

Survey: Knowledge, Attitudes, and Perceptions of Hawaii's South Kohala Coral Reef Priority Site

TO BE READ BY SURVEYOR:

Aloha, my name is _____ with _____ and we are conducting a survey about peoples' knowledge, attitudes, and perceptions of coral reefs in this area. Do you mind if I ask you a few questions?

1. Do you live on the Big Island? **YES or NO** *(If yes, go to #3; if no, go to #2)*
2. How familiar are you with the resources, uses, and management of this stretch of the coast?
 Not at all A little Moderately Very

(If moderately or very familiar, go to #3)

3. Are you age 18 or older? **YES or NO** *(If yes, proceed with interview)*

IF ELIGIBLE TO PARTICIPATE: We're doing this survey to gain a better understanding of peoples' thoughts regarding coral reefs in this area – South Kohala Coast [show map of area]. The survey should take about 20 minutes and asks about your perceptions of coral reef and other resource conditions here and your attitude towards different management strategies. The goal is to provide federal and state managers and others working on plans in this area with better information from residents and users who are connected to this place. Your participation in the survey is voluntary. Your identity will remain anonymous and your responses will only be used and reported in combination with responses from other respondents.

Are you willing to participate? (I can either leave the form with you and pick it up when you're done, or read it to you in person).

I. SITE USE PATTERNS

1. **What is your primary purpose/activity for visiting the South Kohala Coast today?**
(e.g., fishing, swimming, diving, etc.)?

2. **Approximately how many times have you visited the South Kohala Coast?**
 First time 2 – 10 times 11 – 20 times > 20 times
- a. **If this is not your first time, how long have you been coming to the South Kohala Coast?**
 1 year 2 – 5 years 6 – 10 years > 10 years

3. What times of year do you visit the South Kohala Coast?

	Rarely or never	Sometimes	Often
a. Winter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Spring	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Summer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Fall	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. What activities do you participate in at the South Kohala Coast?

	Rarely or never	Sometimes	Often
a. Swimming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Surfing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Scuba diving	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Snorkeling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Camping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Boating (motorized)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Canoeing/kayaking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Sun bathing/hanging out	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Picnicking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Marine mammal watching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Thrill craft activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Aquarium fish collecting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Shoreline gathering	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Fishing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If so, which methods/gear types? _____

o. Other _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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II. KNOWLEDGE ABOUT SITE CONDITIONS

In this section, please indicate your beliefs and opinions regarding the general condition of each resource along the South Kohala Coast (the area shown on the map). Space is provided below each of the following questions (d) to make additional comments such as conditions at particular locations along the coast or time frame for changes you've observed.

5. Coral reef conditions/health along the South Kohala Coast

a. How much do you know about these conditions?

- I don't know anything I know a little I know a lot

b. How satisfied are you with the existing condition of coral reefs here?

- Not Satisfied Somewhat Dissatisfied Neutral Somewhat Satisfied Very Satisfied I don't know/ Not sure

c. In your opinion, the condition of coral reefs along the South Kohala Coast is:

- Declining Staying the same Improving I don't know/
Not sure

d. Additional comments about coral reef conditions/health along the South Kohala Coast:

6. Fish abundance (number or quantity of fish) in the coral reef areas along the South Kohala Coast

a. How much do you know about the existing number of fish here?

- I don't know anything I know a little I know a lot

b. How satisfied are you with the existing number of fish along the South Kohala Coast?

- Not Satisfied Somewhat Dissatisfied Neutral Somewhat Satisfied Very Satisfied I don't know/
Not sure

c. In your opinion, the number of fish along the South Kohala Coast is:

- Declining Staying the same Increasing I don't know/
Not sure

d. Additional comments about fish abundance along the South Kohala Coast:

7. Fish diversity (number of species or types of fish present) in the coral reef areas along the South Kohala Coast

a. How much do you know about the diversity of fish here?

- I don't know anything I know a little I know a lot

b. How satisfied are you with the existing diversity of fish along the South Kohala Coast?

- Not Satisfied Somewhat Dissatisfied Neutral Somewhat Satisfied Very Satisfied I don't know/
Not sure

c. In your opinion, fish diversity along the South Kohala Coast is:

- Declining Staying the same Increasing I don't know/
Not sure

d. Additional comments about fish diversity along the South Kohala Coast:

8. Water quality along the South Kohala Coast

a. How much do you know about water quality here?

- I don't know anything I know a little I know a lot

b. How satisfied are you with the existing water quality along the South Kohala Coast?

- Not Satisfied Somewhat Dissatisfied Neutral Somewhat Satisfied Very Satisfied I don't know/ Not sure

c. In your opinion, water quality along the South Kohala Coast is:

- Declining Staying the same Improving I don't know/ Not sure

d. Any additional comments about water quality along the South Kohala Coast:

9. Habitat for monk seal resting/sea turtle nesting along the South Kohala Coast

a. How much do you know about these habitats here?

- I don't know anything I know a little I know a lot

b. How satisfied are you with the existing condition of these habitats along the South Kohala Coast?

- Not Satisfied Somewhat Dissatisfied Neutral Somewhat Satisfied Very Satisfied I don't know/ Not sure

c. In your opinion, the condition of these habitats along the South Kohala Coast is:

- Declining Staying the same Improving I don't know/ Not sure

d. Additional comments about habitat for monk seal resting/sea turtle nesting along the South Kohala Coast:

10. Watershed conditions/health in areas upland from the South Kohala Coast

a. How much do you know about these watershed conditions here?

- I don't know anything I know a little I know a lot

b. How satisfied are you with the existing condition of watersheds along the South Kohala Coast?

- Not Satisfied Somewhat Dissatisfied Neutral Somewhat Satisfied Very Satisfied I don't know/ Not sure

c. In your opinion, the condition of watersheds along the South Kohala Coast is:

- Declining Staying the same Improving I don't know/
Not sure

d. Additional comments about watershed conditions/health along the South Kohala Coast:

11. Conflicts between resource uses or users along the South Kohala Coast

a. How much do you know about the presence of conflicts here?

- I don't know anything I know a little I know a lot

b. How would you describe the existing level of conflicts along the South Kohala Coast?

- High Medium Low I don't know/not sure

c. In your opinion, the level of conflict along the South Kohala Coast is:

- Declining Staying the same Increasing I don't know/
(fewer and/or (more and/or (more and/or Not sure
less serious more serious more serious
conflicts) conflicts)

d. Additional comments about conflicts along the South Kohala Coast:

12. Facilities along the South Kohala Coast

a. How much do you know about public use facilities along the South Kohala Coast?

- I don't know anything I know a little I know a lot

b. How satisfied are you with the existing facilities along the South Kohala Coast?

- Not Somewhat Neutral Somewhat Very I don't know/
Satisfied Dissatisfied Satisfied Satisfied Satisfied Not sure

c. In your opinion, the number/type/condition of the facilities along the South Kohala Coast is:

- Declining Staying the same Improving I don't know/
Not sure

d. What changes would you like to see in the number, type, or condition of public use facilities along the South Kohala Coast?

13. Where do you get your information about coral reefs along the South Kohala Coast? (Please be specific: e.g., name of newspaper, web site, specific community group, etc.)

a. Which of these do you rely on most? _____

III. POTENTIAL THREATS TO RESOURCES IN THE SOUTH KOHALA COAST

14. Shoreline alteration and development

a. What is the level of shoreline alteration and development?

- None/very little Moderate Extensive I don't know/
Not sure

b. To what extent do you feel it is a threat to the coral reefs in the area?

- Not at all Minor Major I don't know/
a threat threat threat Not sure

c. If you believe this is a threat, are there any specific locations or types of development that you feel are especially a problem? If so, please specify:

15. Fish feeding

a. To what extent is it occurring?

- Not at all A little A lot I don't know/
Not sure

b. To what extent do you feel it is a threat to the coral reefs in the area?

- Not at all Minor Major I don't know/
a threat threat threat Not sure

c. If you believe this is a threat, are there any specific locations where you feel this is especially a problem? If so, please specify:

16. Introduction or existence of invasive species (such as fish or algae)

a. To what extent are they present/being introduced?

- Not at all A little A lot I don't know/
Not sure

b. To what extent do you feel it is a threat to the coral reefs in the area?

- Not at all a threat Minor threat Major threat I don't know/ Not sure

c. If you believe this is a threat, are there any specific locations or species that you feel are especially a problem? If so, please specify:

17. Storms (high winds and waves)

a. To what extent do you feel they are a threat to the coral reefs in the area?

- Not at all a threat Minor threat Major threat I don't know/ Not sure

b. If you believe this is a threat, are there any specific locations where you feel this is especially a problem? If so, please specify:

18. Climate change effects on ocean conditions (Increasing temperatures, sea level, and acidity)

a. To what extent is it occurring?

- Not at all A little A lot I don't know/ Not sure

b. To what extent do you feel it is a threat to the coral reefs in the area?

- Not at all a threat Minor threat Major threat I don't know/ Not sure

c. If you believe this is a threat, are there any specific locations where you feel this is especially a problem? If so, please specify:

19. Erosion/sedimentation from uplands

a. To what extent is it occurring?

- Not at all A little A lot I don't know/ Not sure

b. To what extent do you feel it is a threat to the coral reefs in the area?

- Not at all a threat Minor threat Major threat I don't know/ Not sure

- c. If you believe this is a threat, are there any specific locations or sources that you feel are especially a problem? If so, please specify:

20. Chemical pollution from uplands (e.g., from batteries, paints, pesticides, herbicides)

- a. To what extent is it occurring?

Not at all A little A lot I don't know/
Not sure

- b. To what extent do you feel it is a threat to the coral reefs in the area?

Not at all Minor Major I don't know/
a threat threat threat Not sure

- c. If you believe this is a threat, are there any specific locations or sources of pollution that you feel are especially a problem? If so, please specify:

21. Organic pollution from uplands (e.g., animal and human waste)

- a. To what extent is it occurring?

Not at all A little A lot I don't know/
Not sure

- b. To what extent do you feel it is a threat to the coral reefs in the area?

Not at all Minor Major I don't know/
a threat threat threat Not sure

- c. If you believe this is a threat, are there any specific locations or sources of pollution that you feel are especially a problem? If so, please specify:

22. Unsustainable or inappropriate fishing practices

- a. To what extent is it occurring?

Not at all A little A lot I don't know/
Not sure

- b. To what extent do you feel it is a threat to the coral reefs in the area?

Not at all Minor Major I don't know/
a threat threat threat Not sure

- c. If you believe this is a threat, are there any specific locations or practices (whether legal or illegal) that you feel are especially a problem? If so, please specify:

23. Unsustainable or inappropriate coastal and marine recreational use (e.g, poor diving practices or boat operation by individuals and/or commercial operators)

- a. To what extent is it occurring?

Not at all A little A lot I don't know/
Not sure

- b. To what extent do you feel it is a threat to the coral reefs in the area?

Not at all Minor Major I don't know/
a threat threat threat Not sure

- c. If you believe this is a threat, are there any specific locations or practices that you feel are especially a problem? If so, please specify:

24. Have you ever observed an individual violating a fishing, boating, or resource law along the South Kohala Coast?

YES NO

- a. If yes, what was the infraction? (e.g., dumping, illegal fishing) _____

- b. Did you report it to anyone? Yes, I reported it to _____

No, I did not report it

- c. What was the outcome of this observation/reporting? _____

25. Do you have any additional comments about these threats? Please write below.

III. MANAGEMENT STRATEGIES

Listed below are a number of types of activities that could be undertaken or strengthened to improve resources along the South Kohala Coast and the associated watershed. For each activity, indicate how much you would support or oppose its implementation. Consider both the positive and negative impacts (for example, additional spending or restricting use).

26. Establish community-based subsistence fishing areas for the purpose of reaffirming and protecting fishing practices customarily and traditionally exercised for purposes of native Hawaiian subsistence, culture, and religion

- Strongly oppose Oppose Neutral Support Strongly support I don't know/ Not sure

27. Create new marine protected areas (no fishing allowed)

- Strongly oppose Oppose Neutral Support Strongly support I don't know/ Not sure

28. Change management of existing marine protected areas

- Strongly oppose Oppose Neutral Support Strongly support I don't know/ Not sure

a. What would you like to see changed? _____

29. Establish and train community education groups, such as Makai Watch

- Strongly oppose Oppose Neutral Support Strongly support I don't know/ Not sure

30. Increase enforcement officer presence

- Strongly oppose Oppose Neutral Support Strongly support I don't know/ Not sure

31. Increase signs describing regulations

- Strongly oppose Oppose Neutral Support Strongly support I don't know/ Not sure

32. Increase fencing and remove feral pigs, goats, and sheep in upland areas

- Strongly oppose Oppose Neutral Support Strongly support I don't know/ Not sure

33. Improve injection well and wastewater treatment facilities

- Strongly oppose Oppose Neutral Support Strongly support I don't know/ Not sure

34. Increase outreach and education (educate users and area residents regarding regulations, and encourage community involvement)

- Strongly oppose Oppose Neutral Support Strongly support I don't know/ Not sure

35. Develop an online system for public to report illegal activities

- Strongly oppose Oppose Neutral Support Strongly support I don't know/ Not sure

36. Engage local businesses and hotels in management processes and develop education materials for guests/tourists

- Strongly oppose Oppose Neutral Support Strongly support I don't know/ Not sure

37. Remove invasive marine species (such as fish and algae)

- Strongly oppose Oppose Neutral Support Strongly support I don't know/ Not sure

38. Remove non-native vegetation in coastal areas

- Strongly oppose Oppose Neutral Support Strongly support I don't know/ Not sure

39. Plant vegetation in barren areas to reduce runoff

- Strongly oppose Oppose Neutral Support Strongly support I don't know/ Not sure

40. Install sediment traps (and use other strategies) to reduce sediment and nutrient runoff from the land

- Strongly oppose Oppose Neutral Support Strongly support I don't know/ Not sure

41. Establish a recreational fishing license program with revenue dedicated to fisheries management

- Strongly oppose Oppose Neutral Support Strongly support I don't know/ Not sure

42. Change fishing regulations

- Strongly oppose Oppose Neutral Support Strongly support I don't know/ Not sure

a. What would you like to see changed? _____

43. Change regulations for other (non-fishing) recreational activities

- Strongly oppose Oppose Neutral Support Strongly support I don't know/ Not sure

a. What would you like to see changed? _____

44. Other: _____

- Strongly oppose Oppose Neutral Support Strongly support I don't know/ Not sure

45. Of these management strategies, which would be your top 3 priorities? Please write the numbers here.

_____ - _____ - _____

IV. MARINE MANAGED AREAS

46. How familiar are you with any specially managed marine areas (such as Fish Replenishment Areas, Fisheries Management Areas, Marine Life Conservation Districts) in the South Kohala Coast area?

- Not at all A little Very Extremely

47. Indicate your level of agreement or disagreement with the following statements about marine managed areas in the South Kohala Coast:

a. Marine managed areas in general are an effective tool for conserving coral reef fish and habitat.

- Strongly disagree Disagree Neutral Agree Strongly agree I don't know/ Not sure

b. I would support marine managed areas even if they restricted my ability to use this area.

- Strongly disagree Disagree Neutral Agree Strongly agree I don't know/ Not sure

c. There are strategies other than marine managed areas that would be more effective for conserving coral reef fish and habitat in the South Kohala Coast.

- Strongly disagree Disagree Neutral Agree Strongly agree I don't know/ Not sure

d. If you feel there are other strategies that would be more effective for management in this area, please specify: _____

V. BENEFITS/SERVICES

48. How would you rate the level of importance of the following potential benefits to you from the coral reefs in South Kohala Coast?

a. Food resources

- Not at all Somewhat Neutral Somewhat Extremely I don't know/

Important unimportant important important Not sure

b. Income/economic benefit

Not at all Somewhat Neutral Somewhat Extremely I don't know/

Important unimportant important important Not sure

c. Sense of community

Not at all Somewhat Neutral Somewhat Extremely I don't know/

Important unimportant important important Not sure

d. Cultural benefits

Not at all Somewhat Neutral Somewhat Extremely I don't know/

Important unimportant important important Not sure

e. Recreational benefits

Not at all Somewhat Neutral Somewhat Extremely I don't know/

Important unimportant important important Not sure

f. Aesthetic value

Not at all Somewhat Neutral Somewhat Extremely I don't know/

Important unimportant important important Not sure

g. Benefits from knowing it exists (existence value)

Not at all Somewhat Neutral Somewhat Extremely I don't know/

Important unimportant important important Not sure

h. Shoreline protection

Not at all Somewhat Neutral Somewhat Extremely I don't know/

Important unimportant important important Not sure

i. Habitat for fish and other species

- Not at all Somewhat Neutral Somewhat Extremely I don't know/
Important unimportant important important Not sure

j. Personal physical and spiritual health

- Not at all Somewhat Neutral Somewhat Extremely I don't know/
Important unimportant important important Not sure

VI. KNOWLEDGE OF PLANNING ACTIVITIES

49. Before this survey, were you aware of any conservation planning efforts for the South Kohala Coast being developed by local residents and a number of other agencies?

YES or NO

50. Are you a participant in any of these processes? YES or NO

VII. DEMOGRAPHIC INFORMATION

51. Where do you live? _____ **Zip code:** _____

52. Are you a member of any local or regional organizations, community groups, or clubs that are involved with marine or watershed resources in the South Kohala Coast?

YES or NO

a. If so, which one(s)? _____

53. What is your age group?

- Less than 25 years 45 to 54 years
 25 to 34 years 55 to 64 years
 35 to 44 years More than 64 years

54. What is your gender?

- Male Female

55. Are you of Hispanic, Latin, or Spanish origin?

- No, not of Hispanic, Latino, or Spanish origin
- Yes, Mexican, Mexican American, Chicano
- Yes, Puerto Rican
- Yes, Cuban
- Yes, another Hispanic, Latino, or Spanish Origin

56. How would you describe your race background? (check all that apply)

- | | |
|---|--|
| <input type="radio"/> Guamanian or Chamorro | <input type="radio"/> Filipino |
| <input type="radio"/> Native Hawaiian | <input type="radio"/> Samoan |
| <input type="radio"/> Other Asian or Pacific Islander (specify) _____ | |
| <input type="radio"/> White | <input type="radio"/> Black/African American |
| <input type="radio"/> Chinese | <input type="radio"/> Japanese |
| <input type="radio"/> Korean | <input type="radio"/> Vietnamese |
| <input type="radio"/> Asian Indian | <input type="radio"/> American Indian or Alaska Native |
| <input type="radio"/> Other (specify) _____ | |

VIII. OTHER

57. Please write any other thoughts or opinions you'd like to share with us regarding the management of the marine and watershed resources in the South Kohala Coast.

58. Would you like to receive a copy of the final report of this study? YES or NO

59. Would you like to be kept informed of opportunities to participate in management activities in the South Kohala Coast?

YES or NO

If you answered YES to either of these questions, please write an email or mailing address on the sheet provided by the surveyor, who will keep them separate from your survey responses.

THANK YOU! 😊

Public reporting burden for this collection of information is estimated to average 20 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing

the collection of information. Send comments regarding this burden estimate or any other suggestions for reducing this burden to Risa Oram, NOAA Pacific Islands Fisheries Science Center, 1601 Kapiolani Blvd. Suite 1000, Honolulu, HI 96814.

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