

Caribe Hospitality LEED Financing Facility (RG-L1028)
Environmental and Social Management Report

Attachment 1.
ESMR for Courtyard Alajuela, Costa Rica

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Courtyard Alajuela, Costa Rica

Environmental and Social Management Report

1. Introduction

- 1.1. Caribe Hospitality S.A is one of the key hotel development partners of Marriott Corporation in the Latin America and the Caribbean region. Over the next five years, Caribe intends to construct eight hotel properties that will subsequently be operated, on their behalf, by Marriott. All of the hotels will be certified under the LEED (Leadership in Energy and Environmental Design) program, an initiative of the U.S. Green Building Council that has become one of the international standards for green buildings. The operation under consideration for IDB financing consists of two components: the first, the establishment of a Facility, the IDB LEED Financing Facility (“LFF”) that will finance up to eight hotels, and the second will be the financing of the first hotel under the Facility, the Courtyard Alajuela in Costa Rica (“Project”), described in this document. The hotels financed under this LFF will be the first LEED-certified, Marriott-operated business hotels in the region.
- 1.2. The LFF will enable development of hotels with sustainability standards beyond those that are typical for the industry by only financing LEED certified hotels. IDB financing will also minimize the potential detrimental environmental impacts of hotel construction, and contribute to the economic development of countries through, among others: (i) generation of net foreign exchange earnings; (ii) increased demand for workers; and (iii) stimulation of other sectors through backward and forward linkages.
- 1.3. The ESS for this project was approved by the ESR on October 30th, 2009, and posted on the IDBs project portal at www.iadb.org. At the time of eligibility, the first Project under the LFF was expected to be the Residence Inn, Panama, however during the concourse of the due diligence, due to commercial issues and timing, it was decided that the Courtyard Alajuela in Costa Rica would be the first Project.
- 1.4. This Environmental and Social Management Report presents the findings on the IDB’s environmental and social due diligence of the Courtyard Alajuela, Costa Rica, the first hotel Project to be financed under the LFF. This document is considered as Attachment 1 of the ESMR for the LFF. Subsequent hotel projects will appear as additional attachments to LFF ESMR. All will be made public in accordance with the IDB’s Disclosure Policy.

2. Project Description

- 2.1 Background: The Courtyard Hotel, in Alajuela, Costa Rica will be the first project under the LEED Financing Facility (RG-L1028). The hotel is to be a six-story, 127-room structure located near the Juan Santamaría International Airport just west of the capital city, San José. The hotel will be under the “Courtyard” by Marriott brands, meaning urban, business-oriented hotels. These are limited-services hotels catering mainly to short and extended stay business travelers. The LFF will finance only LEED-certified hotels, all with similar characteristics, designs and costs which will be financed using parameters pre-agreed with Caribe and Marriott.
- 2.2 Site Location: The site is about 1 km north of the Juan Santamaría International Airport, about 11 km west of the capitol of Costa Rica, San José. The site is located in the municipality of Alajuela, which is Costa Rica’s second largest city, with the town center being about 3 km northwest of the site. Access is by Route 153, the Francisco J. Orllich radial, a major thoroughfare in the San José area. A deceleration lane and entryway have already been permitted and constructed to the site off the expressway.
- 2.3 The site is on a south-sloping hillside off the highway, with most of the surrounding land use being agricultural. Most of the area has been cleared of vegetation and serves as pasture. There is a residential area on the adjoining property north (uphill) of the site, for which a number of individual retaining walls have been constructed. Route 153 is on the south (downhill) side of the site, and along the southeast side the drainage flows to the Quebrada Cañas, a stream which crosses beneath the highway through a culvert.
- 2.4 A disused building and warehouse lies on the south corner of the site. The structure was previously used as a retail outlet or shop. It is fenced and secure, and its interior shows no sign of liquid or waste storage.
- 2.5 Project Components and Facilities: The hotel development (“Project”) is currently in the design phase. The hotel structure will have one floor for common and service areas, and five floors, for a total of 127 rooms. The design follows Marriott’s “Courtyard” brand specifications, meaning urban, business-oriented hotels for business travelers with short and extended stays. The hotel will occupy about 4,585 square meters, with a total constructed area of about 7,500 square meters. It will have above-ground parking for 49 vehicles, a pool, workout room, business center, and meeting rooms. All structures are restricted to a height of 30 meters because of the nearby airport.
- 2.6 The hotel structure is to be located on the northwest side of the site (owned by Caribe), and is the only development to be financed by IDB. Other parts of the site will be used for an office building and a commercial center, owned and developed by PINMSA, the real estate partner of Caribe. The hotel itself will therefore be part of a mixed use development, including offices and commercial

- properties. The commercial center will have two levels and several small buildings to occupy a total of about 6,800 square meters, while the office complex will occupy about 2,500 square meters.
- 2.7 The hotel has been permitted a separate access off Route 153 near the out-of-use warehouse structure that is to be demolished. However, once constructed the hotel will share the entrance driveway already constructed for the entire development (hotel, office buildings and commercial center).
- 2.8 Water supply is available for the hotel through the municipal system. However, the additional commercial developments (office buildings and commercial center) will require more water than can be supplied by the existing water system. An expansion of the municipal system is anticipated in the future, however, to ensure the supply for the entire development, a well permit and water supply study have been submitted and a well drilling application has also been prepared. The well would be shared with the commercial developments and the hotel, and would require an average flow of about 26 gallons per minute all uses, with peak pressures and flows increased to meet design requirements.
- 2.9 Electricity is available through the municipal supply. During operations, three diesel back-up generators are planned, with a total storage capacity of 2,100 liters. Wastewater from the hotel will be disposed of in a dedicated on-site treatment system. Discharge will be to Quebrada Cañas. Separate systems will be used for the other commercial developments. Solid waste pick-up will be from a registered provider that uses the municipal solid waste disposal facility.
- 2.10 Runoff retention basins will be constructed as concrete vaults or tanks beneath parking areas, gardens or other areas. These are provided in accordance with the municipality requirements to prevent flooding problems as the Quebrada Cañas passes beneath the freeway. The culvert was initially undersized, and the on-site retention basins will minimize peak flow runoff. Hydraulic studies were performed for the area including the hotel, and show that the hotel meets flood safety criteria at its present site.
- 2.11 Project Workforce: During construction of the first project under the LFF, some 200 people are expected to be employed. Once in operation the Courtyard Alajuela is expected to employ 55 persons. It is expected that the large majority of construction workers will be men, due to the nature of the work, however with respect to the operation of the hotel by Marriott it is probable that the breakdown will be even between men and women. Marriott has a policy of non-discrimination in the work place (including gender) which is supported by Caribe.
- 2.12 Project Schedule and Costs: IDB's participation is for loan financing of US\$4 million out of the \$14.7 million required for the first development. The development is currently in the design phase. Ground-breaking is anticipated in the fall of 2010. An 18-to 24-month construction schedule is envisioned. Marriott

is expected to provide operations through a twenty-year agreement, though the life of the development is greater than fifty years.

- 2.13 Alternatives Analysis: A formal alternative analysis was not required by Costa Rican authorities as part of the Environmental Management Plan developed (PGA – *Plan de Gestion Ambiental*) (see Section 3.1) and therefore was not conducted for this Project. During the course of site selection, however, the developer evaluated a number of properties in the area. From a market perspective, the selected location was based on access to the airport and nearby roadways, and the existence of commercial properties and business centers in the area.
- 2.14 Relative to social and environmental aspects, screening criteria were developed by Caribe using a type matrix of studies and permits for hotel developments, applied specifically for this development in Alajuela, Costa Rica. The property evaluation phase included market factors such as access to nearby businesses, the availability of downtown vs. cross-town hotel brands, and the economic growth and expansion in the local area. It also included land ownership and title, land use, access and easements, zoning rules with respect to building height and footprint, infrastructure and services (water, wastewater, solid waste, gas, electricity, and communications), as well as a preliminary environmental screening to determine whether or not there are concerns with natural protected areas or special permitting requirements, a consultation with local environmental authorities, and a screening for archeological and historical resources.

3. Institutional and Legislative Context

- 3.1 Institutional: The project's environmental permit is regulated by SETENA, (*Secretaria Técnica Nacional del Ambiente*). Specific environmental impact guidelines exist for different types of projects depending on the expected degree of the effects. To begin the evaluation process, Environmental Evaluation Format D-1 is completed which grades the expected level of impact using a standardized protocol. Those expected to result in a moderate level of impact, such as the Courtyard – Alajuela project, require an Environmental Management Plan or PGA (*Plan de Gestion Ambiental*).
- 3.2 The chief environmental permit for the Project is the approved PGA, which is required to obtain the building permit at the municipal level.
- 3.3 The Land Use Permit for the hotel development and its wastewater treatment plants have already been acquired from the municipality's Urban Development Department.
- 3.4 Under Costa Rican environmental law there is no requirement for a public consultation for a PGA. Nevertheless, the project did carry out a public perception survey of local residents. Results were included in the annexes to Format D-1, and did not reflect any significant local concerns.

- 3.5 Permits associated with water supply include water quality, well drilling, and well impacts. These are regulated by MINAET's Water Department (*Dirección de Aguas*). There is a 200-meter setback from springs for any well site, 100 meters from rivers, and 40 meters from building structures.
- 3.6 Additional local permits are also awarded by the MOPT (transportation department), the Airport Authority (*Dirección General de Aviación Civil*), and the ICE (*Instituto Costarricense de Electricidad*). Rapid archeological and biological assessments were already conducted by SETENA-registered specialists and included with Format D-1.
- 3.7 Worker health and safety matters are governed by the *Ministro de Trabajo y Seguridad Social* (Labor and Social Security Ministry), which has promulgated a number of specific norms and regulations for labor practice.
- 3.8 Legislative: A number of decrees, norms and regulations are encompassed by MINAET (Ministry of Environment and Energy) jurisdiction (and enforced by SETENA), most notably for noise, water quality, and wastewater disposal.
- 3.9 During construction, applicable norms include those for noise (*Decreto Ejecutivo No. 78718-S*). Background noise is about 68 dB(A) according to the site specific noise survey conducted at the site, mostly from the highway nearby. The noise norms require that levels measured indoors at residential receptors be less than 65 dB(A), but allow an increase of 5 decibels when background noise is above norms.
- 3.10 Typically, inspection and enforcement of compliance with the legal requirements of the PGA and associated norms are conducted once during construction by SETENA technicians. A registered environmental "Regent" must provide compliance reports every one to two months during construction, a log must be kept, and an environmental performance bond posted. The chief causes of problems during construction are those triggered by public complaints. In general these are most often related to dust, noise, or traffic during construction. Relations with the local neighborhood residents will therefore be important especially during the Project's construction phase.
- 3.11 There are not expected to be periodic environmental reporting requirements during operation, except for wastewater treatment plants and water supply. The wastewater treatment plant will discharge to a surface water body and must therefore follow *Decreto Ejecutivo No. 26042-S* for discharge limits and reuse water quality. Sampling and reporting frequency will depend on the flow volume of the final design. The quality of public water supplies are governed by *Decreto Ejecutivo No. 25991-S*.

- 3.12 Compliance Status: The D-1 and PGA were prepared in March, 2010 and received by SETENA in early April, 2010. Caribe submitted both formats jointly following standard procedure to facilitate the project review with SETENA. The PGA provides additional analysis comparable to an EIA, and sets out the specific mitigation measures that must be adhered to.
- 3.13 After submission of the PGA and D-1, a site visit was conducted by SETENA and additional information was requested in the “*De Previo*” communication dated May 7, 2010. Caribe responded to this information request on June 4, 2010. The environmental permit (Viabilidad Ambiental) was subsequently issued by SETENA on August 19, 2010. The environmental permit contains five conditions, which must be met one month prior to beginning construction activities (i) an environmental bond must be posted; (ii) the Environmental Supervisor (Responsable Ambiental) must provide inspection reports every two months; (iii) an environmental logbook must be maintained on-site; (iv) the water permit must be obtained; and (v) designate the site for disposal of excavated soils and obtain landowner permission. These five conditions had already been anticipated in the planning process.
- 3.14 The Project is currently processing the required permits during this pre-construction stage. Land Use Permits have already been obtained from the municipality. In order to break ground and begin earth-moving activities, the construction contractor will need to obtain the construction license from the Public Works Ministry, which would take an additional thirty days to issue. A precondition for the license will be inclusion of the SETENA permit in the application.
- 3.15 Once construction begins, Caribe must provide periodic reports to SETENA demonstrating compliance with the measures specified in the PGA. Normally these will be required every one to two months. An environmental manager or “*Regente*” must also be assigned to periodically inspect the project and prepare the compliance reports, and an environmental logbook must be kept. A deposit or warranty bond must also be filed to ensure compliance with environmental conditions.

4. Project compliance with IDB Policies

- 4.1 This Project triggers Directives B.3 through B.7, B.10, B.11 and B.12 of the IDB’s Environment and Safeguards Compliance Policy (OP-703), as well as the Policy on Natural Disaster Risk Management (OP-704). In addition, several provisions within the IFC General Environmental Guidelines apply to the Project, such as noise levels and health and safety.
- 4.2 The environmental and social due diligence concluded that the Project is currently in compliance with these policies, directives, and guidelines. The proposed management and mitigation measures to be included as requirements in the Loan

Agreement (Section 9) will ensure continued compliance with IDBs policies during the life of the Project.

- 4.3 Given that the environmental and associated social impacts and risks associated with the project are likely to be mostly minimal to moderate for which effective ESHS mitigation and management measures are available (Section 6), in accordance with Directive B.3, or OP-703 the Project has been classified as a Category B.

5. Environmental and Social Setting

- 5.1 The direct area of influence of the Project is the site upon which the hotel and commercial development will be located, with a footprint of about 4,500 square meters and a total constructed area of about three-quarters hectare (7,500 square meters). The area of indirect influence is described as the residential area north of the site, adjacent agricultural areas, shops and business on the nearby highway, and the drainages south and east of the site including the highway crossing of Quebrada Cañas.
- 5.2 Environmental: The site is located near the international airport a few kilometers southeast of the town of Alajuela. The property constitutes a south-sloping, vacant lot with a constructed access road and highway exit ramp.
- 5.3 The site is at an elevation of about 3,100 feet above sea level, and is located about 11 km from the capitol, San José. The average annual rainfall is up to 83 inches. Drainage off the site is towards the southeast into the Quebrada Cañas.
- 5.4 Daytime traffic and airport noise averaged about 68 dB(A), according to the background study completed for the project. The source of the noise was mainly the highway, punctuated by periodic noise from the airport which is only 1 km away. This is within legislative limits and meets with IFC guidelines.
- 5.5 The geotechnical report and site visit concluded that slope stability is an issue. The geotechnical study noted that the soils are of poor quality in that they would not form stable cut slopes, therefore requiring retaining walls for the proposed site grading plan. The geotechnical study also noted that the existing retaining walls on the neighboring properties are also unstable. Drainage, especially from adjacent properties was also identified as a risk for erosion that in turn could undermine stability.
- 5.6 Groundwater level after 24 hours in the soil borings was found to range from 6 to 15 meters below ground surface, and is interpreted as a perched aquifer. The hydrogeologic study indicates that a number of nearby wells tap this shallow, perched aquifer, which is a poor aquifer with yields of about 10 gallons per minute (gpm) to area wells. The underlying formation is the “Intercanyon Lavas” forms the regional aquifer, and yields more than 100 gpm to area wells. The Intercanyon Lava aquifer is projected to lie at depths of about 100 meters beneath

the site and should be capable of supplying the hotel and the adjoining commercial development. While water supply is available for the hotel through the municipal system, the additional commercial developments (office buildings and commercial center) will require more water than can be supplied by the existing water system. An expansion of the municipal system is anticipated in the future, however, to ensure the supply for the entire development, a well permit and water supply study have been submitted and a well drilling application has also been prepared.

- 5.7 A rapid archeological assessment was conducted by a SETENA-registered professional. The property was found to contain pottery shards, indicating the potential for additional archeological finds, and accordingly a chance-find procedure will be required during site clearing (see section 5.6).
- 5.8 A rapid biological assessment was also conducted. The area has long been converted to agricultural use and no longer contains habitats of ecologic importance. Most trees are associated with “living fences” (lines of planted trees) bordering the site, with most of the site covered with pasture. Near the old warehouse is a large hardwood tree, the *Guapinol* (*Hymanaea courbaril* L.), otherwise known as a Brazilian Cherry, South American Locust, or Stinktoe. It is a useful hardwood tree, but is not uncommon in Costa Rica and is not under protection or special status.
- 5.9 Assessments were conducted for geohazards and man-made risks. The assessments did not identify any areas of concern, and the soils are not prone to liquefaction. The Alajuela Fault Zone is a mapped feature around which the municipality has placed some restrictions, however, it runs about 4 km from the site and does not cross it. Seismic movement potential requires that the project design follow Costa Rican engineering codes. In January, 2009 a magnitude 6.1 earthquake struck with an epicenter about 15 km northwest of the project area, disrupting electricity in parts of San José, damaging a number of buildings, and killing at least 34 persons, mostly by causing a number of landslides in remote areas near the Poás Volcano. It was the strongest earthquake in Costa Rica in 150 years.
- 5.10 Existing land use on the site is agricultural. No evidence was found of any waste material or liquid disposal, either on the site or in the adjacent warehouse. There are no indications of contamination or past liabilities
- 5.11 Flooding potential was examined in detail because of the undersized culvert at the highway crossing of Quebrada Cañas. The peak flood planning study considered the Cañas’ drainage area of 988 hectares, or about ten square kilometers, extending northeast on the outskirts of the city of Alajuela, and joining the Rio Ciruelas to the south. The study used a standard flooding model (HEC, or Hydrologic Engineering Center) and found that the 25-year flood event would inundate the adjoining property east of the site along the Quebrada Cañas near the

- highway crossing; however, the property upon which the hotel is to be located would not be inundated. The 25-year flood level would reach the highway exit ramp and driveway to the site, but would not reach the hotel or commercial buildings.
- 5.12 Social/Economic: The project area is on the suburban outskirts of Alajuela near the freeway and airport. During the site visit the neighborhood was inspected and appears to be of medium or mixed income. The Alajuela Hospital and the Alajuela International Mall are near the project area. The project site can be considered an “island” of agricultural use on the outskirts of a growing suburban area.
- 5.13 A public perception survey was conducted in January, 2010 with 200 questionnaires and four field assistants. About 10% of the population was surveyed within the neighborhoods of Montserrat, Puente Arena, and San Luis in the southeast of Alajuela, and the INVU (Instituto Nacional de Viviendas y Urbanismo) housing developments of Las Cañas 1, 2 and 3.
- 5.14 Most residents are over 30 years of age, and 25% have attended college. Some 42% are employed and 37% are homemakers, with 12% retirees and 4% unemployed or on social welfare programs.
- 5.15 The population enjoys most basic services but is not without some problems with traffic, sewage, safety, and water supply. Accordingly the biggest concern of local residents was that further strain on existing infrastructure could be caused by the development. Most residents identified their main needs as improvements to roads, bridges, sidewalks, and sewerage. Negative effects of the project were viewed by 28%, mainly related to increased water use, wastewater disposal, flooding, and loss of rural environment and tranquility. Positive effects of the project were viewed by 88% of respondents, including jobs, property value increase, and additional safety. Of all respondents, 71% were in favor of the project and 29% were either indifferent or against the project.
- 5.16 It is not unreasonable to expect that some of the workforce for the hotel’s operation may come from neighbouring areas in Alajuela.

6. ESHS Impacts and Risks

- 6.1 The Courtyard Alajuela Project, as proposed has the potential for positive environmental and social impacts, specifically in terms of direct and indirect creation of employment and demonstrating the viability of green buildings in Costa Rica and the Region as a whole. The potential negative ESHS and labor impacts of the project are greatest during the construction phase, but they are minimal to moderate and can be effectively controlled.
- 6.2 Given the nature of these risks and impacts this Project has been classified a Category B, since the project has mostly minimal to moderate environmental and

associated social impacts for which effective ESHS mitigation measures are available.

- 6.3 Details of key impacts and risks are presented below.
- 6.4 Construction Phase Impacts and Risks: During the construction phase of the Project, there are a number of localized, short-term impacts and risks that can be managed or eliminated through the application of standard ESHS mitigation and management measures. Most of these mitigation measures were specified in the PGA (including impacts relative to worker health and safety; community relations including traffic and noise; control of air quality, including dust emissions; and, management of solid and liquid wastes and hazardous materials) and are therefore legal requirements, subject to verification by SETENA. The IDB will require the implementation of these measures as part of the loan agreement. Additional mitigation measures are discussed in Section 7, and summarized in the attached Action Plan.
- 6.5 The geotechnical report and the site visit indicated potential concerns for slope stability, particularly regarding the neighboring properties on the north side where existing retaining walls may not have been adequately constructed or could be affected by construction activities, such as vibration, runoff, or soil erosion. Caribe plans to address these concerns by installing a new retention wall structure adjoining the private property. Monitoring of noise and vibration will also be a requirement for the ESHSMS, and should be part of a local community relations program related to the repair or stabilization of the neighboring retaining walls.
- 6.6 The site is located close to a stream called Quebrada Cañas. Soil erosion and runoff could pose potential issues to the stream during construction. The risks include flooding, the stream becoming a receptor of run-off with sediments if there is erosion and/or receptor if there are accidental spills). These impacts are not expected to be significant, but to be localized and limited to the construction period, and can be managed through standard construction practices. The SWPPP (Storm Water Pollution Prevention Plan, or *Plan de Control de Erosión y Sedimentación*) is actually a LEED requirement that would also serve this purpose, and therefore is already planned as part PGA. Additionally, the PGA includes a Contingency Plan which covers most emergency situations, including general preparation and response to floods during the construction phase. The plan will also guard against flooding of the site from overflow of the Quebrada Cañas.
- 6.7 There is some risk that the water supply well for the development could have difficulties in permitting or in installation. This is mitigated by the existing municipal water supply commitment, at least for the hotel development, and by the chances for expansion of the municipal system in the future.

- 6.8 Occupational health and safety concerns can be managed through implementation of procedures to reduce and control identified risks, including improved occupational health and safety training and use of personal protection equipment, in addition to implementation of life and fire safety precautions and emergency response plans.
- 6.9 Impacts and risks posed by historical contamination from previous land use are considered minimal based on the site inspection. However, the ESHSMS will be required to contain a procedure for chance-finds of hazardous or unknown materials and should include periodic inspection during site cleaning, earth moving and excavation by the Caribe resident engineer. The risk of other liabilities from past claims or issues is low.
- 6.10 Impacts on natural habitats are not considered an issue on the site or direct area of influence as the land is suburban or agricultural land that has been cleared for a significant period of time. The hardwood tree on the site is not a protected or endangered species.
- 6.11 There is a slight risk of encountering artifacts or archeological relicts, because pottery shards were found on site. Accordingly, a chance-find archeological procedure will be required by SETENA. The IDB will require that this is incorporated into the ESHSMS.
- 6.12 There will be no resettlement caused by the project, and there are no indigenous communities near the area.
- 6.13 Operations Phase Impacts and Risks: During the operation phase, there are a number of potential negative environmental impacts that could occur, for which management plans are required, including: wastewater disposal; solid waste generation; water consumption; wastewater generation; atmospheric emissions; traffic congestion; worker health and safety; community relations and public safety. These impacts are likely to be minimal to moderate in nature, but can be mitigated with implementation of environmental and social management plans. Most of these mitigation measures were specified in the PGA. The IDB will require the implementation of these measures as part of the loan agreement. Additional mitigation measures are discussed in Section 7, and summarized in the attached Action Plan.
- 6.14 Relative to natural disasters, Costa Rica is subject to occasional seismic activity and strong storms. In January 2009 central Costa Rica suffered its worst earthquake in 150 years when a 6.1 magnitude earthquake struck with an epicenter about 10 km from the project site near the Poás Volcano. Many buildings in the city of Alajuela were damaged. Seismic movement potential requires that the project design follow Costa Rican engineering codes. Additionally, the PGA includes a Contingency Plan which covers most emergency situations, including disaster preparation, response and recovery.

- 6.15 Indirect and Cumulative Impacts: There may be indirect and cumulative impacts due to the construction of new structures on the outskirts of a city that faces a series of urban problems, such as traffic, noise, water supply and sanitation services, among others. With the expanding urban and suburban fringe in Alajuela and the growth of the international airport area, population density in the area is increasing far beyond what was previously expected. Alajuela's existing infrastructure, including roads, water and sewerage, and pedestrian walkways, is not receiving enough maintenance, and traffic is growing. The potential for the hotel to exacerbate urban stress is not considered significant and has been mitigated through the election of a site, considering certain criteria including land use, access and easements, zoning rules with respect to building height and footprint, infrastructure and available services. The potential for the hotel to exacerbate existing traffic problems will be mitigated during operations to a large degree by using the access road off the main freeway, which has its own deceleration lane. Noise during operations will probably not affect local conditions to a significant degree, because of the location of the hotel on the downhill slope below the neighboring properties, and because ambient noise levels are already elevated due to the freeway and airport.
- 6.16 There are a number of water supply wells in the Alajuela area. The hydrogeologic study for the well permit identified 155 wells with a radius of 2 km, mostly shallow wells in the lower-capacity upper aquifer. Municipal supply wells for the AyA and the municipality of Alajuela are located farther than 500 meters from the site, likely in the deeper, more prolific Intercanyon Lava aquifer. There is a risk that withdrawal of 26 gpm from a shared well on the site may cause drawdown concerns in the local aquifer over the long term and effect neighboring wells, or that in the future large amounts of pumping from municipal or AyA wells may affect the development's water supply. There are also concerns about the future effects of on-site wastewater treatment systems upgradient that may not be operating properly. All of these concerns are mitigated to some degree by the presence of the municipal water supply commitment from AyA for the hotel, and the possibility that it may be expanded in the future to supply additional water.
- 6.17 Existing Impacts/Issues: Based on the results of the due diligence, no evidence was found to suggest that there are any existing non-compliances or liabilities associated with the existing operations and facilities. The Project is currently in compliance with applicable environmental, social, health and safety laws and regulations at this design and pre-construction stage, as discussed in section 3.12 of this ESDD report. The major environmental permit has been granted.
- 6.18 Positive Impacts: The Courtyard Alajuela Project will be the first of eight "green" hotels under the LFF. Green design and construction not only has a positive impact on public health and the environment, it also reduces operating costs, enhances building and organizational marketability, potentially increases occupant productivity, and helps create a sustainable community. The planned

Courtyard Alajuela will be the first LEED certified hotel in Costa Rica and as has the potential to be a highly visible showcase to demonstrate the financial viability of LEED certification in the tourism and hospitality sector. The Project will also create temporary employment during the construction period and longer term employment once the Hotel is operational.

- 6.19 The efficiency in water, waste and energy built in to the LEED process will help to minimize stress on the local infrastructure and environment. Reductions in use and increases in efficiency, by corporate practices and management philosophy, will help to further this trend over time.
- 6.20 Finally, the public perception survey conducted as part of the environmental permitting revealed that 88% of respondents viewed positive benefits such as jobs, property value increase, and additional safety. It is possible that many of these will come to pass, and benefit the local population. In particular, it seems likely that the residents of Alajuela would be good candidates for employment at the hotel during operations.

7. Management of ESHS and Labor Impacts And Risks

- 7.1 There is currently no formal ESHSMS or ISO-consistent management system in use by Caribe or its partners, however there are several different types of management processes in place or under development for the project. The PGA as part of the approval process for the hotel project resulted in the identification of several potential impacts and risks that require mitigation, management and monitoring. The primary process to achieve this is through the design and implementation of the actions detailed in the PGA. In addition, many of Marriott's operational management practices are implemented through a series of corporate plans and procedures. Contract clauses for contractors and suppliers are also used to manage impacts and risks. The LEED certification will also generate specific processes and procedures. As part of the loan, the Bank will require that all of these plans and procedures be integrated into an ESHSMS consisting of two sections to cover the construction and operation phases, ensuring both compliance with all requirements stipulated by the PGA and the requirements of the IDB.
- 7.2 A summary of the various existing and anticipated plans and systems is discussed below, along with additional IDB proposed requirements.
- 7.3 Environmental and Social Mitigation Measures: Mitigation measures are described in the PGA for both construction and operation. These include:
- 7.4 Construction Phase: Most of the potential impacts for this type of project are expected to occur during construction; therefore, mitigation measures are more extensive in this phase.
- 7.5 The PGA contains construction mitigation and management measures linked directly to the impacts identified during the permitting process. For construction

the key areas covered are worker health and safety, consisting mainly of safe working practices and the use of protective gear; air quality measures focused on dust control; waste management; hazardous materials handling (including hazardous wastes); sediment control and drainage control (including drainage from neighbourhood properties). Implementation of the PGA will be an IDB requirement of the Loan

- 7.6 The IDB will also require that a community relations plan (and designated responsibilities to manage said plan), including the development of a public relations and information program, hiring of locals, and measures to reduce construction nuisance such as noise, traffic and light pollution, and particularly to monitor noise and vibration during the repair or stabilization of neighboring properties' retaining walls, be included into the ESHSMS.
- 7.7 The potential impact of erosion and sediment runoff will be the development of an erosion control and sediment runoff plan. This is one of the prerequisites of LEED certification as part of the site sustainability prerequisite. The Plan must be developed following USEPA Document No. EPA-832-R-92-005 (Storm Water Management for Construction Activities), typically using silt fencing, sediment traps and basins, or other strategies, to develop and implement a SWPPP (Storm Water Pollution Prevention Plan). The revised Construction Contract provided by Caribe references the SWPPP as a contract document, requiring it be adhered to. The plan, once developed, will specifically address control of sediment and runoff to the Quebrada Cañas.
- 7.8 In addition to the measures described above, a procedure will be required for chance-find of archeological artifacts. The procedure will include periodic inspection during site cleaning, earth moving and excavation by the Caribe resident engineer, and this will be included into the ESHSMS.
- 7.9 The PGA states that, as an additional protective measure, copies will be provided to all parties involved in the execution of the project (contractors, inspectors, etc.). The IDB will further recommend that the PGA conditions be included in any and all contracts and/or agreements.
- 7.10 The draft agreement for the construction contractor requires basic environmental functions to be performed, such as waste and debris management, obtaining potable water permits, and supplying sanitary facilities. The agreement also charges the contractor with minimizing disturbance and annoyance to neighbors. A revised draft Construction Contract also references the PGA as a contract document which must be adhered to.
- 7.11 It is Caribe's policy that all contractor workers be registered with Social Security. The contractor is also required to establish a Workplace Safety Program and that they carry an insurance policy against workplace accidents.

- 7.12 As required by the Environmental Permit granted in August 2010, Caribe must provide evidence of compliance with the PGA in reports every one to two months, and must hire a “Regente Ambiental” to prepare the reports and maintain an on-site environmental logbook. SETENA is expected to visit the project during construction at least once to inspect the project and verify that the logbook is current, and that the Regente Ambiental has fulfilled the environmental commitments. Additionally, Caribe will have a Resident Engineer with inspection and oversight functions, including environmental matters.
- 7.13 The PGA includes a contingency plan for the construction phase of the project that includes emergency procedures, as well as procedures for responding to spills, hazardous materials releases, floods, quakes and other accidental events.
- 7.14 Operations Phase: During operation, fewer impacts are expected. Mitigation measures in the PGA include testing and maintenance of the on-site wastewater treatment plant. The PGA states that an operator’s manual for the wastewater treatment plant will be provided upon commissioning, and that periodic wastewater payments must be made per Decreto Ejecutivo 34431-S. As well, periodic testing and reporting must be made in accordance with 33601-MINAE-S.
- 7.15 If a shared well is ultimately required and used for public supply, then testing and reporting requirements would also apply. Reject or waste from water treatment and filtration systems would also need to be appropriately managed. This is not included in the PGA but should be included in the ESHSMS.
- 7.16 The PGA also considers the storage and management of small amounts of hazardous materials are also considered during operations, including diesel for the backup generators. Maintenance of storm drains, wastewater re-use, and waste disposal are also covered in the PGA.
- 7.17 In addition to the measures described above and included in the PGA, the hotel operator, Marriott International, has developed a broad set of environmental and social initiatives that are part of their corporate operations. These are encompassed by the ECHO program (Environmentally Conscious Hotel Operations). A set of 17 modules provides an integrated framework of corporate policy and directives and forms the “Environmental Guide for Marriott International”. Checklists and guidelines are provided for waste management, energy and water conservation; and for hazardous materials management including USTs, refrigerants, asbestos, PCBs, and other hazardous materials.
- 7.18 The following plans and programs will be applicable to the hotel operations:
- *The ECHO Manual (Environmentally Conscious Hotel Operations).* A set of 17 modules provides an integrated framework of corporate policy and directives and forms the “Environmental Guide for Marriott International”. Checklists and guidelines are provided for waste management, energy and

water conservation; and for hazardous materials management including USTs, refrigerants, asbestos, PCBs, and other hazardous materials.

- *Global Environmental Baseline Survey.* An annual survey is provided by corporate management to individual hotel managers. The survey covers the key items detailed in the ECHO Manual and the “Green Council” initiatives. There is also a query whether individual hotels are certified by Energy Star, LEED, or ISO-14001. The stated objective is to verify that all properties are in compliance with ECHO policy.
- *Property Emergency Plan.* A sample contingency plan is provided for individual hotel operators to use as a guide for developing their own detailed plan. The document includes templates for training, organization, contact lists, identification of emergency situations, and response procedures.
- *Safety Training and Reporting Data.* Training modules were reviewed for bloodborne pathogens, fire extinguisher use, hazard communications, and lockout/tagout for electrical safety. OSHA reporting forms for accidents and work-related illness and injury are in use.

7.19 From a contractual perspective, the Management Agreement between Caribe and Marriott requires that any hazardous material found on the premises be removed by the owner (Caribe). The agreement also stipulates that any other non-compliance with environmental laws or permits be remedied by Caribe. The contract language should be strengthened to include the measures specified in the PMA, and other measures to be referenced in the ESHSMS, for example training, permitting, and reporting.

7.20 Environmental and Social Monitoring and Reporting Programs: Mitigation measures are described in the PGA for both construction and operation. This section describes and evaluates the implementation of the environmental and social mitigation plans laid out in the previous section.

7.21 Construction Phase: Caribe must provide evidence of compliance with the PGA in reports every one to two months, and must hire a “Regente Ambiental” to prepare the reports and maintain an on-site environmental logbook. SETENA is expected to visit the project during construction at least once to inspect the project and verify that the logbook is current, and that the Regente Ambiental has fulfilled the environmental commitments. As well, Caribe will have a Resident Engineer with inspection and oversight functions, including environmental matters.

7.22 Background noise data were collected to assist with window design acoustics. These data could be used to support compliance with noise regulations. However, it is not likely that formal noise monitoring will be necessary because neighboring receptors are shielded to some degree by the topography. In addition, noise regulations apply to receptors as measured indoors. In lieu of formal noise monitoring, it is recommended that noise and vibration be incorporated into community relations aspects, as discussed below.

- 7.23 A community information and relations point-of-contact is specified in the PGA. This individual could also serve to provide local feedback and serve a social monitoring function. It is recommended that this be undertaken especially as the critical aspects of repair or stabilization of neighbors' retaining wall are performed. Noise and vibration monitoring should be included in the role of the community relations manager.
- 7.24 The PGA states that copies of the PGA will be provided to all involved parties (contractors, inspectors, etc.). The model agreement for the construction contractor allows monitoring and inspection by the owner. Environmental and safety inspections and detailed mitigation measures are not specifically included within the contract language, but the agreement lists the PGA as a contract document and thereby incorporates it by reference.
- 7.25 Operation Phase: Monitoring and reporting are required for the on-site wastewater treatment plant. The frequency will depend on design specifics and must follow applicable Costa Rican regulations in accordance with 33601-MINAE-S. Periodic payments for wastewater payments must be made per Decreto Ejecutivo 34431-MINAE-S.
- 7.26 The model agreement for the operations contractor allows monitoring and inspection by the owner. However, environmental and safety inspections and compliance with PGA requirements are not specifically included within the model contract language.
- 7.27 The LEED program requires periodic reporting of environmental indicators such as water and energy use. In order to insure compliance with corporate environmental and social policies, Marriott International performs an annual survey to individual hotel managers (the Global Environmental Baseline Survey). The survey covers the key items detailed in the ECHO Manual and the "Green Council" initiatives. The stated objective is to verify that all properties are in compliance with ECHO policy.
- 7.28 Discussions with Marriott operators and engineers at an existing hotel in Escazú, Costa Rica indicate that these procedures are followed closely, and in a coordinated fashion with Marriott corporate management and with other facilities in Costa Rica. Operations engineers share resources among facilities to maximize efficiency and achieve consistency at different hotels in the area. Water, waste, and electricity are measured monthly and performance goals are periodically reset to continually improve environmental performance. Training is provided via webinars and occasional seminars involving travel to corporate events. The hotel staff sponsor a local watershed conservation program, a national wheelchair fund, and other charities.

- 7.29 In addition Caribe will be required to deliver Environmental and Social Compliance Reports to the IDB. These reports will be required on a semi-annual basis throughout the construction phase, and annually thereafter.
- 7.30 Corrective Action Plan: There are no existing non-compliances or liabilities associated with the existing operations and facilities, as stated in Section 5. The project is currently in compliance with applicable environmental, social, health and safety laws and regulations at this pre-construction stage, as discussed in Section 3. Accordingly, no Corrective Action Plan is required.
- 7.31 Any gaps or areas for improvement in ESHS management of the Courtyard – Alajuela are included in this ESDD report as recommendations in Section 9.
- 7.32 Health and Safety: The draft agreement for the construction Contractor includes multiple references to compliance with all applicable worker health and safety requirements, and references the PGA as a contract document. It is Caribe’s policy that all contractor workers be registered with Social Security. The contractor is also required to establish a Workplace Safety Program and that they carry an insurance policy against workplace accidents.
- 7.33 Discussions with a potential contractor during the environmental and social due diligence confirmed that these requirements are well established and will apply to the Courtyard – Alajuela project. The greater San José Metropolitan area that includes Alajuela has local construction and labor contracting codes that are well defined, and are sufficiently detailed to minimize risk, if properly implemented.
- 7.34 During operations, worker health and safety risks are presumed to be minimal. Marriott International provided training modules for bloodborne pathogens, fire extinguisher use, hazard communications, and lockout/tagout for electrical safety. OSHA reporting forms for accidents and lost time are also in use for U.S. facilities.
- 7.35 Contingency Plan and Procedures: The PGA includes a contingency plan for the construction phase of the project that includes emergency procedures, as well as procedures for responding to spills, hazardous materials releases, floods, quakes and other accidental events.
- 7.36 For the operations phase, a Property Emergency Plan is required by Marriott International to be developed for each hotel. A sample contingency plan was provided for individual hotel operators to use as a guide for developing their own detailed plan. The document includes templates for training, organization, contact lists, identification of emergency situations, and response procedures. The PGA also contains contingency measures for the operations phase of the project.
- 7.37 Environmental Social, Health and Safety Action Plan: The Bank will require that the above management and monitoring actions planned for the Project, as well as

the additional Bank recommendations be consolidated into an Environmental, Social, Health and Safety Action Plan (see Exhibit 1).

8. Public Consultation

- 8.1 Caribe carried out a public perception survey with residents in the project area. This did not include a direct consultation, because this was not required under Costa Rican law for the PGA. In addition, the local neighborhood is not considered to be highly sensitive to the project, perhaps because the nearest residences are higher than the project site, overlooking the freeway and airport.
- 8.2 The PGA has been made publicly available, and was submitted to the municipal government in Alajuela. A notice-board will be placed at the constructions site to give details on who to contact and where to find further information.

9. Project compliance with IDB Policies

- 9.1 This Project triggers the Directives B.3 through B.7, B.10, B.11 and B.12 of the IDB's Environment and Safeguards Compliance Policy (OP-703). In addition, several provisions within the IFC General Environmental Guidelines apply to the Project such as noise levels and health and safety
- 9.2 The environmental and social due diligence concluded that the Project is currently in compliance with these policies, directives, and guidelines. The proposed management and mitigation measures to be included as requirements in the Loan Agreement (Section 9) will ensure continued compliance with IDBs policies during the life of the Project.
- 9.3 Given that the environmental and associated social impacts and risks associated with the Project are likely to be mostly minimal to moderate for which effective ESHS mitigation and management measures are available (Section 6), in accordance with Directive B.3, or OP-703 the Project has been classified as a Category B.

10. Requirements to be included in the legal agreements

- 10.1 The majority of potential impacts and risks related to the Project are related to the construction phase of the Project. Therefore, the focus of the IDB requirements is related to the establishment and implementation of the sound ESHSMS. Therefore The Bank will require the following requirements in the Project loan documentation.
- 10.2 The IDB will require that the Caribe and all portions of the Project shall, at all times during the life of the loan, comply with a series of general and specific requirements, which will be incorporated into the Loan Agreement. The general requirements for the LFF have been set out in the LFF ESMR, and are applicable to all Projects under the LFF. The specific requirements, applicable to the first

Project under the LFF – The Courtyard, Alajuela, Costa Rica – are set out below and are also indicative of requirements that may be expected in subsequent Projects under the LFF.

- 10.3 Prior to the date of **Financial Close** of the Project,
- Present an ESHS Action Plan in form and substance satisfactory to the IDB (a suggested draft is presented in Exhibit 1).
- 10.4 Prior to **First Disbursement** of the Project, Caribe shall submit to the IDB in form and substance acceptable to the IDB:
- An Environmental Social, Health and Safety Management System (ESHSMS), that ensures the implementation and compliance with the PGA, and additional IDB requirements (detailed in Section 9) for the construction activities related to the Courtyard Alajuela Project. The project level ESHSMS will be incorporated into the LFF ESHSMS.
 - Present documentation demonstrating that the construction agreements used by Caribe, have been revised to ensure that the construction contractor specifically complies with the mitigation measures as detailed in the PGA as well as other measures detailed below.
 - A copy of a chance-find procedure for archeological artifacts in site clean-up, earth moving and excavation activities, to be developed and incorporated into the LFF ESHSMS.
 - A copy of the erosion control and sediment runoff plan, which adequately prevents effects to the surface waters or channel of the Rio Cañas.
 - A copy of the community information and relations procedure to be developed with local neighborhood residents relative to notification and coordination for vibration, dust, noise, or other issues.
 - Evidence of the inclusion of appropriate contract restrictions, reporting and monitoring of ESHS aspects in the operations contract (commissioning/“turn-over”) with Marriott International, specifically including the PGA and its mitigation measures.
- 10.5 During the **life of the Loan Agreement** of the Project, Caribe shall:
- Conduct periodic inspection during earth-moving and excavation activity by Caribe’s Resident Engineer to insure correct implementation of the environmental mitigation measures.
 - Prepare and submit an Environmental and Social Compliance Report, in form, content and frequency acceptable to IDB. These should annex the periodic SETENA compliance reports and wastewater monitoring reports. In addition, they should also contain sufficient information to insure compliance with all other regulatory aspects and the other recommendations contained in this ESDD and ESHS Action Plan.
 - Prepare and submit LEED progress reports on individual Projects under the LFF, in form, content and frequency acceptable to IDB.

- 10.6 During the **life of the Loan Agreement**, for the purposes of Bank monitoring environmental, social, health and safety, and labor aspects the Loan Agreement of the Project, Caribe shall provide for/accommodate:
- Direct Bank supervision actions (e.g., site visits, review of documentation, consultations with affected parties and third parties, etc.).
 - Access to LEED online project documentation for the Project under the LFF.
 - The Bank's right to contract an external independent environmental consultant to perform more detailed supervision/monitoring actions during the Project's construction and initial operation by Caribe, and, as needed through the life of the loan.
 - The Bank's right to contract for the performance of an independent environmental, social, health and safety, and labor audit, if the Bank deems necessary.
 - Access to all relevant documentation, facilities and personnel and cooperate fully with any inspection or audit by the Bank or its designated consultants.
- 10.7 These recommendations are summarized in Exhibit 1, which constitutes a draft ESHS Action Plan.

Exhibit 1: Courtyard Alajuela Draft ESHS Action Plan

Item	Observation / Recommendation	Date
Develop and Implement an ESHSMS at the level of the Courtyard Alajuela including:		
1.	Commissioning	
1.a	References to the PGA and other procedures in contract and sub-contract agreement(s)	
1.b	References to the PGA into an ESHSMS	
2.	Construction Phase	
2.a	A chance-find procedure for archeological artifacts	
2.b	An erosion and sedimentation control plan (SWPPP)	
2.c	A chance-find procedure for hazardous or unknown materials	
2.d	A community information and relations procedure, which specifically includes monitoring of noise and vibrations (retention wall)	
2.e	Assign a qualified ESHS supervisor (Regente Ambiental)	
2.f	Assign a Community Relations Manager	
3.	Operations Phase	
3.1	References to PGA and other procedures in contract agreement with Marriott for Alajuela operations	
3.2	If a shared well is ultimately required and used for public supply, regular testing and reporting as well as testing of reject or waste from water treatment and filtration systems	
4.	Reporting	
4.1	Environmental and Social Compliance Report, in form, content and frequency acceptable to IDB (annexing the periodic SETENA compliance reports and wastewater monitoring reports) – semi-annual during construction, annual during operations	
4.2	LEED progress report (semi-annual)	

