



## SUSTAINABILITY



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## Executive Summary

Sustainable development, as defined by the United Nations' Brundtland Commission, is "Meeting the needs of the present generation without sacrificing the ability of future generations to meet their own needs." Simply put, sustainable development encompasses three primary areas: economic, social and ecological. Economic sustainability means that the development creates jobs and economic opportunities and is itself economically viable. Social sustainability requires that a development improves the health and welfare of a region, while at the same respecting and embracing its unique culture. And ecological sustainability means preserving and enhancing the ecosystem locally and globally. It is where these objectives overlap and reinforce each other that true sustainability exists. We are determined to build Loreto Bay as a conscious and positive part of the ecosystem and the local community.

In 2002 the Trust for Sustainable Development was approached by the National Tourism Development Foundation (FONATUR) of Mexico to redevelop the Loreto Bay property in a sustainable way. Most important to the Mexican government was that Loreto Bay becomes the economic engine to bring prosperity to and alleviate poverty in the central Baja region. While we take that responsibility seriously, we believe that will best be achieved by balancing economic development with ecological and social responsibility. A truly sustainable approach which has the full support of the federal, state and local governments.

Sustainability priorities are areas such as energy conservation, water consumption, habitat protection and enhancement, reduction of solid waste materials and air pollution. Economic opportunities and development are addressed through housing, planning and training as well as the creation of new jobs and local business enterprises. Social sustainability is occurring as we help fund the local medical facility and support education, recreation, culture, health and wellness and business enterprise capacity building in Loreto. We provide 1% of gross revenues to an independent foundation which supports community NGOs in their social and ecological missions.



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## Vision

*At Loreto Bay we imagine a place where day by day:*

- The air is cleaner
- The water is purer
- The people are healthier
- Life is more abundant
- We are enriched by the culture

We see ourselves on a journey, seeking to learn, working with partners, sharing our learning through dialogue, and growing the place we all imagine.

## Mission

*To demonstrate that humans can play a vital role in regenerating the eco-system, while creating positive social change and bringing economic prosperity to Central Baja California.*

## Commitments

*To protect and enhance the environment, we will:*

- Produce more energy from renewable resources than we consume.
- Harvest or produce more potable water than we use.
- Facilitate the creation of more biodiversity, more biomass and more habitat than existed when we started.

*To improve social welfare, we will:*

- Implement a Regional Affordable Housing Strategy to ensure that people who work at Loreto Bay are able to afford to live in the area.
- Support the development of a full service medical center in Loreto.
- Dedicate one percent of the gross proceeds of all sales and re-sales, in perpetuity, to the Loreto Bay Foundation to assist with local social and community issues.

*To ensure economic growth, we will:*

- Create significant new jobs in Loreto.
- Enhance the local economy through responsible tourism and new business development.
- Build a successful community that delivers a healthy rate of return to our investors, home owners, and partners.



# Strategy

## Environment

### Energy

Our plan includes both energy conservation and the use of renewable energy sources. On the conservation front:

- The “new urbanist” design of the entire development focuses on villages in which no gas-powered vehicles are permitted. Foot traffic, bicycles and electric vehicles will be the norm.
- We are building sections of our homes and buildings using compressed earth blocks (machine-made adobes) from local sand, clay and water, thus saving significantly in transportation costs and embodied energy. The resulting earthen walls are thermally efficient, reducing the energy required for air conditioners and heaters to maintain comfortable room temperatures.
- The design of the homes, with inner courtyards, fountains, and dome vented kitchen cupolas, contributes to natural cooling. Warm air passes over the exterior walls, is cooled by the courtyard fountain and plant life, and then is drawn through the house and out the cupola in a continuous flow.
- Homes are shaded by plants and village landscaping.
- Homes will be equipped with energy efficient fixtures and appliances.
- The Beach Club will be a LEED Platinum building, exemplifying the highest standard of energy efficiency.
- New construction material technologies such as Perform Wall will be used in various buildings, taking advantage of their high insulating ability and the fact that they are made using recycled materials.



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# Strategy

## Regarding renewable energy:

- The prime source for electricity will be wind power. A 20 megawatt wind farm will be built in conjunction with our partner Econergy International near Puerto San Carlos on the Pacific coast, operational by fall 2008. This will be sufficient to supply all of the electricity for Loreto Bay, plus serve some of the electrical needs of the Baja California Sur municipalities of Loreto, La Paz, Los Cabos and Ciudad Constitucion.
- Homes and buildings will be equipped with solar hot water units, for domestic water and swimming pool heating.
- Solar PV will be used to power pool and fountain water pumps.

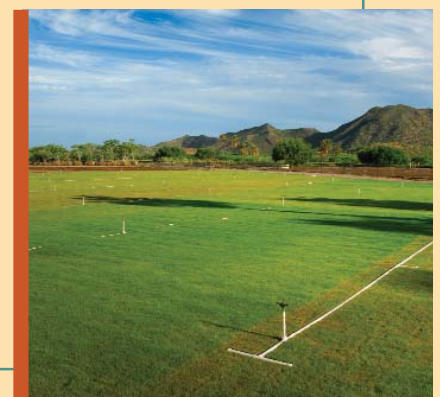
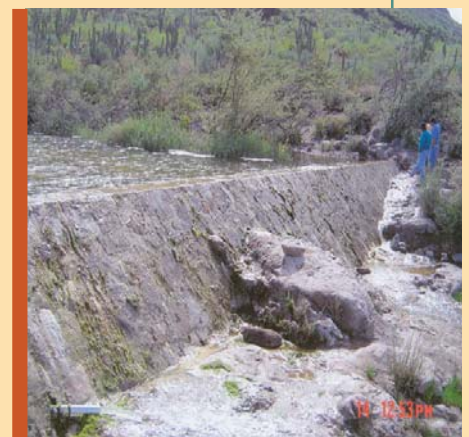
## Water

Loreto Bay is planned to be a water independent development, not relying on drawing upon Loreto's water source from the San Juan Basin. Our plan includes water harvesting, production and conservation.

- Harvesting – This involves restoring the two existing watersheds on Loreto Bay designated land by building small check dams to slow down flow in strategic channels where rainwater gathers. This allows more of the rainfall that occurs during late summer and autumn to be captured and absorbed into the ground, recharging aquifers rather than be lost as run-off to the sea. But this will take many years, perhaps generations, to effectively produce significant water results. Our goal is to see year round water flow in the Premier Agua Arroyo.
- Production – Desalination will be used to produce up to 1.5 million gallons per day of potable water. The system of choice, recommended by the Pacific Institute, the California Coastal Commission and the Monterrey Bay Marine Sanctuary, is an environmentally benign reverse osmosis technology which uses deep intake wells for source water and injection wells for brine discharge.
- Conservation
  - Fresh water irrigation will be minimized through the use of saline tolerant plants on the golf course (ie. paspalum grass) and in the landscaping.
  - The storm water plan will direct rainwater drainage for maximum irrigation potential and estuary flushing.
  - Reclaimed waste water will be used for irrigation.
  - Water smart appliances and fixtures will be installed in the homes and commercial buildings.



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# Strategy

## Habitat

To protect and enhance the living environment, Loreto Bay will:

- Create a 5000 acre nature preserve which will prevent further overgrazing by cattle and goats, and allow the natural flora and fauna to flourish.
- Restore the two watersheds of El Tular and El Zacatel by strategically building water slowing check dams in run-off channels to increase absorption into the ground, thereby enriching the soil and contributing to the growth of more flora.
- Create approximately 4 kilometers of restored wetlands estuary channels involving 25 hectares of mangroves and companion saline plants.
- Redesign the golf course to optimize the use of water and the proliferation of plant life, and to ensure the health of the estuary.
- Ensure that all personal hygiene products and industrial cleaning products used by the company in the Inn, commercial buildings and rental homes are biodegradable and non-toxic to soil and marine life.
- Ensure that household and commercial waste is separated into three streams of organics, recyclables and non-recyclables, and managed such that organics are composted, recyclables are reclaimed and non-recyclables which go to the landfill represent no more than 10% of our total waste.
- Ensure that toxic waste is properly stored and disposed of.
- Ensure that all pesticides and fertilizers are non-toxic to soil and marine life.
- Apply integrated pest management techniques which support the need for bats, birds, reptiles, etc.



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# Strategy

## Habitat

- Rescue indigenous plants prior to development for replanting in village landscaping.
- Ensure that sewage is properly managed and treated.
- Build and manage an eco-marina for small watercraft by following best practices for environmentally clean and safe marinas.
- Provide home owners and guests with educational materials and opportunities to learn about protection and enhancement of habitat.
- Support third party initiatives to protect and enhance the living environment through Loreto Bay Foundation grants.



## Air

To ensure clean air and combat global warming, Loreto Bay will:

- Eliminate the need for diesel-generated electricity for 100% of our project power by using clean renewable wind and solar energy.
- Prohibit gas-powered vehicles within the villages and use electric cars and bicycles.
- Use low or no VOC paints and finishes.
- Use FSC certified wood, which is harvested as a renewable resource, maintaining forest areas to sequester carbon.
- Compost all organic waste (reduces methane from landfills).
- Use no nitrogenous fertilizers (contributes to GHG nitrous oxide) in our agriculture/landscaping program.
- Produce locally grown food to reduce transportation of products.
- Produce and build with earth blocks made from local sand and clay.
- Reduce the use of cement where possible by using alternate building materials.
- Offset all employee air travel emissions by regular calculated donations to a viable carbon offset organization.
- Provide the option for home owners and buyers to offset their air travel emissions.
- Fund the creation of the Mexican Green Building Council to assist others in facilitating better building and development practices.



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# Strategy

## Social

### *Affordable Housing*

To ensure that Mexicans who work at Loreto Bay can afford to live in the area, we will:

- Pay Mexican employees a living wage, in most cases at least double the national average.
- Facilitate the development of affordable housing which Mexican employees can purchase, rent or rent-to-own.

### *Medical Center*

To support the development of a public full service medical center in Loreto, we will:

- Donate \$800,000 through a special fund of the Loreto Bay Foundation.
- Raise money for this fund through special events and campaigns.

### *Loreto Bay Foundation*

To support the Loreto Bay Foundation, we will ensure:

- Regular financial disbursements, equal to 1% of quarterly sales and re-sales income in perpetuity.
- Strategic collaboration on projects as required to ensure implementation.
- Ground support in Loreto in the form of staff cooperation, communication, status reports and advice.



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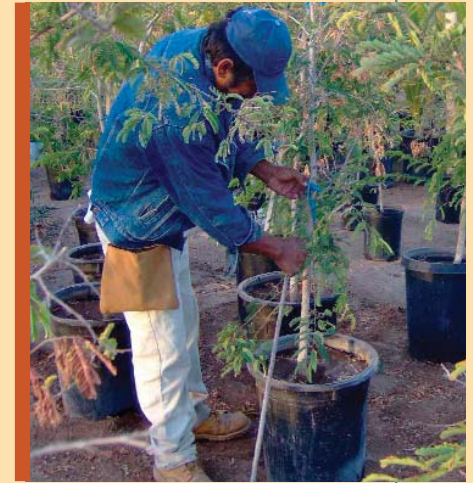
# Strategy

## Economic

### Jobs

To create significant new jobs in Loreto, we will:

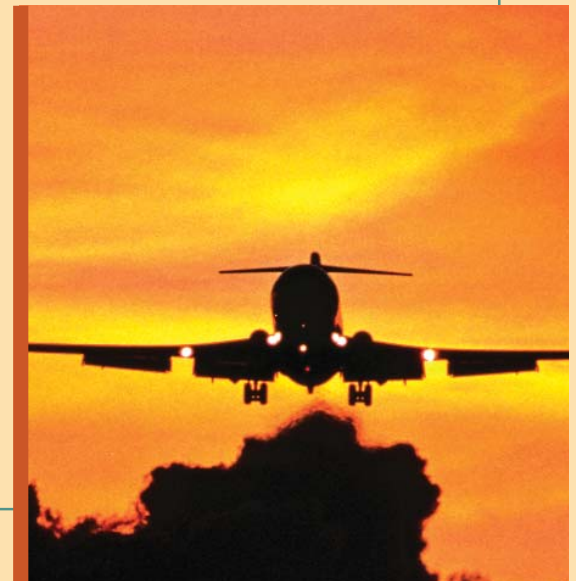
- Hire local contractors and individuals wherever possible.
- Operate our own agriculture center with organic farm and nursery, staffed primarily with local residents.
- Operate our own earth block manufacturing facility, staffed primarily with local residents.
- Operate our own waste separation, recycling and compost facility, staffed by local residents.
- Pay above average salaries.
- Train employees in various disciplines, such as administration, IT, hospitality, sales, construction, farming, sustainability, etc.
- Support local organizations with project grants which allow the hiring of new personnel.



### Local Economy

To enhance the local economy, we will:

- Support local tourism by promoting Loreto in our marketing campaign as a beautiful ecologically abundant yet sensitive area, rich in history and culture.
- Work to develop Loreto as a world-renowned eco-tourism destination.
- Facilitate the increase in airline flights to Loreto Bay from key cities such as Los Angeles, San Diego, Phoenix, etc.



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# Strategy



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## *Local Economy*

- Direct our visitors and homebuyers to local outfitters, tour guides, restaurants, shops, etc. and collaborate with these businesses in the interest of ensuring a fulfilling tourism experience.
- Engage the services of local businesses such as the taxi union, car rental companies, restaurants and entertainers for Loreto Bay events.
- Make available affordable commercial space in the Villages of Loreto Bay for local businesses
- Support business incubation, micro-lending and capacity building through the Loreto Bay Foundation.
- Encourage new business development to supply various needs that arise as the neighborhoods are built and inhabited.



## *Return on Investment*

To build a successful community that delivers a healthy rate of return, we will:

- Develop strategic partnerships with major corporations such as Citibank, Prudential Real Estate, Alaska Air and FONATUR.
- Engage highly qualified sustainability professionals to ensure that the end product “Villages of Loreto Bay” is a unique, valuable and highly marketable commodity of unquestionable integrity.
- Engage the highest caliber professionals in financial planning and management, real estate marketing and sales, customer service, hospitality, design, construction and maintenance.
- Be diligent in sourcing the most cost effective, yet ecologically appropriate, materials and services.



# General Timelines



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## **Wind Farm**

- Q4 2007 – construction begins
- Q3-4 2008 – construction complete, operation begins

## **Beach Club LEED Platinum**

- Q4 2007 – construction begins
- Q3 2008 – construction complete

## **Watershed Restoration**

- Q1 2007 – 2 check dams complete
- Q4 2007 – test ground water levels
- Q1 2008 – 4 more check dams in place
- Q1 2010 – 16 check dams in place

## **Desalination Plant**

- Q2 2007 – drilling and construction of intake and rejection wells
- Q3 2007 – construction of desalination plant
- Q4 2007 – operational

## **Nature Reserve**

- After 2012...to be determined

## **Restored Estuaries**

- Q4 2006 – canal dredging begins
- Q4 2007 – first mangroves planted

## **Redesigned Golf Course(s)**

- Q1 2007 – construction begins
- Q4 2007 – 9 holes complete

## **Eco-Marina**

- Q1 2009 – construction starts

## **Affordable Housing**

- 2007 – construction starts

## **Recycle/Compost Center**

- Q4 2006 – feasibility study complete
- Q3 2007 – construction begins
- Q1 2008 – complete, operational

## **Sewage Treatment/Reclaimed Water**

- Q4 2007 – Nopoló treatment plant completed
- Q1 2008 – reclaimed waste water being used for landscaping irrigation