

**SUPPORTING STATEMENT  
 SURVEY OF HAWAII RESIDENT RESOURCE (SHRR) USERS' KNOWLEDGE,  
 ATTITUDES, AND PERCEPTIONS OF CORAL REEFS IN TWO HAWAII PRIORITY  
 SITES  
 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.**

This is planned as an intercept survey of residents who are visiting and using the coastal areas in Hawaii's two coral reef priority sites. The potential respondent universe consists of all island residents who visit and use the coastlines of each priority site, plus knowledgeable repeat visitors as defined explicitly by a screening question. This is an unknown population size. However, we do know that according to the 2010 census, Hawaii County, where the South Kohala priority site is located, has a population size of 185,079 and Maui County, where the Kahekili priority site is located, has a population of 154,834.

It is unclear how many of these residents visit and use the priority sites. Respondents for the intercept survey will be selected based on their presence in key locations in the two priority sites. This study will include only those respondents who are at least 18 years of age and who are residents of Hawaii or Maui counties, plus knowledgeable repeat visitors as defined explicitly by a screening question. Table 1 tabulates the anticipated aggregate number of completed intercept surveys, based on an anticipated response rate of 80%. This is comparable to the rate demonstrated in a recent onsite survey of visitors to Hawaii beaches conducted by NOAA Fisheries in 2010 (OMB Control No. 0648-0617, Survey of Public Perceptions and Attitudes about Hawaiian Monk Seals).

**Table 1. Intercept surveys for resident users and anticipated number of completion.**

<b>Approximate Number of Eligible Respondents Contacted</b>	<b>Anticipated Response Rate</b>	<b>Number Completed</b>
500	80%	400

The survey is intended to be used as a research tool to gather information regarding opinions and behaviors, and although statistical information is important it is not imperative that results are quantified with a certain confidence interval or significance. Descriptive statistics will be used to develop the analyses necessary to interpret the results in a manner that may be translated into developing effective messages for education and outreach campaigns, guiding management

strategies for dealing with coral reef management, and indicating audiences toward which efforts should be targeted.

**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.**

The data collection for local residents and informed visitors will occur as an in-person survey conducted by the survey administrator using the intercept method. We will use purposive sampling (used when researchers have specific information they want to gather from each stakeholder group, and so participants from those groups are sought out) in order to ensure we collect data from a variety of resource user types and locations. Local knowledge of the coastal access points along the priority sites indicates that different types of resource users utilize different types of access points (e.g., rocky shoreline versus sandy beach) at different times of day (e.g., morning or night) in order to participate in different types of activities (e.g., fishing versus sunbathing). The survey administrator will develop a sampling design using purposive sampling in order to ensure these various resource user groups are included in our data collection, and to allow data analysis to incorporate these variables.

In order to do this, the site will be divided into different types of shoreline access points and a record of the type of use that the resource user is engaging in that day will be kept. The survey administrator will take care to adequately sample each shoreline access point in the area as well as conduct the survey over different times throughout weekdays, weekends, holidays, morning, afternoon and nights. The survey administrator will plan to gather surveys in each of these categories equally throughout the survey administration. PIFSC staff will coordinate closely with the survey administrator as surveys are collected to see if additional effort needs to be placed during certain times of day to capture that sampling time. An inventory of the types of uses and basic demographics of the people approached, and notes about presence or absence of marine managed areas adjacent to where the person was questioned, will be tracked in a checklist to ensure that the breadth of these categories is adequately covered throughout the survey administration. This data collection effort will occur at beaches, rocky shorelines, marinas, and popular fishing, surfing, and diving areas in the two priority sites. Participants will be randomly selected. The administrator will approach the nth (number will depend on interview site) passerby and inform him or her that the individual has been randomly selected, and ask if the individual would be able to complete the survey. The respondent will also have the option to give their responses verbally. If the potential respondent declines, the next individual to pass by will be asked. The survey administrators will be available to explain the survey, answer questions, and collect the written survey upon completion.

**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.**

The survey instrument and the survey implementation incorporate a number of elements to help maximize response rates. The surveys are user-friendly, with clear, easy to comprehend questions. The survey topics are expected to be salient and interesting to respondents. Each survey makes ample use of listing options to allow the respondent to answer by checking the appropriate boxes, which may aid in recall and analysis. In addition, the in-person survey administration increases the response rate compared to other methods such as mail or phone surveys.

Each questionnaire is short enough to complete in 20 minutes or less. Respondents will be approached while they are at their destination within the sites and provided with a survey form they can complete at their leisure, to be collected by the interviewer. Interviewers also will administer the survey to the person if requested, providing an additional option. The interviewers will be local residents who are familiar with the settings and activities that take place there so they will be viewed as friendly and knowledgeable. Interviewers will keep a record of non-response among eligible respondents, including the location, gender of non-respondent, and activity participation, to allow researchers to detect any apparent patterns in non-response and incorporate those patterns in the analyses.

The primary goal is to obtain a general assessment of the level of knowledge and the opinions of a broad cross-section of resident visitors rather than to be able to ensure that responses represent the broader population with a stated degree of statistical confidence.

The following non-response data will be collected from people that were approached and were qualified to be considered according to our screening questions, but refused to complete the survey.

Did they meet all screening questions to qualify to take survey?	YES	NO				
Reason for refusal	No time	It won't make a difference	Don't want to be bothered	Other (please specify)		
Type of use intended for day (record if discernible or they tell us)	Surfing	Fishing	Camping	Swimming	Lounging	Other (list)
Location						

**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.**

Development of the survey instrument and methods of collection included internal reviews by NOAA Fisheries employees. Fewer than 10 people were administered the survey instrument over the course of development to determine both the amount of time necessary to complete the survey and if the questions are presented in an easy-to-understand manner.

**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.**

The following individuals were consulted on the statistical aspect of the survey design:

Dr. Stewart Allen  
NMFS Pacific Islands Fisheries Science Center  
Honolulu, HI  
(808) 944-2186

The following individuals will analyze the information for the agency:

Risa Oram  
NMFS Pacific Islands Fisheries Science Center  
Honolulu, HI  
(808) 944-2124

Cindy Grace-McCaskey  
NMFS Pacific Islands Fisheries Science Center  
Honolulu, HI  
(808) 944-2121

***NOAA/NMFS Project Officer***

Risa Oram  
NOAA Fisheries Pacific Islands Fisheries Science Center  
1601 Kapiolani Blvd. Suite 1000  
Honolulu, HI 96814  
(808) 944-2124  
[Risa.Oram@noaa.gov](mailto:Risa.Oram@noaa.gov)