

October 16, 2006

Ms. Diana Hynek
Departmental Paperwork Clearance Officer
Department of Commerce
Room 6625
14th and Constitution Ave. NW
Washington, D.C. 20230

Dear Ms. Hynek:

I write to share my professional opinion of the draft survey entitled “The Future of Steller Sea Lions: What is Your Opinion?” This is the survey announced in 71 FR 47177, an announcement that was corrected in 71 FR 54472.

I am a researcher who specializes in knowledge and attitude surveys about marine mammal-related issues, including recovery programs for marine mammals protected under the Endangered Species Act. I have written and conducted targeted and general public surveys concerning marine mammals, and analyzed and published their results in books and journals such as *Conservation Biology* and *Endangered Species Update*. I write to you now to share my comments on the National Marine Fisheries Service’s (NMFS) proposed survey and the agency’s justification for the use of the survey.

First, the survey. I find the survey to be an ill-considered and poorly constructed research instrument. As constructed, its (I assume unintended) purpose will be to bias respondents toward a view of Steller sea lion recovery that gives greater credence to economic considerations in Endangered Species Act (ESA) implementation than they are statutorily and judicially allowed. The survey is written in a fashion that insufficiently reflects the complexity of either the endangered species or the Steller sea lion policy arenas, will likely mislead the respondents about the nature of endangered species protection (or, at least, NMFS’s approach toward its ESA responsibilities), and is guaranteed to bias respondents’ answers. I offer the following specific comments in support of these general criticisms:

- On page 2, in the phrase “Some people are concerned about the costs of protecting threatened and endangered species because the protection activities may:”, the use of the word “costs” is misleading. Most respondents will read the use of that word in this phrase as implying economic costs, but the first bullet that follows lists costs that are not necessarily economic for those who are deprived of them (such as “limiting recreation” and limiting “fishing activities”). For most recreational fishermen or nature-based tourists, protection activities’ limitations on these activities are not economic limitations, but actual limitations on the freedom to undertake the activities themselves. However, the second bullet then lists economic costs, such as “the cost of producing and providing goods such as food, drinking water, and lumber.” This mixing of terms – the use of ‘costs’ to imply different types of meanings without explaining the differences between the

meanings – will cause dissonance within and confusion by your respondents, and will likely bias the results.

- On page 2, in Q3, the second statement is of questionable utility because it is provided without sufficient context. The statement reads “Protecting jobs is more important than protecting threatened and endangered species” and respondents are asked to state whether they agree or disagree with this statement. However, it is not clear what the point is in asking this question without also asking respondents’ opinions on many other comparisons. This question is likely to set up in the minds of respondents a tension between jobs and endangered species (and thus Steller sea lion) protection. Creating this tension at the beginning of the survey is likely to bias respondents’ answers for the remainder of the survey. As well, in my opinion, it establishes a false dichotomy between Steller sea lion protection (and endangered species protection generally) and “protecting jobs.” This comparison is so often a symptom of the use and misuse of propaganda in public conflicts regarding endangered species and habitat protection that you risk promoting the false sense among the public that this dichotomy – jobs versus wildlife protection – is well established and a concern of NMFS. In fact it is not well established and under the ESA must not be a concern of NMFS when the agency makes decisions about actions under the ESA. Nevertheless, the inclusion of this language is likely to bias the responses after this point in the survey by influencing them to think that they should worry about jobs being threatened by Steller sea lion protection.
- On page 3, the selected information provided for each species – specifically, the use of population size estimates – is misleading, out of context, and will likely bias respondents’ perceptions of the species’ actual status. It will do so because the absolute numbers of animals in each species or population is not the pertinent figure used to determine the need for protection under the ESA. Rather, it is the trends in population size. By providing only absolute numbers, you risk giving respondents a false sense of the actual status of the populations. That is, you have no way of knowing whether a respondent will consider 90,000 Steller sea lions as “enough” and thus not warranting protection. This sort of acontextual perception may be fed by the fact that directly below the Steller figure you describe northern elephant seals as “stable” at 100,000 animals. Given the marginal difference between the sizes of those two populations, it is likely to be confusing to a member of the general public to try to decipher why the Steller sea lion deserves protection, but the elephant seal does not. In addition, the largest absolute population figure you provide on this page is 750,000 for the northern fur seal, a number that will seem large to any general audience, but which masks the pressures and problems that population has experienced over the last half-century, which is more important information to the issues raised by the survey than the actual population numbers. While I recognize that you provide trend information for the two populations of the Steller sea lion, you do not do so until page 6 of the survey, three pages after the introduction of these influential and misleading numbers.

- On page 4, the second bullet after Q4 again promotes the false dichotomy of jobs versus wildlife. The statement “...fish like pollock, mackerel, herring, cod, and salmon that commercial fishermen catch for people to eat” is written using language that risks biasing respondents in the same fashion as the earlier statements about economic considerations. I hope that NMFS would not want bias respondents to favor economic concerns over species protection, but this is likely to be the effect of your use of this language here and elsewhere.
- On page 6, in Q7, what is the point of the question? What will you do with the information, and especially of what relevance to NMFS decision making will the data be if they come back showing an overwhelming majority of respondents are “not at all concerned” about the two stocks of Steller sea lions? *As a general rule, a survey ought to be transparent – that is, the utility of the questions ought to be apparent to the respondent.* In this and other questions, it is not clear how you will use the data or of what utility it will be to NMFS, especially given the statutory mandates of the ESA.
- On page 7, Q8, I have the same concerns as those I state immediately above about Q7. That is, what is the purpose of the question to NMFS’s decision making for Steller sea lions and what will you make of the data if the responses come back overwhelmingly concerned with the loss of jobs due to Steller sea lion protection?
- On page 8, I have serious concerns about the statement “Doing more to protect the Western stock of Steller sea lions will cost every U.S. household more money” and the two bullets that follow it. My concerns are related to those I state above – that the survey is unmistakably preoccupied with economic concerns and with the economic and (ostensibly) other costs of protecting Steller sea lions, so much so that its bias is unmistakable. By extension, the agency will be perceived as biased in the same fashion, thereby fostering a sense among its constituents that it is beholden to political influences that have pressured the agency to implement an economic survey even though the data that will result from such a survey are not viable data in the decision making process authorized under the ESA and would likely spur litigation against the agency were it to attempt to use the survey results as a basis for taking anything less than the strongest protective actions to support Steller sea lion recovery. This bias is promoted so strongly in this survey, and especially brought home in this passage on page 8 because the survey, while it is repeatedly preoccupied with the economic costs of protecting Steller sea lions, fails to address in even the mildest possible fashion the *benefits* of protecting Steller sea lions. I expand on this concern in my comments on the rationale for the survey, below.
- On page 8, Q9, I have the same concerns I have stated regarding Q7 and Q8, above. That is, what is the purpose of the question to NMFS’s decision making for Steller sea lions and what will you make of the data if the responses come back overwhelmingly against spending more money to protect the western stock of Steller sea lions?

- On page 9, Q10, I have the same concerns I have stated regarding Q7, Q8, and Q9, above. That is, what is the purpose of the question to NMFS's decision making for Steller sea lions and what will you make of the data if the responses come back overwhelmingly in favor of the option that costs less?
- On pages 10, 11, and 12, the questions Q11, Q13, and Q14 are most likely too complex for the general public to digest and make an educated response to – there are simply too many variables at play in the matrix to have a high degree of confidence in the responses.
- On page 13, in Q15, the use of the phrasing “some people” is both awkward and unprofessional in this context. There is no particular reason why the public – i.e., respondents – will relate to NMFS's definition of “some people” or the opinion of an unidentified group of people. Who are “some people” according to NMFS? Are they a sample of the general public? If so, you should say so. Are they mid-level government bureaucrats? Are they academics? Are they paid survey-takers with whom you pre-tested the survey? The term is simply not useful in instilling any kind of confidence by the respondents that what “some people” say is meaningful.
- On page 13, again in Q15, the first three of the statement raise serious concerns about your survey methodology. Taking each in order, my concerns are as follows:
 1. “I did not feel it was my responsibility to pay for the protection of Steller sea lions....” This statement is misleading. Respondents' conceptions of responsibility will differ and may not accurately reflect what their actual responsibility is to the protection of marine mammals. When citizens elect their representatives to Congress, they both entrust and ask those representatives to fashion and enact the laws of the United States. By electing their representatives to Congress, the public (and thus we assume your respondents) are accepting responsibility for the laws crafted by those representatives. It is therefore all United States citizens' responsibility to “pay” for Steller sea lion protection just as it is our responsibility to pay for clean water or clean air, or to make government buildings accessible to people with disabilities, or to maintain a strong national defense. Because this is the actual responsibility that citizens have to paying for Steller sea lion protection, but because you do not clarify what is meant by the word “responsibility” in the question, your results will be necessarily without context and thus meaningless as respondent data.
 2. “There was not enough information for me to make an informed choice between the alternatives....” For good reason your respondents might feel this way; you've given them a very narrow and stilted view of endangered species protection with this survey. If the survey actually acts as an

introduction to endangered species protection for any respondents – which it is bound to do – then you will have done them, the ESA, and the Steller sea lion a great disservice through the survey’s narrow scope, biased wording and phrasing, and poor execution. I expand on this point in my comments about the rationale, below.

3. “The added costs I was willing to pay were just to protect Steller sea lions, and not to protect other species....” The results of this question will not be meaningful because you have not given respondents nearly enough of an introduction to other species and their respective protection needs and you have not asked respondents to describe the other protected species about which they might already know and care. So, you have no common basis for comparison of the results of this question. The data that results from this question will therefore be without merit.

Second, the rationale. I will focus my comments on the rationale NMFS put forth in 71 FR 54472, which was a modification of the rationale offered in the original Federal Register notice. In the modified rationale, NMFS states that

“The public benefits associated with the results of protection actions on the endangered Western and threatened Eastern stocks of Steller sea lions (*Eumetopias jubatus*), such as population increases, are primarily the result of the non-consumptive value people attribute to such protection (e.g., active use values associated with being able to view Steller sea lions and passive use values unrelated to direct human use). Little is known about these values, yet such information is needed for decision makers to more fully understand the trade-offs involved in choosing among protection alternatives and to complement other information available about the costs, benefits, and impacts of the protection alternatives.” (71 FR 54472)

This rationale offers a strong statement in support of collecting data about non-consumptive use values. However, the draft survey itself fails to embrace the justification given it, and instead reads as a subjective document designed to bias respondents into favoring the perceived economic costs of sea lion recovery over actual recovery options. As I indicate in my comments above, I find the survey instrument to be rife with language and phrasing and choices of contextuality that appear to indicate NMFS’s sympathy for (*at the very least*) exploring economic concerns over all other concerns, and (*at the very worst*) seeking a justification for reducing Steller sea lion protection in the face of mounting economic costs, or even the perception of such costs, associated with protection. The survey and its justification fail in many ways to provide information necessary to making the instrument a balanced, objective, and useful research tool for the purposes of adding valuable knowledge to the species protection process. For example:

- The survey is likely to play an important educational role among respondents who will likely never have been asked about or even considered before “the non-consumptive value people attribute” to marine mammal or endangered species protection. And yet nowhere in the survey do you introduce any information to

provide respondents with the context of ESA mandates or policy prescriptions. While you do provide a great many apparently biased (and often misleading) statements on the economics costs or conflicts associated with endangered species or Steller sea lion protection, you do not balance that information with contextual statements on, for example, the purpose and requirements of the ESA or the judicial history of ESA review that so strongly supports protection over economic considerations (e.g., the landmark case of *TVA v. Hill*, 437 US 153 [1978]). It is unclear why you do *not* include information that might provide respondents with a more realistic understanding of the ESA policy arena, especially when you *do* include information that is misleading and provides a false idea of the type of economic conflicts that are created by species protection under the law.

- In your justification for the survey, you prominently note “the non-consumptive value people attribute to...protection” and how “little is known about these values.” And yet, in the survey, you devote substantial time and space to exploring the potential economic costs of protecting Steller sea lions and next to none to exploring the many social, economic, psychological, and experiential benefits of Steller sea lion (and other species) protection. There is a voluminous literature on the benefits of species protection, as there is on the economic costs of species protection. NMFS staff who are involved in writing and implementing a survey such as this ought to be at least conversant if not expert in the literatures associated with the fields of study of the benefits and costs of endangered species protection. If they were – conversant or expert – they would recognize that (1) the survey is severely lacking in its attention to the benefits of endangered species protection and (2) most of the literature on economic conflicts with endangered species protection betrays the bias of your survey and repudiates the false assumptions it seems to promote about the economic costs of protection Steller sea lions.

NMFS should recognize that presenting a survey that is both lacking a balanced approach to the costs and benefits of species protection and apparently biased toward a view that species protection carries serious economic costs is at its core a biased instrument. The only explanation for the use of such a biased instrument would be to collect data for which the agency wants to control the outcome – that is, a biased survey designed to provide specific information desired by the agency under the guise of objectivity. I am not cynical enough to believe that NMFS is interested in such a transparently crass political goal as this, but I do hope that you will recognize that the survey as written will not help to promote a clear and effective decision making process for Steller sea lion protection. I would strongly recommend dropping the survey entirely due to its deeply flawed nature and lack of overall utility to Steller sea lion protection and the goals of the ESA.

Thank you for the opportunity to comment. Please don't hesitate to contact me if you have any questions.

Sincerely,

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Response to Comments
Submitted from Richard L. Wallace, Ph.D., Ursinus College
on October 16, 2006

Overview

Dr. Wallace's comments primarily fall into four general categories as discussed in this section. Detailed comments are discussed in the next section.

1. Use of economics in ESA program evaluation. One thread underlying the comments is a concern that economics should not be used in Endangered Species Act (ESA) program evaluation. For Steller sea lions, we are not suggesting that economics will or should be the deciding factor in program evaluation, but rather that economic costs and benefits (public preferences) are among many useful sources of information that can be used in the evaluation of alternative protection programs. In deciding between the available management actions to protect Steller sea lions, policy makers must balance the ESA and Marine Mammal Protection Act (MMPA) goals of protecting Steller sea lions from further declines with providing for sustainable and economically viable fisheries mandated under the Magnuson-Stevens Fishery Conservation Act (P.L. 94-265). Since Steller sea lion protection is often linked to fishery regulations, decision makers must comply with several federal laws and executive orders in addition to the ESA and MMPA, including Executive Order 12866 (58 FR 51735), which requires regulatory agencies to consider costs and benefits in deciding among alternative management actions, including changes to fishery management plans made to protect Steller sea lions. Thus, under this executive order, decision makers need to *consider* both the benefits and the costs associated with proposed actions, but are not required to base their decisions on these considerations. This survey is being conducted to provide information on the economic benefits associated with protecting Steller sea lions, which is currently unavailable. Also, in contrast to Dr. Wallace's comments, it should be noted that economic considerations are explicitly included in the ESA. As noted by Gardner Brown and Jason F. Shogren, under Section 4 of the ESA:¹

The Secretary of the Interior may "take into consideration the economic impact, and any other relevant impact, of specifying any particular area as critical habitat" for a threatened or endangered species, and can exclude an area from critical habitat designation if the benefits of exclusion outweigh the benefits to specifying the critical habitat, "unless failure to designate leads to extinction." (Brown and Shogren, 1998, 8)

2. Application of Economic Methods. Many of the comments are assertions that do not reflect the abundant economics literature and applications of survey-based non-market valuation methods. The surveys were developed (a) by published experts in the field following standard methods, (b) reviewed in detail by nationally recognized non-market valuation economic experts and by nationally recognized survey design experts who have worked with non-market valuation methods, and (c) with multiple focus groups, one-on-one interviews, and a formal pretest that were conducted to obtain and evaluate public input.

¹ Brown, G. and J.F. Shogren (1998). "Economics of the Endangered Species Act," *Journal of Economic Perspectives*, 12(3): 3-20.

3. Design biases. Many comments express concerns that the specific survey content and wording may bias the results toward lower values for alternative policies to protect Steller sea lions. Several general points are important in response to these concerns:
 - a. To limit factual error, the content of the surveys were reviewed by NOAA program scientists and managers for technical accuracy.
 - b. To eliminate presentation biases, the survey was reviewed by non-market valuation economic experts and survey research experts.
 - c. Many of the comments about bias concern inclusion of material on the social or financial costs of the ESA or of Steller sea lions protection, specifically impacts to commercial fishing income and jobs (Page 3 of comments: “I hope that NMFS would not want to bias respondents to favor economic concerns over species protection”). While ideally we seek to measure only the preferences and benefits of protection (not the benefits net of social impacts and costs, which may be evaluated separately), entirely omitting or underplaying these potential impacts and costs: (i) does not make these issues disappear for respondents who are concerned about them (in the design testing, respondents would bring it up if we did not mention it), (ii) can create a perception by respondents that the survey is not neutral in obtaining public preferences and thus is biased in the opposite direction, (iii) can cripple the investigators’ ability to detect differences in respondent attitudes about these impacts and to account for co-mingled benefits and costs in the estimation of benefits, and (iv) precludes the development of a realistic valuation scenario and mechanism for respondents to pay for additional protection. The selected content on social impacts and costs was included after careful attention to the matter in our review of the literature, and following input from focus groups and one-on-one interviews with members of the public.
 - d. An important design consideration in stated preference non-market valuation surveys is that the survey should be cautious to avoid inflated values and should even error toward understated values. Dr. Wallace’s suggestions to spend more time on ESA mandates and benefits, and omitting any consideration of impacts and costs would both be clearly upwardly biased, and would preclude economic measurement of public preferences. Simply asking for respondents to indicate support for or against a program without having realistic personal consequences, such as specified additional cost to the household, has little defensibility within this framework.
4. Use of the information collected generally. Several comments surround the issue of how information from the survey will be used. Specifically, Dr. Wallace raised concerns about how information that appears to indicate a lack of concern or support for Steller sea lions or similar sentiments will influence policy decisions. As suggested by the discussion in Overview item #1 above, the information collected in the survey will be made available to decision makers as an additional source of information that may possibly be used in the evaluation of alternative protection programs. However, it is important to note that the reporting of the survey results will provide any necessary caveats concerning the nature and intent of asking the questions. In many cases, the questions that Dr. Wallace expressed concern about are asked as cognitive prompts that aid respondents to process and review the material they have been presented. These are critical for ensuring respondents read and

understand the content of the survey. Many of these questions also act as internal consistency checks to ensure that a respondent's responses to the valuation questions are consistent with the attitudes and preferences they indicate in these questions. At the same time, it is important to acknowledge that the nature of the actual responses (e.g., whether the results indicate the public supports or does not support additional protection efforts) does not affect the validity of the results. In our view, it is our responsibility to develop a valid survey instrument for the purpose of estimating public preferences and values associated with Steller sea lion protection, implement it in a way that is consistent with state-of-the-art methods in a scientifically-defensible manner, and convey the results in a way that makes transparent any assumptions and issues that would affect the interpretation of the results. Then, it is up to the decision makers to decide whether or not and how to use the results, if at all, within the confines of applicable laws and regulations.

Detailed Discussion

Below, we identify the location of specific comments in Dr. Wallace's letter (denoted by italics below) and briefly state the core of the comment and our response.²

1. *Page 1, paragraph 3, bullet 1.* Dr. Wallace disputes the use of the term "costs" on survey page 2, line 5. Replacing the word "cost" with "impacts" (as has been done in subsequent edits) resolves the item. The comment that the original wording is "likely to bias the results" is unsupported.
2. *Page 2, bullet 1.* This comment is about identifying a potential trade-off between species protection and jobs in Q3 of the survey, which he suggests "is not well established" and that the issue "must not be a concern of NMFS when the agency makes decisions about actions under the ESA." Irregardless of whether such a conflict exists or not (it is documented for Steller sea lions) or is a factor in ESA decisions, understanding a respondent's views on this are beneficial in the non-market valuation (see the response under overview item #3c and item #4). Respondents are asked this question for a couple reasons. First, it provides a neutral perspective by acknowledging the issues many in the public raise themselves and lets respondents express views on the issue early in the survey. And second, it is one of several items used to help identify "protest" respondents who may mix protection concerns and concerns about impacts and costs.
3. *Page 2, bullet 2.* This comment concerns the summary chart of seals and sea lions on survey page 3. Dr. Wallace suggests the population numbers do not communicate the trend and status of these populations. In fact, the chart and subsequent page do provide information on both population trends and the threatened and endangered status for these species. This presentation has well-grounded non-market valuation design objectives. The first is to put the Steller sea lion population in perspective – it is not the only seal or sea lion, and it is not the only one listed as threatened or endangered. Whether one agrees or not, for some members of the public this is important information in forming their preferences about additional Steller sea lion protection and without this information the survey would be

² The numbering of comments is ours to facilitate review.

compromised as potentially overstating the importance of Steller sea lions. Second, the presentation is also clear that Steller sea lions are the only seal or seal lion species presently being actively evaluated for new protection actions, which lays the basis for why respondents are asked to focus on this species.

4. *Page 3, bullet 1.* This comment regards the second bullet after Q4 on survey page 4 and repeats Dr. Wallace's concerns with the potential that the public may be concerned about jobs as well as threatened and endangered species. Omitting this information does not make it go away in the minds of respondents who are concerned with this issue (they bring it to the survey on their own). This information is important as it develops the real-life link between fish stocks and Steller sea lion stocks, and thus why actions to regulate fishing have occurred. It also contributes to a realistic non-market valuation scenario of additional fishing restrictions for additional protection, with additional costs paid by respondents.
5. *Page 3, bullet 2.* This comment concerns Q7 in the survey that asks about the respondent's level of concern for each Steller sea lion stock. Dr. Wallace states he does not know the use of this question (given his view of statutory mandates), and expresses concern that respondents may say they are "not at all concerned" about the Steller sea lion stocks.³ This question is used to support the respondent's cognitive process of reviewing and evaluating the survey material provided. It also provides a consistency check on subsequent valuation responses (i.e., Are the valuation responses consistent with other attitudes in the survey?). Thus, this question falls under the category of questions discussed in overview item #4 above.
6. *Page 3, bullet 3.* This comment is about Q8 in the survey, which asks for the respondent's level of concern about the impact on fishing. As in item 5 above, Dr. Wallace expresses concern about the potential for undesirable results (Page 3 of comments: "...what will you make of the data if the responses come back overwhelmingly concerned with the loss of jobs due to Steller sea lion protection?"). The same responses apply here as in overview item #4 and detailed items #3, #4, and #5 above. That is, the survey is being neutral, it is setting up a realistic valuation scenario, and NMFS is not seeking or expecting any specific type of response from respondents beyond valid ones. The responses, whatever they may be, are pieces of information that may be useful for decision makers to have available when evaluating alternative protection actions.
7. *Page 3, bullet 4.* This comment concerns statements on page 8 of the survey. Dr. Wallace expresses concern with the economic non-market valuation scenario developed because "the survey is unmistakably preoccupied with economic concerns and the economic and (ostensibly) other costs of protecting Steller sea lions". This appears to repeat the general concern discussed above in this response (overview item #1), and thus the same responses apply. He further states the survey "fails to address in even the mildest possible fashion the *benefits* of protecting Steller sea lions," without acknowledging the discussion of benefits on the top of page 2 in the survey, and that generally respondents bring to the survey a strong sense of concern for ecologic protection.

³ As an aside, the pretest and interviews suggest that a substantial majority of the public's responses do not support Dr. Wallace's concerns expressed about Q7, or later for Q8, Q9, or Q10.

8. *Page 3, bullet 5.* This comment repeats concerns about the purpose and use of the results for Q9 in the survey, which asks whether respondents believe more should be done to protect the Eastern and Western stocks (Page 3 of comments: “what will you make of the data if the responses come back overwhelmingly against spending more money to protect the western stock of Steller sea lions?”). This question and Dr. Wallace’s concern about it are addressed by overview item #4 above.
9. *Page 4, bullet 1.* This comment repeats concerns about the purpose and use of Q10 of the survey that deals with protection of the Western stock in some versus all habitat areas. Based on pretest results suggesting limited relative importance of this characteristic vis-à-vis other protection program characteristics, this aspect (and Q10) of the survey has been removed.
10. *Page 4, bullet 2.* This comment expresses concern that the stated choice (conjoint) questions are too complex. It should be noted that the questions have been significantly simplified by the elimination of the Western stock area attribute (row 3 under the Western stock in the choice questions).⁴ That said, the stated choice questions are certainly non-trivial, which is why the scenarios are carefully developed on earlier pages, and the choice questions are specifically explained on page 9. The stated choice methods are accepted and frequently applied in market research, transportation choice, non-market valuation, and other applications. The specific stated choice questions in this survey (including multiple variations) are now generally less complex than in typical applications, and have been thoroughly tested in the design process.
11. *Page 4, bullets 3 and 4.* Dr. Wallace takes issue with several aspects of Q15 in the survey. He dislikes the phrase “some people” used in Q15. However, this wording was specifically recommended to us by a survey design expert and acknowledges that different people have different opinions, and has been successfully tested and used in this and other surveys. Dr. Wallace then expresses a dislike for the response categories to the question. The categories reflect traditional items included in stated preference follow-up evaluation, which are often required by OMB in the survey approval process and are needed to evaluate valuation responses⁵. The specific question items help identify the potential for rejecting the valuation scenario (1st, 4th, and 5th items, used in conjunction with other survey data), poorly formed responses (2nd item, used in conjunction with other survey data and response variance analysis), and part-whole embedding bias (3rd item).
12. *Page 5, middle to the end.* The remainder of the comments expresses concern that the survey may not be sufficiently extensive to fully educate the public about the ESA and may bias values downward.

⁴ This attribute was removed in favor of applying study resources to the more important question of varying future baselines with the current program actions (decreasing, stable, increasing population levels). The future baseline is varied across respondents, not within a survey for the individual respondent, thus adding richness to the overall investigation without adding complication to the respondents.

⁵ For the formal pretest conducted for this study, OMB specifically suggested these types of items be included in the survey.

- a. Dr. Wallace indicates “nowhere in the survey do you introduce any information to provide respondents with the context of ESA mandates or policy prescriptions” (pages 5-6 of comments). On the contrary, page 1 of the survey provides information about the ESA mandate that “requires the federal government to take reasonable actions to protect threatened and endangered species...” Going into more detail was specifically addressed in focus group discussions and was ruled out as it overburdened respondents without purpose.
- b. He repeats concerns about the attention in the survey to the impacts and economic costs associated with Steller sea lion protection. As noted above, this material is necessary because we learned in focus groups and in one-on-one interviews that the public will introduce it (explicitly or implicitly) in their responses with or without the researcher raising the topics. It is better for the researcher to understand the respondent’s views as part of the process of evaluating the valuation responses. Also, as noted above, this information is part of the non-market scenario development required for valuation.

THE HUMANE SOCIETY OF THE UNITED STATES.

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15 October 2006

Re: Request for Comments on Economic Survey of Steller Sea Lion Protection [71 FR 54472]

Dear Ms. Hynck,

On behalf of the more than nine million members and constituents of The Humane Society of the United States (The HSUS), I am writing to outline our concerns and express our opposition to the language in and use of the above-cited survey. While we believe that it is important to solicit the value that the public places on the conservation of Steller sea lions, this survey will not achieve that goal. This particular survey is misleading, biased, and an unnecessary and ineffectual use of agency funds and resources.

The Department seeks comments on whether the proposed collection of information is necessary for the proper performance of the functions of the agency; the accuracy of the agency's estimate of the burden (including hours and cost) of collecting the information; ways to enhance the quality, utility and clarity of the information to be collected; and ways to minimize the burden of collecting the information on respondents. We will not comment on the latter, as we believe that our comments cast doubt on the need to conduct the survey.

The Stated Goals of the Survey Are Inconsistent with the Language of the Questions Posed in the Survey

The purpose of this survey has changed since its inception. The initial notice announcing its availability for comment¹ states that the survey is being undertaken because "it is important to understand the public's attitudes toward the variety of potential impacts on Steller sea lions, Alaskan fisheries, fishing communities and the nation."²

¹ 71 FR 47177 (August 16, 2006).

² Id. at 47179.

The National Marine Fisheries Service (NMFS) justified the need for the survey because it is "crucial to ensure efficient management of Alaskan fisheries and protection of Steller sea lions."³ Midway through the comment period, NMFS changed the stated purpose of the information collection and issued a correction stating that the survey is now intended to ascertain "active use values associated with being able to view Steller sea lions and passive use values unrelated to direct human use."⁴ This new purpose for the survey is alleged to help "decision makers to more fully understand the trade-offs involved in choosing among protection alternatives to complement other information available about the costs, benefits and impacts of the protection alternatives."⁵

The purpose of the survey has changed from evaluating relative impacts of protection on Steller sea lions and fisheries for the purpose of managing fisheries, to a simple interest in assessing the public's "values" relative to viewing Steller sea lions and supporting conservation for the purpose of helping decision makers understand "trade-offs." Although the stated goals of the survey have changed, the structure of the questions in the survey has not changed. As will be discussed more fully below, the construction of the survey remains biased toward accomplishing the original stated objective (comparing impacts on sea lions versus fisheries), not the newly revised objective. It appears that the purpose is not static, but is still evolving, which casts doubt on the value of undertaking a survey with contradictory goals.

The Mandate to Recover Endangered Species is Independent of Cost

Regardless of the results of the "public opinion poll," the Department has a statutory responsibility to protect the species even if it causes economic impacts to fisheries and fishing communities in Alaska. Steller sea lions, which are divided into two stocks, are listed under the Endangered Species Act (ESA). The eastern stock is listed as threatened under the ESA and is considered stable in most parts of its range. The western stock is listed as endangered, and it has declined dramatically in the past three decades, with only small increases in some parts of its range over the past three years. Critical habitat has been designated throughout Alaska in an attempt to mitigate impacts from commercial fisheries operating near crucial rookeries and haul outs.⁶

The ESA mandates that the needs of listed species, and the protection of critical habitat, must take precedent over other factors normally considered by agencies when adopting regulations.⁷ While economic costs and benefits of regulations must be addressed through the NEPA process, these and other similar considerations must give way so that Steller sea lions may receive the necessary protections to recovery to "halt and reverse the trend toward species extinction, whatever the cost."⁸ Indeed economic considerations must not influence NMFS's decision as to the level of protection established, although they may

³ *Id.*

⁴ 71 FR 54472 (September 15, 2006).

⁵ *Id.*

⁶ 50 CFR 226.202

⁷ See *TVA v. Hill*, 437 U.S. 153, 174 (1978) (concluding that it is "beyond doubt that Congress intended endangered species to be afforded the highest priorities.").

rightly consider them if two courses of action would provide appropriate and equivalent protection. Public opinion cannot determine whether the agency meets its statutory obligations under the ESA to recover listed species.

Inaccurate Cost Estimate

According to the August 16th Notice, there is no cost to the public for conducting this survey. This is misleading as the public will definitely be affected by the use of appropriated agency funds and resources. The NMFS staff revealed that this survey was designed by one consultant and reviewed by other consultants. This effort clearly has already required the expenditure of resources, and any revision based on public comment will require additional expenditures. NMFS staff also revealed that several focus groups have also been held, which must have required out-of-pocket expenses. Further, if the survey is conducted "through a mail survey" and "telephone interviews" (ibid), the government will incur phone and mail charges in administering the survey. Staff time is required to process answers.

The "Annual Burden Hours" for this project are estimated at 1,400. While the staff involved in this effort may already be NMFS employees, their time would be spent on this survey to the exclusion of other efforts that may be of greater use. Furthermore, the NMFS has recently used budget constraints as the rationale for canceling or postponing important meetings that have significant implications on evaluating impacts to Steller sea lions (e.g., the Serious Injury Workshop originally scheduled for November 13-14, 2006). The conduct of this survey, which is of doubtful utility in aiding the Agency in meeting its statutory obligation to protect the species, is using time and fiscal resources that might better be spent on measures that can help understand and mitigate the various contributors to the recent declines.

Comments on the Quality, Utility and Clarity of the Information to be Collected

The questions in the survey and the construct of the survey itself do not appear to meet the objectives defined in the notice. In fact, the survey seems designed to assess the public's attitudes toward paying to protect sea lions rather than the newly stated purpose of evaluating "active use values associated with being able to view Steller sea lions and passive use values unrelated to direct human use."⁹ The questions go into some depth about how much the public is willing to pay for various degrees of recovery or time delay in recovery. This does not seem to be the same as inquiring about their "values" related to protection of the endangered portion of the stock, versus the threatened portion. Furthermore, the information provided as background paints a limited picture of the legal mandates for protection; but, more alarmingly, portrays a limited and biased picture of the stocks' status and their decline.

The introduction to the survey states that the ESA requires the government to take "reasonable actions" to protect listed species. There is no information provided on the ESA's mandate to recover species or on the Marine Mammal Protection Act's mandate

⁹ 71 FR 54472.

that "takes" not impede recovery time by more than ten percent. [see for example 16 U.S.C. 1362 §3 (20) and GAMMS Guidelines]

Background information on the Steller sea lions is practically nonexistent but weighted heavily to portray the Steller sea lions as an economic nuisance. Page five gives "some facts" about Steller sea lions, which will serve to significantly bias respondents and thus responses. The four facts may be summarized as: they are large, they eat the same fish we eat, they don't go far from where they were born, and their numbers don't "greatly" affect other species. There are no facts that are likely to endear these animals to the public such as maternal care and defense. The only facts that might influence opinion deals with what they eat. One of the facts tells the public that a single adult sea lions will eat 10 tons of fish each year that "fishermen catch for people to eat." The implication that can be drawn from this is that they may somehow interfere with the amount of fish available for fishermen to catch, rather than the reality that fishermen are catching so many fish that this may imperil the species' future. Although this relationship between the decline and fishery competition is clarified three pages later (after respondents have been shown a chart that indicates that the population is stable), this early and misleading statement inserts a bias in the likely answers to the questions that follow.

The chart on page 9 indicates that if we do nothing, the population trajectory will not be harmed. This stability, which may seem reasonable to a naïve public, does not reflect the BSA's mandate to recover species, nor does it indicate that in some parts of their range, western Steller sea lions are still declining. The public also has little understanding of complex issues such as threshold populations that are necessary to maintain a species in perpetuity. In fact, science knows little about this until it is too late, but a chart showing a stable population over a long term is likely to provide a naïve assurance and provoke little "concern." This misleading information misrepresents the current situation and will inappropriately reduce respondents' concern about the viability of the species. In turn, it will be all too easy to misinterpret the findings as a lack of public concern.

Following this chart that omits the spotty picture of recovery and paints a picture of stability in the Western stock, respondents are then informed that fisheries have been restricted because of the Steller sea lions, thus making it more costly to fish. They are then asked if this is of concern to them. Nowhere are respondents told that commercial fisheries are also being investigated as contributing to declines in a large suite of species in Alaska (e.g. Gulf of Alaska harbor seals, Aleutian sea otters, fur seals). The construct of the question, given the information leading up to it, seems designed to elicit responses that will express sympathy for the cost to fisheries over the damaging effect to the species (which respondents are informed is stable).

Page 9 states that doing more to protect Steller sea lions will cost the individual respondent more money. The statement even emphasizes with underlining that this will mean "higher prices for fish" and "increases in taxes." It is not clear to us why it is necessary to provide extra emphasis on this, when there is no similar emphasis in any part of the questionnaire as to what can happen to the species without restrictions (i.e. telling

them that without additional restrictions, declines may continue in some parts of their range).

The purpose of the survey was revised to help "decision makers to more fully understand the trade-offs involved in choosing among protection alternatives."¹⁰ Decision makers frequently employ trade-offs in the recovery actions targeted to threatened stocks versus endangered stocks. It is common practice to sacrifice some protections for threatened stocks to provide greater protection for endangered stocks. Yet this survey does not allow the respondent to separate the cost of the unspecified recovery efforts for Eastern Steller sea lions (which they are told are increasing) against the cost for recovery efforts focused on the endangered Western stock. In the survey questions starting on page 11, both populations are lumped together with a cost provided for actions affecting both. The results, then, will not provide useful information to decision makers and defeats the very goals of the survey.

Furthermore, respondents are not provided with information on the doubt surrounding our knowledge of the impact of fishery restrictions on the trajectory of the declines in various parts of the range. This inappropriately assures them that measures are successful when the recovery plan for the species acknowledges this remains unknown.

Question 16 on page 14 asks respondents to estimate how accurately they think their answers reflect their feelings. This is nonsensical. Their responses have been shaped by a bias toward perceiving that Steller sea lion populations are stable or increasing and it will cost the public and fishermen money to protect them. Although the answer to question 16 might yield a professed certainty, that response would likely not be the case if they were presented with additional, unbiased information. This pseudo-certainty may not be helpful to interpreting the results of the survey and transmitting an imperative to managers.

Conclusion

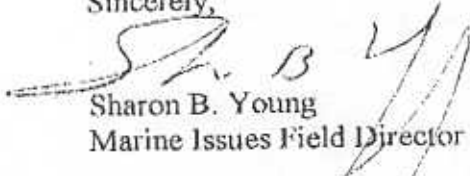
This survey is inappropriate and biased, and will thus yield unreliable data. It has associated costs that were not revealed in NMFS's zero cost estimate. The agency has substantially deviated from the original notice of availability, releasing a correction after half of the public comment period had elapsed. The background information provided to respondents is limited and biased (providing an inappropriately limited picture of recovery and success of management measures). Questions in the survey are constructed primarily to inquire about the cost the public is willing to pay for various delays in recovering both stocks of the species which they are told are stable or increasing. Because the survey devotes considerable space to asking how much cost respondents are willing to assume but pays little attention to assessing the value of recovering the species, it seems apparent that the questions in the survey are not appropriately constructed to address the survey's newly stated purpose. Thus, their utility and clarity are questionable at best.

¹⁰ *Id.*

Conducting this survey as written will not be useful in informing decision makers of the "trade-offs" in recovery efforts. On the contrary, it will elicit incomplete and ineffectual responses from respondents who are not fully informed of the facts.

Please feel free to contact me if you have questions regarding our comments.

Sincerely,



Sharon B. Young
Marine Issues Field Director

cc. Tim Regan, MMC

Response to Comments
Submitted from the Humane Society of the United States
on October 16, 2006

Overview

The comments received from the Humane Society of the U.S. (HSUS) fall into four main categories as delineated in the original comments and as discussed below.

1. The Stated Goals of the Survey are Inconsistent with the Language of the Questions Posed in the Survey. The HSUS' claim that the goals of the survey has changed is incorrect. The goals of the survey have always been the same—to collect stated preference economic information about respondents' preferences and values related to outcomes of protection actions on Steller sea lions. This information would then be made available to decision makers as an additional source of information that may possibly be used in the evaluation of alternative protection programs to supplement other information already available; although whether or not the information is used, or is a factor in any decisions made, is solely up to the decision makers. The original Federal Register (FR) notice (71 FR 47177) was not clear on these points and was misconstrued by several readers to imply different goals. As a result, the FR correction (71 FR 54472) was developed to clarify this point.

2. The Mandate to Recover Endangered Species is Independent of Cost. The HSUS expresses concern that the results of the survey should not affect the mandates to protect Steller sea lions. It should be made clear that the results are *not* intended to determine whether or not to protect Steller sea lions at all. In fact, the information collected in the survey is intended to supplement other information on the costs and impacts of the variety of protection alternatives to help decision makers better evaluate the available options *for protecting* Steller sea lions. Furthermore, we are not suggesting that economic considerations will or should be the deciding factor in any Steller sea lion protection program evaluation, but rather that economic costs and benefits (public preferences) are among many useful sources of information that can be used in the evaluation of alternative protection programs. In deciding between the available management actions to protect Steller sea lions, policy makers must balance the Endangered Species Act (ESA) and Marine Mammal Protection Act (MMPA) goals of protecting Steller sea lions from further declines with providing for sustainable and economically viable fisheries mandated under the Magnuson-Stevens Fishery Conservation Act (P.L. 94-265). Since Steller sea lion protection is often linked to fishery regulations, decision makers must comply with several federal laws and executive orders in addition to the ESA and MMPA, including Executive Order 12866 (58 FR 51735), which requires regulatory agencies to consider costs and benefits in deciding among alternative management actions, including changes to fishery management plans made to protect Steller sea lions. Thus, under this executive order, decision makers need to *consider* both the benefits and the costs associated with proposed actions, but are not required to base their decisions on these considerations. This survey then is being conducted to provide information on the economic benefits associated with protecting Steller sea lions, which is currently unavailable.

3. Inaccurate cost estimate. The HSUS objects to the reporting of \$0 as the annual total cost burden to the public in the FR notice. However, this is the correct cost burden to report in the context of the FR notice. The notice was published as part of the Paperwork Reduction Act (PL 104-13) process, which requires we notify the public of the cost burden on *respondents* to the survey. Thus, the reported cost estimate does not refer to the costs of conducting the study, which HSUS correctly points out are not \$0, but rather to the monetary cost completing the survey would have on respondents to the survey. Given the survey would be mailed with a self-addressed and stamped return envelope, there are no out-of-pocket costs to the respondent. For more details of this reporting requirement, please see the OMB Paperwork Reduction Act website: <http://www.whitehouse.gov/omb/inforeg/infocoll.html#PRA>.
4. Comments on the Quality, Utility, and Clarity of the Information to be Collected. Many of the comments under this heading are assertions that do not reflect the abundant economics literature and applications of survey-based non-market valuation methods. The surveys were developed (a) by published experts in the field following standard methods, (b) reviewed in detail by nationally recognized non-market valuation economic experts and by nationally recognized survey design experts who have worked with non-market valuation methods, and (c) with multiple focus groups, one-on-one interviews, and a formal pretest that were conducted to obtain and evaluate public input.

Some comments express concerns that the specific survey content and wording may bias the results toward lower values for alternative policies to protect Steller sea lions due to an emphasis on economic considerations. Several general points are important in response to these design bias concerns:

- a. To limit factual error, the content of the surveys were reviewed by NOAA program scientists and managers for technical accuracy.
- b. To eliminate presentation biases, the survey was reviewed by non-market valuation economic experts and survey research experts.
- c. Some of the comments about bias concern inclusion of material on the social or financial costs of the ESA or of Steller sea lions protection. While ideally we seek to measure only the preferences and benefits of protection (not the benefits net of social impacts and costs, which may be evaluated separately), entirely omitting or underplaying these potential impacts and costs: (i) does not make these issues disappear for respondents who are concerned about them (in the design testing, respondents would bring it up if we did not mention it), (ii) can create a perception by respondents that the survey is not neutral in obtaining public preferences and thus is biased in the opposite direction, (iii) can cripple the investigators' ability to detect differences in respondent attitudes about these impacts and to account for co-mingled benefits and costs in the estimation of benefits, and (iv) precludes the development of a realistic valuation scenario and mechanism for respondents to pay for additional protection. The selected content on social impacts and costs was included after careful attention to the matter in our review of the literature, and following input from focus groups and one-on-one interviews with members of the public.

- d. An important design consideration in stated preference non-market valuation surveys is that the survey should be cautious to avoid inflated values and should even error toward understated values. HSUS' suggestions to spend more time on ESA mandates and benefits, include "facts that are likely to endear these animals to the public such as maternal care and defense" (page 4 of comments), and omitting any consideration of impacts and costs would both be clearly upwardly biased, and would preclude economic measurement of public preferences. Simply asking for respondents to indicate support for or against a program without having realistic personal consequences, such as specified additional cost to the household, has little defensibility within this framework.

Below, we consider specific comments not covered by the above general response to design bias concerns. We identify the location of specific comments made by HSUS (denoted by italics below) and briefly state the core of the comment and our response.

- a. *Page 3, second to last paragraph.* HSUS states the survey "seems designed to assess the public's attitudes toward paying to protect sea lions rather than the newly stated purpose of evaluating 'active use values associated with being able to view Steller sea lions and passive use values unrelated to direct human use.'" This concern may have arisen due to unfamiliarity with how information from questions in non-market valuation surveys generally, and this survey specifically, are used to estimate total economic values that embody viewing benefits and nonuse benefits. Responses to the stated choice questions (Q11, Q13, and Q14) provide information about each respondent's preferences with respect to different goals of Steller sea lion protection, such as increasing the Western stock population size versus increasing the Eastern stock population size. These responses are analyzed using econometric models that describe the choices that are observed and result in a valuation function that reflects the public's preferences and can be used to estimate economic values, such as those described above, and to evaluate trade-offs between competing protection objectives (e.g., preferences for increasing Western stock abundance versus increasing Eastern stock abundance).
- b. *Page 3, bottom.* The HSUS appears concerned that no mention was made about the Marine Mammal Protection Act (MMPA) and its mandates or additional details about the ESA. The design bias concerns response (d) above addresses this issue. Also, going into more detail about these laws was specifically addressed in focus group discussions and was ruled out as it overburdened respondents without purpose.
- c. *Page 4, first full paragraph.* The HSUS expresses concern that the facts provided about Steller sea lions will bias respondents by only providing facts that "portray Steller sea lions as an economic nuisance". The design bias concern response (d) above addresses this issue.
- d. *Page 4, second full paragraph.* HSUS is concerned that in the survey version they reviewed, the projected population trajectory for the Western stock is stable, which may be misleading as it "misrepresents the current situation and will inappropriately reduce respondents' concern about the viability of the species. In

turn, it will be all too easy to misinterpret the findings as a lack of public concern.” We agree that this is but one possible realization of the future abundance of the Western stock. However, as noted in the e-mail accompanying the draft survey, there are several other survey versions that differ in the trajectories that are presented from the one discussed by HSUS. One presents a declining population trend, and the other an increasing population trend. Individuals in the sample will receive one of these three survey versions. By accounting for the uncertainty associated with future abundance estimates of the Western stock in different survey versions, we can explicitly account for this uncertainty in the model framework, thus adding richness to the overall investigation without adding complication to the respondents.

- e. *Page 4, third full paragraph.* The HSUS expresses concern that information on page 7 of the survey is “designed to elicit responses that will express sympathy for the cost to fisheries over the damaging effects to the species.” The design bias concern response (c) above addresses this issue.
- f. *Page 4, last paragraph.* This comment is about objections to underlining of “higher prices for fish and fish products you buy” and “increases in your federal taxes” on page 9 of the survey. As implied by responses (c) and (d) of the design bias concerns response, a key component of stated preference survey design is developing a realistic valuation scenario and mechanism for respondents to pay for additional protection. The underlining is used to ensure respondents pay attention to the means through which new protection actions would have personal consequences on them, which was found beneficial to respondents in focus groups.
- g. *Page 5, first full paragraph.* The HSUS’ concern that the stated preference questions in the survey do “not allow the respondent to separate the cost of the unspecified recovery efforts for Eastern Steller sea lions (which they are told are increasing) against the cost for recovery efforts focused on the endangered Western stock” is again based on unfamiliarity with how responses to these questions are analyzed. Response (a) in this section addresses this issue.
- h. *Page 5, second full paragraph.* HSUS mentions that the presented future trajectories for the abundances of the two stocks are uncertain. As noted in response (d) in this section above, this uncertainty is handled through different survey versions that portray differing assumptions about future stock abundance. This allows uncertainty to be explicitly incorporated in the model framework.
- i. *Page 5, above the Conclusion.* HSUS questions the utility and function of Q16, which asks respondents for their confidence in answering the stated preference questions, calling the question “nonsensical”. In fact, Q16 has a very specific and important function. Combined with other answers in the survey, we will use answers to this question to evaluate the impact of uncertainty on valuation results, such as the mean and variance of estimated values. Results can also be reported with and without respondents who self-report that they are “not at all confident” in their answers.

MARINE MAMMAL COMMISSION
4340 EAST-WEST HIGHWAY, ROOM 905
BETHESDA, MD 20814

30 October 2006

Ms. Diana Hynek
Departmental Paperwork Clearance Officer
Department of Commerce
14th and Constitution Avenue, NW
Room 6625
Washington, DC 20230

Dear Ms. Hynek:

The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the National Marine Fisheries Service's proposed survey for measuring the preferences of U.S. residents regarding programs for the conservation and recovery of the Steller sea lion as described in the Service's 16 August 2006 *Federal Register* notice. The Commission appreciates the importance of generating useful information for decision-makers but has several concerns about the design of the proposed survey. We provide the following general and specific comments that we hope will be helpful.

GENERAL COMMENTS

First and foremost, we question whether the data generated by the survey will be useful. Because participants in the survey are being selected randomly, many, if not most, will be unfamiliar with the mandates of the Endangered Species Act and the specifics of the situation involving Steller sea lions. Thus, the survey results will likely reflect the first impressions of relatively uninformed citizens based on limited, and sometimes misleading, information involving fairly complicated issues.

We also question the utility of seeking public opinion, not on the general mandates and goals of a broadly applicable statute such as the Endangered Species Act, but on whether or how that Act should be implemented on a species-specific basis. Should the Service, for example, base its decisions on what is needed to achieve the recovery goals of the Act and its allocation of endangered species recovery funds on the popularity of the various species?

In some respects, the survey is designed to be a referendum on the mandates of the Endangered Species Act and the priorities placed on achieving its goals. In others, the questions are designed more to elicit what the average citizen is willing to spend (or forego) in furtherance of conserving Steller sea lions. By intermingling these objectives, the survey does not do a very good job of achieving either. If, in fact, the survey is intended to provide public opinion on the general directives of the Act, additional information on its provisions and rationale need to be provided. In addition, such questions should be couched in terms of protecting endangered species and ecosystems generally and should not be raised in the context of a single species. If, on the other hand, the survey is intended to apply only to Steller sea lions, it should begin by setting forth the

mandates of the Act, and the questions should be geared toward eliciting views on the best ways to achieve those goals.

In the Commission's view, the survey seems inconsistent with the broad and farsighted findings and purposes of the Endangered Species Act. The survey presents inaccurate and insufficient information; seems inappropriately to lead respondents to particular conclusions; misrepresents the complexity of the issues involving Steller sea lion status and conservation; appears to assume that the only values of consequence are short-term economic ones; proposes actions that appear inconsistent with or contrary to the provisions of the Endangered Species Act and the Marine Mammal Protection Act; and promotes a utilitarian perspective rather than a rigorous science-based search for solutions to difficult conservation problems. The superficiality and inaccuracy of the survey design seem likely to produce responses that could detrimentally affect the conservation and management of fisheries and marine ecosystems. More significantly, the survey seems to challenge the fundamental premises of major federal statutes, including the Magnuson-Stevens Fishery Conservation and Management Act, the Endangered Species Act, the Marine Mammal Protection Act, and the National Environmental Policy Act.

We also question the scale of the suggested economic consequences in several of the questions and the level of detail in how those impacts might affect particular households. Also, the survey does not indicate what is being spent on Steller sea lion conservation under the current program. This would be useful background information for assessing the various alternatives.

Over the past several years, funding for the National Marine Fisheries Service's Steller sea lion program has varied considerably, from about \$3 million in 1998 to more than \$40 million in 2001. Similarly, expenditures that the Coast Guard attributes to enforcement related to Steller sea lions have varied considerably from year to year, reaching a high of just under \$40 million in 2003. Total federal and state expenditures on Steller sea lion programs peaked in 2002 at about \$56 million. Current census figures indicate that there are about 109 million households in the United States. As such, the maximum amount spent in any year on Steller sea lion conservation has been on the order of 50 cents per household. Against this background, it seems incongruous to be asking survey participants whether they would be willing to spend an additional 10, 40, or 80 dollars per year on sea lion recovery. Is the Service truly suggesting that optimal Steller sea lion recovery programs will cost \$8.7 billion per year over the next 20 years? If so, additional justification for the amounts suggested and the predicted outcomes is needed. Presumably, you would elicit a very different response if you asked participants whether they would be willing to spend an additional 50 cents a year on Steller sea lion conservation. This amount would about double the maximum amount of federal and state expenditures in any one year over the past decade.

The questions related to costs seem to assume that potential increases in the cost of fish will be shared equally among consumers. It should be recognized that these costs would vary regionally and among households. In fact, much of the fish caught in the area inhabited by the western stock of Steller sea lions is marketed overseas. As such, it might be more appropriate to ask if the participant cares whether a Japanese consumer has to pay more for fish from the United States if

any such cost has only a small impact on the income of U.S. fishermen and contributes to the conservation of endangered and threatened species.

SPECIFIC COMMENTS

Question 1 appears to be a referendum on the Endangered Species Act. As noted above, if this is one purpose of the survey, the background information provided is insufficient to generate informed opinions. Further, although it is reasonable to assume that respondents will have various opinions regarding the merits of the Act, it is not clear to us why the National Marine Fisheries Service would be seeking such information as a basis for determining whether it should carry out its responsibilities under the Act.

Question 2 suggests that agencies responsible for implementing the Endangered Species Act should determine the rigor with which they do so based on other considerations, such as the state of highways and roads, etc. The implication appears to be that laws should be rigorously implemented only if the issues they address are rated as high priority or—conversely—those deemed of lesser priority do not warrant implementation. Also, if this question is retained, it could be made more useful by asking related questions as to what the participants think the United States is currently doing to protect endangered and threatened species. It is of little value that someone thinks we should be doing more, less, or the same if they do not know what we are doing now.

Question 3 suggests that whether or not our conservation laws are implemented by the responsible agencies is simply a matter of the effects on jobs—and that protection of threatened and endangered species is always a trade-off resulting in a reduction of jobs. This seems a great oversimplification that may be true in some cases but certainly not true in all cases.

Question 4 is preceded by information including estimates of sea and sea lion abundance, but the information is incorrect and highlights seal species with large abundances, perhaps giving a false impression regarding overall status of seals and sea lions. The information is incorrect with regard to the trend in Hawaiian monk seals and the combined abundance of other seals. Further, the Steller sea lion is not the only seal or sea lion for which new protection efforts are being considered. As the Service should be fully aware, new protection measures are being considered for the Hawaiian monk seal (which, contrary to the information in the survey, is continuing to decline).

Question 7, and the information preceding it, give one possible future scenario for Steller sea lions, but there are others that may be equally likely. Scientists have documented, but cannot explain, an 80 percent decline in the western stock of Steller sea lions over the past three or four decades. To suggest that they have a reliable basis for projecting the trend in sea lions over the next 35 years presents a misleading representation of our understanding of sea lion status.

In the information preceding question 8, the second bullet suggests that fishing is not considered a major problem in the area where the eastern stock occurs. Is it that fishing occurs in a manner similar to that in the Gulf of Alaska and Bering Sea and doesn't have effects, or is commercial fishing in the southeast not comparable to that in the areas occupied by the western

stock? These alternative explanations could result in misinterpretation and misunderstanding by persons taking the survey.

Question 8 states that fishing restrictions to help conserve Steller sea lions have made fishing more costly. Again, this is not always the case. When measures were imposed on the Bering Sea pollock fishery to spread fishing effort over time and space, some of the large factory trawlers formed a cooperative that (1) established a joint strategy for dividing their catch allocation, (2) ended the race for fish (thereby making fishing safer), (3) distributed their fishing effort over time on a more rational basis (allowing fishing to occur when the target fish stocks were in the best condition), and (4) experienced a year of fishing that was profitable well beyond their expectations. So it is not always true that fishing costs more because of Steller sea lion measures. Also, as indicated above, those costs may not be borne by all consumers equally or, for that matter, even by U.S. consumers. This should be explained.

Question 8 presents costs only for conservation measures and therefore seems entirely one-sided in its perspective. Those purported costs are oversimplified, not necessarily true, and should be backed up by analysis and verification. To be well balanced, the question might also have included benefits of conservation measures, such as the likelihood of a more stable, functioning ecosystem, opportunities for tourism, and a decreased probability of further decline or extinction of sea lions.

The information preceding question 9 is also misleading. It states that scientists believe that protection, enforcement, and monitoring actions will have little impact on other species. First, some substantiation of that claim seems necessary. Second, it seems clear that the potential effects of oceanographic regime shifts, fisheries, and killer whale predation—hypotheses raised to explain the Steller sea lion decline—all may have bearing on the status of northern fur seals, which are continuing to decline in the same region, may be subject to similar risk factors, and may experience some benefit from suitable measures to protect sea lions.

Question 9 seems to suggest that, despite the directives of the Endangered Species Act and the Marine Mammal Protection Act, we ought to be able to pick and choose which populations to protect and which to ignore into extinction. The implication violates not only the spirit of conservation generally but the statutory requirements developed and enacted by Congress to guide domestic conservation programs.

Question 10 again suggests that there is some background analysis, rather than mere speculation, that costs of protection will be greater in the Aleutian Islands and that the purported difference in cost is a basis for dismissing protection and conservation measures in that region. This question suggests that the Service is considering dismissing the requirements of the Endangered Species Act and the Marine Mammal Protection Act and allowing the decline and extirpation of Steller sea lions throughout the Aleutian Islands. Furthermore, the question does not, but should, explain that there are potentially significant conservation benefits that arise from retaining Steller sea lions throughout their existing range.

Ms. Diana Hynek
30 October 2006
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Questions 11, 13, and 14 suggest a set of alternative choices that link costs to the number of sea lions. We know of no bases for these cost estimates and their linkages to the number of sea lions. They appear to be entirely hypothetical or speculative. These questions imply a degree of management control that is entirely inconsistent with our past experience with this conservation challenge. Moreover, as discussed above, these estimates appear to be orders of magnitude higher than seem warranted in light of recent costs of Steller sea lion conservation programs.

The information leading to questions 11, 13, and 14 is, again, simplistic and biased. That information states that the survey respondent should “[r]emember, if you spend money for [sea lion conservation], it won’t be available to buy other things.” Might it also remind readers that if they are willing to support conservation measures for sea lions, their contribution might help to conserve functioning ecosystems and thereby provide a more sustainable world for future generations? Recall that the Endangered Species Act states that there are numerous values associated with effective conservation.

We know that, as the lead agency responsible for recovery of the Steller sea lion, the Service is faced with a great many challenges and difficult choices. However, we also expect that the information provided and the choices made will reflect an appropriately broad perspective that is based on the best available information and that reflects a clear focus on the responsibilities entrusted to the Service by the Endangered Species Act and the Marine Mammal Protection Act. We question whether the survey as currently designed is likely to obtain the information necessary to further the goals of these statutes.

Sincerely,



Timothy J. Ragen, Ph.D.
Executive Director

cc: Douglas P. DeMaster, Ph.D.
William T. Hogarth, Ph.D.
Daniel K. Lew

Response to Comments
Submitted from the Marine Mammal Commission
on October 31, 2006

Overview

Comments received from the Marine Mammal Commission (MMC) primarily fall into three general categories as discussed in this section. Detailed comments are discussed in the next section.

1. Use of the information collected generally. Several comments surround the issue of how information from the survey will be used. Specifically, the MMC raises concerns about how information from the survey will be used to influence policy decisions. For Steller sea lions, we are not suggesting data collected in the survey or estimated from the data will or should be the deciding factor in program evaluation, but rather that economic costs and benefits (public preferences) are among many useful sources of information that can be used in the evaluation of alternative protection programs. In deciding between the available management actions to protect Steller sea lions, policy makers must balance the ESA and Marine Mammal Protection Act (MMPA) goals of protecting Steller sea lions from further declines with providing for sustainable and economically viable fisheries mandated under the Magnuson-Stevens Fishery Conservation Act (P.L. 94-265). Since Steller sea lion protection is often linked to fishery regulations, decision makers must comply with several federal laws and executive orders in addition to the ESA and MMPA, including Executive Order 12866 (58 FR 51735), which requires regulatory agencies to consider costs and benefits in deciding among alternative management actions, including changes to fishery management plans made to protect Steller sea lions. Thus, under this executive order, decision makers need to *consider* both the benefits and the costs associated with proposed actions, but are not required to base their decisions on these considerations.

As described in the Federal Register correction (71 FR 54472), the goal of the survey is to collect stated preference economic information about respondents' preferences and values related to outcomes of protection actions on Steller sea lions sufficient to "estimate the non-consumptive benefits associated with the results of protection actions on Steller sea lions." This information would then be made available to decision makers as an additional source of information that may possibly be used in the evaluation of alternative protection programs to supplement other information already available; although whether or not the information is used, or is a factor in any decisions made, is solely up to the decision makers. The original Federal Register (FR) notice (71 FR 47177) was not clear on these points and was misconstrued by several readers to imply different goals. As a result, the FR correction was developed to clarify this point.

It is important to note that the reporting of the survey results will provide any necessary caveats concerning the nature and intent of asking the questions. In many cases, the questions that the MMC expressed concern about are asked as cognitive prompts that aid respondents to process and review the material they have been presented. These are critical for ensuring respondents read and understand the content of the survey. Many of these

questions also act as internal consistency checks to ensure that a respondent's responses to the valuation questions are consistent with the attitudes and preferences they indicate in these questions. At the same time, it is important to acknowledge that the nature of the actual responses (e.g., whether the results indicate the public supports or does not support additional protection efforts) does not affect the validity of the results. In our view, it is our responsibility to develop a valid survey instrument for the purpose of estimating public preferences and values associated with Steller sea lion protection, implement it in a way that is consistent with state-of-the-art methods in a scientifically-defensible manner, and convey the results in a way that makes transparent any assumptions and issues that would affect the interpretation of the results. Then, it is up to the decision makers to decide whether or not and how to use the results, if at all, within the confines of applicable laws and regulations.

2. Application of economic methods. In general, a number of the comments are assertions that do not reflect the abundant economics literature and applications of survey-based non-market valuation methods. The surveys were developed (a) by published experts in the field following standard methods, (b) reviewed in detail by nationally recognized non-market valuation economic experts and by nationally recognized survey design experts who have worked with non-market valuation methods, and (c) with multiple focus groups, one-on-one interviews, and a formal pretest that were conducted to obtain and evaluate public input. In this survey, we employ stated preference choice methods to elicit economic preference, or value, information from respondents. The methods are accepted and frequently applied in market research, transportation choice, non-market valuation, and other applications. Responses to the stated choice questions (Q11, Q13, and Q14) provide information about each respondent's preferences with respect to different goals of Steller sea lion protection, such as increasing the Western stock population size versus increasing the Eastern stock population size. These responses are analyzed using econometric models that describe the choices that are observed and result in a valuation function that reflects the public's preferences and can be used to estimate economic values, such as those described above, and to evaluate trade-offs between competing protection objectives (e.g., preferences for increasing Western stock abundance versus increasing Eastern stock abundance).
3. Design biases. Several comments express concerns that the specific survey content and wording may bias the results or be misleading. Several general points are important in response to these concerns:
 - a. To limit factual error, the content of the surveys was reviewed by NOAA program scientists and managers for technical accuracy.
 - b. To eliminate presentation biases, the survey was reviewed by non-market valuation economic experts and survey research experts.
 - c. Many of the comments about bias concern inclusion of material on the social or financial costs of the ESA or of Steller sea lions protection, specifically impacts to commercial fishing income and jobs (Page 3 of comments: "Question 8 presents costs only for conservation measures and therefore seems entirely one-sided in its perspective."). While ideally we seek to measure only the preferences and benefits of protection (not the benefits net of social impacts and costs, which may be evaluated separately), entirely omitting or underplaying these potential impacts and costs: (i) does not make these

issues disappear for respondents who are concerned about them (in the design testing, respondents would bring it up if we did not mention it), (ii) can create a perception by respondents that the survey is not neutral in obtaining public preferences and thus is biased in the opposite direction, (iii) can cripple the investigators' ability to detect differences in respondent attitudes about these impacts and to account for co-mingled benefits and costs in the estimation of benefits, and (iv) precludes the development of a realistic valuation scenario and mechanism for respondents to pay for additional protection. The selected content on social impacts and costs was included after careful attention to the matter in our review of the literature, and following input from focus groups and one-on-one interviews with members of the public.

- d. An important design consideration in stated preference non-market valuation surveys is that the survey should be cautious to avoid inflated values and should even error toward understated values. The MMC's suggestions to spend more time on ESA mandates and benefits, and downplaying considerations of impacts and costs would both be clearly upwardly biased, and would preclude economic measurement of public preferences. Simply asking for respondents to indicate support for or against a program without having realistic personal consequences, such as a specified additional cost to the household, has little defensibility within this framework.

Detailed Discussion

Below, we identify the location of specific comments (denoted by italics below) and briefly state the core of the comment and our response.¹

1. *Page 2, comment about including costs of protection.* The MMC suggests including information about how much has been spent on Steller sea lion protection. The survey is aimed at understanding how much the public values protection of Steller sea lions independent of the costs of that protection. Thus, inclusion of specific protection costs would likely bias responses to the valuation questions and preclude measurement of public preferences.²
2. *Page 2, last paragraph.* The MMC comments that "the questions related to costs seem to assume that potential increases in the cost of fish will be shared equally among consumers." The survey is set up so that respondents can interpret the cost to them as a personal household cost that may be different from another household's since the payment mechanism is described as a combination of increased taxes and higher prices for fish and fish-related items they buy. Thus, there is an explicit recognition of differing costs among households.
3. *Page 3, comment on Q1.* The MMC is unclear about why a question that asks for how people view the Endangered Species Act (ESA) is being asked and expresses concern that the responses will be used "as a basis for determining whether [the Agency] should carry out its

¹ The numbering of comments is ours to facilitate review.

² When presented program costs, respondents often "cost-calculate" an average household share. So long as the cost-calculated amount is less than or equal to their WTP, they then anchor on this value for reported values rather than revealing their WTP, thus typically biasing values downward.

responsibilities under the Act”. Q1 is used to identify respondents’ general feelings toward endangered species protection. It provides an easy start to the process of thinking about threatened and endangered species, and it sets a tone of neutrality by allowing positive and negative reactions right from the start. In initial testing and from the pretest implementation results, responses to this question were good predictors of how respondents would answer the stated preference valuation questions. It thus provides a consistency check on subsequent valuation responses (i.e., Are the valuation responses consistent with other attitudes in the survey?). As noted above in overview item 1, the information collected in the survey is not intended to determine whether or not to carry out its responsibilities under the Act, but rather to supplement other information available to decision makers who must evaluate available protection actions.

4. *Page 3, comment on Q2.* The MMC appears concerned that the purpose of Q2 is to “determine the rigor with which” agencies implement laws, particularly the ESA, based on the prioritization implied by responses to this question. In fact, the question is asked to put the issue of protecting threatened and endangered species in the context that there are many social issues (each with costs), and thus to reduce survey “importance bias” and the resultant inflating of stated values (as discussed above). This type of bias is prevalent in non-market valuation surveys that do not provide sufficient context or reminders for respondents that there are other issues that may be important to them.
5. *Page 3, comment on Q3.* This comment expresses concern over asking respondents about their opinions regarding a trade-off between protecting threatened and endangered species and job losses. As discussed in the overview item 1 above, omitting this issue does not make it go away in the minds of respondents who are concerned with it (they bring it to the survey on their own). It is better for the researcher to understand the respondent’s views as part of the process of evaluating the valuation responses. Additionally, it provides a neutral perspective by acknowledging the issues many in the public raise themselves and lets respondents express views on the issue early in the survey. And, it is one of several items used to help identify “protest” respondents who may mix protection concerns and concerns about impacts and costs.
6. *Page 3, comment on information preceding Q4.* The MMC appears concerned that the population numbers on page 3 of the survey for seals and sea lions are inaccurate. The seal and sea lion population estimates in the survey are based on the latest stock assessment reports. Still, we would appreciate MMC’s input on what the appropriate number is for the aggregated “Other” seal and sea lions on page 3, which is a very conservative estimate that omits speculation about species with unknown population sizes. The MMC’s concern about the use of the term “new protection efforts” as applied to only Steller sea lions is noted; however, as used in the survey, the term does not apply to implementation of existing protection actions, such as those being implemented to protect the Hawaiian monk seal. Note that this presentation (on pages 3 and 4 of the survey) has well-grounded non-market valuation design objectives. The first is to put the Steller sea lion population in perspective – it is not the only seal or sea lion, and it is not the only one listed as threatened or endangered. Whether one agrees or not, for some members of the public this is important information in forming their preferences about additional Steller sea lion protection and without this

information the survey would be compromised as potentially overstating the importance of Steller sea lions. Second, the statement that Steller sea lions are the only seal or seal lion species presently being actively evaluated for new protection actions lays the basis for why respondents are asked to focus on this species. In addition, MMC is concerned that the survey portrays the Hawaiian monk seal population as stable or increasing when in fact they continue to decline. However, the wording in the survey related to the Hawaiian monk seal population states that it “is small and decreasing”.

7. *Page 3, comment on Q7.* MMC is concerned that in the survey version they reviewed, only one possible future population trajectory for the Western stock is presented. We agree that this is but one possible realization of the future abundance of the Western stock. However, as noted in the e-mail accompanying the draft survey, there are several other survey versions that differ in the trajectories that are presented from the one seen in the survey reviewed by MMC. One presents a declining population trend, and the other an increasing population trend. Individuals in the sample will receive one of these three survey versions. By accounting for the uncertainty associated with future abundance estimates of the Western stock in different survey versions, we can explicitly account for this uncertainty in the model framework, thus adding richness to the overall investigation without adding complication to the respondents.
8. *Page 3, comment on information preceding Q8.* This comment concerns the second bullet statement that reads in part: “commercial fishing is not considered a major problem where the Eastern stock lives”. The MMC suggests inclusion of more details about this statement (“Is it that fishing occurs in a manner similar to that in the Gulf of Alaska and Bering Sea and doesn’t have effects, or is commercial fishing in the southeast not comparable to that in the areas occupied by the western stock?”), and expresses concern that the current wording will “result in misinterpretation and misunderstanding” by respondents. The statement is made to let respondents know that fishing activities have not been identified as a threat to Steller sea lions in the Eastern stock habitat, which is consistent with the most current information (e.g., the draft SSL recovery plan). It is not clear how more information along the lines MMC suggests would be beneficial to respondents, particularly in light of the fact that overburdening respondents with information generally leads to lower response rates and lower response quality. The information presented was selected based on focus group investigations, with the study objectives in mind.
9. *Page 4, first comment on Q8.* MMC states that “it is not always true that fishing costs more because of Steller sea lion measures.” While the MMC comment is true, it misses the point of the valuation scenario design, which is to establish credible payment scenarios with respondent responsibility. The information presented is consistent with reported estimates. Additionally, suggesting impacts to commercial fishing may or may not occur adds uncertainty to the scenario, which can be expected to compromise the valuation; some respondents may choose to report \$0 or low values because it is not certain that it will (or should) cost them anything, thus again compromising the realism and personal responsibility elements of the valuation scenario.

10. *Page 4, second comment on Q8.* MMC suggests the presentation of “costs only for conservation measures...seems entirely one-sided”. This concern is discussed in overview item 3 above.
11. *Page 4, comment on information preceding Q9.* MMC is concerned that the statement that “scientists believe the actions being considered will have little impact (good or bad) on other species” is misleading. In focus groups, respondents sometimes wondered whether changes in Steller sea lion populations would cause a chain reaction in the food chain leading to ecosystem collapse. The bulleted statement is made to address the concern of whether or not SSLs are a keystone species. The statement allows respondents to focus on assessing their feelings about changes in SSL populations without thinking that changes in SSL populations will cause the ecosystem to fundamentally change. Note that the statement does not preclude impacts associated with protection actions on other species, but does suggest that the current thinking is the effects would be small.
12. *Page 4, comment on Q9.* This comment repeats concerns about the purpose and use of the results for Q9 in the survey, which asks whether respondents believe more should be done to protect the Eastern and Western stocks. This concern is addressed by overview item #1 above, as this question is primarily used to check for consistency of attitudes expressed in the survey with the responses to stated preference choice questions.
13. *Page 4, comment on Q10.* This comment expresses concerns about the purpose and use of Q10 of the survey that deals with protection of the Western stock in some versus all habitat areas. Based on pretest results suggesting limited relative importance of this characteristic vis-à-vis other protection program characteristics, this aspect (and Q10) of the survey has been removed.
14. *Page 5, comments on Q11, Q13, and Q14.* MMC is critical of the set of choices, particularly cost estimates, included in the version of the survey they reviewed, stating, “We know of no bases for these cost estimates...” As described in the overview items above, stated preference choice questions are intended to measure a respondent’s preferences (i.e., economic benefits) associated with protecting Steller sea lions. The public benefits associated with protection of Steller sea lions are independent of the costs of that protection. Thus, how much individuals are willing to pay for such protection is not bound by the actual costs, but is bound by their ability to pay (i.e., their income). As a result, cost amounts in stated preference surveys are determined based on the likely distribution of the economic benefits. To estimate values across the population, the amounts presented must vary widely across respondents. The cost amounts presented in the survey are based on pretesting results.
15. *Page 5, comments on instructions for Q11, Q13, and Q14.* The MMC considers the budget reminder statement (“Remember, if you spend money on this, it won’t be available to buy other things.”) “biased” and “simplistic”. In stated preference valuation surveys, budget reminders are standard elements in the design, are included to ensure respondents consider the personal consequences of their choices, and are required by OMB in the survey approval process (see OMB survey guidance document accessible from <http://www.cio.noaa.gov/itmanagement/pr.htm>).