Testing and Refining Marina Siting Guidelines in Two Sites in Mexico

Don Robadue
Pamela Rubinoff

2002

Citation: Robadue, D., P. Rubinoff. 2004. Testing and refining marina siting guidelines in two sites in Mexico. Coastal Resources Center, University of Rhode Island. 8 pp.

For more information contact: Pamela Rubinoff, Coastal Resources Center, Graduate School of Oceanography, University of Rhode Island. 220 South Ferry Road, Narragansett, RI 02882
Telephone: 401.874.6224 Fax: 401.789.4670 Email: rubi@gso.uri.edu

The Marina Good Management Practices Project is a partnership of the Mexico Tourist Marina Association and the Coastal Resources Center. This publication was made possible through support provided by the David and Lucille Packard Foundation. Additional support was provided by the U.S. Agency for International Development's Office of Environment and Natural Resources Bureau for Economic Growth, Agriculture and Trade under the terms of Cooperative Agreement No. PCE-A-00-95-0030-05.

The David and Lucile Packard Foundation

Coastal Resources Center
University of Rhode Island

USAID
FROM THE AMERICAN PEOPLE

DRAFT

Note on Testing and Refining the Marina Siting Good Practice Guidelines in Two Sites in Mexico

D. Robadue, P. Rubinoff URI Coastal Resources Center
April 13, 2004

The main use of the Mexico marina siting good practice guidelines in preparation is to offer investors, the marina industry, communities, states, and the national government a practical, flexible approach to making better siting choices. The central hypotheses are that guidelines can be used:

to plan a marina in a single site,
to select among potential locations within a recreational harbor,
to compare potential sites in several harbors, and
to establish a general approach to evaluating marina and, by extension, many other kinds of coastal development.

There are several elements of the proposed approach that need to be discussed and adjusted to fit the coastal environments likely to receive marina proposal. These should be the focus of exercises in at least two different areas to accomplish the following:

1 *Review and adjust the marina siting tables for each site*. The types of water and land coastal features need to be reviewed to make sure they are relevant. There in fact might be importance differences among the Northwest, Gulf of Mexico, Caribbean, and Southern Pacific coasts.

2 *Identify or simulate area-wide development policies for the region where the suitability of marina development is to be tested*. The approach requires that some prior water and land development policies are already in place. This may not be the case for sites in the Gulf of California, for example. Site selection exercises might be carried out using reasonable assumptions for low, moderate and high-density development scenarios for a harbor area.

3 *Compile information about the recreational harbor.* Good information about the location of water and land coastal features needs to be assembled, and mapped if possible, including water depth, bottom types, dredged and natural channels, shoreline types.

4 *Identify candidate marina project types and their associated actions.* These might include new proposals from government or private sector development plans, typical *marinas* that already exist in the area or through interviews and a workshop exercise.

5. *Identify candidate marina sites, by screening for those with the fewest number of restrictions for each of the different candidate marina types.* This could be done in a workshop setting (see suggested workshop program below), to generate views from business, land use, social and environmental perspectives. It might be useful to examine

each existing marina to see how the actual siting decisions compare with what the matrices and good practices might suggest.

6. *Assessing the siting tool and make recommendations for application to larger areas and additional locations*

   A brief report should be prepared which shows the results of the selection process, as well as documentation of how the process worked, what adjustments were made during the course of the exercise.

EXAMPLE SITE EXERCISE WORKSHOP AGENDA

Objectives:

To introduce, review and refine conceptual elements of the proposed marina siting guidelines, compare with proposed NOM for marinas and ports as appropriate.

To use the guidelines in setting policies for marina development in specific coastal locations based upon available information and participant expertise.

To assess the potential applicability, usefulness and weaknesses of the guidelines and application procedures in planning and siting.

To obtain recommendations for improving the guidelines as well as procedures for their practical application.

Participants:

A collegial mix of individuals, perhaps 8-15 total, with expertise, experience and interests in the planning area and marina siting, from private sector, academia, NGOs, public officials, community and user groups who are interested in and relatively open- minded about improving the siting process.

Local Counterpart:
A local meeting coordinator /co-facilitator will be needed to organize local participation, assemble available site specific information assist in preparation, facilitation and summarizing results. The counterpart should be knowledgeable about the environmental characteristics and conditions of the proposed workshop case study site, and also able to convene a good mix of stakeholders representing a diversity of perspectives and knowledge.

Activities:

Activity 1 (15') **Introduction to workshop**

Review of the Marina Good Practices Project and related materials and ongoing activities
Goals of the workshop, overview of the schedule
Participant introductions

Activity 2 (50') **Introduction/ Discussion of the Marina Siting Guidelines Document**

Overview presentation of the document (20 minutes)
Participant questions and comments on the document and experiences on marina and port siting (30 minutes)

Activity 3 (60') **Review the Marina Siting Tables**

In plenary, review and adjust the basic marina siting tables for the site including:
The types of water and land coastal features
The types of marina development activities
The expected impacts
The mitigating measures

BREAK (20') Set up for Morning group exercise

Activity 4 (15'/ 25') **Overview of the case study site (s)**

A slide presentation (with handout, and each working group will have working map with key features noted) covering the coastal features and uses as well as any existing government plans and policies.

Activity 5 (60'-90') *Group work:*

Participants will be divided into 2 -3 small groups.
Charge to groups: Consider 3 *candidate marina project types and their associated actions* as described in the provided fact sheets.
Identify the regions of the study area that:
clearly are OFF LIMITS to marinas
clearly are READY TO DEVELOP with minor development restrictions and mitigating measures.
have marina potential but also one or more serious restrictions that need to be addressed.

Activity *6. (*60'-90') **Groups report out** on their conclusions for the study area.

Review each group to see if there is a consensus on sites that are clearly OFFLIMITS.
Explore reasons for differences (information weaknesses, disagreements on identification of features or whether they would be affected, etc)

Focus on sites with POTENTIAL BUT RESTRICTIONS. Explore the suggested mitigation measures, and discuss the implications of such changes to the economic viability of the different marina types.

Activity 7. *Assessing the siting tool and making recommendations for application to larger areas and additional locations*

The plenary reflects on the results of the day, making analogy wherever possible to the way marina/recreational harbor siting and development currently, making recommendations on the guidelines, the utilization process, integrating the approach into current land and water planning.

Workshop leaders should review action steps to capture workshop results and communicate results.

EXCERPT FROM DRAFT ON SITING GUIDELINES

1. A DECISION-MAKING TOOL FOR MARINA SITING

The basic approach for screening a particular site for its suitability is shown in the following decision matrix. Each major marina construction activity will take place in water or land. There are several possible features in the water as well as on the land that might be harmed by one or more of these activities. Each combination of coastal feature, and proposed activity can be assessed in general terms to determine whether it is allowable, allowable only if special restrictions are imposed, or simply need to be prohibited.

	In-water coastal features affected	**On-land coastal features affected**
Marina Construction Activity	*Potential decisions:* Allowable, (YES) Allowed with restrictions (LIMITED)or Prohibited (NO)	*Potential decisions:* Allowable, (YES) Allowed with restrictions (LIMITED)or Prohibited (NO)

This method allows one to define a marina project, and examine a given location for that type of project to make a quick assessment of how suitable the site is, keeping in mind that the fewer restrictions and prohibitions there are, not only will the marina have a low-impact, but it will be relatively less expensive to build and maintain. The table can also be used to compare two or more candidate sites to see which offers the fewest development restrictions, either within a harbor or bay, or in completely different locations. Finally, with the aid of computer assisted mapping, and a sufficient baseline of site information, potential sites in a wider area of interest could be compared.

A full table is shown in Table 1. This example addresses seven in-water coastal features and eight on-land features, as well as twenty-two typical marina construction activities that could affect those features. Many of the cells (124 in total) are labled NA, that is, the combination does not occur in practice. Many others contain a simple yes (79) or no (80). However, in this example, 47 of the 330 cells are labled “varies”, that is, the activity might be allowable under restrictions in the coastal feature, depending on what a municipality or state has determined its future land use to be.

TABLE 1 MARINA SITING CRITERIA Allowable uses depending on the location of the project

Key: Yes = allowed use, No = not allowed use, NA = not applicable, Varies (color shaded) = will vary by Development policy type

	INWATER SITES							LAND SITES							
PHYSIOGRAPHIC FEATURE	Tidal waters	Seagrass beds	Shellfish areas, aquaculture sites	Coral reefs and lagoons	Hard bottom	Mangroves	Coastal wetlands	Beaches and dunes	Headlands and bluffs	Undeveloped barriers	Moderately developed barriers	Developed barriers	Rocky shore line	Manmade shoreline	Areas of historical importance
MARINA CONSTRUCTION ACTION															
Anchorages	Varies	Varies	Varies	NO	Varies	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mooring areas	Varies	Varies	Varies	Varies	YES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Floating marinas	Varies	Varies	Varies	NO	Varies	NO	NA	NA	NA	NA	NA	NA	NA	NA	NA
Docks---in water	Varies	Varies	Varies	NO	Varies	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mooring of floating businesses	Varies	Varies	NO	NA	YES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Residential docks and piers	Varies	Varies	Varies	NO	Varies	NO	YES	NO	NO	NO	YES	YES	NO	YES	Varies
Dredging for improvements	Varies	Varies	Varies	NO	NO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dredging for maintenance	YES	YES	YES	NO	NO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dredged material disposal	Varies	NO	NO	NO	NO	NO	NO	YES	NO	YES	YES	YES	NO	YES	YES
Beach nourishment	NA	NO	NA	NO	NA	NO	NO	YES	NO	YES	YES	YES	NO	YES	YES
Filling of tidal waters	Varies	Varies	Varies	NA	Varies	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Filling and removing of shoreline	NA	Varies	Varies	NO	YES	Varies	Varies	Y	NO	NO	YES	YES	YES	YES	YES
Bulkheading, hard wall, rip rap rock	Varies	Varies	Varies	NO	Varies	Varies	Varies	Varies	NO	NO	YES	YES	YES	YES	YES
Non-structural protection	NA	NA	NA	YES	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES
Sewage system, pumpouts	NA	NA	NA	NO	NA	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES
Fuel transfer	NA	NA	NA	NO	NA	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES
Launch ramps	NA	NA	NA	NO	NA	Varies	NO	NO	NO	NO	YES	YES	YES	YES	YES
Travel lift well	NA	NA	NA	NO	NA	Varies	Varies	NO	NO	NO	YES	YES	YES	YES	YES
Boat storage structures	NA	NA	NA	NA	NA	NA	NO	Varies	NO	NO	YES	YES	YES	YES	YES
Dry land storage	NA	NA	NA	NO	NA	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES
Boat repair	NA	NA	NA	NA	NA	NO	Varies	NO	NO	NO	YES	YES	YES	YES	YES
Dry land structures and amenities	NA	NA	NA	NA	NA	NO	Y	Varies	NO	NO	YES	YES	YES	YES	YES