Peer Review Report for
Main Hawaiian Islands Insular False Killer Whale Distinct Population Segment
Proposed Critical Habitat Designation:
Draft Economic Report

A draft economic report was prepared in support of the proposed rule to designate critical habitat designation by Cardno for the Main Hawaiian Islands (MHI) Insular False Killer Whale (IFKW) Distinct Population Segment (DPS) under section 4 of the Endangered Species Act (ESA). Three peer reviewers reviewed the draft biological report: Donna Lee, Ph.D., John Loomis, Ph.D., and Donald Schug, Ph.D. These three peer reviewers have experience working in the field of economics. This report provides the comments submitted by each peer reviewer and describes the actions that Cardno took to address the comments.

An anonymous number identifies each reviewer in this report and the comments are organized by the section titles of the draft economic report. Italics are used to signify text that has been revised in the report. Comments provided by the peer reviewers helped to inform the draft economic report. The MHI IFKW DPS proposed critical habitat rule was published on November 3, 2017 (82 FR 51186). For further information visit the Pacific Islands Regional Office's false killer whale webpage:
http://www.fpir.noaa.gov/PRD/prd_mhi_false_killer_whale.html#critical_habitat

Overall Comments

Reviewer 1 Comment: The document represents a substantial effort. Chapter 3 sets up the appropriate distinction between economic efficiency analyses used in Benefit-Cost Analysis and Regional Economic Impacts, but occasionally the individual sections of the document blurs these distinctions, and those are pointed out below.
Also the document does a reasonably good job on trying to explicitly partition the Section 7 Consultation costs that are related to the species being listed under ESA versus the incremental costs of consultation related specifically to Critical Habitat designation. The second paragraph on Section 3.2.1.2 does an excellent job of making this distinction and this statement should be make for the first time in the Executive Summary, and then perhaps repeated at the beginning of every chapter (it wouldn't hurt the author of each chapter to keep this distinction front and center as they make the difficult decision about what is a baseline cost of consultation due to the listing of the species and what is consultation cost attributable to Critical Habitat). This is a difficult task to make the determination of how to split the costs but keep an eye out for consistently assigning the bulk of the cost always to listing of the species versus Critical Habitat.
Response: The recommendation to remind the reader of the incremental costs of consultation (i.e., the second paragraph on Section 3.2.1.2) by including this information at the start of each chapter for the various activities that may be impacted by the designation.

Reviewer 1 Comment: One other recurring theme is that the costs of consultation seems to focus almost exclusively on the administrative costs of ESA consultations to various federal agencies such as NMFS and the USACE. While my experience is limited to just two large scale situations up and down the Colorado River involving listed fish and a fish and bird in the Missouri River it seems that utilities and industry groups spend a great deal of time being involved in these Section 7 consultations. While NMFS and USACE will certainly bear a

large substantial portion of the incremental consultation costs associated with Critical Habitat, there seems to be inadequate attention paid to the costs to private parties (e.g., businesses or their industry associations) in dealing with ESA consultations. It is often the potential actions of private companies or utilities that start the need for the ESA consultations. And if NMFS and USACE have incremental consultation costs specifically related to critical habitat it would seem these private entities (e.g., utilities, commercial fishing interests) would too. But these costs to private entities often seem missing the case of utilities and commercial fishing interest as two examples.
Reviewer 3 Comment: The draft economic report assumes that it is only for consultations on energy activities that a portion of the incremental costs of critical habitat designation would be borne by third parties. While the report generally explains why federal agencies would bear all these costs for consultations on most other activities, for some activities it is not clear—most notably aquaculture activities. For example, the economic analysis of critical habitat designation for the Hawaiian monk seal assumed that third parties would bear at least some of the costs for consultations on aquaculture activities (as well as energy activities). Given the overlap in the critical habitat for monk seals and MHI IFKW it is uncertain why third party costs for aquaculture activity consultations related to MHI IFKW critical habitat can assumed to be zero.
Response to Reviewer 1 and 3 Comments: The estimation and distribution of administrative costs associated with Section 7 consultations is based on a cost model that has been developed after reviewing historic data. This economic analysis primarily identifies the ADDED administrative costs of including consideration of critical habitat in Section 7 consultations, which are fairly small compared to the full cost of these consultations. While costs to third-parties and/or private parties have been identified in the model and, subsequently, in the analysis for formal consultations, these are not identified for informal consultations and technical assistances because it is assumed that NMFS and the relevant Federal action agency would be able to make any modification needed to consider critical habitat in informal Section 7 consultations and technical assistances. In addition, at present, we do not have sufficient information from the third-parties and/or private parties identified in this analysis to add or move any costs to them. Additional information may be added if additional costs are identified during the public comment period or from new information received.

Reviewer 1 Comment: It is not clear why Tour boat operations, especially those associated with scuba diving, are not listed as a potential threat. While it is true these operations would not physically modify habitat like construction, and they are low intensity as compared to military operations, but they are of high frequency. If there is really no effect, I think an explicit statement to that effect is needed.
Response: Tour boat operations are not a federally permitted, authorized, funded, or carried out activity. As such, these activities are not subject to the protections associated with this critical habitat designation. The Other Factors Influencing MHI IFKW Essential Features section of the biological report addresses some of these types of threats.

Reviewer 1 Comment: Pages 13-6 to 13-7 at the very end of the document indicate that certain areas of critical habitat were excluded due to national security concerns. Despite having read the entire document up to that point I don't recall seeing that areas had been excluded other than the long-line fishing exclusion that was made due to listing it seems. The

fact that exclusions were made to critical habitat might need to be made clearer earlier in the document.
Response: The references to the excluded areas in Chapter 13 refer to those areas that NMFS has proposed for exclusion after reviewing this draft Economic Report and national security impacts as identified in cooperation with the Department of Defense and U.S. Coast Guard. Areas proposed for exclusion in the proposed rule may change prior to the final report based on new information received during the public comment period. Several sentences have been added to Section 2.2 to identify that proposed exclusions if finalized may reduce the economic impacts of the overall designation. Once finalized, exclusions will be addressed in analyses for the final Economic Report.

Reviewer 2 Comments: The industry most likely to be impacted by the designation is the pelagic fishery. However, the authors chose not to calculate impacts due to lack of certainty of the baseline catch stating that while annual catch data is available, it has varied widely. My comment is that if the variations are due to a cyclical nature of the fishery or a specific event that occurred, then a baseline can be built that is fluctuating and cyclical. Likewise, a baseline can be built around reoccurring events that shock the annual catch rate. However, if variation in the data is due to gaps in reporting or data errors in some years, then I would concur with the authors that without better data, a good baseline cannot be constructed.
Response: Edits have been made to section 11.5 to clarify the difficulty with attempting to quantify this information. The paragraph now reads: "Several challenges *are* present in attempting to quantify the costs or losses associated with restricting access to fisheries *in the future for this current analysis*. First, as mentioned above, total landings vary substantially from year to year based on incidental catch. Hence, to estimate the magnitude of a constraint, the analyst would need to develop an estimate of what the catch would have been in the absence of the designation of critical habitat. *Also, forecasting total catch would be challenging because it depends on* weather conditions, boat gear, and availability and numbers of crew. The success of the fishing effort would determine the overall net revenue, or producer surplus. Given the many sources of variability in the fishing industry, estimates of foregone net revenue *for the future* could be challenging to support *at present. However, should this arise in the future, a number of approaches could be used to estimate foregone net revenue such as using 5-year averages, or at a minimum describing the impacts to a representative firm."*

Reviewer 3 Comment: Multiple statements in Chaps. 5-11 of the draft economic report suggest that the forecast of future section 7 consultations on activities was primarily based on past consultation history. Given the importance of this forecast in the analysis of critical habitat designation effects, it would be informative to include a section in Chap. 3 Methodology and Framework for Analysis that describes the nature of the historical consultation record and how it was used to predict the frequency and type of consultations. For example, the report seems to rely on section 7 consultations identified in the consultation history that relate to activities within the potential MHI IFKW critical habitat area. However, it is unclear if the forecast is based solely on the consultation history for completed consultations that included MHI IFKW. If consultations considering jeopardy of other listed species were also identified, the authors could explain why these consultations provide a reasonable representation of the number and type of future consultations that would consider

MHI IFKW critical habitat (e.g., overlapping critical habitat boundaries and essential features).
Response: The DPS was listed in 2012, so only those consultations occurring within waters under consideration for designation would include considerations for jeopardy for this DPS. Additional information was added to Section 3.5 Information Sources to clarify that the primary information source includes all consultations that occurred in waters that overlap the designation between 2006-2016, which includes consultations for any listed species found in those waters during the time period. Additionally, sources may include expected consultations for specific future activities identified by an action agency.

Executive Summary

Referenced Text: Estimate the likelihood of such occurrences and the frequencies of such occurrences over the next 10 years in the project area.
Reviewer 1 Comment: The rationale for selecting 10 years as the period of analysis is provided on Page 3-8 in section 3.2.5. Perhaps add a footnote indicating the rationale for 10 years is provided in that section, and perhaps add a sentence or two from that section (I've highlighted which ones there) to justify why 10 years here in this text section.
Response: A footnote was added as recommended.
Referenced Text: However, these would likely include the time of a full-time employee for at least 1 year to meet all consultation requirements, which would cost $250,000 in current (2016) dollars, at a minimum.
Reviewer 1 Comment: $250,000 for one full time employee sounds high, even considering the high cost of living in HI.
Response: This cost comes directly from an industry expert. Reference added in footnote.

3.0 Methodology and Framework for Analysis

3.2.1 Baseline and Incremental Impacts of Critical Habitat Designation

Referenced Text: When critical habitat is designated, Section 7 requires federal agencies to ensure that their actions are not likely to result in the destruction or adverse modification of critical habitat (in addition to, and separate from, ensuring the actions are not likely to jeopardize the continued existence of the species). The added administrative costs of including consideration of critical habitat in Section 7 consultations, and the additional costs of implementing project modifications, uniquely resulting from the protection of critical habitat, are the direct compliance costs of designating critical habitat. These costs are not in the baseline and are considered incremental costs of the potential critical habitat designation.
Reviewer 1 Comment: This is a very clear statement of the important distinction between Section 7 consultation costs due to listing and due to Critical Habitat. I think this needs to be in the Executive Summary.
Response: This text is now repeated in the Executive Summary of the document.

3.2.2 Economic Efficiency and Opportunity Costs

Referenced Text: Figure 3-2
Reviewer 1 Comment: This is an excellent graph to use to get the subtle point across that what is gained with CHD is avoiding losses and that is a benefit.

3.2.3 Distributional and Regional Economic Effects

Reviewer 1 Comment on Overall Section: This section is very well written in making the important distinctions between economic efficiency and economic impacts.
Reviewer 3 Comment on Overall Section: This section seems superfluous to the analysis since these impacts are not estimated.
Response: Given the contradictory comments, no edits were made.

3.2.4 Geographic Scope

Reviewer 1 Comment: You could note that being a Federally listed species that has charismatic appeal that the benefits extend to households living even out of Hawaii on the mainland US who may never visit Hawaii. This will lay some of the foundation for the Benefit chapter of the report.
Response: The following text was added: "Further, there is the potential for significant benefits to accrue to not just the local population but to tourists. Also, especially because the critical habitat designation protects the habitat of a "charismatic megafauna" there may be other benefits to the greater U.S. population."

3.2.5 Analytic Timeframe

Referenced text: The analysis estimates costs and benefits based on activities that are "reasonably foreseeable," including, but not limited to, activities that are currently authorized, permitted, or funded, or for which proposed plans are currently available to the public.
Reviewer 3 Comment: This para. is somewhat misleading since multiple statements in Chap 5-11 suggest that the forecast of future section 7 consultations on activities was primarily based on past consultation history.
Response: Information was added to section 3.5 to clarify the information sources that were used to determine the reasonably foreseeable future.

Referenced text: This interval of 10 years, widely employed in the policy analysis arena, allows sufficient scope over which longer-cycle trends may be observed (e.g., progress toward population recovery for the MHI IFKW), yet is short enough to allow "reasonable" projections of changes in "use patterns" in an area, as well as exogenous factors (e.g., world supply and demand for petroleum, U.S. inflation rate trends) that may be influential.
Reviewer 1 Comment: Two points:1.This is good discussion of the trade-offs in choosing a time period of analysis. It should be added at least as a footnote in the Executive Summary and perhaps these highlighted sentences also presented in the Executive Summary. 2. FYI. Some resource management agencies such as the U.S. Forest Service and U.S. Bureau of Land Management typically use 15 years as their planning periods. Something to think about in future efforts.
Response: This information has been added to the Executive Summary as suggested.

3.2.6 Discounting Impacts over Time

Referenced text: The present value represents the value of a payment or stream of payments in common dollar terms, in today's dollars. Present value costs and benefits are discounted at a 3 percent and 7 percent real discount rate.

Reviewer 1 Comment: You might indicate if these discount rates are commonly used by federal agencies or recommended in some OMB Circular so as to provide some basis for selection these two rates.
Response: Clarified by adding the following text: "This approach is recommended in the Office of Management and Budget Circular A-4 from 2003, which provides guidance to federal agencies on conducting regulatory reviews."

3.3 Socioeconomic Context

Reviewer 3 Comment on Overall Section: The relevance of this section to the analysis is unclear.
Response: This section provides an overview of the Socioeconomics of Hawaii and may provide additional information if comments are raised about other relevant impacts during the public comment period.

4.0 Description of Economic Costs of Critical Habitat Designation

4.1.1 Administrative Costs

Referenced Text: The administrative costs of these consultations vary, depending on the specific details of the project. One method of addressing this variability is to show a range of possible costs of consultation.
Reviewer 1 Comment: This first sentence indicates that given the variability one method to deal with variability (and I agree a good one) is to show a range. But then Table 4-1 does not show a range. Further, the title of Table 4-1 says Example of Range of Attributable Costs…). So I think you should provide a range if at all possible or if the table gets too busy if you do show the range, then indicate this table with ranges is provided in an appendix to the report.
Response: We have provided ranges in this analysis where appropriate based on discussions with the affected entities. Sentence has been edited as follows: "The administrative costs of these consultations vary, depending on the specific details of the project. *Where possible, a range of possible costs is discussed*. Table 4-1 provides *the best* estimate *of* consultation costs representing effort required for all types of consultation, including those that consider both adverse modification and jeopardy.

Referenced Text: Efficiencies exist when considering both jeopardy and adverse modification at the same time (e.g., in staff time saved for project review, logistical expenses, data gathering and synthesis, and report writing) and, therefore, incremental administrative costs of considering adverse modification in consultations that will already be required to consider jeopardy result in the smallest attributable incremental expenditure of these three consultation categories, roughly half that of a reinitiation.
Reviewer 1 Comment and Suggested Edit: Could you put in parentheses that the net effect is thus one-quarter of the total costs just to make it clear to someone reading the document quickly. Replace reinitiation with *reinitiating*.
Response: Edits made as suggested.

Referenced Text: This report relies on 11 years of NMFS consultation records (since 2006), as well as discussions with representatives of relevant entities, to determine the estimated administrative costs of this designation.

Reviewer 1 Comment: I presume "This report" means the report we are reading. And the analysis relies on 11 years of NMFS consultation reports and discussions with experts. This considerable effort is commendable. But the footnote in Table 4-1 indicates that the source is from Industrial Economics 2008. This undercuts that it is from 11 years from 2006 to the present. This obviously needs to be clarified, as they seem to be inconsistent and it is not clear whether the report relies on the Industrial Economics analysis or the more recent and relevant 11 years of NMFS consultation records. If you actually use the 11 years of NMFS records why aren't these used in Table 4-1?
Response: This is clarified in Chapter 3 and in the revision to these sentences as follows: "This report relies on 11 years of NMFS consultation records (since 2006) *to forecast the number of anticipated consultations (see Section 3.5), discussions with affected entities, as well as per consultation cost estimates developed by Industrial Economics* with representatives of relevant entities, to determine the estimated administrative costs of this designation."

4.2.2 Stigma Effects

Referenced Text: To the extent that potential stigma effects on markets are probable and identifiable, these are considered indirect, incremental costs (and benefits) of the designation.
Reviewer 1 Comment: Just a thought. If you want to add a citation to back up your footnote there is a discussion of increases in property values due to Wilderness in an article by Holmes, et al. 2016 A Synthesis of the Economic Values of Wilderness, J of Forestry May 2016. It is freely downloadable on Research Gate and perhaps elsewhere since Holmes is a federal employee.
Response: Citation added as suggested.

5.0 In-Water Construction

Referenced Text: Table 5-2
Reviewer 1 Comment: This seems like an instance where there are costs to at least one private company—Hawaiian Telecom— seems to be ignored. If it is part of the baseline Section 7 Consultation due to listing of the species rather than Critical habitat this needs to be more clearly laid out here in an tables ES-2 and ES-3 as well. In some sense this would need to be a specific and explicit "negative declaration" and some convincing argument. And it does seem a little odd that the two agencies would have incremental costs of Section 7 consultation due to Critical Habitat but the private entity would not have those costs (which is what the table implies due to the omission of Hawaiian Telecom).
Response: Discussions in Section 5.3 note that the costs associated with these activities are anticipated to be minimal and administrative in nature.

8.0 Energy Development

8.1 Wave Energy

Referenced Text: There are three test berths within 2 km offshore, at 30, 60, and 80 m depth, respectively. Construction of all three berths required Section 7 consultation, with consultation for the last two (at 60 and 80 m) occurring in 2012.

Reviewer 1 Comment: What are these berths? A sentence or footnote describing what they are would give the reader some context of the likely physical impacts, and hence the costs of consultation.
Response: Additional text provided as follows: "The berth at 30 m is suitable for testing point absorber type wave energy conversion (WEC) devices, and the two deep-water berths at 60 and 80 m are suitable for both point absorber and oscillating water column testing. A test berth is a location in the ocean where a WEC is moored for testing. The WEC is connected to buried subsea cable for transmitting electricity to an onshore facility."

8.4 Costs and Benefits of MHI Insular False Killer Whales Critical Habitat Designation (Application of ESA Section 4(b)(2))

Referenced Text: In current (2016) dollars, the estimated incremental administrative cost for each formal consultation would be $1,678 for BOEM, $2,825 for NMFS, and $980 for private energy project developers, for a total cost of $5,483 per consultation.
Reviewer 1 Comment: Only $980 for the incremental costs associated with involving the private energy developer? That is about a couple of days. Is that all it would take for the private developer to get on board with ESA Section 7 and the distinction between consultation on listing and critical habitat?
Response: A reference to table 4-1 is provided to clarify how these costs were established.

Referenced Text: However, these projects are in the pre-planning stage and given the uncertainty regarding when such projects would actually be planned, this analysis does not quantify such impacts.
Reviewer 1 Comment: Not sure what it means that these projects are in the pre-planning stage. Isn't there some documentation of the scale of these projects, where they might be located, and what problems they might run into with Critical Habitat designations.
I guess I think of it as a conditional probability or expected value sense—if the probability is 20% the project would go forward and the pre-planning says here is the type of construction that would be required and where (deep water vs shallow water, near shore versus distant from shore) then it seems like something more can be said about the potential costs related to ESA (it is outside the CHD or it is in shallow water. If it would truly be speculative at this point, then you might say so and explain that at the current point in pre-planning too little is known.
Response: The text has been edited as follows to provide clarity. **"**However, these projects are in the pre-planning stage and given the uncertainty regarding when such projects would actually be planned, *estimating costs would be speculative, and at this point in the process too little is known. Therefore*, this analysis does not quantify such impacts."

10.0 Environmental Response Activities

10.4 Costs and Benefits of MHI Insular False Killer Whales Critical Habitat Designation (Application of ESA Section 4(b)(2))

Referenced Text: Without all the information on potential restriction the critical habitat designation may carry, there may be delays in the USCG's response dependent upon any restrictions enacted which would require certain vessels to obtain permitting or otherwise vetted before entering or responding to an incident within the critical habitat designation.

Reviewer 1 Comment: This quote from the USCG suggests that one opportunity cost that might be worth bringing out in the analysis is that of delay in clean-up costs and hence greater environmental pollution if the Coast Guard has to coordinate with NMFS prior to commencing clean-up. Perhaps some follow up with USCG to determine whether NMFS would require USCG to touch base with them or not prior to launching a response or what response methods USCG would use that would cause NMFS to not approve that in designated Critical habitat. In some cases, NMFS and USCG could set up some pre-spill agreements in the spirit of "categorical exclusions" that would give prior approval by NMFS for the USCG to do X, Y and Z clean-up activities without the need for NMFS approval, but clean-up activities A, B, and C would require NMFS prior approval.
Response: This section has been deleted because the statement does not align with how emergency consultation activities would occur. Most procedures to minimize impacts to the environment would occur in planning for response activities.

11.0 Fisheries

11.4 Economic Importance of the Pelagic Fishery

Referenced Text: In 2016, charter boats caught an estimated 409,769 pounds of pelagic species. These charter vessels are a mixture of commercial and recreational landings, because the skippers of the boats are operating commercial businesses, while the clientele is motivated by recreational fishing. The value of the catch is economically important in several ways. First, the skipper is a proprietor earning income from operating these boats; second, the catch is valuable for meat; and third, the recreational experience has value over and above what people are willing to pay for it.
Reviewer 1 Comment: The footnote suggests it is difficult to measure this value. However, economists have been measuring this value for thirty years. For example, Wegge, Hanemann and Strand in their publication for National Marine Fisheries Service in 1986 in Southern California—NOAA-TM-NMFS-SWR-015 and more recently Whitehead, et al. Valuing Bag Limits in the North Caroline Charter Boat Fishery in Marine Resource Economics, 2011. So perhaps the footnote needs to be changed.
Response: Footnote amended as follows: "This value, or consumer's surplus, is what is counted in a BCA and is challenging to measure because the "market" for recreational fishing includes many people who pay little or nothing for the experience. Recreational fishing is known as a "non-market good."

11.5 Methodology for Evaluating Impacts to Fishing Activities

Referenced Text: Current data, although incomplete, suggests that competition between commercial federally managed fisheries is low, and that additional management is not necessary.
Reviewer 1 Comment: Not clear to me if you mean competition between commercial fishery and the False Whale or within the commercial fishery. Perhaps clarify.
Response: Text amended as follows: "Current data, although incomplete, suggests that competition between commercial federally managed fisheries and *MHI IFKW critical habitat* is low, and that additional management is not necessary."

Referenced Text: Yet there are many factors in addition to the establishment of the total allowable catch that influence the total catch. For example, the weather conditions, boat gear, and availability and numbers of crew, all will influence the costs, and the success of the fishing effort would determine the overall net revenue, or producer surplus. Given the many sources of variability in the fishing industry, estimates of foregone net revenue could be challenging to support.
Reviewer 1 Comment: While the variability can be challenging, it is typical of lots of areas of economics, especially agricultural economics where variability in weather, yields, prices, etc. result in much variability in revenue or producer surplus. USDA economic analyses deal with that by using 5 year average prices when conducting their analysis. Economic analysis often uses the representative firm in a particular industry to get a quantitative estimate of effects and then recognizes it would scale the estimate up and down for different size firms. I imagine these same approaches could be mentioned here.
Response: Edits have been made to section 11.5 to clarify the difficulty with attempting to quantify this information. The paragraph now reads: "Several challenges *are* present in attempting to quantify the costs or losses associated with restricting access to fisheries *in the future for this current analysis*. First, as mentioned above, total landings vary substantially from year to year based on incidental catch. Hence, to estimate the magnitude of a constraint, the analyst would need to develop an estimate of what the catch would have been in the absence of the designation of critical habitat. *Also, forecasting total catch would be challenging because it depends on* weather conditions, boat gear, and availability and numbers of crew. The success of the fishing effort would determine the overall net revenue, or producer surplus. Given the many sources of variability in the fishing industry, estimates of foregone net revenue *for the future* could be challenging to support *at present. However, should this arise in the future, a number of approaches could be used to estimate foregone net revenue such as using 5-year averages, or at a minimum describing the impacts to a representative firm."*

11.6 Costs and Benefits of MHI Insular False Killer Whales Critical Habitat Designation (Application of ESA Section 4(b)(2))

Referenced Text: Benefits accrue to the nation as a result of these fisheries due to employment and revenue, and due to the regional economic impacts (the economic ripple effects). For example, in 2015, commercial pelagic landings revenue totaled $111 million, creating 6,802 jobs and having an additional value-added impact of $221 million. Although these employment and regional economic impacts are not all included in the "costs" used to measure welfare changes using BCA, the impacts are still important.
Reviewer 1 Comment: These sentences, especially the first one, comingles concepts of economic efficiency and economic impacts that were clearly distinguished from one another in Chapter 3, Section 3.2. So consider rewriting this to follow that section.
Response: The following edits were made to clarify this first sentence. *F*isheries *generate* employment and revenue, *as well as* regional economic impacts (the economic ripple effects).

12.0 Identifying Benefits

Reviewer 1 Comment: In general this is a well written section.

12.1 Framework for Estimating Benefits

Referenced Text: For example, if the designation of critical habitat helps support an incremental increase in the number of MHI IFKW, this will potentially benefit whale or dolphin watchers, suppliers of marine mammal watching excursions, and ancillary service suppliers (such as hotels, restaurants, marine fuel suppliers, etc.).
Reviewer 1 Comment: This comingles economic efficiency benefits—benefits to whale and dolphin watchers—and economic impacts associated with service supplies (hotels, restaurants, etc.). Simply breaking these into two separate sentences, with the beginning of sentence saying benefits in the first case, and regional economic impacts in the second would do the trick.
Response: Edits made as follows for clarity: "For example, if the designation of critical habitat helps support an incremental increase in the number of MHI IFKW, this will potentially benefit whale or dolphin watchers. *It will also provide regional economic benefits to* suppliers of marine mammal watching excursions, and ancillary service suppliers (such as hotels, restaurants, marine fuel suppliers, etc.)."

12.2.1 Use Benefits

Referenced Text: If, compared to the "no critical habitat designation" condition, the critical habitat designation enhances long-term stability and sustains healthy stocks of MHI IFKW prey species, then recreational anglers may experience an increased consumptive use value from fishing in and adjacent to MHI IFKW critical habitat.
Reviewer 1 Comment: In footnote 226, you could add your point from a page or two later that anglers' experience might be enhanced by seeing more whales/dolphins on their fishing trips.
Response: Added to the footnote.

12.2.2 Nonuse or Passive Use

Referenced Text: Passive use value to society of critical habitat designation reflects the increased well-being obtained from the knowledge that MHI IFKW persist within their natural habitat off of Hawaii. Society would not derive the same level of well-being (i.e., would not have an equivalent WTP) for a remnant population of MHI IFKW kept in an artificial environment, such as an aquarium tank in Honolulu. Thus, critical habitat contributes directly (and very likely, significantly) to the nonuse benefit enjoyed by society due to the existence of the MHI IFKW in situ. WTP for passive use welfare changes can be empirically estimated.
Reviewer 1 Comment: Very nice example contrasting the PUV associated with the species in its natural habitat versus compared to an aquarium tank in Honolulu.

12.3 Valuation Methods

Referenced Text: Due to their reliance on observable behavior, revealed preference methods are generally not able to estimate nonuse values, which, by definition, are not tied directly to observable behavior.
Reviewer 1 Comment: Footnote 231. Having followed the literature cited in the footnote 231, I found the discussion fascinating. But I think this is probably out of place in this report. The sentence itself makes the main point and the footnote might confuse most readers, so I would drop it.

Response: Footnote removed.

12.4.3 Wildlife Viewing and Sightseeing

Referenced Text: The studies were based on a 1991 to 1993 survey of whale watchers conducted at four locations along the California coast during times of the gray whale migration.
Reviewer 1 Comment: Having looked at a copy of the actual survey it appears that the surveys were conducted in 1991 to 1992, and not 1993.
Response: Corrected.

12.4.4 Environmental Education and Volunteerism Benefits

Reviewer 1 Comment on Overall Section: There seems to be an important topic missing: A discussion of the PUV of whales/dolphins and marine mammals. The report goes from specific studies on whale watching to this very interesting discussion of Env Ed and Volunteerism benefits. But that section has few citations that relate to whales/dolphins and marine mammals. It would seem that in between the section on whale watching and this section on Env Ed and Volunteerism should be a section on PUV of whales and other marine mammals, including citing the several PUV studies that have been done on these species.

You have one of the studies already—the Loomis and Larson since it has general household WTP in that article that measured PUV to these households.

Richardson and Loomis, Ecological Economics, 2009 has a listing of two other marine mammal studies one that includes WTP for Humpback whales and monk seals in Hawaii by Samples and Holler as well as one by Hageman on dolphins in southern California. So I would recommend adding a PUV section in between the whale watching use values and the Env Ed and Volunteerism Benefits.
Response: The following was added as a new section (12.4.4 Passive Use Value Literature): "*Although no studies have been done regarding the passive use value for the MHI IFKW specifically, passive use values for other large marine mammals have been studied fairly extensively by economists. For example, of the total value for whales, dolphins, sea otters and seals, Hageman found that about two-thirds (65–72 percent) of the total WTP was for the mere existence of the species, and not for any non-consumptive use nor for the option to view the species in the future. The total annual household WTP for blue and gray whales was the equivalent of $41.54 now, or $17.15 in 1984. In 1994, another study again showed the consistency of WTP for whales—gray whales in California—by both visitors and local households, using the total economic value concept covering both passive and active use value. Another good example is from authors Sample and Hollyer (1990), who found that households would be willing to pay a one-time fee of $266 to $302 (in 2017 dollars) to prevent extinction of humpback whales in Hawaii. This collection of literature demonstrates that it is very likely there are similar types of benefits associated with the MHI IFKW listing and critical habitat designation.*"