

Resident Surveys: List of Items

In-home and Mailback Surveys

- 1. Tally sheet
- 2. On-site Questionnaire
- 3. Reef Activities List (Blue Card)
- 4. Respondent Card (Green Card)
- 5. Full Activities List (White Card)
- 6. Region Maps (one overall showing all five regions and one for each of the five regions)
- 7. Illustrations of Coral Reef Conditions (Low, Medium and High)
- 8. Photos for Introduction to Choice Questions
- 9. Photos for Crowding Issue in Choice Questions
- 10. Coral Reef Definitions and Conditions Card
- 11. Management Solutions Card
- 12. Economic Valuation Card
- 13. Demographics Card
- 14. Choice Set Cards-Pre-test
- 15. Choice Set Question Dollar Amounts for each Version (pre-test dollar amounts)
- 16. Satisfaction Mailback Questionnaire: Full Survey
- 17. Importance Rating Sheet: Pre-test for reef attributes in Choice questions
- 18. Expenditure Mailback Questionnaire
- 19. Mailback Center GREEN PAGE with Postage Paid and Return Address (Side 1)
- 20. Mailback Center GREEN PAGE with instructions to respondent (Side 2)
- 21. Post Card Reminder for mailbacks
- 22. Pre-notification Letter (OMB is most likely going to require the use of a pre-notification letter to resident households.
- 23. Choice Question Cards: Full Survey, 9 Versions (dollar amounts to be determined from pre-test)

Resident Survey

Items Needed:

1. Brochure for gifts in sweepstakes/lottery (don't need for OMB submission)

Resident Tally Sheet

Hello, I am from the University of Puerto Rico and we are doing a survey on recreation in Puerto Rico. Those who complete the survey will be entered into a sweepstakes/lottery to win free vacation prizes. (Hand respondent gift brochure).

- 1. Is anyone in your household a permanent resident of Puerto Rico?
 - a. Yes (go to question 2)
 - b. No (go to Tally Sheet and place a tic mark in column 4)

- 2. In the past 12 months, have you or anyone in your household done any recreation activities on Puerto Rico's coral reefs?
 - a. Yes (Ask if will participate in a survey, it will take about 30 minutes to one hour). If yes, go to Tally sheet and code as respondent and proceed with Interview).
 - b. No (Go to Tally sheet and code as non reef using and place tic mark in column 4). Thank them for their time.
 - c. If yes, but refusal, place tic mark in column 6. Thank them for their time.
 - d. If reef user age 16 or older not home, place tic mark in column 3 and ask when person might be home to schedule interview.

1	2	3	4	5	6	7
Date	Time	Not Home	Not Resident	Non Reef Using Resident	Reef User Refusal	Reef User Interviewed

OMB Approval #: 0648-0000 Expiration Date: Version 1

Puerto Rico Resident Survey

Your answers are voluntary and confidential.

Your name will never be released to anyone unless otherwise required by law. After the completion of the project all materials identifying you as an individual will be destroyed.

Part A: Outdoor recreation activities during the past 12 months in the Puerto Rico

Hand Respondent the White Card Activities List and maps of the Puerto Rico Regions.

- A1. Which of the activities on the enclosed Activities List did you or someone in your household do in the Puerto Rico during the last 12 months?
- A2. Which acitivities did you, yourself do during the past 12 months in Region 1, Region 2, Region 3, Region 4 and Region 5?
- A3. On how many different days did you, yourself participate in each activity in the Region 1, Region 2, Region 3, Region 4 and Region 5?

Only ask for those activities listed with an A on the end of the activity number

A4. How many others (excluding yourself) in your household did each activity in the Region 1, Region 2, Region 3, Region 4 and Region 5?

A1	F	Region 1		R	egion 2	2	F	Region	3	R	egion 4	ļ		Region	5
Activity	A2 Resp	A3 # o. days	A4 # others	A2 Resp.	A3 # days	A4 # others									
	8		_	8-			8 =		_	8-			8:		
	0			0 -			0 -			0 -			0 -		
	0			0 -			0 -			0 -			0 -		
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What w	ould you say is the	e most impo	rtant recre	ational acti	ivity you dic	I in Puerto	
Rico?	Most Important	Activity	(Activity List	Number)		
	No Activity Most I	mportant (cl	neck box) [
On how Puerto l	many different da Rico during the pa	ys did you p st 12 month	earticipate	in outdoor (# of d	recreation a	activities o	utside of

Part B: Coral reef use in the Puerto Rico during the past 12 months.

Hand respondent Blue Card with Activities List for reef use and maps of the Puerto Rico Regions

B1. Which activities did you or someone in your household do on natural/coral reefs during the past 12 months in northwest Puerto Rico (Region 1), southwest Puerto Rico (Region 2), southeast Puerto Rico (Region 3), northeast Puerto Rico (Region 4) and the islands of Culebra and Vieques (Region 5)?

If respondent did not do anything in a region, check the box indicating no reef use in the region

- B2. Did you, yourself, do (*read activity*) during the past 12 months in Region 1, Region 2, Region 3, Region 4, Region 5.
- B3. How many others in your household did each activity on the reefs in Region 1, Region 2, Region 3, Region 4, Region 5 during the past 12 months?
- B4. On how many different days did you, yourself, participate in each activity on the reefs in Region 1, Region 2, Region 3, Region 4, Region 5 during the past 12 months?

Note: Count any part of a day as a whole day for each activity.

B5. How many different dives did you, yourself, make for each type of <u>diving activity</u> you did on the reefs in Region 1, Region 2, Region 3, Region 4, Region 5 during the past 12 months?

Diving activities include all snorkeling and scuba diving activities on the Blue Card-Activities List (Reef)

A dive is defined as an entry and exit from the water to snorkel or scuba dive

Please refer to Questions B1 – B5 when filling in the tables on the following two pages

There is one table for each of the five regions of the Puerto Rico (Region 1, Region 2, Region 3, Region 4, Region 5)

☐ No Re	ef Use			Region 1			
B1	B2	В3	B4	B5			
Activity	Resp.	# Others	Respondent # of days	t Respondent # dives			
	0	-			_		
	- 0		 				
	- 0		·				
	_						
	_ 0						
	_ 0						
	- 0		<u> </u>				
	- 0		·				
☐ No Re	eef Use		1	Region 2			
B1	B2	В3	B4	B5			
		#	Respondent	Respondent			
Activity	Resp.	Others	# of days	# of dives			
	0					 	
	_		<u> </u>				
	- 0		· ·				
	- 0						
	_		· ——				
	. 0						
	_ 0						
	_ 0		<u> </u>				
☐ No Re	ef Use			Region 3			
B1	B2	В3	B4	B5			
Activity	Resp.	# Others	Respondent # of days	Respondent # of dives			
	_ 0						
	- 0						
	- 0						
	- 0		·				
	- 0		· ——				
	- 0						
	_ 0						
	_ 0						

☐ No Reef	Use	Region 4			
B1 Activity	B2 Resp.	B3 # Others	B4 Respondent # days	B5 Respondent # of dives	
	000000000				

☐ No Ree	f Use	Region 5			
B1	B2	В3	B4	B5	
Activity	Resp.	# Others	Respondent # of days	Respondent # of dives	
	0				
	0				
	0				
	0				
	0				
	0				
	0				
	0				
	0				

Part C. Economic Valuation of Puerto Rico's Coral Reef Ecosystems

In this section of the survey, I will first present to you some definitions and scientific facts about Puerto Rico's coral reef ecosystems. I will then present you with different reef conditions and the cost to your household to achieve those conditions. I will then ask you to choose among a set of different conditions and the cost to your household.

First, here are some definitions of what we mean by coral reefs and coral reef ecosystems.

Hand respondent the Reef Definitions and Conditions Information Card.

Please read the Reef Definitions and Conditions Card.

C1. Do you have any questions about these definitions or reef conditions?

After answering questions, show respondent cards with examples of the kinds of stony corals, soft corals, sponges, fish and macroinvertebrates that have been observed on Puerto Rico's coral reef ecosystems.

After respondent finishes viewing the cards, present the Management Solutions card.

Please read the information on the card and tell me when you are done.

C2. Do you have any questions before we proceed?

After answering respondents questions, proceed.

I now will present to you a set of reef conditions at different prices and will ask you for your most preferred option. The Status Quo means no change in the management of the coral reef ecosystems and choosing this option will cost your household nothing (\$0), but will result in the poorest or lowest conditions of coral reef ecosystems on all Puerto Rico's coral reefs, except a few places that are already specially protected. In each set of options, you will always have the option of choosing the Status Quo as your most preferred option.

Hand the respondent the card with Choice Set Number 1.

Please review the three options. Option A is the Status Quo and costs you Nothing, but all reef conditions are in a low condition. For Option B, all the reef conditions are at a medium level of condition and will cost your household \$__ per year. For Option C, all reef conditions are improved to the highest condition and will cost your household \$__ per year.

Interview Number:
C3. Which option do you prefer?
C4. How many days would you use Puerto Rico's Coral Reefs under the reef conditions for the option you prefer? (number of days per year)
C5. Please provide a brief comment that helps us understand why you chose the option as your most preferred option?
Hand respondent the Economic Valuations Card
C6. How sure are you that the option you chose as your most preferred among the three options is your most preferred, not sure at all, slightly sure, moderately sure, very sure, or extremely sure? Please refer to Section 1 of the Economics Valuation Card and tell me the letter corresponding to your answer. Select one answer only. (letter)
Hand respondent the card with Choice Set Number 2.
Please review the three options. Option A is the Status Quo and costs you Nothing, but all reef conditions are in a low condition. For Option B, some reef conditions are at a medium level and some at the high level of condition and will cost your household \$ per year. For Option C, some reef conditions are at the medium level and some are improved to the highest condition and this will cost your household \$ per year.
C7. Which option do you prefer?
C8. How many days would you use Puerto Rico's Coral Reefs under the reef conditions for the option you prefer? (number of days per year)
C9. Please provide a brief comment that helps us understand why you chose the option as your most preferred option?
C10. How sure are you that the option you chose as your most preferred among the three options is your most preferred, not sure at all, slightly sure, moderately sure, very sure, or extremely sure? Please refer to Section 1 of the Economics Valuation Card and tell me the letter corresponding to your answer. Select one answer only. (letter)
Hand respondent the card with Choice Set Number 3.
Please review the three options. Option A is the Status Quo and costs you Nothing, but all reef conditions are in a low condition. For Option B, some reef conditions are at a low level and some at the high level of condition and will cost your household \$ per year. For Option C, some reef conditions are at the low level and some are improved to the highest condition and this will cost your household \$ per year.

C11. Which option do you prefer?
C12. How many days would you use Puerto Rico's Coral Reefs under the reef conditions for the option you prefer? (number of days per year)
C13. Please provide a brief comment that helps us understand why you chose the option as your most preferred option?
C14. How sure are you that the option you chose as your most preferred among the three options is your most preferred, not sure at all, slightly sure, moderately sure, very sure, or extremely sure? Please refer to Section 1 of the Economics Valuation Card and tell me the letter corresponding to your answer. Select one answer only. (letter)
Hand respondent the card with Choice Set Number 4.
Please review the three options. Option A is the Status Quo and costs you Nothing, but all reef conditions are in a low condition. For Option B, some reef conditions are at a low level and some at the medium level of condition and will cost your household \$ per year. For Option C, some reef conditions are at the medium level and some are the low condition and this will cost your household \$ per year.
C15. Which option do you prefer?
C16. How many days would you use Puerto Rico's Coral Reefs under the reef conditions for the option you prefer? (number of days per year)
C17. Please provide a brief comment that helps us understand why you chose the option as your most preferred option?
C18. How sure are you that the option you chose as your most preferred among the three options is your most preferred, not sure at all, slightly sure, moderately sure, very sure, or extremely sure? Please refer to Section 1 of the Economics Valuation Card and tell me the letter corresponding to your answer. Select one answer only. (letter)
C19. There are different ways for people to pay for new programs to protect the environment. One way is for the government to pay the cost. This will raise everyone's taxes. The other way is for businesses to pay the cost. This will make prices go up for everyone.
If you had to choose, would you prefer to pay for new environmental programs through higher income taxes or through higher prices? Please refer to Section 2 of the Economics Valuation Card and tell me the letter corresponding to your answer. Select one answer only (letter)

C20. Who do you think should manage the a	dditional fu	nding obtain	ed for reef i	management	?	
The Federal government the Territon Nature Conservancy or Protectores de Cuenca	_			_	ization like	The
C21. Would you say you think of yourself as moderate environmentalist, a strong environ Section 2 of the Economics Valuation Card an answer only (letter)	mentalist o	r a very stron	g environm	entalist? Ple	ase refer to)
C22. We would like to learn more about how various options of reef conditions. Please ref statement tell me the letter corresponding to	fer to Sectio	n 4 of the Eco		-		
Check the box corresponding to the respond	lent's answe	er for each sta	itement.			
Statement	Strongly Disagree (a)	Somewhat Disagree (b)	Neither agree nor disagree (c)	Somewhat Agree (d)	Strongly Agree (e)	
Costs should not be a factor when protecting the environment.						
I found it difficult to select an option of reef conditions I preferred.						
I was concerned that the Puerto Rico government cannot effectively Manage coral reefs.						
I should not have to pay more to protect or restore coral reefs in Puerto Rico.						
The public's views as expressed in this survey should be important to the Puerto Rico government when it chooses how to manage coral reefs.						
C23. Please provide us any other comments coral reefs in Puerto Rico and your responses			o help us u	nderstand yo	ur views al	oout
Go to Pa	rt D: Demo	graphics				

Part D: Demographic Profile

In this final section, we need to know information about you and your household to make sure we have a representative sample of Puerto Rico residents.

Again, your privacy will be protected and any information identifying you or your household will not be revealed to anyone.

D1.	
	number of people
D2.	How many of these household members are age 16 or older? number of people
D3.	Do you own a boat?Yes No
D4.	How many years have you lived in Puerto Rico? number of years
D5.	In what year were you born? year
D6.	Are you Hispanic, Latino, or of Spanish origin? Yes No
Н	land Respondent Demographics Card.
	What race do you consider yourself? Please refer to Section 1 of the Demographics Card and tell me the letter or letters that best describes you (letters) What is the highest level of education that you have completed? Please refer to Section 2 of the Demographics Card and tell me the letter corresponding to the category that best
D9.	describes you (letter) What is your employment status? Please refer to Section 3 of the Demographics Card and tell me the letter corresponding to the category that best describes you (letter)
D10.	What is your household income before taxes? Please refer to Section 4 of the Demographics Card and tell me the letter corresponding to the category that best describes you (letter)
q a q	hat concludes the survey today. We would like to know if you would fill out two mail back uestionnaires. They ask about your expenditures while doing reef activities on your last trip nd what things are important to you and how satisfied you are with them. These mail back uestions are self-addressed to the University of Puerto Rico – Mayaguez and postage is paid. Will you take these questionnaires, fill them out and mail them to us?YesNo.
ווט.	will you take these questionnalies, ill them out and man them to us? fes No.

THANK YOU that concludes our interview.

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view Number:		

REEF ACTIVITIES LIST

Number	Water-based Activities				
	Snorkeling				
100A	Snorkeling from charter/party boat (pay operation and includes snorkeling tours)				
101A	Snorkeling from a rental boat				
102A	Snorkeling from private boat (your boat or friend or relative's boat)				
10A	Snorkeling from shore				
	Scuba Diving				
200A	Scuba diving from charter/party boat (pay operation)				
201A	Scuba diving from a rental boat				
202A	Scuba diving from a private boat (your boat or friend or relative's boat)				
11A	Scuba diving from shore				
	Special Activities while Snorkeling or Scuba Diving				
300	Diving for lobsters				
301	Underwater photography				
303	Spear fishing				
	Fishing – Inshore or Light Tackle Fishing				
404A	Fishing from charter/party boat or guide (pay operation) – inshore or light tackle				
405A	Fishing from rental boat – inshore or light tackle				
406A	Fishing from a private boat (your boat or friend or relative's boat) – inshore or light tackle				
407.4	Other Fishing				
407A	Other fishing from party or head best (new energtion, above per normal)				
408A 409A	Other fishing from party or head boat (pay operation, charge per person) Other fishing from a rental boat				
409A 410A					
410A 14A	Other fishing from a private boat (your boat or friends or relative's boat)				
14A	Fishing from shore (beach, bank, pier, bridge, jetty, dock)				
500 A	Viewing Nature and Wildlife				
500A	Glass bottom boat rides (pay operation)				
501A	Inshore boating excursions (pay operation/guided service/NOT FISHING, including kayaking)				
502A	Viewing nature and wildlife from private or rental boat				
503	Bioluminescent Bays				
504	Ocean kayaking				
505	Whale watching				
	Other Activities on the Reefs				
13A	Surfing				
15A	Swimming				
18A	Paddle boarding, wind surfing or kite boarding				

RESIDENT'S -RESPONDENT CARD

CONFIDENTIALITY STATEMENT

Your participation in this interview is voluntary. There are no penalties for not answering some or all of the questions, but since each interviewed person will represent many others not interviewed, your cooperation is extremely important. This study is being conducted by the University of Puerto Rico - Mayaguez, the National Oceanic and Atmospheric Administration and the U.S. Environmental Protection Agency. Uses of the information include the evaluation of present recreation uses and planning for future visitation. At the end of the study any materials identifying you as an individual will be destroyed.

This is a cooperative research project of the Puerto Rico Sea Grant, the National Oceanic and Atmospheric Administration, and the U.S. Environmental Protection Agency. Public reporting burden for this collection of information is estimated to average 4 minutes including time for reviewing instructions, searching existing data sources, gathering and maintaining the data need, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to U.S. Department of Commerce, Clearance Officer, Office of Chief Information Officer, Rm. 6625, 14th and Constitution Avenue NW, Washington, DC 20230. Notwithstanding any other provisions of the law, no person is required to respond to, nor shall any person be subject to penalty for failure to comply with, a collection of information subject to requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number.

ACTIVITIES LIST

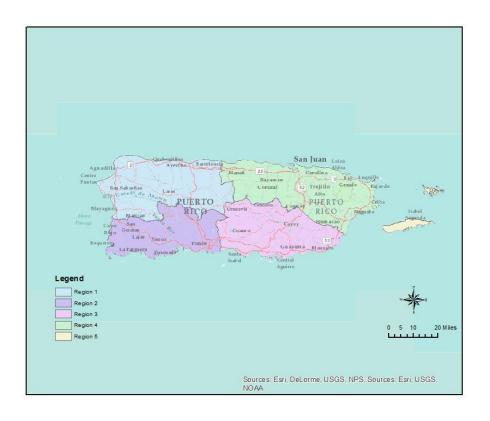
<u>Number</u>	Water-based Activities
	Snorkeling
100A	Snorkeling from charter/party boat (pay operation and includes snorkeling tours)
101A	Snorkeling from a rental boat
102A	Snorkeling from private boat (your boat or friend or relative's boat)
10A	Snorkeling from shore
	Scuba Diving
200A	Scuba diving from charter/party boat (pay operation)
201A	Scuba diving from a rental boat
202A	Scuba diving from a private boat (your boat or friend or relative's boat)
11A	Scuba diving from shore
	Special Activities while Snorkeling or Scuba Diving
300	Diving for lobsters
301	Underwater photography
302 303	Wreck diving or other artificial reefs Spear fishing
303	Cave diving
305	Diving to capture ornamental fish for aquariums (not to sell)
	Fighting Offshaus
400A	Fishing – Offshore Fishing from charter boat (pay operation, usually six persons or less) - offshore
402A	Fishing from a rental boat – off shore
403A	Fishing from a private boat (your boat or friend or relative's boat) – offshore
	Fishing Ingham on Light Tooklo Fishing
404A	Fishing – Inshore or Light Tackle Fishing Fishing from charter/party boat or guide (pay operation) – inshore or light tackle
405A	Fishing from rental boat – inshore or light tackle
406A	Fishing from a private boat (your boat or friend or relative's boat) – inshore or light tackle
407A	Other Fishing Other fishing from charter boat (pay operation, usually six persons or less)
407A 408A	Other fishing from party or head boat (pay operation, charge per person)
409A	Other fishing from a rental boat
410A	Other fishing from a private boat (your boat or friends or relative's boat)
14A	Fishing from shore (beach, bank, pier, bridge, jetty, dock)
411	Freshwater fishing
	Viewing Nature and Wildlife
500A	Glass bottom boat rides (pay operation)
501A	Inshore boating excursions (pay operation/guided service/NOT FISHING, including kayaking)
502A	Viewing nature and wildlife from private or rental boat
503	Bioluminescent Bays
504	Ocean kayaking
505 506	Whale watching Manatee watching
300	Manatee watering
6004	Personal Watercraft (jet skis, wave runners, etc.)
600A	Personal watercraft – rental
601A	Personal watercraft – Private (your boat or friend or relative's watercraft)
- 0:	Sailing
700A	Sailing charter/party boat (pay operation)
701A	Sailing rental boat Sailing private heat (your boat or friend or relative's boat)
702A	Sailing private boat (your boat or friend or relative's boat)

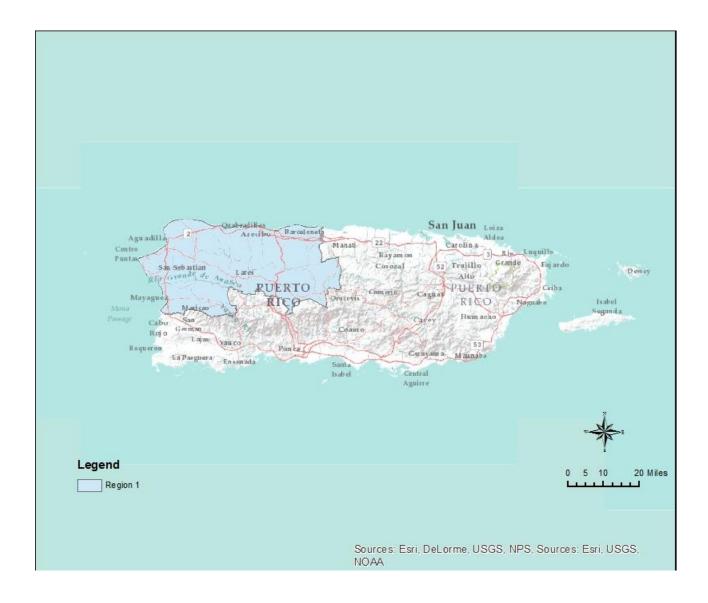
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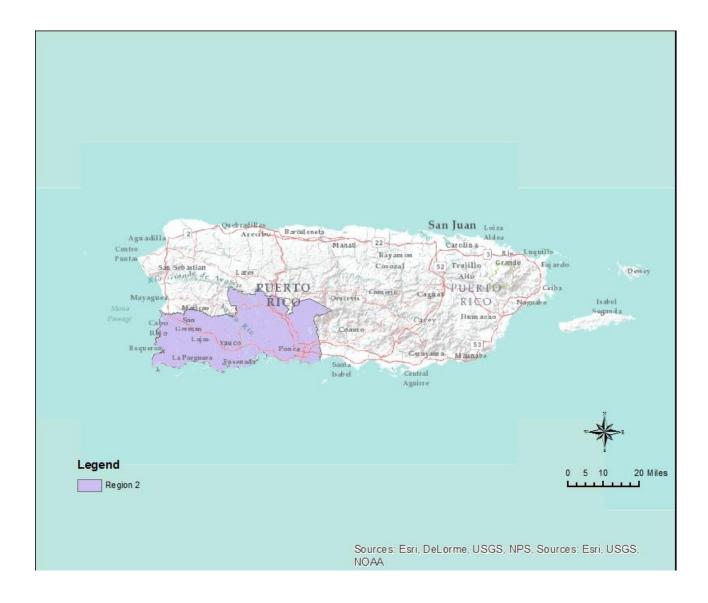
Number	Other Water-Based Activities					
Beach Ac	tivities – Sunbathing					
12A	Sunbathing					
13A	Surfing					
14	Collecting shells and sea glass					
15A	Swimming					
18A	Paddle boarding, wind surfing, or kite boarding					
	tivities NOT MENTIONED ABOVE (parasailing, hang gliding, water-skiing, sunset cruises)					
800A	Other activities from a charter/party boat (pay operation)					
801A	Other activities from a rental boat					
802A	Other activities from a private boat (your boat or friend or relative's boat)					
Number	Land-Based Activities					
	Nature Study – Wildlife Observation – Photography					
19A	Wildlife observation or wildlife photography					
20A	Other nature study and observation					
21	Photography – Natural landscapes/scenery (not including wildlife)					
	Camping – Backpacking – Hiking – Picnicking					
22	Backpacking					
23	Camping in developed campgrounds					
24	Camping in primitive campgrounds					
25	Day Hiking					
26	Attending guided walk (by park rangers, private companies or non-government organizations)					
27	Self-guided nature or historic trail					
28	Picnicking					
	Cultural, Historic and Tourist Attractions					
29A	Visiting historic areas, sites, buildings or memorials					
30	Attending special events (fairs, festivals, ceremonies, etc.)					
31	Attending outdoor concerts, plays, or other outdoor performances					
32	Attending indoor concerts, plays, performances, or events					
33	Sight-seeing tours and tourist attractions (paid)					
34	Sight-seeing (not paid tours)					
35	Reading roadside exhibits or markers					
36A	Visiting a museum, education facility, or information center					
37	Attending outdoor sports events (sailing or boat races; spectator at fishing tournament, surfing or other competitions like baseball, horse racing, or cock fighting)					
38	Attending indoor sporting events (basketball, boxing or other indoor sporting events)					
39	Agricultural tourism (visiting coffee plantations, farms, wineries)					
40	Visiting Forest and Nature Reserves (El Yunque, Guánica Dry Forest, Mona Island Nature Reserve)					
41	Visiting caves (Rio Camuy Cave Park or other caves)					
42	Visiting Special Coral Reef Areas (Guánica, Cabo Rojo, Northeastern Reserves, Culebra)					
	Outdoor Sports					
43	Golf					
44	Tennis					
45	Zip Lining					
46	Mountain climbing, rock climbing or rappelling					
47	Participation in other outdoor sports and games					
	Bicycling – Horseback Riding – Driving for Pleasure					
48	Bicycling					
49	Horseback riding					
50	Driving for Pleasure (mopeds, motorcycles)					
	Other					
51	Attended Wedding					

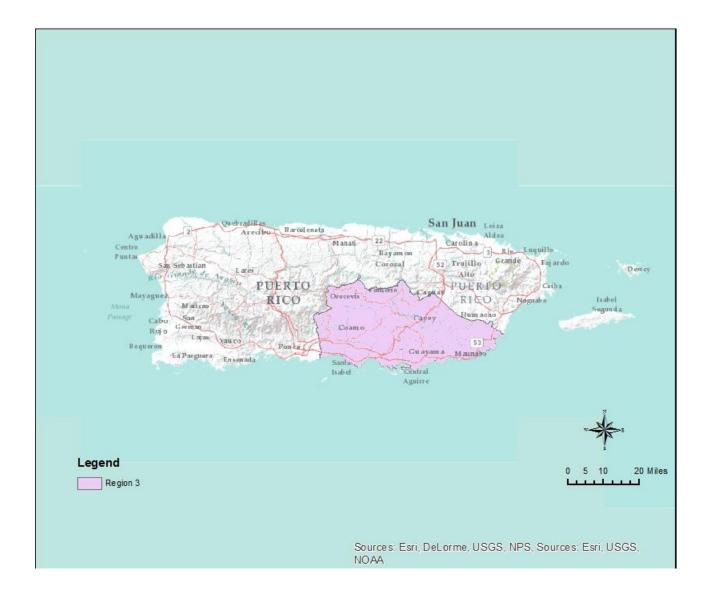
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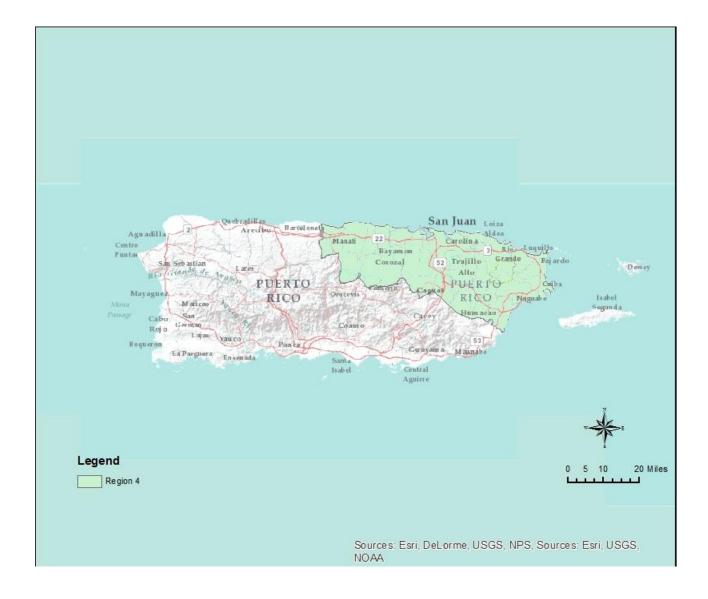
Visited Casino

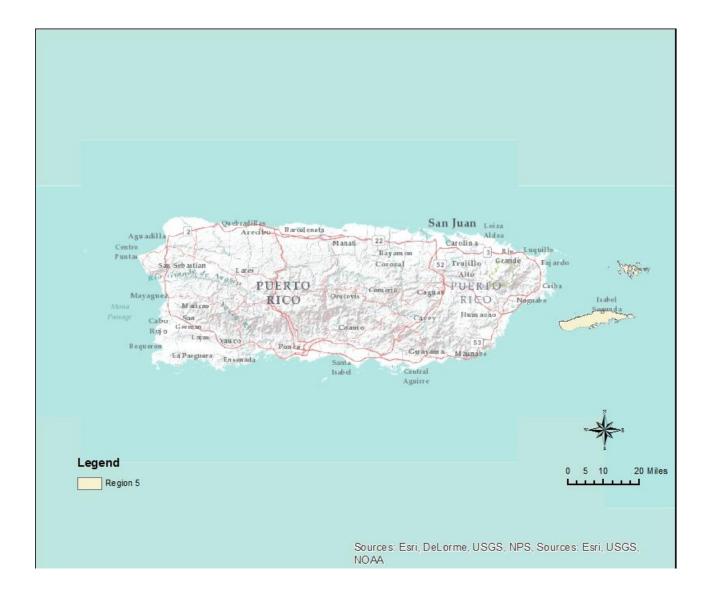












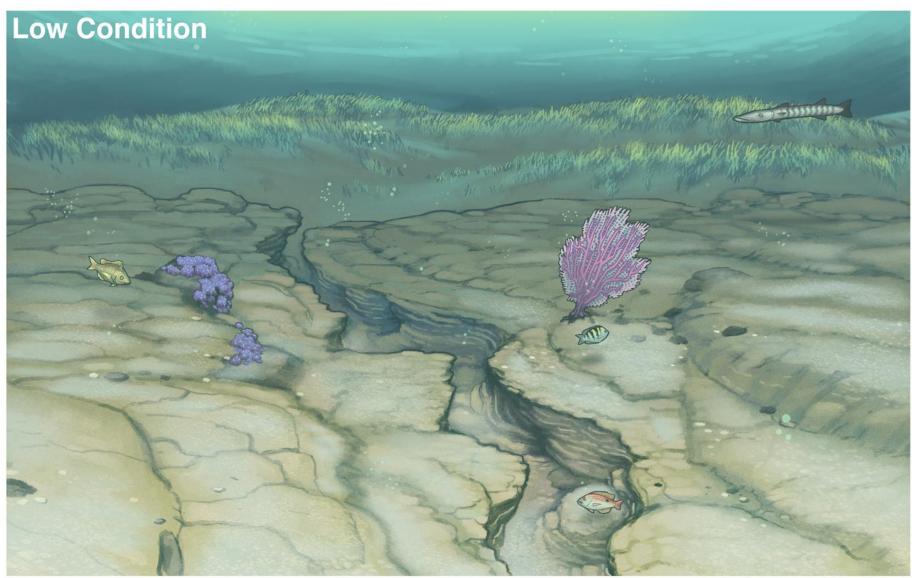


Illustration by Daniel Irizarri Oquendo

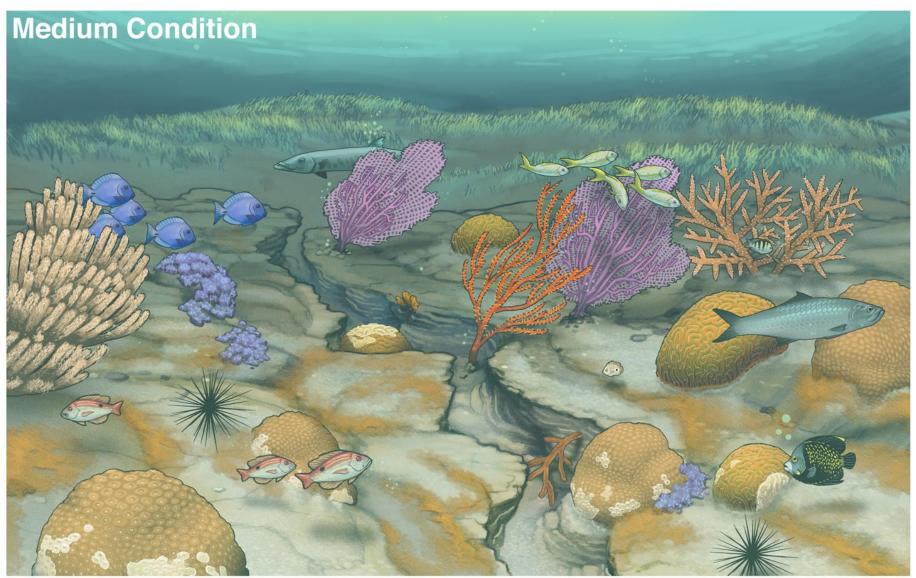


Illustration by Daniel Irizarri Oquendo

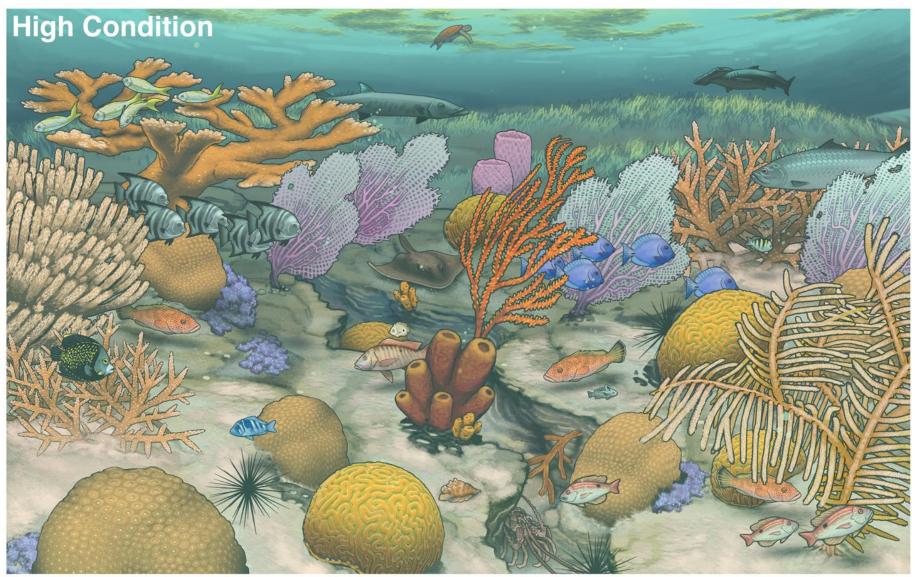


Illustration by Daniel Irizarri Oquendo

Stony Corals



Soft Corals and Sponges



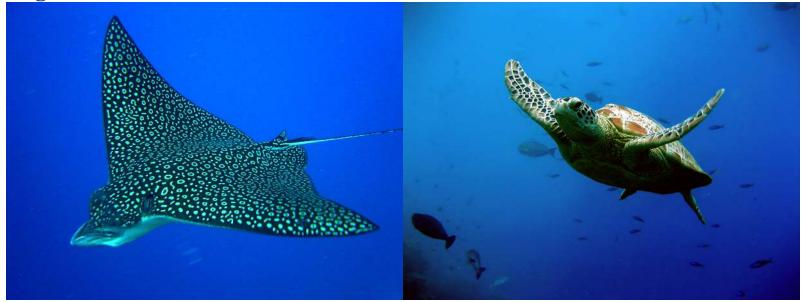
Reef Fish



Invertebrates



Mega Fauna









RESIDENT - CORAL REEF DEFINITIONS and CONDITIONS CARD

Definitions

- <u>Coral reefs</u> are colonies of connected skeletons of millions of small animals called corals.
- <u>Coral reef ecosystems</u> include the coral reefs, neighboring areas of sea bottom, ocean waters, sponges, algae, seagrasses and mangroves.
- <u>Coral reef ecosystems</u> provide a place to live for many ocean species including, fish, sea turtles, conchs, lobsters, crabs, sponges, urchins, sea plants and marine mammals like dolphins and manatees.
- Most coral reef ecosystems in Puerto Rico are in water less than 60 feet deep.

Conditions

- Research by the U.S. Environmental Protection Agency (EPA) and the National Oceanic and Atmospheric Administration (NOAA) has measured the abundance and diversity (number of different species) of stony corals, soft corals, sponges, fish, macroinvertebrates (conch, spiny lobster, and urchins) on Puerto Rico's coral reefs.
- Measures of abundance and diversity were measured on how much was there per square meter of coral reef area.
- For <u>abundance</u>, the following measures were taken:
 - Stony corals: Percent (%) of hard-bottom covered per square meter and percent of the coral tissue is alive.
 - Soft corals and Sponges: Square centimeters per square meter of reef area.
 - Fish: Number per square meter.

Fish were classified into fish people eat (consumptive) and fish that people just view (Tropical/Ornamental fish). A few fish that normally would be classified as consumptive were not counted as consumptive because of ciguatera poisoning. Fish were also classified as Sport/Trophy fish (Ladyfish, Permit, Bonefish, Tarpon,

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Barracuda, Jacks). Some of these may be known to have ciguatera poisoning but are still fun to catch.

- Consumptive fish: Puerto Rico has only a few species with limits on length to be legal for keeping (Yellowtail Snapper, White Grunt, Silk Snapper, and Black Snapper). Some are permanently closed (Nassau Grouper and Goliath Grouper). Still others have closed seasons (Silk, Vermillion, Black and Blackfin Snappers Oct. Dec.; Mutton and Lane Snappers April-May; Red Hind Dec. Feb.). We present the number of consumptive fish that meet legal size for keeping per square meter of reef area. Tropical/Ornamental fish: Number of fish per square meter.
- Sport/Trophy fish: Opportunity to catch or see trophy fish on the entire reef <u>not</u> the number per square meter.
- Macroinvertebrates (conchs, spiny lobsters, and urchins): The number per square meter. For conchs, the maximum number observed was 3 per square meter, while for spiny lobster, the maximum observed was 1 per square meter. Urchins tend to be observed in much higher numbers. For Long-spined urchins, the maximum observed was 8 per square meter, while for smaller species of urchins as many as 37 per square meter have been observed. Seasonal closure of Queen Conch is July Sept.

CORAL REEF ECOSYSTEM HEALTH

- <u>Urchins</u> are known to increase the health of reefs for stony corals.
- Stony corals predominate in the healthiest reefs.
- <u>Soft Corals</u> and <u>Sponges</u> tend to dominate in reef areas where the water quality is relatively poor. Scientists have found that soft corals and sponges are more able than <u>stony corals</u> to thrive in relatively poor water quality and move into places where <u>stony corals</u> have died.
- <u>Soft Corals</u> and <u>Sponges</u> are often very colorful, serve as important habitat for fish, and help improve water quality by filtering nutrients thereby reducing algal growth that can smother reefs and improving water clarity/visibility.
- Most of the coral reef ecosystems in Puerto Rico are currently in a poor or fair condition. Overfishing, water pollution, careless anchoring, and sediments from runoff from development and agricultural areas have been the most important factors damaging the coral reef ecosystems.

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RESIDENT'S - MANAGEMENT SOLUTIONS CARD

- If <u>current management practices</u> continue in the future (<u>Status Quo</u>), in 10 to 20 years scientists expect that all but the few areas that are receiving special protection will be in a poor or <u>low condition</u> with respect to the corals, sponges, fish, and water clarity/visibility. If rules and regulations are not enforced even the specially protected areas will be in poor or low condition.
- If <u>management is changed</u> to improve reef conditions, it will require both public and private investments to protect and restore the coral reef ecosystems, which would include enforcement of rules and regulations.
- In the next section of the survey, you will be presented with several sets of coral reef ecosystem conditions. There is an estimated cost to your household per year that would be required to achieve each condition.
- The <u>cost per year</u> is based on the costs that will be paid by businesses and households to pay for investments that protect and restore the coral reef ecosystems like improved sewage treatment, filtering and cleaning urban run-off, erosion control from agricultural areas and development projects, installation of mooring buoys to protect reefs from anchor damage, restoration of reefs, and enforcement of rules and regulations.
- The <u>costs per year</u> would be paid by all residents and visitors to Puerto Rico through increased prices of goods and services. This might also include increases in local sales taxes to cover government costs to pay for protection and restoration.
- The <u>Option A: Status Quo</u> (No change in management), will cost your household nothing (\$0 per year), but will result in <u>low reef condition</u> on all of Puerto Rico's coral reef ecosystems, except for the few specially protected areas if rules and regulations are enforced.
- You will always have the option of choosing the Status Quo (Option A).

RESIDENT"S - ECONOMIC VALUATION CARD

SECTION 1. How sure are you that the option you chose as your most preferred among the three options is your most preferred?

Select one answer only

- a. Not sure at all
- b. Slightly sure
- c. Moderately sure
- d. Very sure
- e. Extremely sure

SECTION 2. Would you prefer to pay for new environmental programs through higher income taxes or through higher prices?

Select one answer only

- a. Through higher income tax
- b. Though higher prices
- c. No preference

SECTION 3. Would you say you think of yourself as not an environmentalist at all, slightly an environmentalist, a moderate environmentalist, a strong environmentalist or a very strong environmentalist?

Select one answer only

- a. Not an environmentalist at all
- b. Slightly an environmentalist
- c. A moderate environmentalist
- d. A strong environmentalist
- e. A very strong environmentalist

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SECTION 4. Agreement with Statements

Statement	Strongly Disagree (a)	Somewhat Disagree (b)	Neither agree nor disagree (c)	Somewhat Agree (d)	Strongly Agree (e)
Costs should not be a factor when protecting the environment.					
I found it difficult to select an option of reef conditions I preferred.					
I was concerned that the Puerto Rico government cannot effectively manage coral reefs.					
I should not have to pay more to protect or restore coral reefs in Puerto Rico.					
The public's views as expressed in this survey should be important to the Puerto Rico government when it chooses how to manage coral reefs.					

RESIDENTS - DEMOGRAPHICS CARD

SECTION 1. What race do you consider yourself?

Select as many as apply

- a. White
- b. Black or African American
- c. American Indian or Alaskan Native
- d. Asian
- e. Native Hawaiian or Other Pacific Islander

SECTION 2. What is the highest level of education that you have completed?

Select one answer only

- a. 8th grade or less
- b. 9th to 11th grade
- c. 12th grade. High School Graduate or equivalent (GED)
- d. 13 to 15 years (some college of vocational training)
- e. College Graduate
- f. Graduate School, Law School, Medical School

SECTION 3. What is your employment status?

Select all that apply

a. Unemployedb. Employed full-timee. Studentf. Homemaker

c. Employed Part-time g. None of the above (specify)

d. Retired

SECTION 4. What is your household income before taxes?

Select one answer only

a. Under \$5,000
i. \$40,000 to \$44,999
b. \$5,000 to \$9,999
j. \$45,000 to \$49,999
c. \$10,000 to \$14,999
k. \$50,000 to \$59,999
d. \$15,000 to \$19,999
e. \$20,000 to \$24,999
m. \$75,000 to \$99,999
f. \$25,000 to \$29,999
n. \$100,000 to \$149,999

g. \$30,000 to \$34,999 0. \$150,000 or more

h. \$35,000 to \$39,999

Part E: Economic Value of Puerto Rico's Coral Reef Ecosystems – Choice Set 1

Option A: Status Quo – No changes	Option B: Coral Reefs In Medium	Option C: Coral Reefs in High
in management	Level of Condition	Level of Condition
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals	Up to 4 species of stony corals	5 to 17 species of stony corals
and sponges	covering 5 to 20% of hard-bottom	covering more than 20% and up to
	with 60 to 90% live coral tissue.	100% of hard-bottom with over 90%
		to 100% live coral tissue.
Up to 4 species of soft corals for a	Up to 3 species of soft corals for a	1 species of soft corals for a total of
total of 14 to 25 square centimeters	total of 4 to 14 square centimeters	less than 4 square centimeters per
per square meter	per square meter.	square meter.
Up to 4 species of sponges for a total	Up to 3 species of sponges for a total	1 species of sponges for a total of
of 7 to 15 square centimeters per	of 2 to 7 square centimeters per	less than 2 square centimeters per
square meter	square meter.	square meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive	3 to 6 species of consumptive fish	Up to 15 species of consumptive fish
fish for a total of 3 fish per square	for a total of 10 fish per square	for a total of 100 or more fish per
meter with no fish of legal size to	meter with up to 50% of legal size to	square meter with 75 to 100% of
keep	keep.	legal size to keep.
Up to 3 species of	4 to 10 species of	25 to 30 species of
tropical/ornamental fish with a total	tropical/ornamental fish with a total	tropical/ornamental fish for a total of
of 3 fish per square meter	of 10 fish per square meter.	20 to 100 or more fish per square
		meter.
No Macroinvertebrates (conch,	1 species of Macroinvertebrates with	2 or more species of
lobster or urchins)	1 to 20 per square meter (urchins).	Macroinvertebrates (conch, lobster
		or urchins) 1 lobster, 1 conch, and
		20 or more urchins per square meter.
No opportunity to see large wildlife	No opportunity to see large wildlife	Opportunity to see large wildlife
(sharks, rays, turtles, manatees,	(sharks, rays, turtles, manatees,	(sharks, rays, turtles, manatees,
dolphins)	dolphins)	dolphins)
No opportunity to see or catch	No opportunity to see or catch	Opportunity to catch or see
Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	Clarity/Visibility: 10 to 50 feet	Clarity/Visibility: Greater than 50
		feet
Cleanliness: Not healthy for	Cleanliness: Healthy for swimming	Cleanliness: Healthy for swimming
swimming		
Depth of Reefs: Greater than 60 feet	Depth of Reefs: 20 to 60 feet	Depth of Reefs: less than 20 feet
Crowdedness: 21 or more people	Crowdedness: 11 to 20 people	Crowdedness: 0 to 10 people
\$0	\$	\$
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Choice 2

Option A: Status Quo – No changes	Option B: 6M & 6H	Option C : 6H & 6M
in management	Option B. OW & OH	Option C. off & owl
Corals and Sponges	Corals and Sponges	Corals and Sponges
		H: 5 to 17 species of stony corals
No stony corals, only soft corals	M:.Up to 4 species of stony corals	
and sponges	covering 5 to 20% of hard-bottom	covering more than 20% and up to
	with 60 to 90% live coral tissue.	100% of hard-bottom with over 90%
TY	77. 77. 0	to 100% live coral tissue.
Up to 4 species of soft corals for a	M: Up to 3 species of soft corals for	H: 1 species of soft corals for a total
total of 14 to 25 square centimeters	a total of 4 to 14 square centimeters	of less than 4 square centimeters per
per square meter	per square meter.	square meter.
Up to 4 species of sponges for a total	M: Up to 3 species of sponges for a	H: 1 species of sponges for a total of
of 7 to 15 square centimeters per	total of 2 to 7 square centimeters per	less than 2 square centimeters per
square meter	square meter.	square meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive	M: 3 to 6 species of consumptive	H: Up to 15 species of consumptive
fish for a total of 3 fish per square	fish for a total of 10 fish per square	fish for a total of 100 or more fish
meter with no fish of legal size to	meter with up to 50% of legal size to	per square meter with 75 to 100% of
keep	keep.	legal size to keep.
Up to 3 species of	M: 4 to 10 species of	H: 25 to 30 species of
tropical/ornamental fish with a total	tropical/ornamental fish with a total	tropical/ornamental fish for a total of 20
of 3 fish per square meter	of 10 fish per square meter.	to 100 or more fish per square meter.
No Macroinvertebrates (conch,	M: 1 species of Macroinvertebrates	H: 2 or more species of
lobster or urchins)	(urchins) with 1 to 20 per square	Macroinvertebrates (conch, lobster
	meter.	or urchins) 1 lobster, 1 conch, and
		20 or more urchins per square meter.
No opportunity to see large wildlife	H: Opportunity to see large wildlife	M: No opportunity to see large
(sharks, rays, turtles, manatees,	(sharks, rays, turtles, manatees,	wildlife (sharks, rays, turtles,
dolphins)	dolphins)	manatees, dolphins)
No opportunity to see or catch	H: Opportunity to catch or see	M: No opportunity to see or catch
Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	H: Clarity/Visibility: Greater than	M: Clarity/Visibility: 10 to 50 feet
	50 feet	
Cleanliness: Not healthy for	H: Cleanliness: Healthy for	M: Cleanliness: Healthy for
swimming	swimming	swimming
Depth of Reefs: Greater than 60 feet	H: Depth of Reefs: Less than 20	M: Depth of Reefs: 20 to 60 feet
Depth of Recisi Greater than 60 rect	feet	The Beptil of Reels. 20 to 00 feet
Crowdedness: 21 or more people	H: Crowdedness: 0 to 10 people	M: Crowdedness: 11 to 20 people
\$0	\$	\$
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)
(Cost to Jour Household per Jeur)	(Cost to Jour Household per Jeur)	(Cost to Jour nousehold per Jour)

Choice 3

Option A: Status Quo – No changes	Option B: 6L and 6H	Option C: 6 H and 6L
in management	_	
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals	L: No stony corals, only soft corals	H: 5 to 17 species of stony corals
and sponges	and sponges	covering more than 20% and up to
		100% of hard-bottom with over 90%
		to 100% live coral tissue.
Up to 4 species of soft corals for a	L: Up to 4 species of soft corals for	H: 1 species of soft corals for a total
total of 14 to 25 square centimeters	a total of 14 to 25 square centimeters	of less than 4 square centimeters per
per square meter	per square meter	square meter.
Up to 4 species of sponges for a total	L: Up to 4 species of sponges for a	H: 1 species of sponges for a total of
of 7 to 15 square centimeters per	total of 7 to 15 square centimeters	less than 2 square centimeters per
square meter	per square meter	square meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive	L: Up to two species of	H : Up to 15 species of consumptive
fish for a total of 3 fish per square	consumptive fish for a total of 3 fish	fish for a total of 100 or more fish
meter with no fish of legal size to	per square meter with no fish of	per square meter with 75 to 100% of
keep	legal size to keep	legal size to keep.
Up to 3 species of	L: Up to 3 species of	H: 25 to 30 species of
tropical/ornamental fish with a total	tropical/ornamental fish with a total	tropical/ornamental fish for a total of
of 3 fish per square meter	of 3 fish per square meter	20 to 100 or more fish per square
		meter.
No Macroinvertebrates (conch,	L: No Macroinvertebrates (conch,	H: 2 or more species of
lobster or urchins)	lobster or urchins)	Macroinvertebrates (conch, lobster
		or urchins) 1 lobster, 1 conch, and
		20 or more urchins per square meter.
No opportunity to see large wildlife	H: Opportunity to see large wildlife	L: No opportunity to see large
(sharks, rays, turtles, manatees,	(sharks, rays, turtles, manatees,	wildlife (sharks, rays, turtles,
dolphins)	dolphins)	manatees, dolphins)
No opportunity to see or catch	H: Opportunity to catch or see	L: No opportunity to see or catch
Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	H: Clarity/Visibility: Greater than	L: Clarity/Visibility: Less than 10
	50 feet	feet
Depth of Reefs: Greater than 60 feet	H: Depth of Reefs: Less than 20	L: Depth of Reefs: Greater than 60
	feet	feet
Crowdedness: 21 or more people	H: Crowdedness: 0 to 10 people	L: Crowdedness: 21 or more people
\$0	\$	\$
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Choice 4

Option A: Status Quo – No changes	Option B: 6L and 6 M	Option C: 6M and 6 L
in management	•	•
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and sponges	L: No stony corals, only soft corals and sponges	M: Up to 4 species of stony corals covering 5 to 20% of hard-bottom with 60 to 90% live coral tissue.
Up to 4 species of soft corals for a total of 14 to 25 square centimeters per square meter	L: Up to 4 species of soft corals for a total of 14 to 25 square centimeters per square meter	M: Up to 3 species of soft corals for a total of 4 to 14 square centimeters per square meter
Up to 4 species of sponges for a total of 7 to 15 square centimeters per square meter Fish and Wildlife	L: Up to 4 species of sponges for a total of 7 to 15 square centimeters per square meter Fish and Wildlife	M: Up to 3 species of sponges for a total of 2 to 7 square centimeters per square meter. Fish and Wildlife
Up to two species of consumptive fish for a total of 3 fish per square meter with no fish of legal size to keep	L: Up to two species of consumptive fish for a total of 3 fish per square meter with no fish of legal size to keep	M: 3 to 6 species of consumptive fish for a total of 10 fish per square meter with up to 50% of legal size to keep.
Up to 3 species of	L: Up to 3 species of	M: 4 to 10 species of
tropical/ornamental fish with a total	tropical/ornamental fish with a total	tropical/ornamental fish with a total
of 3 fish per square meter	of 3 fish per square meter	of 10 fish per square meter.
No Macroinvertebrates (conch,	L: No Macroinvertebrates (conch,	M: 1 species of Macroinvertebrates with
lobster or urchins)	lobster or urchins)	1 to 20 per square meter (urchins).
No opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins)	M: No opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins)	L: No opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch	M: No opportunity to see or catch	L: No opportunity to see or catch
Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	M: Clarity/Visibility: 10 to 50 feet	L: Clarity/Visibility: Less than 10 feet
Cleanliness: Not healthy for	M: Cleanliness: Healthy for	L: Cleanliness: Not healthy for
swimming	swimming	swimming
Depth of Reefs: Greater than 60 feet	M: Depth of Reefs: 11 to 20 feet	L: Depth of Reefs: Greater than 60 feet
Crowdedness: 21 or more people	M: Crowdedness: 11 to 20 people	L: Crowdedness: 21 or more people
\$0	\$	\$
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Puerto Rico Coral Reef Ecosystem Valuation

Choice Questions _Pre-test Bids: Internet Panel

For the pre-test there will be four choice sets in which respondents will choose between three options/alternatives. The same four choice sets are used in each version. The differences in versions are the prices/bids for each option. The Status Quo is included in each choice set and is labelled Option A and the dollar amount is always zero (\$). Each choice set also has a B and C option. Versions should be randomized across Internet Panel members. Below are the dollar amounts for each Option in each version.

Choice 1: A=Status Quo (all attributes in low condition), B (all attributes in medium condition), C (all attributes in high condition)

```
Version 1: Prices: A=$0, B=$500, C=$1,000
Version 2: Prices: A=$0, B=$250, C=$500
Version 3: Prices: A=$0, B=$125, C=$250
Version 4: Prices: A=$0, B=$60, C=$125
```

Choice 2: A=Status Quo (all attributes in low condition), B (6 attributes in medium and 6 attributes in high), C (6 attributes in high condition and 6 attributes in medium condition)

```
Version 1: Prices: A=$0, B=$750, C=$750
Version 2: Prices: A=$0, B=$375, C=$375
Version 3: Prices: A=$0, B=$190, C=$190
Version 4: Prices: A=$0, B=$95, C=$95
```

Choice 3: A=Status Quo (all attributes in low condition), B (6 attributes in low and 6 attributes in high), C (6 attributes in high condition and 6 attributes in low condition)

```
Version 1: Prices: A=$0, B=$500, C=$500
Version 2: Prices: A=$0, B=$250, C=$250
Version 3: Prices: A=$0, B=$125, C=$125
Version 4: Prices: A=$0, B=$60, C=$60
```

Choice 3: A=Status Quo (all attributes in low condition), B (6 attributes in low and 6 attributes in medium), C (6 attributes in medium condition and 6 attributes in low condition)

```
Version 1: Prices: A=$0, B=$250, C=$250
Version 2: Prices: A=$0, B=$125, C=$125
Version 3: Prices: A=$0, B=$60, C=$60
Version 4: Prices: A=$0, B=$30, C=$30
```

Pre-test options are purposely designed at the extremes to help design bid amounts for the final survey. Final survey will use options in choice sets based on a fractional factorial design.

OMB Appr	oval	#:
Expiration	Date	9:

THANK YOU!

for participating in this Recreation Survey

Dear Resident,

Recently you indicated that you would be willing to complete this questionnaire. It is self-explanatory and should not take long to complete. **Please** record your answers accurately and legibly. Your answers represent many other people <u>not included</u> in this survey effort so it is **very important** that you return your questionnaire.

Your answers are voluntary and confidential. Your name will <u>never</u> be released to anyone unless otherwise required by law. After the completion of the project all materials identifying you as an individual will be destroyed.

When you complete the questionnaire, please reverse-fold it so that our return address on the GREEN PAGE in the inside is folded to the outside. Please staple or tape to seal the questionnaire and mail it back to us. No postage is needed. Your cooperation in this effort is greatly appreciated.

Sincerely,

Dr. Miguel del Pozo (Project Lead) University of Puerto Rico - Mayaguez Campus Telephone: (787) 941-3559 Miguel.delpozo@gmail.com

Dr. Ruperto Chaparro (Project Co-lead)
Puerto Rico Sea Grant Program
Extension Leader
University of Puerto Rico
P.O. Box 5000
Mayaguez, PR 00681
Telephone: (787) 832-8045

Telephone: (787) 832-8045 Ruperto.chaparro@upr.edu

Please note: It is very important that the same person who participated in the on-site interview also complete this questionnaire.

In this section we are interested in identifying the recreation site information that is important to you, the resident.

IMPORTANCE
(in the ideal recreational setting for activities)

		setting	g for ac	tivities	3)				
la	Please read each statement and rate the importance of each						×oç	1	ant
	item as it contributes to an ideal recreation/tourism setting for the		\@		×		1601°	15.	aporte
	activities you did or do in Puerto Rico. If an item does not apply,		iicalo.	on h	otall	, st,	, X	odia.	114.
	indicate by circling n/a (not applicable). Likewise, if you don't know,	PO	51. "K	, 14 , 14	160 Y	SALL	otal.	" HULL GLUE,	
	circle (dk).	40t,	Ook	tivities	SOU	ILLE	7e	k Important	
1)	Clear water (high visibility)	n/a	dk	1	2	3	4	5	
2)	Clean water healthy for swimming and other water-based activities		dk	1	2	3	4	5	
3)	Amount of living corals on the reefs		dk	1	2	3	4	5	
4)	Many different kinds of fishes and sea life to view	n/a	dk	1	2	3	4	5	
5 [°])	Many different kinds of fishes and sea life to catch	n/a	dk	1	2	3	4	5	
6)	Control of invasive species (lionfish)	n/a	dk	1	2	3	4	5	
7)	Enforcement of environmental laws and regulations	n/a	dk	1	2	3	4	5	
8)	Artificial reefs (sunken ships, reef balls, piers)	n/a	dk	1	2	3	4	5	
9)	Easy, abundant and quality beach and shoreline access	n/a	dk	1	2	3	4	5	
10)	Marina facilities, boat ramps/launching facilities	n/a	dk	1	2	3	4	5	
11)	Mooring buoys and navigational markers	n/a	dk	1	2	3	4	5	
12)	Value of lodging (cost vs amenities: clean rooms & linens, working ac, hot showers)	n/a	dk	1	2	3	4	5	
13)	Resorts with focus on Ecotourism/green initiatives: low energy use, recycling	n/a	dk	1	2	3	4	5	
14)	Availability of public restrooms	n/a	dk	1	2	3	4	5	
15)	Cleanliness of streets and sidewalks	n/a	dk	1	2	3	4	5	
16)	Well-maintained roads and bridges	n/a	dk	1	2	3	4	5	
17)	Public transportation	n/a	dk	1	2	3	4	5	
18)	Parking	n/a	dk	1	2	3	4	5	
19)	Historic preservation (historic landmarks, houses, etc.)	n/a	dk	1	2	3	4	5	
20)	Educational posters, signs, brochures	n/a	dk	1	2	3	4	5	
21)	Availability of tour guides	n/a	dk	1	2	3	4	5	
22)	Availability of lifeguards for beach safety	n/a	dk	1	2	3	4	5	
23)	Customer service and friendliness of people	n/a	dk	1	2	3	4	5	
24)	Public safety (areas with low crime rates)	n/a	dk	1	2	3	4	5	
25)	Good maps and signage for road navigation	n/a	dk	1	2	3	4	5	
,									

lb.	On the previous page you indicated the importance of a list of items to your recreational/tourist experiences. Now please read each of the items on this list and rate how satisfied you were with each at the places you did or do your activities in Puerto Rico. If an item does not apply, indicate by circling n/a (not applicable). Likewise, if you don't know, circle (dk).	`	each c		e item	ıs yol		ssalistied ed Happi	y Edisted Delighted
1)	Clear water (high visibility)		n/a	dk	1	2	3	4	5
2)	Clean water healthy for swimming and other water-based activities		n/a	dk	1	2	3	4	5
3)	Amount of living corals on the reefs			dk	1	2	3	4	5
4)	Many different kinds of fishes and sea life to view			dk	1	2	3	4	5
5)	Many different kinds of fishes and sea life to catch			dk	1	2	3	4	5
6)	Control of invasive species (lionfish)			dk	1	2	3	4	5
7)	Enforcement of environmental laws and regulations.		n/a	dk	1	2	3	4	5
8)	Artificial reefs (sunken ships, reef balls, piers)			dk	1	2	3	4	5
9)	Easy, abundant and quality beach and shoreline access			dk	1	2	3	4	5
10)	Marina facilities, boat ramps/launching facilities			dk	1	2	3	4	5
11)	Mooring buoys and navigational markers			dk	1	2	3	4	5
12)	Value of lodging (cost vs amenities: clean rooms & linens, working ac, hot shower)		n/a	dk	1	2	3	4	5
13)	Resorts with focus on Ecotourism/green initiatives: low energy use, recycling			dk	1	2	3	4	5
14)	Availability of public restrooms			dk	1	2	3	4	5
15)	Cleanliness of streets and sidewalks			dk	1	2	3	4	5
16)	Well-maintained roads and bridges			dk	1	2	3	4	5
17)	Public transportation			dk	1	2	3	4	5
18)	Parking			dk	1	2	3	4	5
19)	· · · · · · · · · · · · · · · · · · ·			dk	1	2	3	4	5
20)	Historic preservation (historic landmarks, houses, etc.)			dk	1	2	3	4	5
,	Educational posters, signs, brochures				1	2	3	4	5 5
21)	Availability of lifeguards for basels safety			dk	1	2	3		5 5
22)	Availability of lifeguards for beach safety			dk	1	2	3	4 4	5 5
23)	Customer service and friendliness of people			dk	1	2	3	4	5 5
24)	Public safety (areas with low crime rates)			dk	1	2	3	4	5 5
25)	Good maps and signage for road navigation	• • • •	11/a	dk	I	2	3	4	5

SATISFACTION

		SATISI ACTION
lc.	Have you lived in Puerto Rico more than five years?	(with each of these items five
	☐ If "yes" answer question Id.	<u>years ago</u> in Puerto Rico)
	☐ If "no" skip to question IIa on page 4	

ld. Now please read each of the items on this list and rate how satisfied you were with each five years ago or more in Puerto Rico. If an item does not apply, indicate by circling n/a (not applicable). Likewise, if you don't know, circle (dk).

	(not applicable). Likewise, if you don't know, circle (dk).		cable	.4		ais a	Sac.	istiel
		20	blic "A	204.	(e	SPAIL.		ay Salinted
		Hoti	dicaple Don't As	ion Teriti	JUK	appylDiss	, Hac	PySalistied Delighted
1)	Clear water (high visibility)	n/a	dk	1	2	3	4	5
2)	Clean water healthy for swimming and other water-based activities	. n/a	dk	1	2	3	4	5
3)	Amount of living corals on the reefs	. n/a	dk	1	2	3	4	5
4)	Many different kinds of fishes and sea life to view	n/a	dk	1	2	3	4	5
5)	Many different kinds of fishes and sea life to catch	n/a	dk	1	2	3	4	5
6)	Control of invasive species (lionfish)		dk	1	2	3	4	5
7)	Enforcement of environmental laws and regulations	. n/a	dk	1	2	3	4	5
8)	Artificial reefs (sunken ships, reef balls, piers)		dk	1	2	3	4	5
9)	Easy, abundant and quality beach and shoreline access		dk	1	2	3	4	5
10)	Marina facilities, boat ramps/launching facilities	n/a	dk	1	2	3	4	5
11)	Mooring buoys and navigational markers		dk	1	2	3	4	5
12)	Value of lodging (cost vs amenities: clean rooms & linens, working ac, hot shower)		dk	1	2	3	4	5
13)	Resorts with focus on Ecotourism/green initiatives: low energy use, recycling	n/a	dk	1	2	3	4	5
14)	Availability of public restrooms		dk	1	2	3	4	5
15)	Cleanliness of streets and sidewalks		dk	1	2	3	4	5
16)	Well-maintained roads and bridges		dk	1	2	3	4	5
17)	Public transportation	n/a	dk	1	2	3	4	5
18)	Parking		dk	1	2	3	4	5
19)	Historic preservation (historic landmarks, houses, etc.)	n/a	dk	1	2	3	4	5
20)	Educational posters, signs, brochures		dk	1	2	3	4	5
21)	Availability of tour guides		dk	1	2	3	4	5
22)	Availability of lifeguards for beach safety		dk	1	2	3	4	5
23)	Customer service and friendliness of people		dk	1	2	3	4	5
24)	Public safety (areas with low crime rates)		dk	1	2	3	4	5
25)	Good maps and signage for road navigation	n/a	dk	1	2	3	4	5

20:

IIa. Now please read each of the items on the list below and rate **your** expectations for each of the following in Puerto Rico. If an item does not apply, indicate by circling not applicable (n/a). Likewise, if you don't know, circle (dk).

EXPECTATION (with each of these items in Puerto Rico)

	(II/a). Likewise, ii you don't know, circle (dk).						10.	tatio, or estation
			1/e	<i>'</i> , <i>'</i>	-0		alle 10	Scr Cigito Stops
		Not Pi	dicar	FUO.	ide to	i not	76 _{6,}	e station and estation
		N.P.	5_{f}	۲۰. ۲۷	0, 49	1, 96	?co ~c	8, 14/1/2
		40.	\Diamond	Olo	S.,	Mo	\o'	70
1)	Marina facilities	n/a	dk	1	2	3	4	5
2)	Availability of public restrooms		dk	1	2	3	4	5
3)	Public transportation	n/a	dk	1	2	3	4	5
4)	Parking		dk	1	2	3	4	5
5)	Cleanliness of streets and sidewalks	n/a	dk	1	2	3	4	5
6)	Boat ramps/launching facilities	n/a	dk	1	2	3	4	5
7)	Well-maintained roads and bridges	n/a	dk	1	2	3	4	5
8)	Value of lodging (cost vs amenities: clean rooms & linens, working ac, hot showers)		dk	1	2	3	4	5
9)	Mooring buoys and navigational aids		dk	1	2	3	4	5
10)	Good maps and signage for road navigation		dk	1	2	3	4	5
11)	Resorts with focus on Ecotourism/green initiatives: low energy use, recycling		dk	1	2	3	4	5
12)	Educational posters, signs, brochures		dk	1	2	3	4	5
13)	Availability of lifeguards for beach safety		dk	1	2	3	4	5
14)	Easy, abundant, and quality beach & shoreline access		dk	1	2	3	4	5
15)	Enforcement of environmental laws & regulations		dk	1	2	3	4	5
16)	Public safety (area has low crime rates)		dk	1	2	3	4	5
17)	Customer service and friendliness of people		dk	1	2	3	4	5
18)	Availability of tour guides		dk	1	2	3	4	5
19)	Historic preservation (historic landmarks, houses, etc.)		dk	1	2	3	4	5
20)	Artificial reefs (sunken ships, reef balls)		dk	1	2	3	4	5
21)	Quality restaurants		dk	1	2	3	4	5
22)	Clear water (high visibility)		dk	1	2	3	4	5
23)	Clean water healthy for swimming and other water-based activities		dk	1	2	3	4	5
24)	Amount of living corals on the reefs		dk	1	2	3	4	5
25)	Many kinds of fishes and sealife to view	n/a	dk	1	2	3	4	5

Completely did not meet expectation (with each of these items IIb. Now please read each of the items on the list below and rate Sildtill exceded expectation in Puerto Rico) how they met your expectations for each of the following in If an item does not apply, indicate by circling not applicable (n/a). Likewise, if you don't know, circle (dk). Dougkron 2 3 4 5 1) dk 3 4 5 2) dk 2 3 5 3) 4 5 3 4) dk 3 5 5) dk 4 2 3 5 6) Boat ramps/launching facilities.....n/a dk 3 5 Well-maintained roads and bridges......n/a 4 7) 3 5 8) dk 3 5 9) dk 3 5 4 10) dk Resorts with focus on Ecotourism/green initiatives: low energy use, recycling n/a 3 5 11) dk 3 4 5 12) 3 4 5 13) dk 3 5 14) dk 3 4 5 dk 15) 3 5 4 16) 3 17) 4 5 dk 3 5 4 18) dk 2 3 5 19) 3 5 20) 4 3 21) 4 5 3 5 22) dk 23) 3 5 4 2 3 5 24) dk 4

25)

ACCOMPLISHMENT

2

3

4

5

In this to ask	section we have a few special issues questions we would like you.
IIIa.	Do you own a boat in Puerto Rico?
	☐ Yes (Continue) ☐ No (Go to Question IIId)
IIIb.	What is the length of your boat?
	(Feet)
IIIc.	Do you trailer your boat or do you store it at a dock or marina?
	☐ Trailer☐ Store at a dock or marina
IIId.	Do you live on the coast with access to the water?
	☐ Yes ☐ No
IIIe.	How important were Puerto Rico's beaches to your decision to visit places in Puerto Rico? Not important were Puerto Rico's beaches to your decision to visit places in Puerto Rico? Not important were Puerto Rico's beaches to your decision to visit places in Puerto Rico's beaches to your decision to visit places in Puerto Rico's beaches to your decision to visit places in Puerto Rico's beaches to your decision to visit places in Puerto Rico's beaches to your decision to visit places in Puerto Rico's beaches to your decision to visit places in Puerto Rico's beaches to your decision to visit places in Puerto Rico's beaches to your decision to visit places in Puerto Rico's beaches to your decision to visit places in Puerto Rico's beaches to your decision to visit places in Puerto Rico's beaches to your decision to visit places in Puerto Rico's beaches to your decision to visit places. Not important to your decision to your decisi
IIIf.	How many years have you been doing recreation activities in Puerto Rico?

_____(Years)

IVa.	Islands like Puerto Rico face competing demands for development. When choosing a place in Puerto Rico for yo recreation activities what is your preference? (Check one answer only)				
		Low development, small town atmosphere along the coast			
		Dense development, large town with high-rise hotels and casinos, many restaurant and shopping opportunities			
		Mix of low development and dense development places			
		No preference			
IVb.	Some people may be okay with staying in dense developed areas, but when doing certain recreation activities like visiting beaches, fishing, SCUBA diving, snorkeling, boating, surfing, wind surfing, paddle boarding, viewing wildlife, photography and hiking trails prefer to have views unobstructed by development (e.g. big hotels, offshore oil and gas platforms, wind turbines etc.).				
		w important to you is it to have areas with natural views tected? (Check one answer only)			
		Not important			
		Somewhat important			
		Important			
		Very important			
		Extremely important			
		dev rec ans			

V. In this section, we want to ask you about several issues of importance to managing Puerto Rico's natural resources that support recreation activities, or protect the resources by preservation methods

	For the following statements, please indicate if you 1 = strongly dis 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree, or dk = do (Please circle one number for each statement)	•	jegdes	Aglee Stondy Agi	iee
1)	I support the creation of marine protected areas that allow activities as long as they don't harm the resource	9 ¹¹⁰¹¹⁸	0 ¹⁵⁸⁰ 4 ¹⁶¹ 1 ¹⁰	polee storolly 4 5	
2)	I support the creation of marine reserves that prohibit all activities that take things like fishing and ornamental trade for aquariums	1	2 3	4 5	
3)	I support the creation of research only areas that only allow scientific and educational activities	1	2 3	4 5	
3)	I support increased protection of threatened and endangered species like turtles and Elkhorn and Staghorn corals	1	2 3	4 5	
5)	I support increased enforcement of environmental laws and regulations	1	2 3	4 5	
6)	I support increased education and outreach for violators of environmental laws and regulations	1	2 3	4 5	
7)	I support a balanced approach to using education and outreach and enforcement on violators of environmental laws and regulations	1	2 3	4 5	

8) I support more coral nurseries for restoring coral reefs.

OMB Approval #: Expiration Date:

That's All!! If you would like to be entered into a sweepstakes to win a free Vacation to Culebra Puerto Rico, fill out your name, address and phone number below. All prizes will be awarded TBD.

Name:			
	SS:		
City: _			
State:_	Zip:	Phone:	
Prizes t * TBD * TBD * TBD * TBD * TBD * TBD	to be awarded are: GRAND PRIZE		
* TBD TBD * TBD	<u>FIRST PRIZE</u>		
* TBD * TBD * TBD	SECOND PRIZE		

This is a cooperative research project of the University of Puerto Rico-Mayaguez, Puerto Rico Sea Grant, the U.S. Environmental Protection Agency and the National Oceanic and Atmospheric Administration. Public reporting burden for this collection of information is estimated to average 10 minutes including time for reviewing instructions, searching existing data sources, gathering and maintaining the data need, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to U.S. Department of Commerce, Clearance Officer, Office of Chief Information Officer, Rm. 6625, 14th and Constitution Avenue NW, Washington, DC 20230.

Your participation in this recreation expenditure survey is

GREATLY APPRECIATED

Dear Resident,

Recently you indicated that you would be willing to complete this questionnaire. It is self-explanatory and should not take long to complete. Please record your answers accurately and legibly. Your answers represent many other people not included in this survey effort so it is very important that you return your questionnaire.

Your answers are voluntary and confidential. Your name will <u>never</u> be released to anyone unless otherwise required by law. After the completion of the project all materials identifying you as an individual will be destroyed.

Before you mail back the questionnaire, please reverse-fold it so that our return address is on the outside. Please staple or tape to seal the questionnaire and mail it back to us. No postage is needed. Your cooperation in this effort is greatly appreciated.

Sincerely,

Dr. Miguel del Pozo (Project Lead) University of Puerto Rico - Mayaguez Campus Telephone: (787) 941-3559 Miguel.delpozo@gmail.com

Dr. Ruperto Chaparro (Project Co-lead)
Puerto Rico Sea Grant Program
Extension Leader
University of Puerto Rico
P.O. Box 5000
Mayaguez, PR 00681
Telephone: (787) 832 8045

Telephone: (787) 832-8045 Ruperto.chaparro@upr.edu

Please note: It is very important that the same person who participated in the on-site interview also complete this questionnaire.

PART A: YOUR EXPENDITURES FOR CORAL REEF RECREATION

We would like to ask you about the expenses related to your coral reef recreation in Puerto Rico during the last 12 months. Please complete one of the questions below, indicating for how many people you paid expenses.

1) If you <u>paid your own expenses</u> or if you shared expenses with someone else, please check this box On the following pages, report <u>only</u> those expenses you personally paid for.	
2) If you were paying all the <u>expenses for yourself and for one or more others</u> , please check this box and record in the box below the number of persons you paid expenses for, <u>including yourself</u> . Report the total amount of expenses you paid for on the following pages.	
Number of people you were paying expenses for, <u>including yourself</u>	

Please report your expenditures for each of the items listed to the nearest whole dollar. In Column A, put the total amount of money you spent on that item, regardless of where you were when you spent it.

EXAMPLE: Joe and Jane Smith purchased round-trip tickets to Vieques online at \$150 each, or a total of \$300. Their total amount spent for the trip was \$300 (Column A).

Item	Column A:
	Total amount
	spent for your
	coral reef
	recreation in
	Puerto Rico?
TRANSPORTATION	
Airline Fare	
a) Package tour	
b) Any other airline fare	300

Item	Column A: Total amount
	spent for your
	coral reef recreation in
During the past 12 months	Puerto Rico?
LODINGING, PRIVATELY OWNED (non-government)	
Hotel/motel/bed & breakfast, etc.	
Rental home, cottage, cabin, condo	
Camping site (RV/tent/camper)	
LODINGING, PUBLICLY OWNED (government)	
Hotel/motel/bed & breakfast/cabin, etc.	
Camping site (RV/tent/camper)	
FOOD & BEVERAGES during the past 12 months	
Food and drinks consumed at restaurants and bars	
Drinks consumed at bars and clubs during non-meal times (nighttime recreation)	
Beverages purchased at a store for carry-out	
Food purchased at a store for carry-out	
TRANSPORTATION during the past 12 months	
Rental automobile, motor home, trailer, motorcycle or other recreation vehicle	
Gas & oil - auto/RV	
Repair & service - auto/RV	
Parking fees & tolls	
Taxi fare	
Ferry	
Train	
Bus fare	
a) Package tour	
b) Any other bus fare	
Airline fare	
a) Package tour	
b) Any other airline fare	

Itom	Column A:
Item	Column A: Total amount
	spent for your
	coral reef recreation i n
	Puerto Rico?
BOATING during the past 12 months	
Boat, jet ski, and wave runner rental	
Boat fuel and oil	
Boat repairs	
Boat launch fees	
Boat slip fees or marina fees (this trip only)	
Sailing charters or sunset cruises	
FISHING during the past 12 months	
Cut bait	
Live bait	
Daily or special fishing permits	
Fishing lines, fly lines, fishnets, and minnow traps	
Charter/party boat, guide service	
SCUBADIVING/SNORKELING during the past 12 months	
Rental fee for equipment	
Charter/party boat, guide service	
SIGHTSEEING during the past 12 months	
Sightseeing tours	
Glass bottom boat rides	
Excursions, kayak tours	
Park entrance fees	
Admission to tourist, amusement, festivals and other commercial attractions	
Food and drinks on sightseeing tours	

Item	Column A: Total amount spent for your coral reef recreation in Puerto Rico?
OTHER ACTIVITY EXPENDITURES during the past 12 months	
Rental fee for recreation equipment (surfboards, paddle boards, golf carts or others not listed above)	
Guide service, tour, or outfitters (not listed above, like parasailing)	
Admission to motion pictures, theaters, museums, etc.	
Admission to musical performances, concerts	
Spa treatments	
Fitness activities (gym fees, fitness classes/	
MISCELLANEOUS EXPENDITURES during the past 12 months	
Film Purchases	
Film Developing	
Footwear	
Clothing	
Souvenirs and gifts (not clothing)	
Barber, laundry and other personal services	
Telephone, copying, fax and other business	
services	

PART B: ANNUAL VACATION AND EQUIPMENT PURCHASES

This section asks about money people spent on recreational equipment, boat storage, time-share and condo fees and related purchases over the past 12 months. For each of the items listed, indicate in Column A the total amount of money you spent on that equipment in the past 12 months. In Column B, report the total amount of purchases you made in Puerto Rico.

First.	please	answer	these	questions	regarding	vour	boating	recreation.
,	pioacc	anowon		94000000	10garanig	y C G i	Douting	i coi catioi i.

\rightarrow	During the past 12 months, how many times did you take a trip away from home for a boating-related
	activity (sailing, waterskiing, canoeing, fishing from a boat, motor boating, SCUBA diving, jet skiing,
	etc.)?
	

Of these trip	s, how man	y were to some	place outside Puerto	Rico?
---------------	------------	----------------	----------------------	-------

Example:

Joe and Jane Smith purchased a boat for \$17,000 from a dealer at their second home in New York last summer. They also purchased a jet ski for \$12,000 from a dealer in Puerto Rico. Here is how they would report these expenditures.

Item	Column A: Total Purchases in Past 12 Months	Column B: Purchases in Puerto Rico
BOATING EQUIPMENT		
New motorized boats or jet skis	29,000	12,000

Item	Column A: Total Purchases in Past 12 Months	Column B: Purchases in Puerto Rico
MAJOR RECREATIONAL EQUIPMENT		
Diving or snorkeling equipment		
Fishing rods and reels		
Cameras and other photo gear		
Binoculars and other viewing equipment		
Miscellaneous (boats, guns, surfboard, vehicles, any other major equipment), specify		
BOATING EQUIPMENT		
New motorized boats or jet skis		
New nonmotorized boats (sailboats, row boats, canoes, kayaks, etc.)		
New boat engines		
New boat accessories		
New sails or rigging		
New boat trailer		
Boat storage and marina fees		
Other boating expenses Describe:		
ANNUAL LODGING-RELATED FEES		
Condo and time-share fees		
RV or trailer park fees		

OMB Approval #: Expiration Date:

numbe	r:		
That's All!! If you would like to be entered into a sweepstakes to win a free Vacation to Culebra Puerto Rico, fill out your name, address and phone number below. All prizes will be awarded in TBD.			
Name:			
Addres	SS:		
City:			
State:_	Zip:Phone:		
* TBD * TBD * TBD * TBD * TBD * TBD	o be awarded are: <u>GRAND PRIZE</u>		
* TBD TBD * TBD	<u>FIRST PRIZE</u>		
* TBD * TBD * TBD	SECOND PRIZE		

This is a cooperative research project of the University of Puerto Rico-Mayaguez, Puerto Rico Sea Grant, the U.S. Environmental Protection Agency and the National Oceanic and Atmospheric Administration. Public reporting burden for this collection of information is estimated to average 10 minutes including time for reviewing instructions, searching existing data sources, gathering and maintaining the data need, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to U.S. Department of Commerce, Clearance Officer, Office of Chief Information Officer, Rm. 6625, 14th and Constitution Avenue NW, Washington, DC 20230.

	NO POSTAGE NECESSARY IF MAILED IN THE
	UNITED STATES
L	UNITED STATES
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_	

BUSINESS REPLY MAIL

FIRST CLASS MAIL PERMIT NO. X MAYAGUEZ, PR

Dr. Miguel del Pozo Sea Grant College Program UPR-RUM Call Box 9000 Mayaguez, PR 00681-9000

Please begin this questionnaire on Page 1

If you have already mailed us a questionnaire, thank you for your cooperation. You do not need to send us a second questionnaire.

Please turn page for more questions.

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED
STATES

Respondent's Name Respondents' Street Address Respondents's City, State/Territory/Country, Zip Code (US) You completed a survey on the use of Puerto Rico's coral reefs in your home. We handed you two mailback questionnaires.

If you have already mailed us the questionnaires, thank you for your cooperation. You do not need to send us a second questionnaire. You will be entered into the sweepstakes/lottery for each survey questionnaire you completed.

If you have not completed the questionnaires, please complete them and put them in the mail. Postage is already paid.

If you lost your copies, you will receive another copy in the mail in a couple of weeks.

Thanks You, Miguel del Pozo, Project Leader, University of Puerto Rico – Mayaguez 787-941-3559

Resident Survey Pre-notification Letter

To be placed on University of Puerto Rico - Mayaguez Letter-head

Address of household Xxxxxxxxxxxxxx Xxxxxxxxxxxxxx

Dear Household Member:

The University of Puerto Rico – Mayaguez is undertaking a study on the importance of Puerto Rico's coral reefs to both residents and visitors to Puerto Rico.

The study is sponsored by Puerto Rico Sea Grant, the National Oceanic and Atmospheric Administration (NOAA) and the U.S. Environmental Protection Agency. Your household has been selected to be part of the study. If you or anyone in your household has used Puerto Rico's coral reefs for recreation during the past 12 months, you qualify for the survey. The survey will take place in your home and will take about one hour. In addition, there are two self-addressed, postage paid mailback surveys that will handed out for you to fill out and mail to the University.

If you complete the survey, for each survey component you complete you will be entered into a sweepstakes/lottery that will be run by Ridge-to-Reefs, Inc. a non-profit organization with a chance to win a free vacation to the Island of Culebra. If you complete all three components of the survey, you will have three chances to win one of the prizes listed below:

Grand Prize: Free Vacation for two to the Island of Culebra, including hotel, rental jeep, restaurant meals, and a snorkeling, SCUBA diving, or fishing adventure.

First Prize: TBD

Second Prize: TBD

We will be in your community *<dates and times>* to conduct the interviews. If you won't be home during those dates and times and want to participate in the survey please call me at 787-941-3559 or Mrs. Migdalia Figueroa at 787-832-8045 to arrange for an interview time.

If no one in your household has done any recreational activities on Puerto Rico's coral reefs during the past 12 months, could you please simply mark the box that says "Did not use Puerto Rico's coral reefs" on the enclosed self-addressed, postage paid postcard and return it to the University.

If someone in your household did do some recreational activities on Puerto Rico's coral reefs during the past 12 months but you do not want to participate in the survey, could you please simply mark the box that says "Did use Puerto Rico's coral reefs, but do not want to participate" on the enclosed self-addressed, postage paid card and return it to the University.

Thank You,

Miguel del Pozo, Project Leader

Version 1, Choice 1

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	H: 5 to 17 species of stony corals	M: Up to 4 species of stony corals
sponges	covering more than 20% and up to 100%	covering 5 to 20% of hard-bottom with 60
	of hard-bottom with over 90% to 100%	to 90% live coral tissue.
	live coral tissue.	
Up to 4 species of soft corals for a total of	L: Up to 4 species of soft corals for a	M: Up to 3 species of soft corals for a
14 to 25 square centimeters per square meter	total of 14 to 25 square centimeters per	total of 4 to 14 square centimeters per
	square meter	square meter.
Up to 4 species of sponges for a total of 7 to	Up to 4 species of sponges for a total of 7	Up to 3 species of sponges for a total of 2
15 square centimeters per square meter	to 15 square centimeters per square meter	to 7 square centimeters per square meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	H: Up to 15 species of consumptive fish	M: 3 to 6 species of consumptive fish for
total of 3 fish per square meter with no fish	for a total of 100 or more fish per square	a total of 10 fish per square meter with up
of legal size to keep	meter with 75 to 100% of legal size to	to 50% of legal size to keep.
	keep.	
Up to 3 species of tropical/ornamental fish	M: 4 to 10 species of tropical/ornamental	L: Up to 3 species of tropical/ornamental
with a total of 3 fish per square meter	fish with a total of 10 fish per square	fish with a total of 3 fish per square meter
	meter.	
No Macroinvertebrates (conch, lobster or	H: 2 or more species of	L: No Macroinvertebrates (conch, lobster
urchins)	Macroinvertebrates (conch, lobster or	or urchins)
	urchins) 1 lobster, 1 conch, and 20 or	
	more urchins per square meter.	
No opportunity to see large wildlife (sharks,	H: Opportunity to see large wildlife	L: No opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy	L: No opportunity to see or catch	H: Opportunity to see or catch
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	H: Clarity/Visibility: Greater than 50	L: Clarity/Visibility: Less than 10 feet
	feet	TT TT 1.1 C
Cleanliness: Not healthy for swimming	H: Healthy for swimming	H: Healthy for swimming
Depth of Reefs: Greater than 60 feet	H: Depth of Reefs: less than 20 feet	M: Depth of Reefs: 20 to 60 feet
Crowdedness: 21 or more people	H: Crowdedness: 0 to 10 people	M: Crowdedness: 11 to 20 people
\$0	2	4
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Version 1, Choice 2

Option A: Status Quo – No changes in	Option B	Option C
management (All Low Conditions) Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	H: 5 to 17 species of stony corals	L: No stony corals, only soft corals and
sponges	covering more than 20% and up to 100%	sponges
sponges	of hard-bottom with over 90% to 100%	sponges
	live coral tissue.	
Up to 4 species of soft corals for a total of	M: Up to 3 species of soft corals for a	H: 1 species of soft corals for a total of
14 to 25 square centimeters per square meter	total of 4 to 14 square centimeters per	less than 4 square centimeters per square
14 to 25 square contineters per square meter	square meter.	meter.
Up to 4 species of sponges for a total of 7 to	Up to 3 species of sponges for a total of 2	1 species of sponges for a total of less
15 square centimeters per square meter	to 7 square centimeters per square meter.	than 2 square centimeters per square
	re a dame comment by a dame comment	meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	H: Up to 15 species of consumptive fish	L: Up to two species of consumptive fish
total of 3 fish per square meter with no fish	for a total of 100 or more fish per square	for a total of 3 fish per square meter with
of legal size to keep	meter with 75 to 100% of legal size to	no fish of legal size to keep
	keep.	
Up to 3 species of tropical/ornamental fish	H: 25 to 30 species of	M: 4 to 10 species of tropical/ornamental
with a total of 3 fish per square meter	tropical/ornamental fish for a total of 20	fish with a total of 10 fish per square
	to 100 or more fish per square meter.	meter.
No Macroinvertebrates (conch, lobster or	L: No Macroinvertebrates (conch,	M: 1 species of Macroinvertebrates with
urchins)	lobster or urchins)	1 to 20 per square meter (urchins).
No opportunity to see large wildlife (sharks,	L: No opportunity to see large wildlife	H: Opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy	H: Opportunity to see or catch	H: Opportunity to see or catch
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	L: Clarity/Visibility: Less than 10 feet	H: Clarity/Visibility: Greater than 50
		feet
Cleanliness: Not healthy for swimming	H: Cleanliness: Not healthy for	H: Cleanliness: Healthy for swimming
	swimming	
Depth of Reefs: Greater than 60 feet	H: Depth of Reefs: less than 20 feet	L: Depth of Reefs: Greater than 60 feet
Crowdedness: 21 or more people	H: Crowdedness: 0 to 10 people	L: Crowdedness: 21 or more people
\$0	3	1
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Version 1, Choice 3

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and sponges	H: 5 to 17 species of stony corals covering more than 20% and up to 100% of hard-bottom with over 90% to 100%	M: Up to 4 species of stony corals covering 5 to 20% of hard-bottom with 60 to 90% live coral tissue.
Up to 4 species of soft corals for a total of 14 to 25 square centimeters per square meter Up to 4 species of sponges for a total of 7 to 15 square centimeters per square meter	live coral tissue. H: 1 species of soft corals for a total of less than 4 square centimeters per square meter. 1 species of sponges for a total of less than 2 square centimeters per square	M: Up to 3 species of soft corals for a total of 4 to 14 square centimeters per square meter. Up to 3 species of sponges for a total of 2 to 7 square centimeters per square meter.
Fish and Wildlife	meter. Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a total of 3 fish per square meter with no fish of legal size to keep	L: Up to two species of consumptive fish for a total of 3 fish per square meter with no fish of legal size to keep	H: Up to 15 species of consumptive fish for a total of 100 or more fish per square meter with 75 to 100% of legal size to keep.
Up to 3 species of tropical/ornamental fish with a total of 3 fish per square meter	H: 25 to 30 species of tropical/ornamental fish for a total of 20 to 100 or more fish per square meter.	L: Up to 3 species of tropical/ornamental fish with a total of 3 fish per square meter
No Macroinvertebrates (conch, lobster or urchins)	H: 2 or more species of Macroinvertebrates (conch, lobster or urchins) 1 lobster, 1 conch, and 20 or more urchins per square meter.	M: 1 species of Macroinvertebrates with 1 to 20 per square meter (urchins).
No opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins)	H: Opportunity to see large wildlife	L: No opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks) Water Conditions	(sharks, rays, turtles, manatees, dolphins) L: No opportunity to see or catch Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks) Water Conditions	H: Opportunity to catch or see Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks) Water Conditions
Clarity/Visibility: Less than 10 feet Cleanliness: Not healthy for swimming	M: Clarity/Visibility: 10 to 50 feet L: Cleanliness: Not healthy for swimming	H: Clarity/Visibility: Greater than 50 feet H: Cleanliness: Healthy for swimming
Depth of Reefs: Greater than 60 feet	L: Depth of Reefs: Greater than 60 feet	H: Depth of Reefs: less than 20 feet
Crowdedness: 21 or more people	L: Crowdedness: 21 or more people	H: Crowdedness: 0 to 10 people
\$0	4	6
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and sponges	M: Up to 4 species of stony corals covering 5 to 20% of hard-bottom with 60 to 90% live coral tissue.	L: No stony corals, only soft corals and sponges
Up to 4 species of soft corals for a total of 14 to 25 square centimeters per square meter	L: Up to 4 species of soft corals for a total of 14 to 25 square centimeters per square meter	M: Up to 3 species of soft corals for a total of 4 to 14 square centimeters per square meter.
Up to 4 species of sponges for a total of 7 to 15 square centimeters per square meter	Up to 4 species of sponges for a total of 7 to 15 square centimeters per square meter	Up to 3 species of sponges for a total of 2 to 7 square centimeters per square meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a total of 3 fish per square meter with no fish of legal size to keep	M: 3 to 6 species of consumptive fish for a total of 10 fish per square meter with up to 50% of legal size to keep.	L: Up to two species of consumptive fish for a total of 3 fish per square meter with no fish of legal size to keep
Up to 3 species of tropical/ornamental fish with a total of 3 fish per square meter	L: Up to 3 species of tropical/ornamental fish with a total of 3 fish per square meter	H: 25 to 30 species of tropical/ornamental fish for a total of 20 to 100 or more fish per square meter.
No Macroinvertebrates (conch, lobster or urchins)	M: No Macroinvertebrates (conch, lobster or urchins)	H: 2 or more species of Macroinvertebrates (conch, lobster or urchins) 1 lobster, 1 conch, and 20 or more urchins per square meter.
No opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins)	L: No opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins)	H: Opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)	H: Opportunity to catch or see Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)	L: No opportunity to see or catch Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	H: Clarity/Visibility: Greater than 50 feet	M: Clarity/Visibility: 10 to 50 feet
Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming	H: Cleanliness: Healthy for swimming
Depth of Reefs: Greater than 60 feet	L: Depth of Reefs: Greater than 60 feet	M: Depth of Reefs: 20 to 60 feet
Crowdedness: 21 or more people	L: Crowdedness: 21 or more people	M: Crowdedness: 11 to 20 people
\$0	4	5
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and sponges	H: Up to 4 species of stony corals covering 5 to 20% of hard-bottom with 60 to 90% live coral tissue.	M: Up to 4 species of stony corals covering 5 to 20% of hard-bottom with 60 to 90% live coral tissue.
Up to 4 species of soft corals for a total of 14 to 25 square centimeters per square meter	H: 1 species of soft corals for a total of less than 4 square centimeters per square meter.	M: Up to 3 species of soft corals for a total of 4 to 14 square centimeters per square meter.
Up to 4 species of sponges for a total of 7 to 15 square centimeters per square meter	1 species of sponges for a total of less than 2 square centimeters per square meter.	Up to 3 species of sponges for a total of 2 to 7 square centimeters per square meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a total of 3 fish per square meter with no fish of legal size to keep	M: 3 to 6 species of consumptive fish for a total of 10 fish per square meter with up to 50% of legal size to keep.	L: Up to two species of consumptive fish for a total of 3 fish per square meter with no fish of legal size to keep
Up to 3 species of tropical/ornamental fish with a total of 3 fish per square meter	H: 25 to 30 species of tropical/ornamental fish for a total of 20 to 100 or more fish per square meter.	L: Up to 3 species of tropical/ornamental fish with a total of 3 fish per square meter
No Macroinvertebrates (conch, lobster or urchins)	M: 1 species of Macroinvertebrates with 1 to 20 per square meter (urchins).	H: 2 or more species of Macroinvertebrates (conch, lobster or urchins) 1 lobster, 1 conch, and 20 or more urchins per square meter.
No opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins)	L: No opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins)	L: No opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)	H: Opportunity to catch or see Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)	H: Opportunity to catch or see Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	L: Clarity/Visibility: Less than 10 feet	H: Clarity/Visibility: Greater than 50 feet
Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming	L: Cleanliness: Not healthy for swimming
Depth of Reefs: Greater than 60 feet	L: Depth of Reefs: Greater than 60 feet	L: Depth of Reefs: Greater than 60 feet
Crowdedness: 21 or more people	L: Crowdedness: 21 or more people	L: Crowdedness: 21 or more people
\$0	5	1
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in	Option B	Option C
management (All Low Conditions) Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	L: No stony corals, only soft corals and	H: 5 to 17 species of stony corals
sponges	sponges	covering more than 20% and up to 100%
sponges	sponges	of hard-bottom with over 90% to 100%
		live coral tissue.
Up to 4 species of soft corals for a total of	M: Up to 3 species of soft corals for a	L: Up to 4 species of soft corals for a
14 to 25 square centimeters per square meter	total of 4 to 14 square centimeters per	total of 14 to 25 square centimeters per
11 to 25 square commercis per square meter	square meter.	square meter
Up to 4 species of sponges for a total of 7 to	Up to 3 species of sponges for a total of 2	Up to 4 species of sponges for a total of 7
15 square centimeters per square meter	to 7 square centimeters per square meter.	to 15 square centimeters per square meter
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	M: 3 to 6 species of consumptive fish for	H: Up to 15 species of consumptive fish
total of 3 fish per square meter with no fish	a total of 10 fish per square meter with up	for a total of 100 or more fish per square
of legal size to keep	to 50% of legal size to keep.	meter with 75 to 100% of legal size to
		keep.
Up to 3 species of tropical/ornamental fish	L: Up to 3 species of	H: 25 to 30 species of
with a total of 3 fish per square meter	tropical/ornamental fish with a total of 3	tropical/ornamental fish for a total of 20
	fish per square meter	to 100 or more fish per square meter.
No Macroinvertebrates (conch, lobster or	H: 2 or more species of	M: 1 species of Macroinvertebrates with
urchins)	Macroinvertebrates (conch, lobster or	1 to 20 per square meter (urchins).
	urchins) with 20 or more per square meter	
	(mostly urchins).	
No opportunity to see large wildlife (sharks,	L: No opportunity to see large wildlife	H: Opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy	L: No opportunity to see or catch	H: Opportunity to catch or see
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	H: Clarity/Visibility: Greater than 50	M: Clarity/Visibility: 10 to 50 feet
	feet	
Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming	H: Cleanliness: Healthy for swimming
Depth of Reefs: Greater than 60 feet	H: Depth of Reefs: less than 20 feet	M: Depth of Reefs: 20 to 60 feet
Crowdedness: 21 or more people	H: Crowdedness: 0 to 10 people	M: Crowdedness: 11 to 20 people
\$0	2	6
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	L: No stony corals, only soft corals and	M: Up to 4 species of stony corals
sponges	sponges	covering 5 to 20% of hard-bottom with 60
		to 90% live coral tissue.
Up to 4 species of soft corals for a total of	H: 1 species of soft corals for a total of	L: Up to 4 species of soft corals for a
14 to 25 square centimeters per square meter	less than 4 square centimeters per square	total of 14 to 25 square centimeters per
	meter.	square meter
Up to 4 species of sponges for a total of 7 to	1 species of sponges for a total of less	Up to 4 species of sponges for a total of 7
15 square centimeters per square meter	than 2 square centimeters per square	to 15 square centimeters per square meter
	meter.	
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	H: Up to 15 species of consumptive fish	M: 3 to 6 species of consumptive fish for
total of 3 fish per square meter with no fish	for a total of 100 or more fish per square	a total of 10 fish per square meter with up
of legal size to keep	meter with 75 to 100% of legal size to	to 50% of legal size to keep.
	keep.	
Up to 3 species of tropical/ornamental fish	H: 25 to 30 species of	M: 4 to 10 species of tropical/ornamental
with a total of 3 fish per square meter	tropical/ornamental fish for a total of 20	fish with a total of 10 fish per square
	to 100 or more fish per square meter.	meter.
No Macroinvertebrates (conch, lobster or	L: No Macroinvertebrates (conch,	M: 1 species of Macroinvertebrates with
urchins)	lobster or urchins)	1 to 20 per square meter (urchins).
No opportunity to see large wildlife (sharks,	H: Opportunity to see large wildlife	L: No opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy	H: Opportunity to catch or see	L: No opportunity to see or catch
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	H: Clarity/Visibility: Greater than 50	M: Clarity/Visibility: 10 to 50 feet
	feet	
Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming	L: Cleanliness: Not healthy for
		swimming
Depth of Reefs: Greater than 60 feet	M: Depth of Reefs: 20 to 60 feet	H: Depth of Reefs: less than 20 feet
Crowdedness: 21 or more people	M: Crowdedness: 11 to 20 people	H: Crowdedness: 0 to 10 people
\$0	6	5
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in	Option B	Option C
management (All Low Conditions)	_	_
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	H: 5 to 17 species of stony corals	L: No stony corals, only soft corals and
sponges	covering more than 20% and up to 100%	sponges
	of hard-bottom with over 90% to 100%	
	live coral tissue.	
Up to 4 species of soft corals for a total of	L: Up to 4 species of soft corals for a	H: 1 species of soft corals for a total of
14 to 25 square centimeters per square meter	total of 14 to 25 square centimeters per	less than 4 square centimeters per square
	square meter	meter.
Up to 4 species of sponges for a total of 7 to	Up to 4 species of sponges for a total of 7	1 species of sponges for a total of less
15 square centimeters per square meter	to 15 square centimeters per square meter	than 2 square centimeters per square
		meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	M: 3 to 6 species of consumptive fish for	L: Up to two species of consumptive
total of 3 fish per square meter with no fish	a total of 10 fish per square meter with up	fish for a total of 3 fish per square meter
of legal size to keep	to 50% of legal size to keep.	with no fish of legal size to keep
Up to 3 species of tropical/ornamental fish	H: 25 to 30 species of	M: 4 to 10 species of tropical/ornamental
with a total of 3 fish per square meter	tropical/ornamental fish for a total of 20	fish with a total of 10 fish per square
	to 100 or more fish per square meter.	meter.
No Macroinvertebrates (conch, lobster or	H: 2 or more species of	L: No Macroinvertebrates (conch,
urchins)	Macroinvertebrates (conch, lobster or	lobster or urchins)
	urchins) 1 lobster, 1 conch, and 20 or	
	more urchins per square meter.	
No opportunity to see large wildlife (sharks,	H: Opportunity to see large wildlife	L: No opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy	L: No opportunity to see or catch	H: Opportunity to catch or see
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	M: Clarity/Visibility: 10 to 50 feet	H: Clarity/Visibility: Greater than 50
		feet
Cleanliness: Not healthy for swimming	L: Cleanliness: Not healthy for	H: Cleanliness: Healthy for swimming
	swimming	
Depth of Reefs: Greater than 60 feet	L: Depth of Reefs: Greater than 60 feet	H: Depth of Reefs: less than 20 feet
Crowdedness: 21 or more people	L: Crowdedness: 21 or more people	H: Crowdedness: 0 to 10 people
\$0	1	4
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	H: 5 to 17 species of stony corals	L: No stony corals, only soft corals and
sponges	covering more than 20% and up to 100%	sponges
	of hard-bottom with over 90% to 100%	
	live coral tissue.	
Up to 4 species of soft corals for a total of	L: Up to 4 species of soft corals for a	H: 1 species of soft corals for a total of
14 to 25 square centimeters per square meter	total of 14 to 25 square centimeters per	less than 4 square centimeters per square
	square meter	meter.
Up to 4 species of sponges for a total of 7 to	Up to 4 species of sponges for a total of 7	1 species of sponges for a total of less
15 square centimeters per square meter	to 15 square centimeters per square meter	than 2 square centimeters per square
		meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	H: Up to 15 species of consumptive fish	M: 3 to 6 species of consumptive fish
total of 3 fish per square meter with no fish	for a total of 100 or more fish per square	for a total of 10 fish per square meter with
of legal size to keep	meter with 75 to 100% of legal size to	up to 50% of legal size to keep.
	keep.	
Up to 3 species of tropical/ornamental fish	H: 25 to 30 species of	M: 4 to 10 species of
with a total of 3 fish per square meter	tropical/ornamental fish for a total of 20	tropical/ornamental fish with a total of 10
	to 100 or more fish per square meter.	fish per square meter.
No Macroinvertebrates (conch, lobster or	M: 1 species of Macroinvertebrates with	H: 2 or more species of
urchins)	1 to 20 per square meter (urchins).	Macroinvertebrates (conch, lobster or
		urchins) 1 lobster, 1 conch, and 20 or
		more urchins per square meter.
No opportunity to see large wildlife (sharks,	H: Opportunity to see large wildlife	L: No opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy	L: No opportunity to see or catch	H: Opportunity to catch or see
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	L: Clarity/Visibility: Less than 10 feet	H: Clarity/Visibility: Greater than 50
		feet
Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming	H: Cleanliness: Healthy for swimming
Depth of Reefs: Greater than 60 feet	M: Depth of Reefs: 20 to 60 feet	L: Depth of Reefs: Greater than 60 feet
Crowdedness: 21 or more people	M: Crowdedness: 11 to 20 people	L: Crowdedness: 21 or more people
\$0	4	5
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	M: Up to 4 species of stony corals	L: No stony corals, only soft corals and
sponges	covering 5 to 20% of hard-bottom with 60	sponges
	to 90% live coral tissue.	
Up to 4 species of soft corals for a total of	L: Up to 4 species of soft corals for a	H: 1 species of soft corals for a total of
14 to 25 square centimeters per square meter	total of 14 to 25 square centimeters per	less than 4 square centimeters per square
	square meter	meter.
Up to 4 species of sponges for a total of 7 to	Up to 4 species of sponges for a total of 7	1 species of sponges for a total of less
15 square centimeters per square meter	to 15 square centimeters per square meter	than 2 square centimeters per square
		meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	L: Up to two species of consumptive	M: 3 to 6 species of consumptive fish for
total of 3 fish per square meter with no fish	fish for a total of 3 fish per square meter	a total of 10 fish per square meter with up
of legal size to keep	with no fish of legal size to keep	to 50% of legal size to keep.
Up to 3 species of tropical/ornamental fish	M: 4 to 10 species of tropical/ornamental	L: Up to 3 species of tropical/ornamental
with a total of 3 fish per square meter	fish with a total of 10 fish per square	fish with a total of 3 fish per square meter
	meter.	
No Macroinvertebrates (conch, lobster or	H: 2 or more species of	L: No Macroinvertebrates (conch,
urchins)	Macroinvertebrates (conch, lobster or	lobster or urchins)
	urchins) 1 lobster, 1 conch, and 20 or	
	more urchins per square meter.	
No opportunity to see large wildlife (sharks,	L: No opportunity to see large wildlife	H: Opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy	L: No opportunity to see or catch	H: Opportunity to catch or see
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	H: Clarity/Visibility: Greater than 50	M: Clarity/Visibility: 10 to 50 feet
Charalina Natharlate Caralina	feet H. Charling H. H. H. G. H.	T. Charles Nathall C
Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming	L: Cleanliness: Not healthy for
Donth of Doofs, Croster there (0 feet	H. Donth of Doofer last them 20 feet	swimming H. Donth of Boofs: loss than 20 feet
Depth of Reefs: Greater than 60 feet Crowdedness: 21 or more people	H: Depth of Reefs: less than 20 feet H: Crowdedness: 0 to 10 people	H: Depth of Reefs: less than 20 feet H: Crowdedness: 0 to 10 people
	1 1	11. Crowdedness: 0 to 10 people
\$0	3	<u>Z</u>
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	M: Up to 4 species of stony corals	H: 5 to 17 species of stony corals
sponges	covering 5 to 20% of hard-bottom with 60 to 90% live coral tissue.	covering more than 20% and up to 100% of hard-bottom with over 90% to 100% live coral tissue.
Up to 4 species of soft corals for a total of	H: 1 species of soft corals for a total of	M: Up to 3 species of soft corals for a
14 to 25 square centimeters per square meter	less than 4 square centimeters per square meter.	total of 4 to 14 square centimeters per square meter.
Up to 4 species of sponges for a total of 7 to	1 species of sponges for a total of less	Up to 3 species of sponges for a total of 2
15 square centimeters per square meter	than 2 square centimeters per square meter.	to 7 square centimeters per square meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a total of 3 fish per square meter with no fish of legal size to keep	M: 3 to 6 species of consumptive fish for a total of 10 fish per square meter with up to 50% of legal size to keep.	H: Up to 15 species of consumptive fish for a total of 100 or more fish per square meter with 75 to 100% of legal size to keep.
Up to 3 species of tropical/ornamental fish with a total of 3 fish per square meter	L: Up to 3 species of tropical/ornamental fish with a total of 3 fish per square meter	H: 25 to 30 species of tropical/ornamental fish for a total of 20 to 100 or more fish per square meter.
No Macroinvertebrates (conch, lobster or	H: 2 or more species of	L: No Macroinvertebrates (conch,
urchins)	Macroinvertebrates (conch, lobster or urchins) 1 lobster, 1 conch, and 20 or more urchins per square meter.	lobster or urchins)
No opportunity to see large wildlife (sharks,	H: Opportunity to see large wildlife	L: No opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)	H: Opportunity to catch or see Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)	L: No Macroinvertebrates (conch, lobster or urchins)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	M: Clarity/Visibility: 10 to 50 feet	H: Clarity/Visibility: Greater than 50 feet
Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming	H: Cleanliness: Healthy for swimming
Depth of Reefs: Greater than 60 feet	H: Depth of Reefs: less than 20 feet	L: Depth of Reefs: Greater than 60 feet
Crowdedness: 21 or more people	H: Crowdedness: 0 to 10 people	L: Crowdedness: 21 or more people
\$0	6	1
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	H: 5 to 17 species of stony corals	M: Up to 4 species of stony corals
sponges	covering more than 20% and up to 100%	covering 5 to 20% of hard-bottom with 60
	of hard-bottom with over 90% to 100%	to 90% live coral tissue.
	live coral tissue.	
Up to 4 species of soft corals for a total of	M: Up to 3 species of soft corals for a	H: 1 species of soft corals for a total of
14 to 25 square centimeters per square meter	total of 4 to 14 square centimeters per	less than 4 square centimeters per square
	square meter.	meter.
Up to 4 species of sponges for a total of 7 to	Up to 3 species of sponges for a total of 2	1 species of sponges for a total of less
15 square centimeters per square meter	to 7 square centimeters per square meter.	than 2 square centimeters per square
		meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	H: Up to 15 species of consumptive fish	L: Up to two species of consumptive
total of 3 fish per square meter with no fish	for a total of 100 or more fish per square	fish for a total of 3 fish per square meter
of legal size to keep	meter with 75 to 100% of legal size to	with no fish of legal size to keep
	keep.	
Up to 3 species of tropical/ornamental fish	L: Up to 3 species of	H: 25 to 30 species of
with a total of 3 fish per square meter	tropical/ornamental fish with a total of 3	tropical/ornamental fish for a total of 20
	fish per square meter	to 100 or more fish per square meter.
No Macroinvertebrates (conch, lobster or	M: 1 species of Macroinvertebrates with	M: 1 species of Macroinvertebrates with
urchins)	1 to 20 per square meter (urchins).	1 to 20 per square meter (urchins).
No opportunity to see large wildlife (sharks,	L: No opportunity to see large wildlife	H: Opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy	H: Opportunity to catch or see	L: No opportunity to see or catch
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	M: Clarity/Visibility: 10 to 50 feet	L: Clarity/Visibility: Less than 10 feet
Cleanliness: Not healthy for swimming	L: Cleanliness: Not healthy for	H: Cleanliness: Healthy for swimming
	swimming	
Depth of Reefs: Greater than 60 feet	M: Depth of Reefs: 20 to 60 feet	H: Depth of Reefs: less than 20 feet
Crowdedness: 21 or more people	M: Crowdedness: 11 to 20 people	H: Crowdedness: 0 to 10 people
\$0	5	4
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and sponges	L: No stony corals, only soft corals and sponges	M: Up to 4 species of stony corals covering 5 to 20% of hard-bottom with 60 to 90% live coral tissue.
Up to 4 species of soft corals for a total of 14 to 25 square centimeters per square meter	M: Up to 3 species of soft corals for a total of 4 to 14 square centimeters per square meter.	H: 1 species of soft corals for a total of less than 4 square centimeters per square meter.
Up to 4 species of sponges for a total of 7 to 15 square centimeters per square meter	Up to 3 species of sponges for a total of 2 to 7 square centimeters per square meter.	1 species of sponges for a total of less than 2 square centimeters per square meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a total of 3 fish per square meter with no fish of legal size to keep	M: 3 to 6 species of consumptive fish for a total of 10 fish per square meter with up to 50% of legal size to keep.	L: Up to two species of consumptive fish for a total of 3 fish per square meter with no fish of legal size to keep
Up to 3 species of tropical/ornamental fish with a total of 3 fish per square meter	M: 4 to 10 species of tropical/ornamental fish with a total of 10 fish per square meter.	L: Up to 3 species of tropical/ornamental fish with a total of 3 fish per square meter
No Macroinvertebrates (conch, lobster or urchins)	H: 2 or more species of Macroinvertebrates (conch, lobster or urchins) 1 lobster, 1 conch, and 20 or more urchins per square meter.	M: 1 species of Macroinvertebrates with 1 to 20 per square meter (urchins).
No opportunity to see large wildlife (sharks,	H: Opportunity to see large wildlife	L: No opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)	H: Opportunity to catch or see Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)	L: No opportunity to see or catch Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	L: Clarity/Visibility: Less than 10 feet	M: Clarity/Visibility: 10 to 50 feet
Cleanliness: Not healthy for swimming	L: Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming
Depth of Reefs: Greater than 60 feet	H: Depth of Reefs: less than 20 feet	M: Depth of Reefs: 20 to 60 feet
Crowdedness: 21 or more people	H: Crowdedness: 0 to 10 people	M: Crowdedness: 11 to 20 people
\$0	4	2
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	H: 5 to 17 species of stony corals	L: No stony corals, only soft corals and
sponges	covering more than 20% and up to 100%	sponges
	of hard-bottom with over 90% to 100%	
	live coral tissue.	
Up to 4 species of soft corals for a total of	M: Up to 3 species of soft corals for a	L: Up to 4 species of soft corals for a
14 to 25 square centimeters per square meter	total of 4 to 14 square centimeters per	total of 14 to 25 square centimeters per
	square meter.	square meter
Up to 4 species of sponges for a total of 7 to	Up to 3 species of sponges for a total of 2	Up to 4 species of sponges for a total of 7
15 square centimeters per square meter	to 7 square centimeters per square meter.	to 15 square centimeters per square meter
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	M: 3 to 6 species of consumptive fish for	H: Up to 15 species of consumptive fish
total of 3 fish per square meter with no fish	a total of 10 fish per square meter with up	for a total of 100 or more fish per square
of legal size to keep	to 50% of legal size to keep.	meter with 75 to 100% of legal size to
		keep.
Up to 3 species of tropical/ornamental fish	M: 4 to 10 species of tropical/ornamental	H: 25 to 30 species of
with a total of 3 fish per square meter	fish with a total of 10 fish per square	tropical/ornamental fish for a total of 20
	meter.	to 100 or more fish per square meter.
No Macroinvertebrates (conch, lobster or	L: No Macroinvertebrates (conch,	H: 2 or more species of
urchins)	lobster or urchins)	Macroinvertebrates (conch, lobster or
		urchins) 1 lobster, 1 conch, and 20 or
		more urchins per square meter.
No opportunity to see large wildlife (sharks,	H: Opportunity to see large wildlife	L: No opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy	L: No opportunity to see or catch	H: Opportunity to catch or see
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	M: Clarity/Visibility: 10 to 50 feet	H: Clarity/Visibility: Greater than 50
Charling Natharlanda Caracia	H. Charling Hald Const.	feet
Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming	H: Cleanliness: Healthy for swimming
Depth of Reefs: Greater than 60 feet	L: Depth of Reefs: Greater than 60 feet	M: Depth of Reefs: 20 to 60 feet
Crowdedness: 21 or more people	L: Crowdedness: 21 or more people	M: Crowdedness: 11 to 20 people
\$0	5	1
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	M: Up to 4 species of stony corals	H: 5 to 17 species of stony corals
sponges	covering 5 to 20% of hard-bottom with 60 to 90% live coral tissue.	covering more than 20% and up to 100% of hard-bottom with over 90% to 100% live coral tissue.
Up to 4 species of soft corals for a total of	H: 1 species of soft corals for a total of	L: Up to 4 species of soft corals for a
14 to 25 square centimeters per square meter	less than 4 square centimeters per square meter.	total of 14 to 25 square centimeters per square meter
Up to 4 species of sponges for a total of 7 to	1 species of sponges for a total of less	Up to 4 species of sponges for a total of 7
15 square centimeters per square meter	than 2 square centimeters per square meter.	to 15 square centimeters per square meter
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a total of 3 fish per square meter with no fish of legal size to keep	H: Up to 15 species of consumptive fish for a total of 100 or more fish per square meter with 75 to 100% of legal size to keep.	L: Up to two species of consumptive fish for a total of 3 fish per square meter with no fish of legal size to keep
Up to 3 species of tropical/ornamental fish	H: 25 to 30 species of	M: 4 to 10 species of tropical/ornamental
with a total of 3 fish per square meter	tropical/ornamental fish for a total of 20	fish with a total of 10 fish per square
No Magazinyoutahuatas (aanah lahatau au	to 100 or more fish per square meter.	meter.
No Macroinvertebrates (conch, lobster or urchins)	H: 2 or more species of Macroinvertebrates (conch, lobster or urchins) 1 lobster, 1 conch, and 20 or more urchins per square meter.	L: No Macroinvertebrates (conch, lobster or urchins)
No opportunity to see large wildlife (sharks,	L: No opportunity to see large wildlife	H: Opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy fish (ladyfish, permit, bonefish, tarpon,	L: No opportunity to see or catch Sport/Trophy fish (ladyfish, permit,	H: Opportunity to catch or see Sport/Trophy fish (ladyfish, permit,
snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	M: Clarity/Visibility: 10 to 50 feet	H: Clarity/Visibility: Greater than 50 feet
Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming	H: Cleanliness: Healthy for swimming
Depth of Reefs: Greater than 60 feet	L: Depth of Reefs: Greater than 60 feet	M: Depth of Reefs: 20 to 60 feet
Crowdedness: 21 or more people	L: Crowdedness: 21 or more people	M: Crowdedness: 11 to 20 people
\$0	6	5
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	H: 5 to 17 species of stony corals	M: Up to 4 species of stony corals
sponges	covering more than 20% and up to 100%	covering 5 to 20% of hard-bottom with 60
	of hard-bottom with over 90% to 100%	to 90% live coral tissue.
	live coral tissue.	
Up to 4 species of soft corals for a total of	L: Up to 4 species of soft corals for a	M: Up to 3 species of soft corals for a
14 to 25 square centimeters per square meter	total of 14 to 25 square centimeters per	total of 4 to 14 square centimeters per
	square meter	square meter.
Up to 4 species of sponges for a total of 7 to	Up to 4 species of sponges for a total of 7	Up to 3 species of sponges for a total of 2
15 square centimeters per square meter	to 15 square centimeters per square meter	to 7 square centimeters per square meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	M: 3 to 6 species of consumptive fish for	H: Up to 15 species of consumptive fish
total of 3 fish per square meter with no fish	a total of 10 fish per square meter with up	for a total of 100 or more fish per square
of legal size to keep	to 50% of legal size to keep.	meter with 75 to 100% of legal size to
		keep.
Up to 3 species of tropical/ornamental fish	H: 25 to 30 species of	M: 4 to 10 species of tropical/ornamental
with a total of 3 fish per square meter	tropical/ornamental fish for a total of 20	fish with a total of 10 fish per square
	to 100 or more fish per square meter.	meter.
No Macroinvertebrates (conch, lobster or	L: No Macroinvertebrates	M: 1 species of Macroinvertebrates with
urchins)		1 to 20 per square meter (urchins).
No opportunity to see large wildlife (sharks,	L: No opportunity to see large wildlife	H: Opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy	H: Opportunity to catch or see	L: No opportunity to see or catch
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	H: Clarity/Visibility: Greater than 50	L: Clarity/Visibility: Less than 10 feet
	feet	
Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming	L: Cleanliness: Not healthy for
		swimming
Depth of Reefs: Greater than 60 feet	H: Depth of Reefs: less than 20 feet	M: Depth of Reefs: 20 to 60 feet
Crowdedness: 21 or more people	H: Crowdedness: 0 to 10 people	M: Crowdedness: 11 to 20 people
\$0	2	3
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	M: Up to 4 species of stony corals	H: 5 to 17 species of stony corals
sponges	covering 5 to 20% of hard-bottom with 60	covering more than 20% and up to 100%
	to 90% live coral tissue.	of hard-bottom with over 90% to 100%
		live coral tissue.
Up to 4 species of soft corals for a total of	L: Up to 4 species of soft corals for a	M: Up to 3 species of soft corals for a
14 to 25 square centimeters per square meter	total of 14 to 25 square centimeters per	total of 4 to 14 square centimeters per
	square meter	square meter.
Up to 4 species of sponges for a total of 7 to	Up to 4 species of sponges for a total of 7	Up to 3 species of sponges for a total of 2
15 square centimeters per square meter	to 15 square centimeters per square meter	to 7 square centimeters per square meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	H: Up to 15 species of consumptive fish	M: 3 to 6 species of consumptive fish for
total of 3 fish per square meter with no fish	for a total of 100 or more fish per square	a total of 10 fish per square meter with up
of legal size to keep	meter with 75 to 100% of legal size to	to 50% of legal size to keep.
	keep.	
Up to 3 species of tropical/ornamental fish	M: 4 to 10 species of tropical/ornamental	L: Up to 3 species of tropical/ornamental
with a total of 3 fish per square meter	fish with a total of 10 fish per square	fish with a total of 3 fish per square meter
	meter.	
No Macroinvertebrates (conch, lobster or	L: No Macroinvertebrates (conch,	M: 1 species of Macroinvertebrates with
urchins)	lobster or urchins)	1 to 20 per square meter (urchins).
No opportunity to see large wildlife (sharks,	H: Opportunity to see large wildlife	L: No opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy	H: Opportunity to catch or see	L: No opportunity to see or catch
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	L: Clarity/Visibility: Less than 10 feet	H: Clarity/Visibility: Greater than 50
		feet
Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming	H: Cleanliness: Healthy for swimming
Depth of Reefs: Greater than 60 feet	M: Depth of Reefs: 20 to 60 feet	L: Depth of Reefs: Greater than 60 feet
Crowdedness: 21 or more people	M: Crowdedness: 11 to 20 people	L: Crowdedness: 21 or more people
\$0	5	3
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	H: 5 to 17 species of stony corals	L: No stony corals, only soft corals and
sponges	covering more than 20% and up to 100%	sponges
	of hard-bottom with over 90% to 100%	
	live coral tissue.	
Up to 4 species of soft corals for a total of	H: 1 species of soft corals for a total of	M: Up to 3 species of soft corals for a
14 to 25 square centimeters per square meter	less than 4 square centimeters per square	total of 4 to 14 square centimeters per
	meter.	square meter.
Up to 4 species of sponges for a total of 7 to	1 species of sponges for a total of less	Up to 3 species of sponges for a total of 2
15 square centimeters per square meter	than 2 square centimeters per square	to 7 square centimeters per square meter.
	meter.	
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	M: 3 to 6 species of consumptive fish for	L: Up to two species of consumptive
total of 3 fish per square meter with no fish	a total of 10 fish per square meter with up	fish for a total of 3 fish per square meter
of legal size to keep	to 50% of legal size to keep.	with no fish of legal size to keep
Up to 3 species of tropical/ornamental fish	M: 4 to 10 species of tropical/ornamental	H: 25 to 30 species of
with a total of 3 fish per square meter	fish with a total of 10 fish per square	tropical/ornamental fish for a total of 20
	meter.	to 100 or more fish per square meter.
No Macroinvertebrates (conch, lobster or	L: No Macroinvertebrates (conch,	M: 1 species of Macroinvertebrates with
urchins)	lobster or urchins)	1 to 20 per square meter (urchins).
No opportunity to see large wildlife (sharks,	H: Opportunity to see large wildlife	L: No opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy	H: Opportunity to catch or see	L: No opportunity to see or catch
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	H: Clarity/Visibility: Greater than 50	L: Clarity/Visibility: Less than 10 feet
	feet	
Cleanliness: Not healthy for swimming	L: Cleanliness: Not healthy for	H: Cleanliness: Healthy for swimming
	swimming	
Depth of Reefs: Greater than 60 feet	M: Depth of Reefs: 20 to 60 feet	H: Depth of Reefs: less than 20 feet
Crowdedness: 21 or more people	M: Crowdedness: 11 to 20 people	H: Crowdedness: 0 to 10 people
\$0	6	5
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	L: No stony corals, only soft corals and	M: Up to 4 species of stony corals
sponges	sponges	covering 5 to 20% of hard-bottom with 60
		to 90% live coral tissue.
Up to 4 species of soft corals for a total of	L: Up to 4 species of soft corals for a	M: Up to 3 species of soft corals for a
14 to 25 square centimeters per square meter	total of 14 to 25 square centimeters per	total of 4 to 14 square centimeters per
	square meter	square meter.
Up to 4 species of sponges for a total of 7 to	Up to 4 species of sponges for a total of 7	Up to 3 species of sponges for a total of 2
15 square centimeters per square meter	to 15 square centimeters per square meter	to 7 square centimeters per square meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	L: Up to two species of consumptive fish	M: 3 to 6 species of consumptive fish for
total of 3 fish per square meter with no fish	for a total of 3 fish per square meter with	a total of 10 fish per square meter with up
of legal size to keep	no fish of legal size to keep	to 50% of legal size to keep.
Up to 3 species of tropical/ornamental fish	H: 25 to 30 species of	L: Up to 3 species of tropical/ornamental
with a total of 3 fish per square meter	tropical/ornamental fish for a total of 20	fish with a total of 3 fish per square meter
	to 100 or more fish per square meter.	
No Macroinvertebrates (conch, lobster or	H: 2 or more species of	L: No Macroinvertebrates (conch,
urchins)	Macroinvertebrates (conch, lobster or	lobster or urchins)
	urchins) 1 lobster, 1 conch, and 20 or	
	more urchins per square meter.	
No opportunity to see large wildlife (sharks,	L: No opportunity to see large wildlife	H: Opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy	L: No opportunity to see or catch	H: Opportunity to catch or see
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	M: Clarity/Visibility: 10 to 50 feet	L: Clarity/Visibility: Less than 10 feet
Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming	H: Cleanliness: Healthy for swimming
Depth of Reefs: Greater than 60 feet	H: Depth of Reefs: less than 20 feet	L: Depth of Reefs: Greater than 60 feet
Crowdedness: 21 or more people	H: Crowdedness: 0 to 10 people	L: Crowdedness: 21 or more people
\$0	2	1
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	L: No stony corals, only soft corals and	H: 5 to 17 species of stony corals
sponges	sponges	covering more than 20% and up to 100%
		of hard-bottom with over 90% to 100%
		live coral tissue.
Up to 4 species of soft corals for a total of	M: Up to 3 species of soft corals for a	H: 1 species of soft corals for a total of
14 to 25 square centimeters per square meter	total of 4 to 14 square centimeters per	less than 4 square centimeters per square
	square meter.	meter.
Up to 4 species of sponges for a total of 7 to	Up to 3 species of sponges for a total of 2	1 species of sponges for a total of less
15 square centimeters per square meter	to 7 square centimeters per square meter.	than 2 square centimeters per square
		meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	M: 3 to 6 species of consumptive fish for	H: Up to 15 species of consumptive fish
total of 3 fish per square meter with no fish	a total of 10 fish per square meter with up	for a total of 100 or more fish per square
of legal size to keep	to 50% of legal size to keep.	meter with 75 to 100% of legal size to
II . 2	H 25 / 20 : 6	keep.
Up to 3 species of tropical/ornamental fish	H: 25 to 30 species of	M: 4 to 10 species of tropical/ornamental
with a total of 3 fish per square meter	tropical/ornamental fish for a total of 20	fish with a total of 10 fish per square
No Macroinvertebrates (conch, lobster or	to 100 or more fish per square meter. H: 2 or more species of	meter. L: No Macroinvertebrates (conch,
urchins)	Macroinvertebrates (conch, lobster or	lobster or urchins)
urchins)	urchins) 1 lobster, 1 conch, and 20 or	looster or tremins)
	more urchins per square meter.	
No opportunity to see large wildlife (sharks,	H: Opportunity to see large wildlife	L: No opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy	L: No opportunity to see or catch	H: Opportunity to catch or see
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	H: Clarity/Visibility: Greater than 50	M: Clarity/Visibility: 10 to 50 feet
Jan	feet	
Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming	L: Cleanliness: Not healthy for
, ,		swimming
Depth of Reefs: Greater than 60 feet	H: Depth of Reefs: less than 20 feet	L: Depth of Reefs: Greater than 60 feet
Crowdedness: 21 or more people	H: Crowdedness: 0 to 10 people	L: Crowdedness: 21 or more people
\$0	6	2
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	H: 5 to 17 species of stony corals	L: No stony corals, only soft corals and
sponges	covering more than 20% and up to 100%	sponges
	of hard-bottom with over 90% to 100%	
	live coral tissue.	
Up to 4 species of soft corals for a total of	M: Up to 3 species of soft corals for a	H: 1 species of soft corals for a total of
14 to 25 square centimeters per square meter	total of 4 to 14 square centimeters per	less than 4 square centimeters per square
	square meter.	meter.
Up to 4 species of sponges for a total of 7 to	Up to 3 species of sponges for a total of 2	1 species of sponges for a total of less
15 square centimeters per square meter	to 7 square centimeters per square meter.	than 2 square centimeters per square
		meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	L: Up to two species of consumptive fish	M: 3 to 6 species of consumptive fish for
total of 3 fish per square meter with no fish	for a total of 3 fish per square meter with	a total of 10 fish per square meter with up
of legal size to keep	no fish of legal size to keep	to 50% of legal size to keep.
Up to 3 species of tropical/ornamental fish	M: 4 to 10 species of tropical/ornamental	L: Up to 3 species of tropical/ornamental
with a total of 3 fish per square meter	fish with a total of 10 fish per square	fish with a total of 3 fish per square meter
	meter.	
No Macroinvertebrates (conch, lobster or	M: 1 species of Macroinvertebrates with	L: No Macroinvertebrates (conch,
urchins)	1 to 20 per square meter (urchins).	lobster or urchins)
No opportunity to see large wildlife (sharks,	L: No opportunity to see large wildlife	H: Opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy	H: Opportunity to catch or see	L: No opportunity to see or catch
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	H: Clarity/Visibility: Greater than 50 feet	M: Clarity/Visibility: 10 to 50 feet
Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming	H: Cleanliness: Healthy for swimming
Depth of Reefs: Greater than 60 feet	H: Depth of Reefs: less than 20 feet	M: Depth of Reefs: 20 to 60 feet
Crowdedness: 21 or more people	H: Crowdedness: 0 to 10 people	M: Crowdedness: 11 to 20 people
\$0	6	3
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and sponges	M: Up to 4 species of stony corals covering 5 to 20% of hard-bottom with 60 to 90% live coral tissue.	L: No stony corals, only soft corals and sponges
Up to 4 species of soft corals for a total of 14 to 25 square centimeters per square meter	L: Up to 4 species of soft corals for a total of 14 to 25 square centimeters per square meter	H: 1 species of soft corals for a total of less than 4 square centimeters per square meter.
Up to 4 species of sponges for a total of 7 to 15 square centimeters per square meter	Up to 4 species of sponges for a total of 7 to 15 square centimeters per square meter	1 species of sponges for a total of less than 2 square centimeters per square meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a total of 3 fish per square meter with no fish of legal size to keep	L: Up to two species of consumptive fish for a total of 3 fish per square meter with no fish of legal size to keep	H: Up to 15 species of consumptive fish for a total of 100 or more fish per square meter with 75 to 100% of legal size to keep.
Up to 3 species of tropical/ornamental fish with a total of 3 fish per square meter	L: Up to 3 species of tropical/ornamental fish with a total of 3 fish per square meter	M: 4 to 10 species of tropical/ornamental fish with a total of 10 fish per square meter.
No Macroinvertebrates (conch, lobster or urchins)	H: 2 or more species of Macroinvertebrates (conch, lobster or urchins) 1 lobster, 1 conch, and 20 or more urchins per square meter.	L: No Macroinvertebrates (conch, lobster or urchins)
No opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins)	L: No opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins)	H: Opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)	H: Opportunity to catch or see Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)	L: No opportunity to see or catch Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	M: Clarity/Visibility: 10 to 50 feet	L: Clarity/Visibility: Less than 10 feet
Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming	H: Cleanliness: Healthy for swimming
Depth of Reefs: Greater than 60 feet	M: Depth of Reefs: 20 to 60 feet	H: Depth of Reefs: less than 20 feet
Crowdedness: 21 or more people	M: Crowdedness: 11 to 20 people	H: Crowdedness: 0 to 10 people
\$0	4	1
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	M: Up to 4 species of stony corals	H: 5 to 17 species of stony corals
sponges	covering 5 to 20% of hard-bottom with 60	covering more than 20% and up to 100%
	to 90% live coral tissue.	of hard-bottom with over 90% to 100%
***	7 77 4 1 0 0 1 0	live coral tissue.
Up to 4 species of soft corals for a total of	L: Up to 4 species of soft corals for a	M: Up to 3 species of soft corals for a
14 to 25 square centimeters per square meter	total of 14 to 25 square centimeters per	total of 4 to 14 square centimeters per
Up to 4 species of spenges for a total of 7 to	square meter Up to 4 species of sponges for a total of 7	square meter. Up to 3 species of sponges for a total of 2
Up to 4 species of sponges for a total of 7 to 15 square centimeters per square meter	to 15 square centimeters per square meter	to 7 square centimeters per square meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	H: Up to 15 species of consumptive fish	L: Up to two species of consumptive fish
total of 3 fish per square meter with no fish	for a total of 100 or more fish per square	for a total of 3 fish per square meter with
of legal size to keep	meter with 75 to 100% of legal size to	no fish of legal size to keep
of legal size to keep	keep.	no fish of regar size to keep
Up to 3 species of tropical/ornamental fish	M: 4 to 10 species of tropical/ornamental	L: Up to 3 species of tropical/ornamental
with a total of 3 fish per square meter	fish with a total of 10 fish per square	fish with a total of 3 fish per square meter
	meter.	1
No Macroinvertebrates (conch, lobster or	H: 2 or more species of	M: 1 species of Macroinvertebrates with
urchins)	Macroinvertebrates (conch, lobster or	1 to 20 per square meter (urchins).
	urchins) 1 lobster, 1 conch, and 20 or	
	more urchins per square meter.	
No opportunity to see large wildlife (sharks,	H: Opportunity to see large wildlife	L: No opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy	L: No opportunity to see or catch	H: Opportunity to catch or see
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)
snook, jacks) Water Conditions	bonefish, tarpon, snook, jacks) Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	L: Clarity/Visibility: Less than 10 feet	M: Clarity/Visibility: 10 to 50 feet
Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming	L: Cleanliness: Not healthy for
Cicaminess. 110t healthy for swithining	22. Creaminess. Treating for swimming	swimming
Depth of Reefs: Greater than 60 feet	L: Depth of Reefs: Greater than 60 feet	H: Depth of Reefs: less than 20 feet
Crowdedness: 21 or more people	L: Crowdedness: 21 or more people	H: Crowdedness: 0 to 10 people
\$0	2	1
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	M: Up to 4 species of stony corals	L: No stony corals, only soft corals and
sponges	covering 5 to 20% of hard-bottom with 60	sponges
	to 90% live coral tissue.	
Up to 4 species of soft corals for a total of	H: 1 species of soft corals for a total of	M: Up to 3 species of soft corals for a
14 to 25 square centimeters per square meter	less than 4 square centimeters per square	total of 4 to 14 square centimeters per
	meter.	square meter.
Up to 4 species of sponges for a total of 7 to	1 species of sponges for a total of less	Up to 3 species of sponges for a total of 2
15 square centimeters per square meter	than 2 square centimeters per square meter.	to 7 square centimeters per square meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	M: 3 to 6 species of consumptive fish for	H: Up to 15 species of consumptive fish
total of 3 fish per square meter with no fish	a total of 10 fish per square meter with up	for a total of 100 or more fish per square
of legal size to keep	to 50% of legal size to keep.	meter with 75 to 100% of legal size to
		keep.
Up to 3 species of tropical/ornamental fish	H: 25 to 30 species of	L: Up to 3 species of tropical/ornamental
with a total of 3 fish per square meter	tropical/ornamental fish for a total of 20 to 100 or more fish per square meter.	fish with a total of 3 fish per square meter
No Macroinvertebrates (conch, lobster or	L: No Macroinvertebrates (conch,	H: 2 or more species of
urchins)	lobster or urchins)	Macroinvertebrates (conch, lobster or
		urchins) 1 lobster, 1 conch, and 20 or
		more urchins per square meter.
No opportunity to see large wildlife (sharks,	L: No opportunity to see large wildlife	H: Opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy	L: No opportunity to see or catch	H: Opportunity to catch or see
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions Clarity Wieibility Less than 10 feet	Water Conditions	Water Conditions M. Clarity Wie ibility 10 to 50 feet
Clarity/Visibility: Less than 10 feet	H: Clarity/Visibility: Greater than 50 feet	M: Clarity/Visibility: 10 to 50 feet
Cleanliness: Not healthy for swimming	L: Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming
Depth of Reefs: Greater than 60 feet	M: Depth of Reefs: 20 to 60 feet	L: Depth of Reefs: Greater than 60 feet
Crowdedness: 21 or more people	M: Crowdedness: 11 to 20 people	L: Crowdedness: 21 or more people
\$0	3	4
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)
(1 ()	1 (

Option A: Status Quo – No changes in	Option B	Option C
management (All Low Conditions)		
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	M: Up to 4 species of stony corals	H: 5 to 17 species of stony corals
sponges	covering 5 to 20% of hard-bottom with 60	covering more than 20% and up to 100%
	to 90% live coral tissue.	of hard-bottom with over 90% to 100%
		live coral tissue.
Up to 4 species of soft corals for a total of	L: Up to 4 species of soft corals for a	H: 1 species of soft corals for a total of
14 to 25 square centimeters per square meter	total of 14 to 25 square centimeters per	less than 4 square centimeters per square
	square meter	meter.
Up to 4 species of sponges for a total of 7 to	Up to 4 species of sponges for a total of 7	1 species of sponges for a total of less
15 square centimeters per square meter	to 15 square centimeters per square meter	than 2 square centimeters per square
		meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	H: Up to 15 species of consumptive fish	L: Up to two species of consumptive
total of 3 fish per square meter with no fish	for a total of 100 or more fish per square	fish for a total of 3 fish per square meter
of legal size to keep	meter with 75 to 100% of legal size to	with no fish of legal size to keep
	keep.	
Up to 3 species of tropical/ornamental fish	H: 25 to 30 species of	L: Up to 3 species of tropical/ornamental
with a total of 3 fish per square meter	tropical/ornamental fish for a total of 20	fish with a total of 3 fish per square meter
	to 100 or more fish per square meter.	
No Macroinvertebrates (conch, lobster or	L: No Macroinvertebrates (conch,	M: 1 species of Macroinvertebrates with
urchins)	lobster or urchins)	1 to 20 per square meter (urchins).
No opportunity to see large wildlife (sharks,	L: No opportunity to see large wildlife	H: Opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy	H: Opportunity to catch or see	L: No opportunity to see or catch
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	M: Clarity/Visibility: 10 to 50 feet	L: Clarity/Visibility: Less than 10 feet
Cleanliness: Not healthy for swimming	L: Cleanliness: Not healthy for	H: Cleanliness: Healthy for swimming
	swimming	
Depth of Reefs: Greater than 60 feet	H: Depth of Reefs: less than 20 feet	M: Depth of Reefs: 20 to 60 feet
Crowdedness: 21 or more people	H: Crowdedness: 0 to 10 people	M: Crowdedness: 11 to 20 people
\$0	3	2
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and sponges	M: Up to 4 species of stony corals covering 5 to 20% of hard-bottom with 60 to 90% live coral tissue.	L: No stony corals, only soft corals and sponges
Up to 4 species of soft corals for a total of 14 to 25 square centimeters per square meter	H: 1 species of soft corals for a total of less than 4 square centimeters per square meter.	M: Up to 3 species of soft corals for a total of 4 to 14 square centimeters per square meter.
Up to 4 species of sponges for a total of 7 to 15 square centimeters per square meter	1 species of sponges for a total of less than 2 square centimeters per square meter.	Up to 3 species of sponges for a total of 2 to 7 square centimeters per square meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a total of 3 fish per square meter with no fish of legal size to keep	H: Up to 15 species of consumptive fish for a total of 100 or more fish per square meter with 75 to 100% of legal size to keep.	L: Up to two species of consumptive fish for a total of 3 fish per square meter with no fish of legal size to keep
Up to 3 species of tropical/ornamental fish with a total of 3 fish per square meter	L: Up to 3 species of tropical/ornamental fish with a total of 3 fish per square meter	M: 4 to 10 species of tropical/ornamental fish with a total of 10 fish per square meter.
No Macroinvertebrates (conch, lobster or urchins)	M: 1 species of Macroinvertebrates with 1 to 20 per square meter (urchins).	L: No Macroinvertebrates (conch, lobster or urchins)
No opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins)	H: Opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins)	L: No opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)	L: No opportunity to see or catch Sport/Trophy fish (ladyfish, permit,	H: Opportunity to catch or see Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	H: Clarity/Visibility: Greater than 50 feet	M: Clarity/Visibility: 10 to 50 feet
Cleanliness: Not healthy for swimming	L: Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming
Depth of Reefs: Greater than 60 feet	H: Depth of Reefs: less than 20 feet	M: Depth of Reefs: 20 to 60 feet
Crowdedness: 21 or more people	H: Crowdedness: 0 to 10 people	M: Crowdedness: 11 to 20 people
\$0	5	3
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and sponges	M: Up to 4 species of stony corals covering 5 to 20% of hard-bottom with 60 to 90% live coral tissue.	L: No stony corals, only soft corals and sponges
Up to 4 species of soft corals for a total of 14 to 25 square centimeters per square meter	M: Up to 3 species of soft corals for a total of 4 to 14 square centimeters per square meter.	H: 1 species of soft corals for a total of less than 4 square centimeters per square meter.
Up to 4 species of sponges for a total of 7 to 15 square centimeters per square meter	Up to 3 species of sponges for a total of 2 to 7 square centimeters per square meter.	1 species of sponges for a total of less than 2 square centimeters per square meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a total of 3 fish per square meter with no fish of legal size to keep	L: Up to two species of consumptive fish for a total of 3 fish per square	H: Up to 15 species of consumptive fish for a total of 100 or more fish per square meter with 75
Up to 3 species of tropical/ornamental fish with a total of 3 fish per square meter	H: 25 to 30 species of tropical/ornamental fish for a total of 20 to 100 or more fish per square meter.	M: 4 to 10 species of tropical/ornamental fish with a total of 10 fish per square meter.
No Macroinvertebrates (conch, lobster or urchins)	H: 2 or more species of Macroinvertebrates (conch, lobster or urchins) 1 lobster, 1 conch, and 20 or more urchins per square meter.	M: 1 species of Macroinvertebrates with 1 to 20 per square meter (urchins).
No opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins)	H: Opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins)	L: No opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)	H: Opportunity to catch or see Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)	L: No opportunity to see or catch Sport/Trophy fish (ladyfish, permit
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	L: Clarity/Visibility: Less than 10 feet	M:
Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming	L: Cleanliness: Not healthy for swimming
Depth of Reefs: Greater than 60 feet	L: Depth of Reefs: Greater than 60 feet	H: Depth of Reefs: less than 20 feet
Crowdedness: 21 or more people	L: Crowdedness: 21 or more people	H: Crowdedness: 0 to 10 people
\$0	2	4
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and sponges	H: 5 to 17 species of stony corals covering more than 20% and up to 100% of hard-bottom with over 90% to 100% live coral tissue.	M: Up to 4 species of stony corals covering 5 to 20% of hard-bottom with 60 to 90% live coral tissue.
Up to 4 species of soft corals for a total of 14 to 25 square centimeters per square meter	H: 1 species of soft corals for a total of less than 4 square centimeters per square meter.	L: Up to 4 species of soft corals for a total of 14 to 25 square centimeters per square meter
Up to 4 species of sponges for a total of 7 to 15 square centimeters per square meter	1 species of sponges for a total of less than 2 square centimeters per square meter.	Up to 4 species of sponges for a total of 7 to 15 square centimeters per square meter
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a total of 3 fish per square meter with no fish of legal size to keep Up to 3 species of tropical/ornamental fish with a total of 3 fish per square meter No Macroinvertebrates (conch, lobster or urchins)	 M: 3 to 6 species of consumptive fish for a total of 10 fish per square meter with up to 50% of legal size to keep. M: 4 to 10 species of tropical/ornamental fish with a total of 10 fish per square meter. H: 2 or more species of Macroinvertebrates (conch, lobster or urchins) 1 lobster, 1 conch, and 20 or 	L: Up to two species of consumptive fish for a total of 3 fish per square meter with no fish of legal size to keep H: 25 to 30 species of tropical/ornamental fish for a total of 20 to 100 or more fish per square meter. L: No Macroinvertebrates (conch, lobster or urchins)
No opportunity to see large wildlife (sharks,	more urchins per square meter. L: No opportunity to see large wildlife	H: Opportunity to see large wildlife
rays, turtles, manatees, dolphins) No opportunity to see or catch Sport/Trophy	(sharks, rays, turtles, manatees, dolphins) L: No opportunity to see or catch	(sharks, rays, turtles, manatees, dolphins) H: Opportunity to catch or see
fish (ladyfish, permit, bonefish, tarpon, snook, jacks)	Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)	Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	L: Clarity/Visibility: Less than 10 feet	M: Clarity/Visibility: 10 to 50 feet
Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming	H: Cleanliness: Healthy for swimming
Depth of Reefs: Greater than 60 feet	M: Depth of Reefs: 20 to 60 feet	H: Depth of Reefs: less than 20 feet
Crowdedness: 21 or more people	M: Crowdedness: 11 to 20 people	H: Crowdedness: 0 to 10 people
\$0	6	1
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	L: No stony corals, only soft corals and	M: Up to 4 species of stony corals
sponges	sponges	covering 5 to 20% of hard-bottom with 60 to 90% live coral tissue.
Up to 4 species of soft corals for a total of	H: 1 species of soft corals for a total of	M: Up to 3 species of soft corals for a
14 to 25 square centimeters per square meter	less than 4 square centimeters per square meter.	total of 4 to 14 square centimeters per square meter.
Up to 4 species of sponges for a total of 7 to	1 species of sponges for a total of less	Up to 3 species of sponges for a total of 2
15 square centimeters per square meter	than 2 square centimeters per square meter.	to 7 square centimeters per square meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	H: Up to 15 species of consumptive fish	M: 3 to 6 species of consumptive fish for
total of 3 fish per square meter with no fish	for a total of 100 or more fish per square	a total of 10 fish per square meter with up
of legal size to keep	meter with 75 to 100% of legal size to keep.	to 50% of legal size to keep.
Up to 3 species of tropical/ornamental fish	L: Up to 3 species of tropical/ornamental	M: 4 to 10 species of tropical/ornamental
with a total of 3 fish per square meter	fish with a total of 3 fish per square meter	fish with a total of 10 fish per square meter.
No Macroinvertebrates (conch, lobster or	H: 2 or more species of	L: No Macroinvertebrates (conch,
urchins)	Macroinvertebrates (conch, lobster or	lobster or urchins)
	urchins) 1 lobster, 1 conch, and 20 or more urchins per square meter.	
No opportunity to see large wildlife (sharks,	L: No opportunity to see large wildlife	H: Opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy	H: Opportunity to catch or see	L: No opportunity to see or catch
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	H: Clarity/Visibility: Greater than 50 feet	M: Clarity/Visibility: 10 to 50 feet
Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming	H: Cleanliness: Healthy for swimming
Depth of Reefs: Greater than 60 feet	L: Depth of Reefs: Greater than 60 feet	H: Depth of Reefs: less than 20 feet
Crowdedness: 21 or more people	L: Crowdedness: 21 or more people	H: Crowdedness: 0 to 10 people
\$0	3	6
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	M: Up to 4 species of stony corals	H: 5 to 17 species of stony corals
sponges	covering 5 to 20% of hard-bottom with 60	covering more than 20% and up to 100%
	to 90% live coral tissue.	of hard-bottom with over 90% to 100%
		live coral tissue.
Up to 4 species of soft corals for a total of	M: Up to 3 species of soft corals for a	L: Up to 4 species of soft corals for a
14 to 25 square centimeters per square meter	total of 4 to 14 square centimeters per	total of 14 to 25 square centimeters per
	square meter.	square meter
Up to 4 species of sponges for a total of 7 to	Up to 3 species of sponges for a total of 2	Up to 4 species of sponges for a total of 7
15 square centimeters per square meter	to 7 square centimeters per square meter.	to 15 square centimeters per square meter
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	M: 3 to 6 species of consumptive fish for	H: Up to 15 species of consumptive fish
total of 3 fish per square meter with no fish	a total of 10 fish per square meter with up	for a total of 100 or more fish per square
of legal size to keep	to 50% of legal size to keep.	meter with 75 to 100% of legal size to
		keep.
Up to 3 species of tropical/ornamental fish	H: 25 to 30 species of	L: Up to 3 species of
with a total of 3 fish per square meter	tropical/ornamental fish for a total of 20	tropical/ornamental fish
	to 100 or more fish per square meter.	
No Macroinvertebrates (conch, lobster or	L: No Macroinvertebrates (conch,	M: 1 species of Macroinvertebrates with
urchins)	lobster or urchins)	1 to 20 per square meter (urchins).
No opportunity to see large wildlife (sharks,	L: No opportunity to see large wildlife	H: Opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy	L: No opportunity to see or catch	H: Opportunity to catch or see
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	H: Clarity/Visibility: Greater than 50	L: Clarity/Visibility: Less than 10 feet
	feet	
Cleanliness: Not healthy for swimming	L: Cleanliness: Not healthy for	H: Cleanliness: Healthy for swimming
	swimming	
Depth of Reefs: Greater than 60 feet	M: Depth of Reefs: 20 to 60 feet	H: Depth of Reefs: less than 20 feet
Crowdedness: 21 or more people	M: Crowdedness: 11 to 20 people	H: Crowdedness: 0 to 10 people
\$0	4	3
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in	Option B	Option C
management (All Low Conditions)	_	_
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	H: 5 to 17 species of stony corals	L: Crowdedness: 0 to 10 people
sponges	covering more than 20% and up to 100%	
	of hard-bottom with over 90% to 100%	
	live coral tissue.	
Up to 4 species of soft corals for a total of	H: 1 species of soft corals for a total of	M: Up to 3 species of soft corals for a
14 to 25 square centimeters per square meter	less than 4 square centimeters per square	total of 4 to 14 square centimeters per
	meter.	square meter.
Up to 4 species of sponges for a total of 7 to	1 species of sponges for a total of less	Up to 3 species of sponges for a total of 2
15 square centimeters per square meter	than 2 square centimeters per square	to 7 square centimeters per square meter.
	meter.	
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	L: Up to two species of consumptive fish	H: Up to 15 species of consumptive fish
total of 3 fish per square meter with no fish	for a total of 3 fish per square meter	for a total of 100 or more fish per square
of legal size to keep		meter with 75 to 100% of legal size to
		keep.
Up to 3 species of tropical/ornamental fish	L: Up to 3 species of tropical/ornamental	M: 4 to 10 species of tropical/ornamental
with a total of 3 fish per square meter	fish with a total of 3 fish per square meter	fish with a total of 10 fish per square
N. M		meter.
No Macroinvertebrates (conch, lobster or	H: 2 or more species of	M: 1 species of Macroinvertebrates with
urchins)	Macroinvertebrates (conch, lobster or	1 to 20 per square meter (urchins).
	urchins) 1 lobster, 1 conch, and 20 or	
N 1 1 11111111111111111111111111111111	more urchins per square meter.	T N 1 1 111C
No opportunity to see large wildlife (sharks,	H: Opportunity to see large wildlife	L: No opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy	H: Opportunity to catch or see	L: No opportunity to see or catch
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit
snook, jacks) Water Conditions	bonefish, tarpon, snook, jacks)	Water Carditions
	Water Conditions	Water Conditions M: Clarity/Visibility: 10 to 50 feet
Clarity/Visibility: Less than 10 feet	L: Clarity/Visibility: Less than 10 feet	
Cleanliness: Not healthy for swimming	L: Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming
Depth of Reefs: Greater than 60 feet	H: Depth of Reefs: less than 20 feet	L: Depth of Reefs: Greater than 60 feet
Crowdedness: 21 or more people	H: Crowdedness: 0 to 10 people	L: Crowdedness: 21 or more people
\$0	3	2
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	H: 5 to 17 species of stony corals	M: Up to 4 species of stony corals
sponges	covering more than 20% and up to 100%	covering 5 to 20% of hard-bottom with 60
	of hard-bottom with over 90% to 100%	to 90% live coral tissue.
	live coral tissue.	
Up to 4 species of soft corals for a total of	L: Up to 4 species of soft corals for a	H: 1 species of soft corals for a total of
14 to 25 square centimeters per square meter	total of 14 to 25 square centimeters per	less than 4 square centimeters per square
	square meter	meter.
Up to 4 species of sponges for a total of 7 to	Up to 4 species of sponges for a total of 7	1 species of sponges for a total of less
15 square centimeters per square meter	to 15 square centimeters per square meter	than 2 square centimeters per square
		meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	M: 3 to 6 species of consumptive fish for	L: Up to two species of consumptive fish
total of 3 fish per square meter with no fish	a total of 10 fish per square meter with	for a total of 3 fish per square meter with
of legal size to keep		no fish of legal size to keep
Up to 3 species of tropical/ornamental fish	M: 4 to 10 species of tropical/ornamental	H: 25 to 30 species of
with a total of 3 fish per square meter	fish with a total of 10 fish per square	tropical/ornamental fish for a total of 20
	meter.	to 100 or more fish per square meter.
No Macroinvertebrates (conch, lobster or	H: 2 or more species of	M: 1 species of Macroinvertebrates with
urchins)	Macroinvertebrates (conch, lobster or	1 to 20 per square meter (urchins).
	urchins) 1 lobster, 1 conch, and 20 or	
	more urchins per square meter.	
No opportunity to see large wildlife (sharks,	L: No opportunity to see large wildlife	H: Opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy	L: No opportunity to see or catch	H: Opportunity to catch or see
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	L: Clarity/Visibility: Less than 10 feet	H: Clarity/Visibility: Greater than 50
	T GI II XX 11 G	feet
Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming	L: Cleanliness: Not healthy for
D 41 6D 6 C 4 4 60 C	16 D 4 6D 6 20 (0.0)	swimming
Depth of Reefs: Greater than 60 feet	M: Depth of Reefs: 20 to 60 feet	L: Depth of Reefs: Greater than 60 feet
Crowdedness: 21 or more people	M: Crowdedness: 11 to 20 people	L: Crowdedness: 21 or more people
\$0	1	5
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and sponges	H: 5 to 17 species of stony corals covering more than 20% and up to 100% of hard-bottom with over 90% to 100% live coral tissue.	L: No stony corals, only soft corals and sponges
Up to 4 species of soft corals for a total of 14 to 25 square centimeters per square meter Up to 4 species of sponges for a total of 7 to	M: Up to 3 species of soft corals for a total of 4 to 14 square centimeters per square meter. Up to 3 species of sponges for a total of 2	H: 1 species of soft corals for a total of less than 4 square centimeters per square meter. 1 species of sponges for a total of less
15 square centimeters per square meter	to 7 square centimeters per square meter.	than 2 square centimeters per square meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a total of 3 fish per square meter with no fish of legal size to keep	H: Up to 15 species of consumptive fish for a total of 100 or more fish per square meter with 75 to 100% of legal size to keep.	M: 3 to 6 species of consumptive fish for a total of 10 fish per square meter with up to 50% of legal size to keep.
Up to 3 species of tropical/ornamental fish with a total of 3 fish per square meter	L: Up to 3 species of tropical/ornamental fish with a total of 3 fish per square meter	H: 25 to 30 species of tropical/ornamental fish for a total of 20 to 100 or more fish per square meter.
No Macroinvertebrates (conch, lobster or urchins)	L: No Macroinvertebrates (conch, lobster or urchins)	M: 1 species of Macroinvertebrates with 1 to 20 per square meter (urchins).
No opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins)	H: Opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins)	L: No opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)	L: No opportunity to see or catch Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)	H: Opportunity to catch or see Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	H: Clarity/Visibility: Greater than 50 feet	L: Clarity/Visibility: Less than 10 feet
Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming	L: Cleanliness: Not healthy for swimming
Depth of Reefs: Greater than 60 feet	L: Depth of Reefs: Greater than 60 feet	M: Depth of Reefs: 20 to 60 feet
Crowdedness: 21 or more people	L: Crowdedness: 21 or more people	M: Crowdedness: 11 to 20 people
\$0	4	1
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	M: Up to 4 species of stony corals	L: No stony corals, only soft corals and
sponges	covering 5 to 20% of hard-bottom with 60	sponges
	to 90% live coral tissue.	
Up to 4 species of soft corals for a total of	H: 1 species of soft corals for a total of	L: Up to 4 species of soft corals for a
14 to 25 square centimeters per square meter	less than 4 square centimeters per square	total of 14 to 25 square centimeters per
	meter.	square meter
Up to 4 species of sponges for a total of 7 to	1 species of sponges for a total of less	Up to 4 species of sponges for a total of 7
15 square centimeters per square meter	than 2 square centimeters per square	to 15 square centimeters per square meter
	meter.	
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	H: Up to 15 species of consumptive fish	M: 3 to 6 species of consumptive fish for
total of 3 fish per square meter with no fish	for a total of 100 or more fish per square	a total of 10 fish per square meter with up
of legal size to keep	meter with	to 50% of legal size to keep.
Up to 3 species of tropical/ornamental fish	L: Up to 3 species of tropical/ornamental	M: 4 to 10 species of tropical/ornamental
with a total of 3 fish per square meter	fish with a total of 3 fish per square meter	fish with a
No Macroinvertebrates (conch, lobster or	H: 2 or more species of	M: 1 species of Macroinvertebrates with
urchins)	Macroinvertebrates (conch, lobster or	1 to 20 per square meter (urchins).
	urchins) 1 lobster, 1 conch, and 20 or	
	more urchins per square meter.	
No opportunity to see large wildlife (sharks,	L: No opportunity to see large wildlife	H: Opportunity to see large wildlife
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)
No opportunity to see or catch Sport/Trophy	L: No opportunity to see or catch	H: Opportunity to catch or see
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	L: Clarity/Visibility: Less than 10 feet	M: Clarity/Visibility: 10 to 50 feet
Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming	H: Cleanliness: Healthy for swimming
Depth of Reefs: Greater than 60 feet	M: Depth of Reefs: 20 to 60 feet	L: Depth of Reefs: Greater than 60 feet
Crowdedness: 21 or more people	M: Depth of Reefs: 20 to 60 feet	L: Crowdedness: 21 or more people
\$0	5	3
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and	M: Up to 4 species of stony corals	L: No stony corals, only soft corals and
sponges	covering 5 to 20% of hard-bottom with 60	sponges
	to 90% live coral tissue.	
Up to 4 species of soft corals for a total of	M: Up to 3 species of soft corals for a	L: Up to 4 species of soft corals for a
14 to 25 square centimeters per square meter	total of 4 to 14 square centimeters per	total of 14 to 25 square centimeters per
	square meter.	square meter
Up to 4 species of sponges for a total of 7 to	Up to 3 species of sponges for a total of 2	Up to 4 species of sponges for a total of 7
15 square centimeters per square meter	to 7 square centimeters	to 15 square centimeters per square meter
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a	L: Up to two species of consumptive fish	M: 3 to 6 species of consumptive fish for
total of 3 fish per square meter with no fish	for a total of 3 fish per square	a total of 10 fish per square meter with up
of legal size to keep		to 50% of legal size to keep.
Up to 3 species of tropical/ornamental fish	M: 4 to 10 species of tropical/ornamental	L: Up to 3 species of tropical/ornamental
with a total of 3 fish per square meter	fish with a total of 10 fish per square	fish with a total of 3 fish per square meter
	meter.	
No Macroinvertebrates (conch, lobster or	H: 2 or more species of	M: 1 species of Macroinvertebrates with
urchins)	Macroinvertebrates (conch, lobster or	1 to 20 per square meter (urchins).
	urchins) 1 lobster, 1 conch, and 20 or	
	more urchins per square meter.	
No opportunity to see large wildlife (sharks,	L: No opportunity to see large wildlife	H: 2 or more species of
rays, turtles, manatees, dolphins)	(sharks, rays, turtles, manatees, dolphins)	Macroinvertebrates (conch, lobster or
		urchins) 1 lobster, 1 conch, and 20 or
		more urchins per square meter.
No opportunity to see or catch Sport/Trophy	H: Opportunity to catch or see	L: No opportunity to see or catch
fish (ladyfish, permit, bonefish, tarpon,	Sport/Trophy fish (ladyfish, permit,	Sport/Trophy fish (ladyfish, permit,
snook, jacks)	bonefish, tarpon, snook, jacks)	bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	L: Clarity/Visibility: Less than 10 feet	H: Clarity/Visibility: Greater than 50
		feet
Cleanliness: Not healthy for swimming	L: Cleanliness: Not healthy for	H: Cleanliness: Healthy for swimming
	swimming	
Depth of Reefs: Greater than 60 feet	H: Depth of Reefs: less than 20 feet	M: Depth of Reefs: 20 to 60 feet
Crowdedness: 21 or more people	H: Crowdedness: 0 to 10 people	M: Depth of Reefs: 20 to 60 feet
\$0	2	5
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)

Option A: Status Quo – No changes in management (All Low Conditions)	Option B	Option C
Corals and Sponges	Corals and Sponges	Corals and Sponges
No stony corals, only soft corals and sponges	L: No stony corals, only soft corals and sponges	H: 5 to 17 species of stony corals covering more than 20% and up to 100% of hard-bottom with over 90% to 100% live coral tissue.
Up to 4 species of soft corals for a total of 14 to 25 square centimeters per square meter	M: Up to 3 species of soft corals for a total of 4 to 14 square centimeters per square meter.	H: 1 species of soft corals for a total of less than 4 square centimeters per square meter.
Up to 4 species of sponges for a total of 7 to 15 square centimeters per square meter	Up to 3 species of sponges for a total of 2 to 7 square centimeters per square meter.	1 species of sponges for a total of less than 2 square centimeters per square meter.
Fish and Wildlife	Fish and Wildlife	Fish and Wildlife
Up to two species of consumptive fish for a total of 3 fish per square meter with no fish of legal size to keep Up to 3 species of tropical/ornamental fish with a total of 3 fish per square meter No Macroinvertebrates (conch, lobster or urchins) No opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins) No opportunity to see or catch Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)	M: 3 to 6 species of consumptive fish for a total of 10 fish per square meter with up to 50% of legal size to keep. H: 25 to 30 species of tropical/ornamental fish for a total of 20 to 100 or more fish per square meter. M: 1 species of Macroinvertebrates with 1 to 20 per square meter (urchins). H: Opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins) H: Opportunity to catch or see Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)	L: Up to two species of consumptive fish for a total of 3 fish per square meter with no fish of legal size to keep M: 4 to 10 species of tropical/ornamental fish with a total of 10 fish per square meter. L: No Macroinvertebrates (conch, lobster or urchins) L: No opportunity to see large wildlife (sharks, rays, turtles, manatees, dolphins) L: No opportunity to see or catch Sport/Trophy fish (ladyfish, permit, bonefish, tarpon, snook, jacks)
Water Conditions	Water Conditions	Water Conditions
Clarity/Visibility: Less than 10 feet	L: Clarity/Visibility: Less than 10 feet	M: Clarity/Visibility: 10 to 50 feet
Cleanliness: Not healthy for swimming	L: Cleanliness: Not healthy for swimming	H: Cleanliness: Healthy for swimming
Depth of Reefs: Greater than 60 feet	M: Depth of Reefs: 20 to 60 feet	H: Depth of Reefs: less than 20 feet
Crowdedness: 21 or more people	M: Depth of Reefs: 20 to 60 feet	H: Crowdedness: 0 to 10 people
\$0	2	1
(Cost to your household per year)	(Cost to your household per year)	(Cost to your household per year)