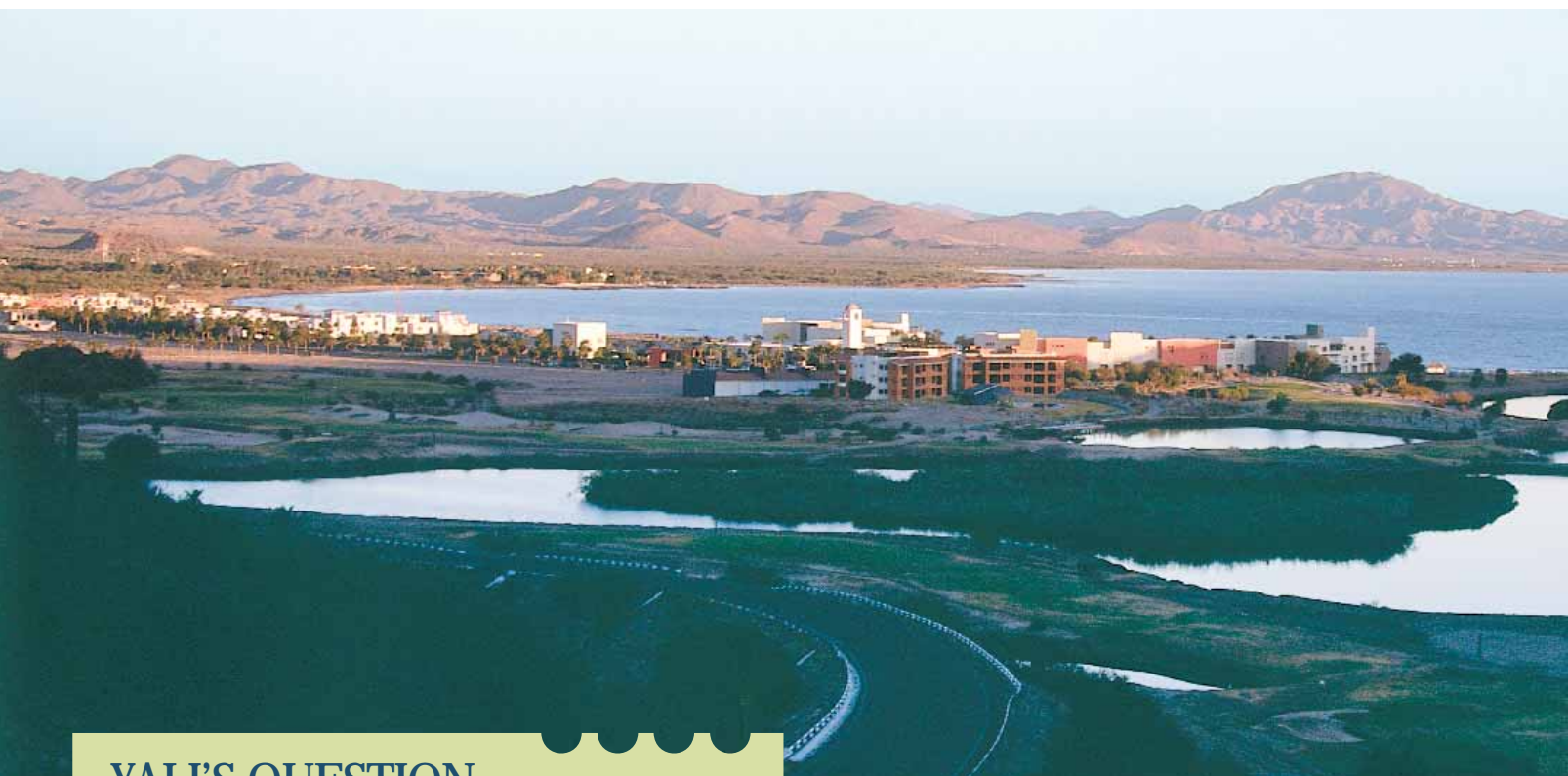


LORETO BAY CO. SUSTAINABLE OR GREENWASHING?

A Voracious Appetite for Profit Threatens Loreto's Fragile Biosphere. Can a Developer Who Purveys Sustainability Deliver on the Promise?

STORY BY BRITTANY PARKIN ★ PHOTOS BY ENRIQUE VARGAS





YALI'S QUESTION

In his Pulitzer Prize winning book, *Guns, Germs, and Steel*, Jared Diamond proposes a theory to explain the apparent gap between the First World and the Third World. His thesis was sparked by a question posed by a New Guinean named Yali who asked the Europeans upon their arrival to his country in 1972, “Why is it that you white people developed so much cargo and brought it to New Guinea, but we black people had little cargo of our own?”¹

The “imperialist” would answer Yali’s Question by suggesting that New Guinea is behind simply because its people are less intelligent and too primitive to make the leap from agriculture to industry. But Diamond’s research compelled him to answer by writing an entire book defending the view that “...the striking differences between the long term histories of peoples of the different continents have been due not to innate differences in the peoples themselves but to differences in their environments.”² In other words, the gap that exists between technologically advanced societies and those that still rely heavily on agriculture has far less

to do with native intelligence and more to do with an environment lacking in sufficient resources to bridge that gap.

One such geographical location, the Fertile Crescent, located partially in modern-day Iraq, enjoyed a tremendous head start during early human existence. The former Fertile Crescent, now an arid, virtually rainless terrain was once covered in woodlands. Its transformation from a region abundant with crops and domesticated animals to a parched desert is a testament to the fact that human interaction with ecologically sensitive environments can lead to their ultimate ruin. Once at the forefront of humanity, the early humans of the Fertile Crescent “had the misfortune to arise in an ecologically fragile environment” and ended up committing “ecological suicide by destroying their own resource base.”³

History has taught us that the intelligence of a region’s inhabitants have far less effect on the ultimate fate of these peoples than the productivity of the environment itself. The demise of the Fertile Crescent tells a story of how a fragile ecosystem was lost at the hands of too many humans using its precious resources too quickly. Placed in a more modern context, we learn that no matter how “intelligent” a development plan may be, there is no escaping the fact that some particularly sensitive regions are simply not prepared for rapid population increases and subsequent overuse of its limited resources.



LEFT AND ABOVE: The “touristic corridor” referred to as Nopolo is located a few miles south of the town of Loreto and includes a golf course, the Inn at Loreto, a few private residences and several new condominium complexes. The Loreto Bay Company plans to develop 6,000 homes along the golf course and the estuaries that front the Sea of Cortez and the Loreto Marine Park.

LORETO AND THE FERTILE CRESCENT

The region of Loreto in Baja California Sur is characterized by a similarly fragile environment that is on the verge of being rapidly developed at very high density. If we recognize that the region of Loreto is a modern microcosm of the Fertile Crescent, we have the benefit of avoiding another potential collapse from too many humans interacting with a delicate ecosystem and depleting its limited resources. If we are truly to protect an ecosystem so diverse in marine and animal life that Jacques Cousteau described its waters as “the world’s aquarium”, then it is our duty to carefully scrutinize developers who plan to build thousands of homes along such a short stretch of the coast of the Sea of Cortés.

LORETO NATIONAL MARINE RESERVE AND WORLD HERITAGE SITE DESIGNATION

Over 800 species of marine animals inhabit the Sea of Cortés, making it one of the richest seas on the globe. Due to the

diligent efforts of the Loreto community, the Bay of Loreto National Marine Park was created by a Presidential Decree and approved by the Mexican Federal Congress on July 19, 1996. Creation of regulations from which to manage the park and support for that management was left to the people of Loreto to develop. That task has been taken on by the local ecological organization, Grupo Ecologista Antares (GEA). Over the last ten years, the prestigious United States-based Nature Conservancy, the International Community Foundation, and numerous other organizations and dedicated individuals have been working closely with GEA to develop ways to support the management and protection of this amazing and unique ecosystem. In July 2005, the United Nations added the 244 islands, islets, and coastal areas of the Gulf of California to its list of protected World Heritage Sites in an effort to protect the biodiversity in the Sea of Cortés.⁴

Loreto is rich with plant and animal life, but it is not rich with essential

resources, especially water. Loreto has yet to be developed into the bustling town that it soon will be, but it has already begun to show signs of degradation due to inappropriate use of natural resources and lack of adequate conservation efforts.⁵

LORETO AND FONATUR

In the late 1960s, FONATUR, Mexico’s government agency charged with tourism development, identified five destinations in Mexico with the highest tourism potential.

These destinations included Cancun, Los Cabos, Ixtapa-Zihuatanejo, Huatulco, and Loreto. Today, all of these locations are prime tourist destinations except for Loreto which has remained relatively untouched for the past thirty years. However, a catalyst to Loreto’s future growth occurred in 2003 when FONATUR signed a partnership agreement with The Trust for Sustainable Development, a federally chartered Canadian not-for-profit corporation. The Trust’s chairman, David Butterfield, is a



ABOVE: Two divers surface in the warm light of the Loreto National Marine Park, created in 1996 to protect the breeding grounds for some of the most prolific concentrations of marine life in the world, many of which have been designated as commercially extinct. **RIGHT:** Schools of barracuda swarm over shallow reefs and sea mounts in search of food. **OPPOSITE PAGE:** A favorite activity is snorkeling in the warm, clear waters of the many protected bays found in the offshore islands.



photo: Beverly Factor

prominent Canadian developer and has a background in sustainable development. Butterfield has been quoted as saying, "When building a community, the most important factors are economic development, social responsibility, and ecological protection. When these factors come together, you have a sustainable development."⁶ Within the Trust is The Loreto Bay Company, the organization marketing and developing the sustainable seaside town along the Sea of Cortés. It is not the intent of The Loreto Bay Company to develop Loreto into a clone of Los Cabos or La Paz. In fact, its plans to build using sustainable processes are an effort to develop Loreto in a way that is quite different from other famous Mexican resort destinations. This is a positive message for local residents who take pride in Loreto's unspoiled landscape and its small, family-oriented resort community atmosphere.⁷ Loretanos do want responsible growth and the benefit of more facilities, but some skeptics of the Loreto Bay development fear that the hope for more amenities and a stronger economy is blinding Loretanos from the potential loss of their pristine and uncrowded beaches in the process.

WHAT IS SUSTAINABILITY?

It must first be understood that "sustainable" is a difficult term to define. In terms of development, the concept of sustainability is relative to locale. A sustainable development in Florida cannot be directly measured against a sustainable development in Loreto because each location possesses its own unique and limited natural resources. So to what standards of sustainability does The Loreto Bay Company adhere? According to the Loreto Bay Company press kit, the Trust for Sustainable Development has a mission to comply with the United Nations' Brundtland Commission's definition of sustainability: "meeting the needs of the present generation without sacrificing the ability of future generations to meet their own needs." In particular, Loreto Bay



“The demise of the Fertile Crescent tells a story of how a fragile ecosystem was lost at the hands of TOO MANY HUMANS using its precious resources TOO QUICKLY.”

addresses sustainability in three key areas: economic, social, and environmental. Its three ecological promises are to produce more energy from renewable resources than it consumes, to harvest or produce more potable water than used, and to create more biodiversity, more biomass, and more habitat than originally existed. With an unconventional motto like, “Live Fully, Tread Lightly”, Loreto Bay envisions a development that will leave little impact on the existing environment. Herein lies the danger—sustainability in development is a relatively new phenomenon with very few people who are informed on the subject. Therefore, it is important to maintain vigilance when “sustainable” is being used to describe a development.

RATING SYSTEMS FOR GREEN AND SUSTAINABLE BUILDING

Eco-lodge expert Hitesh Mehta states, “A true eco-lodge has three basic elements: It

protects the environment, benefits local communities, and helps guests learn about the local surroundings while they explore them.”⁸ The Loreto Bay Company hopes that it can become an international model for sustainable development where no such international model yet exists. The World Green Building Council (WGBC) will say that “a sustainable property industry will balance environmental, social and economic issues to ensure a viable and valuable industry for future generations”, but it cannot provide a specific rating system that will apply in every region of the world. Instead the WGBC assists its members consisting of Green Building Councils from the world over in developing their own national rating systems. The U.S. Green Building Council (USGBC) has developed the Leadership in Energy and Environmental Design (LEED) Green Building rating system which is a voluntary, consensus-based national standard for developing high performance, sustainable buildings.

According to Ross Spiegel, LEED AP, Associate/Senior Specification Writer/Green Team Leader at Fletcher-Thompson, Inc., the Construction Specifications Institute’s (CSI) Liaison to the USGBC for the last 12 years, and co-author of *Green Building Materials: A Guide to Product Selection and Specification*, the Mexico Green Building Council is currently in the process of developing a National Green Building Rating Tool called SICES. Spiegel says, “I do not know the timeline for the development of the rating tool but initially they intend it to cover commercial buildings and low income housing, neither category applicable to the Loreto Bay development.” Without its own rating system, sustainable developers in Mexico still have the option to submit the project for LEED Certification through the USGBC. It is Spiegel’s suspicion that “Loreto Bay is claiming to be a sustainable development without using any measurement tools to prove it or without making an actual effort to do so and hoping that no one will notice.”



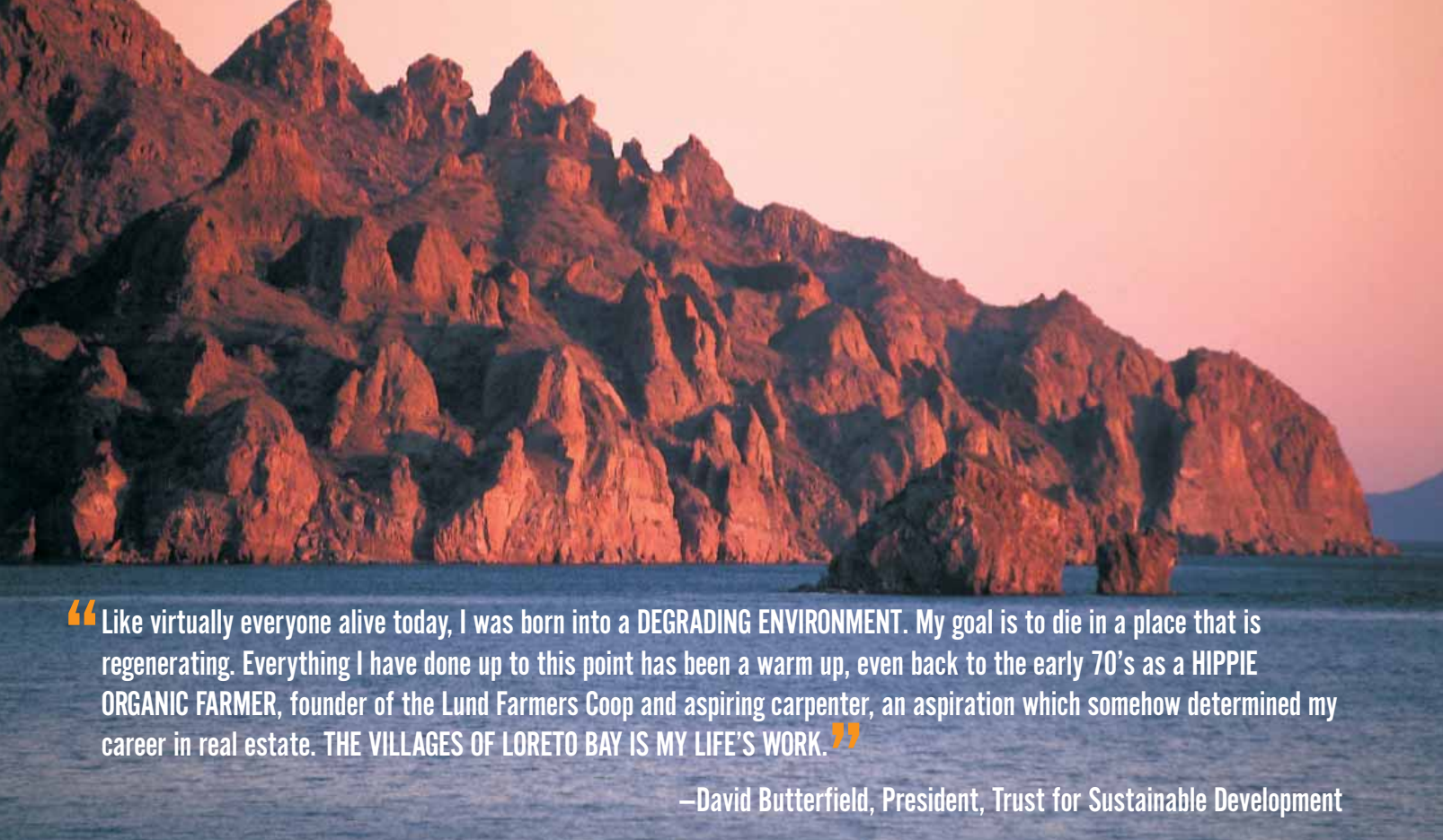
ABOVE: Once abundant with fish so numerous and diverse that Jacques Cousteau referred to them as “The aquarium of the World”, Loreto’s reefs are in need of protection. Years of unregulated over-fishing have decimated many areas. On a positive note, the efforts of local individuals, the community and NGO’s such as GEA have made significant strides in reversing the continued degradation of Loreto’s fragile marine eco-systems. **OPPOSITE PAGE:** The south end of Isla Danzante appears as the tail of a sleeping dragon as its jagged peaks slide into the waters of the sea.

“Sustainable” remains an elusive word. The Loreto Bay Company’s vision appears legitimate, but it remains to be seen if they will adhere to the true definition and fulfill the promises they have made. Since there is currently no official rating system that evaluates sustainable developments, can the Loreto Bay Company legitimately claim that they are “the largest sustainable development under construction in North America today”?⁹ In Spiegel’s opinion, “it is disingenuous to claim to be a ‘sustainable development’ when no standard measurement tool exists to gauge the accuracy of the statement. Unfortunately, given the general state of the environment in Mexico [highly polluted and no controls] it should not be too difficult for them to make the claim of being a sustainable development.”

GREENWASHING AND ACCOUNTABILITY

Catch words such as “sustainable” and “green” promise many things to the uninformed consumer—it may be difficult to define sustainability, but fortunately, it is much easier to determine what is not sustainable. “Greenwashing” is a term that describes the relatively new phenomenon of “claiming to be green for the economic benefits without delivering on the promise.”¹⁰ So, what are the economic benefits of building green? Why might a developer be inclined to “greenwash”? According to Hitesh Mehta, “The word ‘eco’ has been hijacked. Like organic food, yoga and feng shui, ecotourism has entered the realm of the lucrative fad, where exploitation is inevitable.”¹¹ The bottom line is that words such as health, happiness, eco-friendly, and organic, invoke positive feelings in people because they make them feel as though they are doing something good for themselves and for the Earth. The real question is, when a developer pitches sustainability and “green” to a health-obsessed audience, are buyers getting the real deal or are they being duped?

With the recent arrival of words like “green” and “sustainable”, most lack the



“Like virtually everyone alive today, I was born into a DEGRADING ENVIRONMENT. My goal is to die in a place that is regenerating. Everything I have done up to this point has been a warm up, even back to the early 70’s as a HIPPIE ORGANIC FARMER, founder of the Lund Farmers Coop and aspiring carpenter, an aspiration which somehow determined my career in real estate. THE VILLAGES OF LORETO BAY IS MY LIFE’S WORK.”

—David Butterfield, President, Trust for Sustainable Development

expertise to know which questions to ask. A recent article in *Men’s Journal* lays out both broad and specific questions one should ask any developer that is claiming to be sustainable. These questions provide the foundation for the following Q&A section.

QUESTIONS & ANSWERS

All developers claiming to be sustainable must be prepared to answer questions concerning the true sustainability of the project. The questions posed below will illuminate the fact that sustainability is tedious and far more involved than simply building some solar-powered condos on the beach. It is important to remember that a truly sustainable development must take into consideration the current social, economic, and ecological environment of the region to be built out. It is important to recognize that building a truly sustainable project requires extensive research, expert advice and exhaustive planning. The following interview compares responses given by The Loreto Bay Company to those provided by local residents and experts including comments from Rodolfo Palacios

Castro, Hugo Quintero Maldonado, Heidi Sanborn, and Linda Kinninger. Rodolfo Palacios Castro became a board member of GEA and a member of Loreto 2025, an organization committed to developing an alternative development plan to Loreto Bay. This followed his move to Loreto when his hometown in Los Cabos grew out of control and became a heavily-travelled tourist destination. Hugo Quintero Maldonado is a local civil engineer and the current Director of El Organismo Operador Municipal del Sistema de Agua Potable y Alcantarillado de Loreto (The Loreto Water and Sewer Department). Heidi Sanborn has an extensive background in waste management. Linda Kinninger is a prominent resident of Loreto and an active participant in environmental affairs in the Loreto region and Wallace J. Nichols, Phd. is a leading researcher and advocate for protection of Baja’s sea turtles.

1) What has Loreto Bay done to protect the local flora and fauna?

Loreto Bay: According to David Veniot, Loreto Bay’s Vice President of Sustainability, Loreto Bay’s plan isn’t simply to protect local

flora and fauna – they are committed to programs that will increase biodiversity and biomass in the region. In order to increase biomass and biodiversity in the Loreto region, Loreto Bay plans to increase the amount of water they collect by capturing excess rainfall and constructing a series of dams. Loreto Bay has concluded that the combination of these efforts will elevate the ground water, allow them to improve the existing local aquifer, and thus improve habitat by attracting wildlife, bird life, and marine life. Part of Loreto Bay’s commitment to protect local flora and fauna is Loreto Bay’s Agricultural Center, now one of Baja’s most extensive mangrove propagation programs. The idea is to germinate over 10,000 mangrove seeds per year starting two years from now. Additionally, through The Loreto Bay Foundation, the company has supported the last two turtle conferences, an annual event that brings together NGO’s, individuals and world experts to stave off the extinction of various sea turtles. Recognizing that they have really only scratched the surface when it comes to protecting flora and fauna in the delicate region of Loreto, Loreto Bay plans to conduct more research and find more ways to protect the ecosystem throughout the 12 to 15 year life of the project.

Baja Life: While the Loreto Bay Company claims that it is working with various conservation groups to ensure the health and vitality of the local marine and animal life, their plan is to build 6,000 homes in 3,000 acres while setting aside the remaining 5,000 acres as a nature preserve. The highest density part of the development rests along the coast with as many as 40 homes per acre. Rodolfo Palacios Castro's main concern is the coastline because the coast, including the reef, is 20 times more productive than the rest of the sea. Rodolfo is skeptical of the plans to build a golf course that is dangerously close to a sensitive estuary. He is also concerned about the drastic increase in the amount of people walking along the beaches where many animals, some on the edge of extinction, are nesting. Not only do endangered sea turtles nest in the sand where the Villages will soon stand, but also certain endangered birds who bury their eggs there. Rodolfo is concerned that residents of the Villages will inadvertently step on the eggs thus contributing to the potential extinction of these species.

Furthermore, the nearby highway lighting that has recently been added to the highway coming into Loreto Bay is a problem to the sea turtles. As constructed, the light is directed outwards instead of downwards and can be clearly seen all the way from a bluff in Ligui located almost 20 miles south of the Loreto Bay development site. Lighting that is directed downwards does not pose the risk of confusing sea turtles nesting on nearby beaches.

Since much of the land in Loreto belongs either to developers or FONATUR, Linda Kinninger approached Loreto Bay hoping that The Loreto Bay Foundation would donate a small piece of land for a turtle research station. When Loreto Bay refused to make the donation, Ms. Kinninger could not help but feel that The Loreto Bay Company is not as concerned about sea turtles as they claim to be. According to J. Nichols, "Low numbers of Olive Ridleys (*Lepidochelys olivacea*) nest along the shores of Loreto, including the beaches in front of the airport and in the Nopoló area. As the Olive Ridley



population begins to recover, due to successful conservation efforts and strong laws that protect them, we should again see larger numbers of this species on Loreto's beaches. Right now there are a dozen or so nests each season throughout the Park. In theory, building a sea turtle hatchery for the region is the responsibility of the Park. Nests would be collected and protected there opportunistically, since patrolling such a large area for few nests would be very inefficient. And it would of course be a popular attraction for any development to maintain the sea turtle hatchery. In short, turtle nesting in the region has not been the highest priority. More important are the green and hawksbill turtles in the bay that use the water year round as feeding grounds. As a national marine park and an important area for sea turtles, it's my opinion that everyone should be involved in conservation, especially those businesses that benefit directly from the natural beauty and diversity of the region. That includes contributing to the protection of the area's MOST endangered group of animals--the sea turtles."

2) How does Loreto Bay help the local communities?

Loreto Bay: According to Debra J. Stevens, Vice President of Marketing for Loreto Bay, her company will help local communities via

programs and donations. Loreto Bay will improve the health and welfare of the Loreto community by dedicating one percent of the gross proceeds of all sales and re-sales to The Loreto Bay Foundation to assist with Loreto's social and sustainability issues. Loreto Bay plans to create significant new jobs in Loreto that will enhance the local economy. Loreto Bay hopes to develop and implement a Regional Affordable Housing Strategy in cooperation with Loreto citizens and all layers of government based on the premise that people who work at Loreto Bay should be able to afford to live nearby. Furthermore, Loreto Bay has contributed \$800,000 toward the construction of Loreto's first full-service medical center.

Baja Life: The Loreto Bay Company claims that it is hiring local people to complete the project, but according to several locals, it has become apparent that Loreto Bay is using the term "local" very broadly. Testimonials from several local residents confirm that the laborers working on the Loreto Bay project are actually from mainland Mexico because Loretanos would not accept the low pay that Loreto Bay contractors are offering. These mainland workers are very poor and are being paid very low wages. Apparently, they are subjected to poor living conditions in which as many as twenty men are corralled into a small room and left to sleep with only blankets on the concrete floor. Granted, Loreto Bay is trying its best to comply with Mexican Law which requires all contractors to provide decent, safe, and affordable housing to its laborers, but since the contractors are not complying, it is clear that Loreto Bay must pursue other measures. Either way, the current situation is one in which labor is not from Loreto and they are not being treated fairly. Additionally, the presence of these poor laborers from the mainland increases crime in Loreto and, in turn, adversely affects the quality of life for the locals.

Another concern is cement production. Whereas Cemex, a Mexican cement company, was previously being used to make the cement for the project, Loreto Bay

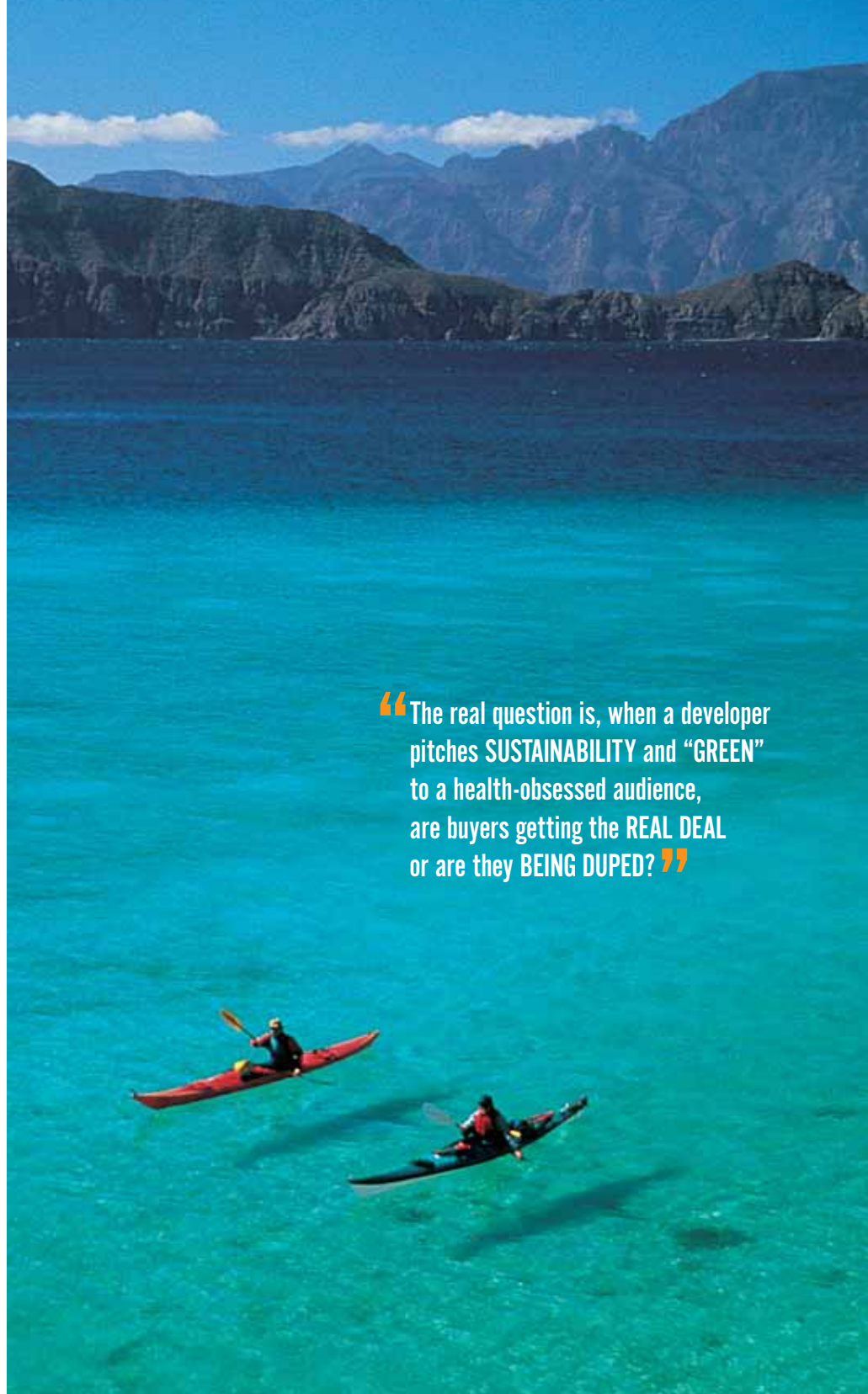
has since changed to an American-based cement company to save money, according to local residents who have been following the progress of the Loreto Bay development.

3) What interpretive opportunities (cultural or ecological) are available to buyers?

Loreto Bay: According to Debra Stevens, interested buyers who visit during one of Loreto Bay's four-day Selection Event Weekends will have the opportunity to learn about the marine park, the medicinal plants of the Sonoran Desert and the natural features of the Baja region. They will also tour Loreto Bay's earth block production facility where they learn about energy conservation and the efficient thermodynamics of building with adobe. Tours of the Loreto Bay Agricultural Center offer an opportunity to learn about native plants, edible plants of Baja, and low-water usage landscaping. Future opportunities will include Spanish language immersion, turtle and whale conservation, and digital photography. Loreto Bay's long-range plan is to offer many opportunities for lifelong learning within The Villages of Loreto Bay.

The development itself is meant to capture authentic Baja. The "ventana de servicio" is an optional add-on in the Villages of Loreto Bay. This "service window" is designed to be the authentic way in which locals have food and beverage delivered to their homes. Authentic architectural design incorporates the construction of a cupola, a tower similar to a chimney that provides cooling and heating options by opening or shutting the cupola windows.

Baja Life: According to a Loreto Bay sales meeting invitation, the sustainable practices of the Loreto Bay development ensure that Loreto "will forever remain authentic Baja." While Loreto Bay claims to offer educational opportunities for current and prospective residents, it seems as though they are also trying to retain Baja's authenticity through the architecture of The Villages itself. However, whether the environment and architecture is "authentic" or not is difficult to determine if you are an American, or a Canadian, or a European who knows very



“The real question is, when a developer pitches SUSTAINABILITY and “GREEN” to a health-obsessed audience, are buyers getting the REAL DEAL or are they BEING DUPED?”

ABOVE: Two kayakers enjoy the solitude floating above the transparent waters of Isla Carmen. Several tour companies offer multi-day kayak excursions to explore the desolate beaches and view whales, sea lions and playful porpoises that patrol the islands offshore. **OPPOSITE PAGE:** Scuba diving is very popular in the Park. Sea mounts and sunken wrecks provide protected habitat to fish populations that are on the rise again.

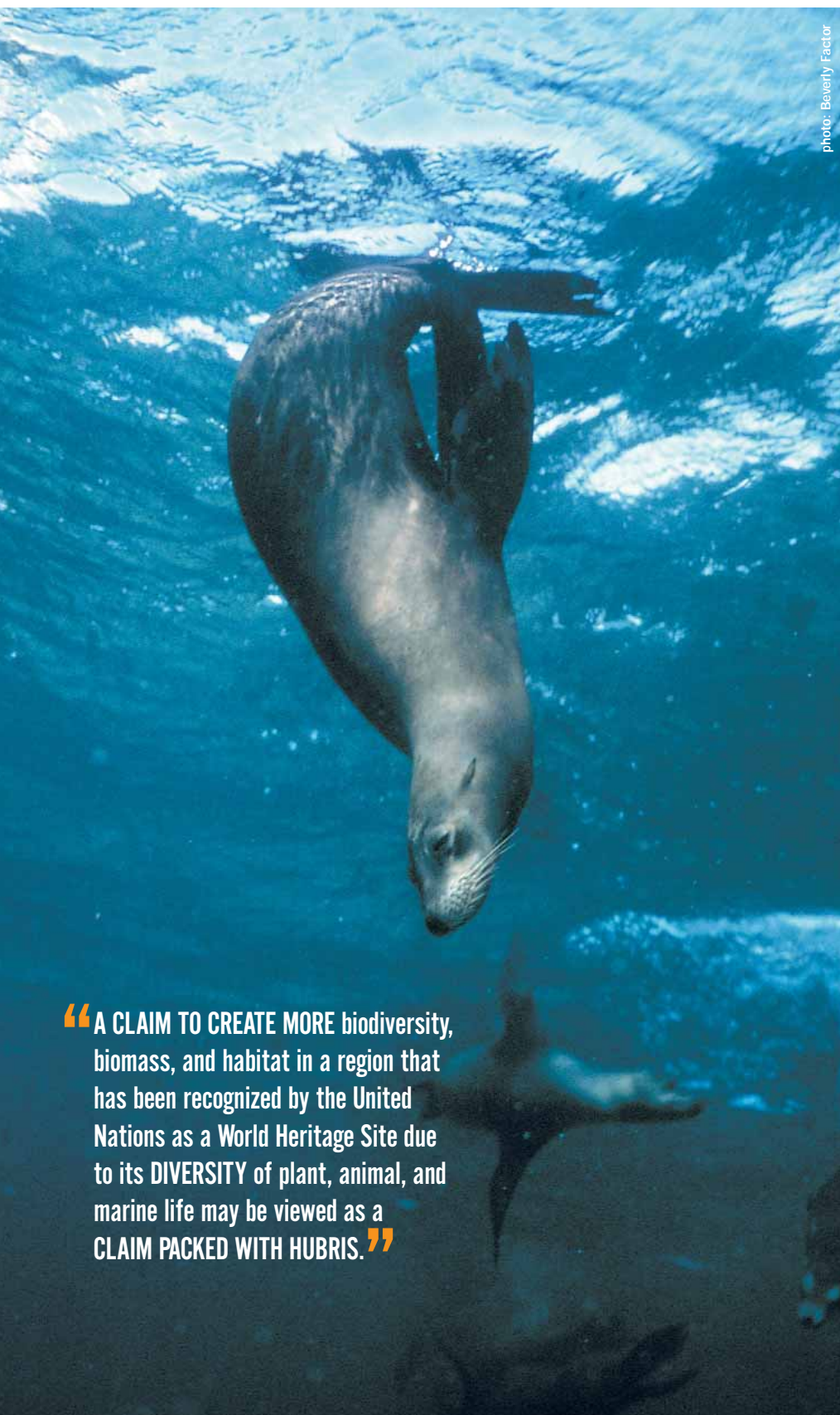


photo: Beverly Factor

“A CLAIM TO CREATE MORE biodiversity, biomass, and habitat in a region that has been recognized by the United Nations as a World Heritage Site due to its DIVERSITY of plant, animal, and marine life may be viewed as a CLAIM PACKED WITH HUBRIS.”

little of the nuances specific to the Loreto region as compared to other regions in greater Mexico. In fact, while Loreto Bay claims that The Villages reflect the local architecture of Loreto in particular, Hugo Quintero argues that the style is actually taken from Guatemala Antigua. This is probably something that only a Loretano would know, or perhaps only something an experienced civil engineer from Loreto like Hugo Quintero would know, but nevertheless, the architecture is not derived from Loreto and is instead derived from someplace entirely different.

4) How does Loreto Bay handle trash and recyclables?

Loreto Bay: According to David Veniot, waste will be separated into three categories in the homes and other buildings related to the project: recyclable waste, organic compostable waste and non-recyclable waste. The recyclables and organics will be taken to a waste management center.

Baja Life: While Loreto Bay claims that waste will be separated and taken to a waste management center, Loretanos cannot confirm the existence of any such waste management center. Litter infested streets are still very much the norm in much of Mexico, so it is very hard to believe that such a management center exists. When asked how trash and recyclables were going to be handled, a Loreto Bay representative stationed in Loreto answered by saying that waste would be taken to the nearest dump. Ideally, construction workers should separate out their materials and recycle them, but this requires that the workers are educated in this process and that a recycling program actually exists. According to Hugo Quintero, aluminum from junkyards is currently being recycled, but he is unaware of any means by which to recycle other materials such as paper, plastic, and styrofoam, all of which are being used in the construction of The Villages.

According to Heidi Sanborn, Loreto Bay's answer to this question is highly inadequate because "the devil lies in the details. What 'waste management center'? Where is it? Who owns it? Is it appropri-

RIGHT: A young local girl flashes her best shy smile. **FAR RIGHT:** Local women prepare delicious traditional cuisine at Vista Danzante, a nine-room eco-resort located south of Loreto in the area of Ensenada Blanca. **OPPOSITE PAGE:** Mischievous sea lions play hide and seek with divers, at times pulling on the regulator or grabbing a swim fin and darting away. Interactions with these “comedians of the sea” are becoming more common as their populations increase throughout the Park



ately operated according to U.S. environmental standards? How far do recyclables need to be trucked to get recycled? Where is the current landfill? Who operates it? Is it lined? Does it leak into the groundwater? Does it leak into the ocean? How do they deal with disposal of E-waste, batteries, fluorescent bulbs, and other potentially hazardous materials that can break, leaking heavy metals into the environment?” Ms. Sanborn also notes that properly handling waste is exponentially more important when developing near surface water over aquifers or near the coastline.

5) How does Loreto Bay treat gray water and sewage?

Loreto Bay: According to David Veniot, The Loreto Bay Company strongly proposed the development of a 60 liter per second, all naturally constructed, wetlands waste water treatment system that would have required six hectares of land. Unfortunately, FONATUR has declined the proposal, and is moving forward with plans for an electrically powered, mechanical sewage system, the same system that is currently used in Loreto as well as in other areas of Baja and Mexico.

Even though this system will use much more electricity than the one Loreto Bay proposed, it will eventually be powered by electricity from The Loreto Bay Company’s wind farm. The provisions of the agreement between FONATUR and The Loreto Bay Company require that FONATUR pay for sewage utility infrastructure costs.

In an effort to treat gray water and sewage in a sustainable manner despite the obstacles presented by FONATUR, Loreto Bay plans to expand the use of treated waste water from both the Loreto and Nopoló waste water treatment plants for use on landscaped areas within Loreto Bay and on the golf course. The golf course has been redesigned so that when it is redeveloped it will use saline tolerant grass and plants that can be watered with brackish water and reclaimed waste water.

Baja Life: Implementing a high-energy, completely mechanical sewage system is not sustainable. Granted, Loreto Bay had a more sustainable process in mind before FONATUR decided to invest the money in a high-energy sewage system. Regardless, if too many obstacles such as this lie in the way, it may be misleading to claim any com-

mitment to sustainability. The plan to construct a golf course that can be watered with part salt water and even brackish water is a start, but may not be sufficient for a community of 6,000 homes producing tons of waste.

6) Does Loreto Bay utilize any alternative energy resources like solar or wind?

Loreto Bay: According to Debra Stevens, Loreto Bay originally planned on implementing earth-kind solar energy to power the homes and everything else affiliated with the project in need of power. However, when it became clear that the solar plant was going to be costly, Loreto Bay decided to build a wind farm instead. The wind farm will be located near Puerto San Carlos on the Pacific coast and is estimated by Loreto Bay’s experts to generate over 20 megawatts of power, “plenty [of energy] for Loreto Bay and adjacent municipalities,” according to Doug Makaroff, Loreto Bay Vice President of Planning and Design. Since The Villages will only require 6 to 10 megawatts at any given time, surplus power will be available

for sale to the larger municipalities in Baja California Sur for use in running their utilities. All of the electricity produced in the southern Baja region is diesel-generated, so Loreto Bay's wind facility will ensure a significant reduction in harmful greenhouse gas emissions.

Baja Life: Despite having carefully followed the Loreto Bay project, Rodolfo Palacios was still unaware that the plans for the solar farm had been scrapped. If solar is too expensive in a desert with an overabundance of sun, Rodolfo wonders how much Loreto Bay is really saving by building a wind farm in its place. He is also worried that Loreto Bay has not done sufficient research on the bird life that lives in the area where the wind farm will be constructed and has not considered how high these birds fly so as to design a wind farm that will not harm the local bird population. When asked if research had been done on the environmental impact of a wind farm, issues concerning the bird population and other animal life in the area were simply not mentioned. Rodolfo believes that these important concerns have not been addressed, and that it seems sustainability in Loreto Bay has become more about saving money than actually protecting the environment.

7) What is Loreto Bay's policy on washing sheets and towels?

Loreto Bay: According to Debra Stevens, many retired and pre-retirees in America are looking to buy second homes in places like Baja where beachfront property is cheaper and more readily available. Since the key demographic for The Villages of Loreto Bay will be second home owners, it is important to implement eco-friendly policies to which homeowners must adhere. Loreto Bay will require the use of biodegradable soap, and the homes will be outfitted with low water usage appliances. Since the Villages of Loreto Bay are not meant to be a resort, but rather a community of homeowners with many of the amenities a resort can offer (spas, golf courses, club houses, etc.), residents will need to be educated in proper water conservation efforts and environmentally friendly cleaning supplies.



Baja Life: It is certainly impressive that Loreto Bay will require that biodegradable soap be used in the homes, and this is really a no-brainer for developers planning a sustainable community. However, it is important to ask how realistic it is to impose a restriction on soap for residents of 6,000 homes, many of whom will be renting their homes to other people during the year. It may be the case that original residents will adhere to the soap restriction policy, but can Loreto Bay ensure that future residents and part-time residents will follow the same rules? If Loreto Bay can fully implement this policy, how does it plan to regulate the kind of soap the residents are buying from local supermarkets which do not carry biodegradable soap? Linda Kinninger is able to obtain eco-friendly products by flying them in with her own private airplane, but most people do not have this luxury. Unless Loreto Bay plans to provide residents of all 6,000 homes with a constant supply of biodegradable soap, it is very difficult to believe that a policy such as this can be upheld.

Loreto Bay is a sustainable development comprised of homes rather than hotel rooms. Since being a homeowner

requires cleaning your own house, taking out your own trash, and washing your own laundry, Loreto Bay will not have the same oversight and involvement in these processes as they would if the development were comprised of full-service hotel rooms. The certainty is that Loreto Bay must consider that its buyers may or may not be committed to sustainable practices. If there is a way to ensure that Loreto Bay homeowners are truly committed to sustainability, then Loreto Bay must implement it. Furthermore, if Loreto Bay really wants a recycling system to work amongst a community of largely American homeowners, it must ensure that recycling is as easy as taking recyclables from the home to a very close recycling bin.

8) Does Loreto Bay have any other water conservation measures?

Loreto Bay: Aside from installing low water usage appliances in the homes, Loreto Bay has planned the construction of a desalination plant to ensure that The Villages of Loreto Bay and everything affiliated with it will have sufficient water in a desert region where water is far from abundant. According to David Veniot, the current plan is to build a desalination plant that is 48 feet by 56 feet adjacent to the golf maintenance building near the highway. At first, energy consumption by the desalination plant is expected to be about 3 Megawatts, but could require as much as 6 to 9 Megawatts after the plant is doubled in size as planned. Expected production of the desalination plant will be 1,232,000 m³/year (325 million gallons/year) which, according to Loreto Bay, is more than adequate to meet the needs of the development. In fact, expansion by another fifty percent is possible and would ensure that Loreto Bay would be the net producer of water in the entire Loreto region.

Loreto Bay's research has culminated at the decision to implement the best reverse osmosis (RO) technology available. Loreto Bay's model was adopted from the Puerto Peñasco plan, a project that is highly regarded

RIGHT: Blooms pour forth from towering Cardon cacti in the springtime, providing a valuable food source for birds which in turn disperse the seeds and continue the centuries-old cycle of propagation. It is estimated these cacti can live to 500 years old or more. **OPPOSITE PAGE:** The numerous branches of a Pitahaya Dulce, a species of cactus that provides a favorite sweet, edible fruit that is made into candies and jams, provide a trio of white-winged doves an afternoon perch.



for its history of salinity and biological testing. This RO model will ensure that the discharged solution is not warmer than the ocean itself, and solids, metals, and chemicals will be pre-filtered before the solution is deposited back into the Sea of Cortés.

In the long term, Loreto Bay plans to increase groundwater levels in the El Zacatel and El Tular aquifers by placing borders and gabions (rainwater flow-slowing dams and diverters) in strategic tributary locations in the hills, selectively fencing areas to prevent overgrazing, and replanting the tributary with many layers of indigenous plants and trees. This will result in the increased percolation of water through the soil which, over time, will enrich the soil and facilitate re-vegetation, thereby increasing the aquifer's ability to receive and percolate increasing amounts of water. This program is projected to take decades to complete as groundwater levels are increased to a level that can supply a significant portion of Loreto Bay's water demand.

Baja Life: In a region where water is scarce (it has rained only once in the last fourteen months), a desalination

plant is really the only way a developer can create more water for the increased population that its development will inevitably generate. Both the Alternative Futures for the Region of Loreto Reports conducted by Harvard and Hugo Quintero confirm that desalination is really the only way to create more water in Loreto.¹²

As discussed previously, there are many implications to the desalination process that must be addressed. According to Hugo Quintero, one liter of salt water yields only half a liter of fresh water. What is left over is dense salt or "salmuera". In Los Cabos, leftover salt is deposited back into the Pacific. This is acceptable in Los Cabos where the Pacific is more open and less ecologically sensitive, but in Loreto salt deposits cannot go back into the Sea of Cortés without hurting the delicate ecosystem there. Salt may be processed for consumption or chlorine may be extracted from the salt and used to treat sewage. In any case, Loreto Bay must have a sustainable method by which they dispose of or reuse the remaining salt as all the ocean in front of Loreto Bay is part of the federally

protected marine preserve. Loreto Bay has received expert advice from the California Coastal Commission and the "Save Our Shores" organization in collaboration with the Monterey Bay National Marine Sanctuary to find ways to reduce the negative impact of salt deposits on marine life. As recommended by the California Coastal Commission, sparging tubes or deep injection wells can to be used to mix excess salt with sea water underground so that by the time the salt reaches the open ocean it will be sufficiently diluted and therefore benign to marine life. Currently, it appears as though Loreto Bay is receiving enough expert advice on the subject to warrant that they have good intentions.

Heidi Sanborn is very concerned about Loreto Bay's plans to build dams that will artificially fill the existing aquifers. She comments that "any time you dam a river or creek, especially in a desert, whatever is downstream dies and whatever is getting flooded will change plant life to a more water loving plant. Trying to artificially fill an aquifer by over watering the surface will change the fauna. Without a full review by an inde-



“...it is **ESSENTIAL** to have a long term plan that addresses all the **ECONOMICAL CONCERNS...**”

ABOVE: Historically, very little rain falls in Loreto and sometimes these periods of drought can last over a year. The desert becomes completely dormant and devoid of flowers until a seasonal summer storm brings water to the parched region. Within days, the plant's stored up power is unleashed, creating a burst of vibrant color of every hue.

LEFT: Loreto is known as the place “where even the mountains swim”. Steep cliffs drop vertically into the Sea of Cortez and numerous islands dot the horizon.

pendent hydrologist and plant biologist, I would not be convinced that this is an appropriate way to obtain water.”

As Vice President of the Board of Directors for GEA, Linda Kinninger is concerned about Loreto Bay’s plans to fence areas to prevent overgrazing. GEA is committed to providing a management and protection program for the big horn sheep that graze in the mountains, but Loreto Bay fencing may serve as an obstacle to that end if it cuts the animals off from their water supply.

9) Does Loreto Bay use environmentally friendly building materials and native plants in the construction and landscaping of the homes?

Loreto Bay: The homes will be constructed out of adobe (compressed block) that is made from local materials and that is, according to Loreto Bay, “bugproof, windproof, sunproof, and bulletproof.” According to Loreto Bay landscaper, Rob Kater, The Villages will be landscaped with bougainvillea, mangroves, and cooling, edible plants. Debra Stevens adds that the mixture used to paint the homes is made from lime, cactus, and water instead of paint because this mixture does not produce harmful emissions.

Baja Life: According to Hugo Quintero, adobe block is a poor choice for building oceanfront homes because the humidity causes the block to lose its strength. Adobe may be “bugproof, windproof, sunproof, and bulletproof” as Loreto Bay claims, but apparently it is not humidity proof. Hugo Quintero also suggests that Loreto Bay use plants for landscaping that require very little water, like desert plants, to reduce the amount of water needed. The grass on the golf course alone will take a vast amount of water even if it can be watered with part saline, brackish, and reclaimed waste water.

Furthermore, there are concerns about the mixture Loreto Bay is using to paint the homes. A mixture of lime, cactus, and water may produce fewer emissions than regular paint, but there are several underlying issues.

First of all, a permit is required before cactus can be dug up and consumed. So where is Loreto Bay getting the cactus? Linda Kinninger also points out that “when lime seeps into the soil, nothing can grow there. It kills everything. Wouldn’t plain old lead free paint be friendlier to the environment in this case?” This is a very good question and it really illuminates the fact that more research needs to be done before Loreto Bay can be sure.

RAPID GROWTH AND THE LORETO ECONOMY

Besides the many concerns that this series of questions intend to address, it is also important to ask Loreto Bay how it is prepared to deal with the economic growth that its development will inevitably create. What is Loreto Bay doing to ensure that the economy will not overwhelm itself in the long run and that the cost of living will not outpace the income of the local residents?

Richard Kiy is President and CEO of International Community Foundation, the public charity that funded the Loreto Alternative Futures Harvard Reports, and has extensive expertise in Environmental Economics. According to Kiy, “Rapid economic growth can lead to growing squatter communities and strains on the public infrastructure. A large development could overwhelm the public infrastructure.” This begs the question: who is going to pay for the public infrastructure in the long term? Loreto Bay will undoubtedly bring growth to the region of Loreto in the short term, but it is essential to have a long term plan that addresses all the economic concerns that arise out of a large scale development such as Loreto Bay.

With regards to a possibly overwhelmed public infrastructure in the future, The Loreto Bay Foundation was specifically created to give Loreto the financial resources to manage its growth. According to David Butterfield, by pledging one percent of sales and re-sales, The Loreto Bay Foundation has a stream of funding in perpetuity. Citigroup Investment Partners, Loreto Bay’s equity partner

in the purchase of the Camino Real Hotel—now called The Inn at Loreto Bay—was so impressed with this plan that they committed one percent of resort sales to the foundation as well.

WHAT COULD THE LORETO BAY COMPANY DO DIFFERENTLY?

According to Hugo Quintero, if he were to take over the building plans from here, he would build fewer, more expensive custom homes instead of the high density production homes that Loreto Bay is building. He feels that Loreto Bay can make as much or more money by selling fewer homes with a higher price per unit, in addition to using fewer resources. The claustrophobic nature of the existing infrastructure does not allow for sufficient airflow during Loreto’s sweltering summer months. Homes are packed together so tightly that there are literally “no walk zones” indicated by gravel pits in each home where residents may not venture. These no walk zones are designed to protect the privacy of neighbors whose homes and rooms can be clearly seen over very low walls. The bottom line: Less homes, less people, less consumption of limited resources, as much or more profit. It is not hard to conclude that building sustainable would be far easier if the developer limits the amount of people who will be living or vacationing there.

In Rodolfo’s opinion, “the beaches should be there for us to enjoy with our families, for the turtles, and for our visitors. Why should we give the beach to the hotels and the outsiders who are moving here? Why do we even need to build on the beach at all? Loreto Bay sits on the most visited beach by the locals, and we will no longer be able to enjoy it.” Rodolfo’s alternative development plan would mandate building away from the beach. This would pose far less risk to the marine life, and would ensure a greater possibility that local families and existing marine life can carry on without interference.

“To claim sustainability and a ‘TOTAL COMMITMENT to environmental stewardship’, there must be a clear set of minimum standards to which the DEVELOPER ADHERES.”



ABOVE: Uncrowded and unspoiled by development, the sheltered coves and beaches found throughout the Loreto Marine Park offer solitude and a chance to reflect on the beauty and balance of an ecosystem that is still relatively wild.

LIMITING FACTORS

A sustainable development is sustainable only by virtue of the environment in which it is built. That said, can the region of Loreto support a sustainable development as dense as the Loreto Bay development? The most important and limited resource concerning the Loreto Bay project is water. Currently, underground water is pumped from the San Juan Londó aquifer. The amount of water pumped varies depending on the need. At the very most, 120 liters per second is pumped. The average need for water is 250 liters per person per day. The Loreto Water and Sewer Department is currently pumping enough for about 40,000 people with an estimated current population of 15,000. More is pumped than is required because there are frequent leaks in the lines and many locals waste water because out of 4,000 contracts for water in Loreto, only 1,800 have meters. Those without meters pay a flat rate of 50 pesos per month (\$5 USD) and can easily exploit the amount of water they use. Hugo Quintero says, “There is no need for more wells right now. Currently, there is enough water for ten years or even more if my department can fix the leaks and meter problems. Since Loreto is already pressed for water, natural resources should be kept

for existing resident needs. New developments must find another way, and it seems that desalination is the only way. With a plan to build 6,000 homes and water a huge golf course in a parched desert, Loreto Bay must realize that their job is not impossible, but it will be very difficult if they do not have a specific plan when it comes to harvesting and producing potable water.” Hugo adds, “I don’t tell them [Loreto Bay] what they want to hear. If I find through studies that there’s not enough water, I will tell them and then it will be up to them to figure out how to create more water.”

Rodolfo Palacio likes the idea of a sustainable development, but he is very skeptical because of the size of the project. It appears as though much of the skepticism surrounding Loreto Bay’s plan is due largely to the density of the project. According to Rodolfo, “It would be far easier to address sustainable issues if the master-planned community was smaller in scale and in line with available resources. With fewer homes, Loreto would be better equipped to grow at a pace that does not overwhelm itself in the long run.” In Rodolfo’s opinion Vista Danzante, a nearby eco-resort, is a good example of what a sustainable development should be. Located on a secluded bluff, Danzante is solar

powered and offers nine rooms and a small restaurant where all guests can enjoy a nightly meal prepared by women from the neighboring fishing village of Ligui. According to Rodolfo, “In this model, it appears that everyone including the environment is winning.”

Debra Stevens compares her company’s development to ones such as Cape Cod or Seaside Florida. It should be clear by now that these comparisons cannot accurately be made because the environments, local culture and economy, and resources are not the same. Sustainable projects must be assessed independently from others alluding to the particular geography and resources of the area at hand. In Linda Kinner’s opinion, “A well-designed development is one that is transparent and honest in its claims. In the case of Loreto Bay, there are still many questions that need to be answered.”

It would be wise to learn the lesson from the demise of the Fertile Crescent, its people, and its environment. The early humans of the Fertile Crescent were not necessarily more intelligent than those living in New Guinea or other areas less conducive to human progress, but they were both blessed and cursed to have arisen in an ecologically fragile environment — an environment they

ended up destroying because they overused its precious resources. Today, Loreto represents the place where the sea, the desert, and the mountains meet. Marine and animal life in Loreto is particularly sensitive, and important resources such as water are scarce. Achieving sustainability is not impossible, but it is laborious and it takes time, patience, and extensive research, especially in areas as ecologically sensitive as Loreto, and especially with developments as large as Loreto Bay.

"Sustainable" has become an attractive word to describe modern developments, so it is no wonder why developers employ this word to describe their projects. It is one thing to promise to produce more energy from renewable resources that is consumed, harvest or produce more potable water than is used, and create more biodiversity, biomass, and more habitat than existed when the project was started, but quite another to follow through and fulfill these promises. A claim to create more biodiversity, biomass, and habitat in a region that has been recognized by the United Nations

as a World Heritage Site for its diversity of plant, animal, and marine life may be viewed as a claim packed with hubris. To promise to produce more potable water than is consumed in a desert region where water is scarce is the mark of a plan that may have bitten off far more than it can chew.

According to the non-profit Bay of Loreto website, "the Loreto Bay Foundation is a member of the CGBD International Baja California Funder's group, with whom we work collaboratively to create the vision of a healthy Baja California Peninsula and Sea of Cortez. The Villages of Loreto Bay may be the largest sustainable resort currently under development in North America. The goal of the Loreto Bay Company is for The Villages to become an international model for how development can enrich an existing ecosystem and community and still be economically viable. The developer's vision is an integrated stewardship process of conservation, protection, enhancement, and regeneration that balances the social, economic and environmental needs of the community. Thus, The

Villages of Loreto Bay are a proving ground for the balancing act that ensures economic development is partnered with ecological protection and enhancement and social responsibility. It is central to the developer's aspirations that all three forces of sustainability work together, and that they acknowledge their equal partner status in creating a future for Loreto."

To claim sustainability and a "total commitment to environmental stewardship", there must be a clear set of minimum standards to which the developer adheres. Time can only tell whether Loreto Bay will own up to the many promises it has made. There is little doubt that the developer of Loreto Bay has good intentions, but good intentions are not sufficient to ensure that the many claims by the developer will be addressed in a truly sustainable way. If we fail to hold developers accountable for what they promise, we may think we are doing something good in buying a "sustainable" home when, in fact, we may be destroying the very environment in which we are investing. ■



WWW.LORETO.COM

Bibliography

- 1) Jared Diamond, *Guns, Germs, and Steel: The Fates of Human Societies* (New York, W. W. Norton & Company, 1999), 14.
- 2) Jared Diamond, *Guns, Germs, and Steel: The Fates of Human Societies* (New York, W. W. Norton & Company, 1999), 405.
- 3) Jared Diamond, *Guns, Germs, and Steel: The Fates of Human Societies* (New York, W. W. Norton & Company, 1999), 411.
- 4) Cavelle, Jenna (2005). *Islands and Protected Areas of the Sea of Cortez Inscribed As A World Heritage Site by the United Nations*. *Baja Life*, 18, 36.
- 5) Steinitz, C., Faris, R., Vargas-Moreno, J., Huang, G., Arizpe, O., Angeles, M., et al. (17 November 2005). *Alternative Futures for the Region of Loreto, Baja California Sur, Mexico*.
- 6) Coleman, Lisa (2005-2006). *Loreto Bay—The Future of Mexico: What is Loreto Bay?* *Baja Traveler*, 2005-2006 Loreto Bay Special Issue, 9.
- 7) Steinitz, C., Faris, R., Vargas-Moreno, J., Huang, G., Arizpe, O., Angeles, M., et al. (17 November 2005). *Alternative Futures for the Region of Loreto, Baja California Sur, Mexico*.
- 8) Lisagor, Kimberly (February 2006). *How Green Is Your Eco-Lodge?* *Men's Journal*.
- 9) *Loreto Bay Sustainable Development*. March 2, 2006, from <http://www.loretobay.com/cms/index.html>.
- 10) Lisagor, Kimberly (February 2006). *How Green Is Your Eco-Lodge?* *Men's Journal*.
- 11) Lisagor, Kimberly (February 2006). *How Green Is Your Eco-Lodge?* *Men's Journal*.
- 12) Steinitz, C., Faris, R., Vargas-Moreno, J., Huang, G., Arizpe, O., Angeles, M., et al. (17 November 2005). *Alternative Futures for the Region of Loreto, Baja California Sur, Mexico*.