

# KNOWLEDGE, ATTITUDES, AND PERCEPTIONS OF TOURISTS AND COASTAL USERS IN MORRO BAY DEVELOPING AN EFFECTIVE SURVEY INSTRUMENT

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ON THE WEB AT <http://fiesta.bren.ucsb.edu/~morrobay/>

SPRING 2008

## Overview

This study collected data on the general recreational user in Morro Bay, California by developing and administering an intercept survey during the summer of 2007. The survey evaluated relationships between recreational activity choices, specific habitat interactions, perceptions of environmental quality, and expenditure patterns.

## Introduction

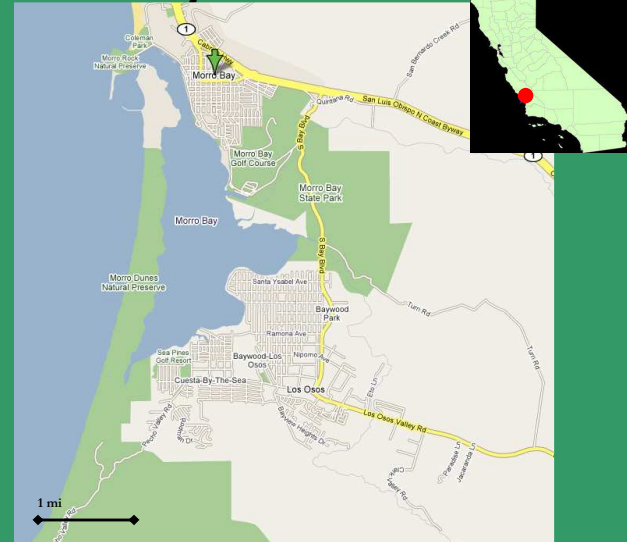
The economies of most coastal cities are strongly impacted by tourism and recreation. This study explores coastal recreation in Morro Bay, California, located within Central California's Estero Bay. Recreation and tourism clearly depend on the surrounding environment, but the effect of ecosystem conditions on the viability of these activities is not well established. The Bren Group Project developed a survey that evaluates the relationships between activity choices, habitat usage, perceptions of environmental quality, and recreational expenditure patterns.

## Project Development

The Bren Group Project supports the Economic Indicators Initiative of the San Luis Obispo Science and Ecosystem Alliance (SLOSEA).

The survey tool will help determine how attitudes and perceptions of coastal users on the Morro Bay waterfront are influenced by the condition of the surrounding ecosystem.

## Morro Bay



Source: <http://maps.google.com>

Morro Bay is a small coastal city located about 200 miles north of Los Angeles. Historically a fishing community, Morro Bay has become increasingly popular for other amenities, including shops, restaurants, and recreational activities such as bird watching, hiking, surfing, camping, and kayaking.

In conjunction with the goals of the Economic Indicators Initiative and the Coastal Ocean Values Center, the Bren Group Project defined the following objectives:

- Create an effective and repeatable survey instrument to:
  - o develop a profile of coastal visitors in Morro Bay,
  - o observe current perceptions of environmental quality of both residents and visitors,
  - o quantify local expenditures made by coastal users, and



- o explore relationships between perceptions of environmental quality, recreational activity choice, and expenditures.
- Document the survey creation procedure.
- Establish a formal survey protocol.
- Collect 200-400 usable surveys.
- Measure the success and accuracy of the survey instrument.
- Evaluate effectiveness of survey questions.
- Conduct preliminary analysis of the survey data.

## Survey Methodology

### Survey Development

The Morro Bay Coastal User Survey was developed in the following three phases:

#### Phase 1: Exploratory Survey

This six-question, one page survey gathered preliminary information about question form, survey method, and willingness of coastal users to participate in the survey. Information from the exploratory survey led to the creation of both a visitor and resident version of the Morro Bay Coastal User Survey.

#### Phase 2: Initial Draft

A three page survey intended for both visitors and residents in Morro Bay included two pages of questions and a map section. This initial draft survey was reviewed by the group's external advisors, leading to the addition of a Spanish language version for both residents and visitors.

#### Phase 3: Final Survey

The final survey was updated halfway through the summer survey period. The survey was updated to fix ambiguous questions, ultimately making the survey more user-friendly.

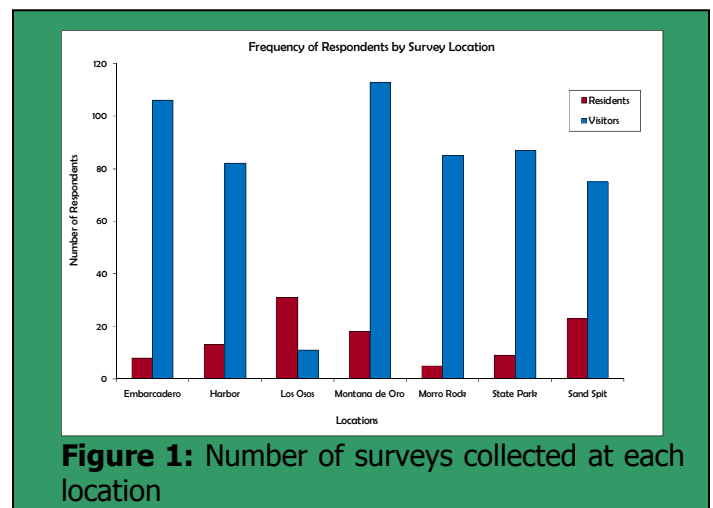
### Survey Administration

- Survey administration occurred during a ten-week period from the end of June to the beginning of September 2007.
- Seven locations representing different coastal habitats of Morro Bay were each surveyed according to an evenly distributed schedule.
- Surveys were administered during two of three predetermined time blocks throughout the day.
- Two surveyors administered all of the surveys by intercepting coastal users at each location.
- Survey respondents were given the option to fill out the survey by themselves or to be interviewed by the surveyor.



## Survey Statistics

Of the 681 surveys collected, 666 were considered usable and 15 were deemed unusable. Of the usable surveys, 107 were residents and 559 were visitors.



**Figure 1:** Number of surveys collected at each location



## Evaluating the Survey

1) The survey was evaluated for potential bias, especially in responses to questions about environmental perceptions and expenditures. Using a variety of statistical tests, the analysis showed very little bias between surveyors and also between interview and handout survey modes.

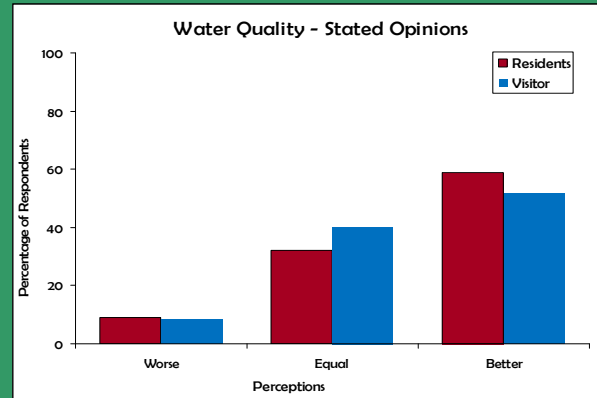
2) Various statistical methods were used to evaluate connections between environmental perceptions, activities, and expenditures.

## Results

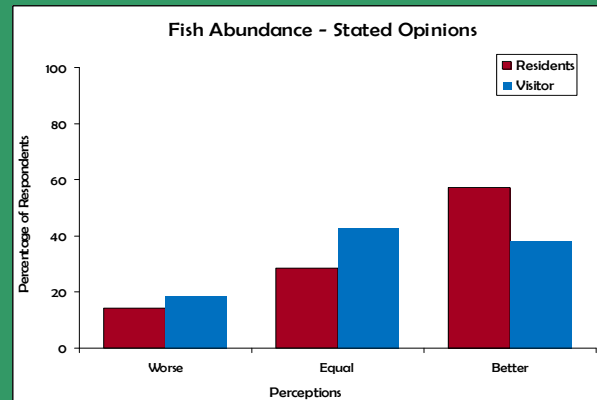
Both residents and visitors believe that Morro Bay has better environmental quality than other similar coastal areas south of Santa Cruz, as shown by responses to questions exploring five habitat characteristics (water quality, access to open space, and abundance of fish, birds, and other marine wildlife). One exception to this pattern of positive environmental perceptions was that respondents who participated in water-related activities (fishing, surfing, etc.) tended to have a more negative opinion of water quality compared to other coastal users. Overall, residents have stronger positive opinions of environmental quality, in terms of these five characteristics, than visitors.



The following two figures illustrate examples of environmental perceptions of Morro Bay compared to similar areas. The respondents were asked to rate Morro Bay compared to other areas as "better," "equal," "worse," or "not sure." All respondents that chose "not sure" did not state an opinion and are not included in the figures.

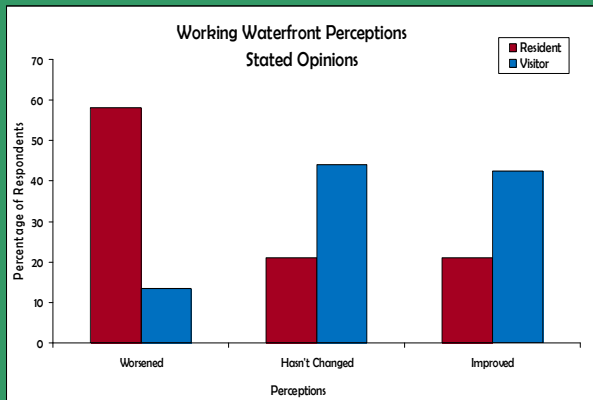


**Figure 2:** Stated opinions about environmental perceptions of water quality in Morro Bay compared to other similar coastal areas

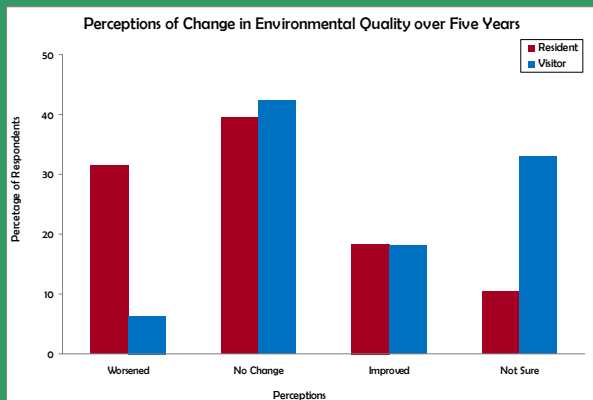


**Figure 3:** Stated opinions about environmental perceptions of fish abundance in Morro Bay compared to other similar coastal areas

Figure 4 shows perceptions of change in Morro Bay's working waterfront over the last five years. Of those respondents that were repeat visitors or residents for at least five years, 34% of visitors and 14% of residents did not state an opinion (chose "not sure" for an answer). Those who chose "worsened," "hasn't changed," or "improved" were categorized as having a stated opinion and were included in the figure below.



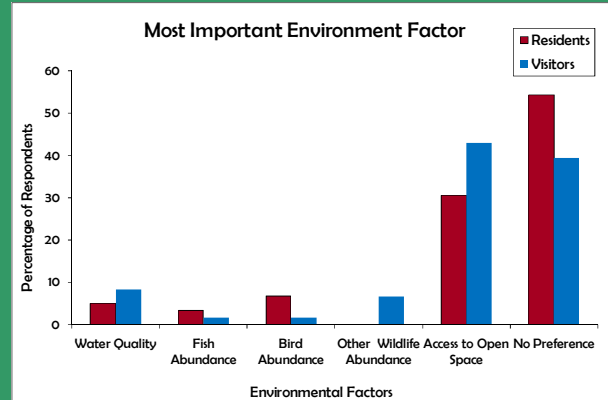
**Figure 4:** Stated opinions about perceptions of Morro Bay’s working waterfront from repeat visitors and residents for five years or more



**Figure 5:** Perceptions of change in environmental quality in Morro Bay over the last five years from repeat visitors and residents for five years or more

The preceding graph (Figure 5) shows stated opinions on how environmental quality has changed over the last five years in Morro Bay.

Respondents were also asked if any of the environmental factors listed (water quality, fish abundance, bird abundance, other marine wildlife abundance, or access to open space) played a role in their decision to visit Morro Bay or spend their leisure time in Morro Bay. Figure 6 shows the answers given by people who said that one of the factors did play a role in their decision to visit.



**Figure 6:** Most important environmental factor influencing the decision to visit Morro Bay (visitors) or the decision to spend leisure time in Morro Bay (residents)

## Conclusion

Repeated use of this survey instrument, with changes to some problematic questions, will yield unbiased time series data. Survey results will benefit the Coastal Ocean Values Center and the Economic Indicators Initiative, both of which are interested in identifying trends over time in coastal user perceptions and connections to the local economy. The Morro Bay Coastal User Survey can be employed by SLOSEA and the Coastal Ocean Values Center in many other coastal marine environments. The Morro Bay Group Project Team created a survey that fulfills current and future applications by our client.

## Acknowledgements

We would like to thank our clients, Dr. Linwood Pendleton and Allison Chan; our advisor, James Frew; and also Charlie Kolstad, Mike McGinnis, Gail Osherenko, Emily Macfarlane, Melanie Mosley, Bruce Kendall, Matthew Kotchen, Laura Grant, Don Maruska, Dean Wendt, SLOSEA, Henry Pontarelli, the Morro Coast Audubon Society, Rick Algert, and of course, the entire Morro Bay Community for taking our survey!