SUPPORTING STATEMENT

SOCIOECONOMICS OF COMMERCIAL WHALE WATCHING AND OTHER MARINE WILDLIFE OBSERVATION OPERATIONS IN THE CHANNEL ISLANDS NATIONAL MARINE SANCTUARY

OMB CONTROL No. 0648-xxxx

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g. establishments, State and local governmental units, households, or persons) in the universe and the corresponding sample are to be provided in tabular form. The tabulation must also include expected response rates for the collection as a whole. If the collection has been conducted before, provide the actual response rate achieved.

We estimate the population of commercial whale watching and marine wildlife observation operations in the relevant portions of the Channel Islands Study Area to number 21 or fewer. This information was obtained through consultation with data procured from InfoUSA,[1] a private company that makes demographic data on businesses commercially available in the United States. Researchers identified all business in the three county study region, including Los Angeles, Santa Barbara and Ventura counties, falling under relevant Standard Industrial Classification (SIC) codes.[2] These businesses will serve as the starting point for identification of relevant businesses. We anticipate the possibility that some of the identified businesses will no longer be in operation and that new businesses may be now open. To ensure that the entire population of whale and wildlife viewing operations are included, researchers will also ask for referrals to other businesses from respondents and project partners in the region. However, researchers do not anticipate the total number of operations to exceed 21.

One respondent per business operation will be interviewed for this study. This person may be the business owner, manager and/or captain. Because the number of whale and marine wildlife watching operations is very low in the Channel Islands study region, we have opted to complete a census of these operations. Based on past experience conducting similar surveys, we expect a 100% response rate or close to a 100% response rate. During a previous application of this survey method in the same study area for CINMS in 1999, researchers achieved a 100% response rate from

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[1] InfoUSA provides data on U.S. businesses by region and industry, including contact information, primary and secondary business focus, business size, sales volume, geography, and other firm demographics.

[2] Relevant business operations identified fell under the following SIC codes: Boats- Excursions (448902),Whale Watching (448906), Boats-Rental & Charter (799913), Guide Service (799934), Sailing Instruction (799961), Scuba Diving Tours (799987).

recreation operators. In the most recent application of this survey methodology for the Flower Garden Banks National Marine Sanctuary in Texas, a 100% response rate was also achieved.

Whale and Marine Wildlife Operations	Sample Size (Population Census)	Expected Response Rate
21	21	85% to 100%

2. Describe the procedures for the collection, including: the statistical methodology for stratification and sample selection; the estimation procedure; the degree of accuracy needed for the purpose described in the justification; any unusual problems requiring specialized sampling procedures; and any use of periodic (less frequent than annual) data collection cycles to reduce burden.

Statistical Analysis
Data analysis will be geared toward understanding the attributes of our target population, their cost and earnings, as well as the spatial distribution of where they take customers to view whales or other marine wildlife. Attribute profiles for the population will be summarized using basic univariate descriptive statistics. Cost and earnings for this population will gathered and reported. Finally, the mapped data will be visualized by converting data into points or polygons.

Degree of Accuracy Needed for the Purpose Described in the Justification
As we expect to obtain a census, the statistics will have no sampling error. Therefore, the issue of degree of accuracy is not applicable.

Unusual Problems Requiring Specialized Sampling Procedures
We do not anticipate any unusual problems that require specialized sampling procedures.

3. Describe the methods used to maximize response rates and to deal with nonresponse. The accuracy and reliability of the information collected must be shown to be adequate for the intended uses. For collections based on sampling, a special justification must be provided if they will not yield "reliable" data that can be generalized to the universe studied.

We anticipate a 100% response rate of the target population, based on our past applications of the same methods of information collections. Further, in the past, researchers have had no item non-response, even for income questions. However, to ensure 100% participation, researchers plan to issue letters to each respondent operator explaining the purpose of the project, the type of information needed, and why the information is needed. These letters will be followed by telephone contact from a member of the data collection team. The team members will call the respondent to answer any

questions the respondent might have, as well as to schedule the interview and provide guidance on the type of documents needed during the collection. We anticipate that this population, meaning whale and marine wildlife watching operations, to be highly motivated and eager to participate in the researcher study. The whale watching industry is represented on the CINMS Sanctuary Advisory Council, which has a recently convened a working group to study options for reducing the risk of vessel collisions with whales. The working group has requested this survey data to help them assess management options. Industry representatives on the advisory council will reach out to the business community to encourage all operations to provide the information that is needed for a thorough economic evaluation. For the reasons described above, we do not expect non-response bias to be a significant issue for this collection.

4. Describe any tests of procedures or methods to be undertaken. Tests are encouraged as effective means to refine collections, but if ten or more test respondents are involved OMB must give prior approval.

Many of the survey questions, those related to the economic data, in particular, and the research methods proposed for this collection have been repeatedly deployed in past information collections by NOAA. This and similar cost and earnings studies are largely standard and, therefore, well tested. The only modifications made to the survey instrument for this collection have been to tailor the application to the CINMS. These modifications, however, have been minor.

5. Provide the name and telephone number of individuals consulted on the statistical aspects of the design, and the name of the agency unit, contractor(s), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.

NOAA Project Leads
Dr. Bob Leeworthy was the primary advisor on the statistical aspects of the study design. Dr. Leeworthy is Chief Economist with the Office of National Marine Sanctuaries. He is an expert in this area of research and application. Generally, the NOAA Project Leads will provide guidance, mentorship and oversight to the Bren Student Research Team, who will be responsible for data collection and analysis.

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Data collection and analysis for this study will be conducted by a team of consultants from the Bren School of Environmental Science & Management.

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