

Sustainable Coastal Development
La Escalera Náutica: A Mega-tourism Project on the Baja California Peninsula

A Briefing Book
February 2003

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Suggested form for citation: Dean, Kama and Pesenti, Chris. *Sustainable Coastal Development, The Escalera Náutica, A Mega-tourism Project on the Baja California Peninsula*. Available at www.propeninsula.org. February 2003.

1. INTRODUCTION.....	1
1.1. PURPOSE OF THE BRIEF	1
2. BACKGROUND.....	2
2.1. THE HISTORY OF THE ESCALERA NÁUTICA PROJECT	2
2.2. PROJECT DETAILS	2
2.3. THE PROJECT IN CONTEXT	8
2.3.1. <i>The History of FONATUR</i>	8
2.3.1.1. FONATUR Resorts.....	9
2.3.1.2. FONATUR Resorts and Demand	11
2.3.2. <i>Other Concerns</i>	12
2.3.2.1. Overestimation of Demand.....	12
2.3.2.2. Social Impacts.....	12
2.3.2.3. Land Acquisition.....	13
2.3.2.4. Drug Trafficking.....	14
3. ENVIRONMENTAL ASSESSMENT OF THE PROJECT.....	15
3.1. NATURAL PROTECTED AREAS	15
3.1.1. <i>Natural Protected Area Valle de los Cirios</i>	16
3.1.2. <i>El Vizcaíno Biosphere Reserve</i>	17
3.1.3. <i>Natural Protected Area Islas del Golfo, UNESCO Biosphere Reserve</i>	17
3.1.4. <i>Alto Golfo de California y Delta del Río Colorado Biosphere Reserve</i>	18
3.1.5. <i>Loreto Bay National Park</i>	19
3.1.6. <i>Cabo Pulmo National Park</i>	20
3.2. AFFECTED SPECIES	20
3.2.1. <i>Sea Turtles</i>	20
3.2.2. <i>The Whale Shark</i>	20
3.3. WATER SCARCITY, ENERGY, AND SOLID WASTE.....	21
4. INSTITUTIONS.....	23
4.1. INTERNATIONAL INSTITUTIONS.....	23
4.1.1. <i>MAB/UNESCO Biosphere Reserve</i>	23
4.1.2. <i>The World Heritage Committee</i>	24
4.2. FEDERAL INSTITUTIONS	24
4.2.1. <i>FONATUR</i>	25
4.2.2. <i>SEMARNAT</i>	25
4.2.2.1. SEMARNAT Sub-agencies	26
4.2.3. <i>Other Agencies Involved</i>	27
4.2.3.1. Secretariat of Communications and Transportation (SCT)	27
4.2.3.2. SECTUR (Secretary of Tourism).....	27
4.3. PROTECTED AREAS MANAGEMENT.....	27
5. CIVIL SOCIETY	29
5.1. INTERNATIONAL GROUPS.....	29
5.2. NATIONAL GROUPS.....	29
5.3. BAJA CALIFORNIA PENINSULA GROUPS.....	29
5.4. BAJA CALIFORNIA PENINSULA COMMUNITIES	30

6.	REGULATORY ENVIRONMENT	31
6.1.	MEXICAN LEGISLATION	31
6.2.	LEGISLATION APPLICABLE TO NATIONAL PROTECTED AREAS.....	31
6.3.	ADDITIONAL MEXICAN REGULATORY CONTEXTS	32
6.4.	INTERNATIONAL REGULATION.....	32
7.	POLITICAL ECONOMY OF THE ESCALERA NÁUTICA	33
7.1.	POLITICAL ENVIRONMENT	33
7.2.	PROJECT FINANCING	33
7.3.	ECONOMIC FOCUS OF THE BAJA CALIFORNIA PENINSULA	34
7.3.1.	<i>Baja California Economy</i>	34
7.3.2.	<i>Ecotourism and Other Affected Industries</i>	35
7.3.3.	<i>Alternatives</i>	37
8.	ABOUT THE AUTHORS	39
9.	REFERENCES.....	40
10.	LIST OF APPENDICES	46

1. Introduction

The primary allure of the Baja California peninsula is its unspoiled natural beauty. It is an area of solitude, with sheltered coves, unspoiled beaches and rugged hills and deserts. The Escalera Náutica project could potentially destroy these natural assets. This project includes creating 10 new ports, expanding 12 existing ports, building 12 new golf courses, expanding 20 existing airports or airfields and developing a network of roads and highways. FONATUR (Mexico's tourism promotion agency) believes that the Escalera Náutica will attract approximately 52,000 yachts a year and 5,400,000 tourists over the next 15 years, nearly 10 times the estimated current traffic.

Without careful scrutiny and enforcement of existing environmental laws, development of this magnitude, along with the resulting influx of people, will undermine the rare ecology and stark natural beauty that make the peninsula unique. Currently the peninsula hosts a Natural World Heritage site, three biosphere reserves, essential turtle habitats and gray whale nurseries; each of which would be irreversibly scarred by the proposed project. Development of the Escalera Náutica could also adversely affect the communities on the peninsula, which have not been adequately consulted nor informed of the project. Many of these small communities have begun to develop and depend on the eco-tourism market. Hikers, bikers, kayakers and nature-watchers from all over the world come to this area because of its solitude and natural beauty. Fishing is also an important industry within many small communities on the peninsula. Poorly planned development of the peninsula, the construction of ports and an influx of boaters will destroy the eco-tourism and local fishing markets on which many communities depend.

1.1. Purpose of the Brief

Pro Peninsula has compiled this fact brief in order to fill the informational void surrounding the Escalera Náutica project. Our goal is to offer the public and policy makers a document that presents, in a logical and concise manner, all of the available information about the project, its possible effects, and the agencies and organizations that are involved. This document is meant to inform the public locally, nationally and internationally. By disseminating information to local and international groups, as well as the Mexican and U.S. public, we will be providing a tool meant to empower individuals, organizations, and communities to effectively promote the best interests of the region in a sustainable manner.

Pro Peninsula has been researching the Escalera Náutica project for approximately one year. In those twelve months a myriad of information has been collected, much of which has been conflicting or proven to be false. We have worked to sift through all of the information gathered in order to present a clear and accurate description of the project. However, due to the large amount of inconsistent and changing data, it is possible there will be conflicting and/or outdated information within this brief. We welcome any input to clarify inconsistencies or developments, and will include this information in periodic updates of the brief available on our website: www.propeninsula.org.

Pro Peninsula thanks Patagonia and the David and Lucile Packard Foundation whose support and dedication to the Baja California peninsula made production of this brief possible.

2. Background

2.1. *The history of the Escalera Náutica project*

The Escalera Náutica was conceived in the 1970's when an international panel of investors organized to discuss speculation in the project, studies were performed and the peninsula was mapped to locate placement of the marinas now being promoted. Panel members mostly represented companies from the U.S., including Atlantic Richfield (ARCO), and were backed by U.S. Senator Jacob Javits of New York. This organization created a fund known as ADELA, in order to study the feasibility of the Escalera Náutica project. ADELA had several projects, among them a strategic alliance with Crocker Land and other companies to develop Baja California, which was to include marinas and infrastructure projects such as desalination plants.¹ The information for the foundation of the Escalera Náutica (known at the time as the Baja California Peninsula Study), was presented in 1973 at Los Pinos to the Presidential administration of Luis Echeverría Álvarez. The Mexican ideology at that time was unwelcoming to the prospects of foreign developers coming into Mexico, and the project was abandoned.

The plans for the Escalera Náutica have floated around since then, and most recently President Fox inherited the project from the previous administration of President Zedillo, which had inherited it from its predecessors. There have been decades of proposals and plans to “detonate” tourism in the northwest region of Mexico, and specifically on the Baja California peninsula. Implicit in this is that the Federal Government has been in charge of the project, and the states (Baja California, Baja California Sur, Sonora and Sinaloa) have come in subsequently.

On February 21st, 2002 at a meeting in La Paz, Baja California Sur, a document was signed by the governors of the four states giving the go ahead to continue with current plans for a development project “that represents the possibility of a new impulse economic integration, generation of investment opportunities, local creation of uses and developments in the coastal zones of the four States.”² A short time after the February 2002 meeting, FONATUR Secretary John McCarthy announced to investors, both foreign and domestic, that the project was under way and had the support of the President and the federal and state governments. In this same announcement, McCarthy announced that in order to protect natural resources, “the master plan of the project has a special franchise license rule to regulate the tourist activity. This system may allow the Government to have a better control of the nautical and tourism activities and its relationship with the ecosystem.”³

2.2. *Project Details*

The Escalera Náutica concept, championed by the Mexican tourism development agency FONATUR (National Fund for Tourism Promotion) and the current Fox administration, is to create a chain of 24 marinas to provide North American yachters with the means and

¹ Osio, Patrick. “Day-Tripping Baja By Boat.” The Connection, May 2001. Available at <http://www.sandiegometro.com/2001/may/connection.html>.

² “The Escalera Náutica will be detonating of development: Cota.” Escalera Náutica Website, 2001. Available at <http://www.escaleranautica.com/news2.html#8>.

³ “Escalera, Great Opportunities for Investors: McCarthy.” Escalera Náutica Website, 2001. Available at <http://www.escaleranautica.com/news2.html#8>.

motivation to make the long journey south to Baja California and Baja California Sur. The development of an array of tourism-related services would accompany the marinas, including the planned construction of at least 12 new golf courses, the expansion of 20 existing airports/airstrips, and the construction of new hotels, facilities, and real estate developments. FONATUR predicts that annually, the Escalera Náutica will attract approximately 52,000 yachts carrying 1,000,000 visitors to the region (over 10 times the current number of annual visitors) to fill its planned 10,400 new hotel rooms.⁴ FONATUR's plan calls for a phased development of the Baja California peninsula (as well as the coast of Sonora, Sinaloa, and Nayarit). The project seeks to utilize existing facilities, including marinas and airports, improve and upgrade facilities not capable of handling tourist traffic, and to construct new marinas and facilities in areas where none previously existed.

Unfortunately, FONATUR has been reluctant to provide any detailed information to the public regarding the specific developments to take place, but pledged to release its first batch of Environmental Impact Assessments (EIAs) at the end of 2002. The agency has produced a series of power point presentations which allow some insight as to what developments are planned in select spots.⁵ However, the changing nature of the information on these slides (FONATUR has changed the sites to be developed in both Baja California at Puerto San Carlos/Punta Canoas and Baja California Sur at Loreto/Puerto Escondido) demonstrates the agency's unfamiliarity with the region and even with its own plans. A summary of development activities follows.

Existing ports

Five existing ports capable of providing all the services for yacht tourism will be incorporated into the project:

- Ensenada, B.C.
- Cabo San Lucas, B.C.S.
- La Paz, B.C.S.
- Guaymas-San Carlos, Son.
- Mazatlán, Sin

Seven Ports to be upgraded

- San Felipe, B.C. (within the Alto Golfo Biosphere Reserve)
 - Pto. San Carlos, B.C.S. (within Valle de los Cirios ANP)
 - Pto. Loreto or Pto. Escondido, B.C.S. (within Parque Nacional Bahía de Loreto)⁶
- It is still unclear whether FONATUR intends to use Loreto, Puerto Escondido, or both sites. Puerto Escondido was previously targeted unsuccessfully by FONATUR and a

⁴ Sandoval, Richard. "Mexico's Escalera Náutica Project Includes 10,400 Hotel Rooms, Ultimately Cost about \$1.7 billion; Government's Most Ambitious Plan Since Creating Cancun in the 1970s." Knight Ridder/Tribune Business News. November 20, 2002. http://www.hotel-online.com/News/PR2002_4th/Nov02_Baja.html.

⁵ Pro Peninsula obtained a CD-ROM containing several FONATUR presentations that contains some detail of development plans at several sites. These files can be found in Appendix C and at www.propeninsula.org.

⁶ The management plan for Loreto National Marine Park states that the following are prohibited in areas of protection (mangroves of Escondido and Ligui): disposal of fishing remains, jet ski transit, construction of infrastructure for fish, tourist, or research camps, human dwellings, marinas and artificial structures for touristic or fishing purposes. Source: SEMARNAT, Programa de Manejo Parque Nacional Bahía de Loreto. 2000. Available at http://www.ine.gob.mx/ueajei/publicaciones/consultaListaPub.html?id_tema=4&dir=Temas, p.48 [hereinafter "Loreto Management Plan."]

group of French developers as a site for a luxury marina and large scale real estate development. A run-down marina and an abandoned trailer park remain. FONATUR plans show two possible marina schemes, one internal and one external. Development plans include: Condominiums (60 rooms), two Condo-hotels (240 rooms total), 3 portside hotels (320 rooms total), Embarcadero all-inclusive hotel (240 rooms), one 9 hole and one 18 hole golf course, entertainment center and commercial center. FONATUR has signed an accord with the Trust for Sustainable Development to develop the Bay of Nopolo just south of Loreto. More information can be found at www.tsd.ca, and a map of the proposed development is included in Appendix A of this document.

- Mulegé, B.C.S.
- Santa Rosalía, B.C.S.
- Pto Peñasco, Son. (within the Alto Golfo Biosphere Reserve)
- Topolobampo, Sin.

Construction of twelve new full service ports

Baja California sites

- **Cabo Colonett and/or Santa María, B.C.**

Cabo Colonett

Actual status: Several seasonal fishing shelters exist near the beach. Large scale agricultural developments are found in the arroyo leading back from the beach up to highway 1.

Planned development: Local fishermen have been told that a dock will be constructed at the site.⁷

Santa María

Actual status: A La Pinta Hotel exists at the proposed site (San Quintín).

Planned development: FONATUR plans to build a marina and real estate development adjacent to the La Pinta hotel.⁸

- **Puerto Canoas, B.C.** (within Valle de los Cirios ANP)

Actual status: Some seasonal fish camps exist.

Planned development: Development of the site is unlikely as it would require paving of roughly 45 miles of treacherous and currently unpaved road. FONATUR will probably opt to use Puerto San Carlos, B.C. instead.

- **Santa Rosaliíta⁹, B.C.** (within Valle de los Cirios ANP)

Actual status: Marina construction has been completed and work crews are continually dredging the entrance. Five hectares obtained by FONATUR, donated by José MacLish.

⁷ Conversation with local fishermen, October 2002.

⁸ SECTUR. Informe Puertos Marítimos, slide 3. March, 2002. Please see Appendix C for a copy of this presentation.

⁹ Santa Rosaliíta can also be spelled Santa Rosalillita.

Planned development: FONATUR plans to negotiate with the state government to acquire an additional 33 hectares of coastline property.¹⁰ Currently, the town of Santa Rosalíita resides on much of the land to be acquired.

- **Bahía de los Angeles, B.C.** (within Valle de los Cirios ANP and adjacent to the Islas del Golfo Biosphere Reserve)¹¹

Actual status: This town of about 750 people is supported by commercial and sport fishing, visiting researchers, and the growing number of ecotourists that visit the bay in search of turtles, whales, and the whale shark. The town boasts several hotels, stores and restaurants and a boat ramp exists at the south end of town. While no Pemex station exists gas can be purchased from barrels at two locations. Campsites on the north and south ends of town are frequented by researchers and ecotourists.

Planned development: FONATUR is currently evaluating 9 sites for real estate development potential, from north of the town at Punta la Gringa, to Puerto Don Juan. Currently, only two of these sites have any installed infrastructure. FONATUR has already named this development of Bahía de los Angeles “Coronado.” Plans include development of: Logistical installations for the terrestrial bridge, 5 low intensity recreational marinas, 5 small scale hotel installations – associated with the marina, 2 small scale hotel installations – not associated with the marina, 2 installations of trailer park and camping facilities (north and south of town, away from facilities already in place), development of an urban center to the south of town, and the creation of a nature interpretation center north of town.¹²

- **San Luis Gonzaga, B.C.** (within the Valle de los Cirios ANP)
Actual status: The town contains two airstrips, one hotel, one market, two restaurants and two campsites. In 1999 a Pemex station was installed but closed shortly thereafter. The area is mostly populated by Americans that lease coastal land (part of which is federal property) from the Fernandez family and Alfonsina, who owns and operates the hotel and restaurant, and is the leaseholder from the federal government.

Planned development: FONATUR officials have visited the site but have released no information as to the development plans for the area.

Baja California Sur sites

- **Bahía Tortugas, B.C.S.** (within the Vizcaíno Bisosphere Reserve)
Actual status: Bahía Tortugas, pop 2,437, is a popular stop for boaters heading down the Pacific coast as it is one of the few spots with direct fueling facilities between San Diego and Cabo San Lucas.¹³ The town has a paved runway, making it a destination for pilots as well. The town is home to a fishing cannery and several hotels.

Planned development: Unknown

¹⁰ SECTUR. Informe Puertos Marítimos, slide 5.

¹¹ Bahía de los Angeles, including the land area around the city, the bay and the islands within the bay, is currently being considered for National Park Status.

¹² SECTUR, Informe Puertos Marítimos, slide 17, March, 2002.

¹³ Baja California, (Lonely Planet Publications, 2001), p.216.

- **Punta Abreojos, B.C.S.** (within the Vizcaíno Biosphere Reserve)
Actual status: Punta Abreojos, population 742¹⁴, is a small fishing village within the Vizcaíno Biosphere Reserve and home to the Abreojos fishing cooperative. In the years 1998-2000 Punta Abreojos saw the annual value of its fisheries production rise over 23% to a yearly total of \$3,345,694 in 2000.¹⁵ In recent years the community has undertaken an environmentally sustainable aquaculture project focused on oyster production. In addition to this, as one of the most renowned spots in B.C.S. for surfing and bird watching, the environs of Punta Abreojos present a high potential for market development in the areas of naturalism and ecotourism. The town has four restaurants, one developed camping area and a number of informal camping areas. While rooms are available for rent, there are no formal hotels in town. Punta Abreojos is supported by its local environmental organization CADERNABB.¹⁶

Planned development: Unknown

- **San Juanico, B.C.S.**
Actual status: This site is home to Promotora Punta Pequeña, a low impact tourism installation focused on surfing.

Planned development: Unknown

Sonora sites

- **Bahía Kino, Son.**
- **Huatabampito, Son.**

Sinaloa sites

- **Altata, Sin.**
- **Teacápan, Sin.**

Development of road infrastructure

FONATUR is planning and has begun construction of a four lane terrestrial bridge for transfer of boats from the Pacific coast to the Sea of Cortés between Santa Rosalíita and Bahía de los Angeles. FONATUR also plans infrastructure development to facilitate the road transfer of towable boats between Mexicali and San Felipe (154 kms). Plans also indicate a trailer route for transport of boats from San Felipe through to San Luis Gonzaga (74 miles) and on to just north of the junction of Bahía de los Angeles (36 more miles). These sections of road are currently unpaved. Additionally, improvement of highways is planned for access and supplying to the new ports of shelter in Pto Canoas (45 miles), Bahía de Tortugas (117 kms), Punta Abreojos (54 miles) and San Juanico (65 miles).

Airport Development

¹⁴ Subsecretaria de Planeación y Desarrollo, Gobierno del Estado De Baja California Sur. Compendio Estadístico 1998-2000. June, 2001, p.63.

¹⁵ Ibid, p.177. This figure uses a December 2002 average exchange rate of 9.49peso/\$.

¹⁶ Comité Abrejeño para la Defensa de los Recursos Naturales de Bahía Ballenas, A.C.

The integration of the nautical tourism developments to an airport network is also planned, constituted by ten existing airports and ten uncontrolled airstrips. The ten airports, which will be part of Escalera Náutica, are:

Ensenada, B.C.
San Felipe, B.C.
Pto Escondido, B.C.S.
La Paz, B.C.S.
Cabo San Lucas, B.C.S.
Hermosillo, Son.
Guaymas-San Carlos, Son.
Los Mochis, Sin.
Culiacán, Sin.
Mazatlán, Sin.

There are two existing airfields to incorporate, and eight airfields in need of improvement:

San Luis Gonzaga, B.C.
Bahía de los Ángeles, B.C.
Santa Rosalita, B.C.
Bahía de Tortugas, B.C.
Cabo San Lucas, B.C.S.
La Paz, B.C.S.
Punta Abreojos, B.C.S.
Puerto San Carlos, B.C.S.
Mulegé, B.C.S.
Santa Rosalía, B.C.S.
Puerto Peñasco, Son.

Establishment of Franchises

FONATUR and the Secretaria de Comunicación y Transporte (SCT) plan to create a franchise system for four main reasons: (1) to guarantee high quality standards, (2) to have a reservation system, (3) to rely on world-class safety conditions and (4) to carry out an internationally focused promotion with the support of the Tourism Promotion Counsel of México.¹⁷

FONATUR and SCT claim that the franchise system will conserve nature and integrate a chain of nautical, air, and tourist services and installations that will allow for international promotion and service, while offering security to travelers and facilitating travel to the country through one access point. Plans for this franchise system have yet to be released.

Floating Marinas

In recent statements FONATUR has expressed its intent to use floating marinas at various sites on both the Pacific and the Sea of Cortez, noting the low-impact nature of such structures.¹⁸ However, based on available literature it is evident that while floating marinas could be a better

¹⁷ Gaceta Parlamentaria. Cámara de Diputados, número 990-II. Martes 30 de abril de 2002. Available at <http://gaceta.cddhcu.gob.mx/Gaceta/58/2002/abr/Anexo-II-30abr.html>.

¹⁸ Telephone conversation with FONATUR representative Alejandro Rodriguez Mirelles. March 19, 2003.

choice for certain calm locations on the Sea of Cortez, they may not be a viable option on the Pacific coast.¹⁹

There are few naturally protected areas along the Pacific Baja California coast and many experts regard that stretch of coast line as unsuitable for man-made boat shelters due to the year-round wave action resulting from southern and northern hemisphere storms systems. In addition, any marina system, floating or otherwise, will require mooring either by tethering to a permanent anchor or by driven piling. Marinas on the Pacific side will require hard facilities (i.e. breakwaters and/or coastal armoring) for protection from the severe Pacific wave action. The longevity of any such structures would be questionable due to the constant swell energy exerted by the Pacific Ocean.

Installation of marinas on the Pacific side is further complicated in that any hard marina system would by nature interrupt the natural patterns of sand movement and distribution.²⁰ The almost certain need for maintenance dredging would impose a high ongoing cost on any hard marina facility, in addition to damage caused by wave action. Even seemingly protected areas such as Magdalena Bay receive consistent swell and wind action, making them questionable candidates for floating marinas.

In summary, while floating marinas could be suitable for a few specific wave-protected sites on the Sea of Cortez, they are not a viable option on the Pacific coastline. And for any environmentally sensitive areas, provisions for waste collection and treatment must be provided, always a difficult task, especially in remote areas. More information on floating marinas can be found at <http://www.msicom.net/productos/principal.php3>.

2.3. *The Project in Context*

2.3.1. The History of FONATUR

Like every major industry in Mexico, tourism was developed from the top down and from the beginning tourism suffered from growing pains. In beach resorts throughout Mexico, hotels boomed along beaches, sewage poured into the ocean, and slums spread over the hills. By the mid-1960s the government decided it was time to put things in order; they needed an integrated approach both to fully exploit tourism's potential and to limit the pollution problems associated with rapid growth.²¹ In 1969, with loans from the Inter American Development Bank, the government set up a trust called FONATUR (the National Tourism Fund), now the lead agency driving the Escalera Náutica project, to develop and administer the new tourist cities.

While the creation of FONATUR helped Mexico to exploit tourism, it did little to limit pollution problems or safeguard natural areas. With the rapid development of tourist areas, things such as zoning and environmental regulations got lost in the shuffle. While previous projects may have made money for the federal government, they have also spawned a large-scale, capital-

¹⁹ Information within this section from telephone conversation with Gregory Tate, civil engineer with over 25 years practice in civil and marine projects. April 11, 2003.

²⁰ This appears to be the case at Santa Rosalita, where the harbor mouth is continually dredged, and FONATUR is rumored to be planning a reconstruction of the marina.

²¹ Simon, Joel. *Endangered Mexico*. 1997, p.193.

intensive style of development geared toward quick returns.²² They have institutionalized land speculation and fomented a tourist economy in which capital is highly concentrated, developers are used to thinking big, and power is concentrated in the hands of the federal bureaucracy.

In addition to this, one of the biggest limitations in tourism development in Mexico has been the lack of an integrated regional vision that consolidates the diverse regional assets in order to promote regional tourism. Most often, the promotion of tourism is limited only to the sale of lots, land and the construction of hotels, condominiums and housing.²³ It is feared that this style of development will also drive the Escalera Náutica project, threatening the ability of federal, state or local governments to safeguard natural resources or ensure a sustainable project. According to a joint study done by INE and El Colegio de Mexico, A.C., "the plan outlined for the Escalera Náutica is closer to a real estate model, implying the formation of enclaves, than a model for regional sustainable development."²⁴

2.3.1.1. FONATUR Resorts

FONATUR has been the lead agency in the creation of many of Mexico's resorts, including Cancun, Huatulco, Ixtapa and Los Cabos. According to a study done by Dr. Linwood Pendleton in March of 2002, environmental problems have been most severe in Cancún, but Huatulco, Ixtapa and Cabo San Lucas have suffered similar fates. Pendleton states that local coastal habitats in Cancún have been lost and Ixtapa's neighboring Zihuatenejo Bay endures what may be the worst coastal water quality in rural coastal Mexico. In many cases, the zeal of tourism planners has not been met by demand from tourists; in Huatulco, hotels sit empty and Ixtapa occupancy rates are far less than hoped for. Further, environmental degradation has taken an economic toll not foreseen by tourism planners. In Zihuatenejo, small-scale hotels on the bay have suffered from problems of bacterial coastal water contamination and the local fishing industry has been plagued by illnesses in many of the local fish.²⁵

On the Baja California peninsula in particular, FONATUR has left a number of uncompleted projects. Deserted trailer parks that dot Baja California's transpeninsular highway highlight the inability of bureaucrats in Mexico City to plan successful projects. An abandoned FONATUR marina in Puerto Escondido is testament to the lack of need for new marinas in the region, and the destruction of Puerto Escondido shows the inability of the agency to plan development wisely or mitigate environmental impacts.²⁶

Cancún²⁷

²² Ibid, p.195.

²³ Leon, Cuauhtemoc and Boris Graizbord. "Bases para el Ordenamiento Ecologico de la Region de Escalera Náutica (Componente Social y Economico), Resumen Ejecutivo." Trans. El Colegio de Mexico, A.C. and Instituto Nacional de Ecología (SEMARNAT). Please see Appendix L for a copy of this report.

²⁴ Ibid.

²⁵ "A Preliminary Study of the Value of Coastal Tourism in Rincon, Puerto Rico." Prepared by Dr. Linwood H. Pendleton, Assistant Professor of International Relations and Environmental Studies, University of Southern California for Environmental Defense, Surfer's Environmental Alliance and The Surfrider Foundation. March 7, 2002. Available at http://www.surfrider.org/rincon/LP_study.pdf.

²⁶ Aridjis, Homero and Serge Dedina. "Protecting Mexico's Natural Heritage." San Diego Union-Tribune, May 12, 2001. Available at <http://www.oceansblue.org/bluetourism/chartacourse/cruiseship/waves011212b.html#24>.

²⁷ The following section from "Cancún Tourism, Case Number 86." The Trade Environment Database. Available at <http://www.american.edu/TED/CANCÚN.HTM>.

Cancún, once one of the most unfettered tropical areas in Latin America, is today one of the most visited tourist destinations in Mexico. Cancún is located on an island and is comprised of beautiful white sandy beaches, turquoise waters, an abundance of coral, and a lagoon that is home to a wide variety of indigenous species. The resulting tourist industry extensively damaged the lagoon, obliterated sand dunes, led to the extinction of varying species of animals and fish, and destroyed the rainforest that surrounds Cancún.

Cancún's carrying capacity has been exceeded to a point where the benefits of tourism are beginning to significantly diminish. The unchecked development of Cancún has considerably contaminated its lagoon in the west. Parts of the lagoon have been destroyed to make room for major highway systems. In addition, new strains of vegetation species have appeared which cannot be cultivated in the indigenous environment. This vegetation often washes onto the road producing foul smells, which negatively affect tourist perceptions.

A nearby rainforest has lost some 60,000 hectares simply as a result of the development plans. The erection of hotels and restaurants not only destroys wildlife in the rainforests, but hotel owners are also forced to import exotic plants to replace those that they have carelessly destroyed. The construction of 120 hotels in 20 years has also endangered breeding areas for marine turtles, as well as caused large numbers of fish and shellfish to be depleted or disappear just offshore.

Huatulco

In 1984, a mega-resort designed to attract foreign investment and foreign tourists was initiated on the south Pacific coast of Mexico in the state of Oaxaca. Known as the Bahías de Huatulco, the previously isolated region was transformed when the narrow coastal strip (about 30 km) was expropriated by FONATUR in the early 1980s for the development of a transnational beach tourism project. According to David Barkin and Carlos Paillés, "the new mega-resort and the accompanying infrastructure integrated the region into the international market, sparking a self-reinforcing cycle of speculation and investment that accelerated the process of social and spatial polarization, impoverishing the native populations and raising tensions throughout the region."²⁸

After pushing them from their small fishing villages, little thought was given to the local population. The construction involved in developing the infrastructure and hotels and services needed to maintain these structures created many jobs, however the jobs created did not go to the people from Huatulco. Construction as well as the prospect of other tourism related jobs attracted workers from all over, and today many of the waiters, hotel staff, and store employees are from other parts of Mexico. While FONATUR gave locals the control of the local transportation businesses as well as the exclusive rights to build and operate beachfront restaurants in return for taking away their land, outsiders own most businesses in the tourist

²⁸ Barkin, David and Carlos Paillés. "NGO-Community Collaboration for Ecotourism: A Strategy for Sustainable Regional Development." *Tourism Recreation Review*, No. 2, 1999. Available at <http://www.kiskeya-alternative.org/cangonet/cangonet99/0021.html>.

district. While these are popular tourism spots today, the locals were almost all peasants, not small-business operators and therefore sold the businesses to others.²⁹

Another serious consequence of the inappropriate development is that the project has dramatically reduced water levels in the underground aquifers at Bahías de Huatulco. Currently, the water system is controlled by FONATUR, who has been unable either to fulfill its commitments to deliver a high quality product or to maintain its infrastructure properly.³⁰ Inadequate water supply not only hinders conservation efforts and sustainable management and production practices by community groups, it is also considered to be a major obstacle blocking construction of at least a dozen new hotels in the area. FONATUR's goal may be to put pricey hotels and restaurants on every beach, demonstrated by the comment made by the director of FONATUR, John McCarthy, "If at the end of my term, I can say I developed all the bays at Huatulco, I will be satisfied."³¹ However, they are unable to manage the development they have created thus far, and are only destroying the marine and terrestrial life around Bahías de Huatulco as well as the livelihoods of the communities of the region.

2.3.1.2. FONATUR Resorts and Demand

According to data collected on the Mexican lodging market by the consulting firm Goodwin and Associates, demand at FONATUR's beach destinations has been decreasing since 1997. In the years 1999-2001 occupancy levels at FONATUR resorts were lower than those registered in 1994, the year before devaluation and the beginning of Mexico's recent economic crisis. Hotels in the "integrally-planned" beaches of FONATUR ended 1999, 2000 and 2001 with occupancy and RevPAR (revenue per available room) levels lower than 1998. In fact, in 2001, the last year for which complete data is available, occupancy percentages were the lowest level registered in the last eight years. Also important is the fact that Los Cabos has continued to experience demand decreases. While occupation did increase in 2000, up 7% from 1999, in 2001 both occupation and RevPAR fell drastically, down 33% and 48%, respectively.³²

²⁹ Ishida, Loretta. "A Case Study of Participatory Action Research to Enhance Community Development: A Community-Based Ecotourism Project in Huatulco, Oaxaca." Thesis, Michigan State University, 1999. Available at <http://www.msu.edu/user/ishidalo/title.htm>.

³⁰ Barkin, D. and Pailles, C. "Water and forests as instruments for sustainable regional development." *Int. J. Water*, Vol. 1, No. 1, pp. 71-79. 2000. Available at <http://www.environmental-center.com/magazine/inderscience/ijw/art5.pdf>.

³¹ "Mexico's President Fox launches proposed network of new harbors, tourist resorts, highways, and towns along 2,500 miles of Baja's coast, threatening one of world's greatest marine wildlife sanctuaries." *Earth Crash, Earth Spirit*. May 6, 2002. Available at <http://eces.org/ec/population/recreation.shtml>.

³² Del Carmen, Maria and Bruce Goodwin, ISHC. "Annual Review of the Mexican Lodging Market." *Hotel Online Special Report*, March 2000. Available at http://www.hotel-online.com/News/PressReleases2000_1st/Mar00_JBMMMexico.html, and Goodwin and Associates. And "Estudio del Panorama Hotelero de Mexico Para Diciembre de 2000, Comparado con Diciembre de 1999"; "Diciembre de 2001, Comparado con Diciembre de 2000." Unpublished reports.

2.3.2. Other Concerns

2.3.2.1. Overestimation of Demand

An independent study recently completed by EDAW, an international consulting firm, showed that demand estimated by FONATUR for the Escalera Náutica was grossly overestimated.³³ The study presents an extensive evaluation of the target boating market in the U.S., revealing the true level of existing and projected demand for the project. Utilizing a very generous projection model, the study shows that the number of marina spaces in Northwest Mexico would grow from 2,600 in 2001 to 6,000 by 2015. These numbers contrast highly with those presented by FONATUR. In an April, 2002 presentation FONATUR estimates that 520,000 boats will utilize the Escalera Náutica.³⁴ The EDAW study also shows that new marina development in the region will be in the areas of existing, successful marina activity. This includes marinas in Ensenada, Los Cabos, La Paz and Mazatlán. No new marina development will be needed along the pacific coast or the northern Sea of Cortez. Small-scale marina development could start in the Baja California central coast of the Sea of Cortez and the central mainland, however development would be slow and is mainly based on current eco-based tourism in the area. Again, this data is in sharp contrast to the assumptions surrounding the Escalera Náutica and demonstrate a clear lack of need for such a mega-project on the peninsula.

The conclusions presented in the EDAW study lead to a main concern surrounding the Escalera Náutica project. It is feared that the project will be another of Mexico's "white elephant" tourist developments into which money has been invested and natural resources destroyed, but the project is left unfinished and unused. If construction is started in pristine areas yet never completed or utilized, environmental assets and potential economic options will be destroyed without any benefit to communities. The risks of proceeding with development as planned are great. FONATUR must evaluate the reality of the target market as well as the realities facing communities on the Baja California peninsula before proceeding with any sort of mega-development.

2.3.2.2. Social Impacts

Many are also concerned with the social impacts of the project. Some fear that the rural population will be turned into a labor force for tourists. Locals living in coastal areas on the peninsula exist as fishermen and ecotourism guides. Most have no desire to give up their traditional way of life to serve tourists.³⁵ There is also the fear that communities and fishermen will be displaced to make room for development, as was the case in Hualtuco. Many of the plans for development released by FONATUR include development where homes and community buildings currently exist, pointing to the possibility of expropriation of lands.

³³ Northwest Mexico Marina Market Analysis. EDAW. December 20, 2002. Please see Appendix D for a copy of this study.

³⁴ Escalera Náutica, Mar de Cortes. FONATUR. April 19, 2002. Please see Appendix C for a copy of this presentation.

³⁵ Martinez, Laura, qtd in Reynolds, Christopher. "Baja Brainstorm: Build Ports for Those Yachts." The Los Angeles Times. Sunday, June 17, 2001. Available at <http://www.latimes.com/print/travel/20010617/t000050313.html>.

According to one author, “the project threatens to tear apart the social and cultural fabric of the region.”³⁶

2.3.2.3. Land Acquisition

Land issues common throughout Baja California considerably complicate development of the Escalera Náutica. During the Administration of President Salinas de Gortari, Article 27 of the Mexican Constitution was changed allowing ejiditarios for the first time to sell their land to private parties. This has opened the door for private companies to buy ejido land at low prices, develop sections of the land for tourism and then sell adjacent land at highly inflated prices. Because of the history of these sorts of projects on the peninsula, it is feared that this is really a scheme for “land speculation financed by public funds that will enrich a small number of officials and a select group of private investors...”³⁷

The nature and prevalence of ejido land on the peninsula, the amendment of Article 27, and laws citing the right of the Federal government to assume control of coastal property all provide potential for conflict. In April of 2002 the Chamber of Deputies recognized the role of the Secretaria de la Reforma Agraria in acquiring land throughout the peninsula for use in the Escalera Náutica, specifically in Cabo Colón, Punta San Carlos, Bahía de Tortugas, Punta Abreojos, and San Juanico. In Santa Rosalita, where the project is well underway, a local landowner donated 5 hectares of his property to help jumpstart the project. FONATUR’s plans call for the acquisition of a further 28 hectares yet at this point it is unclear how this acquisition will occur.³⁸

Under the Mexican Expropriation Law, the Mexican government has wide powers to impose limitations on private property, including expropriation, so long as there exists a “public purpose” (utilidad pública) and compensation is granted to the affected party, either by the government or by the person benefiting from the expropriation.³⁹ In recent years disputes have arisen concerning “adequate” compensation. In the case of the Mexico City airport in Texcoco, many peasants protested the definition of “adequate” compensation put forth by the government.

Historically FONATUR has been a leader in the purchase, development and resale of land in the name of tourism development. In a June 2002 meeting, FONATUR officials revealed that project information was intentionally being kept secret to prevent land speculation from driving up the project costs for FONATUR. While understandably FONATUR does not want to drive up the cost of land slated for development, this tight-lipped approach engenders a climate of uncertainty within the communities on the peninsula. While Mexican law may allow for expropriation, the process prevents communities from taking advantage of rising land values as a result of tourist development.

³⁶ Diehn, Sonya. “Nautical Ecocide Threatens the World’s Aquarium.” Mexico Independent Media Center, Saturday, January 4, 2003. Available at http://mexico.indymedia.org/front.php3?article_id=3813&group=webcast.

³⁷ Aridjis, Homero. “Baja In Decline (Baja a la Baja).” Trans. Reforma, Sunday, Oct. 14, 2001. Available at <http://www.dickrussell.org/editorial/homero3.htm>.

³⁸ SECTUR. Informe Puertos Marítimos, slide 5.

³⁹ O’Donoghue, Mark H. and Santiago Gonzalez-Luna M. “The New Regime for Transmission and Distribution of Natural Gas in Mexico.” Curtis, Mallet-Prevost, Colt and Mosle LLP. September 1995.

2.3.2.4. Drug Trafficking

Apprehension has been expressed that the project would facilitate the drug trade by providing better transportation infrastructure and money laundering opportunities. In essence, there will be a series of poorly guarded, easily accessible, and utterly remote marinas that will facilitate an increased flow of drugs across the peninsula, both as harbors and fueling stations. Mexican officials state that in order to reduce the potential for drug trafficking and other boating-related illegal activities, they envision using satellites to monitor the location of the boats.⁴⁰ While this could potentially aid in monitoring the peninsula, the high cost of such a system makes it doubtful that it would be a high priority for the project.

⁴⁰ Spalding, Mark. "Escalera Náutica: Staircase to Baja California." Bight Bulletin, July 2001, No. 2. Available at http://argo.sandag.org/bight/english/bight_bulletin_july2001.pdf.

3. Environmental Assessment of the Project

The footprint of the proposed project is truly massive, encompassing roughly 2,500 miles of coastline on which would take place marina development/improvement, the construction of access roads and highways, installation and improvement of airport facilities, development of homes and lots for sale, and the installation of necessary infrastructure at each site. As such, a thorough environmental assessment proves a formidable task, and one that has yet to be completed.

At risk is the Baja California peninsula's characteristically pristine natural environment as well as the already pressured environments of Sonora and Sinaloa. The peninsula is home to at least 3,700 vascular plant species, one fifth of which are endemic to the region.⁴¹ In the four states, 463 bird species and 169 species of mammal are found, representing 45.48% and 37.55% of Mexico's total bird and mammal population.⁴² Seven of the marinas fall within zones of legal environmental protection. A description of the zones and the threats posed by the Escalera Náutica follows.

3.1. Natural Protected Areas

In Mexico, Natural Protected Areas or *Areas Naturales Protegidas* (ANPs) are used to give specific terrestrial and marine areas various degrees of protective status.⁴³ ANPs are considered multi-use zones, the details of which are drawn up in each area's respective management program.⁴⁴ At present, the ANP Valle de los Cirios lacks a management plan, let alone any sort of plan to deal with a project on the scale of the Escalera Náutica. There are a total of 374 protected areas in Mexico, comprising 6% of the national territory.⁴⁵ ANPs are typically established in a) areas in an untouched state such as Islas del Golfo, and b) areas in need of preservation and/or restoration such as Loreto.⁴⁶

Mexico's environmental legislation, the "*Ley General del Equilibrio Ecológico y la Protección al Ambiente*" established in 1988 and updated in 1996 recognizes eight categories of natural protected areas that can be established by the Federal Authority:⁴⁷

1. Biosphere Reserves;
2. National Parks;
3. Natural Monuments;

⁴¹ "Ordenamiento Ecológico de la Región de la Escalera Náutica (Componente Biofísico e Integración)". Universidad Autónoma de Baja California. No date, pg. 52. Available at <http://www.ine.gob.mx/enautica/index.html>.

⁴² Ibid, p.50.

⁴³ Cartron, Jean-Luc E., Mark J. Spalding, Alberto Szekely, Gerardo Ceballos, Dominique Cartron, and Fernando Miranda. "Mexico's Legal and Institutional Framework for the Conservation of Biodiversity and Ecosystems." Biodiversity, Ecosystems, and conservation in Northern Mexico. Forthcoming from the University of Arizona Press. [hereinafter "Biodiversity, Ecosystems and Conservation"].

⁴⁴ Reports can be downloaded from:

http://www.ine.gob.mx/ueajei/publicaciones/consultaListaPub.html?id_tema=4&dir=Temas.

⁴⁵ Biodiversity, Ecosystems and Conservation.

⁴⁶ Ibid.

⁴⁷ Ibid.

4. Areas for the Protection of Natural Resources;
5. Areas for the Protection of Wild Flora and Fauna;
6. Sanctuaries;
7. State Parks and Reserves;
8. Ecological Conservation Zones in Urban Centers.

The first six types of Natural Protected Areas are under federal jurisdiction, while parks and ecological conservation zones and ecological conservation zones in urban centers are the responsibility of state, the Federal District and municipal authorities.⁴⁸

3.1.1. Natural Protected Area Valle de los Cirios

ANP Category: Natural Protected Area of Flora and Fauna⁴⁹

The Valle de los Cirios Natural Protected Area, comprising 35% of Baja California's total area, presents a unique junction of climatic zones and geological conditions, the result of which is an exceptional collection of desert flora. Included in this list is the famed cirio, or boojum, which can live over 360 years.⁵⁰ An accounting of the biodiversity of Valle de los Cirios ANP shows over 650 plant species, with close to 40% of these endemic or quasi-endemic, and several species listed as either threatened, endangered, or federally protected. The park is also home to four species of amphibian, 48 reptile species, and 52 land mammals. The reptiles and land mammals also see a high rate of endemism and quasi-endemism, and unfortunately also a high rate of these are threatened or protected. Of the 137 bird species found in the park, 8 are threatened and 7 are protected.⁵¹ Average rainfall for this region is less than 4 inches per year.⁵² Fauna found in the region include mule deer, bighorn sheep, and puma, all of which are officially listed as threatened.⁵³ "The central portion of the Baja California peninsula contains what may be the most interesting and richest variety of desert plants the world over." - renowned desert biologist R. R. Humphrey.⁵⁴

The Valle de los Cirios ANP has already suffered a severe blow from the Escalera Náutica in the form of a multi-lane paved highway cutting through the protected area to Santa Rosalía. The road is intended to provide a means of hauling boats between Santa Rosalía and Bahía de los Angeles. Failure to correctly comply with the permitting process caused the project to be

⁴⁸ North American Commission for Environmental Cooperation. "Protected Areas and Parks." Available at http://www.cec.org/pubs_info_resources/law_treat_agree/summary_enviro_law/publication/mx16.cfm?varlan=english#2.

⁴⁹ Comisión Nacional de Áreas Naturales Protegidas. "Áreas Naturales Protegidas." Available at <http://conanp.gob.mx/anp/apff.shtml>.

⁵⁰ National Geographic Society. "Gulf of California xeric scrub." Available at <http://www.nationalgeographic.com/wildworld/profiles/terrestrial/na/na1306.html>.

⁵¹ Valle de los Cirios Area de Protección Flora y Fauna. "Biodiversity." Available at <http://www.cicese.mx/~vcirios/ingles/biodiversity.htm>.

⁵² Valle de los Cirios Area de Protección Flora y Fauna. "Superlatives." Available at <http://www.cicese.mx/~vcirios/ingles/superlatives.htm>.

⁵³ PROFEPA. "Baja California Sur." Available at <http://www.profepa.gob.mx/deleg/bajacaliforniasur.htm>.

⁵⁴ Valle de los Cirios Area de Protección Flora y Fauna. "Flora." Available at <http://www.cicese.mx/~vcirios/ingles/flora.htm>.

halted, and the road remains unfinished.⁵⁵ Wide swaths of land have been cleared on either side of the four-lane road without regard for the native plant life or potential erosion.

Puerto Canoas, Santa Rosalita, San Luis Gonzaga, Bahía de los Angeles, as well as the highway referred to above, are all spots within Valle de los Cirios slated for development as part of the Escalera Náutica. Puerto Canoas, lacking any town or services, lies 45 miles from the main highway, over treacherous terrain requiring four wheel drive throughout the year. Its development as a port would necessitate construction of a paved highway cutting through the ANP. San Luis Gonzaga lies roughly 40 miles from the main highway and would also require development of a paved road. A Pemex station was installed in 1999 yet company representatives have since refused to service the site citing the poor quality of the existing road.⁵⁶ The town of Bahía de los Angeles, located on the eastern coast of the peninsula, roughly 84 miles east-northeast of Santa Rosalita also falls within the Valle de los Cirios ANP. The road leading to Bahía de los Angeles is paved, yet would require expansion to the four lanes necessary for the hauling of yachts.

3.1.2. El Vizcaíno Biosphere Reserve

ANP Category: Biosphere Reserve

Other Classification: Special Biosphere Reserve (UNESCO), World Heritage Site

El Vizcaíno Biosphere Reserve is home to Laguna San Ignacio, one of the last known remaining breeding and calving sites for the gray whale. Punta Abreojos, located at the north edge of the lagoon was the epicenter of the late 1990s struggle against the Exportadora de Sal/Mitsubishi salt works plant. As a site targeted for Escalera Náutica development, Punta Abreojos and the gray whale once again find themselves at the center of developmental conflict on the Baja California peninsula. As a Biosphere Reserve and a World Heritage site, UNESCO lists the coastal lagoons of Ojo de Liebre and San Ignacio as very important reproduction and wintering sites for the grey whale, harbour seal, California sea-lion, northern elephant-seal and blue whale, as well as offering shelter to four species of the endangered marine turtle.⁵⁷ In its December 1999 statement regarding the area, UNESCO stated, “assuming that today Laguna San Ignacio, located in the El Vizcaíno Biosphere Reserve, is practically pristine, any significant change... would require the reevaluating of the UNESCO conclusion that determines that this Human Patrimony is not in danger.”⁵⁸ The Escalera Náutica, with its construction of mooring facilities at Abreojos, increased boat traffic, and questions of regulation and enforcement of rules concerning interaction with whales, would most certainly justify UNESCO once again reevaluating the site’s status as a Biosphere Reserve and a World Heritage Site. For more information see section 4.1.

3.1.3. Natural Protected Area Islas del Golfo, UNESCO Biosphere Reserve

ANP category: Natural Protected Area of Flora and Fauna

Other classification: Special Biosphere Reserve (UNESCO)

⁵⁵ Dibble, Sandra. “Progress or Ruin?” San Diego Union-Tribune, May 19, 2002. Available at <http://www.followingsea.net/Escalera.htm>.

⁵⁶ Conversation with part-time residents in the community, October 2002.

⁵⁷ UNESCO. “Whale Sanctuaries of El Vizcaíno.” 1993. Available at <http://whc.unesco.org/sites/554.htm>.

⁵⁸ El Colegio de México. “Bases para el Ordenamiento Ecológico de Región de la Escalera Náutica (Componente Social y Económico).” No date, pg. 516. Available at <http://www.ine.gob.mx/enautica/index.html>.

The ANP Islas del Golfo Biosphere Reserve is a collection of 898 islands, 303 of which are named, in the Sea of Cortez.⁵⁹ The reserve is renowned for its mostly unpopulated islands characterized by their endemic species of bird, plant, and reptile life.⁶⁰ For this reason, this area is often referred to as the Galapagos of Mexico. The waters are frequented by no fewer than seven species of whale including the blue, fin, sei, Bryde's, minke, humpback, and gray.⁶¹ Currently, species of the reserve face threats of ingestion of plastic and other waste, unregulated fishing, harassment of marine life (particularly sea lions, whales and whale sharks), and removal of vegetation.⁶² The introduction of a greater volume of boat traffic in an environment that currently lacks regulatory enforcement presence and resources presents potentially serious threats to these species.

The International Whaling Commission notes that unless the Escalera Náutica incorporates carefully planned low-impact development it will present a range of problems to cetaceans and other marine life which include:⁶³

- i) Increased vessel traffic from less than currently 8,000 to 61,500 – 76,400 by the year 2014 will increase the risk of collision, a well known mortality factor for all of the whale species listed above.
- ii) Difficulty with enforcing regulations and controlling of increased whale-watching activities.
- iii) Increased incidence of noise disturbance from greater boat traffic could disrupt gray whales' hearing and/or cause them harm.
- iv) Increased disturbance of areas used for feeding, breeding and nursing due to greater levels of boat traffic.
- v) Pollution of ecosystem as a result of sewage and freshwater runoff, fuel spills and other problems related to development.

3.1.4. Alto Golfo de California y Delta del Río Colorado Biosphere Reserve

ANP Category: Biosphere Reserve

Other classification: Special Biosphere Reserve (UNESCO)

The Alto Golfo de California and Colorado River Delta Biosphere Reserve is considered one of the richest coastal ecosystems in the world, in terms of biodiversity, endemism, and the habitat

⁵⁹ SEMARNAT. Programa de Manejo Area de Protección de Flora y Fauna Islas del Golfo de California. 2000, p.19. Available at http://www.ine.gob.mx/ueajei/publicaciones/consultaListaPub.html?id_tema=4&dir=Temas.

⁶⁰ "New Biosphere Reserves." MAB publications. Available at: <http://www.mabnet.org/publications/seville/seville4.html>

⁶¹ Danemann, G. y C. Peynador. 2002. Propuesta para la creación del Parque Nacional "Bahía de Los Angeles", Baja California. Versión preliminar para revisión (cuarta edición). Pronatura Noroeste-Mar de Cortés; Wildcoast; Centro de Investigación Científica y Educación Superior de Ensenada; Comunidad y Biodiversidad A.C.; Conservation International México A.C.; Departamento de Fauna Silvestre, Pesquerías y Biología de la Conservación de la Universidad de California en Davis; Ejido Ganadero y Turístico "Tierra y Libertad"; Grupo de Ecología y Conservación de Islas A.C.; Investigación y Conservación de Mamíferos Marinos de Ensenada A.C.; ProEsteros, Lagunas y Marismas de las Californias S.C.; Sociedad de Historia Natural Niparajá A.C.; Universidad Autónoma de Baja California Sur; WWF-Programa México. 144 pp. y tres anexos, p.53. [hereinafter "BLANP"]

⁶² Ibid, p.19.

⁶³ IWC. Report of the Standing Working Group on Environmental Concerns, Appendix J. May, 2002, p.9. Available at <http://www.iwcoffice.org/SCWEB/SCRepFiles2002/AnnexJ.pdf>.

it provides for the spawning of many marine species which attracts a great number of both resident and migratory birds.⁶⁴ The Reserve was created in 1993 in reaction to the ongoing decline of endangered species populations including the totoaba, the desert pupfish, the Yuma clapper rail and the vaquita.⁶⁵ The totoaba is found only in the northern Gulf of California where it now faces extinction, due to overfishing and loss of its reproductive zones in the Colorado River delta.⁶⁶ The vaquita, believed to number fewer than 600, is a species of porpoise endemic to the Alto Golfo de California region.⁶⁷ Annually, 40 to 80 vaquita perish when they become trapped in fishing nets.⁶⁸ Other threats to the vaquita include degradation of habitat, mainly the coastal estuaries, and contamination of the waters in which it lives.⁶⁹

FONATUR's presentations show expansion of terrestrial routes to allow for greater boating access to the Sea of Cortez.⁷⁰ Impacts on the Alto Golfo de California and Colorado River Delta Biosphere Reserve from any such developments would need to be evaluated with more specific information available.

3.1.5. Loreto Bay National Park

ANP Category: National Park

The stated objective for the Loreto Bay National Park is to "define and establish the management strategies and mechanisms that allow for the preservation of both renewable and non-renewable resources present in the Bahía de Loreto National Park and to restore critical environments promoting the social development of the communities located in the zone."⁷¹ The Loreto Bay National Park is unique in its wide array of coastal marine environments, ranging from rocky bottoms, beaches and ravines, to underwater canyons and marine terraces. The area maintains a high degree of biodiversity and endemism, due mainly to the confluence of species from two distinct biogeographic regions, the Panámica (tropical) and the Californian (temperate).⁷² Approximately 102 species of flora and fauna found within the park zone maintain some type of federal protection under Mexican law.⁷³ The problems encountered in Loreto National Park stem mainly from its interaction with fishermen and tourists. Included among these are introduction of invasive species, removal of native species, deforestation of dunes, modification of natural landscape, and problems associated with garbage and human waste, diesel and gasoline contamination of water, and the harassment of birds and mammals.⁷⁴

⁶⁴ SEMARNAT, Programa de Manejo Alto Golfo de California y Delta del Río Colorado. No date, section I, no page. Available at http://www.ine.gob.mx/ueajei/publicaciones/consultaListaPub.html?id_tema=4&dir=Temas.

⁶⁵ Ocean Oasis, "The Preservation of the Alto Golfo." 2000. Available at: <http://www.oceanoasis.org/conservation/study1.html>.

⁶⁶ UABC, "Tototaba." June, 1997. Available at <http://www.ens.uabc.mx/Reportajes/Totoaba/>

⁶⁷ Vaquita Marina, "Información General." Available at http://www.vaquitamarina.org/info_gral.php.

⁶⁸ Ibid.

⁶⁹ Vaquita Marina, "Amenazas." Available at <http://www.vaquitamarina.org/amenazas.php>.

⁷⁰ SECTUR. Informe Puertos Marítimos. March, 2002 and Escalera Náutica, Mar de Cortes. FONATUR. April 19, 2002. Please see Appendix C for copies of these presentations.

⁷¹ Loreto Management Plan, pdf p.13. Available at: http://www.ine.gob.mx/ueajei/publicaciones/consultaListaPub.html?id_tema=4&dir=Temas.

⁷² Ibid, p.7.

⁷³ Ibid, p.9.

⁷⁴ Ibid, p.37.

3.1.6. Cabo Pulmo National Park

ANP Category: National Park

Cabo Pumo National Park, established in 1995, contains the northernmost coral reef in North America. While planning is in process, the park has yet to receive state or federal funding, has no management plan and has no appointed park management staff. The reef system is already under threat by unregulated fishing, sewage outflows, and damage from anchorage and recreational diving. The park currently lacks the resources that would be necessary to regulate and monitor increased boating traffic, which would intensify the threats listed above.

3.2. *Affected Species*

3.2.1. Sea Turtles

Baja California is home to five of the world's seven species of sea turtle, all of which find themselves officially "threatened" or "endangered." Many of the proposed marina sites for the Escalera Náutica including Santa Rosalíita, Bahía de los Angeles, Bahía Tortugas, Punta Abrejos, La Paz, Puerto Loreto, and Mulegé provide shelter, nesting sites, and uncontaminated feeding grounds for turtles. Potential risks from the Escalera Náutica include:⁷⁵

- i) Contamination of critical nursery and feeding areas.
- ii) Habitat destruction within Marine Protected Areas
- iii) Boat traffic and strikes within Marine Protected Areas
- iv) Increased poaching in line with increase in human population

3.2.2. The Whale Shark

As the largest fish in the world, the whale shark is one of the most spectacular marine creatures and at the same time one of the least understood by science. Many of its biological and ecological aspects continue to be a mystery. Certain whale shark characteristics, like its slow growing process, docility, late sexual maturity, large size and longevity, make it a vulnerable species. In fact it is considered an endangered species by many countries. Although the degree of threat that man's activities represent to whale sharks in Mexico is unknown, Federal Legislation has created a provision to protect the species, PROY-NOM-029-PESC-1999.⁷⁶

Human activities without adequate regulation in Bahía de los Angeles are increasingly a source of conflict and threat to the adequate management of the whale shark and other environmental resources within the bay. These conflicts over alternative uses of costal resources turn in to negative impacts for whale sharks. According to local tourism operators, some of the most evident threats are:⁷⁷

- i) Injuries and disturbances caused by collision with motorboats.
- ii) Entanglement in nets and other fishing gear.
- iii) Excessive harassment by visitors.

⁷⁵ Nichols, Wallace J. "Sinks, sewers and speedbumps, the impact of marina development on sea turtles in Baja California, Mexico." Proceedings of the 22nd Annual Symposium of Sea Turtle Biology and Conservation. 2002, no page.

⁷⁶ "Whalesharks in Bahía de los Angeles." Available at <http://gecko.mystarband.net/Justification.htm>.

⁷⁷ Ibid.

- iv) Potential loss of habitat due to projected nautical infrastructure in the area.

3.3. *Water Scarcity, Energy, and Solid Waste*

It is important to note the extreme disparity that exists in terms of infrastructure of the existing full service ports (notably Ensenada, Los Cabos, La Paz, and Santa Rosalía) and the ports to be developed in outlying communities. While the full service ports are currently able to provide water, electricity, and solid waste disposal, many of the sites targeted for Escalera Náutica development lack these services even at a rudimentary level. Examples follow that show, to some degree, the need for basic infrastructure development, infrastructure that communities on the peninsula lack and that touristic development would require.

In San Juanico, B.C.S., power is provided by a hybrid plant (solar, wind, diesel), which was installed by the Arizona Public Service Company over two years ago. The plant works intermittently, providing around six hours of power per day.⁷⁸ Water from a nearby aquifer is provided to the community once every two days, and sewage service is non-existent. Residents use septic systems, or open pit toilets.

Bahía de los Angeles highlights some of the environmental and infrastructure concerns inherent to any development project on the peninsula with the stated goal of attracting considerable population influx, whether residential or touristic. As part of the land bridge and a main hub of the Escalera Náutica project, Bahía de Los Angeles would be the future home to a number of large hotels, residential homes, a golf course, and other amenities, in addition to the facilities necessary for employees. The small town of Bahía de los Angeles is currently supplied with water from a dry reservoir and a small natural spring in the mountains. Currently, the system in place to bring water in from the dry lake, provided by the government, is supposed to pump water into the town three days a week. However, the system is very unreliable, with water arriving sporadically, and distribution is poor, with only certain parts of town receiving water. The water pump is run on diesel, and often there is no diesel available to run the pump.⁷⁹ Most residents rely on water from the natural spring, which has to be trucked in, increasing the cost substantially. Water received from the dry lake costs approximately \$6 per week, depending on family size and water use, whereas water from the natural spring costs approximately \$8 per week.⁸⁰ None of the water from the lake or the spring can be used for drinking. While there are a few reverse osmosis machines in town, the majority of the drinking water is trucked in.

The lack of reliable electricity is another concern surrounding development in Bahía de los Angeles. The electric plant, built by the local ejido, supplies the town with 18 hours of electricity per day. The plant is run on diesel, and at times, as is often the case with the water pump, there is no diesel available to run the plant. Electricity is also very expensive, with one kilowatt costing approximately \$0.40.⁸¹ A last concern is the lack of a treatment facility in the area, with all homes currently using septic tanks or open pit toilets. Any major development

⁷⁸ Andrews, Ruben. Founder and co-owner Promotora Punta Pequeña, San Juanico, BCS. Personal communication, February 24, 2003.

⁷⁹ Resendiz, Antonio. Founder and owner Campo Archelón, Bahía de los Angeles, BC. Personal communication, February 12, 2003.

⁸⁰ Ibid.

⁸¹ Ibid.

would quickly overwhelm the existing septic system, and a full treatment facility would be required.

Waste disposal is a problem that plagues the Baja California peninsula. While larger cities such as Ensenada, La Paz, and Los Cabos have systems for dealing with rubbish, they are the exception rather than the rule. In smaller communities, trash is typically either burned or dumped in open sites informally identified as dumping grounds. These dumping grounds not only pose environmental and health hazards, they scar the landscape, presenting a potential negative impact to local tourism.

Provision of basic infrastructure services such as potable water, electricity, sewage treatment and solid waste disposal has been a longstanding hurdle to community development on the peninsula. Any development projects that involve potential increases in local populations and tourist traffic that fail to first address these community infrastructure needs risk both alienation of local populations and environmental calamity.

4. Institutions

4.1. *International Institutions*

As author and environmental activist Homero Ardjis put it, “it appears that the government learnt nothing from the campaign of the coalition of national and international organizations to prevent Mitsubishi and Exportadora de Sal from building a huge industrial salt plant in the San Ignacio Lagoon.”⁸² Less than one year after the project was cancelled, the Escalera Náutica project began, with a marina planned to be built in Punta Abreojos, in the same place where a two kilometer long jetty was intended to be built as part of the salt project. The marina will be inside the El Vizcaíno Biosphere Reserve, which is recognized as a MAB/UNESCO⁸³ Biosphere Reserve and a Natural World Heritage Site. On top of this, marinas are also to be built in the Alto Golfo de California and Islas del Golfo Biosphere Reserves, both also recognized as MAB/UNESCO Biosphere Reserves.

4.1.1. MAB/UNESCO Biosphere Reserve

In 1993 the Alto Golfo de California was named a MAB/UNESCO Biosphere Reserve. In 1994, El Vizcaíno was added to the MAB/UNESCO Biosphere Reserve list and Islas del Golfo was added in 1995.⁸⁴

MAB/UNESCO Biosphere Reserves serve three main purposes (in order of priority): conservation, research, and development. Biosphere Reserves are not like other protected areas because they are intended to promote sustainable use of natural resources and not just preservation. No human activities are permitted in the core of a biosphere reserve other than non-manipulative research and monitoring. Human activities in buffer zones, which surround the cores, are to be closely regulated and limited to those that protect the core, and are consistent with conservation objectives (for example, environmental education, passive recreation and ecotourism, and traditional uses). Surrounding the buffer zones are “transition areas” in which rational exploitation of natural resources may take place in cooperation with local populations.⁸⁵

If the general definitions were applied, there would be fewer questions about the efficacy of the marinas if they were outside the buffer zones. This said, the proposed marinas in Bahía de los Angeles, Bahía de Tortugas, Puerto Peñasco, Punta Abreojos and San Felipe are not consistent with international, federal or specific biosphere reserve obligations because the Escalera Náutica, in its current form, is not a conservation activity, it does not maintain cultural values, it does not protect the core of the biosphere reserve, and it does not come from, aid or educate the local community. In addition, while the project may constitute an “economic development of natural resources,” the majority of benefits from the resource exploitation will not stay in the communities and will insufficiently benefit the reserve, or the region. The project is too large, it

⁸² Ardjis, Homero. “Baja In Decline (Baja a la Baja).” *Trans. Reforma*, Sunday, Oct. 14, 2001. Available at <http://www.dickrussell.org/editorial/homero3.htm>.

⁸³ Man and the Biosphere/ United Nations Educational, Scientific and Cultural Organization

⁸⁴ “World Network of Biosphere Reserves.” The MAB Programme, last updated November 12, 2002. Available at <http://www.unesco.org/mab/brlistlatin.htm>.

⁸⁵ “Frequently Asked Questions on Biosphere Reserves.” United Nations Education, Scientific and Cultural Organization Website. Available at <http://www.unesco.org/mab/nutshell.htm>.

may adversely affect endangered and endemic species habitat, it will serve to deteriorate the reserve's natural beauty, it will flood important parts of the reserve, it will significantly alter hydrological and watershed systems, and it threatens the existing economic base. Finally, the project is being proposed before a reserve management plan is fully articulated and implemented; and before sufficient particular and regional Environmental Impact Assessments have been prepared (see section 6 for more information on required EIAs).

4.1.2. The World Heritage Committee

The Convention Concerning the Protection of the World Cultural and Natural Heritage (Paris, November 16, 1972) now protects 582 sites of "outstanding universal value," in 114 countries. The intergovernmental World Heritage Committee includes 21 State Parties elected by the General Assembly of the 155 States Parties to the Convention. The Committee is responsible for the implementation of the Convention and determines the inclusion of sites on the World Heritage List.

The Whale Sanctuary of El Vizcaíno (Laguna San Ignacio, Laguna Ojo de Liebre and Laguna Guerrero Negro) in Baja California Sur, Mexico was designated as a whale sanctuary by Mexico in 1976, included within the largest international biosphere reserve in Latin America (the Vizcaíno Biosphere Reserve) in 1988, and listed as a Natural World Heritage Site by the World Heritage Committee in 1993. Mexico justified its request for adding the whale sanctuary to the World Heritage list because: "It is an outstanding example representing significant ongoing biological evolution . . . It contains unique and superlative natural features of exceptional beauty . . . [and] It contains the most important and significant habitats where threatened species of plants and animals still survive."⁸⁶ The footprint of the proposed marina for the Escalera Náutica would fall within the World Heritage Site.

The threats to the Whale Sanctuary had been already been discussed on several occasions by the World Heritage Committee and its advisory Bureau since 1995. On June 23, 1998, in a letter to the World Heritage Committee signed by Pro Esteros, Grupo de los Cien, Centro Mexicano de Derecho Ambiental, the Natural Resources Defense Council, and the International Fund for Animal Welfare, it was requested that the Committee list the Sanctuary as "World Heritage in Danger." These groups asserted that the Sanctuary is in Ascertainable Danger⁸⁷ as a result of a marked decline in its endangered species, an imminent threat to its beauty and scientific value, as well as verifiable and significant human encroachment. In addition, the groups asserted the Sanctuary is in Potential Danger⁸⁸ as a result of proposed development projects (such as the ESSA saltworks at the time, the marina project currently) and the lack of a final management plan (or that plan's full implementation). The groups also delivered over 30,000 signed petitions calling on the Committee to act to protect the sanctuary.

4.2. Federal Institutions

According to Article 27 of the current Mexican Constitution, adopted in 1917, the federal government is the owner of the country's natural resources, both terrestrial and marine. Thus the legal responsibility to manage these resources lies primarily with the national government,

⁸⁶ "Reserva del Vizcaíno." Comisión Nacional de los Estados Unidos Mexicanos para la UNESCO, 1992.

⁸⁷ World Heritage Convention Operational Guidelines Article III.B.

⁸⁸ Ibid.

leading to the top-down characteristic of tourism development and natural resource management in Mexico.

4.2.1. FONATUR

FONATUR, Mexico's National Tourism Fund, lead by director John McCarthy, is the lead agency promoting the Escalera Náutica project. Alejandro Rodriquez Mirelles and Eduardo Rincón Gallardo, both advisors to the Managing Director, are the lead contacts for the project within FONATUR.⁸⁹ FONATUR is funded partially through the federal government, and partially through the sale of lots within it major developments. With a line item in the 2003 federal budget of around \$26 million⁹⁰, FONATUR must look to outside investment to maintain its operations. FONATUR seeks to achieve this through the sale of lots at its various tourist developments, and by providing ancillary financial and technical services to support these sales. A visit to FONATUR's website provides the visitor with an extensive menu of choices in the purchase of lots. More information on the history of FONATUR and past FONATUR projects can be found in section 2.3.

Pro Peninsula hosted a meeting in San Diego on July 30, 2002 that included representatives from FONATUR, SECTUR (for the State of Baja California), Natural Resources Defense Council, the Surfrider Foundation and Wildcoast. The meeting focused on improving information exchange between the project proponents and environmental groups. The environmental groups made clear our concern that, to date, information about Escalera Náutica development plans, environmental reports, the permitting process and public input has been wholly inadequate on the part of the Mexican government. In response, the government representatives revealed that project information was intentionally being kept secret to prevent land speculation from driving up the project costs for FONATUR.

FONATUR's representatives made many representations regarding the environmental benefits of the proposed Escalera Náutica project. While we hope these good intentions are genuine, FONATUR provided no proof that it has the ability or experience to fulfill its promises. In this regard, FONATUR has no positive track record regarding environmental stewardship.

4.2.2. SEMARNAT ⁹¹

SEMARNAT, lead by Secretary Victor Lichtinger, was created in 1994, under the name SEMARNAP (Secretariat of Environment, Natural Resources and Fisheries), in order to combine environment and natural resources functions into a single agency. In 2001, fisheries was pulled out of SEMARNAP, changing the agency's name to SEMARNAT. The agency is still responsible for protecting the environment, as well as developing the country's natural resources. Article 27 of the constitution calls on the state to manage the country's natural resources in the public interest, and since this is the legal basis for the state's authority to intervene to protect the environment Mexico has combined environmental protection and natural resource development into the same ministry.⁹² While many environmental policy analysts believe that combining

⁸⁹ For contact information see Appendix I for more information.

⁹⁰ Centro de Estudios de Finanzas Públicas, Presupuesto de Egresos de la Federación para el Ejercicio Federal 2003. Available at http://www.cefp.gob.mx/pef2003/temas/expo_motivos/21ra.pdf.

⁹¹ Secretaría de Medio Ambiente y Recursos Naturales (Secretary of the Environment and Natural Resources).

⁹² Simon, Joel. *Endangered Mexico*. 1997, p.239.

natural resources and environmental management into the same organization is better than maintaining separate functions, many also see it as a conflict of interest.

SEMARNAT, through the Undersecretariat for Management of Environmental Protection, is responsible for reviewing environmental impact statements and granting standards and permits, a task previously carried out by INE until the restructuring of SEMARNAT in 2001. In 2001 SEMARNAT halted the work on a section of highway being constructed through the Valle de los Cirios Natural Protected area, between Highway 1 and Santa Rosalita, which was part of the Escalera Náutica land bridge. The project, being carried out by FONATUR in conjunction with SECTUR, was halted due to the lack of permits and environmental impact assessments. While SEMARNAT did halt the project, approximately two miles of the road had already been completed through the middle of the protected area without permits before the environmental agency stepped in. This demonstrates a clear lack of preventative enforcement on the part of SEMARNAT or compliance with environmental laws on the part of FONATUR.

4.2.2.1. SEMARNAT Sub-agencies

INE (National Institute of Ecology)

INE is the scientific research arm of SEMARNAT. The newly reorganized INE, headed by ecologist Dr. Ezéquiél Ezcurra, conducts environmental-related research and provides technical support to SEMARNAT's administrative units. Recently, INE released a preliminary report on the Escalera Náutica project, in conjunction with the College of Mexico, outlining the geographic, economic, social and environmental aspects of the project and the area. The report can be found in Appendix L and is also available at <http://www.ine.gob.mx/enautica/index.html>.

PROFEPA (Office of the Attorney General for Environmental Protection)

PROFEPA, headed by Attorney General for Environmental Protection José Ignacio Campillo-García, has all national environmental enforcement responsibilities. This includes investigative and prosecutorial powers including the right to initiate legal action, in conjunction with state and local judicial authorities, for administrative and criminal violations of environmental laws. In practice legal action has been taken against companies and/or individuals. In Baja California Norte PROFEPA maintains a total of 27 agents and in the southern state, 12 agents. Because SEMARNAT has already stated that it is involved in the planning and development of the Escalera Náutica, it would be unlikely that PROFEPA would become involved in any way or prosecute any government agency in association with the Escalera Náutica project.

CONANP (The National Commission for Natural Protected Areas)

CONANP, created in 2000 and headed by Dr. Ernesto Enkerlin Hoeflich, is the agency within SEMARNAT responsible for the administration of Natural Protected Areas. The commission is also responsible for the Sustainable Regional Development Program, which is carried out not only in Natural Protected Areas, but also in other "priority regions" throughout Mexico. More information on CONANP and its role in the Escalera Náutica project can be found in section 4.3.

4.2.3. Other Agencies Involved

4.2.3.1. *Secretariat of Communications and Transportation (SCT)*

The Secretariat of Communications and Transports, headed by Arq. Pedro Cerisola y Weber, is the federal agency in charge of the country's communication, transportation and infrastructure networks. SCT, with fiscal resources from the Federal Government, has been the agency charged with construction and/or modernization of the highways from Santa Rosalíita to Bahía de Los Angeles, Punta Prieta to the 28th Parallel, Punta Prieta to Bahía de Los Angeles and Mexicali to San Felipe as part of the Escalera Náutica project.⁹³ More information on SCT's work thus far on the project can be found in section 7.2.

4.2.3.2. *SECTUR (Secretary of Tourism)*

Bertha Leticia Navarro Ochoa heads Mexico's Secretary of Tourism. SECTUR is charged with promoting Mexican tourism, both domestically and abroad, and also conducts most of the federal research associated with the tourism sector. Information on SECTUR and its responsibilities is difficult to find however, since past SECTUR websites are not operational and the new site has very few functioning pages with limited information. In 2001 Secretary Navarro stated that the Escalera Náutica was considered a high-priority for the tourist development of Mexico.⁹⁴

4.3. *Protected Areas Management*

Ten Presidential decrees have created 374 protected areas in Mexico. As a result, nearly 60% of the country falls under some form of protection. Unfortunately, many of these decrees disregarded local interests and even disregarded then-existing conditions of development. In many cases, the protected areas were perceived by landowners, communities, and local authorities as impositions by the government. Most importantly, there have been few funds to administer the protected areas and for many years these protected areas have been merely paper parks. In 1994, protected areas management responsibilities were transferred to the newly created SEMARNAT, and in 2000 CONANP was created within SEMARNAT as the agency responsible for Natural Protected Areas management.

In Mexico, there are eight types of National Protected Areas. Of these, four types and a total of 10 protected areas exist on the Baja California peninsula and in the Sea of Cortez. Specifically, three types and six parks will be impacted by the Escalera Náutica: Biosphere Reserves, Alto Golfo de California and El Vizcaino; National Parks, Bahía de Loreto and Cabo Pulmo; and Areas of protected Flora and Fauna, Islas del Golfo de California, and Valle de los Cirios. See section 3.1 for more information. See Appendix A for a map of all ANPs on the peninsula.

Today, nearly 40% of the funds devoted to protect natural areas in Mexico come from international sources.⁹⁵ This foreign funding is helping to transform some of Mexico's paper parks into well-managed reserves by providing money for personnel training, enforcement and

⁹³ "Escalera Náutica of the Sea of Cortes: The Tourism Megaproject of the XXI Century." Escalera Náutica website. Available at <http://www.escaleranautica.com/general2.html>.

⁹⁴ "A priority project the Escalera: Navarro." Escalera Náutica web site. Available at www.escaleranautica.com/news2.html#8.

⁹⁵ Guzman, Susana. "International Funds Promote Conservation in Mexico." The Naturalist, October 28, 2002. Available at <http://www.naturalist.com/eco-news/index.cfm?p=display&id=6934>.

education. In 2002, the governmental budget assigned to protecting natural areas totaled US \$22 million. Since 1998, a total of US \$16.48 million granted by the World Bank through the Global Environmental Facility (GEF), and through the Mexican Nature Conservation Fund⁹⁶ has been applied to the conservation of 10 natural protected areas.⁹⁷ Unfortunately, funding has only gone to those parks that are considered a priority for conservation and many protected areas on the Baja California peninsula are still under funded and have remained only paper parks.

⁹⁶ Due to changes in Mexican policy, funds from the GEF initiative are managed not by the government but by the Mexican Nature Conservation Fund, a non-governmental agency which specializes in administering conservation funds.

⁹⁷ Guzman, Susana. "International Funds Promote Conservation in Mexico."

5. Civil Society

In recent years civil society in Mexico, and on the peninsula in particular, has proven to be a deciding force in many environmental debates. Communities and public interest organizations have successfully halted potentially destructive development projects in Laguna San Ignacio and San Quintín. The Escalera Náutica project has already come under scrutiny by communities and local, state and international organizations and it can be assured that these groups will play a decisive role in the outcome of the Escalera Náutica project. Some of these groups plan to oppose the project, and some are preparing to provide critique of the project with a goal of pushing it toward the best practices of sustainable development. These groups hope to see Mexico apply its environmental laws and to enforce the decrees that established the Natural Protected Areas on the peninsula.⁹⁸

5.1. *International Groups*⁹⁹

Conservation International, Mexico
Pro Peninsula
Natural Resources Defense Council
Save the Waves
Sea of Cortez Foundation
Surfrider Foundation
Wildcoast
World Wildlife Fund, Mexico

5.2. *National Groups*

Grupo de los Cien
Fondo Mexicano para la Conservación de la Naturaleza (FMCN)
Pronatura Noroeste Mar de Cortés

5.3. *Baja California Peninsula Groups*

Alianza Para la Sustentabilidad del Noroeste Costero Mexicano (ALCOSTA)
Association for the Protection of the Environment and the Marine Turtle in Southern Baja (ASUPMATOMA)
Coalición para la Sustentabilidad del Golfo de California
Comité Abrejoño para la Defensa de los Recursos Naturales de Bahía Ballenas (CADERNABB)
Investigación y Conservación de Mamíferos Marinos de Ensenada (ICMME)
Isla
Kuyimá Servicios Eco turísticos
Niparajá
Pro Esteros
Punta Abrejos CoastKeeper
Tres Bahías, Magdalena Bay

⁹⁸ Spalding, Mark. "Escalera Náutica: Stepping stairs to access environment beauty, or steps to despoil nature?" Unpublished report.

⁹⁹ Contact information for all groups can be found in Appendix I.

5.4. *Baja California Peninsula Communities*

Ejido Tierra y Libertad

Community of Punta Abreojos and Punta Abreojos fishing cooperative

6. Regulatory Environment

6.1. Mexican Legislation

Since 1988, Mexico has required Environmental Impact Assessments (EIA) also referred to as the Manifestación de Impacto Ambiental (MIA) for any type of development that could potentially have environmental impacts.¹⁰⁰ A separate MIA must be filed for each of the project's impact sites. This is referred to as the MIA *particular*. Due to the cumulative, simultaneous, and regional nature of the Escalera Náutica, the project's proponents must also file a *regional* MIA in accordance with Article 11 of Mexico's General Law of Ecological Balance and Environmental Protection (LEGEEPA).¹⁰¹ The regional MIA must contain the following:¹⁰²

- i) General project data, provided by project proponents who are responsible for the MIA.
- ii) Descriptions of works and activities, and, if applicable of their more general umbrella programs.
- iii) Any applicable links to planning instruments or juridical orders
- iv) Description of the regional environmental system and indication of any tendencies in the region of development or deterioration.
- v) Identification, description, and evaluation of the environmental impacts, both cumulative and residual, of the environmental system.
- vi) Strategies for the prevention and mitigation of environmental impacts, cumulative and residual, of the environmental system.
- vii) Regional environmental forecasts, and if applicable, evaluation of alternatives
- viii) Identification of methodological and technical instruments that support the results of the environmental impact assessment.

The regional MIA attempts to bridge the gap left by the absence in Mexico of a Strategic Environmental Assessment (SEA), which in other countries is applied to regional development projects such as the Escalera Náutica.¹⁰³ FONATUR previously stated its intent to release its first round of MIAs at the end of 2002. At the time of this writing they have not been made public. The release of the regional MIA is expected to occur in April or May 2003 according to the Subsecretary for SEMARNAT.¹⁰⁴

6.2. Legislation Applicable to National Protected Areas

A host of environmental legislation complements the LEGEEPA, including federal and state laws, regulations, decrees, accords, and official Mexican Norms (NOM). For specific information, consult the Management Program for the respective ANP at :
http://www.ine.gob.mx/ueajei/publicaciones/consultaListaPub.html?id_tema=4&dir=Temas.

¹⁰⁰ El Colegio de México. "Bases para el Ordenamiento Ecológico de Región de la Escalera Náutica (Componente Social y Económico). No date, pg. 399. Available at <http://www.ine.gob.mx/enautica/index.html>.

¹⁰¹ Ibid, p.426.

¹⁰² Ibid.

¹⁰³ Ibid, p.427

¹⁰⁴ Alanis, Gustavo. Centro Mexicano de Derecho Ambiental. Personal communication, February 21, 2003.

6.3. *Additional Mexican Regulatory Contexts*

In addition to the Environmental Impact Assessment, there are other legal contexts that apply to the case of the Escalera Náutica. While Baja California has produced a Statewide Ecological Ordering of Baja California (Ordenamiento Ecológico), due to its statewide focus, it remains too broad to be applied in this case.¹⁰⁵ Management programs for the peninsula's ANPs exist, yet were not formulated towards dealing with a project such as the Escalera Náutica.¹⁰⁶ Additionally, urban development plans, in such key areas as Santa Rosalita and Bahía de los Angeles are nonexistent.

6.4. *International Regulation*

While the MAB/UNESCO Program is not considered a regulatory entity, the reserves included in the MAB/UNESCO Biosphere program are reviewed on a ten year basis by the International Coordinating Committee (ICC). Based on criteria as stated in Article 4,¹⁰⁷ the ICC will examine reports on the reserves, and take one of three actions:¹⁰⁸

- 1) If ICC considers that the status or management of the biosphere reserve is satisfactory, or has improved since designation or the last review, this will be formally recognized by ICC.
- 2) If ICC considers that the biosphere reserve no longer satisfies the criteria contained in Article 4, it may recommend that the State concerned take measures to ensure conformity with the provisions of Article 4, taking into account the cultural and socio-economic context of the State concerned. ICC indicates to the secretariat actions that it should take to assist the State concerned in the implementation of such measures.
- 3) Should ICC find that the biosphere reserve in question still does not satisfy the criteria contained in Article 4, within a reasonable period, the area will no longer be referred to as a biosphere reserve which is part of the Network.¹⁰⁹

¹⁰⁵ El Colegio de México. "Bases para el Ordenamiento Ecológico de Región de la Escalera Náutica (Componente Social y Económico).

¹⁰⁶ Ibid.

¹⁰⁷ General criteria for an area to be qualified for designation as a biosphere reserve: 1) It should encompass a mosaic of ecological systems representative of major biogeographic regions, including a gradation of human interventions. 2) It should be of significance for biological diversity conservation. 3) It should provide an opportunity to explore and demonstrate approaches to sustainable development on a regional scale. 4) It should have an appropriate size to serve the three functions of biosphere reserves, as set out in Article 3. 5) It should include these functions, through appropriate zonation, recognizing: (a) a legally constituted core area or areas devoted to long-term protection, according to the conservation objectives of the biosphere reserve, and of sufficient size to meet these objectives; (b) a buffer zone or zones clearly identified and surrounding or contiguous to the core area or areas, where only activities compatible with the conservation objectives can take place; (c) an outer transition area where sustainable resource management practices are promoted and developed. Organizational arrangements should be provided for the involvement and participation of a suitable range of inter alia public authorities, local communities and private interests in the design and carrying out the functions of a biosphere reserve. 6) In addition, provisions should be made for: (a) mechanisms to manage human use and activities in the buffer zone or zones; (b) a management policy or plan for the area as a biosphere reserve; (c) a designated authority or mechanism to implement this policy or plan; (d) programmes for research, monitoring, education and training.

¹⁰⁸ UNESCO. "Statutory Framework of Biosphere Reserves." Available at <http://www.unesco.org/mab/docs/statframe.htm#4>.

¹⁰⁹ For more information on international biosphere reserves, visit <http://www.unesco.org/mab/>.

7. Political Economy of the Escalera Náutica

7.1. Political Environment

The implementation of the Escalera Náutica megaproject presents a particularly daunting challenge due to its reliance on governmental cooperation at all levels. FONATUR, under the Fox administration, is the project's proponent at the federal level, and is coordinating with six federal agencies and sub-agencies (see section 4.2). Five states are included, Baja California, Baja California Sur, Sonora, Sinaloa, and most recently, Nayarit, and the municipalities contained therein. The complications start at the Federal level, where President Fox's PAN party lacks a majority in either house, making it difficult to push his legislation and projects through, as relations between the PAN and the PRI have continued to deteriorate.¹¹⁰

7.2. Project Financing

At the same time, purse strings are tight in Mexico, which finds itself precariously emerging from recession.¹¹¹ The Economist Intelligence Unit expects foreign investment in Mexico to be sluggish over the next year, with investors particularly risk averse in 2003 as they watch how U.S. performance affects the Mexican economy.¹¹² In a meeting with FONATUR (see section 4.2.1) representatives stated that they had several avenues for project financing. One of those mentioned was the World Bank, which recently approved a \$202 million loan to Mexico. Upon further inquiry, funds from this loan appear to be destined for policy reform towards environmental considerations across sectors, and not for the Escalera Náutica.¹¹³

FONATUR also states that it has a committed group of investors, headed by golf superstar Greg Norman and backed by Advent International Global Private Equity, to provide \$200 million into the Escalera Náutica project in Loreto.¹¹⁴ However, Advent has stated that it is only studying the project.¹¹⁵ Advent does not list tourism development as one of its areas of investment expertise.¹¹⁶ FONATUR has signed an accord with the Trust for Sustainable Development to develop the Bay of Nopolo just south of Loreto, but has released no information regarding project financing. More information can be found at www.tsd.ca, and a map of the proposed development is included in Appendix A of this document. The cruise ship industry is another possible funding source mentioned by FONATUR, but to date, there has been no information released to support this statement.¹¹⁷

¹¹⁰ The Economist Intelligence Unit. "Mexico Country Report." January 2003, p. 7.

¹¹¹ Ibid, p.21

¹¹² The Economist Intelligence Unit. "Business outlook, Mexico." Business Latin America. December, 2002, p.4.

¹¹³ Kulsum Ahmed, Senior Environmental Specialist. Latin America and Caribbean Regional Office, The World Bank. Personal communication, November 2002. More information on the loan can be obtained at: http://www-wds.worldbank.org/servlet/WDS_IBank_Servlet?pcont=details&eid=000094946_020723040256.

¹¹⁴ El Carrizal. "Empresarios Invertirán 200 MDD en Loreto." November, 28, 2001. Available at <http://www.elcarrizal.com/es/noti.html>.

¹¹⁵ Millmand, Joel and Jim Carlton. "Plans for Mexico's Baja Face a Rough Landscape." Property Report, The Wall Street Journal Online, January 15, 2003. Available at: http://online.wsj.com/article_email/0,,SB1042582528602429064,00.html.

¹¹⁶ Advent International, Investment Criteria. Early Stage Financing. Available at <http://www.adventinternational.fr/>.

¹¹⁷ Investment by the cruise ship industry raises a number of other concerns related to the industry's poor environmental track record. See the Ocean Conservancy's report "Cruise Control: A Report on How Cruise Ships

The tremendous disparity between the various local governments' abilities to contribute economically to the project adds complexity to project financing.¹¹⁸ In summary, both the political and economic climate in Mexico pose considerable hurdles to overcome.

Funding for past and current projects related to the Escalera Náutica has, to the best of our knowledge, come from both the State and Federal governments. While no concrete information has yet been found, initial construction of the "land bridge" between Santa Rosalíita and Bahía de los Angeles and the marina in Santa Rosalíita received a budget of roughly \$2 million, with costs shared between the state government of Baja California, which paid for construction of the marina, SECTUR, which paid for the road signs lining Highway 1, and SCT, which paid for the initial road construction. Marina de los Angeles S.A. de C.V., a private company, carried out the construction of the marina. No concrete information has been found concerning the actual company or the contract. No information has been found on the future costs of maintenance, including dredging, or possible expansion of the marina.

According to documents found on the SCT website, the section of road from the transpeninsular highway to Santa Rosalíita was allotted a total of \$309,600 for the construction of approximately 16.3km of road. A total of \$245,700 was actually spent on work completed prior to November 25, 2002.¹¹⁹ This amount included a total of \$26,858 devoted to the "supervision of environmental conditions." This environmental work was completed between August 2002 and December 2002, by the contracting party of Geología y Medio Ambiente, S.A. de C.V.¹²⁰ Road construction was halted in early 2002 both for lack of permits, and for lack of funds.¹²¹

7.3. Economic Focus of the Baja California Peninsula

7.3.1. Baja California Economy

Throughout its existence, geography has kept Baja California isolated from the federal capital in Mexico City. The result of this has been a history of exclusion from economic and social development policies formulated in the capital.¹²² During the presidency of Lázaro Cárdenas, from 1934 to 1940, the region saw extensive land reform through the formation of ejidos.¹²³ In the ejido system, the federal government distributed land to peasant collectives while still

Affect the Marine Environment." (May 2002). Available at <http://www.oceanconservancy.org/dynamic/aboutUs/publications/cruiseControl.pdf>.

¹¹⁸ Leon, Cuauhtemoc and Boris Graizbord. "Bases para el Ordenamiento Ecologico de la Region de Escalera Náutica (Componente Social y Economico), Resumen Ejecutivo." Trans. El Colegio de Mexico, A.C. and Instituto Nacional de Ecología (SEMARNAT), p.viii.

¹¹⁹ Unidad de Infraestructura Carretera para el Desarrollo Regional, Programa 2002, Baja California. Resumen de Inversión y Avance Físico-Financiero. Secretaría de Comunicaciones y Transportes. Available at <http://www.sct.gob.mx/camrural/prog-2002/regiones/reg-no/bc/avce-ff.htm>.

¹²⁰ Unidad de Infraestructura Carretera para el Desarrollo Regional, Programa 2002, Baja California. Avance de Contratación. Secretaría de Comunicaciones y Transportes. Available at <http://www.sct.gob.mx/camrural/prog-2002/regiones/reg-no/bc/licit.htm>.

¹²¹ Gaceta Parlamentaria. Cámara de Diputados, número 990-II. Martes 30 de abril de 2002. Available at: <http://gaceta.cddhcu.gob.mx/Gaceta/58/2002/abr/Anexo-II-30abr.html>.

¹²² Baja California, (Lonely Planet Publications, 2001), p.216 p.19.

¹²³ Ibid, p.21.

retaining ownership of the land, thus preventing its sale. However, in 1992, amendments to Article 27 of the Mexican constitution changed the nature of ejido land tenure, allowing tenants to sell the land which upon which they had resided.¹²⁴

In 1956, the first hotel appeared at Los Cabos, for the most part accessible only via boat or plane.¹²⁵ The 1973 transpeninsular Highway 1 led to a rapid increase of population in the south, leading to the establishment of Baja California Sur as Mexico's 30th state.¹²⁶ The pattern of growth has continued on the southern tip, complemented by the addition of an international airport and a world-class marina. The state has grown to a population of 424,042.¹²⁷ The population of Baja California (Norte), at just over 2.7 million is expected to continue growing at the rate of 4% per year.¹²⁸ Both agriculture and the maquiladora industry are strong magnets for growth in Baja California. Fishing remains an important staple in the majority of small coastal communities. While agriculture, fishing, and mining play an important role in the peninsula's economy, the region is increasingly turning to tourism, which generates \$1.2 billion annually, 14% of the total income generated by tourism in Mexico.¹²⁹

7.3.2. Ecotourism and Other Affected Industries

While the Escalera Náutica could potentially bring economic benefits to effected communities on the peninsula, it could also negatively impact existing tourism. In an effort to identify the cost of losing existing local tourism versus the benefits of the project, Pro Peninsula teamed with the School of Business at San Diego State University in order to collect information on the recreation and tourism market in Baja California. The objective was to develop a market survey to obtain this information from approximately 50 activity providers who offer services in Baja California. This information was used to evaluate the economic impact associated with the Escalera Náutica project.

Survey Results

After developing a suitable market survey, responses were solicited via the Internet and fieldwork from activity providers in San Diego and Baja California. Respondents were asked to provide detailed information regarding their operations in Baja California. A hard copy of the survey can be seen in Appendix E. Twenty-eight responses were received and analyzed to provide the following information.

Respondents were asked to indicate how 4 different levels of development in Baja California would affect their normal participation rates. Answers were based on a 7-point scale – 1 indicating a significant *decrease* in participation and 7 indicating a significant *increase* in participation. As represented in Chart 1, responses for moderate and high level development were mostly negative, indicating decreases in participation. Few respondents said development of any kind would increase participation levels in Baja California.

¹²⁴ University of Manchester Faculty of Social Sciences and Law. "The Reform of Article 27 and PROCEDE." Available at <http://nt2.ec.man.ac.uk/multimedia/mexcase16a.htm>.

¹²⁵ Baja California. (Lonely Planet Publications, 2001). p. 20.

¹²⁶ Ibid.

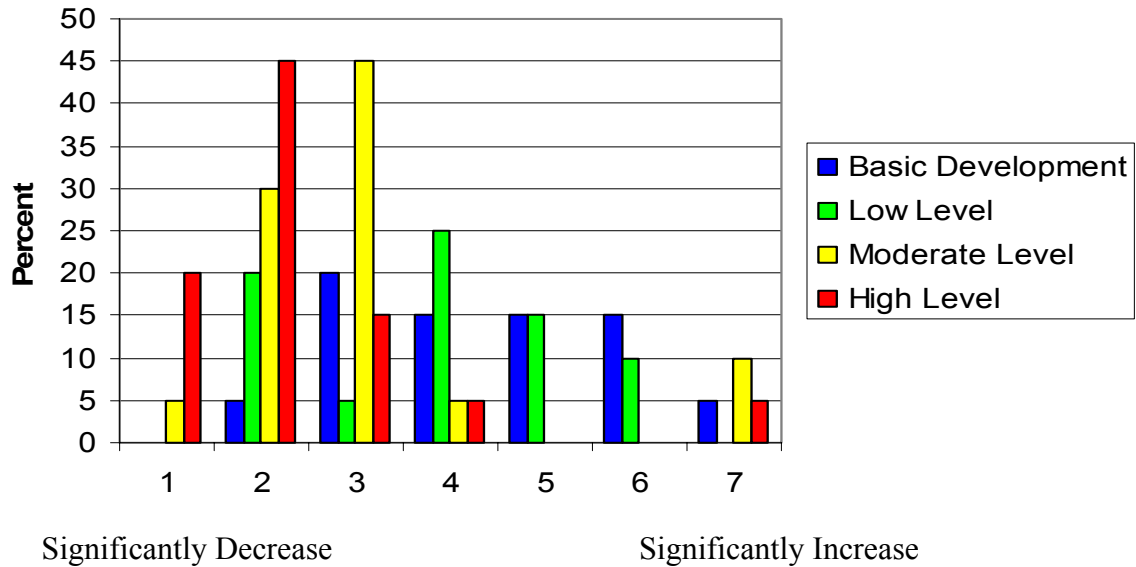
¹²⁷ Compendio Estadístico Municipios de B.C.S. p.107. Available at http://www.gbcs.gob.mx/estado/estadistica/comp_esta1.pdf.

¹²⁸ Ibid.

¹²⁹ Baja California, (Lonely Planet Publications, 2001), p.31.

CHART 1

Impact of Development



Activity providers were also asked to give financial information pertaining to the money they spend during excursions in Baja California in a given year and what types of expenses they incur. The figure of \$144,060 shown in Table 1 represents the average amount of money spent in Baja California by an organization on an annual basis. Respondents were also asked to estimate the total annual spending of their participants within Baja California. The average annual amount of participant spending in Baja California was reported to be \$22,278 per organization, as shown in Table 1. The sum of average organizational and participant spending was multiplied by the number of activity providers conducting business in Baja California. A conservative estimate of 75 activity providers was used for this analysis. As a result, activity providers were found to contribute over \$12 million directly to the economies of local communities on the Baja California peninsula. Other results from the survey can be found in Appendix E.

TABLE 1

Average Annual Spending of Organization (USD)	\$144,060
Average Annual Spending of Participants (USD)	\$22,278
Estimated Annual Revenues for Baja Communities (USD)	\$12,475,350

7.3.3. Alternatives

Sustainable tourism was defined by Mexico in a 1994 strategy developed for SECTUR that used a definition developed by the World Conservation Union. Ecotourism in the SECTUR strategy document is defined as:

“...environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy and appreciate nature (and any accompanying cultural features – both past and present) that promotes conservation, has low visitor impact, and provides for beneficially active socioeconomic involvement of local populations.”¹³⁰

Sustainable tourism, or ecotourism, presents an alternative to the Escalera Náutica that takes in to account the ecological and socio-economic realities on the peninsula. Many refer to this alternative as the “Escalera Ecológica.” The Escalera Ecológica is not just another name for the Escalera Náutica, it is a completely different style of development based on SECTUR’s sustainable tourism definition above. While this term has been used by many people representing varied interests, a plan that remains true to the SECTUR definition has yet to surface.

It is important that tourism promote people and/or animal powered activities, such as kayaking, bicycling, mule trips, hiking, swimming, snorkeling, and scuba diving. Each of these activities are attractions on the peninsula, and will continue to be as long as the waters and land of Baja California remain relatively unspoiled. Many towns, villages and ranches are already sustaining themselves on ecotourism and working to protect their environment at the same time. Investment in an Escalera Ecológica to promote ecotourism will benefit the residents of Baja California into perpetuity and keep the peninsula pristine.¹³¹ Programs such as RARE’s Ecotourism and Community Development (<http://www.rarecenter.org>) provide an opportunity for local residents to gain economically while preserving their natural assets.

Other sustainable industries also exist on the peninsula and their best practices can be repeated throughout the region. The fishing cooperatives in places such as Punta Abreojos and Bahía Tortugas are sustainable fisheries and managed so that their future is ensured for many generations. There are also a number of sustainable aquaculture sites along the peninsula. Oyster farms in San Quintín and Punta Abreojos not only offer a means of financial gain, the oysters are a natural filter for bay waters, offering an environmental benefit as well. Last, conservation is growing on the peninsula, both as an ideology and as an industry. In many communities, fishermen are being paid to monitor sea turtles in their area. This has given them an incentive to turn to protecting turtles rather than to poaching, and has given them a sense of pride in their environment and its assets. Future monitoring programs could be put in place for birds, fish, and plants, offering a myriad of possibilities to individuals and communities.

The Baja California peninsula presents a unique set of challenges and opportunities. Much of the region’s assets lie in its vast open spaces and unspoiled natural beauty. The key to successful development on the peninsula, both economically and environmentally, is the ability of development projects to exploit these unique assets while at the same time ensuring their

¹³⁰ Ceballos-Lascuráin 1996, 20.

¹³¹ Mahoff, Roy. Founder and operator, Eco Mundo, Mulege, Baja California Sur, Mexico. Personal email conversation, February 21, 2003.

long-term preservation. Those who seek to develop the region must pursue projects that take into account and promote the interest of local communities, follow environmental regulations and “best practices,” and maintain and promote transparency.

8. About the Authors

Pro Peninsula is a U.S. based 501(c)(3) nonprofit organization dedicated to strengthening the environmental movement on the Baja California peninsula. Pro Peninsula envisions the creation of a network of strong and effective environmental organizations backed by an educated and active public working towards the common goal of environmental preservation on the Baja California peninsula. Pro Peninsula's mission is to strengthen the effectiveness of environmental organizations on the Baja California peninsula. To this end, Pro Peninsula works to establish links with funding sources, provide technical assistance and organizational development, foster collaboration, and increase public awareness of the organizations and the issues they address.

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10. List of Appendices

Appendix A	Maps
Appendix B	News Articles
Appendix C	FONATUR Documents
Appendix D	EDAW Marina Market Analysis
Appendix E	Pro Peninsula Tourism Survey
Appendix F	Gaceta Parlamentaria
Appendix G	Report: Reorientation towards Sustainability
Appendix H	La Jornada Articles
Appendix I	Contact List
Appendix J	SCT Escalera Náutica Data
Appendix K	SEMARNAT Permits
Appendix L	INE Documents
Appendix M	Photos