

**Attachment 1: 0648-0084 Paperwork Reduction Act *Federal Register* Notice (84 FR 50409) Comments and Responses on Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA) Permit Application Instructions (Scientific Research, Enhancement, Photography, General Authorization)**

We received the following comments from four permit holders who use the 0648-0084 collection instrument (for scientific research and enhancement permit application instructions) and from the Marine Mammal Commission. Below, we summarize their comments and provided responses.

**Commenter: Catlin Ames, Ph.D. candidate, School of Marine Sciences, University of Maine (Permitted Researcher: ESA-listed sturgeon research)**

**Ames Comment 1:** Ms. Ames wrote that the researchers working under NMFS Permit No. 21858 agree with the proposed revisions, particularly eliminating take numbers in the application narrative and removing authorized recipients of species parts.

No response required.

**Commenter: Lori Polasek, Ph.D., Marine Mammal Program Coordinator, Alaska Department of Fish and Game (Permitted Researcher/Responsible Party: MMPA/ESA marine mammal research)**

**Polasek Comment 1:** Dr. Polasek commented that it would be helpful to have an example for Table 3 of the Qualifications Form to guide applicants on the level of detailed needed.

**NMFS Response to Polasek Comment 1:** We agree with the comment. We have created example qualifications forms for four different permit types covering all taxa with examples to show applicants how to fill out the qualifications. We have incorporated the suggested edit into our example form. Researchers have the option to fill out either the table or biosketch and they don't have to do both; they can choose whichever way is less time-consuming or burdensome. The qualifications form with these examples will be available on our website with the revised application instructions.

**Polasek Comment 2:** Dr. Polasek expressed concern that in the MMPA ESA Research and Enhancement proposed instructions details beyond their scope and stepping into the realm of IACUC (Institutional Animal Care and Use Committee) requirements. There are several details for tagging that are required that should be under the purview of an IACUC and not that of the permit. This specifically applies to the requirement to provide "cleaning and sterile preparation details" and "whether attachments will be coated with antibiotics." These items require veterinary expertise as is provided in an IACUC review at the individual animal level. Although I greatly appreciate the expertise of the staff at NMFS, the staff reviewing these permits do not have the veterinary expertise to determine if the procedure for disinfecting or use of antibiotics is

appropriate. More importantly, the regulations do not require this level of detail. This is an unnecessary level of oversight.

**NMFS Response to Polasek Comment 2:** We understand the concern; however, we require this level of detail in the applications to assess the proposed activity to make the humane determination required under the Marine Mammal Protection Act (MMPA), which is a separate law from the Animal Welfare Act (the latter which governs IACUCs). The IACUC approval can support the MMPA humane determination but cannot replace it. Further, not all applicants have an IACUC approved at the time an application is submitted, and IACUC schedules vary by institution.

As part of the permitting process, we send the applications to our NMFS veterinarians, other subject matter experts, and the Marine Mammal Commission, which includes a committee of scientific advisors. These details are necessary for these expert reviewers to make informed recommendations that we consider in our decision making process. In addition, an issued permit can only authorize what described is in the application; therefore, a detailed description of the activity must be in the application. We have developed a set of standard permit conditions following standards set by the Centers for Disease Control (CDC) and Food and Drug Administration (FDA) for sterilization and disinfection of invasive tags and biopsy punches, respectively (CDC 2008; FDA 2015).

References:

CDC. 2008. Guideline for Disinfection and Sterilization in Healthcare Facilities, 2008, Atlanta, Georgia.

FDA. 2015. FDA-Cleared Sterilants and High Level Disinfectants with General Claims for Processing Reusable Medical and Dental Devices - March 2015, Silver Spring, Maryland. Available online at <https://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/ReprocessingofReusableMedicalDevices/ucm437347.htm>

**Commenter: Tonya Wiley, President, Havenworth Coastal Conservation (ESA-listed Sawfish Researcher)**

**Wiley Comment 1:** Ms. Wiley indicated that there needs to be a list of what activities are considered “invasive” or a clear definition of “invasive.”

**NMFS Response to Wiley Comment 1:** We checked the application instructions for ESA scientific research and the word “invasive” is only used with regard to invasive species, not for research activities. As such, we do not feel that a definition of “invasive” is needed.

**Wiley Comment 2:** Ms. Wiley indicated that she agrees with eliminating the requirement to put scientific names in the abstract of the application only if there is a long list of species. She stated that if a permit is for one or two species, the scientific names should be included.

**NMFS Response to Wiley Comment 2:** Years of processing applications has demonstrated that scientific names are not really necessary in the abstract. Our goal is to give our applicants simple guidance instead of having different scenarios where scientific names are or are not required. However, if an applicant wishes to include scientific names, we would accept that. Lastly, we are required to include scientific names in our *Federal Register* notices. Those names can easily be added by permit analysts who are familiar with all protected species that we permit.

**Wiley Comment 3:** Ms. Wiley indicated that using a qualifications form instead of a traditional CV is a great idea.

No response required.

**Wiley Comment 4:** Ms. Wiley felt that removing the requirement to name Authorized Recipients in the application will be helpful and eliminate clutter in the permit.

No response required.

**Wiley Comment 5:** Ms. Wiley generally supported adding photography and parts permits to the APPS system.

No response required.

**Wiley Comment 6:** When commenting about photography permits, Ms. Wiley stated that it is important that any film crew specify that they are working with an ESA-permitted PI. She said that if film-makers will no longer be listed on the PIs permit, then NMFS needs to make sure we are still closely monitoring their actions, ensuring they are viewing animals appropriately.

**NMFS Response to Wiley Comment 6:** As a fish biologist, Ms. Wiley may not be familiar with our commercial photography permits for marine mammals. The photography permits that we mention are for projects involving only non-ESA-listed marine mammals and are allowed by the MMPA. The process for filming an ESA-listed species, such as smalltooth sawfish, will not change. Filming will still be authorized via a letter and will require the film crew to work with a permitted researcher.

**Wiley Comment 7:** Ms. Wiley stated that Principal Investigators (PIs) should be able to add a film crew to their permit in the same manor that authorized recipients can now be added. She suggested that there could be a form the PI fills out to designate a photographer and that it would be helpful in time sensitive situations.

**NMFS Response to Wiley Comment 7:** This comment is not directly related to our application instructions, but more to our standard procedure for processing filming requests. At this time, we plan to continue to process filming authorization letters instead of allowing PIs to issue their own letters. In the past we have had numerous problems with filming, including unauthorized methods, misbehavior of personnel, data disputes, and inappropriate messaging. Due to these issues, NMFS will continue to be involved in the process by requiring a PI to submit all the necessary details prior to filming. Lastly, we can often process a filming authorization letter in less than a week, so even time sensitive circumstances can usually be accommodated.

**Commenter: National Marine Fisheries Service, Alaska Fisheries Science Center, Marine Mammal Laboratory (MML) (MMPA/ESA marine mammal research – multiple permits)**

**MML Comment 1:** MML stated that they support removing the requirement that Authorized Recipients of protected species parts be named in the application and allowing permit holders to designate their own Authorized Recipients.

No response needed.

**MML Comment 2:** MML also supported eliminating the requirement for take numbers to be included in the narrative portion of the application.

No response needed.

**MML Comment 3:** MML included suggestions to change the overall application structure to enhance readability, enhance information flow, and reduce redundancy. Specifically they recommended that NMFS:

3a) Revise the current Project Purpose section to describe first why the research is needed, then background and references supporting the need, and finally objectives being addressed.

**NMFS Response to MML Comment 3a:** We agree with this recommendation. We have edited the instructions as follows:

- Made the *bona fide* definition a separate box on the side.
- Re-ordered the Purpose section to:
  - Identify and discuss the issue, research question or purpose.
  - Summarize published findings.
  - Justify the need for ESA species and MMPA-depleted species, and enhancement work if applicable.
  - Identify objectives or hypotheses.
  - Justify take numbers needed to meet the objectives.

We recognize that most of our applicants copy previous applications when applying to renew their permits. We have clarified that this is the preferred order for the purpose section, but we will accept applications that have included the above information in another order as long as all of the information is provided.

b) Instead of “Project Description” have a “Project Methods” section as this more clearly indicates what this section should contain.

**NMFS Response to MML Comment 3b:** We appreciate and agree with this suggestion and are investigating our options for changing field or screen names. However, changes in APPS require coordination with multiple offices and our programmer, so it may take some time to implement.

c) For applications with multiple projects with different objectives but shared methods and procedures, allow for a single procedures table that can be referenced throughout the application and can be used as the template for the qualifications table.

**NMFS Response to MML Comment 3c:** For applications with multiple projects and objectives but repeated methods, the methods are required to be thoroughly described in detail once. The applicant maintains some flexibility in the format they use to describe these methods and may submit a table as described. Our current application system (APPS) does not easily support incorporation of a table in the narrative portions of the application and that would have to be included as an attachment.

d) Move the “how you determined sample size/take numbers” section to methods.

**NMFS Response to MML Comment 3d:** We have updated the Project Purpose to include all discussion of take numbers in one place as part of justifying the take number rationale, because we removed the requirement for applicants to provide take numbers in the methods section (i.e., numbers would only be in take tables). However, we are happy

to provide applicants flexibility if they wish to provide this discussion under the Project Description/methods.

e) Remove the requirement in “Project Description” section to “provide a brief overview of a day in the field,” as there is no typical day in the field and this should be evident from the methods description.

**NMFS Response to MML Comment 3e:** Our instructions explain that this information should be brief. The description of a day in the field is used to better understand the applicant’s intent and thereby to better evaluate the cumulative impacts to individual animals. For those applicants who do not have a typical day, they can provide examples of the range of activities carried out on various days. We are looking for a description of how and in what order a suite of activities listed in the take table would be carried out during an encounter or capture event. We recommend the instructions remain as written.

f) Where previously published reviews or environmental assessments have evaluated potential risks and effects to animals or populations, allow citing and incorporation by reference to those rather than repeating the information.

**NMFS Response to MML Comment 3f:** We will allow incorporation by reference but this still requires a summary of the information be provided. We also need to have references available upon request and have reiterated that in the instructions. We also added a request for applicants to add a link to publications when available.

g) “Status of the Affected Species” information should be provided in the background, referenced or automatically provided by APPS. This could be accomplished by linking a SAR summary table in APPS where applicants could select the species and stock and then have a drop down list that has the most recent assessment.

**NMFS Response to MML Comment 3G:** We agree that we do not need applicants to provide information that is readily available to NMFS. We have made this field optional, instead of required, and have provided specific guidance about the information we want here (e.g., if choosing ‘range-wide’ in a take table, to list the possible stocks or distinct population segments intended for research).

**MML Comment 4:** MML stated that bullets 3, 4, 5, 6 in the Methods section could be combined into one statement about age/sex and sensitive life history categories.

**NMFS Response to MML Comment 4:** We edited these bullets to eliminate redundancy and to improve clarity. We also reduced the text from four bullets to three. However, we disagree with lumping them all together. We have purposefully pulled

them out into individual statements to increase readability and applicant responsiveness. Lumping them into a “wall” of text goes against plain language recommendations and would increase the likelihood that an applicant will omit one or more of these key points.

**MML Comment 5:** Referring to the 6<sup>th</sup> bullet under Methods, MML stated that splitting pregnant females from other adult females increases the number of take rows and would require knowing the status of any female at any time, which is unreasonable in most cases because pregnancy can only be determined close to parturition.

**NMFS Response to MML Comment 5:** We allow flexibility to applicants in constructing their take tables to meet their research objectives. We only recommend separate rows when intentionally targeting a vulnerable life stage or age-classes, when known. We have modified the instructions to reflect these updates.

**MML Comment 6:** MML said that the Mitigation bullet under Methods is redundant with Minimize Effects section and should be removed.

**NMFS Response to MML Comment 6:** We recognize the potential for redundancy there. We will still allow flexibility to provide mitigation that is inherent to the research methods in the Project Description (i.e., methods section). We have revised the wording in the instructions to clarify this point. We are further combining the Anticipated Effects and Measures to Minimize Effects sections to reduce redundancy.

**MML Comment 7:** MML made the following comments about Table 1 entitled Guidance for Commonly Used Methods:

a) What is meant by “state license” requirements under Administer drugs or other substances?

**NMFS Response to MML Comment 7a:** Some states require a license to possess and/or administer certain drugs. We have updated the instructions to clarify this.

b) Under Capture and restraint, what is meant by “Number and roles of personnel (must be adequate to perform all activities without harming excess captured animals; else they [excess animals?] must be released immediately?” Does this mean applicants need to say how many people will be involved in each capture effort? That is highly variable and that responsibility should be left to the supervision of the PI or CI of the project. Also, it is addressed under “Resources Needed to Accomplish Objectives.”

**NMFS Response to MML Comment 7b:** The applicant must describe the minimum number, or range, of personnel present during captures and describe the general roles to ensure that they have an adequate number of personnel to safely capture and monitor protected species. We understand that the total number of personnel can vary, but a general description of the minimum number of personnel required must be described. This is essential to assess impacts to captured animals and whether enough personnel are present for the number of animals actually captured; and if not, that the extra animals are



immediately released to ensure their safety and welfare. Animals have died because there were not enough personnel to monitor them. We have clarified the wording in the instructions that excess animals must be released.

We provide flexibility on where information is located in applications and would accept this information under the “Resources Needed to Accomplish Objectives” section; however, this section has limited characters.

c) Given the accelerated pace of technological developments in sensors and payload options, it is limiting to require a list of UAS payload components. The focus should be on the UAS platform and the potential for disturbance.

**NMFS Response to MML Comment 7c:** We require the applicant to provide the payload information to ensure that the methods can meet the UAS research objectives. We agree that technology and sensors are rapidly changing and thus do not require a detailed description of the exact models or sensors included to allow for future technology advances. The instructions were updated to clarify the level of detail required.

**MML Comment 8:** MML commented that the Non-target species and Conspecifics field would be a good place to clarify the difference between incidental disturbance and harassment takes.

**NMFS Response to MML Comment 8:** We agree that we need to clarify this information and have renamed and updated the Non-target and Conspecific section of the instructions to provide more clarity about the information we are looking for here. With regard to incidental harassment vs. incidental disturbance, we will be eliminating the “incidental disturbance” option in APPS in the near future.

**MML Comment 9:** MML made the following comments regarding the Take Table instructions:

a) Page 18, #7. Expected Take. Does this replace and combine “Authorized Take” and “Takes per Animal,” and if so, does the concept of multiple takes of the same identifiable animal (e.g. instrumented, tagged) within a year disappear? Suggest adding text to describe how that is to be handled.

**NMFS Response to MML Comment 9a:** “Expected Take” is used for the name of this column in the application to reflect an applicant’s intent. In the printed issued permit, the column is renamed as “Authorized Take” to reflect the number of animals that are ultimately authorized in the permit. The number in the Expected Takes column should represent the total number of animals (not identifiable individuals) to be taken on a yearly basis. The takes per animal should be discussed in the narrative under the Project

Purpose so the reader understands how many of the animals in the table the applicant intends to take more than once per year. We revised the instructions to clarify that repeated takes should be discussed as part of the take number rationale in the Project Purpose (see response to MMC Comment 3). The instructions also note that applicants may use the Details column of the table to clarify multiple takes of the same animal per year, when applicable.

b) MML stated that they are pleased that pinnipeds in the water during an aerial survey overflight of haul-outs and rookery sites are not included as expected takes (page 18, sidebar). Such a requirement was never feasible as part of well-established protocols for pinniped aerial surveys. Also, how to handle recaptures of known individuals needs to be explained.

**NMFS Response to MML Comment 9b:** Based on feedback from researchers, including MML, as well as the MMC, we removed the requirement to estimate a buffer of pinnipeds flown over in water during aerial surveys that are directed at pinnipeds on land. We agree that based on the configuration of the survey team and aircraft, it is often impossible to sight animals directly below the plane while surveying pinnipeds offset at a lateral distance. Incidental harassment authorized in pinniped research permits that include aerial surveys of pinnipeds will include potential harassment of pinnipeds in water.

NMFS has also changed its approach to counting takes of animals with multiple intentional handlings/samplings within a year. We have removed the Takes per Animal column. The number in the Expected Takes column should represent the total number of animals (not necessarily identifiable individuals) to be taken on a yearly basis. The takes per animal should be discussed in the narrative under the Project Purpose so the reader understands how many of the animals in the table the applicant intends to take more than once per year. We revised the instructions to clarify that repeated takes should be discussed as part of the take number rationale in the Project Purpose (see response to MMC Comment 3). The instructions also note that applicants may use the Details column of the table to clarify multiple takes per year per individual, as applicable.

c) MML commented that on page 19 under #10 b, this is not the guidance they received in their most current application process. They were encouraged to reduce the number of take lines in the tables and deal with subsets in the details section. They believe the format of the Take Tables should be up to the permit holder as they are the ones who have to keep track of and report takes.

**NMFS Response to MML comment 9c:** We recommend to keep the guidance as-is because when reporting, the reported takes would not distinguish between animals that got all procedures and animals that just got some.

d) MML stated that during their most recent application process they were asked to provide tables of drugs and injectables and they also included a table for types of external instruments to be attached. MML said that if tables are desired or required then instructions should be added and there should not be an additional requirement to explain the same details in the text.

**NMFS Response to MML Comment 9d:** We added to the drug administration methods section that “a table is recommended.” The tagging section already says “tables are helpful” and we changed this to say “tables are recommended”.

**MML Comment 10:** Qualifications and Experience:

a) Page 24; “Qualifications and Experience.” The statement “Persons authorized as the PI or CIs must have qualifications corresponding to their duties” needs to be clarified. Clarify that the PIs or CIs do not have to have experience or expertise in every procedure in the methods. Rather, the PIs or CIs must collectively have to have sufficient experience to oversee research projects, research assistants or specialists (e.g., veterinarians), and procedures. PIs or CIs not being listed in the Roles Table (to conduct a specific activity) does not mean that the project would not have a qualified person (i.e., other than a PI or CI) to conduct the activity (e.g., research assistant, veterinarian, veterinary technician).

**NMFS Response to MML Comment 10a:** We agree with this and have edited the instructions to read: “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, each person must have sufficient cumulative experience to oversee the project, personnel (e.g., other CIs, research assistants, veterinarians), and procedures.”

b) Suggest allowing procedures to be presented as a table, which could then be referenced throughout the methods and imported into the qualifications table to ensure that procedures are the same in both. This would allow the CIs to then just fill in their experience in the table and would improve consistency between procedures in the text and the PI and CI qualification form.

**NMFS Response to MML Comment 10b:** Qualifications forms need to be applicable to more than one permit. A supplemental attachment of a table with a list of the procedures by age/sex is allowed. The option to copy this table into the QF would only be applicable if that is the only permit that person works under.

c) If the Qualifications Form remains as is, make it clear that the different levels do not disqualify people from being a CI or PI.

**NMFS Response to MML Comment 10c:** This relates to MMC comment 8 on qualifications. This is part of the decision process and is assessed on a case-by-case basis and would not go in the qualifications form.

d) It needs to be emphasized that only one Qualifications Form is expected per person regardless of the number of permits they might be listed on. Additionally, updated forms are likely as permits expire and are renewed; there should be advice on how best to submit updated forms.

**NMFS Response to MML Comment 10d:** We have amended the language in the Qualifications Form (QF) and the permit application instructions to emphasize that only one QF is needed per person, regardless of the number of permits they are on. We have also clarified that when adding personnel to permit, the applicant must first check to see if there is an existing QF form for the person they wish to add. Updated qualifications forms may be added at any time. NMFS will be responsible for removing obsolete qualifications forms.

e) Signed IACUC assurance letters or memorandums are sufficient to show compliance with the Animal Welfare Act (AWA), the U.S. Government Principles for Utilization and Care of Vertebrate Animals Used in Testing, Research and Training (USGP), and the Marine Mammal Protection Act (MMPA). The assurance letter confirms that all sample sizes, procedures, research protocols and qualifications of individual researchers have been reviewed by qualified researchers and veterinarians on the IACUC and approved by the full IACUC as being in compliance with the AWA, USGP and MMPA.

**NMFS Response to MML Comment 10e:** We are required to assess the proposed activity and qualifications to make the humane determination required under the MMPA, which is a separate law from the Animal Welfare Act, which governs IACUCs. The IACUC approval can support the MMPA humane determination but cannot replace it. (Also see responses to similar IACUC comments.)

**MML Comment 11:** MML commented that APPS is not an effective program for uploading complex or large permit applications, and is especially not suitable for version tracking or making revisions.

**NMFS Response to MML Comment 11:** We understand these concerns. Large permit applications are not the norm for applications submitted in APPS. We plan to make the instructions more readily available as a Word document to use as a template prior to entering in APPS. We are also in the process of developing standard methods to streamline the application process and reduce the level of data entry required. We are also exploring additional ways within APPS to minimize the time it takes to draft an application.

**MML Comment 12:** MML suggested that an improvement to APPS would be to allow uploading Excel versions of Take Tables by the applicant. They understand that the goal is to have standardized terminology in the Take Table but it is challenging to view, edit and change the tables within this system.

**NMFS Response to MML Comment 12:** We agree and this is a concept that we would like to implement; however, it is not feasible at the time due to programming and funding constraints. It is something we will consider in the future. It is important to note that standardized terminology allows us and the public to run queries to find similar projects and to investigate takes by species, location or year, as well as conduct cumulative analyses of takes. Thus, when using the Excel sheet, we would have to provide a template with the same drop down menus as in the APPS take tables in order for it to be up-loadable to APPS.

**MML Comment 13:** MML suggested streamlining comment flow received from within F/PR, veterinarians, or other reviewers to reduce the number of revisions. They suggested the NMFS consider if a Google-shared document process could be implemented at least between OPR and the applicant.

**NMFS Response to MML Comment 13:** We strive to streamline comment flow to the maximum extent possible; this often depends on the availability of other expert reviewers (e.g., veterinarians) and the timing of when we review the application. We can only consider a Google-shared document process with applicants who have Google accounts; we have done this with NMFS researchers.

**MML Comment 14:** Resolve that F/PR is the sole authority and decision-maker on all aspects of the permit application and issuance process including that the research objectives, procedures and investigator qualifications are in compliance with the MMPA. This will greatly reduce the length of time required to process permits by reducing contradictory requests from the Office of Protected Resources and Marine Mammal Commission (MMC; which serves as an outside reviewer) during the review process.

**NMFS Response to MML Comment 14:** The [MMC](#) is an independent federal agency established by the MMPA and mandated to conduct a continuing review of, among other things, all applications for permits for scientific research, public display, or enhancing the survival or recovery of a species or stock. We agree that the MMC does not have regulatory authority and serves an advisory role only. While this comment does not directly impact the information contained in the application instructions, we recognize that the MMC may have a different interpretation of what information is considered sufficient to deem an application complete. The MMC reviewed this revised instrument collection and provided their recommendations (see below). We will provide our

responses to the MMC for their awareness and plan to discuss the discrepancies in interpretations, with the goal to minimize the contradictions between application reviews by NMFS and the MMC.

**MML Comment 15:** IACUCs are composed of qualified researchers and veterinarians who conduct thorough reviews of procedures, methods and personnel qualifications. As such they provide a qualified and authoritative outside review. When an IACUC letter of assurance accompanies a permit, this should minimize the need for F/PR and outside review of procedures, methods and qualifications. Additionally, F/PR should make reasonable efforts to reduce duplicative requirements within the MMPA Permit Application that are already approved by an IACUC. Whenever possible researchers/applicants should be encouraged to reference procedures in an approved IACUC protocol or SOP instead of having to copy/paste between an IACUC protocol and an MMPA permit application.

**NMFS Response to MML Comment 15:** We need this level of detail in the applications to assess the proposed activity to make the humane determination required under the MMPA, which is a separate law from the Animal Welfare Act, which governs IACUCs. The IACUC approval can support the MMPA humane determination but cannot replace it. Further, not all applicants have an approved IACUC review at the time an application is submitted because institutions have varying IACUC review schedules.

As part of the permitting process, we send the applications to our NMFS veterinarians, other subject matter experts, and the Marine Mammal Commission, which includes a committee of scientific advisors. These details are necessary for these expert reviewers to make informed recommendations that we consider in our decision making process under the MMPA and ESA.

In addition, an issued permit can only authorize what is in the application; therefore, a detailed description of the activity must be in the application. (Also see responses to IACUC comments.)

**Commenter:** [Marine Mammal Commission](#) (MMC) (an independent agency that serves as an advisory body; they review all MMPA/ESA permits and provide recommendations to NMFS)

**MMC Comment 1:** The MMC commented on the sufficiency and accuracy of the information provided by applicants conducting acoustic studies, including both playback studies and auditory evoked potentials (AEPs). They provided examples of required information and recommended that NMFS include that information in the application instructions.

**NMFS Response to MMC Comment 1:** We agree with this recommendation and updated the instructions to clarify details required for acoustic studies in the wild and captive settings and provided guidance for how to count take during trials.

**MMC Comment 2:** The MMC commented that NMFS failed to include guidance for how to count pinnipeds from manned and unmanned aircraft. Furthermore, the MMC stated that “it is unclear why a behavioral reaction by a pinniped at sea must be observed before it is counted as a take during aerial overflights or why, if NMFS believes enumerating takes based on an observable response is preferred, that method was not used for cetaceans as well.” The MMC recommended that NMFS change either the pinniped or the cetacean guidance so that they match.

**NMFS Response to MMC Comment 2:** As previously mentioned to the MMC during their review, the omission of guidance for how to count takes from aircraft was an oversight. That information has been added to the instructions. However, we maintain our proposed method for counting pinnipeds and cetaceans. While we have updated the instructions for counting take during pinniped research, we believe cetaceans and pinnipeds need to be counted differently for several reasons.

1. Cetaceans: We don't require cetacean researchers to count observed behavioral reactions during aerial surveys, because it's extremely difficult to detect responses while flying over animals that are in the water. The short amount of time that an airplane is above an individual or group of cetaceans gives the researchers a very short window to observe any reactions. Furthermore, it can be impossible to know if an animal dove because of the airplane or as part of its normal behavior. For simplicity and ease of reporting, we tell researchers to report the total number of animals observed without the need to distinguish whether or not behavioral reactions occurred.
2. Pinnipeds: Based on feedback from researchers and the MMC, we propose to remove the requirement to estimate a buffer of pinnipeds flown over in water during aerial surveys that are directed at pinnipeds on land. Based on the configuration of the survey team and aircraft, it is often impossible to sight animals directly below the plane while surveying pinnipeds offset at a lateral distance, when the focus is to count pinnipeds on land. Incidental harassment authorized in pinniped research permits that include aerial surveys of pinnipeds will include potential harassment of pinnipeds in water, but they would not be required to report pinnipeds in water given the difficulty in doing so.

**MMC Comment 3:** In its revised application instructions, NMFS would no longer require applicants to provide in the take table the number of times an animal may be taken in a year and

instead, to provide that information in the text of the application. However, the revised application instructions did not specifically require an applicant to justify why multiple takes of an animal might be needed. This is critical information for determining whether the humaneness and *bona fide* criteria are met for research and enhancement permits and whether proposed levels of disturbance necessitate additional mitigation measures. In addition, with the removal of the takes per animal column in the take table, applicants would not be required to report the number of times an animal may have been taken during the year, making it impossible to know whether a permit holder exceeded its authorized takes and violated the conditions of its permit. As such, the MMC recommends that NMFS require (1) applicants to justify the number of times an animal may be taken for each applicable procedure, and (2) permit holders to report the number times an animal is intentionally taken for each procedure during each year of permitted activities.

**NMFS Response to MMC Comment 3:**

1. We agree with the first recommendation and have updated the application instructions so that applicants are required to describe and justify the number of times animals would be intentionally taken by each procedure in the sample size/take number section of the Project Purpose. In addition, we have updated the instructions for the Details column of the take table to identify they may note intentional repeated takes of the same individual.
2. We agree with this recommendation and have updated the report form Question 1 to require that applicants address the number of intentional repeat takes per year that occurred, as related to their research objectives. However, there is no change to the reporting process by eliminating the Takes per Animal column. Permit Holders cannot currently report the number of takes per animal against that column in APPS; they can only report the actual number of takes (animals) against the number of animals authorized for each take row. When a Permit Holder reports animals taken, as a worst case scenario, we conservatively assume that they have taken each animal reported by the full suite of procedures authorized in the take row, including repeated takes if permitted, unless they state otherwise in the narrative of the report. Question 4 in the narrative portion of the report is where researchers should identify if and how they have exceeded their take limits.

**MMC Comment 4: Take tables**

**MMC Comment 4a:** The MMC commented that take table procedures are sometimes inconsistent between cetacean and pinniped research. The MMC recommended that NMFS ensure that (1) incidental harassment and disturbance is denoted by one term as a procedure in APPS for both cetaceans and pinnipeds, (2) the same terms are used to denote the same procedures or take actions in the various take tables amongst applications, and (3) “administer drug, (IM, IV, subcutaneous, topical)”, “anesthesia (injectable sedative or gas [come, mask,



intubation)]”, “serial blood samples (Evans blue, deuterium oxide, hormones)”, “imaging, thermal”, and “insert ingestible telemeter pill” are included as procedures in APPS for both cetaceans and pinnipeds.

**NMFS Response to MMC Comment 4a:** We agree with the proposed recommendations. With regard to the terms ‘incidental harassment’ versus ‘incidental disturbance,’ we have asked our APPS programmer to make this change (to denote ‘incidental harassment’) and it should be live in APPS in the near future. Going through the procedures in APPS to promote consistency across all our taxa includes not just pinnipeds and cetaceans, but also sea turtles, sawfish, and sturgeon. We have done this previously. However, following the MMC’s recommendation we will undertake this task again. Once we have made these programming updates to APPS, we will update the Qualifications Form Appendix. No other forms or instructions would need to be updated.

**MMC Comment 4b:** The Commission has frequently commented that procedures for target species listed in the take tables of photography applications are not consistent among applications, even though the requested activities are essentially the same. The arbitrary inclusion or exclusion of certain procedures then is incorporated into the final permit, which only creates further confusion as to which activities a filmmaker is authorized to conduct. The MMC recommends that NMFS ensure that the procedures in the take table rows for filming of target species (1) always include “observations, behavioral” and “photograph/video,” (2) accurately reflect all proposed and authorized activities, and (3) are consistent amongst permits.

**NMFS Response to MMC Comment 4b:** Currently, applicants for commercial photography permits are not able to use our online APPS system to apply for their permits. Furthermore, these applicants are not veteran scientists and are often unfamiliar with our permit process or U.S. laws. As a result of these factors, their applications are not always consistent. We believe these applications will become more consistent once we program APPS for photography permits. We are in the process of developing a specific template for photography permits, which should also help to increase consistency. Below we respond to each recommendation:

1. We agree with the comment that “photograph/video” should be included for all photography applications. We have updated the application instructions to include a table listing all the applicable procedures. This should help applicants to use the correct terms to accurately reflect all their proposed activities. However, we respectfully disagree with the comment that all applications must include “observations, behavioral”, as not all applications are the same and intend to study marine mammal behavior as part of the filming project.

2. We agree that all applications should accurately reflect all proposed and authorized activities and will ensure this through our review process.
3. Lastly, we agree that procedures should be used consistently across photography applications, and we strive to reach that goal. In the future, we will define each of these activities to promote consistency among applications as part of our standard methods that are in development.

**MMC Comment 4c:** The MMC has noted inconsistencies regarding the inclusion of direct and incidental takes of pinnipeds associated with vessel, aerial, and ground surveys in the take tables of applications and issued permits. Given that in most instances animals have the potential to be harassed directly or incidental to conducting surveys, the MMC recommends that NMFS include both direct and incidental takes of pinnipeds that may result from vessel, aerial, ground, or any other type of survey in the appropriate take tables of permit applications.

**NMFS Response to MMC Comment 4c:** NMFS does address direct and incidental harassment that may occur for all permitted activities. We provide applicants flexibility in organization of their take tables for research in the field and reporting, as long as all the takes are accounted for.

**MMC Comment 4d:** The MMC recommended that instead of having a procedure called “import/export/receive, parts” in the APPS system, that NMFS should split the procedures into three separate procedures to reduce confusion.

**NMFS Response to MMC Comment 4d:** These changes were implemented in APPS in September 2019 and are reflected in the updated application instructions.

**MMC Comment 5:** Throughout the application instructions for general authorizations, research and enhancement, and photography permits, NMFS has requested information regarding the number of attempts and approaches that may occur for the target species but did not provide definitions of either term. At times, NMFS also did not indicate for which procedures “attempts” should be enumerated and for which procedures “approaches” should be enumerated. For example, for non-intrusive research activities, NMFS would require applicants to provide the “number of approaches/attempts per animal per day” but did not indicate how each non-intrusive sampling action should be denoted. Typically, procedures that involve the movement of researchers/platforms/devices in the vicinity of an animal, such as underwater filming or vessel surveys, are conducted via approaches, which are defined as when a certain threshold distance is crossed. In contrast, procedures involving an activity directly carried out on an animal, such as tagging or biopsy sampling, are conducted via attempts and are defined as when a tag or biopsy dart is deployed but misses the animal or makes contact with an animal and either does or does not attach or does or does not result in a useable sample. The MMC recommends that NMFS (1)

define what constitutes an approach versus an attempt and (2) clarify which procedures should specify each.

**NMFS Response to MMC Comment 5:** We have removed the “number of approaches/attempts per animal per day” language from the instructions to clarify what information is needed for each procedure. We have also clarified that the number of attempts is required only for biological sampling and instrumentation. “Approach” is already defined in the application instructions in the counting cetacean takes sidebar and we will add a hyperlink in the methods section for cross reference. For non-intrusive activities (e.g., photo-ID or passive acoustic recording), we’ve revised the instructions to no longer require the number of approaches because we are focusing on distance to animals and duration of the encounter. The total duration of time spent with an animal in 24 hours is the information we request and use to assess the potential effects of the activity and its duration. As a reminder, each approach does not equate to a separate take.

We concur with the MMC description of “attempt” and that it only relates to biological sampling and instrumentation. Given that we have separated approaches from attempts in the instructions and we provide additional guidance in Table 1 about the number of attempts for biological sampling and instrumentation, we do not believe a definition of attempt is necessary.

**MMC Comment 6:** In the “Measures to Mitigate Effects” section for all application instructions, NMFS requested that applicants provide standard mitigation protocols for all activities to minimize the potential for adverse impacts on marine mammals. The MMC believes it is intended that applicants describe the measures that they would implement if an animal responds to proposed activities and what type of responses would prompt mitigation. The MMC recommends that NMFS explicitly require applicants to specify the (1) measures that will be implemented if an animal responds to a proposed activity, and (2) types of responses that would prompt the initiation of mitigation measures.

**NMFS Response to MMC Comment 6:** We plan to make two changes to the instructions. One is to merge the Anticipated Effects section with the Measures to Mitigate Effects section as one section titled “Effects and Mitigation.” Most of the information required will remain the same but the merge will reduce the potential for applicants to provide redundant information in each of the former sections.

The second change is to revise how applicants discuss the mitigation measures they will take during their activities in this section. The language is revised to note that they identify if they will employ mitigation measures if they see unintended adverse reactions. They then can provide one statement of the measures they will employ for

each suite of methods (e.g., activities with the potential for Level B harassment vs. Level A harassment) when the measures they would take are the same. In most instances the mitigation is the same for a suite of procedures, which occur concurrently or during the same encounter, and thus it's not necessary to repeat the measures for each specific procedure separately. In other cases, the measures are inherent to the methodology and are already described in the Project Description as part of the described methods (e.g., protocols for using life-saving drugs, euthanasia criteria). Such measures do not need to be restated in the Effects and Mitigation to reduce the burden hours for applicants.

In addition, it is not always possible or necessary to take an action after an animal reacts because

- There may be no way to further minimize the response such as when an animal ends the encounter by diving or leaving the area (e.g., after a tag has been deployed).
- Not all responses (e.g., a pinniped head raise) rise to the level of take.
- In some cases, researchers intend to elicit a response in animals as part of the objectives (e.g., behavioral response studies).

Further, we can add other measures we deem necessary to avoid or minimize impacts of the activities in the terms and conditions of any permit that is issued. For instance, it is our standard practice to include mitigation measures in issued permits to ensure that the activities do not interfere with vital functions, feeding or reproduction or if an animal exhibits repetitive, strong, adverse reactions to the activities. We do not expect or require applicants to include these permit conditions in their applications.

**MMC Comment 7:** For animals that would be transported for public display or research purposes, NMFS has required applicants to provide a description of how animals will be contained at the destination facility, including the enclosure system, quarantine procedures, and effluent treatment. The MMC recommends that NMFS require applicants to also provide (1) a protocol regarding introduction of new and currently held animals and (2) a description of the measures that would be implemented if adverse responses are observed between those animals.

**NMFS Response to MMC Comment 7:** NMFS has added to the Captive Section (#7) of the proposed scientific research and enhancement application instructions that applicants must provide quarantine procedures and an acclimation plan for introducing new and currently held animals and contingency plans if adverse responses are observed. We have also updated the public display application instructions to include the requirement for a contingency plan if adverse responses are observed (in addition to the quarantine/acclimation plan).

NMFS forwards all permit applications involving captive marine mammals to the U.S. Department of Agriculture, Animal and Plant Health Inspection Service (APHIS) for

review and comment. Research and public display facilities are regulated by APHIS pursuant to the Animal Welfare Act (AWA) and its implementing regulations pertaining to marine mammals. The AWA regulations (9 CFR §3.109 “Separation”) require that “marine mammals, whenever known to be primarily social in the wild, must be housed with at least one compatible animal of the same or biologically related species.” This section further states: “marine mammals that are not compatible must not be housed in the same enclosure.” APHIS would review the proposed quarantine/acclimation plan and provide NMFS with comments on whether the plans are consistent with AWA requirements.

### **MMC Comment 8: Qualifications and Qualification Form (QF).**

**MMC Comment 8a:** The MMC recommended that NMFS ensure that PI/CIs are only authorized to (1) conduct activities for which they have at least performed under supervision (Level 2 or greater), and (2) supervise activities which they have at least performed without supervision (Level 3 or greater). The MMC commented that authorizing PI/CIs to conduct activities unsupervised on animals for which they have only assisted others or received training increases the risk of harm or injury to both the animal and the researcher. PI/CIs that are not formally authorized to conduct activities can instead continue gaining experience performing the procedure under supervision until they have sufficient experience to conduct it unsupervised. These standards are not impractical, nor do they limit PI/CIs from gaining additional experience, as needed. They follow a basic step-wise approach to ensure compliance with NMFS’s implementing regulations.

### **NMFS Response to MMC Comment 8a:**

1. In most cases, NMFS agrees that PIs/CIs should only be authorized to conduct activities for which they have received training and have prior experience at Level 2 or greater. However, NMFS believes in some cases, experience in one procedure at a Level 2 or greater may be applicable to a similar procedure for which personnel have only Level 1 experience. Given the potentially remote locations and limited personnel involved in certain marine mammal research and enhancement activities, it is possible someone who has no prior experience conducting a particular procedure, but has conducted similar procedures, could receive instructions on how to respond to an animal in need of a lifesaving intervention. As well, there may be certain procedures, particularly non-intrusive procedures, in which highly experienced personnel (e.g., an experienced marine mammal veterinarian or field researcher) could perform with minimal instruction. NMFS would not wish to inhibit the ability for an applicant to conduct basic research procedures or crucial interventions and relies on the narrative and other details about training and supervisory protocols to ensure that only qualified and capable personnel are entrusted with conducting research and enhancement procedures.

2. As we have previously indicated to the MMC for individual permits, NMFS disagrees with the recommendation that PIs/CIs should only be authorized to supervise if they have only a Level 3 or greater designation on their qualifications form. The structure of field teams for this research can be such that a supervisor of a field team may not have experience conducting each individual procedure that they are overseeing (see response to MML comment 10). However, supervisors must have sufficient overall experience with research procedures that they are able to instruct the team to cease procedures, including invasive procedures, if an unsafe situation arises. We will continue to assess qualifications on a case-by-case basis and ensure compliance with our regulatory issuance criteria that researchers possess qualifications commensurate with their duties.

In the future, we intend to host a workshop with permitted researchers to discuss qualifications and solicit input on parameters on minimum experience to demonstrate qualifications.

**MMC Comment 8b:** With regard to the proposed Qualifications Form (QF), the MMC commented that the application instructions for all permit types indicated that CVs, resumes, and biosketches have not included sufficient information regarding an individual's field experience and that the QF should be used instead. However, the QF still includes the option of using a QF table or providing a biosketch. The MMC strongly reinforces the application instructions that information provided in CVs, resumes, and biosketches is insufficient. The MMC recommends that NMFS (1) require that the QF table be used by all PI/CIs and eliminate the option of a providing a biosketch and (2) amend the application instructions and QF accordingly.

**NMFS Response to MMC Comment 8b:** We disagree with this recommendation and propose to continue to provide flexibility to applicants to minimize burden and allow them to use either the table or the biosketch in the QF as long as the required information outlined in our instructions is provided. While we agree that biosketches alone may have been insufficient in the past, the biosketch is now a part of the QF, not to be used alone in lieu of the QF.

**MMC Comment 8c:** The MMC has often noted that information provided by a PI/CI in the QF table was incomplete for some procedures that he/she proposed to conduct, with either the "experience metrics", "most recent year performed" or "level of experience" columns left blank or denoted as "N/A" or "none". Missing information and inconsistencies between QF tables make it difficult to assess whether personnel lack the experience to conduct a procedure or unknowingly omitted the information. The MMC recommends that NMFS standardize how PI/CIs denote when they do not have any experience conducting that activity (i.e., Level 0) in the QF table.

**NMFS Response to MMC Comment 8c:** We agree and have updated the QF to clarify that if the PI/CI does not have applicable experience, the procedure should not be in the QF. However, we would allow some flexibility and not consider an application deficient or require a change if they chose to list the procedure and use “none” or another way to denote no experience.

**MMC Comment 8d:** For the table delineating personnel roles (the personnel table), NMFS has not required applicants to list each and every activity which PI/CI's are to be authorized to conduct, rather statements such as “conduct all activities under permit” have been accepted under applications and would continue to be accepted based on the revised application instructions. In instances when dozens of procedures have been proposed, particularly for live-capture activities or activities that involve numerous invasive procedures, it is difficult to discern which activity a PI/CI would be authorized to perform, especially when QFs lack any demonstrated experience for some activities. To clarify which procedure a PI/CI would be authorized to conduct or supervise the MMC recommends that NMFS require applicants to provide a personnel table (see Table 1 below) based on the example provided herein for applications involving live-capture activities and multiple invasive procedures.

Table 1. Example personnel table.

Name	Role	Photo-id	UAS	Collect feces or sloughed skin	Bio psy	Suction - cup tag	Dart tag
Jon Doe	PI	S		X	S	X (for large whales only)	
Jim Doe	CI	X		X		X	X
James Doe	CI	X		X	X		
Jane Doe	CI	X		X	X (for large whales only)	X (for large whales only)	
Mary Doe	CI	X	X	X	X		
Dave Doe	CI	X		X			
Harry Doe	CI	X		X		X	

**NMFS Response to MMC Comment 8d:** We disagree with this recommendation as being overly burdensome. We recommend providing flexibility to applicants to provide a personnel table in the format they choose, as long as the required information outlined in our instructions is provided.

**MMC Comment 8e:** NMFS has required that PI/CIs who are to be authorized as UAS pilots hold a Federal Aviation Administration (FAA) remote pilot certificate and provide a description of their experience flying UASs. Although most UAS pilots associated with research and enhancement permits have previous experience flying UASs around marine mammals, UAS pilots associated with photography permits frequently do not. This is problematic, as pilots without experience flying over marine mammals may be unaccustomed to natural behaviors (e.g., breaching) or unaware of the behaviors that denote an adverse reaction to a UAS, which could lead to a collision between an animal and a UAS and/or undue harassment of that animal. The MMC that NMFS require PI/CIs who are to be authorized as UAS pilots under a permit to provide explicit information regarding their experience flying UASs around marine mammals.

**NMFS Response to MMC Comment 8e:** We disagree with this recommendation. Our requirements for permitted UAS operations include:



1. UAS operations may be conducted by a single operator or by multiple people:
  - a. An individual must have an FAA certificate and adequate number of flight hours. That person can either be flying the UAS themselves or they can be the “remote pilot in command” that is directly overseeing someone else controlling the UAS.
  - b. If a UAS pilot does not have experience flying UAS over marine mammals, there must be someone onsite experienced with marine mammal behavior. That person can direct the UAS operator to ensure data are collected and the device is flown in a manner that follows the permit conditions including measure to minimize disturbance from UAS.
2. If a single individual has all the qualifications in 1a and 1b, they can be designated as a CI on the permit. They will be required to describe their experience and number of flight hours piloting UAS. They may note if they have experience flying over marine mammals, but this experience is not required to be a UAS pilot under a research permit.
3. If someone has everything under 1a, but not marine mammal experience, they can be designated a “UAS pilot” role. They will have to work in conjunction with someone with experience. We are updating our APPS system to include this personnel role.

**MMC Comment 9:** In its review of NMFS’s revised application instructions and associated forms, the MMC identified minor errors, omissions, inconsistencies, and misrepresentation of information. The MMC provided NMFS with these additional comments and recommends that NMFS incorporate them into the revised application instructions and associated forms before they are finalized.

**NMFS Response to MMC Comment 9:** In the majority of cases, we agree with and incorporated the MMC’s revisions into our application instructions. However, in the following instances we did not accept those revisions for reasons stated below:

Marine Mammal scientific research and enhancement permit (SREP) application instructions

1. For UAS, edit to add fixed wing UAS mass and dimensions. This comment was also in the GA and photography instructions.

**NMFS Response:** We do not believe this level of detail is required and the MMC did not provide a rationale for this recommendation. In general, UAS have minimal impacts on marine species. The applicants must address the impacts of their activities in other sections of the application.

2. For internal/external instruments in the table, edit to add mass (in addition to age/size) of each animal to receive tags.

**NMFS Response:** The entire bullet was removed because the requirement for age-class/size is already required for each method. Also, in many cases, the mass of large marine mammals would only be a rough estimate. Applicants tagging animals must already give an estimate of what % of body mass tags would constitute.

3. In the methods table under “Intrusive sampling”, addition of whether drugs would be administered to obtain sample.

**NMFS Response:** This information is already required in the “Administer drugs or other substances” section in the table.

4. In the methods table under “Intrusive sampling”, edit to add the maximum number of samples for captive animals.

**NMFS Response:** We have added a bullet to the instructions above the table to require “*Indicate if you will intentionally take an animal more than once per day and/or year by active acoustics, capture, or invasive procedures*”. This information is required in the bullet immediately preceding this addition, and there is no need to separate out for captive animals.

5. In the methods table under “Intrusive sampling”, edit to add whether import/export is necessary for analysis.

**NMFS Response:** This information is already included in the “Export/import” section in the table.

6. In the methods table under “Non-intrusive sampling”, edit to add the number of breath samples/day.

**NMFS Response:** We have added a bullet to the instructions above the methods table to require the number of intentionally repeated takes to obtain this information. It is not necessary to call out breath samples from other methods.

7. In methods table under “Remotely operated vehicles (ROV)”, edit to add the speed of ROV and whether or not the ROV would collect samples.

**NMFS Response:** We do not believe this level of detail for speed is required. There are no established metrics to evaluate speeds of ROVs; rather, we would rely on what mitigation the applicant employs to minimize impacts from use of an ROV. We are not aware of any researchers using ROVs to collect samples in water and do not believe this should be added at this time.

8. Under “Project Contacts”, edit to remove biosketches. Also see comment on this in Qualifications Form below.

**NMFS Response:** See response to MMC comment 8b above. We will require the Qualifications Form, but biosketches are allowed in the form if all the required information is included.

#### General Authorization Instructions

9. Under “UAS”, edit to require the previous experience flying UAS over marine mammals. Note this is also in Photography instructions.

**NMFS Response:** See response to MMC Comment 8e above. We have updated our UAS requirements and applicants do not need to include this information here. In addition, this type of information on experience will be included in the Qualifications Form.

#### Photography Instructions

10. In the “Abstract”, edit to require that applicants specify whether non-target species will be filmed.

**NMFS Response:** We have updated the instructions to require the applicants list all species that may be harassed or taken during permitted activities. The details of which procedures are included by species are required in other sections of the application.

11. Under the “Qualifications and Experience” section, edit to require the applicants to provide each location where they have filmed wildlife in the past.

**NMFS Response:** This level of detail is not required in the application. The applicants may provide this information in the QF.

#### Parts Instructions

12. Under the “Introduction”, comment to add what is not covered by this permit in this section.

**NMFS Response:** We purposefully moved this information to the end to streamline the introductory part of the instructions. In response to the MMC comment, we have added text that directs the applicant to information in the FAQ.

Cooperative Agreement wish to retain the animal for its welfare and protection, a separate import permit must be issued after the fact and the applicant would need to describe the circumstances regarding the use of the emergency provision. Therefore, it is possible that this section may be relevant to imports under the emergency provision of the MMPA.

#### Qualifications Form

13. Suggestion in multiple sections to add examples.

**NMFS Response:** We agree that examples are useful, but are providing example forms for each taxa as separate documents that will be available on our website.

14. Comment to add all procedures labeled as “other” and include additional procedures that should be the same across multiple taxa.

**NMFS Response:** We already instruct applicants to provide ALL procedures they seek to perform under a permit. We have updated the form to clarify that Appendix 1 is meant to be an example of all the currently available procedures in APPS to help guide the applicant. We plan to work in the future to update and align all of the procedures across taxa, as applicable (see response to MMC Comment 4a above).

15. Comments to address how applicants should describe procedures for which they have no experience, and add a Level 0 category.

**NMFS Response:** See response to MMC Comment 8c above. We have updated the instructions to note that applicants should not include procedures where they have no relevant experience, and therefore a Level 0 (No experience) is not required.

16. Edit QF in section B, Option 1 –Table, to add: “Avoid vague phrases such as “*assisted with,*” or “*participated in,*” which do not adequately demonstrate your experience performing the procedure.”

**NMFS Response:** This sentence is already included in the next section for biosketches, which we are not deleting. The table in the QF has instructions for selecting the appropriate level of experience. Level 1 is already defined as when personnel have assisted in performing a given procedure. Thus, if someone had Level 1 experience, they could include that language.

17. Edit to remove biosketch as an option for experience.

**NMFS Response:** See response to MMC Comment 8b above. We will give the applicants flexibility and allow biosketches within a QF, as long as all the required information is included.