

# NOTICE OF OFFICE OF MANAGEMENT AND BUDGET ACTION

Date 07/29/2014

Department of Commerce  
National Oceanic and Atmospheric Administration

FOR CERTIFYING OFFICIAL: Simon Szykman

FOR CLEARANCE OFFICER: Jennifer Jessup

In accordance with the Paperwork Reduction Act, OMB has taken action on your request received 07/24/2014

ACTION REQUESTED: No material or nonsubstantive change to a currently approved collection

TYPE OF REVIEW REQUESTED: Regular

ICR REFERENCE NUMBER: 201407-0648-003

AGENCY ICR TRACKING NUMBER:

TITLE: Socioeconomics of Coral Reef Conservation

LIST OF INFORMATION COLLECTIONS: See next page

OMB ACTION: Approved without change

OMB CONTROL NUMBER: 0648-0646

The agency is required to display the OMB Control Number and inform respondents of its legal significance in accordance with 5 CFR 1320.5(b).

EXPIRATION DATE: 03/31/2015

DISCONTINUE DATE:

BURDEN:	RESPONSES	HOURS	COSTS
Previous	3,600	1,191	0
New	4,313	1,284	0
Difference			
Change due to New Statute	0	0	0
Change due to Agency Discretion	0	0	0
Change due to Agency Adjustment	713	93	0
Change due to PRA Violation	0	0	0

TERMS OF CLEARANCE:

OMB Authorizing Official: Dominic J. Mancini  
Acting Deputy Administrator,  
Office Of Information And Regulatory Affairs

List of ICs

IC Title	Form No.	Form Name	CFR Citation
CRCP Question Bank with Guam survey questions already selected; adding Florida and American Samoa	NA, NA, NA, NA, NA, NA	American Survey Coral Reef Survey, Florida Coral Reef Survey, Coral Reef Survey Core Questions, Puerto Rico survey, Hawaii Survey, Guam Resident Coral Reef Survey	

## JUSTIFICATION FOR CHANGE

### OMB Control No. 0648-0646 SOCIOECONOMICS OF CORAL REEF CONSERVATION

This request is for approval of two surveys under the information collection requirement currently approved under OMB Control No. 0648-0646 “Socioeconomics of Coral Reef Conservation”. The approved information collection is part of the National Coral Reef Monitoring Plan and relates to Social Science and Human Dimensions monitoring. The National Oceanic and Atmospheric Administration (NOAA) created the Coral Reef Conservation Program to safeguard and ensure the welfare of the coral reef ecosystems along the coastlines of America’s States and Territories. The administration of this program has potential economic and cultural impacts on the lives of nearby residents and citizens. In accordance with its mission goals, NOAA has designed surveys to provide longitudinal data about the impact of the Coral Reef Conservation Program.

NOAA has developed two jurisdictional survey instruments to be implemented in **Hawaii** and **Puerto Rico in 2014-15**. As per OMB guidelines for PRA clearance, NOAA is required to submit a change request listing the questions selected from the full question bank for each of the jurisdictional survey instruments. This request also briefly describes the information collection venues and sampling methodology applicable to each jurisdiction. Please note, this change justification is the second such request as per a previous submission for similar (ongoing) survey efforts in American Samoa and Florida.

These two jurisdictional survey instruments have been developed for the purpose of collecting information that can be used to analyze frequency of coral reef and/or beach use and other activities, general knowledge, attitudes and perceptions of coral reef ecosystems as well as attitudes and opinions of natural resource management and protection activities including rules and regulations (See Hawaii and Puerto Rico surveys). Both surveys have a core set of questions that will be the same for all jurisdictions (See Core Module). Each jurisdictional survey instrument contains questions that are specific to the local management needs and to the population. General demographic information will also be collected from respondents. The questions that have been selected from the bank (See Core Module) will allow NOAA to collect data for some of the socioeconomic indicators of interest to the Coral Reef Conservation Program as outlined in Table 1 of the original supporting statement.

As described in the original supporting statement (included here as a supplemental document), the information will be collected using the most efficient and effective means in the individual jurisdiction. For both Hawaii and for Puerto Rico, telephone surveys will be used. For both survey instruments, the number of questions has been reduced to mitigate respondent burden: fewer jurisdictionally relevant questions were added, and in some cases, the question format was changed (fewer categories, fewer answer options). In addition, for some questions, there are actually fewer applicable activity choices than, for example, was the case in Florida. Also, note that these two instruments will be converted to Computer Assisted Telephone Interview (CATI)

format, and instructions for such questions as that on race and ethnicity will be modified to reflect telephone interviewing.

More information for each jurisdictional survey, mode of survey implementation and burden hours is provided below.

**Hawaii and Puerto Rico**

The information collection for both US Coral Reef locations is to be conducted by a contracted survey firm who will utilize a phone survey based a sample purchased by the survey firm from a reputable vendor. For each of the jurisdictional populations, we intend to select a random sample of individuals over the age of eighteen, stratified geographically as described in Table 6 of the supporting statement. The random sample will be obtained from the selected survey firm using standard sample selection tools. These strata have been designed to account for the differing sizes of the populations in the areas close to coral reefs. We have used the standard approach to estimating sample size for a stratified population:

$$[t^2 N p(1-p)] / [t^2 p(1-p) + a^2 (N-1)]$$

Where N is the size of the total number of cases, n is the sample size, a, is the expected error, t is the value taken from the t distribution corresponding to a certain confidence interval, and p is the probability of an event.

As indicated in the supporting statement, the final sampling size was to be determined in relation to available resources. As a result, the sample for Puerto Rico has been increased from the original proposed number by 54%. The estimated number of respondents, 2,500, will be adequate to provide precise estimates for the population of the five counties as a whole (i.e., estimated to be within +/- 5.0 percentage points with 95 percent confidence). The sample size and estimated number of actual respondents for Hawaii has been increased by 130%. This increase in estimated respondents, 2,240, will allow for a more robust and statistically significant representation (+/-5.0 percentage points with 95 percent confidence) of the population of each of the six most populated Hawaiian Islands. A table with the updated respondent numbers, burden, and labor cost for Puerto Rico and the original numbers for Hawaii is provided below.

Other details as per data collection and analysis are outlined in the Supporting Statement.

**From Supporting Statement, Table 1: Estimates of Burden Hours (3.5-year time frame)**

Requirements	Sample Size	Required # of Respondents	Responses Per Respondent	Total # of Responses	Response Time	Total Burden (in hours)	Labor Cost
Hawaii	3,085	2240	1	2240	20 min	747	\$15,342
Puerto Rico	3,375	2500	1	2500	20 min.	833	\$10,034

Original estimated total responses and hours for these two locations has increased from 2,600 and 1,301 to 4,740 and 1,580 (or, annualized, from 867 and 434 to 1,580 and 527), with net increases of 713 responses and 93 hours.

## PAPERWORK REDUCTION ACT CHANGE WORKSHEET

Agency/Subagency	OMB Control Number  _____ - _____	
<i>Enter only items that change</i>		
	Current record	New record
Agency form number (s)		
Annual reporting and recordkeeping hour burden		
Number of respondents		
Total annual responses		
Percent of these responses collected electronically	%	%
Total annual hours		
Difference		
Explanation of difference		
Program change		
Adjustment		
Annual reporting and recordkeeping cost burden (in thousands of dollars)		
Total annualized Capital/Startup costs		
Total annual costs (O&M)		
Total annualized cost requested		
Difference		
Explanation of difference		
Program change		
Adjustment		
Other changes**		
Signature of Senior Official or designee:	Date:	For OIRA Use  _____ _____

\*\* This form cannot be used to extend an expiration date.

# OMB SUBMISSION

NOAA Coral Reef Conservation Program  
National Coral Reef Monitoring Program (NCRMP)  
Resident Coral Reef Survey  
OMB Control Number 0648-0646

**\*\*CORE MODULE\*\***

Hello, My name is \_\_\_\_\_ We are only interested in obtaining your opinions on some important issues related to coral reefs and the environment in \_\_\_\_\_

Your participation is voluntary and will be kept strictly confidential. Notwithstanding any other provisions of the law, no person is required to respond to, nor shall any person be subjected to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other suggestions for reducing this burden to Peter Edwards, National Oceanic and Atmospheric Agency, National Ocean Service, Coral Reef Conservation Program, (1305 East West Highway, Silver Spring, MD, 20910, USA.

**PARTICIPATION IN REEF ACTIVITIES**

1. How often do you usually participate in each of the following activities? [Q14]

	Never	Once a month or less	2-3 times a month	4 times a month or more	No Answer
Swimming/wading					
Snorkeling					
Diving (SCUBA or free diving)					
Waterside/ beach camping					
Beach recreation (beach sports, picnics)					
Boating					
Fishing					
Gathering of marine resources (lobsters, conch, seaweed, examples)					

**SKIP PATTERN--** If respondent answers 'never' to fishing and gathering of marine resources, then skip to #3:

**CORAL REEF RELIANCE / CULTURAL IMPORTANCE OF REEFS**

2. How often do you fish or harvest marine resources for each of the following reasons? [Q112]

	Frequently	Sometimes	Rarely	Never	No Response
To feed myself and my family/ household					
To sell					
To give to extended family members and/or friends					
For fun					
For special occasions and cultural events					

3. How often do you or your family eat fish/seafood? [Guam survey]
  - a. Every day
  - b. A few times a week
  - c. About once a week
  - d. 1-3 times a month
  - e. Less than once a month
  - f. Never

**SKIP PATTERN -- If respondent answers 'never' then skip to question #5**

4. Where do you get the fish or seafood your family eats? [Guam Survey]
  - a. Purchased by myself or someone in my household at a store or restaurant
  - b. Purchased by myself or someone in my household at a market or roadside vendor
  - c. Caught by myself or someone in my household
  - d. Caught by extended family members
  - e. Other, please specify \_\_\_\_\_

**PERCEIVED RESOURCE CONDITION**

5. In your opinion, how are [jurisdiction's] marine resources currently doing? Please rank from very bad to very good. [Q50]

	Very Bad	Bad	Neither Bad nor Good	Good	Very Good	Don't Know
Ocean Water Quality (clean and clear)						
Amount of Coral						
Number of Fish						

6. How would you say the condition of each of the following has changed over the last 10 years: from 1=it has gotten a lot worse to 5=it has gotten a lot better. [Q53]

	A lot Worse	Somewhat Worse	No Change	Somewhat Better	A lot Better	Not Sure
Ocean Water Quality (clean and clear)						
Amount of Coral						

	A lot Worse	Somewhat Worse	No Change	Somewhat Better	A lot Better	Not Sure
Number of Fish						

7. In the next 10 years, do you think the condition of the marine resources in [jurisdiction] will get worse, stay the same or improve? [Guam Survey]
- Get worse
  - Stay the same
  - Improve
  - Not sure

**AWARENESS AND KNOWLEDGE OF CORAL REEFS – Threats including climate change**

8. Please say whether you disagree or agree with each of the following statements. [Q7, Guam Survey]

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Not Sure
Coral reefs protect the [jurisdiction] from erosion and natural disasters.						
Coral reefs are only important to fishermen, divers and snorkelers.						
Healthy coral reefs attract tourists to [jurisdiction].						
Coral reefs are important to [jurisdiction] culture.						

9. How familiar are you with each of the following potential threats facing the coral reefs in <location>? [Q31]

	Very Unfamiliar	Unfamiliar	Neither Familiar nor Unfamiliar	Familiar	Very Familiar	Not sure

Climate change						
Coral bleaching						
Hurricanes and other natural disasters						
Pollution (stormwater, wastewater, chemical runoff and trash/littering)						
Coastal/urban development						
Invasive species						
Too much fishing and gathering						
Damage from ships and boats						

10. Do you believe that the threats to coral reefs in <location> are: [MODIFIED Q29]

- a. Extreme
- b. Large
- c. Moderate
- d. Minimal
- e. None
- f. Not sure

**ATTITUDES TOWARDS CORAL REEF MANAGEMENT STRATEGIES AND ENFORCEMENT**

11. A Marine Protected Area is an area of the ocean where human activity is typically restricted to protect living, non-living, cultural, and/or historic resources. How familiar are you with Marine Protected Areas (MPAs)? [Q36]

- a. Very Unfamiliar
- b. Unfamiliar
- c. Neither Unfamiliar nor Familiar
- d. Familiar
- e. Very Familiar
- f. Not sure

**SKIP PATTERN-- If respondent answers 'Very unfamiliar' or 'Unfamiliar', then skip to #12:**

12. Please indicate how much you disagree or agree with each of the following statements. [MODIFIED Q44]

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Not Sure
MPAs protect coral reefs						
MPAs increase the number of fish						
There should be fewer MPAs in [jurisdiction]						
There should be more MPAs in [jurisdiction]						
There has been economic benefit to [jurisdiction] from the establishment of MPAs						
Fishermen's livelihoods have been negatively impacted from the establishment of MPAs in [jurisdiction]						
MPAs help increase tourism in [jurisdiction]						
The establishment of MPAs increases the likelihood that people will vacation in [jurisdiction]						
I would support adding new MPAs in [jurisdiction] if there is evidence that the ones we have are improving [jurisdiction's] marine resources						
I generally support the establishment of MPAs						

13. The following are proposed or existing management strategies used to manage the marine environment and specifically, to improve the protection of coral reefs in <location>. Please rate whether you oppose or support each regulation. [Q103]

	Strongly Oppose	Oppose	Neither Support nor Oppose	Support	Strongly Support	Don't Know
Increased enforcement of existing rules/regulations						
Limits per person for certain fish species (size and amount)						
Stricter control of sources of pollution to						

	Strongly Oppose	Oppose	Neither Support nor Oppose	Support	Strongly Support	Don't Know
preserve water quality						
More restrictions on construction practices to prevent sediment going to sea						
Limits on recreational use						

**PARTICIPATION IN BEHAVIORS THAT MAY IMPROVE CORAL HEALTH**

14. How often do you participate in any activity to protect the environment (for example, beach clean ups, volunteering with an environmental group, recycling)? [MODIFIED Q89]

- a. Not At All
- b. Once a year or Less
- c. Several times a year
- d. At least once a month
- e. Several Times a Month or more
- f. Not Sure

15. Which of the following would you consider to be your top 3 sources of information about coral reefs and the environment in [jurisdiction]? [Q105]

*Interviewer checks the top 3 sources of information.*

16. To what degree do you trust each of your top rated sources of information to provide you the most accurate information on coral reefs and coral reef related topics in [jurisdiction]? [Q109]

*Respondent rates only the top 3 sources of information.*

Top 3	Sources	Very untrustworthy	Untrustworthy	Neither Trustworthy nor Untrustworthy	Trustworthy	Very Trustworthy	Very Trustworthy
	Newspapers, other print publications						

Top 3	Sources	Very untrustworthy	Untrustworthy	Neither Trustworthy nor Untrustworthy	Trustworthy	Very Trustworthy	Very Trustworthy
	Radio						
	TV						
	Internet						
	Friends and family						
	Community leaders						
	Government (jurisdictional)						
	Federal government agencies (NOAA, EPA)						
	Non-profit organizations						
	Other						

17. How involved is the local community in protecting and managing coral reefs? [Q97]

- a. Not at all involved
- b. Somewhat involved
- c. Moderately involved
- d. Involved
- e. Very involved
- f. Not sure

18. How involved are you in making decisions related to the management of coral reefs in [jurisdiction]? [Q90]

- a. Not at all involved
- b. Slightly involved
- c. Moderately involved
- d. Involved
- e. Very involved
- f. Not sure

## DEMOGRAPHICS

I just have a few more questions that will help us to interpret our results. As a reminder, the information you provide is completely confidential.

19. Are you male or female? [Q122]

- a. Male
- b. Female

20. What is your year of birth? \_\_\_\_\_ [Q121]

21. How long have you lived in [jurisdiction]? [Q129]

- a. 1 year or less
- b. 2-5 years
- c. 6-10 years
- d. more than 10 years
- e. all my life

22. Including your primary language, please name each language you speak. [Q133]

***[interviewer should not read options below, but should allow respondent to answer]***

- |               |                          |
|---------------|--------------------------|
| a. English    | m. Hawaiian              |
| b. Spanish    | n. Hawaii Pidgin English |
| c. French     | o. Sāmoan                |
| d. German     | p. Chamorro              |
| e. Italian    | q. Carolinian            |
| f. Portuguese | r. Creole                |
| g. Arabic     | s. Crucian               |
| h. Chinese    | t. Tongan                |
| i. Japanese   | u. Other: Please list    |
| j. Korean     | _____                    |
| k. Tagolog    | v. No Response           |
| l. Hindi      |                          |

23. What race/ethnicity do you consider yourself? [Q131]

- |   |   |
|---|---|
| a. American Indian or Alaskan<br>Native | h. Cuban  |
| b. Asian                                | i. Filipino                                     |
| c. Black or African American            | j. Japanese                                     |
| d. Puerto Rican                         | k. White  |
| e. Carolinian                           | l. Korean                                       |
| f. Chamorro                             | m. Mexican                                      |
| g. Chinese                              | n. Native Hawaiian or other<br>Pacific Islander |

- o. Samoan
- p. Taino
- q. Thai
- r. Tongan
- s. Vietnamese
- t. Other/Mixed
- u. No response
- v. Hispanic or Latino

24. What is the highest level of education you have completed? [Q123]

- a. 8th Grade or Less
- b. Some high school
- c. High School Graduate, GED
- d. Some college, community college or AA
- e. College Graduate
- f. Graduate School, Law School, Medical School
- g. No Response

25. What is your current employment status? [Q124]

- a. Unemployed
- b. Student
- c. Employed full-time
- d. Homemaker
- e. Employed part-time
- f. Retired
- g. None of the above: Please specify \_\_\_\_\_
- h. No Response

26. What is your occupation? [**Open Ended**] [Q125] \_\_\_\_\_

27. May I ask, what is your annual household income? [Q127]

- a. Under \$10,000
- b. \$10,000-19,999
- c. \$20,000-29,999
- d. \$30,000-39,999
- e. \$40,000-49,999
- f. \$50,000-59,999
- g. \$60,000-74,999
- h. \$75,000-99,999
- i. \$100,000-149,999
- j. \$150,000 or More
- k. No Response

OMB SUBMISSION

NOAA Coral Reef Conservation Program  
National Coral Reef Monitoring Program (NCRMP)  
Resident Coral Reef Survey  
OMB Control Number 0648-0646

**\*\*Hawaii Survey\*\***

Survey conducted in (circle one): *English*

Introduction: *[greeting specific to jurisdiction]*

Hello, my name is [interviewer name]. I'm calling from [CONTRACT COMPANY] on behalf of the National Oceanic and Atmospheric Administration (NOAA) and the National Coral Reef Monitoring Program. We are interested in obtaining your opinions on important issues related to coral reefs in Hawaii. You were selected because you live in a coastal area near coral reefs.

This survey is being conducted in accordance with the Privacy Act of 1974 and the Paperwork Reduction Act. Your participation is voluntary, your answers are confidential and you can stop the interview at any time. The interview is expected to take less than 20 minutes. If you have questions or would like to know more about the survey I will provide you with contact information.

Notwithstanding any other provisions of the law, no person is required to respond to, nor shall any person be subjected to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number. The OMB Control number for this survey is 0648-0646.

The 20 minute estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Please send comments regarding this burden estimate or any other suggestions for reducing this burden to Peter Edwards, National Oceanic and Atmospheric Agency, National Ocean Service, Coral Reef Conservation Program, (1305 East West Highway, Silver Spring, MD, 20910, USA).

1. Are you at least 18 years of age?

IF "YES" CONTINUE TO SCREENING QUESTION 2. IF "NO", END SURVEY.

2. Do you live in Hawaii at least 3 months of the year?

IF "YES" CONTINUE WITH QUESTION #1 OF THE SURVEY.

Now that we have established that you are qualified, we will continue with the survey. Remember that you can stop at any time.

## PARTICIPATION IN REEF ACTIVITIES

1. How often do you usually participate in each of the following activities? ***[Interviewer should not read Don't Know Refused]***

	Never	Once a month or less	2-3 times a month	4 times a month or more	No Response
Swimming/wading					
Snorkeling					
Diving (SCUBA or free diving)					
Waterside/ beach camping					
Beach recreation (land based beach sports, picnics)					
Boating					
Wave riding (surfing, stand up paddle boarding, body boarding)					
Canoeing/kayaking					
Fishing (for finfish)					
Gathering of marine resources (non-fish such as lobsters, octopus, opihi, seaweed)					

**SKIP PATTERN--** If respondent answers 'never' to BOTH fishing AND gathering of marine resources, then skip to #3:

## CORAL REEF RELIANCE / CULTURAL IMPORTANCE OF REEFS

2. How often do you fish or harvest marine resources for each of the following reasons?

	Frequently	Sometimes	Rarely	Never	No Response
To feed myself and my family/ household					
To sell [INTERVIEWER CAN PROMPT: "or for work" to include fishing/harvesting as part of employment]					
To give to extended family members and/or friends					
For fun					
For special occasions and cultural purposes/events					

3. How often does your family eat fish/seafood?

- a. Every day
- b. A few times a week
- c. About once a week
- d. 1-3 times a month
- e. Less than once a month
- f. Never

4. What are the two main sources of the fish and seafood that you and your family eats?  
 [INTERVIEWER: CODE THE ANSWERS ACCORDING TO THE RESPONSE CATEGORIES PROVIDED. PROMPT WITH EXAMPLES IF NECESSARY.]

- a. Purchased by myself or someone in my household at a store or restaurant
- b. Purchased by myself or someone in my household at a market or roadside vendor
- c. Caught by myself or someone in my household
- d. Caught by extended family members
- e. Caught by friends or neighbors
- f. Other, please specify \_\_\_\_\_
- g. Not Sure
- h. Refused

**PERCEIVED RESOURCE CONDITION**

5. In your opinion, how are Hawaii’s marine resources currently doing? Please rank from very bad to very good.

	Very Bad	Bad	Neither Bad nor Good	Good	Very Good	Not sure
<b>Ocean Water Quality (clean and clear)</b>						
<b>Amount of Coral</b>						
<b>Number of Fish</b>						
<b>Diversity of fish</b>						
<b>Size of fish</b>						

6. How would you say the condition of each of the following has changed over the last 10 years: from 1=it has gotten a lot worse to 5=it has gotten a lot better.

	A lot Worse	Somewhat Worse	No Change	Somewhat Better	A lot Better	Not Sure
<b>Ocean Water Quality (clean and clear)</b>						
<b>Amount of Coral</b>						
<b>Number of Fish</b>						
<b>Diversity of fish</b>						
<b>Size of fish</b>						

7. In the next 10 years, do you think the condition of the marine resources in Hawaii will get worse, stay the same or improve?

- Get worse
- Stay the same
- Improve
- Not sure

**AWARENESS AND KNOWLEDGE OF CORAL REEFS**

8. Please say whether you disagree or agree with each of the following statements.

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Not Sure
<b>Coral reefs protect the Hawaii from erosion and natural disasters.</b>						
<b>Coral reefs are only important to fishermen, divers and snorkelers.</b>						
<b>Healthy coral reefs attract tourists to Hawaii.</b>						
<b>Coral reefs are important to Hawaiian culture.</b>						

9. How familiar are you with each of the following potential threats facing the coral reefs in Hawaii?

	Very Unfamiliar	Unfamiliar	Neither Familiar nor Unfamiliar	Familiar	Very Familiar	Not sure
Climate change						
Coral bleaching						
Hurricanes and other natural disasters						
Pollution (stormwater, wastewater, chemical runoff and trash/littering)						
Increased coastal/urban development						
Invasive species						
Too much fishing and gathering						
Damage from ships and boats						
<i>Impacts from recreational activity (examples include trampling of reefs, anchor damage)</i>						
<i>Ocean acidification</i>						

10. Do you believe that the threats to coral reefs in Hawaii are:

- a. Extreme
- b. Large
- c. Moderate
- d. Minimal
- e. None
- f. Not sure

**AWARENESS OF CORAL RULES AND REGULATIONS**

11. A Marine Managed Area is an area of the ocean where human activity is typically restricted to protect living, non-living, cultural, and/or historic resources. Examples in Hawaii include marine life conservation districts, fisheries management areas, and community based subsistence fishing areas. How familiar are you with Marine Managed Areas?

- a. Very Unfamiliar
- b. Unfamiliar
- c. Neither Unfamiliar nor Familiar
- d. Familiar
- e. Very Familiar
- f. Not sure

## ATTITUDES TOWARDS CORAL REEF MANAGEMENT STRATEGIES AND ENFORCEMENT

12. The following are common strategies used to manage the marine environment. We are interested in your opinion about the use of these strategies for the protection of coral reefs in Hawaii. Please indicate how much you disagree or agree with each of the following:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Not Sure
Better regulation of land use practices to prevent sediment from going to sea						
Catch limits per person for certain fish species (size and amount)						
Seasonal openings/closures of fisheries						
Gear restrictions for fishing						
Better treatment of wastewater						
Improved law enforcement for existing rules/regulations						
Community participation in marine management						
Ocean zoning						
Designating marine managed areas						
Limited use for recreational activities (examples include diving, snorkeling, boating)						
No-take zones						
Establishment of a non-commercial fishing license						

## PARTICIPATION IN BEHAVIORS THAT MAY IMPROVE CORAL CONDITION

13. How often do you participate in any activity to protect the environment (for example, beach clean ups, volunteering with an environmental group, recycling)?

- Not At All
- Once a year or Less
- Several times a year
- At least once a month
- Several Times a Month or more
- Not Sure

14. Which of the following would you consider to be your top 3 sources of information about coral reefs and the environment in Hawaii?

**Interviewer checks the top 3 sources of information in box below.**

15. To what degree do you trust each of your top rated sources of information to provide you the most accurate information on coral reefs and coral reef related topics in Hawaii?

**Respondent rates only the top 3 sources of information in box below.**

Top 3	Sources	Very untrustworthy	Untrustworthy	Neither Trustworthy nor Untrustworthy	Trustworthy	Very Trustworthy	Not sure
	Newspapers, other print publications						
	Radio						
	TV						
	Internet						
	Friends and family						
	Community leaders						
	Religious leaders						
	Government (jurisdictional)						
	Federal government agencies (NOAA, EPA)						
	Non-profit organizations						
	Other						

16. How involved is your local community in protecting and managing coral reefs?

- a. Not at all involved
- b. Somewhat involved
- c. Moderately involved
- d. Involved
- e. Very involved
- f. Not sure

17. In thinking about the previous question, how would you briefly define “your local community”? [**open ended**] \_\_\_\_\_

18. How involved are you in making decisions related to the management of coral reefs in Hawaii?

- a. Not at all involved
- b. Slightly involved
- c. Moderately involved
- d. Involved
- e. Very involved
- f. Not sure

## DEMOGRAPHICS

**I just have a few more questions that will help us to interpret our results. As a reminder, the information you provide is completely confidential.**

19. Are you male or female?

- a. Male
- b. Female

20. What is your year of birth? \_\_\_\_\_

21. How long have you lived in Hawaii?

- a. 1 year or less
- b. 2-5 years
- c. 6-10 years
- d. more than 10 years [but less than all my life]
- e. all my life

22. Including your primary language, please name each language you speak. [*interviewer should not read options below, but should allow respondent to answer*]

- |               |                          |
|---------------|--------------------------|
| a. English    | j. Hawaiian              |
| b. Spanish    | k. Hawaii Pidgin English |
| c. French     | l. Sāmoan                |
| d. Illocano   | m. Chamorro              |
| e. Vietnamese | n. Carolinian            |
| f. Chinese    | o. Tongan                |
| g. Japanese   | p. Other: Please list    |
| h. Korean     |                          |
| i. Tagalog    | q. _____                 |
|               | q. 17. No Response       |

23. What race/ethnicity do you consider yourself? [*interviewer should not read options below, but should allow respondent to answer and check all that apply*]

- a. White
- b. Native Hawaiian
- c. Chinese
- d. Japanese
- e. Filipino
- f. Korean
- g. Vietnamese
- h. Other Asian \_\_\_\_\_
- i. Micronesian (includes Chuukese, Kasraean, Marshallese, Palauan, Pohnpeian, Yapese, Carolinian, Chamorro, and others)
- j. Samoan
- k. Tongan
- l. Other Pacific Islander \_\_\_\_\_
- m. Black or African American
- n. American Indian or Alaskan Native
- o. Hispanic or Latino
- p. Other
- q. No response

24. What is the highest level of education you have completed?

- a. 8th Grade or Less
- b. Some high school
- c. High School Graduate, GED
- d. Some college, community college or AA
- e. College Graduate
- f. Graduate School, Law School, Medical School
- g. No Response

25. What is your current employment status?

- a. Unemployed
- b. Student
- c. Employed full-time
- d. Homemaker
- e. Employed part-time
- f. Retired
- g. None of the above: Please specify \_\_\_\_\_
- h. No Response

26. What is your occupation? [*open ended*] \_\_\_\_\_

27. May I ask, what is your annual household income?

- a. Under \$10,000
- b. \$10,000-19,999
- c. \$20,000-29,999
- d. \$30,000-39,999
- e. \$40,000-49,999
- f. \$50,000-59,999
- g. \$60,000-74,999
- h. \$75,000-99,999
- i. \$100,000-149,999
- j. \$150,000 or More
- k. No Response

THANK YOU FOR YOUR TIME

*If you would like a copy of the results, please provide us with your mailing address or email address (write on separate contact sheet that is not linked to survey answers).*

*Do you have questions or comments for which you would like me to provide our contact information?*

# OMB SUBMISSION

NOAA Coral Reef Conservation Program  
National Coral Reef Monitoring Program (NCRMP)  
Resident Coral Reef Survey  
OMB Control Number 0648-0646

**\*\*Puerto Rico Survey\*\***

*Survey conducted in (circle one):*                      *English*                      *Spanish*

Hello/Hola, My name is \_\_\_\_\_. We are only interested in obtaining your opinions on some important issues related to coral reefs and the environment in Puerto Rico. You were selected because you live in a coastal area near coral reefs. Your participation is voluntary and will be kept strictly confidential.

Your participation is voluntary and will be kept strictly confidential.

This survey is being conducted in accordance with the Privacy Act of 1974 and the Paperwork Reduction Act. Your participation is voluntary, your answers are confidential and you can stop the interview at any time. The interview is expected to take less than 20 minutes. If you have questions or would like to know more about the survey I will provide you with contact information.

Notwithstanding any other provisions of the law, no person is required to respond to, nor shall any person be subjected to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number. The OMB Control number for this survey is 0648-0646

The 20 minute estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Please send comments regarding this burden estimate or any other suggestions for reducing this burden to Peter Edwards, National Oceanic and Atmospheric Agency, National Ocean Service, Coral Reef Conservation Program, (1305 East West Highway, Silver Spring, MD, 20910, USA.

## PARTICIPATION IN REEF ACTIVITIES

1. How often do you usually participate in each of the following activities?

	Never	Once a month or less	2-3 times a month	4 times a month or more	No Response
Swimming/wading					
Snorkeling					
Diving (SCUBA or free diving)					
Waterside/ beach camping					
Beach recreation (beach sports, picnics, sunbathing, general beachgoing)					
Boating					
Kayaking					
Spearfishing					
Fishing <i>[interviewer prompt: fishing for finfish]</i>					
Gathering of marine resources (lobsters, conch, seaweed, examples)					

**SKIP PATTERN--** If respondent answers 'never' to BOTH fishing and gathering of marine resources, then skip to #3:

## CORAL REEF RELIANCE / CULTURAL IMPORTANCE OF REEFS

2. How often do you fish or harvest marine resources for each of the following reasons?

	Never	Rarely	Sometimes	Frequently	No Response
To feed myself and my family/ household					
To sell					
To give to extended family members and/or friends					
For fun					
For special occasions and cultural events					
For sport (tournament fishing)					

3. How often do you or your family eat fish/seafood?

- a. Every day
- b. A few times a week
- c. About once a week
- d. 1-3 times a month
- e. Less than once a month
- f. Never

**SKIP PATTERN-- If respondent answers f. Never, skip to question #5**

4. Where do you get the fish or seafood your family eats? Please pick the top 2.
- a. Purchased by myself or someone in my household at a store or restaurant
  - b. Purchased by myself or someone in my household at a market or roadside vendor
  - c. Caught by myself or someone in my household
  - d. Caught by extended family members
  - e. Other, please specify \_\_\_\_\_

**PERCEIVED RESOURCE CONDITION**

5. In your opinion, how are Puerto Rico's marine resources currently doing? Please rank from very bad to very good.

	Very Bad	Bad	Neither Bad nor Good	Good	Very Good	Not sure
Ocean Water Quality (clean)						
Amount of Coral						
Number of Fish						
Diversity of Fish						
Amount of sea grass and mangroves						

6. How would you say the condition of each of the following has changed over the last 10 years: from 1=it has gotten a lot worse to 5=it has gotten a lot better.

	A lot Worse	Somewhat Worse	No Change	Somewhat Better	A lot Better	Not Sure
Ocean Water Quality (clean and clear)						
Amount of Coral						
Number of Fish						
Diversity of Fish						
Amount of sea grass and mangroves						

7. In the next 10 years, do you think the condition of the marine resources in Puerto Rico will get worse, stay the same or improve?

- Get worse
- Stay the same
- Improve
- Not sure

**AWARENESS AND KNOWLEDGE OF CORAL REEFS**

8. Please say whether you disagree or agree with each of the following statements.

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Not Sure
Coral reefs protect Puerto Rico from erosion and natural disasters.						
Coral reefs are only important to fishermen, divers and snorkelers.						
Healthy coral reefs attract tourists to Puerto Rico.						
Coral reefs are important to Puerto Rico cultures.						

9. How familiar are you with each of the following potential threats facing the coral reefs in Puerto Rico?

	Very Unfamiliar	Unfamiliar	Neither Familiar nor Unfamiliar	Familiar	Very Familiar	Not sure
Climate change						
Coral bleaching						
Hurricanes and other natural disasters						
Pollution (stormwater, wastewater, chemical runoff, trash/littering, fuel spills)						
Increased coastal/urban development (includes construction)						
Invasive species						
Fishing and gathering						
Damage from ships and boats						
Impacts from recreational activity (damage caused by inexperienced divers and boaters)						
Coral diseases						

10. Do you believe that the threats to coral reefs in Puerto Rico are:

- a. Extreme
- b. Large
- c. Moderate
- d. Minimal
- e. None
- f. Not sure

### ATTITUDES TOWARDS CORAL REEF MANAGEMENT STRATEGIES AND ENFORCEMENT

11. A Marine Protected Area is an area of the ocean where human activity is typically restricted to protect living, non-living, cultural, and/or historic resources. How familiar are you with Marine Protected Areas (MPAs)?

- a. Very Unfamiliar
- b. Unfamiliar
- c. Neither Unfamiliar nor Familiar
- d. Familiar
- e. Very Familiar
- f. Not sure

**SKIP PATTERN-- If respondent answers a 'Very unfamiliar' or b 'Unfamiliar', then skip to #13:**

12. Please indicate how much you disagree or agree with each of the following statements.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Not Sure
MPAs protect coral reefs						
MPAs increase the number of fish						
There should be fewer MPAs in American Samoa						
There should be more MPAs in American Samoa						
There has been economic benefit to American Samoa from the establishment of MPAs						
Fishermen's livelihoods have been negatively impacted from the establishment of MPAs in American Samoa						
MPAs help increase tourism in American Samoa						
The establishment of MPAs increases the likelihood that people will vacation in American Samoa						
I would support adding new MPAs in American Samoa if there is evidence that the ones we have are improving American Samoa's marine resources						
I generally support the establishment of MPAs						

13. The following are common strategies used to manage the marine environment. We are interested in your opinion about the use of these strategies to improve the protection of coral reefs. Please indicate how much you disagree or agree with each of the following:

Example Management Strategies	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Not Sure
Community participation in management						
Stricter control of sources of pollution to						

Example Management Strategies	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Not Sure
preserve water quality						
Limited use (fishing, diving, snorkeling, boating)						
Limits per person for certain fish species (size and amount)						
Increased surveillance and law enforcement						

### AWARENESS OF CORAL RULES AND REGULATIONS / MANAGEMENT

14. Please rate your confidence level that each of the following is accurately and fairly enforcing coral reef rules and regulations.

	Not at all Confident	Slightly Confident	Moderately Confident	Confident	Very Confident	Not Sure
Enforcement officers						
Administrative hearings						
Legal and trial processes						

### PARTICIPATION IN BEHAVIORS THAT MAY IMPROVE CORAL HEALTH

15. How often do you participate in any activity to protect the environment (for example, beach clean ups, volunteering with an environmental group, recycling)?

- a. Not At All
- b. Once a year or Less
- c. Several times a year
- d. At least once a month
- e. Several Times a Month or more
- f. Not Sure

16. Which of the following would you consider to be your top 3 sources of information about coral reefs and the environment in Puerto Rico?

***Interviewer checks the top 3 sources of information in box below.***

17. To what degree do you trust each of your top rated sources of information to provide you the most accurate information on coral reefs and coral reef related topics in Puerto Rico?

**Respondent rates only the top 3 sources of information in box below.**

Top 3	Sources	Very untrustworthy	Untrustworthy	Neither Trustworthy nor Untrustworthy	Trustworthy	Very Trustworthy	Not sure
	Newspapers, other print publications						
	Radio						
	TV						
	Internet						
	Social Media						
	Friends and family						
	Community leaders						
	Dive and bait shop owners/employees						
	State and/or County governments						
	Federal government agencies (NOAA, EPA)						
	Non-profit organizations						
	Other						

18. How involved is the local community in protecting and managing coral reefs?

- a. Not at all involved
- b. Somewhat involved
- c. Moderately involved
- d. Involved
- e. Very involved
- f. Not sure

19. How often do you feel you are given the opportunity to be involved in making decisions related to the management of coral reefs in Puerto Rico?

- a. Never
- b. Rarely
- c. Sometimes
- d. Frequently
- e. Not Sure

**SKIP PATTERN -- If respondent answers a, then skip to #21.**

20. How involved are you in making decisions related to the management of coral reefs in Puerto Rico?

- a. Not at all involved
- b. Slightly involved
- c. Moderately involved
- d. Involved
- e. Very involved
- f. Not sure

## DEMOGRAPHICS

**I just have a few more questions that will help us to interpret our results. As a reminder, the information you provide is completely confidential.**

21. Are you male or female?

- a. Male
- b. Female

22. What is your year of birth? \_\_\_\_\_

23. How long have you lived in Puerto Rico?

- a. 1 year or less
- b. 2-5 years
- c. 6-10 years
- d. more than 10 years
- e. all my life

24. Including your primary language, please name each language you speak. [*interviewer should not read options below, but should allow respondent to answer*]

- |               |                           |
|---------------|---------------------------|
| 1. English    | 13. Hawaiian              |
| 2. Spanish    | 14. Hawaii Pidgin English |
| 3. French     | 15. Sāmoan                |
| 4. German     | 16. Chamorro              |
| 5. Italian    | 17. Carolinian            |
| 6. Portuguese | 18. Creole                |
| 7. Arabic     | 19. Crucian               |
| 8. Chinese    | 20. Tongan                |
| 9. Japanese   | 21. Other: Please list    |
| 10. Korean    | _____                     |
| 11. Tagalog   | 22. No Response           |
| 12. Hindi     |                           |

25. What race/ethnicity do you consider yourself? [*interviewer should not read options below, but should allow respondent to answer and check all that apply*]

- |                                      |   |
|--------------------------------------|---|
| 1. American Indian or Alaskan Native | 12. Korean                                    |
| 2. Asian                             | 13. Mexican                                   |
| 3. Black or African American         | 14. Native Hawaiian or other Pacific Islander |
| 4. Puerto Rican                      | 15. Samoan                                    |
| 5. Carolinian                        | 16. Taino                                     |
| 6. Chamorro                          | 17. Thai                                      |
| 7. Chinese                           | 18. Tongan                                    |
| 8. Cuban                             | 19. Vietnamese                                |
| 9. Filipino                          | 21. Other/Mixed                               |
| 10. Japanese                         | 22. No response                               |
| 11. White                            | 23. Hispanic or Latino                        |

26. What is the highest level of education you have completed?

- a. 8th Grade or Less
- b. Some high school
- c. High School Graduate, GED
- d. Some college, community college or AA
- e. College Graduate
- f. Graduate School, Law School, Medical School
- g. No Response

27. What is your current employment status?

- a. Unemployed
- b. Student
- c. Employed full-time
- d. Homemaker
- e. Employed part-time
- f. Retired
- g. None of the above: Please specify \_\_\_\_\_
- h. No Response

28. What is your occupation? [*open ended*] \_\_\_\_\_

29. May I ask, what is your annual household income?

- a. Under \$10,000
- b. \$10,000-19,999
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- d. \$30,000-39,999
- e. \$40,000-49,999
- f. \$50,000-59,999
- g. \$60,000-74,999

- h. \$75,000-99,999
- i. \$100,000-149,999
- j. \$150,000 or More
- k. No Response

THANK YOU FOR YOUR TIME

*If you would like a copy of the results, please provide us with your mailing address or email address (write on separate contact sheet that is not linked to survey answers).*