatment.
 - i. **The final disposition of the animals:** Describe, for example, whether the animal will be released or retained in permanent captivity.
12. **Begin Date:** Auto-populated with the Begin Date you entered on the Project Information page. You may change the date to coincide with a specific project time shorter than the overall duration of the project. You cannot enter a date that is earlier than your original Begin Date.
13. **End Date:** Auto-populated with the End Date you entered on the Project Information page. You may change the date to coincide with a specific project time shorter than the overall duration of the project. You cannot enter a date that is later than the End Date you previously entered.
14. **Details (Optional):** Enter up to 255 characters to provide details on each take table line. This is especially useful to clarify age class, takes (e.g., how many samples or successful tags you hope to get), intentional repeated takes (e.g., recapture for instrument removal), endangered DPSs where mixing occurs, specific activities, or projects.

*Anticipated Effects on the Environment

1. Will you be working in or near areas with unique environmental characteristics or important scientific, cultural or historical resources? Yes or no.

Examples include:

- Animals used for subsistence
- Archaeological resources
- [Critical Habitat of ESA-listed species](#)
- [Essential Fish Habitat](#) including wetlands, coral reefs, sea grasses, and rivers
- Federally recognized Tribal and Native Alaskan lands, cultural or natural resources, or religious or cultural sites
- [Marine Protected Areas](#)

- Minority or low-income communities
 - [National](#) or State Parks
 - [National Marine Sanctuaries](#) and [National Monuments](#)
 - [National Historic Landmarks](#)
 - Sites listed in or eligible for listing in the [National Register of Historic Places](#)
 - [Wild and Scenic Rivers](#)
 - [Wilderness Areas](#)
 - [Wildlife Refuges](#)
- a. If yes, please list those areas. As applicable, mention if you will need to or have already obtained permission (licenses, permits, authorizations) to work in these areas. (up to 1,200 characters)
- b. How would your activities affect such resources? What measures will you take to ensure your work does not cause loss or destruction of such resources? (up to 1,200 characters)
- c. For marine mammal activities in Alaska or Washington, how will you ensure your project does not adversely affect the availability (e.g., distribution, abundance) or suitability (e.g., food safety) of marine mammals for subsistence uses? (up to 800 characters)
2. Discuss if your activities have the **potential to impact the physical or biological environment**, in particular coastal and marine environments. Impacts can be positive or negative. (up to 2,000 characters)

Examples of potential impacts include:

- Altering substrate while anchoring vessels and buoys
 - Using bottom trawls or other types of nets
 - Erecting blinds or other structures
 - Ingress and egress of researchers
 - Injuring or killing benthic organisms (e.g., sea grass, corals)
 - Altering the physical or chemical characteristics of water (e.g., oil spills)
 - Affecting a species' abundance or distribution
3. Invasive Species
- a. Does your project involve activities known or suspected of **introducing or spreading invasive species**, intentionally or not? Examples include transporting animals, discharging ballast water, and using boats/equipment at multiple sites. Yes or no.

- b. Describe measures you would take to prevent the possible introduction or spread of non-indigenous or invasive species, including plants, animals, microbes, or other biological agents. (up to 1,200 characters)
- 4. Biological Specimens
 - a. Will your activities involve collecting, handling, or transporting **potentially infectious agents or pathogens, such as biological specimens** (animals, blood, tissues)? Yes or no.
 - b. Will your activities involve using or transporting **hazardous substances**, such as toxic chemicals? Yes or no.
 - c. If yes to either question, describe the protocols you will use to ensure that public health and human safety are not adversely affected, such as by spread of zoonotic diseases, chemical injuries, or contamination of food or water supplies. (up to 1,200 characters)
- 5. Do your activities involve equipment (e.g., scientific instruments) or techniques that are **untested, or have unknown or uncertain impacts** on the biological or physical environment? Yes or no.

If yes:

- a. Briefly describe the equipment or techniques and provide any information about the use of these in your study area and/or with other taxa and what is known about their impacts. (up to 1,200 characters)
- b. Discuss the degree to which they are likely to be adopted by others for similar activities or applied more broadly. (up to 800 characters)

Project Contacts

The person entering the application in APPS will automatically be assigned the following roles: **Applicant/Permit Holder, Principal Investigator (PI), and Primary Contact.**

- 1. You may need to change or add personnel. See [Chapter 2](#) for directions on how to change who is assigned to these roles.
- 2. Use the guidance below to help you decide who should have what role.
- 3. To prevent duplicate entries, **ALWAYS search APPS for the person before entering a new contact.** Start with the last name in the APPS search box.

4. **Include a table** with the names of the PI and Co-Investigators (CIs), and the specific procedures they will oversee or conduct (see example Table 3). **Attach the table on the [Supplemental Information](#) page.**
5. As you add personnel, **check whether each person already has a Qualifications Form (QF) in APPS.** It will appear next to their name once you add them to your Contacts page. If there is not a QF in APPS, then attach one for the PI and each CI. See [Qualifications and Experience](#) below.

Descriptions of Personnel Roles

A project must have a **Responsible Party if the Applicant/Permit Holder is an organization, institution, or agency.** The Responsible Party or Applicant/Permit Holder is an official who has the legal authority to bind the organization, institution, or agency and is ultimately responsible for the activities of any individual operating under the authority of the permit.

The **Principal Investigator** (PI) is the individual primarily responsible for the take, import, export, and any related activities conducted under the permit. There can only be one PI on a permit. The PI:

- Must have qualifications, knowledge, and experience relevant to the activities authorized by the permit.
- Must be on site during activities conducted under the permit unless a Co-Investigator is present to act in place of the PI.
- May also be the Applicant/Permit Holder and Primary Contact.

The **Primary Contact** is the person primarily responsible for correspondence during the application review process and after a permit is issued. Typically this person administers the permit, requests amendments/modifications (e.g., personnel changes), and submits reports. The Primary Contact may also serve other roles on the permit (e.g., Applicant/Permit Holder, PI, CI).

The Applicant/Permit Holder or Responsible Party, PI, and Primary Contact will have access to APPS to enter and edit the application, submit reports and modification requests, and will receive automatic emails from APPS.

Co-Investigators (CIs) are individuals who are qualified and authorized to conduct or directly supervise activities conducted under a permit without the on-site supervision of the PI.

- You must add CIs to the application if the PI will not always be present during the permitted activities.
- CIs can also be added or removed once a permit has been issued.

Research Assistants (RAs) are individuals who work under the direct and on-site supervision of the PI or a CI. RAs cannot conduct permitted activities in the absence of the PI or a CI. RAs do not need to be named in the application or permit.

Unmanned Aircraft Systems (UAS) Pilots are persons who have their FAA-certification to fly unmanned aircraft systems and experience piloting UAS. A CI or the PI with marine mammal experience may be qualified to serve in this role. In other cases, you may designate someone as a UAS Pilot who is tasked with only that role and does not have marine mammal experience.

Personnel for Unmanned Aircraft Systems (UAS)

To fly UAS, you must have: 1) someone with experience working with the target species in the wild, and 2) someone who is FAA-certified to conduct or oversee UAS flights with approximately 5 hours of flight experience. These may be satisfied by one or more persons, depending on the qualifications of your team. The following scenarios describe the personnel roles for UAS that you may request based on their qualifications.

Table 2. UAS Personnel

Scenario 1: Species expert who is also an FAA-certified UAS pilot

If the person has:	They may be named as:
Experience working with the subject species/taxa in the wild and UAS experience with an FAA UAS certification	PI or CI to supervise and operate UAS. No separate UAS Pilot required to be named on the application.

Scenario 2: Species expert (PI or CI) accompanied by an FAA-certified UAS pilot

If the person has:	They may be named as:
Experience working with the subject species/taxa in the wild, but no UAS experience	PI or CI to supervise UAS. A separate UAS Pilot must be named for the UAS operation.
UAS experience and FAA UAS certification but no marine mammal experience	UAS pilot to operate the UAS or directly oversee operation as the remote pilot in command. The UAS pilot must be supervised by the PI or a CI with marine mammal experience.
Note: Other personnel who are not FAA-certified may manually operate the UAS (e.g., for training purposes) provided the FAA certified pilot designated on the permit directly oversees the UAS operation.	

Qualifications and Experience

The PI and each CI must complete a Qualifications Form (QF). Previously we accepted CVs, resumes, and biosketches, but often these did not include sufficient information about the person's field experience to demonstrate they were qualified in the proposed take activities. You can download a blank QF from the Contacts page in APPS or from any of our permitting web pages.

Once you fill out a QF and attach it to your profile in APPS, you won't need to upload a new QF unless you acquire new skills, your level of experience changes, or 10 years has passed. Each contact should only have **1 QF file** in their profile; it will apply to all permits they are affiliated with. They may **replace** the QF with an updated version as they gain new experience.

Persons authorized as the PI or CIs must have qualifications corresponding to their duties. Note, if the PI or a CI will be supervising but not performing specific procedures, they must demonstrate sufficient cumulative experience to oversee the project, personnel (e.g., other CIs, research assistants, veterinarians), and procedures.

If you do not provide sufficient information, we will not authorize the person(s).

In addition, **you must submit a table (see Table 3) defining the PI and CI roles** and activities (i.e., supervising or conducting specific procedures). Attach this table as Supplemental Information.

Table 3. Example Personnel Roles

Name/Affiliation	Role	Activities
John Smith, Ph.D., University A, City, State	Principal Investigator	Supervise all activities under the permit; conduct all activities except anesthesia
Jane Smith, Institution B, City, State	Co-Investigator	Conduct all activities excluding UAS and anesthesia
Mary Smith, D.V.M., Institution B, City, State	Co-Investigator and Attending Veterinarian	Oversee and conduct anesthesia and all biological sampling during capture activities
Jane Doe, Ph.D., Institution C, City, State	Co-Investigator	Conduct photo-ID and supervise UAS pilot
John Doe, Ph.D., University D, City, State	Co-Investigator	Collect remote skin/blubber biopsy samples and create cell lines
Bob Smith, City, State	UAS pilot	UAS pilot supervised by the PI or a CI

Submit Application

See [Chapter 2](#) for how to submit your application in APPS and check on its status.

Additional Information

When should I apply?

- MMPA permits (no ESA-listed species): at least 6 months before your project will begin.
- ESA-MMPA permits: it depends on the species and activities
 - ESA-listed Pinnipeds – at least 1 year before your project will begin.
 - ESA-listed Cetaceans – your project may fall under our [programmatic consultation](#), which means you should submit your application 6 months prior to starting work, following our application cycle. If your proposed research is not covered under a programmatic, then you need to apply at least 1 year before your project will begin.
- Note: If you are requesting deep-implant tags for ESA-listed cetacean species, you **must apply on the cycle** indicated on our [programmatic permitting webpage](#) if you wish to be covered by the programmatic consultation.

What is the process for getting a permit?

1. Follow these instructions and contact the Permits and Conservation Division at nmfs.pr1.apps@noaa.gov or 301-427-8401 with any questions.
2. Submit your application via [APPS](#).
 - a. A permit analyst will review your application and contact you if additional information is needed.
3. Address any questions within 60 days or your application will be withdrawn.
 - a. Once we consider your application complete, we will publish a notice in the [Federal Register](#), which starts a mandatory 30-day public comment period.
 - b. Concurrently, we will send your application to the Marine Mammal Commission and other subject matter experts in partner institutions and federal and state agencies for review.
 - c. We will determine whether or not your proposed research requires an ESA Section 7 consultation. Your research may fall under a [programmatic consultation](#). If it does not follow under the programmatic, we will need to request consultation to assess impacts to ESA-listed species. The ESA consultation can take up to 6 months.
4. Address any questions received during the comment period.

- a. We will draft the permit and supporting documentation (including National Environmental Policy Act analyses, responses to public comments, and documentation of MMPA and ESA issuance criteria).
- b. The documents will be reviewed by various NMFS offices including a legal review.
- c. For individual consultations, a Biological Opinion will be issued if ESA-listed species may be taken and adversely affected to determine if the activity will jeopardize the species or adversely modify critical habitat.
- d. The Office Director will decide whether to issue or deny your permit.

What is the process for requesting an amendment to a permit?

Use [APPS](#) to request an amendment to your permit. You'll need to provide a description of your proposed changes and include all the necessary details for those changes, as applicable. Use these application instructions as a guide. For example, changes to your objectives will require that you discuss all the points in the Project Purpose section. Additions to personnel require Qualifications Forms and descriptions of their roles.

Applicable Laws and Regulations

Under Section 104(c) of the MMPA and Section 10(a)(1)(A) of the ESA, persons may be authorized to take marine mammals and threatened and endangered species, respectively, for purposes of scientific research or enhancing the survival of the species. Interested persons are required to submit an application in accordance with the Acts and the implementing regulations at 50 CFR Part 216, subpart D, and 50 CFR Part 222. These instructions for applying for a research or enhancement permit are drawn from, but do not substitute for [ESA regulations](#) and [MMPA regulations](#). Read the [full text of the MMPA](#), including Section 104. Read the [full text of the ESA](#), including Section 10(a)(1)(A). Under NEPA, Federal agencies must assess the effects of federal actions on the environment. Under Section 7 of the ESA, Federal agencies must ensure that the permitted activities will not jeopardize the continued existence of the species or result in adverse modification of critical habitat.

The permit application and any associated documents, including any reports required, are considered public information and as such, are subject to the Freedom of Information Act.

Paperwork Reduction Act Statement

A Federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with an information collection subject to the requirements of the Paperwork Reduction Act of 1995 unless the information collection has a currently valid OMB Control Number. The approved OMB Control Number for this information collection is 0648-0084. Without this approval, we could not conduct this information collection. Public reporting for this information collection is estimated to be approximately 50 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. All responses to this information collection are required to obtain a permit pursuant to the MMPA, ESA, FSA, NEPA, and their implementing regulations. Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden to the Chief, Permits and Conservation Division, Office of Protected Resources, F/PR1, NOAA/National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910; email nmfs.pr1.apps@noaa.gov.