### Appendices for Permit Applications

# Appendix

# I: Overview of Authorization and Permit Types

The National Marine Fisheries Service (NMFS) administers the following types of permits and authorizations pursuant to the Endangered Species Act of 1973 (ESA) and Marine Mammal Protection Act of 1972 (MMPA).

**Note**: To determine what type of permit coverage you need, use the "Pre-Application Guide" found on the left navigation bar in our online system, APPS (Authorizations and Permits for Protected Species): <a href="https://apps.nmfs.noaa.gov/">https://apps.nmfs.noaa.gov/</a>.

#### Scientific Research and Enhancement Permits

Under Section 10 of the ESA, permits may be issued to take threatened or endangered species for scientific purposes or to enhance the propagation or survival of a species. Research conducted pursuant to a permit issued under the ESA must be consistent with the objectives identified in the species recovery or conservation plan. NMFS regulations implementing the provisions of the ESA section 10 can be found at 50 CFR Parts 222-226.

Permits to conduct research and/or enhancement on endangered or threatened salmon are issued by the NMFS Northwest and Southwest Regional Offices. Information may be obtained by visiting their web sites: Northwest Region main page: <a href="http://www.nwr.noaa.gov">http://www.nwr.noaa.gov</a> and the Southwest Region main page: <a href="http://swr.nmfs.noaa.gov">http://swr.nmfs.noaa.gov</a> or by calling the Endangered Species Division, Office of Protected Resources at (301) 427-8403 for further information.

Permits to conduct scientific research on other (non-salmonid) threatened and endangered species under NMFS' jurisdiction (sea turtles in water, shortnose sturgeon, smalltooth sawfish, and white and black abalone) are issued by the NMFS Permits, Conservation, and Education Division (Permits Division). More information and instructions for

applying for these permits may be found at the following web site: <a href="http://www.nmfs.noaa.gov/pr/permits/esa\_permits.htm">http://www.nmfs.noaa.gov/pr/permits/esa\_permits.htm</a>.

Under Section 104 of the MMPA, permits may be issued for the taking or importing/exporting of marine mammals and marine mammal parts for scientific research and/or enhancement purposes. Research conducted on marine mammals must be *bona fide* (i.e., scientific research on marine mammals, the results of which – likely would be accepted for publication in a referred scientific journal; are likely to contribute to the basic knowledge of marine mammal biology or ecology; or are likely to identify, evaluate, or resolve conservation problems). NMFS regulations implementing the provisions of the MMPA Section 104 can be found at 50 CFR Part 216. More information and instructions for these permits may be found at the following web site: <a href="http://www.nmfs.noaa.gov/pr/permits/mmpa\_permits.htm">http://www.nmfs.noaa.gov/pr/permits/mmpa\_permits.htm</a>.

# Incidental Take Permits/Authorizations under the MMPA and/or ESA

If you are conducting an activity that may affect marine mammals or ESA-listed species (but do not directly target them), you may be required to obtain some type of authorization or permit. Examples of such activities include: oil and gas development, research on other species, and fisheries. Coverage may be in the form of an incidental harassment authorization, letter of authorization, incidental take permit, and/or coverage through the ESA Section 7 process (and issuance of an incidental take statement under section 7(b)(4)), depending on the circumstance.

For additional information visit the following web sites:

http://www.nmfs.noaa.gov/pr/permits/incidental.htm

http://www.nmfs.noaa.gov/pr/permits/esa\_permits.htm.

#### Commercial or Educational Photography Permits for Marine Mammals

The 1994 amendments to the MMPA provided new authority to issue permits for educational and commercial photography involving only Level B harassment of non-ESA listed marine mammals. Presently, NMFS is reviewing such applications on a pilot basis and may publish a Proposed Rule in the *Federal Register* based in part on the information obtained from these applications (50 CFR 216.42). The commercial photography application instructions can be obtained at the following web site: <a href="http://www.nmfs.noaa.gov/pr/permits/mmpa\_permits.htm#photo">http://www.nmfs.noaa.gov/pr/permits/mmpa\_permits.htm#photo</a>.

**Note**: These permits do not provide any authorization for activities involving ESA-listed species, methods involving Level A harassment, or scientific research.

# Letters of Confirmation under the General Authorization for Marine Mammals

The 1994 amendments to the MMPA established a streamlined "General Authorization" (GA) procedure for obtaining permission to conduct research activities involving only Level B harassment (e.g., photo-identification, aerial surveys) on non-ESA listed marine mammals (i.e., species not listed as endangered or threatened under the ESA). If your research meets these criteria, you may be eligible to obtain a letter of confirmation under the GA. You should contact the Permits Division to confirm whether your research can be covered under the GA. Interim Final Regulations implementing the GA (50 CFR 216.45) were published by NMFS in the *Federal Register* on October 3, 1994 (59 FR 50372) and are available on the following web site:

http://www.nmfs.noaa.gov/pr/permits/mmpa\_permits.htm#ga.

**Note**: In the event that your proposed research activities involve either (1) both ESA listed and non-ESA listed species, and/or (2) both Level A and Level B harassment activities, the scientific research permit requirements take precedence over the GA.

#### Public Display of Marine Mammals

Public display permits are required for the capture of marine mammals in the wild, for the importation of marine mammals, and for obtaining releasable rehabilitated marine mammals for purposes of public display. A permit is not required for the public display of marine mammals or for the exportation of marine mammals for public display. Exports of marine mammals require documentation from the foreign government. Applications for a public display permit and more information can be found at <a href="http://www.nmfs.noaa.gov/pr/permits/mmpa\_permits.htm#display">http://www.nmfs.noaa.gov/pr/permits/mmpa\_permits.htm#display</a> or by calling the Permits Division at (301) 427-8401.

# Possession, Import and Export of Pre-Act Marine Mammal Parts (i.e., parts taken prior to 1972)

Marine mammal parts include any part of a marine mammal, both hard and soft, but do not include urine or feces. A letter of authorization is required for possessing, importing or exporting "pre-Act" marine mammal parts under NMFS jurisdiction for commercial or personal use. Pre-Act parts are either those marine mammal parts taken prior to enactment of the MMPA or those parts of species listed under the ESA that are at least 100 years old. Instructions for how to apply for authorization to import or export pre-Act marine mammal parts may be found at the following web site: <a href="http://www.nmfs.noaa.gov/pr/permits/parts\_instructions.htm">http://www.nmfs.noaa.gov/pr/permits/parts\_instructions.htm</a>.

# Receipt of Marine Mammal Parts from the NMFS Stranding Network under the MMPA

If you would like to receive marine mammal parts taken from stranded marine mammals after 1972 for use in scientific research, education, or curation, please contact the appropriate NMFS Stranding Network Coordinator at the following web site: <a href="http://www.nmfs.noaa.gov/pr/health/coordinators.htm">http://www.nmfs.noaa.gov/pr/health/coordinators.htm</a>.

**Note**: If you intend to develop cell lines from such parts for research purposes, you must apply for an MMPA and/or ESA scientific research permit.

# Appendix

### II: Methods, Effects, and Mitigation Details

Descriptions of research activities should contain sufficient details about protocols, effects, and mitigation to allow reviewers to evaluate environmental impacts of the project. The following are examples of minimum information that should be provided for the application to be considered complete for the following species:

- Abalone
- Cetaceans
- Pinnipeds
- Sea Turtles
- Sturgeon/Sawfish

#### Procedures for Surveys, Sampling, Capture, Etc.

This table describes the type of information to include in the narrative section of an application for commonly permitted activities. If your procedure is not in this table, please contact us if you have questions about what information to include when describing your procedure. The "take table option" column indicates the standardized procedure name to select in the take table portion of your application (see <a href="Appendix III">Appendix III</a>). Brackets in this column indicate there are multiple menu options corresponding to a particular procedure.

There should be a narrative description for each activity in the table, and vice versa. You are encouraged provide **figures or photographs to illustrate** your methods (e.g., tags and instrument attachment devices, nets and net deployment).

In general, you should always indicate

- how long a procedure will take, including average and maximum times
- the number of times a procedure will be performed on an animal or group over a specified time period (e.g., per day, season, year)

Procedure	Take table option	Details to include in narrative
Aerial Survey	Survey, aerial	Type of survey (e.g., line transect)
		Description of survey area (include latitude
		and longitude)
		Season (time of year)
		Type of survey craft (e.g., fixed wing,
		helicopter)
		Altitude and air speed
		Number of passes per group/animal
		Duration per group/animal
Active acoustics	Acoustics, active	Signal source (e.g., sidescan sonar,
	(playback/broadcast)	underwater speaker)
		Source depth in water column
		Frequency (bandwidth)
		Maximum source level
		Maximum received level
		Distance to target animals
		Signal duration and duty cycle
		Duration of exposure
		Ambient noise level, where known
		Propagation model, where available
Administer drugs	Administer, drug	Name of drug/chemical
or chemicals		Dosage
		Delivery route (e.g., intramuscular,
		intravenous)
		Location of administration

Procedure	Take table option	Details to include in narrative
Auditory	Auditory brainstem	Type of measurement equipment
brainstem	response test	Data collection method
response or		Data analysis method
evoked potential		(include handling/restraint protocols)
Behavioral observations	Observe, behavioral	Approach method (e.g., from blind or vessel)
obsci vations		Closest approach distance
		Within sight of animals or not?
		Frequency and duration of observations
Biopsy sampling	Biopsy, [blubber,	Type of tissue(s)
(restrained	muscle, skin]	Location on animal (e.g., dorsal, shoulder,
animals)	muscie, skinj	flipper)
ummuis)		Size of sample (diameter X depth)
		Biopsy equipment (e.g., dart, needle/punch,
		scalpel)
		Left open or method of wound closure
		Sample analysis
Biopsy sampling	Biopsy, [blubber,	Type of tissue(s)
(remote biopsy)	muscle, skin]	Location on animal (e.g., dorsal, shoulder,
1 7/	, ,	flipper)
		Size of sample (diameter X depth)
		Biopsy equipment (e.g., dart) and stopper
		depth
		Collection method (e.g., dart fired from
		rifle)
		Number of attempts per animal
		Sample analysis
Blood sampling	Sample, blood	Location of sampling (i.e., which blood vessel)
		Volume needed for specific assays
		(including amount needed for replicates and
		back-ups)
		Volume to be collected
		Number of samples per animal
		Sampling interval (e.g., for serial samples)
Capture	Capture, [various	Type of equipment (e.g., net, trap, pen) and
•	methods]	dimensions
	_	Deployment method
		If netting, describe how often net is checked
		Duration of restraint
		Describe release protocols
Captive	Captive, maintain	Duration of captivity
maintenance	[permanent,	Describe facility, including size of
	temporary]	enclosure, water supply and drainage, etc.

Procedure	Take table option	Details to include in narrative
Chemical restraint	Anesthesia, [various]	Name of anesthetic
		Dosage
		Delivery method (e.g., injection, intubation)
		Duration
	Dart, injectable	Name of chemical
	immobilizing agent	Dosage
		Delivery method (e.g., CO2 rifle)
		Duration
External	Instrument, [external,	For restrained animals:
instrument	suction cup, dart/barb	Location on body
attachment	tag, etc.]	External dimensions
		Mass in air or water
		Method of attachment (e.g., epoxy, harness)
		Duration of instrument retention
		Duration of attachment procedure
		Release mechanism or recapture to remove
		Type of data collection (e.g., archival
		requiring retrieval)
		For remote attachment:
		Location on body
		External dimensions
		Mass in air
		Duration of attachment to animal
		Release mechanism
		Attachment mechanism (e.g., suction cup)
		Method of deployment (e.g., fired from
		crossbow)
		Type of data collection (e.g., satellite linked)
		Number of attempts per animal
		Minimum approach distance and angle
Internal	Instrument, internal	Location within body
instrument		Insertion method (e.g., surgical implant,
placement		injection, stomach tube)
		External dimensions
		Duration of instrument retention
2.5.1.(01)	35 3 5 3	Duration of insertion procedure
Mark (flipper	Mark, [various types]	Type of mark (e.g., plastic or metal tag,
tags, bleach,		bleach)
paint, brand, etc)		Location on body
		Method of application (e.g., branding iron,
		pliers, paint pellet rifle) and disinfection
		procedures
		Duration (e.g., until molt)
		Dimensions of tag or mark

Procedure	Take table option	Details to include in narrative
Photo-	Photo-id	Approach method (aerial, ground, vessel)
identification		Closest approach distance
		Approaches per animal (e.g., per day)
		Duration per animal/group
Physically	Restrain, [various	Describe equipment if other than by hand
restrain	methods]	(e.g., type of net or enclosure)
		Duration
Vessel survey	Survey, vessel	Type of survey (e.g., line transect)
		Description of survey area (include latitude
		and longitude)
		Season (time of year)
		Number of surveys per year
		Type/size of survey vessel
		Vessel speed when approaching animals
		Approach distance, angle, and duration per
		animal/group, for off-track observations
Import samples	Import/export/	Type of sample (e.g., blood, muscle)
	receive, parts	Country of origin or high seas
		How sample/animal is taken in country of
		origin
		Type of storage/shipping container,
		including preservatives, etc.
		Analytical techniques

#### Effects of Research

For each type of research procedure, describe the potential side effects and reactions (behavioral and physiological responses), as they would be without best practices, before mitigation, etc. If you will be working with more than one species, sex, or age class, be sure to discuss how these side effects and reactions vary by group.

Examples of types of responses include changes in swim speed and direction, movement of animals from land into the water, increase in stress hormone levels, and abandonment of behaviors or locations. Examples of effects include tissue trauma (e.g., from biopsies and other invasive procedures), temporary threshold shifts, increased risk of predation, failure to reproduce, reduced growth rates, and death.

Discuss the duration of these effects and responses as it relates to recovery to preresearch state. For example, describe the typical time for biopsy samples to heal, how long after a survey before animals return to pre-disturbance behaviors, how long after sedation before animals regain normal locomotor function.

#### Mitigation and Monitoring Measures

Discuss what measures you will take to avoid or minimize the potential for or adverse impacts of the side effects and reactions you described for each procedure.

For example, describe measures you will take to minimize the numbers of animals displaced or harassed by surveys or what you will do to avoid mortality associated with use of certain sedatives or immobilizing agents. Be sure to discuss how these measures would vary by species, sex, or age class.

Explain how you will monitor animals for signs of adverse reactions and side effects, including what behaviors or other factors you consider indicative. It is important to describe how effective your monitoring will be at detecting adverse effects as part of the discussion of how effective the actions you would take to avoid or minimize them will be.

For example, describe how often nets or in-water traps will be checked as it relates to the potential for drowning or serious injury. Or discuss how pinniped survey sights would be evaluated after a disturbance to determine whether dependent pups had been injured or abandoned. For cetaceans, describe resight protocols and photo-matching of tagged or biopsied animals.

If monitoring or mitigation is not feasible for specific procedures, species, situations, etc., explain why.



#### III: Take Table Information

The following pages contain a complete listing of the options for the Take Action, Observe/Collect Method, and Procedures columns in the Take Table, by the following species groups:

- Abalone
- Cetaceans
- Pinnipeds
- Sea Turtles
- Sturgeon/Sawfish

#### Abalone

#### Take Action

- Captive animals (research, enhancement, public display)
- Capture/Handle/Release
- Handle/Release
- Harass
- Harass/Sampling
- Import/export/receive only
- Incidental take
- Intentional (Directed) Mortality
- Release captive animals
- Removal from wild (permanent)
- Unintentional mortality
- Unknown

#### Observe/Collect Method

- Abalone iron
- Captive
- Other

#### **Procedures**

- Captive, maintain
- Collect
- Field planting
- import/export/receive, parts
- Mortality
- Other
- Research, genetics
- Research, other (invasive)
- Research, other (non-invasive)
- Research, Withering syndrome
- Sabellid testing
- Transfer/transport, dead
- Transfer/transport, live

#### Cetaceans

#### Take Action

- Captive animals (research, enhancement, public display)
- Capture/Handle/Release
- Handle/Release
- Harass
- Harass/Sampling
- Import/export/receive only
- Incidental take
- Intentional (Directed) Mortality
- Release captive animals
- Removal from wild (permanent)
- Unintentional mortality
- Unknown

#### Observe/Collect Method

- Captive
- Net
- Survey, aerial
- Survey, ground
- Survey, vessel
- Survey, aerial/vessel
- Other

#### **Procedures**

- Acoustic, active playback/broadcast
- Acoustic, passive recording
- Acoustic, sonar for prey mapping
- Auditory brainstem response test
- Captive, maintain
- Captive, research
- Collect, remains for predation study
- Collect, sloughed skin
- Count/survey
- Imaging, thermal

- Import/export/receive, parts
- Incidental harassment
- Insert ingestible telemeter pill
- Instrument, dorsal fin/ridge attachment
- Instrument, implantable (e.g., satellite tag
- Instrument, suction-cup (e.g., VHF, TDR)
- Intentional (directed) mortality
- Lavage
- Mark, freeze brand
- Mark, roto tag
- Measure
- Measure colonic temperature
- Metabolic chamber/hood
- Observations, behavioral
- Other
- Photogrammetry
- Photo-id
- Sample, anal swab
- Sample, blood
- Sample, blowhole swab
- Sample, exhaled air
- Sample, fecal
- Sample, milk
- Sample, muscle biopsy
- Sample, skin and blubber biopsy
- Sample, skin biopsy
- Sample, sperm
- Sample, tooth extraction
- Sample, urine
- Transport
- Ultrasound
- Underwater photo/videography
- Unintentional mortality
- Weigh

#### Pinnipeds

#### Take Action

- Captive animals (research, enhancement, public display)
- Capture/Handle/Release
- Handle/Release
- Harass
- Harass/Sampling
- Import/export/receive only
- Incidental take
- Intentional (Directed) Mortality
- Release captive animals
- Removal from wild (permanent)
- Unintentional mortality
- Unknown

#### Observe/Collect Method

- Captive
- Dart, injectable immobilizing agent
- Hand
- Net, Hoop
- Net, other
- Net, seine
- Other
- Survey, aerial
- Survey, ground
- Survey, vessel
- Trap, floating
- Underwater lasso

#### **Procedures**

- Acoustic, active playback/broadcast
- Acoustic, passive recording
- Acoustic, sonar for prey mapping
- Administer drug, IM
- Administer drug, intraperitoneal

- Administer drug, IV
- Administer drug, subcutaneous
- Administer drug, topical
- Anesthesia, gas w/cone or mask
- Anesthesia, gas w/intubation
- Anesthesia, injectable sedative
- Auditory brainstem response test
- Bioelectrical impedance (subcutaneous)
- Bioelectrical impedance (surface)
- Calipers (skin fold)
- Captive, maintain permanent
- Captive, maintain temporary
- Cognitive studies
- Collect, molt
- · Collect, scat
- Collect, spew
- Collect, urine
- Count/survey
- Evan's blue dye and serial blood samples
- Hormones and serial blood samples
- Import/export/receive, parts
- Incidental disturbance
- Instrument, external (e.g., VHF, SLTDR)
- Instrument, internal (e.g., PIT)
- Intentional (directed) mortality
- Mark, bleach
- Mark, clip fur
- Mark, dye or paint
- Mark, flipper tag
- Mark, freeze brand
- · Mark, hot brand

- Mark, other (e.g., neoprene patch)
- Measure (standard morphometrics)
- Metabolic chamber/hood
- Observations, behavioral
- Observation, mark resight
- Observation, monitoring
- Other
- Photogrammetry
- Photo-id
- Remote video monitoring
- Restrain, board
- Restrain, cage
- Restrain, hand
- Restrain, net
- Restrain, other
- Sample, blood
- Sample, blubber biopsy
- Sample, clip hair
- Sample, clip nail
- Sample, fecal enema
- Sample, fecal loop
- Sample, fecal swab
- Sample, milk
- Sample, muscle biopsy
- Sample, nasal swab
- Sample, ocular swab
- Sample, oral swab
- Sample, other
- Sample, skin biopsy
- Sample, stomach lavage
- Sample, swab all mucus membranes
- Sample, tooth extraction
- Sample, urine catheter
- Sample, vibrissae (clip)
- Sample, vibrissae (pull)
- Stable isotopes and serial blood samples
- Transport
- Ultrasound
- Unintentional mortality

- Weigh
- X-ray

#### Sea Turtles

#### Take Action

- Captive animals (research, enhancement, public display)
- Capture/Handle/Release
- Handle/Release
- Harass
- Harass/Sampling
- Import/export/receive only
- Incidental take
- Intentional (Directed) Mortality
- Release captive animals
- Removal from wild (permanent)
- Unintentional mortality
- Unknown

#### Observe/Collect Method

- Captive
- Capture under other authority
- Gear modification experiment
- Hand and/or Dip Net
- Net, Cast
- Net, breakaway hoopnet
- Net, encircle
- Net, Pound
- Net, Seine
- Net, Tangle
- Net, trawl
- Other
- Survey, aerial
- Survey, vessel

#### **Procedures**

- Epibiota removal
- Bioelectrical impedance analysis
- Bycatch reduction experiments

- Captive, lab experiments
- Count/Survey
- Collect, tumors
- Imaging (e.g., MRI, CT, CAT, X-Ray)
- Import/export/receive, parts
- Instrument, drill carapace attachment
- Instrument, epoxy attachment (e.g., satellite tag, VHF tag)
- Instrument, harness attachment
- Instrument, suction-cup attachment (e.g., camera)
- Intentional (directed) mortality
- Laparoscopy
- Lavage
- Mark, carapace (temporary)
- Mark, coded wire
- Mark, flipper tag
- Mark, living tag
- Mark, PIT tag
- Mark, visual marker (hatchling)
- Measure
- Necropsy
- Orientation research
- Other
- Photograph
- Salvage (carcass, tissue, parts)
- Sample, blood
- Sample, bone biopsy
- Sample, cloacal swab
- Sample, fat
- Sample, fecal
- Sample, muscle biopsy
- Sample, nasal swab
- Sample, organ biopsy
- Sample, scute scraping
- Sample, tissue

- Tracking
- TransportUltrasound
- Unintentional mortality
- Weigh

#### Sturgeon/Sawfish

#### Take Action

- Captive animals (research, enhancement, public display)
- Capture/Handle/Release
- Handle/Release
- Harass
- Harass/Sampling
- Import/export/receive only
- Incidental take
- Intentional (Directed) Mortality
- Release captive animals
- Removal from wild (permanent)
- Unintentional mortality
- Unknown

#### Observe/Collect Method

- Captive
- Egg mat
- Electroshock
- Hand and/or Dip Net
- Hook and line/angler/rod and reel
- Longline
- Net, D-frame
- Net, Gill
- Net, seine
- Net, Trammel
- Net, trawl
- Other
- Remote Sensing
- Trot line

#### **Procedures**

- Anesthetize
- Boroscope
- Captive, breed
- Captive, field studies
- Captive, lab experiments
- Captive, maintain

- Captive, other
- Captive, public display
- Collect eggs
- Collect, sperm
- Instrument, external (e.g., VHF, satellite)
- Instrument, internal (e.g., VHF, sonic)
- Instrument, internal/external
- Intentional (directed) mortality
- import/export/receive, parts
- Laparoscopy
- Lavage
- Mark, bovine/DNA marking
- Mark, Carlin dangler
- Mark, coded wire
- Mark, dart
- Mark, disk anchor
- Mark, double barb tag
- Mark, elastomer
- Mark, Floy T-bar
- Mark, M-tag
- Mark, PIT tag
- Mark, roto tag
- Measure
- necropsy
- Other
- Photograph
- salvage (carcass, tissue, parts)
- Sample, barbel clip
- · Sample, blood
- Sample, fin clip
- Sample, fin ray clip
- Sample, gonadal tissue biopsy
- Sample, other tissue
- Treatment, prophylactic
- Treatment, therapeutic
- Transport
- Unintentional mortality
- Weigh



#### IV: Personnel Definitions

**Applicant/Permit Holder** – The person, institution, or agency that is ultimately responsible for all activities of any individual who is operating under the authority of the permit. Where the Permit Holder is an institution or agency, the **Responsible Party** is the official who has the legal authority to bind the organization (see definition below).

**Note**: The Applicant becomes the Permit Holder once a permit is issued. There can be only one Applicant/Permit Holder. Permits are not transferable from one Permit Holder to another and the Applicant/Permit Holder cannot be changed. In many cases, the Applicant/Permit Holder may be the same as the Principal Investigator (PI) and/or Primary Contact.

**Responsible Party** – This role is only used if the **Applicant/Permit Holder** is designated as an agency or organization. The Responsible Party is an official who has the legal authority to bind the organization, institution, or agency that is ultimately responsible for all activities of any individual who is operating under the authority of the permit.

**Note**: Where an applicant for a permit is an organization, institution, or agency rather than an individual, the application and permit must be signed by the Responsible Party. An example is that the Responsible Party for a National Marine Fisheries Service (NMFS) Science Center is the Center Director. The Responsible Party can change with approval from the agency issuing the permit.

**Principal Investigator** (**PI**) - The individual primarily responsible for the taking, importation, exportation, and any related activities conducted under a permit issued for scientific research or enhancement purposes. The PI must have qualifications, knowledge and experience relevant to the type of research activities authorized by the permit.

**Note**: The PI must be on site during any activities conducted under the permit unless a **Co-Investigator** is present to act in place of the PI. There can be only one PI on a permit. The PI may also be the Applicant/Permit Holder and Primary Contact. Because the PI supervises the research, NMFS requires that the PI submit a CV/resume.

**Co-investigator** (**CI**) – Individuals who are qualified and authorized to conduct or directly supervise activities conducted under a permit issued for scientific research or enhancement purposes without the on-site supervision of the **PI**.

**Note**: CIs assume the role and responsibility of the PI in the PI's absence. There can be numerous CIs designated under a single permit. The CI is authorized to work independently in the field or lead a field crew. For example, there could be separate CIs in charge of distinct activities/projects under a permit, or responsible for distinct geographic areas under a permit. Because a CI can supervise research, NMFS requires that a CV/resume be provided for each CI. There can be only one PI per application. If a project has multiple principals, one person must be assigned the PI role and the others assigned CI roles.

**Primary Contact** – The person primarily responsible for correspondence during the permit review process and after a permit is issued.

**Note**: The Primary Contact may be separate from or hold any other role on the permit (Applicant/Permit Holder, PI, etc.). While the Primary Contact may engage in correspondence on behalf of the Applicant/Permit Holder (such as providing minor clarifications for information in the application, making inquiries as to the status of an application and the application process, and submitting reports on behalf of the Applicant/Permit Holder), any substantive changes or requests for modifications must be submitted by the Applicant/Permit Holder or PI.

**Veterinarian** – A licensed veterinarian who will be present to perform or oversee veterinary or research procedures during permitted activities.

**Note**: NMFS does not always require a veterinarian to be listed on a permit, but some activities may require the presence of a vet or identification of a vet available for emergencies.