

SUPPORTING STATEMENT

SOCIOECONOMICS OF WHALE WATCHING IN THE CHANNEL ISLANDS REGION: SURVEY OF WHALE WATCHING PASSENGERS

OMB CONTROL No. 0648-0729

A. JUSTIFICATION

1. Explain the circumstances that make the collection of information necessary.

This request is for extension of an information collection to benefit natural resource managers in the Channel Island National Marine Sanctuary (CINMS). The National Ocean Service (NOS) proposes to collect information from whale watching passengers to ascertain the non-market value of whales in the Channel Islands region.

We have completed one season of the Passenger Survey. We need to complete the second season of the Passenger Survey.

Up-to-date socioeconomic data is needed to support the conservation and management goals of the CINMS to strengthen and improve conservation of marine mammals within the jurisdiction of the sanctuary and to satisfy legal mandates under the [National Marine Sanctuaries Act](#) (16 U.S.C. 1431 et seq), [Endangered Species Act](#) (16 U.S.C. 1531 et seq), [Marine Mammal Protection Act](#) (16 U.S.C. 1361 et seq), [National Environmental Policy Act](#) (42 U.S.C. 4321), Executive Order 12866 (EO 12866), and other pertinent statutes.

CINMS and the CINMS Marine Shipping Working Group (MSWG) are currently in the process of developing new options to reduce the number of whale strikes occurring as a result of collisions of the marine mammals with marine shipping traffic in the Santa Barbara Channel region. Collaborating with affected parties, the CINMS MSWG will explore options for reducing negative encounters between whale and vessels, while minimizing the economic impact on shipping and other industry. Options may include rerouting vessels from current traffic patterns or seeking to reduce the speed of vessels in areas where whales are present or known to occur. Such options may be explored for implementation on a voluntary basis or for future regulatory action by CINMS. The CINMS optioning process will identify alternatives that offer the most logical approach for protecting whales, while fostering robust, sustainable maritime commerce in the region.

While data are readily available to assess the impact of potential alternatives on the marine shipping industry, information is not available to on the non-market value of whales to the whale watching public. The present collection will gather data on the non-consumptive, non-market value of whales.

Collection of this data will provide estimates of the potential economic benefits of reduced lethal whale strikes that would potentially accrue from alternative shipping scenarios that may be implemented as a

result of the optioning process. To get cooperation of local industry, we have also added the capability to address the economic impacts of whale watching and wildlife observation on the local area economy in terms of spending by users and the associated impacts on output/sales, value-added, income and employment, including multiplier impacts. Additionally, should the CINMS choose to move forward with a regulatory approach to reduce fatal encounters between whales and maritime vessels, the information and tools developed from this data collection would be required before conducting a socioeconomic impact analyses under the [National Environmental Policy Act \(NEPA\)](#), [Executive Order 12866 \(Regulatory Impact Review\)](#) and an Initial and Final Regulatory Flexibility Analyses (impacts on small businesses).

This application is for: 1) approval to conduct a pre-test of the on-site survey, 2) approval to implement the mail back survey, and 3) approval to implement the final on-site survey, contingent on presentation of the final design for the non-market economic valuation. The final on-site survey will be resubmitted as part of a non-substantive change request, as no major changes are expected.

Key objectives of the pre-test are to 1) design bid amounts in choice questions for the non-market economic valuation, 2) test expected response rate of on-site survey, 3) how many completed surveys can be obtained at each survey session at the docks after boat trips, and 4) average time per response.

2. Explain how, by whom, how frequently, and for what purpose the information will be used. If the information collected will be disseminated to the public or used to support information that will be disseminated to the public, then explain how the collection complies with all applicable Information Quality Guidelines.

General Overview

The purpose of this information collection is to obtain the information necessary to calculate estimates and build tools that can be used by natural resource managers at the CINMS to evaluate the value of conserving whales within the sanctuary, as well as estimating potential impacts of alternative management options on the local tourism industry. The information collection will include surveys of whale watching tour passengers in the Channel Islands region. CINMS and NOAA may also use the results in benefit-cost analyses of investments in whale protection and restoration, and possibly in damage assessments.

Extension of this collection is requested for implementation of the second season of this information collection request.

Full implementation of both the on-site and mail back survey will provide information on economic spending and the associated impacts on sales/output, value-added, income and employment associated with the spending, including multiplier impacts; non-market economic use values and how those values change with changes in environmental attributes; and importance-satisfaction ratings for 17 natural resource attributes, facilities and services.

Who will use this information?

Data gathered during this collection will be used by CINMS and, more generally, the Office of the National Marine Sanctuaries. The pre-test survey was conducted by consultants, who are also graduate students at the Bren School of Environmental Science and Management at the University of California at Santa Barbara under the direction of faculty advisor, Dean Steven Gaines. The data was also be used by these graduate students to write a group Master's thesis document to meet university requirements for the completion of a Master of Science degree. The full collection will be implemented by the National Ocean Service.

How frequently will this information be used?

This one-time collection will last a total of 10-12 months. The full collection will be executed during two time periods, one period lasting 4-6 months and the other 3 months. It is anticipated that the data gathered from this collection will be used on an as-needed basis. Some of the elements of this submission may be replicated to support socioeconomic monitoring in future years.

For what purpose will the information be used?

Data gathered during this collection will be used by CINMS and, more generally, the Office of the National Marine Sanctuaries, to support the optioning process to reduce lethal encounters between whales and marine vessels in jurisdictional waters of the Channel Islands National Marine Sanctuary. Completing this information collection will give CINMS stakeholders fair representation in the design of management strategies by providing information to support the assessment of socioeconomic impacts of management alternatives. The data may potentially be used for conduct of socioeconomic impact analyses under the National Environmental Policy Act (NEPA), Executive Order 12866 (Regulatory Impact Review) and an Initial and Final Regulatory Flexibility Analyses (impacts on small businesses). Finally, the information collected also has potential to be used by resource managers for outreach and education purposes.

Summary of Survey Questions

On-Site Survey

The on-site survey is comprised of a survey instrument and three sets of information cards to be handed to the respondent. These surveys will be administered to whale watching tour passengers after disembarking from their tour.

Information Cards

Three laminated information cards (Yellow, Green, and White) will be provided to the respondents to aid in answering the questions on the questionnaire. In addition, 48 laminated cards have been developed for each choice set in the non-market economic valuation.

- 1) The "Respondent Yellow Card" is printed on yellow paper. Each section of the Yellow Card provides the categorical answers to corresponding questions on the questionnaire.

Respondent Yellow Card Section	Corresponding Questionnaire Question
1	1
2	2
3	4a
4	4b
5	11,16,21
6	22
7	23
8	24
9	25
10	26
11	27
12	28
13	29
14	30
15	31

- 2) The “Map of the Channel Islands Region” is a map of the study region used as a visual aid for question 4 of the questionnaire.
- 3) The “Respondent Green Card” is printed on green paper. Section 1 provides the list of statements and corresponding categorical responses for question 32 of the questionnaire. Section 2 provides the categorical responses for question 33 of the questionnaire.
- 4) “Respondent White Cards” are printed on white paper and provide the background information required for the economic valuation questions. (Part B of survey).
- 5) Choice Cards for the non-market economic valuation. There are 24 cards covering 48 alternatives/options plus the Status Quo. Each respondent will be presented three choices, so to cover 48 alternatives/options requires 16 versions of the survey.

Survey Instrument

The survey instrument proposed for this collection has evolved over many applications at thousands of sites since the 1972 and 1977 Federal Estate Surveys, the Public Area Recreation Visitor Surveys (PARVS – 1982 to 1991) and the most recent versions of CUSTOMER used by the U.S. Forest Service and NOAA since the early 1990s. This particular short form was used in the Florida Keys in 1995-96 and in 2007-08 and has been adapted to the Channel Islands region.

At the top of the form the interviewer assigns a unique interviewer identification number. This number is extremely important because it provides a way of linking information across databases with different information from the same sample of respondents (e.g., on-site form data with mail back data). The following questions are then asked.

PART A

- 1) *Looking at Section 1 of the yellow card, please tell me the letter that best describes your country of residence? If USA, what is your zip code?*

This information is important for assessing the sources of market demand for whale watching tours.

- 2) *Looking at Section 2 of the yellow card, tell me the letters that best describe the sources where you get information about whales.*

This information is important for assessing which information outlets are most important for disseminating information to the public.

- 3) *Are there any species of whales in particular that you were interested in viewing today? If yes, which species?*

This information will help determine both awareness of different whale species and which species are most popular.

- 4) *Is this your first time whale watching or observing wildlife in the coastal and ocean areas of the Channel Islands region? If not, 4a. Referring to Section 3 of the Yellow Card, how long have you been whale watching or observing wildlife in the area? 4b. Referring to Section 4 of the Yellow Card Which seasons have you been whale watching or observing wildlife in the area?*

Years spent whale watching will help us determine if past experience or familiarity affects how individuals value whales. Seasons spent whale watching will let us know if there are differences in whale watching tour passengers across seasons, which is important for extrapolating results.

- 5) *How many days have you spent whale watching or observing wildlife in the area in the last 12 months? 5a. How many of these days did you spend on for hire operations/guide operations?*

Days spent whale watching will help us determine the total amount of whale watching activities as well as provide a baseline use for our valuation. Question 5a allows us to assess economic impact of

passengers on the for hire operations/guide operations. This was requested by the for hire/guide operations.

- 6) *Are you aware of the Channel Islands National Marine Sanctuary? If yes, how did you hear about CINMS?*

This information will help us determine how well known or important the Sanctuary is to whale watching tour passengers as well as the most useful outlets for disseminating information about the Sanctuary.

PART B

The introduction to this section provides some definitions and scientific facts about whales and other marine animals in the Channel Islands region (Respondent White Card).

- 7) *12) and 17) Which option do you prefer?*

The respondent is then presented with three choice sets. For each choice set, the respondents are asked to choose among three options (alternatives). The Status Quo means no change in management or the environment and the respondent is told choosing this option will cost their household nothing (\$0), but will result in the poorest or lowest environmental conditions.

Each of the options (alternatives) is a different mix (bundle) of condition levels across all the environmental attributes. Each bundle of attribute conditions will be offered at a given price. Prices are varied across respondents for a given bundle (randomly assigned). There are 16 versions of the survey each containing the three choice sets. In total there are 48 alternatives/options required to achieve an orthogonal (attributes are uncorrelated) design. This is a requirement to be able to interpret coefficients on estimating equations as yielding marginal values of attributes (see Supporting Statement Part B).

- 8) *13) and 18) How many days would you have gone on whale watching or other wildlife watching trips in the Channel Islands region in the last year under the conditions for the option you preferred?*

- 9) *14) and 19) How many of these days would you have gone whale watching or other wildlife watching trips in the Channel Islands region in the last year on for hire operations/guide operations under the conditions of the option you preferred?*

Following each choice, the respondent is asked how many days per year they would have gone whale watching under the conditions for the option they chose. This will allow us to connect expenditures (normalized per person per day) to the use under each choice to estimate the economic impact on the local economy under different scenarios of environmental attributes. The second set of questions focus on the potential impacts on the for hire operations/guide operations, a requirement for cooperation by the industry.

10) 15) and 20) Please provide a brief comment that helps us understand why you chose the option you most preferred.

After each choice, respondents are also asked to provide a brief comment to help understand why they chose the option as their most preferred. Here we provide an open ended response. Later, under, Question 22, we use itemized response categories to find out if there are real economic reasons (prices too high, more than they are willing and able to pay) or if they are rejecting the scenario (i.e. don't believe management could achieve what we say they can achieve, just anti-government, not enough information, don't believe the information provided, etc.).

11) 16) and 21) Referring to Section 5 of the Yellow Card, How sure are you of the choice you just made? Please read to me the letter that best corresponds to your answer.

We also ask about the certainty with which they made each choice. This will aid in assessing the quality of the response.

22) Referring to Section 6 of the Yellow Card, Please state your level of agreement or disagreement with the following statements: Please read to me the number that best corresponds to the answer for each statement.

- a) Costs should not be a factor when protecting the environment.
- b) I found it difficult to select my most preferred choice.
- c) There was not enough information for me to make informed decisions about doing more to protect and restore natural resources or expand and improve facilities and services.
- d) I was concerned the federal, state and local governments cannot effectively manage the natural resources and facilities or provide the services.
- e) I should not have to pay more for maintaining or improving conditions.
- f) The public views as expressed in this survey should be important to government when it chooses how to manage these resources and facilities and the services they provide.
- g) I do not believe the scenarios accurately represent the current or potential states of the environment.

A final set of five statements are presented and respondents are asked to score these using a five-point Likert scale for agreement with the statements. This adds more information to assess choice responses.

The prices or bid amounts were determined using the pre-test. The final survey bundles are based on statistical design using a fractional factorial design since the possible combinations of attributes (bundles) is much larger than can be presented in a survey (See Part B for a more detailed discussion).

23) Looking at Section 7 of the yellow card, please tell me the letter that best describes the group recreating with you on the boat today?

- 24) *Looking at Section 8 of the yellow card, please tell me the letter that best describes your household.*
- 25) *Looking at Section 9 of the yellow card, please tell me the letter that best describes your annual household income before taxes.*
- 26) *Looking at Section 10 of the yellow card, please tell me the letters that best describe the modes of transportation you used to get to (insert current city) today.*

Questions 23 through 26 include questions to get information about the group the respondent is traveling with as well as information about the respondent's household. . This information will be useful for characterizing the population of whale watching tour passengers.

PART C

- 27) *Looking at Section 11 of the yellow card, please tell me the letter that best describes your age.*
- 28) *Looking at Section 12 of the yellow card, please tell me the letter that best describes your sex.*
- 29) *Looking at Section 13 of the yellow card, please tell me the letter that best describes your ethnicity.*
- 30) *Looking at Section 14 of the yellow card, please tell me the letters that best describe your race.*
- 31) *Looking at Section 15 of the yellow card, please tell me the letter that best describes your current employment status.*

Questions 27 through 31 include questions to get demographic information about the respondent. This information will be useful for characterizing the population of whale watching tour passengers as well as help derive sample weights.

PART D

- 32) *In this next set of questions, I will present you with a set of 15 statements about the environment. For each statement please indicate the number that best represents your opinion.*

This information will be useful for characterizing the population of whale watching tour passengers. Additionally, environmental attitudes have been shown to be important predictors of environmental valuation.

- 33) *For this final set of questions, I will present you with a list of marine animals found in the Channel Islands region. For each animal, please indicate the number that best represents your opinion.*

This information will provide us with a ranking of the marine animals mentioned in the economic valuation scenarios as well as marine animals that are important to the sanctuary.

PART E

- 34) Will you complete the mail back questionnaire?

Here we ask respondents if they would complete a mail back on expenditures and importance/satisfaction items. We also ask for the respondent's email address. To increase response rate, after two weeks, if mail backs have not been returned, an email reminder is sent. If the mail backs have still not been received after four weeks, then the mail back is sent electronically.

Mail Back Survey

The mail back surveys are comprised of an expenditure section and importance-satisfaction section.

Importance-Satisfaction Ratings

Seventeen (17) natural resource attributes, facilities and services are rated on importance and satisfaction using five-point Likert scales.

This information will be important for managers to better allocate their resources. For the CINMS, it will also serve as Human Dimensions non-economic indicators for assessing the condition of recreation ecosystem services in the sanctuary in the CINMS Condition Report.

Expenditures

This section addresses trip expenditures. Information is obtained on the number of people the expenditures cover so we can normalize expenditures to expenditures per person per trip so they can be extrapolated from sample to population estimates. We ask that the person who made the expenditures answer these questions.

This information will be used to estimate on economic spending and the associated impacts on sales/output, value-added, income and employment associated with the spending, including multiplier impacts.

Compliance with Information Quality Guidelines

It is anticipated that the information collected will be disseminated to the public or used to support publicly disseminated information. NOAA National Ocean Service, Office of National Marine Sanctuaries will retain control over the information and safeguard it from improper access, modification, and destruction, consistent with NOAA standards for confidentiality, privacy, and electronic information. See response to Question 10 of this Supporting Statement for more information on confidentiality and privacy. The information collection is designed to yield data that meet all applicable information quality guidelines. Prior to dissemination, the information will be subjected to quality control measures and a pre-dissemination review pursuant to [Section 515 of Public Law 106-554](#). All analyses and reports developed in this project will be peer reviewed before release to the public.

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological techniques or other forms of information technology.

The collection of information does not use automated, electronic, mechanical, or other technological techniques or other forms of information technology.

4. Describe efforts to identify duplication.

The research team consulted with resource managers at the CINMS to determine what types of socioeconomic data collection activities were planned or presently ongoing in the region related to whale watching industries. To avoid survey fatigue and inconveniencing business owners with data collections, the team consulted with researchers who have projects underway or planned to determine if there was overlap of target population. We identified no projects that included our target population of whale watching passengers for collections. The literature review did not reveal recent efforts completed or underway to collect similar information. Additionally, two representatives of the whale watching industry were consulted to inquire about whether whale-watching passengers were currently or recently involved in the same or similar type research. The response from both individuals was negative.

Researchers conducted a literature review to determine if and to what extent existing information might meet the needs of CINMS. While a socioeconomic impact analysis of the proposed marine reserves in the Channel Islands National Marine Sanctuary (CINMS) was completed in 2005, this information did not address the non-market value of whales.¹ This project does not duplicate past or ongoing efforts.

5. If the collection of information involves small businesses or other small entities, describe the methods used to minimize burden.

The target population for this collection is whale-watching passengers. However, this data collection involves whale-watching operations in so far as researchers are requesting and must secure permission from whale tour operators to conduct surveys of passengers at the site of the operator's business. Researchers will work with whale tour operators to schedule on-site interview activities. At the request of whale tour operators consulted, to minimize inconvenience to passengers, potentially impacting passenger experience with operators, staff will intercept passengers after the whale-watching trip as opposed to during the trip. Surveys will be conducted only at whale watching operations where the owner has consented to providing access to passengers. In no fashion will whale watch operators be burdened during the course of this collection.

6. Describe the consequences to the Federal program or policy activities if the collection is not conducted or is conducted less frequently.

NOAA and the managers of the CINMS, with the advice and consent from the CINMS Sanctuary Advisory Council, have agreed to collect the information necessary to assess the socioeconomic impacts of the management alternatives forthcoming from the MSWG optioning process. Without this collection, a critical data gap will remain, thereby hampering the optioning process and reducing the ability of resource managers to conduct a thorough social impact assessment in the event of a regulatory action. Additionally, this collection will serve as the foundational research for at least three graduate students at the University of California at Santa Barbara. If this collection does not go forward, this federal

¹ Leeworthy, V., Wiley, P., Stone, E. (2005). Socioeconomic impact analysis of marine reserve alternatives for the Channel Islands National Marine Sanctuary. Report to the National Oceanic and Atmospheric Administration. Silver Spring, MD.

government – academic collaborative effort will be compromised to the detriment of participating students.

7. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines.

This collection is consistent with OMB guidelines.

8. Provide information on the PRA Federal Register Notice that solicited public comments on the information collection prior to this submission. Summarize the public comments received in response to that notice and describe the actions taken by the agency in response to those comments. Describe the efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.

A Federal Register Notice published on October 29, 2018 () solicited public comment on this collection. None was received.

Consultation with persons outside of the agency was undertaken via members of the Sanctuary Advisory Council (SAC). The SAC is composed of stakeholders to the CINMS, including local and state agency representatives, other federal agencies, non-government organizations and private industry. CINMS Sanctuary Advisory Council, which has recently convened a working group to study options for reducing the risk of vessel collisions with whales. The working group is composed, in part, of SAC membership. The working group requested the information that will be gathered through this survey to help them assess management options. This group provided their views on the type of data to be collected, the research questions to be addressed, etc. The research team also consulted with two captains of whale watching operations in the Santa Barbara, California area. These operators provided suggestions and information needed to develop surveys targeted at whale watching passengers.

More recent comments are being sought from the Whale Watching Operations. They will be added once received.

9. Explain any decisions to provide payments or gifts to respondents, other than remuneration of contractors or grantees.

Interviewers will provide respondents with a small gift having a value of less than \$0.48 per unit, such as a bumper sticker, for participation in the on-site survey. This token is intended to thank respondents for participation in the research. Additionally, it is hoped that offering a token gift will increase the likelihood of respondents agreeing to participate in the study and completing the interview. The gift will provide some form of educational or information message of importance to the whale watching public.

10. Describe any assurance of confidentiality provided to respondents and the basis for assurance in statute, regulation, or agency policy.

No assurance of confidentiality based on statute or regulation will be provided to the respondents. Respondents will be told that their identity will be protected.

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private.

We will not ask questions of a sensitive nature.

12. Provide an estimate in hours of the burden of the collection of information.

Responses and burden for the second (Big Whale) season

<u>Onsite survey</u>	
<u>Number of completes</u>	<u>600</u>
<u>Time for completion</u>	<u>20 minutes</u>
<u>Burden hours</u>	<u>200 hours</u>
<u>Mailback survey</u>	
<u>Number of completes</u>	<u>270</u>
<u>Time for completion</u>	<u>15 minutes</u>
<u>Burden hours</u>	<u>67 hours</u>
<u>Full survey</u>	
<u>Total responses</u>	<u>870</u>
<u>Total burden hours</u>	<u>267</u>

Total participants, 600; 870 responses and 267 hours.

13. Provide an estimate of the total annual cost burden to the respondents or record keepers resulting from the collection (excluding the value of the burden hours in Question 12 above).

No cost to respondents or record keepers.

14. Provide estimates of annualized cost to the Federal government.

The cost to the Federal government for contract services, supplies, equipment, travel, etcetera, is approximately \$32,000 for FY2019. The total annual cost for Federal labor on the project is approximately \$10,000 for FY2019 .

15. Explain the reasons for any program changes or adjustments.

This is an extension of a previous request not completed.

16. For collections whose results will be published, outline the plans for tabulation and publication.

All reports will be peer reviewed per NOAA standards under the Information Quality Act and posted on the ONMS Socioeconomic Web site:

<http://sanctuaries.noaa.gov/science/socioeconomic>.

A new page(s) will be set up on this Web site to provide the project report to the general public. All data and documentation will be put on CD-ROM and will be made available to the general public, subject to any masking of the data required to protect privacy.

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons why display would be inappropriate.

NA.

18. Explain each exception to the certification statement.

NA.

