2. Balance Between Flexibility & Predictability

In general, the Associations believe that flexibility in assessing and mitigating effects is prudent given the diversity of marine mammal species' hearing ranges, the range of effects, and acoustic source characteristics. However, this flexibility should be balanced by the objective of greater clarity, predictability and consideration of effort, resource availability and expense borne by the agencies and industry. The Guidance, as noted, should provide a comparison of the previous approach and what is now recommended. The Associations are particularly interested in the agency's view of the impact the changes will have on permit applications and the agency's time requirements to process them.

3. Use of the Criteria in the Permitting Process

The Draft Guidance provides a brief reference to its use in the current 14-question IHA permit application. It is recommended that the Implementation Guide include a much fuller presentation of how this process will be applied. Below are a few associated issues such a guide should address.

3.1. How will the Draft Guidance be implemented in (i) the context of a five-year ITR (with specific take authorizations by LOA) and (ii) when numerous IHAs are issued for a given area in the absence of an ITR? Specifically, will the agency use different methods to estimate the amount of authorized incidental take in each of these contexts? In addition, how, if at all, will authorized take be allocated over certain periods of time in one or both of these contexts?

4. Clarification Regarding PTS/TTS

4.1. The Draft Guidance is confusing and should be further clarified regarding PTS/TTS. On page 20 NMFS says, ""NOAA equates the onset of PTS, which is an auditory injury, with "Level A Harassment" as defined in MMPA and with "harm" as defined in ESA…NOAA does not consider TTS to be an auditory injury and thus it does not qualify as Level A Harassment or harm. Nevertheless, TTS is an adverse effect that constitutes another kind of "take."…NOAA currently is in the process of developing new thresholds for onset of behavioral effects. When that process is completed, TTS will be addressed for purposes of take quantification. In the meantime, the TTS thresholds presented here…will be used in comprehensive effects analysis…and may inform the development of mitigation and monitoring."" This language is too vague and open-ended to inform meaningful comments.

4.2. While NMFS has limited the Draft Guidance to Level A takes, defined as auditory injury equated with PTS, the Draft Guidance makes extensive reference to TTS. Clarification is needed as to why TTS is included in the present document, which does not include behavior. The Guidance and Implementation Guide should be explicit if TTS serves another role in discussion of injury. If it does not, the potential role of TTS in behavior should be deferred to publication of draft criteria for Level B behavioral harassment.

5. Model Related Issues

5.1. The Draft Guidance identifies a diverse set of approaches in evaluating acoustic effects and provides a general point of view that models provide a more accurate assessment of acoustic effects. The Associations would note that without model validation/verification this assumption is untested and recommends that NMFS undertake this as part of the process of developing the final acoustic criteria.

5.2. The Draft Guidance suggests that a variety of model approaches and models could be employed. It is noted that the regulated community is responsible for selecting a methodology for implementing the acoustic criteria and presenting it to NMFS. While the Associations appreciate and encourage this flexibility, we also recommend that NMFS establish more specific model acceptance criteria.

5.3. Depending upon NMFS's decisions on the extent and depth of modeling requirements, it is likely that both the current range of modeling vendor choices and their capacity will be inadequate to fulfill the agency's requirements, which could lead to unwarranted permitting delays or costs. The Implementation Guide should address how this transition period, which will necessitate an expansion of the pool of adequate modeling expertise and vendors, will be effectively managed.

6. Data Input Requirements

6.1. Data input requirements should be more explicit. These requirements should be practicable and should consider the whether the demand for precision and survey-by-survey information will really yield a substantively more informed resource management decision considering the overall lack of information, natural variability, and environmental confounding factors.

6.2. Sound Source Verification: For the Gulf of Mexico, an area of high seismic survey activity, project specific sound source verification is impractical. The Associations recommend that NMFS model a typical source array in 9 GoM zones (3 (shallow, shelf and deep) in each of the 3 Planning Areas) by season using a number of sound velocity profiles available from publically available NOAA CTD data. NMFS should then conduct sensitivity analyses on these profiles to determine seasonal variability and create a range of transmission loss profiles for individual model outputs to satisfy. Then, empirical data could be collected on a select number of representative projects rather than all projects, to also verify that the empirical data falls within the modeled range.

6.3. Water Depth Differentials: Industry recommends continuation of the existing BOEM approach to evaluate acoustic effects within standardized categories of submerged lands depth and bottom conditions rather than individual project assessments. Such an approach would provide a level of accuracy/precision sufficient for informed monitoring/mitigation decision-making. In the Gulf of Mexico, this would consider shallow water, the slope and deep water within the Western, Central and Eastern planning areas. This approach could include bottom conditions such as hard bottoms or soft sediments, which substantively affect sound propagation.