

Sustainable CNMI:

A Manual for Design, Construction, and Operational Practices for the Hotel Sector

Version 1.0



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Prepared for: CNMI Bureau of Environmental and Coastal Quality

Prepared by: Horsley Witten Group, Inc., OneStraw Sustainability Consulting,
Green Engineering, and Hofschneider Engineering Corporation



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Many individuals from these agencies and organizations recognize the need for environmental, economic, and social sustainability in the CNMI and supported the creation of a set of CNMI-specific sustainable practices for design, construction, and operations in the hotel industry.

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The authors and funding agencies do not endorse any business, program, or product referenced in this Manual.



Acronym List

ADA	Americans with Disabilities Act	NMC	Northern Marianas College
BMP	Best Management Practice	NMIAC	Northern Mariana Islands Administrative Code
BECQ	Bureau of Environmental and Coastal Quality	OPD	Office of Planning and Development
CIP	Capital Improvements Office	OMRI	Organic Materials Review Institute
CZMA	Coastal Zone Management Act	PV	Photovoltaic
CFR	Code of Federal Regulations	RPS	Renewable Portfolio Standard
CDA	Commonwealth Development Authority	RO	Reverse osmosis
CNMI	The Commonwealth of the Northern Mariana Islands	SR	Solar reflectance
CUC	Commonwealth Utilities Corporation	SRI	Solar Reflectivity Index
C&D	Construction and Demolition	SWAP	Solid Waste Action Plan
CWMP	Construction Waste Management Plan	SEDC	Strategic Economic Development Council
CSR	Corporate Social Responsibility	USAID	U.S. Agency for International Development
DCCA	Department of Community and Cultural Affairs	USEPA or EPA	U.S. Environmental Protection Agency
DEQ	Division of Environmental Quality	USGBC	U.S. Green Building Council
DLNR	Department of Land and Natural Resources	UOG	University of Guam
DPW	Department of Public Works	VOC	Volatile Organic Compound
DCRM	Division of Coastal Resources Management	WHO	World Health Organization
EH&S	Environmental health and safety	WTO	World Trade Organization
EBOM	Existing Building Operations and Maintenance	ZEV	Zero-emission vehicle
GSTC	Global Sustainable Tourism Council		
GHG	Greenhouse gas emission		
HVAC	Heating, ventilation, and air conditioning		
HPO	Historic Preservation Office		
HANMI	Hotel Association of the Northern Mariana Islands		
HWMI	Hotel Water Measurement Initiative		
IHRA	International Hotel and Restaurant Association		
LEED	Leadership in Energy and Environmental Design		
LCOE	Levelized cost of electricity		
MVA	Marianas Visitors Authority		
MINA	Micronesia Islands Nature Alliance		
NMTI	Northern Marianas Trades Institute		

Table of Contents

Acknowledgements	ii
Acronym List	iii
Introduction	6
What is sustainability?.....	7
Purpose.....	8
Why focus on hotels?	8
Global sustainability programs.....	9
Regulations and policies.....	11
How to use the manual	13
A. Sustainable Sites	16
A1. Avoid development impacts.....	17
A2. Use native landscaping.....	20
A3. Improve accessibility and connectivity	22
A4. Minimize off-site lighting	24
A5. Reduce heat island effect.....	26
B. Water Resources	29
B1. Maximize potable water conservation.....	30
B2. Implement sustainable wastewater treatment practices.....	33
B3. Restore natural stormwater hydrology.....	35
C. Material Resources and Solid Waste	37
C1. Encourage sustainable solid waste management practices.....	38
C2. Minimize the use of harmful substances	41
C3. Properly handle, store, and dispose of harmful substances	43
C4. Use regional materials & re-use materials	45
D. Energy & Global Climate	47
D1. Maximize energy conservation and efficiency practices	48
D2. Integrate renewable energy systems.....	50
D3. Measure and mitigate greenhouse gas emissions.....	52
D4. Encourage sustainable transportation options.....	54
E. Sustainable Management	56
E1. Create and implement a sustainability management plan	57
E2. Organize a green team	59

F. Sustainable Purchasing	61
F1. Encourage socially and environmentally-preferable purchasing	62
F2. Encourage local purchasing	65
G. Engagement & Outreach	67
G1. Communicate sustainability efforts and track user experience	68
G2. Promote staff engagement and training.....	70
G3. Provide information and interpretive materials	72
G4. Participate in local destination management activities.....	74
H. Local Community Support & Human Resources	76
H1. Provide community services and support.....	77
H2. Partner with local entrepreneurs.....	79
H3. Promote local employment	81
H4. Provide living wages and clean and safe working conditions	83
H5. Provide equal opportunities and prohibit exploitation and harassment	85
I. Cultural Heritage.....	87
I1. Protect cultural heritage.....	88
I2. Accurately portray and represent cultural heritage.....	90
J. Biodiversity Conservation	92
J1. Promote Biodiversity Conservation	93
J2. Monitor for and protect against invasive species	96
J3. Educate visitors on proper behavior at CNMI natural sites	98
J4. Encourage sustainable interactions with wildlife and in natural areas	100
J5. Protect animal welfare.....	102
Citations	104
Appendix A. Summary of Sustainability Practices and Performance Benchmarks	
Appendix B. Sustainability Checklist	
Appendix C. Tracking Spreadsheet	

Introduction



The CNMI's natural and cultural resources are the primary reasons visitors flock to the Mariana Islands. CNMI's recent expansion of the hotel industry and increased commercial development has brought economic growth to the region, but has also threatened the natural and cultural resources that define the character of the CNMI. This Manual provides guidance on how the implementation of best management practices (BMPs) during hotel design, construction, and operation can contribute to long term environmental, social/cultural, and economic sustainability. The CNMI must promote a culture of sustainability around tourism businesses to ensure that the tourism industry remains an economic driver in the future.

With a high susceptibility to the changing climate, an untenable reliance on fossil fuels, and an economic tether to tourism, it becomes imperative that islands be in the forefront of global sustainability.



What is sustainability?

Recognizing that global development was occurring rapidly and often to the detriment of the local environment, culture, and economy, the World Commission on Environment and Development defined sustainable development as:

“Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

--Brundtland Report, 1987

The United Nations World Tourism Organization’s Global Sustainable Tourism Council (GSTC) refers to four pillars of sustainability in tourism, which are linked to the concepts in the Brundtland Report and other sustainable development literature:

1. **Sustainable management** – Integrating sustainability practices into overall operations and management.
2. **Socioeconomic impacts** – Maximizing the socioeconomic benefits while minimizing the negative impacts.
3. **Cultural impacts** – Protecting local cultures and values through accurate and appropriate portrayal, and ensuring the host culture’s voice is present in tourism development decisions.
4. **Environmental impacts** – Maximizing the positive, minimizing the negative, including consumption of resources, reduction of pollution, and conservation of biodiversity and landscapes.

For the purposes of this Manual, sustainability is achieved when there is a **balance between the planet, people, and profit**. The Triple-bottom line is a concept familiar to the corporate world, and it is in this context that the hotel and accommodations sector is challenged to support a Sustainable CNMI.



Sustainability Triple Bottom Line (Source: University of Wisconsin)



Can sustainable tourism minimize negative impacts to the community and the environment while maximizing the positive benefits?

Purpose

While this Manual provides the potential foundation for a CNMI-specific sustainability certification, its primary purpose is to provide guidance on best management practices (BMPs) that could be adopted for new development and major redevelopment projects to promote environmental, economic, and cultural sustainability. While nothing in this Manual is intended to preclude other internationally-recognized standards for sustainable development and tourism, the BMPs suggested here are considered practical and feasible by industry representatives in CNMI for immediate implementation.

This Manual complements previous efforts to promote sustainable development in CNMI with a focus on the commercial building development, and more specifically, hotels. The target users of this Manual include developers, financiers, managers, and staff for hotels, smaller multi-family accommodations, and other commercial buildings. Permitting agencies, utilities, architects and engineers, and organizations such as HANMI, MVA, and MINA have been identified as secondary users.

Why focus on hotels?

Hotels in the United States alone represent more than 5 billion square feet of space, approximately 5 million guest rooms, and close to \$4 billion in annual energy use. From the materials used in building and construction, to the daily resource use within a facility's operation, hotels and other hospitality venues have an immense opportunity to reduce the negative impacts associated with guest rooms, event space, and general facility use. Hotel development in the CNMI and on Saipan in particular, is booming. MVA reported a total of 3,248 hotel rooms in 2016 and approximately 88% occupancy rate in 2017 (MVA, 2017). That same report projects that 5,212 additional hotel rooms will be developed over the next few years, inclusive of registered resort and condominium developments and exclusive of Imperial Pacific's planned inventory of ~ 1,600 rooms.

Hotels are operating close to or over capacity, and **many hotel and commercial properties in CNMI are in need of major renovations**. The upsurge in visitors has led to a need for more services and amenities prompting the construction of more hotels and commercial buildings to provide services such as retail shops, restaurants, grocery stores, etc. This new development adds jobs, builds the tax base, supports ancillary

Tourists from Korea, China, and Japan all indicate that nature-based activities and natural sites are the number one reason for visiting the CNMI.

service providers, creates new business opportunities, and drives overall economic growth. This rapid expansion also exerts pressure on existing infrastructure, public utilities, and the local environment.

Visitors come to CNMI for the tropical climate and natural beauty. In fact, CNMI's Tourism Master Plan cites nature-based tourism as one of the most promising niche market opportunities for the islands (MVA, 2012). CNMI surveyed "key visitor groups" who ranked nature and scenic activities within their top 10 reasons to visit in the 2010 Exit Survey. In fact, tourists from Korea, China, and Japan all indicate that nature-based activities and natural sites are the number one reason for visiting the Mariana Islands (MVA, 2012). Ensuring that these natural areas are well-maintained and protected is critical to attracting visitors to CNMI.

There is an opportunity for hotels to capitalize on the established visitor preference for natural sites and nature-based activities, while also protecting natural and cultural resources to ensure their integrity for many years to come. While CNMI has regulations in place to protect the environment and workers, the industry needs to embrace sustainable practices for design, construction, and operations to ensure long-term tourism development and operation in CNMI. Measures such as energy and water efficiency, waste

“By 2030, the hospitality landscape will be unrecognizable compared to the standards of today, and sustainability will be one of the pervasive drivers of change. Those who fail to adhere to these changes in the industry find the risk of getting lost.” -ITC Hotels

reduction, and sustainable and local purchasing can have wide scale impact on a region like the CNMI, where the tourism sector, representing a large portion of the islands’ economy, can build the foundation for an overall environmentally and socially sustainable society (US Green Building Council, 2010).

The suite of BMPs presented in this Manual includes a range of performance measures that can be implemented in hotels and other types of commercial facilities to reduce harmful environmental, social, and economic impacts in CNMI, and ensure that the “paradise for all” remains intact for everyone for the long run.

Global sustainability programs

A number of global sustainable development certification programs were reviewed as part of the effort to establish a set of CNMI-appropriate standards (**Table 1**). BMPs in this manual draw primarily from the Global Sustainable Tourism Council (GSTC) criteria and the LEED v4 Existing Building Operations and Maintenance (EBOM) Criteria. LEED EBOM and GSTC offer a combination of construction, design, and operational practices.

GSTC provides an overarching quality assurance body that provides accreditation of numerous 3rd party certification programs.

A complete list of GSTC-accredited programs can be found on the GSTC website:

<https://www.gstcouncil.org/gstc-criteria/gstc-recognized-standards-for-hotels-and-tour-operators/>. LEED is also a recognized sustainability certification program in China.

ITC Hotels set an unprecedented benchmark when its 11 luxury hotels all became certified LEED Platinum, a process that included retrofitting 9 properties in a single year. Today, the company is India's second-largest hotel chain, has more than 90 hotels, and is the only company in the world of its size to have been carbon positive for 13 years, water positive for 16 years, and solid waste recycling positive for 11 years. Read about it:

www.architecturaldigest.com/story/how-indian-luxury-hotel-chain-became-greenest-on-planet

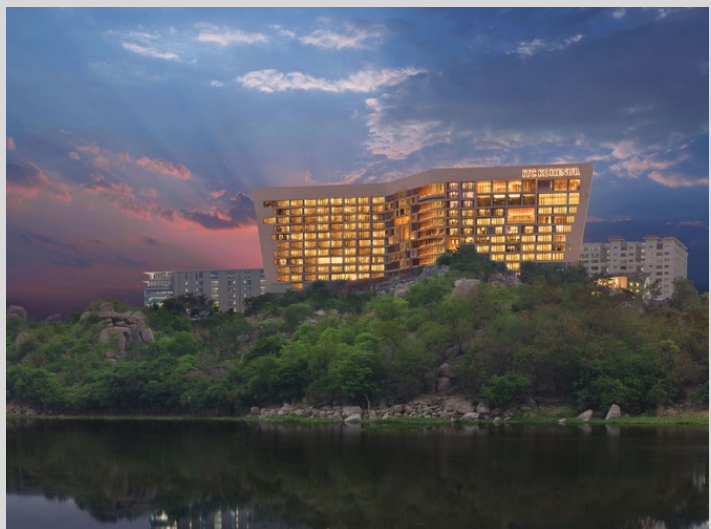


Table 1. Sustainability Certification Programs

Sustainable Programs	Description
International Code Council's <i>2012 International Green Construction Code (IgCC)</i>	A model code that contains minimum requirements for increasing the environmental and health performance of buildings' sites and structures. Generally, it applies to the design and construction of all types of buildings except single- and two-family residential structures, multifamily structures with three or fewer stories, and temporary structures. see the 2012 International Green Construction Code: https://www.iccsafe.org/international-green-construction-code/
Green Globes. Green Building Initiative's ANSI/GBI 01-2010: <i>Green Building Assessment Protocol for Commercial Buildings</i> .	A series of rating and certification systems that encourage improved environmental and health performance for all types of buildings except residential structures. Green Globes is administered in the United States by the Green Building Initiative. For more information, see Green Globes Certification: https://www.thegbi.org/green-globes-certification .
LEED U.S. Green Building Council's <i>Leadership in Energy and Environmental Design (LEED®)</i>	A series of rating systems aimed at increasing the environmental and health performance of buildings' sites and structures and of neighborhoods. LEED® covers the design, construction, and operations of all types of buildings. For more information, see the U.S. Green Building Council's LEED webpage: https://www.usgbc.org/leed .
Living Building Challenge The International Living Future Institute's <i>Living Building Challenge</i>	A certification system that advocates for transformation in the design, construction, and operation of buildings. In addition to encouraging improved environmental and health performance, it supports the building of structures that are restorative, regenerative, and an integral component of the local ecology and culture. For more information, see the Living Building Challenge: https://living-future.org/lbc/ .
Hawaii <i>Green Hotels Checklist</i> and <i>Hawaii Hotel Reef Stewardship Guide</i>	Created by the Coral Reef Alliance this resource guide provides key guidance for, the implementation of stewardship and sustainability measures within the accommodations sector of Hawaii. The guide can help properties take stock of operations, review examples of others' efforts, and find resources to assist in implementing new strategies within hotel properties. For more information see: HI Hotel Reef Stewardship Guide: https://coral.org/hotelstewardship/ .
Global Sustainable Tourism Council (GSTC) Criteria	The GSTC Criteria and Suggested Indicators for Hotels were created in an effort to come to a common understanding of sustainable tourism, and are the minimum that a hotel (or any type of built accommodations) business should aspire to reach. The Hotel Criteria are organized around four main themes: effective sustainability planning, maximizing social and economic benefits for the local community, enhancing cultural heritage, and reducing negative impacts to the environment. For more information see: GSTC Criteria for Hotels: https://www.gstccouncil.org/gstc-criteria/gstc-industry-criteria-for-hotels/ .
Rainforest Alliance	A pioneer in third-party sustainable tourism recognition, working with hotels, inbound and outbound tour operators, and other tourism businesses to help them improve their environmental, social, and economic practices. Rainforest Alliance is often considered the most recognized certification programs in North America.

Regulations and policies

There are a number of federal and territorial regulations and policies that require or incentivize many of the sustainable practices promoted in this manual. As pressure on natural and socio-economic resources increases, more stringent and comprehensive requirements for achieving sustainability may be adopted by regulatory agencies. Highlights include:

- New federal building construction and substantial renovation requires achievement of **LEED Gold certification**, as a minimum. To achieve LEED certification, many of the sustainable sites, energy, material resources, and solid waste practices described herein will need to met (and exceeded). For more information, see the General Services Administration website: <https://www.gsa.gov/real-estate/design-construction/design-excellence/sustainability/sustainable-design>.
- The CNMI government enacted a renewable portfolio standard in 2006, which as amended, sets a goal of **20% of electricity supplies be obtained from renewable sources** by 2016. Progress has been limited, however, and commercial entities have not been encouraged to connect onsite renewable energy generating measures due to CUC grid capacity issues. For a list of renewable energy projects in CNMI see: www.eia.gov/state/analysis.php?sid=CQ#44.
- Tiered permit fee discounts for the **Major Siting Permit** may apply for qualifying “green” and/or “low impact developments” that are Energy Star rated or LEED-certifiable projects (NMIAC 15-10-205). For more information on permitting requirements, visit DCRM’s Permitting website: <https://dcrm.gov.mp/our-programs/permitting/the-permitting-process/>.
- Drinking water, stormwater, wastewater, air, solid waste, hazardous wastes and substances, regulated by DEQ (NMIAC 65) and supported by US EPA regulations (40 CFR).
- Major Siting Permit-Solid Waste Management Plan Criteria: A BECQ guidance document for meeting the solid waste management plan criteria as required for the Major Siting Permit.
- Section 309(a)(3) of the Coastal Zone Management Act (CZMA) requires the CNMI to increase opportunities for **public access**, taking into account current and future public access needs, to coastal areas of recreational, historical, aesthetic, ecological, or cultural value.

As pressure on natural and socio-economic resources increases, more stringent and comprehensive requirements for achieving sustainability may be adopted by regulatory agencies.

- American Disabilities Act (**ADA**) compliance.
- DLNR regulates the importation of plants and plant-related articles (NMIAC 85-60.2-201): Prohibits importation of **invasive species**, though the regulations do not explicitly state that native and adaptive drought tolerant plants are favored. Protection of wildlife is regulated by DFW at NMIAC 85-30.1 and supported by US FWS Regulations at 50 CFR.
- Monitoring and managing a facility’s **greenhouse gas (GHG) emissions** relates directly to requirements set out in the BECQ Stationary Minor Source Permit (e.g., On-site Generators).
- DCRM Regulations for specific APCs favor projects that promote and protect **historic/cultural resources** (among other resources), listing them as “highest priority uses” (NMIAC 15-10-315, 320, 330, 335, 345). HPO regulates the use of cultural and historic properties (NMIAC 55-10-600), requiring most development activities to obtain a permit prior to development.

Looking to the future, it is possible that:

1. Major siting permits could **require sustainable BMPs at a level exceeding the basic thresholds** described here.
2. Sustainability checklists may become part of CNMI Commonwealth Development Authority (CDA) Qualifying Certificate Program (NMIAC 25-30) or DPL lease renewal considerations.
3. Onsite renewable energy, at least for a portion of the electrical needs, may become more widely embraced.
4. The CNMI 2014 Tropical Energy Code requirements may be more regularly enforced.
5. 303(d) impaired waters listings, TMDLs, and watershed or special area management plans (e.g., SLUMP) may trigger more sustainable siting, design, and construction approaches.

First LEED-Certified Building in CNMI: District Courthouse

New federal building construction and substantial renovation requires achievement of LEED Gold certification, as a minimum. Currently under construction in Gualo Rai, the new courthouse will be the first LEED-certified building in the CNMI. The courthouse design incorporates innovative lighting and landscaping, energy efficient fixtures and wastewater technologies projected to realize future cost savings and conserve resources.

The building will house the district court, the U.S. Probation Office, the U.S. Marshals Service, the U.S. Attorney's Office and the Federal Protective Service. Construction is anticipated to take one and a half years and is expected to be completed in the summer of 2019.



An architect's rendering of the new District Court of the NMI building (Photo source: Marianas Variety.com)

Palau's Sustainability Efforts

Recognizing that environmental and natural resource protection is critical to long term economic and social sustainability in Palau, the nation's leaders have been strategically implementing progressive and stringent environmental policies for more than a decade, including:

Banning "reef-toxic" sunscreens containing any one of 10 chemicals, including oxybenzone and octinoxate, which are found in the majority of sunscreens sold in the U.S., according to the Consumer Healthcare Products Association.

<https://www.palau.gov.pw/wp-content/uploads/2018/08/Proposed-Legislation-re.-Responsible-Tourism-Education-Act-of-2018.pdf>

Planning to become home to the world's largest microgrid, a development that could help it ramp up to **70 percent renewable energy by 2045**. Palau's Climate Change Ambassador, Ngedikes Olai Uludong, discussed Palau's journey toward this renewable energy target: "Basically, small islands are incubators for change, and Palau can lead the way."

<https://www.scientificamerican.com/article/tiny-island-nation-to-host-worlds-largest-microgrid/>

Every visitor entering Palau is assessed a **\$100 environmental fee or "green tax"** as part of Palau's move to promote high value tourism and first-rate tourism hospitality. The tax, formally titled "Pristine Paradise Environmental Fee," is the primary financing mechanism for the Palau National Marine Sanctuary.

<https://www.palau.gov.pw/documents/rppl-10-2-pristine-paradise-environmental-fee-formerly-eif/>

The private sector has a role to play in implementing these types of measures. More specifically, the hotel industry in CNMI can help to drive the sustainability movement – protecting natural and cultural resources and in turn promoting long-term economic development in the long term.

How to use the manual

The Manual includes 36 best management practices (BMPs) for sustainable development organized into 10 practice categories, as follows:

A. Sustainable Sites

- A1: Avoid development impacts
- A2: Use native landscaping materials
- A3: Improve accessibility and connectivity
- A4: Minimize off-site lighting
- A5: Reduce heat island effect

B. Water Resources

- B1: Maximize potable water conservation
- B2: Implement sustainable wastewater treatment practices
- B3: Restore natural stormwater hydrology

C. Material Resources & Solid Waste

- C1: Encourage sustainable solid waste management practices
- C2: Minimize the use of harmful substances
- C3: Properly handle, store, and dispose of harmful substances
- C4: Use Regional Materials & Re-use Materials

D. Energy & Global Climate

- D1: Maximize Energy Conservation and Energy Efficiency Practices
- D2: Integrate Renewable Energy Systems
- D3: Measure and mitigate greenhouse gases
- D4: Encourage sustainable transportation options

E. Sustainable Management

- E1: Create and implement a sustainability management plan
- E2: Organize a Green Team

F. Sustainable Purchasing

- F1: Encourage socially and environmentally preferable purchasing
- F2: Encourage local purchasing

G. Engagement and Outreach

- G1: Communicate sustainability efforts and track user experience
- G2: Promote staff engagement and training
- G3: Provide information and interpretive materials
- G4: Participate in local destination management activities

H. Local Community Support and Human Resources

- H1: Provide community services and support
- H2: Partner with local entrepreneurs
- H3: Promote local employment
- H4: Provide living wages and clean and safe working conditions
- H5: Provide equal opportunities and prohibit exploitation and harassment

I. Cultural Heritage

- I1: Protect cultural heritage
- I2: Accurately portray and represent culture and heritage

J. Biodiversity Conservation

- J1: Promote biodiversity conservation
- J2: Monitor for and protect against invasive species
- J3: Educate visitors on proper behavior for CNMI natural sites
- J4: Encourage sustainable interactions with wildlife and in natural areas
- J5: Protect animal welfare:

BMPs are described within individual fact sheets. Fact sheets include a set of recommended actions; benchmarks to measure performance; and other information to support implementation, lower operating costs, and increase marketing power to environmentally-conscious customers.

As a quick reference, **Appendix A** provides a consolidated summary of all BMPs, implementation actions, and performance benchmarks.

Performance Benchmarks

For each BMP, performance benchmarks provide standard targets that indicate when a BMP has been achieved. There are three levels of performance benchmarks—*Basic*, *Better*, and *Best*—that are associated with an increasing level of practice. The first level, *Basic*, is the minimum level of implementation deemed “sustainable.” However, achieving *Best* performance is highly encouraged and may become the standard in the future.

All 36 BMPs—unless deemed non-applicable—must be implemented to at least the *Basic* level of performance to be considered CNMI-sustainable. These benchmarks do not directly correlate with graduating LEED standards (i.e., Silver, Gold, and Platinum), since the suite of BMPs includes operational practices that are not necessarily captured through LEED certification, and (more importantly) since BMPs are not weighted or scored.

For the purposes of this guide and the requirements it contains, a hotel is responsible for the sustainability practices of its contractors, and for those activities and services conducted off-site as they pertain to the BMPs listed.

Achieving Sustainability

To be recognized as meeting a basic level of sustainability in the CNMI, hotels must achieve one or more of the following:


1. Meet the *Basic* level of performance benchmark for all of the 36 BMPs in this manual. Depending on the type of development or operation, some BMPs may not be applicable. Non-applicable BMPs must be identified and an explanation provided as to why the BMP is considered not applicable.
2. Meet a national or internationally-recognized sustainable tourism/green building certification (e.g., LEED, GSTC). In this case, hotels/businesses should still document any BMPs on the checklist or tracking spreadsheet that are outside of their certification. For example, LEED certification does not provide for some of the human resource or social equity BMPs in this manual.


BMP Fact Sheet Information


Applicability – Does the BMP apply to new construction or renovation work? What phase of the project—design, construction, or operations?

Implementation actions – Recommended actions to implement each BMP, such as installing water efficient fixtures to meet water conservation benchmarks. Hotels are not limited to the actions listed here.

Relative level of effort – Actions are comparatively rated as high, medium, or low level of effort based on cost, technical skill, or material availability:

 **Low:** Can be completed in-house with minimal extra time and effort (e.g., providing signage or materials to visitors, communicating the importance of cultural resources)

 **Medium:** May require dedicated staff time or outside expertise (e.g., hire local artists and craftsmen for a portion of the building’s interior decoration)

 **High:** Generally requires outside consultation, and extensive in house training (e.g., the property is actively managed for biodiversity conservation).

Performance benchmarks – Targets used to determine level of compliance with industry best practices, where *Basic*, *Better*, and *Best* levels are used to indicate higher measures of compared to a performance. The *Basic* benchmark is the minimum achievement threshold.

Implementation resources – Learn more from publications, and online resources.

Considerations – A list of benefits, barriers, and options for convincing management why this BMP is important.

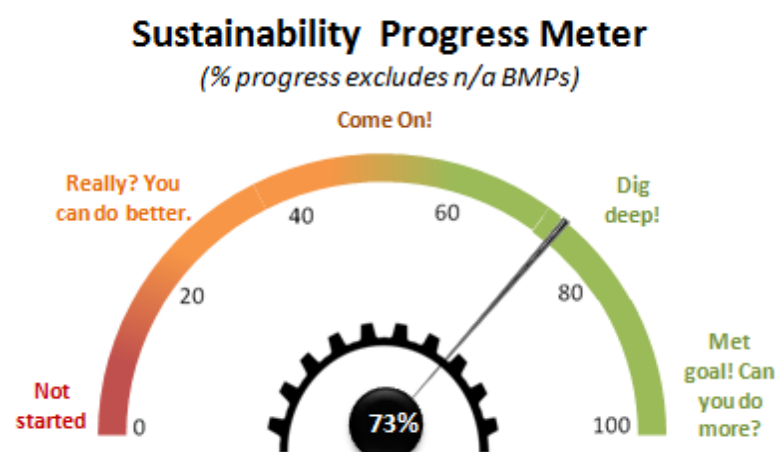
Examples – Real world examples of local or outside implementation.

Tracking and Reporting

It is the intent of BECQ that these sustainability BMPs will ultimately be incorporated into the Major Siting permit. Completed checklists will need to be submitted as part of the Major Siting permit application. Agencies may request that hotels populate an online checklist/dashboard to allow individual businesses to track performance over time and to allow for industry-wide evaluations. In anticipation of permit compliance needs, a Sustainable CNMI checklist is provided in **Appendix B**. The checklist offers a simple mechanism for tracking all the items that will need to be organized and submitted under a sustainability portfolio for the property or application. In addition, an electronic performance tracking spreadsheet in Microsoft Excel (.xls) was developed to provide a mechanism for documenting progress towards achieving the 36 BMPs.

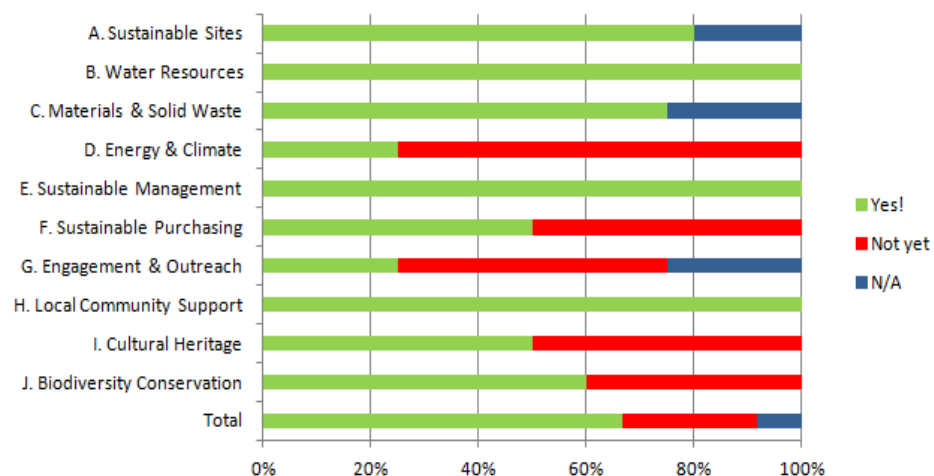
The tracking spreadsheet can be completed by each hotel, permit applicant, agency, or other building owner interested in meeting the CNMI's basic sustainability criteria. The spreadsheet is organized into 12 easily printable worksheets, including:

- A dashboard for a quick glance at overall implementation status,
- A worksheet for contact information, and
- Worksheets for each of the 10 practice categories.



The tracking spreadsheet offers an evaluation tool for hotel managers, agencies, and tourism groups to assess industry progress towards meeting established sustainability goals. **Appendix C** includes a printed copy of a blank spreadsheet for reference.

Sustainability Achievement Summary Chart by BMP Group



The Performance Tracking Spreadsheet includes a progress meter that measures overall achievement, where 100% progress indicates compliance with all applicable BMPs. A summary bar chart compares the portion of BMPs that have been implemented at least to the Basic level (green), are not yet implemented (red), or are not applicable (blue).

A. Sustainable Sites

Buildings can negatively impact ecosystems and communities, especially when development takes place in undisturbed natural areas, affects agricultural space, or encroaches on cultural sites. The early stages of development from site selection to material sourcing sets the stage for comprehensive sustainability. The decision to develop an empty parcel vs. the redevelopment or renovation of dilapidated structures can influence the impact of the project on natural resources, existing infrastructure, and local communities. In fact, when sites are poorly-selected, the effort to meet all land use regulations and environmental permitting usually increases. Financial incentives exist for the redevelopment of abandoned structures, as well as for remediating sites where contaminated soils, eroded shorelines, wetland impacts, or other issues are pre-existing.



Site selection and design should strive to maintain or improve public access to natural areas, such as beaches, or historic resources. By reducing light pollution on a site, developments can minimize the amount of light and heat, which can ultimately harm wildlife, impair aesthetics, and drive up energy consumption.



Sustainable Sites BMPs

- A1: Avoid development impacts
- A2: Use native landscaping
- A3: Improve accessibility and connectivity
- A4: Minimize off-site lighting
- A5: Reduce heat island effect



Abandoned buildings can be eyesores, especially when juxtaposed with new resort and casino construction.

A1. Avoid development impacts

Derelict buildings represent a waste of resources, pose safety hazards, and are blights on the community and economy. Often the most sustainable approach to expanding the CNMI's tourist-based economy is through redevelopment and renovation, rather than development of a "greenfield" or undeveloped site. This is especially true where no infrastructure is in place (roads, sewer, etc), or if the site has documented environmental conservation value. Given regulatory and financial incentives, redevelopment may be more cost-effective. Zoning, utility requirements, and development regulations can present uncertain challenges for new construction and infrastructure extensions can be costly (and more disruptive). Site development should not only strive to avoid environmental and social impacts, but should also be viewed as the best (and most economical) opportunity to improve existing site conditions, including watershed health and climate resiliency.

BMP Applications

- ☒ New construction ☒ Renovation/Redevelopment
- ☒ Design ☐ Construction ☐ Operations

Implementation Actions

1. Avoid new development in natural or agricultural areas by prioritizing the redevelopment or renovation of existing structures and infill activities. 🏠🏠

2. Site development avoids flood zones and implements resiliency measures in anticipation of a changing climate. 🏠
3. Thoroughly document all environmental and cultural assets potentially impacted by site development and the decision process to avoid, minimize, and/or mitigate negative effects on those resources. 🏠
4. Development complies with all land acquisition, leasing, and zoning regulations; resource management plans; and permitting requirements during all stages of the development process. 🏠
5. Exceed regulatory open space or other environmental standard. 🏠🏠

Performance Benchmark

Impacts Avoided

Basic Practice: New development or redevelopment where impacts are avoided or minimized, and no variances to environmental regulations are needed. Site has not been identified as a priority for environmental or historical/cultural conservation area.

Better Practice: Infill (in urban core) or redevelopment/remodel that meets all regulatory requirements without variances; impacts avoided and conditions improved (e.g., clean up contaminated soils or repair failing sewage lines).

Best Practice: Redevelopment that; exceeds all requirements (e.g., wider buffers) and implements climate resiliency measures.

Implementation Resources

- Site Selection and Brownfield Redevelopment credits under the LEED certification standards. For more information: <https://www.usgbc.org/node/1731738?return=/credits/new-construction/v2009>
- Early in the site selection process, give weighted preference to sites that do not contain restrictive land types or sensitive site elements. Meet with local agencies, economic development groups, and community associations early in the process to direct site selection (e.g., avoid conservation areas).
- Research options for re-development of existing structures. See National Trust for Historic Preservation: <https://forum.savingplaces.org/learn/issues/reurbanism>
- Design building footprint to avoid disruption to sensitive areas. Do not site structures on prime farmland, at flood prone elevations, where endangered or sensitive species or habitats exist, within wetland buffers, or at park/recreational areas.

Considerations

- In CNMI, there are many buildings and partially-developed sites available for rehabilitation and redevelopment projects are supported through permit fee reductions with DCRM (NMIAC 15-10-205), through less-stringent earthmoving requirements with DEQ (NMIAC 65-30-301), and CDA Qualifying Certificates (NMIAC 25-30).
- Saipan Zoning Law (NMIAC 165-30.1) prohibits/ limits specific types of activities from occurring in certain Zoning Districts and water quality impairments may restrict new development siting or offer opportunities for



redevelopment in certain watersheds.

- DCRM Regulations for specific APCs favor projects that promote and protect historic/cultural resources (among others), listing them as “highest priority uses” (NMIAC 15-10-315, 320, 330, 335, 345). HPO regulates the use of cultural and historic properties (NMIAC 55-10-600).
- Removal/demolition of blighted structures provides a service to the landowner, and increases the value of the land, which can be used to negotiate favorable lease terms.
- Public land lease expirations may be a barrier to renovation and redevelopment. Opportunities exist for exploring options with Department of Public Lands (DPL) that encourage long-term investments during site selection process. It is important to obtain DPL buy-in to encourage redevelopment of existing properties as opposed to developing greenspace.
- Reduced costs are associated with re-use of materials, and lower C&D waste disposal costs.

Examples

The Kensington Hotel (pictured to the left) is a local example of renovation/redevelopment of a formerly abandoned building on Saipan.





A2. Use native landscaping

Sustainable properties should reflect the island ecology, connect ecosystems, and be a mechanism for vegetative restoration. Plant communities should be documented prior to development and, if pristine, be the central theme for hotel landscaping. Property development should offer an opportunity to control invasive species and to re-establish native plant communities. Most hotels have available space and dedicated groundskeepers to meaningfully contribute to the propagation of plant species that are critical for supporting local fauna. Using native plants rather than exotic species can reduce long term irrigation and maintenance costs since locally-adapted plants are better acclimated to the climate and fauna. In the Marianas, it is important to minimize the import of vegetation that may bring harmful insects or invasive species. Industry demand for native plants can encourage local nurseries to propagate locally-adapted species and support education on how specific plants were historically important to Chamorro and Carolinian cultures.

BMP Applications

- ☒ New construction ☒ Renovation/Redevelopment
- ☒ Design ☒ Construction ☐ Operations

Implementation Actions

1. Document the pre-development plant community at the site. Avoid disturbing sensitive plant communities during development. Relocate and reuse native plants that would otherwise be removed during construction. 🌿

2. Landscaping plans should replicate native or locally-adapted vegetative communities for habitat benefits and reduced maintenance costs. 🌿
3. Manage invasive plant species on site through site restoration and prohibition on imports. 🌿🌿
4. Integrate native plants into education on historic and cultural uses of plants 🌿

Performance Benchmark

% of native plants used in landscaping (exclusive of natural, unmanaged vegetation on site)

Basic Practice: 10-25% of landscaping consists of native or locally-adapted plants

Better Practice: >25% of landscaping is native or locally-adapted plants; some plants were saved and reused during construction; active invasive species management

Best Practice: >50% of the landscaping consists of native or locally-adapted plants; propagate native species on site

Implementation Resources

- Access photos and descriptions of native, endemic and indigenous species: CNMI Native Plants of the Mariana Islands. See: <http://www.cnmi-dfw.com/docs/Native%20Plants%20of%20the%20Mariana%20Islands.pdf>
- Green Hotelier, Refurbishment and Landscaping. See: www.greenhotelier.org/wp-content/uploads/2015/03/9-Refurbishment-for-web-1.1.pdf

- LEED has a Water Efficient Landscaping credit that includes the use of native, drought-tolerant plant species. See: <https://www.usgbc.org/node/1732728?return=/credits/new-construction/v2009>
- USGBC's Practical Strategies in Green Building: Hotels provides case studies including cost information related to promoting the use of native species in hotel landscaping. See: www.usgbc.org/Docs/Archive/General/Docs7760.pdf
- 2018 Trees and Shrubs of the Mariana Islands by L. Raulerson and A. Rinehart, University of Guam Press.

Considerations

- MINA, NMC, or UOG may offer training opportunities for groundskeepers on invasive and native plant management.
- Native landscaping often requires little to no irrigation and less maintenance. As an example, the Westin Resort & Spa in Avon, CO implemented a water efficient landscaping strategy allowing the property to significantly reduce water use. In addition to ongoing water cost savings, the native plant species save the hotel money in other ways: they require no fertilizer and less maintenance, and are more affordable to purchase than nonnative species. Guests appreciate the use of native plant species, saying that they come to the mountains to be surrounded by pine trees and aspen trees instead of plain lawns, which they can find anywhere (USGBC).

- Local artisans and historians can educate visitors on how plants were used in CNMI native culture and traditions.
- DLNR regulates the importation of plants and plant-related articles (NMIAC 85-60.2-201) and prohibits importation of invasive species, though the regulations do not explicitly state that native and adaptive drought tolerant plants are favored.

Examples

- Reference plant lists from Lao Lao Bay Pride Campaign's Native Plants of the Northern Mariana Islands for Wildlife and Ornamental Use Guide: <http://www.cnmi-dfw.com/docs/Native%20Plants%20of%20the%20Mariana%20Islands.pdf>

TOP 15 RECOMMENDED PLANTS FOR WILDLIFE

Scientific name	Local name	English name	Size
<i>Aglaia mariannensis</i>	Mapunyao	N/A	Small to medium tree
<i>Aidia cochinchiniensis</i>	Sumak	N/A	Shrub to small tree
<i>Calophyllum inophyllum</i>	Da'ok	Mastwood	Large tree
<i>Cerbera dilatata</i>	Chiute	N/A	Medium to large tree
<i>Cordia subcordata</i>	Niyoron	N/A	Shrub to small tree
<i>Eugenia palumbus</i>	Agatelang	N/A	Shrub
<i>Guamia mariannae</i>	Paipai	N/A	Small tree
<i>Intsia bijuga</i>	Ifit	N/A	Medium to large tree
<i>Melanolepis multiglandulosa</i>	Alum	N/A	Small to medium tree
<i>Piper guahamense</i>	Pupula-n-aniti	Wild Pepper	Shrub
<i>Pipturus argenteus</i>	Amahadyan	Silvery pipturus	Small tree
<i>Premna obtusifolia</i>	Ahgao	False elder	Small to medium tree
<i>Pouteria obovata</i>	Lahala	N/A	Small to medium tree
<i>Psychotria mariana</i>	Aploghating	N/A	Small tree
<i>Terminalia catappa</i>	Talisai	Pacific almond	Medium tree

List taken from Lao Lao Bay Pride Campaign's *Native Plants of the Northern Mariana Islands for Wildlife and Ornamental Use Guide* (Zarones, 2014)



Native plant use signage posted at Lao Lao Bay.



A3. Improve accessibility and connectivity

Site renovations and redevelopment offer opportunities to retrofit buildings and parking lots to comply with Americans with Disabilities Act (ADA) standards. Developers should strive to provide interconnections between hotel properties and adjacent parcels where pedestrian walkways, bike trails, or open space exists. A critical function of territorial agencies during permit review is to ensure that public access to beaches, recreational uses, traditional fishing areas and historic sites is maintained.

To meet requirements of Section 309 of the Coastal Zone Management Act, CNMI must provide and improve public access to public areas. Moreover, Section 309 (a)(3) requires CNMI to increase opportunities for public access, taking into account current and future public access needs, to coastal areas of recreational, historical, aesthetic, ecological, or cultural value.

BMP Applications

- ☒ New construction ☒ Renovation/Redevelopment
- ☒ Design ☒ Construction ☒ Operations

Implementation Actions

1. Public access to the ocean and other amenities is maintained or improved with adequate parking, walkways, restroom and shower facilities, trash and recycling receptacles, etc. 🗑️

2. Traditional access to fishing or gathering is protected by the organization and a mechanism is in place to report any loss of access. 🗑️
3. Reasonable accommodation is afforded to persons with physical disabilities and special needs. 🗑️
4. Site selection and design maintains or improves connectivity of open space, bike paths, or pedestrian walkways. 🗑️🗑️

Performance Benchmark

of actions implemented

Basic Practice: 2 of the listed actions are implemented

Better Practice: 3-4 actions are implemented

Best Practice: access or connectivity improved (rather than maintained)

Implementation Resources

- LEED certification includes a connectivity standard.
- During site selection and initial project planning, developers should meet with communities and agencies to identify existing access needs and concerns.
- ADA Checklist for New Lodging Facilities:
www.ada.gov/hsurvey.htm
- Association for the Blind – Checklist for Hotels:
<http://www.afb.org/info/programs-and-services/public-policy-center/civil-rights/advocacy-resources/ada-checklist-for-hotels-and-motels/12345>

Considerations

- Offering amenities such as bike and pedestrian paths can attract guests to hotel properties.
- Access to public amenities is required by law and should be part of standard operating procedures at hotel properties.
- Offering bike paths and open space as part of guest amenities may be complicated as beach areas are technically public and can be used by non-guests. DCRM requires maintaining public beach access - §309(a)(3)
- American Disabilities Act (ADA) compliance can sometimes provide rationale for renovation financing.



Examples

Public laws in many US beachfront communities require developers to provide sufficient public beach access, parking, walkways, and other facilities. The beach walkway in Ka'anapali, Maui is one such example. The roughly half mile long beachfront walkway was established through resort contributions and provides an asset to guests and visitors alike allowing a safe walking path, as well as walk up access to hotel amenities like restaurants and souvenir shops. Hotel and restaurant operators report that many customers—locals or visitors staying at other resorts-- visit their property via this walkway.





A4. Minimize off-site lighting

To increase visibility of the night sky, reduce impacts on wildlife and people, and maintain safety, proper management of outdoor lighting is important. In CNMI, for instance, beach lighting can discourage sea turtle nesting and disorient hatchlings. The best way to accomplish the goal of protecting and restoring the natural night environment is through the promotion of quality outdoor lighting. It is crucial to have fully shielded lighting, and the color of light is also very important. Both LED and metal halide fixtures contain large amounts of blue light in their spectrum. Because blue light brightens the night sky more than any other color of light, it's important to minimize the amount of blue light emitted. Exposure to blue light at night has also been shown to harm human health and endanger wildlife. See: <http://darksky.org/light-pollution/human-health/> and <http://darksky.org/light-pollution/wildlife/>. The International Dark Sky Association (IDA) recommends using lighting that has a color temperature of no more than 3000 Kelvins. See: <http://darksky.org/ida-issues-new-standards-on-blue-light-at-night/>

BMP Applications

- ☒ New construction ☒ Renovation/Redevelopment
- ☒ Design ☒ Construction ☒ Operations

Implementation Actions

1. Lighting is eliminated along beachfront and other sensitive natural areas in accordance with local wildlife management guidelines and/or Dark Sky Standards. 🏠

2. All exterior fixtures are shielded (Dark Sky-compliant), and lighting is optimized so that the minimum amount of light needed is attained without unnecessary spillover of excess light. 🏠

Performance Benchmark

% light fixtures in compliance with Dark Sky Standards

Basic Practice: 10-25% of light fixtures in compliance

Better Practice: 26-50%

Best Practice: >50%

Implementation Resources

- The International Dark-Sky Association (IDA) is the authoritative voice on light pollution. IDA educates lighting designers, manufacturers, technical committees and the public about controlling light pollution. To achieve this, IDA developed the Fixture Seal of Approval program to provide objective, third-party certification for lighting that minimizes glare, reduces light trespass and doesn't pollute the night sky. IDA also maintains a list of certified fixtures and retail distributors. See: <http://darksky.org/fsa/>
- Commercial and Street Lighting Guidance, Saving our Stars: <https://www.savingourstars.org/commercial>
- LEED Certification Credit: <https://www.usgbc.org/node/2600382?return=/credits/new-construction/v4/sustainable-sites>

Considerations

- Hotels may use bright lighting to increase security on site. For many properties, a better solution for security lighting is to use a bulkhead or porch lights fitted with a low power 600-900 lumens (9/11w) compact fluorescent lamp.
- LED lights may have negative effects due to blue-rich white light, even from fixtures with proper shielding.

Examples

- The Maui Hyatt Regency Hotel has turned its low/reduced lighting policy into a major guest attraction with its renowned rooftop astronomy “Tour of the Stars”. Guests can view the night sky with a 14 inch reflector telescope stationed on the ninth floor roof, and hear a program hosted by an astronomer. They even offer a late night private “Romance Tour” which includes champagne and chocolate strawberries!

- For examples, look to Dark Sky Developments of Distinction: <http://darksky.org/idsp/become-a-dark-sky-place/dsdod/>. In 2009, Harmony, Florida was recognized as the world’s first Dark Sky Development of Distinction. <http://www.wec.ufl.edu/extension/gc/harmony/darksky.htm>.



Lights facing the ocean can be harmful to wildlife and reduce night sky viewing potential by guests.



A5. Reduce heat island effect

Temperatures are often a few degrees higher over pavement than in surrounding vegetated areas. This temperature discrepancy is known as the heat island effect and can significantly increase the microclimate temperatures in the immediate area. Because infrastructure in urban areas has replaced vegetation with pavement, the urban areas lose the evaporative cooling advantages of vegetation. Surfaces that were once permeable and moist become impermeable and dry.

These changes cause urban areas to become warmer than their rural/green surroundings, forming an "island" of higher temperatures in the landscape.

Other factors also contribute to the heat island effect. For instance, air conditioners convert energy to heat and release this heat into the air. According to the US EPA, "Heat islands can affect communities by increasing summertime peak energy demand, air conditioning costs, air pollution and greenhouse gas emissions, heat-related illness and mortality, and water quality."

BMP Applications

- ☒ New construction ☒ Renovation/Redevelopment
☒ Design ☒ Construction ☐ Operations

Implementation Actions

1. Limit the amount of paving on a site and/or use any combination of the following strategies to reduce heating from site paving:
 - a. Use the existing plant material or install plants that will provide shade over paving areas on the site within 5 years of planting. 🌳
 - b. Provide shade with structures covered by energy generation systems, such as solar thermal collectors, photovoltaics, and wind turbines. 🌞🌬️
 - c. Provide shade with architectural devices or structures that have a three-year aged *solar reflectance (SR)* value of at least 0.28. If three-year aged value information is not available, use materials with an initial SR of at least 0.33 at installation. 🏠
 - d. Use paving materials with a three-year aged SR value of at least 0.28. If three-year aged value information is not available, use materials with an initial SR of at least 0.33 at installation. 🏠
 - e. Use an open-grid pavement system (at least 50% unbound) for parking lots, roads, walkways. 🌳
2. Use roofing materials with a *solar reflectance index (SRI)* of at least 29 for steep or 78 for flatter-pitched roofs, vegetation, or a combination of the two. 🌿

Performance Benchmark

% paving and roof with greenscape/reflective area

Basic Practice: 10-25% paving and roof with greenscape/reflective area

Better Practice: 26-50%

Best Practice: >50%

Implementation Resources

- This BMP is based on LEED criteria for New Construction and Major Renovation.
www.usgbc.org/Docs/Archive/General/Docs1095.pdf
 - See EPA Energy Star Roofing Products and Cool Roofs Rating Council for information on roof solutions.
<https://coolroofs.org/product-rating/energy-star>
 - See the Berkeley Lab Heat Island Group, Cool Roofing Materials Database for the SRI ratings of different rooftop materials <https://heatisland.lbl.gov/resources/cool-roofing-materials-database>
 - See CNMI/Guam Stormwater Standards and Design Manual for information on pervious pavement solutions. For new construction, plan for heat island reduction strategies early in the design process to optimize design synergies with stormwater management and whole building energy performance. <https://dcrm.gov.mp/resources-publications/stormwater-management-and-water-quality/>
 - For existing buildings use extensive green roof (lightweight/shallow) systems to reduce roof loads.
 - To determine performance benchmarks:
 1. Calculate the total square footage of roof and paved surfaces of the project site. Deduct areas of the roof with equipment, solar panels, etc.
 2. Calculate low heat generating areas by adding square footage of roof/pavement where SR and SRI target values are met, that are shaded, or vegetated (green roof, grass pave).
 3. Divide low heat generating areas by total roof/pavement area * 100 to calculate percentage.
- of all power and is the largest electricity-consuming sector. Hotels use electricity mainly for air conditioning, water heating, and water purification. Electricity customers pay a fuel surcharge that varies with the world price of diesel fuel, which, in recent years, has brought the price of electricity to between three and four times the average price in the 50 U.S. states (USEIA, 2018). Even if initial installation costs are high, the payback period for high reflectance/low heat generating surfaces makes economic sense.
www.eia.gov/state/print.php?sid=CQ
- Minimizing the heat island effect will help reduce the cooling loads on buildings.
 - Several heat island effect reduction strategies also have stormwater run-off quantity and quality benefits (i.e., open-grid grass pavers and green roofs).
 - Reducing site paving hardscape areas will reduce the associated hardscape maintenance costs.
 - Greenscapes offer more recreational opportunities and improved aesthetics.
 - Optimization of heat island effect reduction strategies occurs early in the design process. All project stakeholders should be present for design feedback loops including operation and maintenance personnel. A maintenance program is necessary to ensure all high-reflectance site paving and roof surfaces are cleaned at least every three years to maintain good reflectance.

Considerations

- According to the EPA, over \$40 billion is spent annually in the US to air condition buildings. On Saipan, the commercial sector, including tourist facilities, uses more than one-third

Examples

- The American Samoa Environmental Protection Agency building used open-grid concrete grass pavers for site paving and green roof applications to prevent loss of green roof media during periods of high velocity winds.
<https://www.epa.as.gov/first-leed-platinum-certified-green-building>
- Marianas Business Plaza has a large parking area featuring 2,400 canopy mounted (carport) solar PV panels. In addition to significantly reducing the urban heat island effect attributed microclimate the system produces between 70 and 90 percent of the building's power.
- Serenti Hotel installed a green roof in 2017 to meet onsite stormwater management requirements with the added benefit of reducing building cooling loads and heat island effect.

Green roof at the Serenti Hotel



B. Water Resources

Water usage accounts for around 10% of utility bills for most hotels. The hospitality industry in the CNMI plays an important role in how freshwater is purified, used, and disposed. Given the limited availability of freshwater resources and high costs to convert brackish water to drinking water, it is both cost-effective and environmentally-responsible for hotels and commercial properties to implement water conservation measures and programs. Sustainable water use promotes measures that protect potable water supplies, as well as actions to prevent contamination of beaches and reefs from wastewater and stormwater discharges. Ensuring that wastewater is properly treated to remove nutrients, bacteria, and other chemical constituents either by connecting to municipal treatment facilities or using advanced onsite treatment systems. Employing smart greywater reuse policies is also a more sustainable approach to water management. The CNMI's stormwater standards are designed to protect surface and groundwater quality, prevent erosion and

sedimentation, and minimize flooding. Hotels and other businesses have an opportunity to embrace stormwater as a resource and to protect or restore the site's natural hydrology. In fact, integrating stormwater management, landscape design, and recreational spaces with innovative green infrastructure practices that promote evapotranspiration, infiltration, and rain water harvesting is a no-brainer. Innovative water resource management is one of the most visible and educationally engaging components of a sustainable program.





B1. Maximize potable water conservation

Freshwater is a highly valued commodity in the CNMI. Unlike Rota and Guam, Saipan does not have a groundwater supply of high quality drinking water. Drinking water is costly to produce and many hotels and commercial properties rely on onsite reverse osmosis (RO) systems and, in some cases cisterns. Don't waste potable water unnecessarily on non-potable uses or with outdated, inefficient equipment and fixtures, especially when conservation measures are relatively easy to implement.

To reduce water demand, for example, some hotels in the CNMI have instituted towel reuse programs, installed water efficient fixtures and toilets, and used rainwater harvesting for irrigation and other non-potable uses. Facilities that implemented these programs and measures have seen reductions in water usage and costs associated with energy use and laundry services.

BMP Applications

- ☒ New construction ☒ Renovation
☒ Design ☐ Construction ☒ Operations

Implementation Actions

1. All water use is metered, and water use per guest per night is calculated and used as a baseline of institutional efforts to improve water use efficiency, reduce costs over time, and track progress. 🏠

2. Goals for reducing water consumption are in place, and measured against this baseline. 🏠

3. Water efficient fixtures are used when possible (low flow toilets, faucet aerators, low flow showerheads). 🏠

4. Towel and bed linen reuse policy is implemented where guests must 'opt out' of participation. This may also include a voucher program where guests receive a monetary coupon to use at the hotel. 🏠

5. Staff and guests are given guidance on minimizing water use. 🏠

6. Potable and non-potable water uses are measured by category (irrigation, golf course, potable, non-potable, etc.). 🏠

7. Leak detection procedures/protocols are performed annually. 🏠

8. Reverse Osmosis (RO) systems are properly maintained and operating at optimal efficiency. 🏠

Performance Benchmark

Water usage (gallons/person/night)

Basic Practice: 125 gpn

Better Practice: <90 gpn

Best Practice: <60 gpn

Implementation Resources

- Read about water conservation and efficiency methods across guest rooms, bathrooms, grounds, housekeeping, pools, kitchens, and laundry services and hotel industry benchmarks: *Green Hotelier, Water*

Management and Responsibility in Hotels, www.greenhotelier.org/know-how-guides/water-management-and-responsibility-in-hotels/; Chapter 3, Water: <http://www.greenhotelier.org/wp-content/uploads/2014/09/3-Water-for-web-1-1.pdf>

- Calculate the amount of water used per occupied room (and per guest night, where data are available) and per area of meeting space per hour. The Hotel Water Measurement Initiative (HWMI) is a methodology and tool to enable hotels measure and report on water use in a consistent way. It was developed by the International Tourism Partnership in partnership with 18 global hotel companies. HWMI is free of charge and can be used by any hotel anywhere in the world, from small guesthouses to 5 star resorts: <https://www.tourismpartnership.org/resources/>
- Low flow toilets use an average of 1.5 gallons/flush, compared to older models that use roughly two to four times more than that. Additionally, hotels may install dual flush toilets so guests can opt for a shorter flush. If it is not feasible to change all toilets, you can reduce the water used in flushing by placing a brick or full water bottle in the cistern; effectively displacing some of the water (*Green Hotelier, Water Management and Responsibility in Hotels*).
- Consider implementing water conservation practices including high efficiency plumbing fixtures, reduced irrigation needs through the use of native plants. *Practical Strategies in Green Building: Hotels* provides case examples of hotel-implemented water conservation practices and potential cost savings: www.usgbc.org/Docs/Archive/General/Docs7760.pdf
- Understand how other islands in the Pacific implement water efficiency and water conservation practices. The Hawaii Hotel Stewardship Guide provides rationale and case examples of hotel implementation of water conservation best practices: <https://coral.org/hotelstewardship/>

Considerations

- Less water produced using RO systems results in reduced energy costs.
- Lower laundry service costs through implementation of towel and linen reuse program.
- Opportunity to market to hotel guests who prefer staying at hotels that support environmental sustainability.
- Guest education and signage in rooms is easy.
- It may seem overwhelming to replace all fixtures in your hotel, especially given the required investment when land lease renewal is uncertain. Consider a phased-approach to water efficient renovations (plumbing changes, fixture replacement, and metering) over time. Plan now by researching the most applicable water efficient fixtures for your hotel and estimated costs.
- A leaking toilet can lose 200 gallons of water/day. Implement a regular inspections and maintenance schedule.
- Plumbing regulations may make water reuse options difficult. Research options for purple pipe implementation.
- Some guests may not fully understand “eco-friendly” water conservation programs. Link water conservation with education programs to promote the protection of THE CNMI water resources.
- Efficient operation and maintenance of RO systems can be expensive compared to bringing in bottled water. Consider training additional staff to operate and maintain RO systems, rather than relying on manufacturing companies or consultants.
- Sub metering (installing individual water meters that isolate various areas of water use such as irrigation, different buildings, or hotel sections) can help establish a baseline for water use, and give

management an understanding of the facility's overall water demands. Sub metering can also be used for leak detection as leaks can cause spikes in usage that exceeds the baseline norms.

Examples

- Hyatt Regency Saipan implemented a “Conserve” program whereby in-room linens are laundered on every 3rd day of a guest's stay. In addition to conserving water, Hyatt estimates a 25% cost savings on laundry expenses. The initiative saves money and has been widely appreciated by hotel guests.
 - At Fiesta Resort and Spa-Saipan, guest room and lobby restroom toilet tanks (formerly 4 gallons/flush) were replaced with smaller tanks (now 2 gallons/flush) reducing potable water needs as well as reducing wastewater volumes. In addition, Fiesta installed faucet aerators on guestroom faucets to reduce water flow/pressure.
 - Towel and linen reuse program: A typical 300-room hotel can reduce water usage by 51,840 gallons and detergent usage by 346 gallons yearly with a towel and linen reuse program. Assuming 72% occupancy rate, 22% guest participation rate, as reuse programs only apply to guests staying multiple nights, the cost savings below are based on energy, water, and labor reductions documented in several national surveys (American Hotel and Lodging Association).
 - Towel Reuse - \$.60/room, \$10,407 annual savings.
 - Linen Reuse - \$.80/room, \$13,876 annual savings
 - In the United States, outdoor water use averages more than 9 billion gallons of water each day, primarily used for landscape irrigation.
- As much as 50% of this water is wasted due to overwatering caused by inefficiencies in traditional irrigation methods and systems. Smart irrigation systems tailor watering schedules and run times automatically to meet specific landscape needs.
- **The Westin Maui Resort in Spa** implemented a smart irrigation system to optimize its landscape irrigation. The system integrates data from weather stations, and soil moisture probes to determine the precise amount of water (no more, no less) and optimal times to apply the irrigation. Since installation, the resort has seen monthly water use reductions by an average of 30%, and associated cost reductions of an average of \$23,000 per month. According to Landscape Manager, Duane Sparkman - *“It took a little while to get the system dialed in, but once we got it figured out, it's been great! It also works great for finding leaky pipes!”*





B2. Implement sustainable wastewater treatment practices

Producing potable water in the CNMI raises hotel operational costs. Most CNMI hotels produce potable water through onsite RO systems which are extremely energy intensive. Considering the high energy costs in the CNMI, RO is a costly mode of production. Finding ways to reduce the potable water used for conveying sewage can save hotels a significant amount of money.

According to the U.S. EPA, primary uses of water for hotels are in-room use (30%), irrigation/landscaping (16%), onsite laundering operations (16%), kitchen functions (14%), cooling/heating (12%), cleaning (11%), and pools (1%). Reduced potable water usage can be achieved by:

- Installing high efficiency fixtures (aerators, toilets, showerheads, etc.)
- Adjusting irrigation practices to draw from re-used water or harvested rainwater;
- Optimizing maintenance protocols for HVAC and pool equipment; and
- Upgrading dishwashers, ice machines, and steam cookers to ENERGY STAR® qualified models where appropriate. These models reduce water and energy use by at least 10 percent by reusing water throughout cycles (EPA, 2012).

BMP Applications

- ☒ New Construction
 ☒ Renovation
☒ Design
 ☐ Construction
 ☒ Operations

Implementation Actions

1. Potable water use for conveying sewage is reduced through use of water-conserving fixtures (e.g., low flow toilets, waterless urinals, etc.) and/or by using non potable water (e.g., captured rainwater, recycled gray water, or treated wastewater). 🚽
2. Wastewater is disposed via a municipal or government-approved treatment system, if available. 🚽
3. If suitable municipal wastewater treatment is not available, there is a system in place on site to treat wastewater to the highest level possible and ensures that any adverse effects on the local population and the environment are minimized. 🚽🚽🚽
4. Educate guests and back-of-house staff about keeping potentially harmful chemicals and substances out of the wastewater stream (e.g., pool backwash, toxic cleaning substances). 🚽

Performance Benchmark

% of non potable water use being met with potable water (i.e. using drinking water for flushing toilets or irrigation)

Basic Practice: 75% or less of non-potable water needs met with potable water

Better Practice: 50% of non potable water needs met with potable water

Best Practice: 0% of non potable water needs met with potable water

Implementation Resources

- EPA's WaterSense Program provides information on water efficient features, programs, and best practices. Learn about the pros and cons of implementing water efficient fixtures and practices: *EPA WaterSense at Work- Best Management Practices for Commercial and Institutional Facilities*, https://www.epa.gov/sites/production/files/2017-02/documents/watersense-at-work_final_508c3.pdf
- EPA's WaterSense Program: <https://www.epa.gov/watersense>
- Consider implementing water conservation practices including high efficiency plumbing fixtures, reduced irrigation needs through the use of native plants. *Practical Strategies in Green Building: Hotels* provides case examples of hotel-implemented water conservation practices and potential cost savings: <https://www.usgbc.org/Docs/Archive/General/Docs7760.pdf>
- Understand how other islands in the Pacific implement water efficiency and water conservation practices. The Hawaii Hotel Reef Stewardship Guide provides rationale and case examples of hotel implementation of water conservation best practices: <https://coral.org/hotelstewardship/>
- Calculate the amount of water used per occupied room (and per guest night, where data are available) and per area of meeting space per hour. The Hotel Water Measurement Initiative (HWMI) is a methodology and tool to enable hotels measure and report on water use in a consistent way. It was developed by the International Tourism Partnership in partnership and 18 global hotel companies. HWMI is free of charge and can be used by any hotel anywhere in the world, from small guesthouses to 5 star resorts: www.tourismpartnership.org/resources/
- Read about water conservation and efficiency methods across guest rooms, bathrooms, grounds, housekeeping, pools, kitchens, and laundry services and hotel industry benchmarks: *Green Hotelier, Water Management and Responsibility in Hotels*, <http://www.greenhotelier.org/know-how-guides/water-management-and-responsibility-in-hotels/>
- Opportunity to market to hotel guests who prefer staying at hotels that support environmental sustainability.
- Opportunity to market to hotel guests who prefer staying at hotels that support environmental sustainability.
- It may seem overwhelming to replace fixtures in your hotel, especially given the required investment when land lease renewal is uncertain. Consider a phased-approach to implementing fixtures that re-use water. Plan now by researching the most applicable fixtures for your hotel and estimated costs.
- Plumbing regulations may make water reuse options difficult. Research options to use recycled water or harvested rainwater to flush toilets.
- Some guests may not fully understand "eco-friendly" water conservation programs. Link water conservation with education programs to promote the protection of THE CNMI water resources.

Examples

At Fiesta Resort and Spa-Saipan, the hotel implemented 2 rainwater underground storage tanks, including a 75,000-gallon tank in Hibiscus Hall and a 65,000-gallon tank on the first floor. Harvested rainwater supplies the hotel's irrigation system including 2 faucets at the Sea Touch facility, 2 faucets in the North Parking area, and 2 faucets on the South Beach side.

Considerations

- Less water produced using RO systems results in reduced energy costs.



B3. Restore natural stormwater hydrology

The CNMI receives a lot of rain! Average annual rainfall exceeds 100 inches and typhoons can drop 10-15 inches of precipitation in one storm event. Climate combined with the region's unique geology, water resources, and development pressures make stormwater both an environmental and socio-economic issue. The hydrology of a site changes during development. Natural ground is converted to impervious cover that blocks infiltration and adds to flooding; trees that intercepted rainfall are removed; and pollutants generated from bare soils, people, and cars are washed into waterways. The CNMI stormwater management standards help prevent negative impacts of stormwater runoff; however, new construction or renovation of hotels offers an opportunity to do a better job of restoring the natural hydrology of a property and its neighbors (less runoff, more infiltration, and evapotranspiration).

Sustainable hotels are those that see stormwater as a resource and can integrate runoff into other facets of hotel operation (e.g., landscaping, irrigation systems, and recreational amenities). Embracing green infrastructure practices to meet these objectives is not enough—long-term commitment to proper operation and maintenance of stormwater infrastructure is a must.

BMP Applications

☒ New construction ☒ Renovation
☒ Design ☒ Construction ☐ Operations

Implementation Actions

1. Minimize erosion of disturbed soils during all phases of construction—from clearing until the site is fully stabilized. 🌱
2. Provide stormwater management for the 1.5" inch storm through reuse, evapotranspiration, and/or infiltration. Any off-site discharge must be treated to maximize removal of watershed pollutants of concern. 🌱🌱
3. Integrate stormwater management with other site objectives to achieve co-benefits (e.g., reduced pavement, landscaping, education, and cooling). 🌱
4. Conduct long-term operation and maintenance for stormwater infrastructure as outlined in an approved O&M plan. 🌱

Performance Benchmark

Commitment to implementation

Basic Practice: All construction and post-construction stormwater standards met and practices maintained

Better Practice: Exceed stormwater management standards; maintenance records available

Best Practice: Manage additional stormwater generated off-site by others

Implementation Resources

- During design, be sure to research what watershed drainage and pollution issues are relevant to your hotel. Stormwater management should be tailored to localized flooding and water quality concerns. Understand the volume and quality of runoff generated by your proposed or

current site, inputs to the site from elsewhere, how much is managed on site versus discharged, and measures that are being taken to reduce those impacts.

- Access CNMI Stormwater Management Resources at <https://dcrm.gov.mp/resources-publications/stormwater-management-and-water-quality/>, such as: CNMI and Guam Stormwater Management Manual and erosion and sediment control information.
- Envision how green infrastructure can be integrated into hardscapes and other site features. [Stormwater Management in Pacific and Caribbean Islands: A Practitioner's Guide to Implementing LID](#)
- Learn how to install a rain garden and the benefits of rainwater harvesting. CNMI Permitting BMPs and Site Design, Green Tips: <https://dcrm.gov.mp/wp-content/uploads/crm/Green-tips-7-20-16.pdf>
- Learn how hotels manage stormwater onsite through best practices such as green roofs, pervious pavement, and rainwater harvesting. *Practical Strategies in Green Building: Hotels* provides case examples of stormwater management and potential cost savings: www.usgbc.org/Docs/Archive/General/Docs7760.pdf
- Understand how other islands in the Pacific implement stormwater management and watershed protection practices. *Stormwater Management the Natural Way; A guide to low impact design for Hawaii's hotel and accommodation sector* provides an introduction to Low Impact Design and hotel case examples of stormwater management best practices: <https://coral.org/LID/>
- Budget for annual operation and maintenance for all stormwater infrastructure. Keep a copy of the O&M manual and facility maps in a location that facility managers can easily access. Provide training for landscaping and other staff on stormwater facility inspection and maintenance.



Considerations

- During the construction phase, developers may qualify for discounted Major Siting permit fees for qualifying “green” and/or “low impact development” projects. Discounts may be applied for application and administration fees at the recommendation of the DCRM Permit Manager and approval of the DCRM Director.
- Green infrastructure practices provide co-benefits in addition to improved water quality including – reducing heat islands, improving aesthetics, improving air quality and public health, providing greenspace for gathering, etc.
- In addition to managing stormwater onsite, green roofs help to lower cooling costs of a building by significantly decreasing the temperature of the roof and the air around the air conditioning unit intake vents.
- Reduced sewer costs and sewer backup issues.

Examples

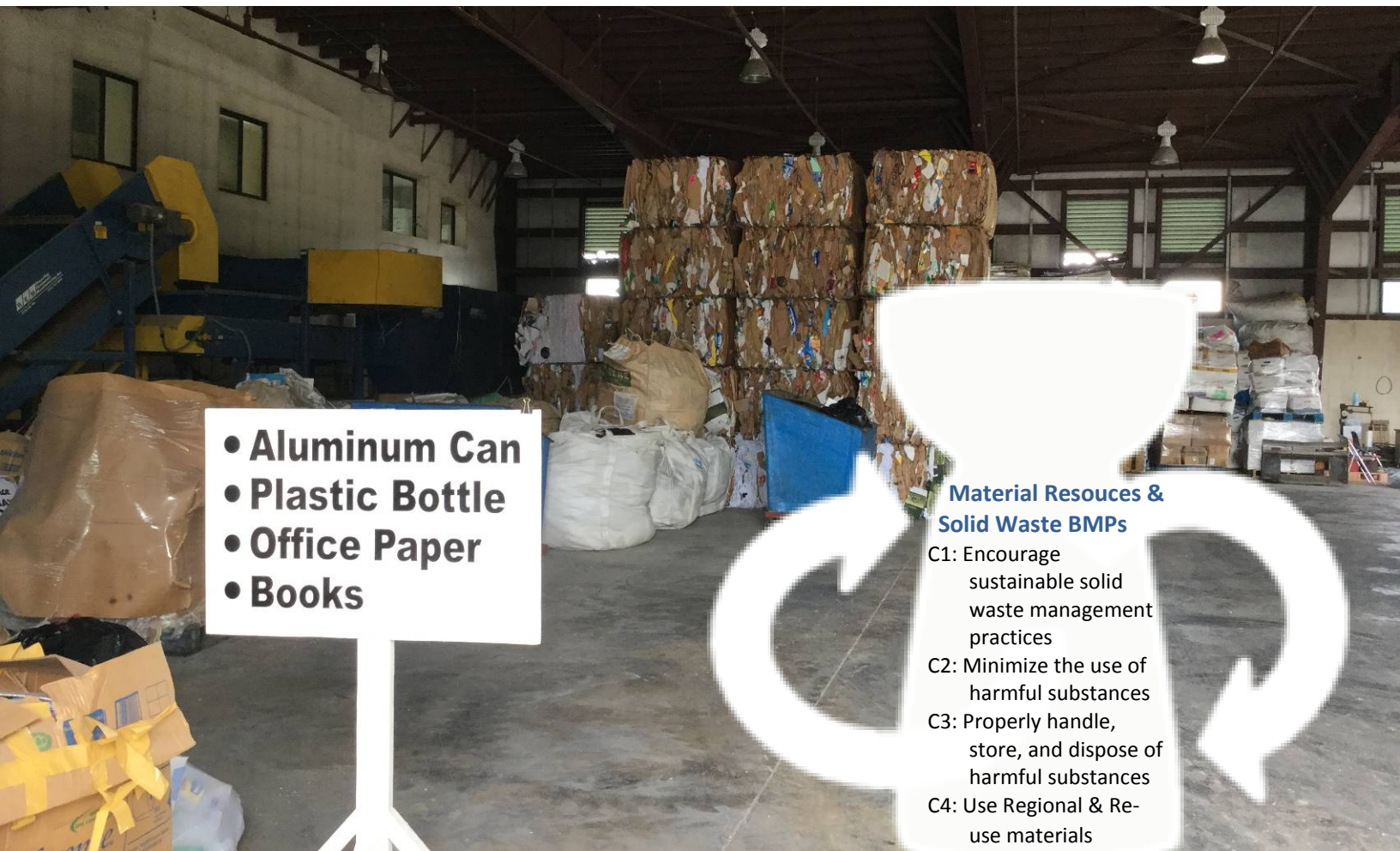
- Green roof installed on top of Bubba Gump Shrimp Company restaurant in Garapan, providing stormwater capture in turf and planters and open space for visitors.
- Rain gardens at Tanapag Middle school, San Vicente Elementary School, and the CNMI Museum.
- Permeable concrete pavers installed at LaoLao Bay parking lot to trap sediment and reduce pollutant loads from reaching bay waters.

C. Material Resources and Solid Waste



The hospitality industry in the CNMI plays an important role in the flow of materials to the island, how their lifecycle is managed, and what kinds of substances are in those materials. Through best practices the hospitality industry can lead the region in managing material resources. This Material Resources & Solid Waste category focuses on minimizing the impacts associated with the extraction, processing, transport, hazardous substances, and disposal of building materials and daily operational solid waste. The guidelines are designed to support a life-cycle approach to material management that improves performance and promotes resource efficiency while protecting

the occupants and environment from exposure to hazardous chemicals associated with the built environment as well as promoting strategies to minimize solid waste finding its way to landfills. Each BMP identifies actions that fit into the larger context of a life-cycle approach to embodied impact reduction and reduced chemical exposure.



- Aluminum Can
- Plastic Bottle
- Office Paper
- Books

Material Resources & Solid Waste BMPs

- C1: Encourage sustainable solid waste management practices
- C2: Minimize the use of harmful substances
- C3: Properly handle, store, and dispose of harmful substances
- C4: Use Regional & Re-use materials



(Photo Source: Saipan Tribune)

C1. Encourage sustainable solid waste management practices

Like many other Pacific Island States, the CNMI has limited land available for solid waste disposal. Solid waste is generated during construction of a hotel, and is an ongoing byproduct of operation. Construction and demolition (C&D) waste constitutes about 67 percent of the total solid waste stream in the United States. Saipan's C&D waste generated is estimated to be at least 44 tons/day, which is surprising, considering the high amount of recent resort construction activity in relation to the island's population. C&D waste was identified by the Department of Public Works (DPW) as the most challenging solid waste issue in Saipan. In its solid waste management hierarchy, the U.S. Environmental Protection Agency (EPA) ranks source reduction, reuse, and recycling as the top three preferred strategies for reducing waste.

The following BMPs focus on these strategies with a strong emphasis on source reduction given the CNMI's remote location and limited access to international recycling markets. Source reduction appears at the top of the hierarchy because it avoids environmental harms throughout a material's life cycle, from supply chain and use to recycling and waste disposal. Beyond construction, a hotel creates approximately 1kg of solid waste per guest per night.

BMP Applications

- ☒ New construction ☒ Renovation
- ☒ Design ☒ Construction ☒ Operations

Implementation Actions

1. Prior to start of construction, a construction waste management plan (CWMP) must be developed based on DEQ Criteria for Major siting Permit that focuses on onsite recovery, recycling and targets waste diversion from the landfill. Develop a CWMP that results in end-of project rates for salvage/recycling of at least 50 percent by weight of construction and demolition waste. **II**
2. During the design phase for new construction or renovations use off-site construction methods that reduce material waste such as prefabrication or modular construction of wall, roof, and floor elements. Benchmarks are based on use of off-site construction as a percent of total construction material cost. **III**
3. For ongoing operations a Solid Waste Action Plan (SWAP) is developed and implemented diverting food and recyclable waste from the landfill. **I**
4. The amount of solid waste disposed (landfilled) per guest/night is monitored and managed. Performance benchmarks will be targeted to reduce solid waste from an initial baseline. **II**

Performance Benchmarks

a. (For New Construction & Renovations) CWMP meets % waste diversion target, OR % use target for off-site (pre-fabricated) construction of walls, floors, and roof elements (% of total construction materials cost).

b. (For Operations Only) Solid Waste Action Plan (SWAP)

Basic Practice: **a.** CWMP meets 50% landfill diversion by weight, or use 50% off-site (pre-fab) construction by cost; **b.** SWAP developed and food waste and recyclables separated and diverted from landfill is tracked

Better Practice: **a.** CWMP meets 75% landfill diversion by weight, or use 75% off-site (pre-fab) construction by cost; **b.** Basic + cooking oil is reused for power generation

Best Practice: **a.** CWMP meets 95% landfill diversion by weight, or use 90% off-site (pre-fab) construction by cost; **b.** Better + Guest Solid Waste Tracking (kg/guest/night)

Implementation Resources

- DEQ Solid Waste Management Plan Criteria, 2018.
<https://dcrmp.gov.mp/wp-content/uploads/crm/SolidWasteManagementGuidanceDEQ.pdf>
- Whole Building Design Guide, Off-Site & Modular Construction Explained:
<https://www.wbdg.org/resources/site-and-modular-construction-explained>
- Modular Building Institute, Details Modular Construction Benefits:
www.modular.org/HtmlPage.aspx?name=why_modular
- Green Hotelier, Environmental Management of Hotels, Details how to develop a Solid Waste Action Plan:
<http://www.greenhotelier.org/wp-content/uploads/2014/09/4-Waste-for-web-1-1.pdf>
- US-EPA Construction Waste Management Plan Section. A construction waste management plan specification that can be modified and included in construction documents:
<https://www.epa.gov/sites/production/files/2014-03/documents/017419.pdf>
- US EPA Advancing Sustainable Materials Management Study and Resources: <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/advancing-sustainable-materials-management>

Considerations

- When building in a factory, waste is eliminated by recycling materials, controlling inventory and protecting building materials.
- Construction of modular buildings occurs simultaneously with site work, allowing projects to be completed in half the

time of traditional construction. 60 - 90% of the construction is completed inside a factory, which mitigates the risk of weather delays. Buildings are occupied sooner, creating a faster return on investment.

- Factory applied finishes on prefabricated panels reduces the amount of chemicals local construction personnel are exposed to. Large prefabricated sections may require heavy-duty cranes and precision measurement and handling to place in position. Construction with prefabricated materials would yield tremendous returns with respect to waste management and labor. Prefabricated materials should be tested to withstand strong winds.
- Labor requirements associated with installation are significantly reduced with off-site construction.
- Transportation costs may be higher for voluminous prefabricated sections than for their constituent materials, which can often be packed more densely.
- Ensure prefab materials are constructed to withstand typhoon-force winds. DPW-Building Code Division could play a key role here.

Examples

- Several Saipan hotels have food waste collection relationships with local pig farmers, reducing the organic waste stream contributing to landfills and cost savings on tipping fees.
- A typical 300-room hotel can take over 18 months to construct on-site in Saipan. In a groundbreaking initiative that will impact up to 50 new hotels in the brand's portfolio in the coming year, Marriott is making a significant investment in using modular technology to build its new hotel rooms. Through off-site modular construction they can cut six months off of a typical development timeline, that's a significant cost savings to the hotel developers.

Instead of sending Styrofoam packaging to the landfill, local architects at N15 mount the material to the interior ceiling, which also helps absorb sound and reduces air conditioning needs.





(Photo Source: EPA.gov)

C2. Minimize the use of harmful substances

Hotel environments are highly complex, and building occupants may be exposed to a variety of contaminants (in the form of gases and particles) from cleaning products, construction activities, carpets and furnishings, perfumes, cigarette smoke, water-damaged building materials, microbial growth (fungal, mold, and bacterial), insects, and outdoor pollutants. Other factors such as application of chemical fertilizers, pesticides and personal use of some sunscreens and insect repellents that contain toxins can adversely affect the environment. Understanding the sources of indoor and outdoor environmental contaminants and controlling them can often help prevent or resolve building-related health problems. Practical guidance for improving and maintaining the indoor environment is available.

BMP Applications

- ☒ New construction ☒ Renovation
- ☒ Design ☒ Construction ☒ Operations

Implementation Actions

1. During new construction or renovations, materials & furnishings that contain low or zero Volatile Organic Compounds (VOC) are sourced whenever possible. Performance benchmark is based on meeting U.S. Green Building Council's (USGBC) Table 1: Applicable VOC Limits. See: <https://www.usgbc.org/resources/ieqc42-table-1-applicable-voc-limits> 🏠

2. A Green Cleaning Policy is in place, and actions are taken to source environmentally friendly alternatives. (Policy extends to outsourced cleaning services). 🏠
3. The organization has an Integrated Pest Management (IPM) plan for landscape maintenance that minimizes or eliminates the use of chemical pesticides and fertilizers and adheres to Pesticide Regulations at CNMI § 65-70. 🏠
4. Educate guests about personal use of substances which may be harmful to the local environment (such as toxic sunscreens and insect repellents); items are not sold on premises. 🏠

Performance Benchmarks

Number of harmful substance minimization actions implemented

Basic Practice: Action 1 only, VOC Limits

Better Practice: Basic + Action 2 & 3: Green Cleaning Policy and IPM

Best Practice: All actions implemented

Implementation Resources

- List of USGBC VOC Material Limits: U.S. Green Building Council's (USGBC) Table 1: Applicable VOC Limits.
- Managing Indoor Air Quality in Hotels: <http://www.greenhotelier.org/our-themes/indoor-air-quality/>
- USGBC Green Cleaning Policy Template: <https://www.usgbc.org/resources/eqp-green-cleaning-policy-template>

- USGBC Integrated Pest Management Template:
<https://www.usgbc.org/resources/eqc-integrated-pest-management-plan-template>
- Communicating Sustainability to Guests:
<http://www.greenhotelier.org/know-how-guides/communicating-sustainability-to-guests/>

Considerations

Maintaining healthy facilities is of great importance in the hotel environment for the several reasons – many of them with potentially significant financial implications:

- When guests and staff occupy a healthy environment free of harmful substances there are direct financial benefits to the operators both in terms of the occupants well-being but also in terms of the staffs productivity and job satisfaction.
- Educating both staff and guests on the personal use of substances which may be harmful to the local environment can help foster environmental stewardship to help preserve the local resources that attract and drive the tourism economy.
- In remote locations such as Saipan, finding non-toxic building materials, furnishings, cleaning products, pesticides and fertilizers can be challenging and requires extra coordination with suppliers.
- Understanding how to communicate sustainability requires education and an understanding of how to engage guests in a way that is inclusive.

Examples

The Westin Ka'anapali Ocean Resort in Maui implemented an IPM program on their landscape that included:

- Composting of all vegetation waste on site
- Regular compost application instead of chemical fertilizers and inputs.
- Salt tolerant turf planted near the ocean which requires no chemical use, and spot weed treatment can be accomplished using table salt.
- Use of only Organic Materials Review Institute (OMRI) certified products.
- No use of chemicals within 100 feet of the beach.
- Exclusive use of native and drought tolerant plants within the landscaping.



The Westin Ka'anapali Ocean Resort in Maui uses seashore paspala for all turf near the oceanfront. The salt tolerant grass needs no chemical fertilizers and weeds can be killed simply by sprinkling them with table salt. The Westin uses no chemicals within 100 feet of the shoreline. (Photo Source: Westin Hotels)



C3. Properly handle, store, and dispose of harmful substances

Due to the nature of the hospitality industry, operators are required to use and maintain a supply of potentially harmful substances for cleaning and facility maintenance purposes. When being stored, some toxic substances are a potential exposure hazard, a complicating factor in a fire or flood, or a reason for evacuation if spilled. If spilled, toxics create costly contamination of property. Having knowledge of which substances are classified as toxins, how they are properly handled and stored, and what the appropriate disposal methods are, is the obligation of the hotel operators. Materials and products presenting known risk:

- Hazardous wastes (listed, characteristic and universal types identified by US EPA)
- Asbestos-containing materials (friable)
- Asbestos-containing materials (non-friable)
- Lead-containing materials
- Products containing polychlorinated biphenyls (PCBs)
- Solvents, chemicals, petroleum-derived products
- Fluorescent and compact fluorescent lamps
- Electronics
- Medical waste

BMP Applications

- ☐ New construction ☐ Renovation
☐ Design ☐ Construction ☒ Operations

Implementation Actions

1. Maintain a detailed list of harmful substances and corresponding material safety data sheets (MSDS). 🗑️
2. Chemicals, especially those in bulk amounts, are stored and handled in accordance with appropriate standards. 🗑️🗑️
3. Staff are licensed and/or properly certified to handle harmful substances. 🗑️
4. There is a 'spill response' protocol, and staff are properly trained in its execution. 🗑️🗑️

Performance Benchmarks

Number of Harmful Substance Handling Actions Implemented

Basic Practice: 2 actions implemented

Better Practice: 3 actions implemented

Best Practice: >3 actions implemented

Implementation Resources

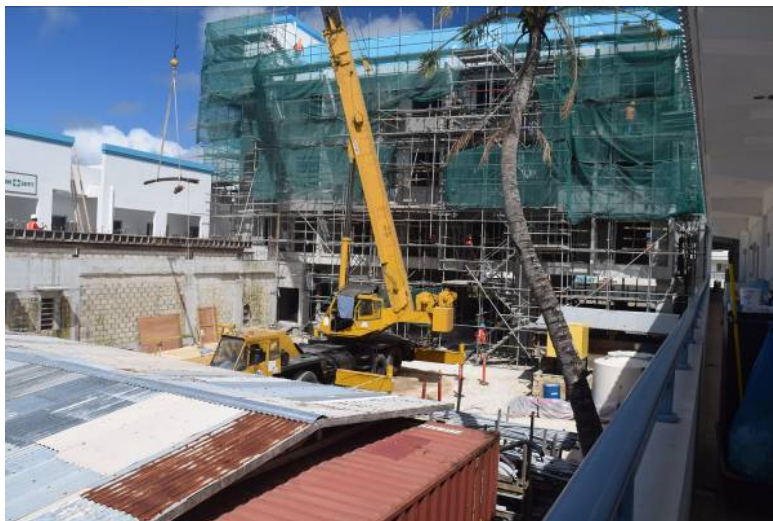
- MSDS online (www.MSDSonline.com) has a web-based platform designed to help environmental, health and safety (EH&S) professionals better manage the full lifecycle of hazardous chemicals used throughout their organization.
- BECQ Hazardous Waste Management Guidance: <http://www.deq.gov/mp/article.asp?secID=11&artID=30>

- Managing Your Hazardous Waste, US-EPA. If you need help understanding which federal hazardous waste management regulations apply to your business, this handbook is for you. This guide helps small-business owners and operators understand how best to comply with federal hazardous waste management regulations. See: <https://www.epa.gov/sites/production/files/2014-12/documents/k01005.pdf>.

Considerations

- Periodic reporting to BECQ-Toxic Waste Management Program on hazardous waste quantities stored.
- Eliminate excess use: lower purchase cost, less waste, less potential liability. More is not always better.
- Simply tracking use will lead to more efficiency.
- Assign responsibility for carrying out your policy and maintain training.
- Reward staff for good ideas, using less or identifying alternatives – make it something you do together.





C4. Use regional materials & re-use materials

Materials used in the construction of buildings as well as furnishings require significant energy input throughout their lifecycle from the extraction of raw materials to the manufacturing and transportation of the materials to the project sites. By making more of a conscious effort to use regional materials, developers can reduce the costs and environmental impacts of transportation associated with construction materials and furnishings. However, use of regional materials should only occur when it does not contribute to local resource depletion or environmental degradation.

BMP Applications

☒ New construction ☒ Renovation
☒ Design ☒ Construction ☐ Operations

Implementation Actions

1. Construction materials and site furnishings are sourced locally/regionally when possible. 🏠🏠🏠
2. Promote indigenous art and architectural elements. 🏠

Performance Benchmarks

% of materials sourced locally/regionally (%total materials cost)

Basic Practice: 5-10% of materials sourced locally/regionally

Better Practice: 11-20% of materials sourced locally/regionally

Best Practice: > 20% of materials sourced locally/regionally

Implementation Resources

- LEED Regional Materials Standard: Building materials or products shipped by rail or water have been extracted, harvested or recovered, as well as manufactured within a 500 mile (800 kilometer) total travel distance of the project site using a weighted average determined through the following formula: $(\text{Distance by rail}/3) + (\text{Distance by inland waterway}/2) + (\text{Distance by sea}/15) + (\text{Distance by all other means}) \leq 500 \text{ miles [800 kilometers]}$.
- Green Hotelier, Refurbishment and Landscaping: www.greenhotelier.org/wp-content/uploads/2015/03/9-Refurbishment-for-web-1.1.pdf
- Calculating material costs can be complicated (see LEED Material Resources credits for guidance). Do not include existing building materials during renovation, only new materials needed for construction or site furnishing. Do not include equipment, appliances, and other items that cannot be sourced regionally.
- For LEED credits, products and materials that do not meet the location criteria but do meet at least one of the other sustainability criteria are valued 100% of their cost.

Considerations

- Local sourcing not only supports the local/regional economy, but also reduces transportation costs, greenhouse gas (GHG) emissions
- Supporting local artisans can help educate visitors on CNMI native culture and traditions.
- It is challenging to obtain local materials. However, to the extent possible, using the LEED equation, miles transported by sea are not equivalent to actual mileage; thus materials from CA could still potentially meet the “500 mile” regional threshold.
- There are no legal requirements to promote the use of indigenous styles, crafts, and designs for buildings.

Consider using recycled glass mixed with concrete to utilize local materials. This bench is located outside of Marianas Business Plaza.



D. Energy & Global Climate

Buildings are energy consumers – using 36% of America's annual energy and representing 65% of the electricity demand. Furthermore, buildings account for 30% of the total carbon dioxide (CO₂), which is the primary greenhouse gas associated with atmospheric warming, 49% of the sulfur dioxide, and 25% of the nitrogen oxides emitted in the U.S. (Source: EPA). Currently, the vast majority of energy used in buildings in Saipan is from non-renewable, fossil fuel resources. However, the building sector also has the highest potential for energy efficiency. With rising demand for fossil fuels coupled with uncertainty over the availability of fossil fuels in the future, rising concerns over energy security (both for general supply and specific needs of facilities), and the potential that buildup of greenhouse gases may be causing undesirable impacts on the global climate, it is essential to find ways to reduce load, increase efficiency, and utilize renewable energy resources in all types of facilities, including hotels.

On average, America's 47,000 hotels spend \$2,196/room/yr on energy, which represents 6% of all operating costs. The average cost of electricity in the U.S. mainland is approximately 12 cents per kilowatt-hour, whereas in the CNMI, the current cost of commercial electricity is 33 cents per kilowatt-hour. Energy is one of the largest operation costs for CNMI hotels. Due to this high rate and other energy supply factors, many hotels in the CNMI generate electricity on-site through diesel generators. Therefore energy BMPs provide hotel owners and operators cost savings that benefit the bottom line, improve performance of equipment, enhance guest comfort, and demonstrate a commitment to climate stewardship.



Energy & Global Climate BMPs

- D1: Maximize energy conservation and efficiency practices
- D2: Integrate Renewable Energy Systems
- D3: Measure & mitigate greenhouse gases
- D4: Encourage sustainable transportation options



(Photo source: Hospitalitynet.org)

D1. Maximize energy conservation and efficiency practices

Energy conservation is the effort made to reduce the consumption of energy by using less of an energy service. This can be achieved either by using energy more efficiently (using less energy for a constant service) or by reducing the amount of service used (i.e., using less electric lighting). Energy conservation reduces the need for energy services and can result in increased environmental quality, energy security, financial security and higher savings. It lowers energy costs and prevents future resource depletion.

Energy can be conserved by reducing wastage and losses, improving efficiency through energy audits, technological efficiency upgrades and improved operation and maintenance.

BMP Applications ☒ New construction
☒ Renovation ☒ Design ☒ Construction
☒ Operations

Implementation Actions

1. One of the best ways to improve energy conservation in buildings is to perform an energy audit for an existing building or building commissioning for new construction. An energy audit is an inspection and analysis of energy use and flows for energy conservation in a building, process, or system with an eye toward reducing energy input without negatively affecting output. Building commissioning ensures that energy related equipment is optimized prior to operation. Audits and commissioning are typically performed

by ASHRAE Certified Energy Auditors and AEE Certified Building Commissioning Agents. 🏠

2. The key to effective energy management is a monitoring and metering program. Building technologies and smart meters allow energy users, to visualize the impact their energy use can have. Advanced real-time energy metering can help hotel operators save energy by their actions. 🏠🏠🏠
3. The organization takes actions to increase energy efficiency through demand-side management strategies and utilizes energy efficient systems (equipment, appliances, lighting, etc.). 🏠🏠
4. Goals for reducing energy consumption are in place. 🏠
5. Staff and guests are given guidance on minimizing energy use. 🏠

Performance Benchmarks

Optimize energy conservation & efficiency performance

Basic Practice: Conduct ASHRAE Level 2 Energy Audit for existing facilities or Building Commissioning for New Construction.

Better Practice: Basic + Energy monitoring/metering system.

Best Practice: Better + Establish Energy Star portfolio with Energy Star Rating > 75

Implementation Resources

- List of USGBC VOC Material Limits: U.S. Green Building Council's (USGBC) Table 1: Applicable VOC Limits.
<https://www.usgbc.org/resources/eqc42-table-1-applicable-voc-limits>
- Use Environmental Management for Hotels Energy Manual to assess

current energy performance in your hotel, the measures you can take to conserve energy across various departments and guidelines to help you when considering investment in new equipment.

<http://www.greenhotelier.org/our-manuals/environmental-management-for-hotels/chapter-2-energy/>

- Employ an interactive energy management tool that allows you to track and assess energy and water consumption like the Energy Star® Portfolio Manager.
<https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager>
- Provide electronic interactive graphic dashboards in prominent locations to educate occupants of their building's energy and water consumption and highlight sustainable building features.
- Use go dark room key systems to automatically turn non-critical electrical loads off when guest room key cards.
- 2013 Energy Study: <http://prdrse4all.spc.int/data/cnmi-strategic-energy-plan-2013>

Considerations

- Optimizing Energy Performance, Building Commissioning and Measurement & Verification (monitoring & metering) are credits to achieving LEED Certification and thus would be included in tiered permit discounts for the Major Siting Permit may apply for qualifying Energy Star rated or LEED-certifiable projects, under Northern Mariana Islands Administrative Code (NMIAC) §15-10-205.



Rooftop of the American Samoa EPA building – solar photovoltaic panels and green roof.

- Energy Audits and Building Commissioning have become mainstream practices in North America as owners recognize the financial assurance they provide.
- The Carbon Trust estimates that most hotels energy bills can be cut by as much as 20% just by implementing simple and inexpensive energy conservation measures.
- The best energy conservation measures are often a product of an organization's inclusive atmosphere where engagement, feedback, and sharing ideas is encouraged among all stakeholders. Hierarchical energy committees do not always identify the lowest hanging fruit.
- Certified Energy Audit and Building Commissioning Agents may not be locally available.

Examples

- Kanoa Resort Saipan uses waste oil in boiler to off-set fuel needs for hot water demands.
- Several hotels use information cards to encourage guests to conserve energy.
- Surfrider Hotel uses a keycard system that turns lights & air conditioning off when guests leave the room.



(Photo Source: Saipan Tribune)

D2. Integrate renewable energy systems

Renewable energy is one of the most effective tools we have in the fight against climate change. Additionally, renewable technologies can increasingly save customers money as they reduce costly expenditures on fossil fuels. Wind and solar energy have experienced remarkable growth and huge cost improvements over the past decade with no signs of slowing down. Prices are declining rapidly, and renewable energy is increasingly competitive with fossil fuels all around the world. In some places, implementing renewable energy is already cheaper than continuing to operate old, inefficient and dirty fossil fuel-fired power plants.

Global competition is helping to spread the best project development practices, reducing technology and project risk and making renewables more cost-competitive than ever before. In 2013, a Renewable Energy Integration Study of Saipan was conducted by DMV-Kerma. The study found that the average cost for solar PV electricity at that time was 19 cents/kW-hr compared to the commercial utility (CUC) rate of 33 cents/kw-hr. Worldwide the levelized cost of electricity (LCOE) from solar photovoltaics (PV) decreased by 69% between 2010 and 2016 and an additional 17% for commercial PV systems in the first quarter of 2017.

BMP Applications

- ☒ New construction ☒ Renovation
- ☒ Design ☒ Construction ☒ Operations

Implementation Actions

1. Renewable energy sources are favored and percentage of total energy is offset with on-site renewable energy generation (Solar PV or Wind). 🌞🌬️
2. Real-time renewable energy generation feedback/tracking is available for viewing by staff and guests. 📱

Performance Benchmarks

% On-site renewable energy generation

Basic Practice: 2% to 4% on-site renewable energy generation

Better Practice: 5% to 20%

Best Practice: > 20% and real time tracking

Implementation Resources

- List of VOC Material Limits: U.S. Green Building Council's Table 1: Applicable VOC Limits.
<https://www.usgbc.org/resources/eqc42-table-1-applicable-voc-limits>
- Use Environmental Management for Hotels Energy Manual to assess current energy performance in your hotel, the measures you can take to conserve energy across various departments, and guidelines to help when investing in new equipment.
www.greenhotelier.org/our-manuals/environmental-management-for-hotels/chapter-2-energy/
- Employ an interactive energy management tool that allows you to track and assess energy and water consumption like the Energy Star® Portfolio Manager.
<https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager>

- Provide electronic interactive graphic dashboards in prominent locations to educate occupants of their building's energy and water consumption and highlight sustainable building features.
- Use go dark room key systems to automatically turn non-critical electrical loads off when guest room key cards.
- 2013 CNMI Energy Study:
<http://prdrse4all.spc.int/data/cnmi-strategic-energy-plan-2013>

Considerations

- Operation of reverse osmosis (RO) systems can be done in conjunction with renewable energy systems. Maximizing the solar PV systems output in lieu of grid tie connection.
- Use of on-site renewable energy systems can reduce the financial risks associated with fossil fuel market supply chains and cost increases.
- On-site renewable energy systems can reduce reliance on utility provided electricity and/or reduce the reliance on on-site diesel generators that create noise pollution and emissions.
- On site renewable energy systems can be installed in hybrid configurations with diesel generation during peak demand or in concert with battery backup systems.
- CUC has net-metering limitations for additional renewable energy penetration on Saipan. In some cases on-site battery storage or use of renewable energy systems for specific loads (i.e. reverse osmosis, pumped storage) may be the only options.
- On-site renewable energy is a credit category included in tiered permit discounts for the Major Siting Permit and may

apply for qualifying Energy Star rated or LEED-certifiable projects(NMIAC §15-10-205).

Examples

- In June 2018, Saipan International School installed a 104 kW Solar PV roof mounted system that is estimated to account for 70% of their energy needs and eliminate 75 tons of carbon dioxide emissions.
- In October 2018, Palau announced that it will become the home of the world's largest microgrid in efforts to help the island nation reach up to 70 percent renewable energy over the next three decades. The National Energy Goal also outlines the nation's commitment to producing 45% renewable energy by 2025. Palau climate change ambassador Ngedikes Olai Uludong stated – “Basically, small islands are incubators for change, and Palau can lead the way.” (Scientific American, 2018). For more information about Palau's commitment to renewable energy: <http://palauenergyoffice.com/>



(Photo Source: Palau Energy Administration)



(Photo Source: PBS)

D3. Measure and mitigate greenhouse gas emissions

Perhaps nowhere else in the world are the impacts of climate change more apparent than on small islands states. A number of islands are predicted to be completely uninhabitable if sea levels rise even just a few inches. Increased tropical storm activity will cause more damage to low lying islands. Protective coral reefs and atolls are dying at an alarming rate due to increased ocean temperatures and acidification. The tourism sector has come under more intense criticism with regard to its global contribution of greenhouse gases primarily because of its reliance on cheap international air travel. Hotels and resorts have a responsibility to provide guests with a mechanism to offset their travel related greenhouse gasses, and reduce to the highest extent possible greenhouse gasses generated on site.

Climate change is receiving more attention worldwide and the main cause of aggravated global warming is thought to be carbon dioxide (CO₂) and other greenhouse gases (GHGs) emitted by anthropogenic activities. Buildings significantly contribute to the emission of GHGs. Global energy consumption has doubled from 1971 to 2010, and the building sector is thought to account for more than one-third of the global energy consumption. Hotels are one of the highest energy consuming building types among non-residential building. Hotels operate round the clock, they offer various facilities and functions, and the hotel room occupants have a free reign on their room's energy consumption. From the building life cycle perspective,

energy use in the building operation phase is 4–6 times greater than in the hotel's construction phases. Given that energy use is strongly linked to GHG emissions, efficient energy saving strategies and types of energy sources used by hotel operations will result in savings for the hotel operators and a significant reduction in the GHG emissions. Primary GHGs besides carbon dioxide (CO₂) also include nitrous oxide (N₂O), and methane (CH₄). Therefore, the scope of the GHG emissions audit should include these three gases (CO₂, CH₄, and N₂O) and not only CO₂.

BMP Applications

- ☐ New construction ☐ Renovation
- ☐ Design ☐ Construction ☒ Operations

Implementation Actions

1. The total direct and indirect greenhouse gas emissions are monitored and managed. 🏠🏠
2. Carbon Footprint per guest/night is monitored and managed. 🏠
3. Actions are taken to avoid and reduce significant annual emissions from all sources controlled by the organization. 🏠
4. Carbon offset mechanisms are used where practical and offered to guests (i.e., flight carbon offset). 🏠

Performance Benchmarks

GHG Monitoring, Management and % Reduction

Basic Practice: GHG Baseline Developed

Better Practice: Basic + (5 to 10% GHG Reduction)

Best Practice: Basic + (> 10% GHG Reduction) + Carbon Footprint Per Guest/Night monitoring

Implementation Resources

- The Hotel Carbon Measurement Initiative (HCMI) is a methodology and tool which enables hotels to measure and report on carbon emissions in a consistent way.
<https://www.tourismpartnership.org/carbon-emissions/>
- Measuring and mitigating GHG emissions is complementary to other energy BMPs i.e., D1: Maximize energy conservation and efficiency practices and D2: Integrate Renewable Energy Systems.
- 2013 Energy Study: <http://prdrse4all.spc.int/data/cnmi-strategic-energy-plan-2013>

Considerations

- Monitoring and managing facility GHGs relates directly to requirements set out in the BECQ Stationary Minor Source Permit (e.g., On-site Generators available). See: <https://www.cnmilaw.org/pdf/admincode/T65/T65-10.pdf>
- On June 20, 2017, Governor Ralph Torres signed Executive Directive 2017-01, establishing the Commonwealth of the Northern Mariana Islands Resilience Working Group that will devise and implement a long-term plan to protect the Commonwealth's environment against climate change and its impacts. This group is continuing efforts to identify and address climate impacts and build resilient ecosystems, economies, and communities in the CNMI.
<https://dcrm.gov.mp/wp-content/uploads/crm/Climate-Adaptation-Directive-2017-0001.pdf>

Examples

- In 2015, Northern Marianas College (NMC) signed the "American College and University Presidents' Climate Commitment, recognizing the need for the college to play a leadership role locally in addressing global warming. NMC joins more than 700 other college and university presidents across the nation who signed the Climate Commitment.
https://www.marianas.edu/content_news.php?idref=1866



Generator house at Coral Ocean Point Resort in Saipan



View of solar panels atop the car park at the Marianas Business Plaza



D4. Encourage sustainable transportation options

The environmental impact of transport is significant because transport is a major user of energy, and burns most of the world's petroleum. In small island states the dependence on petroleum for transportation needs is highly vulnerable to market changes and supply disruptions. Additionally, the use of conventional vehicles creates air pollution, including nitrous oxides and particulates, and is a significant contributor to global warming through the emission of carbon dioxide. Within the transport sector, road transport is the largest contributor to global warming. Other environmental impacts of transport systems include traffic congestion and automobile-oriented urban sprawl, which can consume natural habitat and agricultural lands. By reducing transportation emissions globally, it is predicted that there will be significant positive effects on Earth's air quality, acid rain, smog and climate change. Islands are very well suited to sustainable mass transit and overall reduction of cars on the road. They have small centralized population centers, and limited roadways.

A transportation alternative is simply an alternative to one-car, one-driver transport. The alternative may be in the form of a carpool, bus, bicycle, motorcycle or as a pedestrian. Each of these alternatives offers benefits to environment and to a hotel in terms of reduced costs associated with parking space demand, maintenance, congestion, noise, and provides cleaner air.

BMP Applications

- ☒ New construction ☒ Renovation
- ☒ Design ☒ Construction ☒ Operations

Implementation Actions

1. The organization conducts annual transportation survey, to establish transportation benchmark and understand the transportation needs of its employees and guests. 🗳️
2. Demonstrate an alternative transportation rate improvement over conventional vehicle trips in comparison to survey benchmark. Alternative transportation strategies that contribute to this reduction include human-powered conveyances (e.g. walking or biking), public transit, telecommuting, rideshare options, compressed workweeks, carpools, and green vehicles. 🚶🚲🚗🚙

Performance Benchmarks

Transportation Survey & Alternative Transportation Rate

Basic Practice: Conduct Transportation Survey

Better Practice: Basic + (5 to 20% Alternative Transportation Rate Improvement)

Best Practice: Basic + (> 20% Alternative Transportation Rate Improvement)

Implementation Resources

- These sample surveys may be tailored to meet a hotel's needs. Use them to gather occupant commuting data. One of these templates is intended for electronic distribution; one is intended for gathering information in the building's lobby in a "lobby blitz." Commuter Survey Template –Electronic Distribution, Commuting Survey –Lobby Blitz. See: https://leeduser.buildinggreen.com/sites/default/files/credit_documentation/SSc4_Sample_Survey_Electronic_Distribution.docx

- A zero-emission vehicle (ZEV) meets the standards of the California Air Resources Board (CARB). These standards require zero emissions of regulated pollutants—non methane organic gases, particulates, hydrocarbons, carbon monoxide, and nitrogen oxides—when the vehicle is either stationary or operating. See: <https://leeduser.buildinggreen.com/glossary#CARB>
- Most ZEVs are powered by electricity, fuel cells, or hydrogen. See: <https://leeduser.buildinggreen.com/glossary#ZEV>

Considerations

- Reduced cost in parking space maintenance requirements.
- Reduced air pollution, noise, and parking congestion.
- Reduced service vehicle fuel costs.
- Performance calculations are made relative to a baseline case that requires accurate survey. Results for both regular occupants (employees) and variable occupants (guests) transportation.
- Conducting a transportation survey or meeting alternative transportation rates is worth between 1 to 15 points under LEED Certification and thus would be included in tiered permit discounts for the Major Siting Permit may apply for qualifying Energy Star rated or LEED-certifiable projects, under Northern Mariana Island Administrative Code (NMIAC) §15-10-205.

Examples

- Guam Power Authority is phasing out all conventional light-duty service vehicles with electric vehicles.
- The average maintenance cost for an off-street non-metered parking space in N. America is approximately \$200/space/year (Mineta Transportation Institute 2010).



E. Sustainable Management



A sustainable management program is designed to integrate sustainability into every aspect of a hotel's operation, and increase overall efficiency. Working systematically with environmental issues often helps to reduce costs related to energy and water consumption, the chemical products hotels use and their unsorted waste. It also presents opportunities to distinguish one hotel's operations from that of other hotels, and can be used as a point of market differentiation. Often Hotel staff may be recycling, composting and doing their bit to save energy already by using less energy in their homes. They are therefore likely to be receptive to the introduction of environmental practices at the hotel.

Establishing a sustainable management program is one of the best ways of turning desired sustainability ambitions into realizable goals. By laying out specific steps and establishing metrics for measuring the results of these steps, a hotel will be able to realize and revise its sustainability goals, and communicate the results to the staff, guests, and community members in a meaningful way.



Sustainability Management BMPs

- E1: Create and implement a sustainability management plan
- E2: Organize a green team



E1. Create and implement a sustainability management plan

Sustainability plans create a template for identifying and implementing sustainability goals and measures. Having a plan will signal an organizational level— rather than individual— commitment to environmental and social issues. A Sustainability plan gives form to the organization’s commitment to the environment through the creation of goals, guidelines, timelines, and standards for measuring and reporting on sustainability goals.

Every organization is different, and so a specific hotel’s goals and implementation will be tailored to their particular organization. These plans set goals that are particular to the organization in question. The plan will also establish guidelines for achieving and measuring the impact of these objectives. Every sustainability management plan needs a champion to facilitate the plan’s actions, provide reporting and ensure engagement by all hotel stakeholders.

BMP Applications

- ☐ New construction ☐ Renovation
☐ Design ☐ Construction ☒ Operations

Implementation Actions

1. A documented sustainability management plan is on file and updated annually. 📄
2. The organization has a ‘sustainability manager’; a ‘go to’ person who is responsible for sustainability initiatives, and reporting to a Sustainability Dashboard. 🧑🏽📊

Performance Benchmarks

Sustainability Management Plan & Manager Position

Basic Practice: Sustainability Management Plan Developed

Better Practice:
 Basic + Sustainability manager responsibilities assigned to staff member

Best Practice: Basic + Dedicated Sustainability Manager Position

Implementation Resources

- The Step-by-step Guide to Sustainability Planning: How to Create and Implement Sustainability Plans in Any Business or Organization by Darcy Hitchcock and Marsha Willard. See: <http://books.google.com/books?id=e1TjH89Zh8C&lpg=PP1&pg=PP1#v=onepage&q&f=false>
- Marsha Willard, “Creating an Effective Plan for Your Sustainability Efforts.” See: <http://www.greenbiz.com/blog/2006/11/28/creating-effective-plan-your-sustainability-efforts>
- Program Sustainability Assessment Tool (see templates) <https://sustaintool.org/plan-for-sustainability/>

Considerations

- Consumer attitudes have changed with the times and members of the travelling public are increasingly concerned about their impacts. Research shows that many people prefer to take holidays and stay in hotels that actively

benefit the environment and the local community.

- Sustainability management in hotel operations can help reduce exposure to the risk of being fined from failing to meet environmental legislation.
- By taking a sustainability leadership stance, a hotel can create an opportunity to influence and educate members of the local community as well as visitors and guests, and encourage others to follow a more sustainable way of life.
- Consider identifying a sustainability champion to manage the Green Team and oversee reporting.

Examples

In May 2018, Hilton released its sustainability vision for 2030. It includes a commitment to halve its hotels' impact on the environment while also doubling their investment in social causes as part of Hilton's *Travel With a Purpose* corporate responsibility program. See: <https://cr.hilton.com/>

TRAVEL WITH PURPOSE

2017 Key Milestones





HILTON MAKES THE DOW JONES SUSTAINABILITY INDEX for the first time – demonstrating industry leadership across economic, social and environmental pillars



RANKED #1 IN OUR INDUSTRY by Forbes and JUST Capital for America's Most Just companies



UNWTO OFFICIAL PARTNER of the 2017 International Year of Sustainable Tourism for Development



Our CEO Chris Nassetta received Vital Voices **“VOICES OF SOLIDARITY” AWARD** recognizing Hilton's leadership and commitment to empowering women and advancing human rights



(Photo source: GSA.gov)

E2. Organize a green team

In order to implement the sustainability management plan, a staff sustainability working group, often referred to as a Green Team will need to be established. The role of its members within it will be to inform, support and motivate the entire staff to help achieve the hotel's sustainability goals. How a group is organized will depend on the size of the hotel and the staff assigned to the task.

The number one recommendation from the American Hotel and Lodging Association to green a hotel is to form a Green Team. Hotels provide an ideal setting for green teamwork, influencing internal operations, vendors, guests and the community at large. Forming a Green Team is a great way to move sustainability initiatives forward. A Green Team is a self-organized committee of employees who meet regularly to advance sustainability goals. The business value of Green Teams includes cost savings, attracting/retaining top talent, strengthening your brand, and increasing your market share (Fleisher, 2009). A green team should create aggressive, but achievable goals.

BMP Applications

- ☐ New construction ☐ Renovation
☐ Design ☐ Construction ☒ Operations

Implementation Actions

1. The organization has a dedicated staff "Green Team" with representatives from all departments to discuss sustainability efforts and initiatives. 🕒
2. The Green Team meets regularly during working hours and sustainability efforts are integrated across departments. 🕒
3. Green Team consistently inputs and reports twice/year and manages Sustainability Dashboard reporting requirements. 🕒

Performance Benchmarks

Green team established

Basic Practice: Green Team established, monthly meetings

Better Practice: Basic + Annual Report

Best Practice: Basic + Weekly Meetings + Bi-annual Reporting

Implementation Resources

- Case studies from Hawaii:
<http://www.hawaiilodging.org/hawaiis-green-hotels.html>.
- Green Team Guide developed by the city of Portland can help your organization navigate the initial steps of setting up a green team.:
<https://www.portlandoregon.gov/sustainabilityatwork/article/497862>
- How to create a green team in your hotel-Green Steps:
<http://www.green-steps.org/blog/harness-the-power-of-the-green-team>
- Green Team resources:
<https://www.greenbiz.com/microsite/greenteams/recommended-reading>.

Considerations

- Starting a Green Team can be easier said than done. Who should be on it? What is the structure? Who is in charge? Who is accountable? How does the team know what to do? The answer is that no Green Team is exactly alike. Teams reflect the unique personalities of their members, management, the hotel itself and the surrounding

community. As teams organize and tackle early projects, members grow and learn from their successes and failures. True team success comes when management is fully on board, encouraging staff to play a key role in the selection and implementation of green goals. This support sets the tone and vision within your hotel to inspire the Green Team.

- One reason why hotel green teams can be so successful is that team members are on the ground; in the guestrooms, meeting rooms, utility rooms and common areas where they can observe and report behaviors first hand.
- Not every green team will have management support via official status, budgets, or endorsed initiatives. Even on a volunteer status, a team can accomplish no-cost, easy actions such as setting up basic recycling and educating coworkers about behaviors that save energy or resources.
- A hotel green team is most successful when: Management is on board, all departments are represented, the program is inclusive, enthusiasm gets free reign, and there is a structure for goal setting and accountability.
- The team will need a figurehead or 'champion' who is both deeply committed to the sustainability management plan and a good communicator so that they can deliver the message clearly, ensure that all employees understand how the policy affects them and inspire them to take action.
- Look for green recognition or certification programs that have specific criteria. These criteria can provide clear check-lists for your team to follow. Some examples include Sustainability at Work certification, Green Seal Certification for hotels, or LEED certification for buildings.
- Measuring the success of your goals is important in tracking the success of the team's actions. Taking the time needed to track progress will provide returns when it's time to report to management, educate and engage employees, and evaluate what is and is not working.



Gilbert Guzman, Head of Engineering and Landscaping, points out his cleverly hidden disconnected downspouts, which divert roof runoff into a planted area instead of allowing it to runoff into the ocean (*Best Business Enterprises for Sustainable Travel Practices Vol.2(2)*).

Example

A resort doesn't become "Hawaii's most Hawaiian Hotel" without a dedicated staff team helping to make it so. Ka'anapali Beach Hotel's first started Project Po'okela, whose name is derived from the Hawaiian word for excellence, in 1986. Employees are educated in the values and ideas of Hawaiian culture and taught how to integrate them into their daily work.

This project has recently been expanded to touch on all aspects of hotel operations and contains lessons for any hotel concerned with employee and guest satisfaction, market positioning, and the preservation of the cultural and environmental riches of its locale. At the onset of Project Po'okela, each employee attended a half-day workshop on Hawaiian values—such as ho'okipa (hospitality), aloha (love), kokua (helpfulness), and kupono (respect and honesty). Soon after, the employees drafted a mission statement which addressed how they could reflect those values while at work.

Members of the Ka'anapali Beach Hotel's Green Team participated in a "Coral Reef Friendly Landscaping" Training at the University of Hawai'i, Maui, where participants learned about reduction of chemical use, low impact design, and stormwater management techniques.

F. Sustainable Purchasing



The hospitality industry in the CNMI is a major purchaser of goods and services, and thus has substantial power to influence the environmental and social sustainability of supply chains within and outside of the region. Each item purchased can have either a positive or negative environmental or social impact. Questions to consider when assessing different products include:

- Who produced it, and were they paid fairly?
- Did the product have a negative environmental or social impact?
- How far did it have to travel? Are there locally available alternatives?
- Is it certified organic, fair trade, or other eco label?
- How will it be disposed of and how much packaging is there?

While geographic isolation and extended transport times pose inherent challenges for CNMI's hospitality sector, these conditions also create an opportunity to increase self-sufficiency in the CNMI, support the local economy, and build a robust and resilient supply chain. Through the creation, and regular updating of a sustainable purchasing policy, the hospitality industry can use its purchasing power for good, while at the same time reducing its overall costs of goods and services.





F1. Encourage socially and environmentally-preferable purchasing

Using goods and services that have little packaging waste and those that are produced “fair trade,” and without chemical pesticides and fertilizers (organic) have numerous social, economic and environmental benefits:

- Eliminating disposable single use containers helps keep CNMI beaches free from unsightly garbage, reduces the likelihood of harm to wildlife, and saves money in the long run.
- Organically grown produce has less environmental impact.
- Fair trade goods and services ensure fair prices and wages are received by the producers.

Consumers are becoming increasingly aware of the benefits of these items, and facilities that offer them are at an advantage.

BMP Applications

- ☐ New construction ☐ Renovation
☐ Design ☐ Construction ☒ Operations

Implementation Actions

1. A ‘Green purchasing’ policy is in place. 🗑️
2. Preference is given to products and suppliers with environmental certification – notably with respect to produce, wood, paper, fish, other foods, & products from natural environments. 🗑️

3. Where certified products and suppliers are not available, consideration is given to the origin and methods of growing or production. 🗑️
4. Threatened or otherwise protected species are not used or sold. 🗑️
5. Purchasing and use of consumable and disposable goods are monitored, managed, and favor reusable, returnable and recycled goods. 🗑️
6. Efforts are made to eliminate disposable, single-use service items like polystyrene/Styrofoam, plastic bags, and plastic straws, forks, and knives. 🗑️
7. Hotel gift shops make "reef safe" sunscreens and rash guards available to guests for purchase and highlight why use of these materials is better for people and the environment. 🗑️

Performance Benchmarks

% certified or sustainable products and % of disposable, non-compostable services items to green alternatives

Basic Practice: Sustainable Purchasing Policy in place and 25-50% certified or sustainable products; 10-50% use of green service items

Better Practice: Policy and 51 to 75% sustainable products; 51-75% green service items

Best Practice: Policy and >75% sustainable products; >75% use of green items, and 0 use of plastic or polystyrene

Implementation Resources

- Sample hotel purchasing policy from the Golden Jubilee Hotel: <https://www.goldenjubileehotel.com/hotel/info/social-responsibility/sustainable-purchasing-policy/>
- An overview of better alternatives to disposable plastic: https://static1.squarespace.com/static/5522e85be4b0b65a7c78ac96/t/5acbd346562fa79982b268fc/1523307375028/5Gyres_BANlist2.pdf
- Green Hotelier Responsible Procurement Guide: <http://www.greenhotelier.org/our-themes/responsible-procurement/>
- EPA's Greener Product and Service Program: <https://www.epa.gov/greenerproducts/identify-greener-products-and-services>
- Green Hotelier Environmental Management for Hotels Purchasing and Supply Chains: <http://www.greenhotelier.org/our-manuals/environmental-management-for-hotels/chapter-7-purchasing-supply-chains/>
- Fair Trade Certified items: <https://www.fairtradecertified.org/>
- Reusable Food Service Guide: www.rethinkdisposable.org

Considerations

- Consumer Certified Fair Trade and Organic are more commonly recognized terms, and consumers are becoming increasingly aware of the benefits of fair trade and organic items. Hotels that offer these products are at an advantage.
- Common fair trade items include: coffee, bananas, chocolate, cotton, tea, spices.
- A business that eliminates single use plastic items usually experiences a long term cost saving by switching to a reusable alternative despite the fact that reusable items are generally more expensive up front.
- Beware of 'greenwashing,' such as terms like eco friendly, biodegradable. Develop a better understanding of the meanings of the myriad of eco certifications.
- When too few suppliers are able to meet your requirements, consider combining your purchasing power with other hotels and tourism associations in the CNMI to help raise overall standards within the destination and to create a greater pool of suppliers to draw upon.

- Communication is the key to success. Be consistent, straightforward, fair, and transparent in your communications both with suppliers and internally. Make certain that your policy is reflected in your purchasing decisions or it will undermine the credibility of your program.
- Aim for an inclusive rather than exclusive approach (i.e., do not abruptly stop using a particular supplier who does not meet your standards, instead help them comply with your needs.
- Do not be overly ambitious. Work with a few suppliers at a time to achieve continuous and measurable improvement, rather than overnight transformation. The same goes for eliminating single use plastics; phase-in greener alternatives over time.
- Remember that you may be able to learn as much, if not more, from your suppliers about sustainability as you are able to tell them.
- Listen to your suppliers and be prepared to work with them. They may have different priorities and/or capacities for improvement and may not be able to improve at same rate.
- Ensure that any sensitive or confidential material in your supplier database remains confidential.
- Monitor the response and enthusiasm of suppliers and identify successes and difficulties so that each year you can improve the process.

Examples

- Several Saipan hotels have made efforts to eliminate single use plastic water bottles, and replace them with water refill stations and reusable water bottles. This has the added benefit of demonstrating a hotel's commitment to sustainability by reducing waste, and creates a branded product to sell in hotel gift shops or give away.
- Some hotels in Saipan have vertical integration, whereby a hotel group owns supply companies for key items used throughout its holdings, such as cleaning supplies, foodstuffs, or linens. This offers a unique opportunity to broaden the overall sustainability of the destination because a hotel's purchasing policy can be applied throughout the supply chain.



- In 2017, over 400 volunteers collected 30,450 pounds of trash from area beaches as part of the Beautify My Marianas Program. The majority of the trash consisted of single use disposable service items. Eliminating these items from use within hotels and resorts will protect the beaches the visitor industry depends on. For information on the Beautify My Marianas Program, see: <https://drive.google.com/file/d/1ymUIE9rD1ZHOGPrV9TYJ8nTfeWEVklHI/view>.

Hotel gift shops should carry sustainable products and take an opportunity to educate customers on products such as reef safe sunscreen (not shown here!). Purchasers should think about the sustainability of plastic lids and straws before purchasing mass quantities.





F2. Encourage local purchasing

Today's travelers are increasingly seeking a more 'authentic' experience of the local culture in the places they visit. They are keen to try regional food specialties, participate in cultural events, and purchase unique local crafts as souvenirs. When a hotel purchases foodstuffs and other goods from the surrounding community, it enhances the locally authentic character of the operation and provides the following additional benefits:

- Support of local businesses and providing jobs makes the business a "good neighbor".
- A higher percentage of the price paid goes directly to the producer of the goods and services which is then circulated several times within the community.
- Less distance for local goods and services to travel, thus reducing the ecological footprint.

Local goods and services can be substantially cheaper with fewer middlemen and transportation costs.

BMP Applications ☐ New construction
☐ Renovation ☐ Design ☐ Construction
☒ Operations

Implementation Actions

1. Preference is given to products purchased locally. 🍷🍷
2. Local produce is purchased whenever possible. 🍷

3. The organization meets regularly with potential suppliers and keeps them abreast of market demands and changes. 🍷
4. The organization supports supplier cooperative organizations like the CNMI Farmers' Cooperative Association, and participates in meetings. 🍷

Performance Benchmarks

Cost of products purchased from local vs. imported sources

Basic Practice: 10-25% of products purchased from local vs. imported sources

Better Practice: 26%-50% local purchasing

Best Practice: > 50% local purchasing, and any product available locally is purchased locally

Implementation Resources

- Restaurants can offer more generalized menu items that can allow for flexibility of locally available goods. For example; Seasonal Vegetable Plate, Veggie Stir Fry, or Local Plate Lunch.
- Educating guests about locally available specialties is a great way to encourage more local food consumption. For example, each region in Japan has its own associated food specialty, and a common criticism from Japanese travelers is that regional specialties are hard to determine or nonexistent. It is easy for a hotel to create a signature specialty dish that consists of locally-sourced items.

Considerations

- While there is a variety of produce available in the CNMI, local farmers may have trouble meeting a hotel's demand or quality standards.
- Local purchasing can be difficult in islands where choice is limited and supply is unpredictable. Most restaurants and hotels cite the additional benefits of local purchasing as their primary motivators (e.g., community goodwill, employee satisfaction, chef interest in local cuisine).
- Close communication between farmers and hotels can help both sides understand each other's needs and limitations.
- Standards are very strict for food served to guests, but are often more lax for staff meals. Consider introducing locally produced items for staff meals. This may also help establish new relationships with suppliers.
- Working with a local Cooperative or Farmers' Association is the best way to access and manage a system of local produce. However, they can be challenging because a high level of trust and agreement among members is necessary for success. It is important to work within a co-op or Farmers' Association structures to strengthen the sector as a whole. Conducting side deals outside a co-op can undermine its overall effectiveness.

Examples

- A number of hotels in the CNMI purchase local goods, and in particular, local produce. Chefs and Food and Beverage Managers cited better overall quality and taste as compared with imported produce, which needs to travel a long way before reaching the kitchens.
- Roland Fitz, Executive Chef at Fiesta Resort & Spa-Saipan, says, *"The [local] produce is very good. You have to be flexible with what is available. One month there will be lots of mangos, another time it's papaya or pineapples, and you've got to adapt."*
- Food and Beverage Managers at several hotels highlighted the importance of establishing long term relationships with local farmers and suppliers as well as regular communication to ensure supply and demand expectations on both sides are realistic and practical.



Crops in the CNMI Availability Calendar

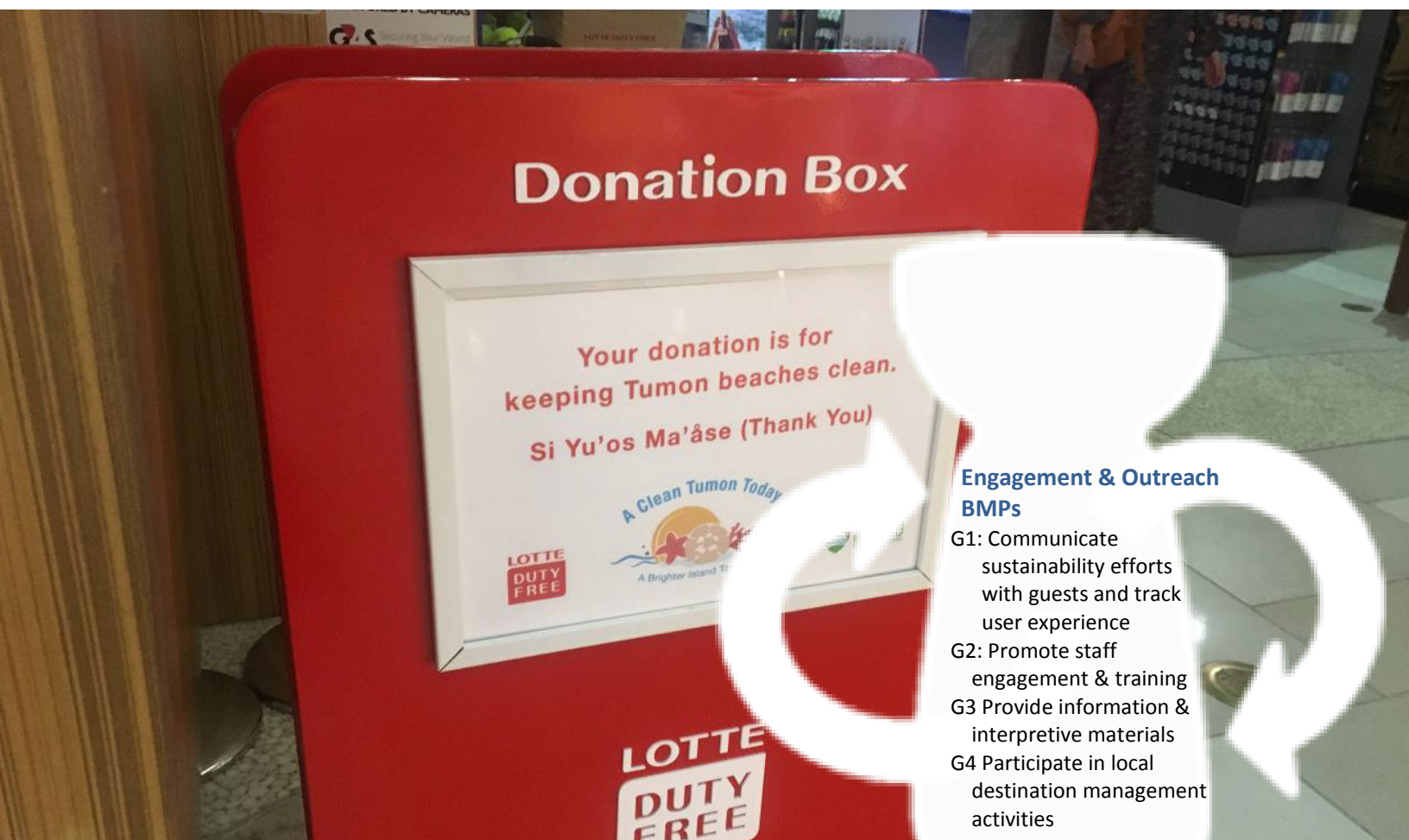
	English	Chamorro	Refaluwasch	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Avocado	Alageta'	Lighatapeya													
Banana	Aga'	Wiisch													
Bell Pepper	Donni' mamis	Lolli gholáy													
Bitter Melon	Atmagosu	Atmagoso													
Breadfruit		Mááy													
Cantaloupe	Melion finu	N/A													
Cassava	Mendioka	Mendiokika													
Chin. Cabbage	Nappa'	Nappa													
Corn	Ma'is	Meis													
Cucumber	Pipinu	Ghúngár													
Radish	Daikon	Daikkon													
Egg Plant	Biringenas	Birengenas													
Green Onion	Siboyas gollai	Subwuyas													
Honeydew	Mellon páska	N/A													
Water Spinach	Kangkung	Kangkung													
Mango	Másan mángga	Manga Masch													
Okra	Neri'	Neri													
Papaya	Papáya	Bweibway													
Pineapple	PiAa	Pinga													
Pumpkins	Kalamasa	Ghalamasa													
Snap Bean	Abuchuelas	N/A													

G. Engagement & Outreach



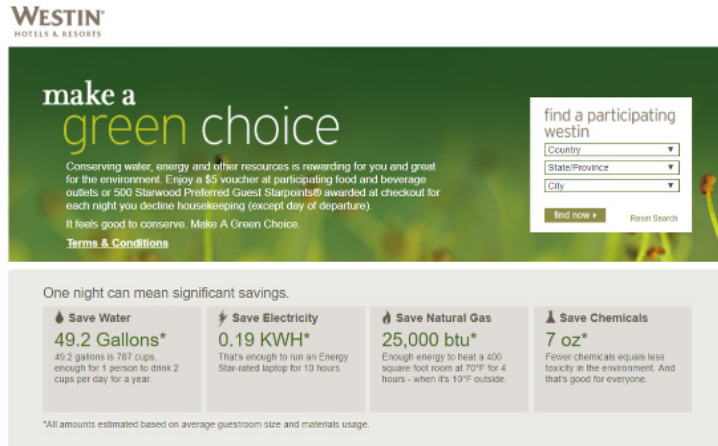
Engagement and outreach about the importance of your hotel's sustainability efforts must be done at all levels from front of house to back of house staff and management to guest to contractors and service providers. Interpretation of the natural and cultural environment is not only important for educating visitors and protecting natural and cultural heritage, but a key factor for creating a high quality tourist experience and high level of satisfaction. A deeper understanding of the unique natural and cultural assets found in the Northern Mariana Islands, also instills in visitors a desire to protect those same assets and to follow rules and participate in programs put in place to protect them. Tourists almost never set out to intentionally harm a site, but negative impacts occur through lack available information on proper behavior or etiquette, or insufficient management of various sites. This problem can be

exacerbated by cultural differences and/or language barriers. Conversely, a well-designed interpretation program, a staff properly trained in sustainability efforts, multiple opportunities for guests to engage in sustainability initiatives, and participation by tourism providers in site and destination management decisions can encourage proper tourist behavior and ensure the overall long term sustainability of the Northern Mariana Islands' most heavily visited sites.



Engagement & Outreach BMPs

- G1: Communicate sustainability efforts with guests and track user experience
- G2: Promote staff engagement & training
- G3 Provide information & interpretive materials
- G4 Participate in local destination management activities



(Photo source: Westin Hotels)

G1. Communicate sustainability efforts and track user experience

In today's highly competitive tourism market, enhancing the guest experience is the most important goal for successful tourism operations and destination management. A hotel or resort can be sustainable only if it stays in business. A system for collecting guest feedback and integrating suggestions helps a hotel understand its guest's needs and expectations, and is a great way to see how guests are receiving your sustainability initiatives. Feedback can help to guide outreach and communication strategies. Sustainability initiatives without the requisite communication can have negative consequences. For example, there is a big difference between demanding that your guests limit water use in order to save the hotel money versus inviting them to participate in your water saving initiatives and effectively explaining the environmental and social benefits of their participation.

BMP Applications

- ☐ New construction ☐ Renovation
☐ Design ☐ Construction ☒ Operations

Implementation Actions

1. Sustainability efforts are regularly and accurately communicated to guests through collateral materials, signage, etc. 🗨️
2. Customer feedback is regularly tracked (through comment cards, surveys, etc.) and corrective actions taken. 🗨️🗨️
3. Guests are actively engaged in sustainability efforts and invited to participate. 🗨️🗨️

Performance Benchmarks

Customer feedback and % guest participation in sustainability initiatives

Basic Practice: Customer feedback tracked and 10-15% participation

Better Practice: Feedback tracked and corrective action taken and 16-25% participation

Best Practice: Feedback tracked, corrective action taken, additional outreach conducted, and 26-50% participation

Implementation Resources

- Communicating Sustainability to Guests:
<http://www.greenhotelier.org/know-how-guides/communicating-sustainability-to-guests/>
- Telling Your Hotel's "Green" Story: Developing an Effective Communication Strategy to Convey Environmental Values:
<https://scholarship.sha.cornell.edu/cgi/viewcontent.cgi?article=1011&context=chrttools>

Considerations







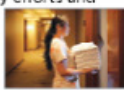

- Sharing your hotel's sustainability initiatives can be a great way to demonstrate your commitment, engage guest in the process, and enhance your company's brand.
- Tracking and responding to guest feedback can allow for improvement in all areas of the guest experience.
- Today's travelers are seeking more than 'sand, surf, and sun', and are caring more about the sustainability of the places they stay.

- It's important to back up your claims with actions. Imagine if a guest opts to participate in your towel reuse program only to have all the towels changed anyways.
- Be clear and back up your claims with numbers. "We're using 20% less water" ...yes, but compared to what? Last year's use? The industry's average? If you're reducing your carbon footprint - By how much? If you're saving energy, how much are you saving, and what are you comparing? Share credible facts.
- "Greenwashing" is a term used for making misleading environmental claims not backed up by fact. In your communication strategy, avoid generalizations like 'green hotel' or 'eco friendly' without clearly defining what these terms mean. Communicating in such a vague way can lead to accusations of greenwashing.

Example

- The Hyatt Regency Resort and Spa in Maui has created a self-guided sustainability tour that allows guests to visit 'stations' that highlight their operation's sustainability program. The tour stops include: an organic chef's garden, a view of the facilities solar rooftop system, and an overview of 'ocean friendly landscaping' initiatives. According to front desk employees, interest in the tour has been high "especially among the younger millennial visitors."
- Check out Hilton's sustainability reporting webpage: <https://cr.hilton.com/our-reporting/>



FOOD & FOOD WASTE 2 We offer food that is thoughtfully sourced and carefully served from natural, local and sustainable sources. Our food is good for guests, the community and the planet. 	WATER 3 We value water as a precious resource and implement practices and technologies that reduce water consumption and provide clean, fresh water to our guests. 	MATERIALS & RECYCLING 4 We actively track our purchases for compliance with our preferred purchasing criteria and aggressively recycle. 	RENEWABLE ENERGY & ENERGY EFFICIENCY 5 We continuously pursue increased energy efficiency performance and deploy a significant amount of renewable energy. 
OCEAN & LANDSCAPE 6 Being environmental stewards, we go to great lengths to nurture our coral reefs and landscape, including responsible stormwater management. 	INDOOR AIR QUALITY & GREEN CLEANING 7 Our efforts in ventilation, green cleaning, and pest management, provide for healthy indoor environments. 	STAFF TRAINING & GET INVOLVED 8 We are committed to local and global sustainability efforts and encourage others to join us in this journey towards a bright future. 	<div data-bbox="1144 1753 1412 1837">  HYATT REGENCY MAUI RESORT & SPA </div> <div data-bbox="1144 1879 1380 1911"> maui.hyatt.com/sustainability #HyattLEEDsGreen </div>



Stakeholder Workshop to inform the development of this Manual. PIC Saipan, October 2018

G2. Promote staff engagement and training

Sustainability plans and policies are only as good as the staff that puts them into action. Staff need to understand the sustainability goals of your hotel, have input into their creation, understand the reasoning behind them, and have specific sustainability trainings tailored to their unique job duties. Are housekeeping staff trained in your water reduction efforts and green cleaning policy? Does the landscape maintenance team know about your integrated pest management plan, and how to properly use and store potentially harmful chemicals? Do managers convey sustainability efforts to their departments? Your staff can also be the biggest advocates of your operation's sustainability efforts, and are the most common point of contact with guests seeking more information. Staff are the backbone of any sustainability plan, and are essential to its overall success.

BMP Applications

- ☐ New construction ☐ Renovation
☐ Design ☐ Construction ☒ Operations

Implementation Actions

1. Sustainability training is required for all staff members. 🕒

2. Training records are kept for all staff, showing the level and frequency of training received. 🕒
3. Trainings and materials are accessible to all staff, and available in multiple languages where needed. 🕒🕒
4. Trainings are tailored to specific departments (housekeeping, landscape managers, front of house, etc.) and staff hold certificates or qualifications in relevant skills/trainings. 🕒
5. Employees are encouraged to participate in sustainability initiatives (beach cleanups, recycling efforts, tree planting, etc.), and are given time during working hours to participate in these activities. 🕒

Performance Benchmarks

Staff trained in sustainability and % of employee participation in sustainability initiatives

Basic Practice: General Manager trained and 25-50% participation

Better Practice: All department Managers trained and 51-75% participation

Best Practice: All staff trained and >75% participation

Implementation Resources

Environmental Awareness and Training:

<http://www.greenhotelier.org/our-themes/community-communication-engagement/environmental-awareness-and-training/>

Considerations

- The best and most successful sustainability initiatives are those that make someone's job easier or more enjoyable.
- When staff are involved when drafting new sustainability policies, they will bring new ideas to the table, and be more on board with the outcome.
- Sustainability initiatives and projects are great for staff morale and create a more pleasant work environment.
- When staff aren't keen on a new policy, it can be very difficult to implement. If your new composting system requires prep chefs to walk down three flights of stairs to dump food scraps into the compost bin, they're less likely to be thrilled with it than if it's made easy for them to participate.
- Be sure to get staff input on sustainability ideas *before* telling them they need to do something different. Remember, staff are the implementers putting ideas into action on a daily basis.
- It's important that staff are given paid time at work to learn new sustainability skills and put them into action. Don't expect staff to not be paid while they are participating in beach cleanups or other activities. Respecting their time demonstrates the level of import your organization places on sustainability.

Example

Like many business establishments, Slappycakes Restaurant in Kahana, West Maui used the parking area to hose off its kitchen mats each day. Aside from the environmental concern of sending soaps and harsh cleaning chemicals down the storm drain, it also left a smelly and unsightly trail of standing water and food particles that was visible to customers as they approached the front door of the building. Kitchen staff complained that their feet and pants got wet every time they had to spray down the mats. Restaurant staff and management worked together to devise a solution.

Their solution was to convert a mop bucket drain into a dedicated wash down station. The solution cost less than \$200 in materials and labor, and staff and the environment are much better off as a result.

- **Challenge:** Soap & chemicals running down storm drain (which led into the ocean).
- **Solution:** A dedicated wash station that drains to the sewer, protecting the ocean and keeping the feet dry.



Mat washing improvements at Kahana's Slappycakes Restaurant.



G3. Provide information and interpretive materials

Visitors are coming to the Northern Mariana Islands to experience the islands' natural beauty, cultural heritage, history, and outdoor recreational opportunities like snorkeling and diving. Today's travelers want to learn more about the places they visit. It is the responsibility of anyone interacting with visitors to provide guests with appropriate interpretation of natural and cultural sites as well as proper safety and behavior guidelines. Misinterpretation of cultural sites, overcrowded trails, artifact looting from fragile archeological sites, trampled reefs and sea grass, as well as visitor injuries result from ineffective management and a lack of collaboration among different operations.

BMP Applications

- ☐ New construction ☐ Renovation
☐ Design ☐ Construction ☒ Operations

Implementation Actions

1. Interpretation of natural and cultural surroundings is provided to all guests, and guests understand appropriate behavior when visiting sites. 🗣️
2. The organizations provide information to guests about safety concerns and appropriate behavior while visiting popular sites (Bird Island, the grotto, suicide cliffs, etc.) 🗣️
3. The organization utilizes only tour companies and guides that are certified through the MVA tour guide certification program. 🗣️

4. Front of house staff are trained to answer questions and provide appropriate behavior information to guests. 🗣️

Performance Benchmarks

% MVA-certified tour guides and front of house staff trained

Basic Practice: Use 100% MVA certified guides

Better Practice: 25-50% of front of house staff trained +100% MVA-certified tour guides

Best Practice: More than 50% of front of house staff trained +100% MVA-certified tour guides

Implementation Resources

- MVA Tour guide certification program:
<https://mymarianas.co/about-us/tour-guide-certification-program/>
- National Park Service Heritage Interpretation Guide:
<http://tot.unm.edu/documents/InterpGuide-XP.pdf>
- Visitor Safety Guidelines:
<https://www.mymarianas.com/visitor-safety/>

Considerations

- Well informed guests will be less likely to break rules or inadvertently damage cultural and natural resources.
- A demonstrated commitment to the safety of your visitors helps them feel welcomed and avoids potential litigation and liability issues with accidents.
- The use of MVA-certified tour guides can provide local jobs and ensure a quality experience for visitors.

- A well designed interpretation program can be an excellent offering for tourists interested in a deeper understanding of their surroundings.
- Safety and interpretation must be tailored to the audience. Remember, what may be obvious to you, as a resident of the Northern Marianas, could be completely foreign to a visitor from abroad. Use guest feedback and outside perspectives to create safety guidelines and interpretation programs.
- Accidents and deaths mar a destination’s reputation.
- Make sure that tour guide certification programs are flexible enough so as not to exclude potentially excellent local guides or natural storytellers, but who lack formal education or aren’t able to pass a certification test.

Examples

- The *Official Marianas Guide Tour Guide Course Manual* provides information at various natural and historic sites, including the Grotto. This information discusses access and types of natural flora and fauna attractions found at each site.

Sample Interpretation Programs

- Record memories of veterans and citizens who remember WWII battles and historic events, and create tours (or video recordings that can be watched on a smartphone) of famous historic sites given by people who were there and experienced events first hand.
- Interpretation programs can be as simple as this ‘botanical tour’ which takes on the hotel grounds, and where guests can see examples of the unique native and endemic (found nowhere else on the Earth) plants of the region.



Visitors learn about the fascinating varieties of plants that evolved in isolated island ecosystems, as well as the cultural and spiritual beliefs and traditional medicinal and utilitarian uses for each plant (pictured below).



Wholesale dependence on the traditional-tourism model can even result in capacity loss. After WWII, in the CNMI, indigenous Chamorro guides gave heritage tours of key war locales on Saipan and Tinian in fluent Japanese. Decades later, Saipan shifted to traditional sun-and-sand mass tourism, still focused on Japan but relying heavily on Filipino labor and a standard resort business model. As older Chamorro guides died or retired, young Chamorro did not take their place. Saipan has little capacity to resurrect heritage tourism, lacking home-grown guides fluent in the language of their biggest tourism market. (Destination Management USAID 2013).



G4. Participate in local destination management activities

A hotel or resort cannot operate within a vacuum. The success of each operation depends upon the effective overall management of the Northern Mariana Islands as a long term sustainable tourism destination. Engagement of the industry with the Marianas Visitors Authority (MVA) and participation in destination management initiatives helps protect the environment as well as everyone's bottom line. The hotel and accommodations sector should do everything to strengthen and support the MVA. The Northern Mariana Islands Tourism Master Plan cited the following 'niche tourism' markets for best suited for expansion based on visitor desires, and available resources for expansion:

- Nature-based tourism (ecotourism)
- Sports and adventure tourism (In particular diving and snorkeling)
- History and cultural heritage tourism

The long term viability of any of these markets depends entirely upon the protection and proper management of aquatic and terrestrial ecosystems, and natural and cultural heritage sites. For small islands with a limited carrying capacity for visitors, each hotel's active participation in sustainable tourism planning initiatives is essential to the overall success of the industry as a whole.

BMP Applications ☐ New construction
☐ Renovation ☐ Design ☐ Construction ☒ Operations

Implementation Actions

1. The organization participates in local sustainable tourism planning and is a member of the Marianas Visitors Authority (MVA). 🗑️
2. The organization participates in local environmental programs (e.g., the 'Beautify My Marianas' program and the 'Adopt a Bin' program). 🗑️🗑️

Performance Benchmarks

Active in Destination Planning, and participation in environmental programs

Basic Practice: Participation and member of MVA

Better Practice: Participation and active member of MVA

Best Practice: Robust Participation and active in planning and MVA membership

Implementation Resources

- MVA: <https://mymarianas.co/the-marianas/>
- Saipan Lagoon Use Management Plan: https://dcrm.gov.mp/wp-content/uploads/Final-2017-SLUMP-Update_wAppendices.pdf
- Beautify My Marianas Program: <https://drive.google.com/file/d/1ymUIE9rD1ZHOGPrV9TYJ8nTfeWEVklHI/view>
- Adopt-A-Bin Program: <http://www.minapacific.org/sec.asp?secID=45>
- HANMI: www.saipanhotels.org/

- Saipan Chamber of Commerce:
<http://www.saipanchamber.com/sec.asp?secID=1>

Considerations

- Participation in destination and site management ensures your hotel's voice is heard and local regulations and user guidance reflects your input.
- Collaboration with other hotels, through HANMI for example, ensures that rules are evenly applied and guest experience is of high quality across the board.
- Finding time to participate in planning efforts can be challenging when hotels are busy. The local chamber of commerce and industry groups can be effective avenues to participate in destination planning decisions.
- There is sometimes an incentive for tour operations companies and hotels to operate outside the rules in a misguided effort to give guests a 'closer look' or 'special experience'. However, it is the responsibility of the industry as a whole to ensure regulations are followed.
- In the Rock Islands of Palau, tour guide operators work closely with park rangers, regulators, and one another to stagger tours of the very popular beach sites. This coordination ensures that beaches aren't overcrowded, and resources compromised. Visitors all experience the ideal 'deserted beach' experience. They also contribute to the maintenance of mooring buoys and other common use infrastructure. Hotel operations can regularly cooperate on shared resource management through trash removal from popular beach sites, or investment in infrastructure such as bathrooms, improved walkways, and access points.

Examples

- Robust stakeholder participation in surveys, meetings, and online forums during the 2017 update of the *Saipan Lagoon Use Management Plan* ensured that commercial users of the lagoon were able to inform and guide management decisions affecting their activities. Participation by the hotel and accommodations sector is destination management efforts like this, is essential for drafting practical rules and regulations, ensuring various operators and user interests are served/protected, and safeguarding the ecological and historical integrity of the site.



H. Local Community Support & Human Resources

Hotels and resorts depend upon the social capital of their host communities. Consider the following hypothetical scenarios:

Hotel A uses no local workers, does not allow local vendors access to the resort, supports no local charities, kicks people off of its beach, and uses so much water and power that it regularly causes roving blackouts and insufficient water for the community.

Hotel B hires the majority of its employees locally, works with local businesses to purchase goods and services, allows locals discounted access to its facilities, sponsors a youth soccer team, and uses its generator to power neighbors after a typhoon.

Both hotel leases come up for renewal. Which hotel is likely to have more social capital, and therefore most likely to have its lease renewed favorably?

While these are extreme examples, they illustrate the importance a sustainable operation should place on the well-being of the community in which it operates. A hotel should be perceived as a community asset. By providing economic opportunity through jobs and support of local businesses, addressing community needs or fixing problems, a hotel can be seen as a 'good neighbor' and local residents have a vested interest in the overall success of the hotel. Also, what is good for the community is in many cases is good for the hotel or resort; such as improved roadways or other infrastructure, easier beach access, or additional tourism businesses and attractions in the area that draw more guests.



Local Community Support & Human Resources BMPs

- H1: Provide community services & support
- H2: Partner with local entrepreneurs.
- H3: Promote local employment
- H4: Provide living wages & a clean and safe workplace.
- H5: Provide equal opportunity and prohibit exploitation and harassment



H1. Provide community services and support

Investment in a formal and transparent mechanism to identify community needs, monitor for negative impacts, address concerns, and collaborate together on solutions, is money and time well spent. All too often local communities are not consulted during tourism planning stages, or are ‘consulted’ after decisions have already been made. Community members are often not informed of hotel operations, and don’t have a voice in the decisions that affect them. Community meetings and a feedback mechanism can help identify partnership opportunities, local entrepreneurial activities, or other mutually beneficial endeavors. Conflicts or disagreements between the local community and a hotel may arise, and ensuring these disputes are handled in a fair and transparent way, is vital to promote goodwill and positive community relations in the long run.

BMP Applications ☐ New construction ☐ Renovation
☐ Design ☐ Construction ☒ Operations

Implementation Actions

1. The organization supports the local community through employment opportunities, on the job training, charitable giving, etc. and helps fulfill other needs identified by the community, and the levels and types of contributions are recorded. 🗳️🗳️
2. The organization engages with the local community in identifying needs and opportunities for support and evaluating their potential benefit/impact. 🗳️

3. The local community is offered the opportunity to access the organization’s facilities and services provided at a local discount or reduced rate. 🗳️
4. The organization monitors its impact on the availability of local services and resources, such as food, water, energy, healthcare or sanitation, to the local community and any reductions/negative impacts are addressed. 🗳️
5. A communication feedback or grievance mechanism is in place for local communities. 🗳️

Performance Benchmarks

Community Communication and support (Community meetings; Total monetary and in-kind contributions as % of gross sales)

Basic Practice: Annual community meetings; 1% contribution

Better Practice: Bi-annual meetings; 1-5% contribution

Best Practice: Monthly meetings; >5%

Considerations

- Identifying and contributing to community needs can greatly increase a hotel’s social capital or ‘social license to operate.’
- Working through a local community leader, group, or association can be a great way to understand local needs.
- Addressing infrastructure problems together (e.g., roads, garbage collection, wastewater, water supply, and electricity) can encourage better local

municipal service and upgrades to infrastructure that benefit all.

- Providing for discounted local access to hotel amenities fosters goodwill among the community, and potentially opens up a new market or customer base.
- Clear expectations and open communication is important so that neither the community nor the hotel overpromises and under delivers.
- Community development is a field unto itself, and generally falls outside a hotel's skill set. Consider outside experts or local facilitators for conducting this type of work.
- It can be difficult to identify the right person, persons, or group who is able to 'speak for the community' with credibility.
- There is often an expectation that hotels will fill in the gaps in social services simply because they have capacity in these areas. Hotels need to work closely with relevant municipal entities to ensure an adequate level of service.
- Planet business members that join *1% for the Planet* commit to supporting approved environmental nonprofit partners and do so by committing to donate the equivalent of 1% of sales through a combination of monetary, in-kind, and approved advertising contributions.

<https://www.onepercentfortheplanet.org/what-we-do/our-approach>

Hyatt spreads out \$65,000 among six groups

By Jon Perez | Posted on May 08 2018
Tag: CNMI, food, Living Independently, people



PIC is MINA's newest Adopt-a-Bin sponsor

By Press Release | Posted on Jun 07 2018

Tag: MINA, Pacific Islands Club, Pak Pak Beach, PIC

Pacific Islands Club, a division of the E-Land Group, recently signed on as a sponsor of the Micronesia Islands Nature Alliance's Adopt-a-Bin program.

A beach cleanup at their designated site at Pak Pak Beach was held in conjunction with the adoption ceremony, followed by a barbecue get-together.



Pacific Islands Club officials and employees conduct a beach cleanup at Pak Pak Beach, followed by a barbecue get-together, after signing on as a sponsor of the Micronesia Islands Nature Alliance's Adopt-a-Bin program. (CONTRIBUTED PHOTO)

Examples

- Following the devastation of Typhoon Sudelor in the CNMI in 2015, the LaoLao Bay Golf & Resort used their van to deliver drinking water and free chainsaw services to residents in the nearby Kagman community. Said management, *"LaoLao Bay Golf & Resort is committed to helping our community, and we will continue to find ways to contribute to the community during this difficult time."*
- In West Maui, Hawaii, the hotel sector united with local community and environmental groups concerned with insufficient wastewater disposal methods and foul odors coming from the treatment plant, and together petitioned the County for better treatment standards and sanitation measures.
- In the extremely arid region of Damaraland, Namibia, Mowani and Kipwe, two luxury resorts, collaborated with the nearby community of Twyfelfontein to locate and drill a new well to supply the needs of the lodge as well as those of the community.



H2. Partner with local entrepreneurs

Hotels and resorts are in a position to promote local businesses directly with the goods and services they use on a regular basis as well as indirectly through front desk or concierge recommendations to guests. Working with local businesses can increase your hotel's credibility as well as keep more money circulating on the island. Joint ventures and partnerships with local businesses can enhance your hotel's tourism offering and increase its uniqueness for guests.

BMP Applications

- ☐ New construction ☐ Renovation
☐ Design ☐ Construction ☒ Operations

Implementation Actions

1. Locally-owned businesses are given access to premises and customers for commercial activity. 🗑️
2. Where appropriate, the organization provides advice and support to local service providers with whom it engages, on the quality and sustainability of their service (e.g., laundry service for hotel linens). 🗑️🗑️
3. Opportunities for joint ventures and partnerships with local entrepreneurs are considered and pursued where appropriate. 🗑️🗑️🗑️

Performance Benchmarks

% of local vendors and subcontractor businesses utilized of the total \$ amount spent on purchasing

Basic Practice: 5% of vendors and subcontractors used are local

Better Practice: 6-10% of vendors and subcontractors used are local;

Best Practice: >10% of vendors and subcontractors used are local

Implementation Resources

- There is a growing trend among hotels to contract out services, such as: housekeeping, landscape maintenance, and linen services. Begin by looking at your hotel's regular operations. Are there potential needs that could be fulfilled by contracting with local companies? Next look for the ancillary support services utilized by your operation. These include services like taxis and shuttles, airport welcome services, guided tour bookings and the like.
- Many times there are local providers of these services available, and working with them to create a viable offering for the hotel operation can increase local participation.

Considerations

- Visitors consistently report a more fulfilling experience when there are opportunities to venture beyond the confines of the resort and experience local culture.
- Using local tour guides and taxis provides a 'personal touch' to an experience that many of today's visitors are seeking.
- Opportunities to highlight local products are endless.

Remember what is considered commonplace in the Northern Marianas, may be exciting and new to visitors from other countries.

- Excursions can be tailored to encourage repeat visits from guests by introducing them to other sites and showing that there is more to be seen on future visits.
- Hotels can enable tourists to buy directly from craft producers or farmers for an authentic souvenir or dining experience.
- Developing business partnerships with the local community can be challenging and requires a high degree of organization. The goal is to engage with and support local people, meet market needs, maintain high quality of service, and meet health and safety requirements.
- Training for local suppliers of crafts, tours, and other services is essential. Hotels can provide on the job training in areas like customer relations, business management, health and safety, etc.
- Hotels need to update vendors regularly of changes in needs, issues as they arise, as small businesses are often need more time to respond to changing demands.

Examples

- **Lobby Craft Fairs:** Throughout the Pacific region, many hotels are arranging local craft markets that are conducted on the hotel property. This allows hotels to regulate the quantity and quality of what's on offer, and allows local business access to new customers looking for a unique item.
- **Use Local Suppliers:** Using local suppliers can be a great way to differentiate your business. The Fork and Salad Restaurant chain in Hawai'i (<https://forkandsaladmaui.com/>) has a defined mission to "...redefine the possibilities of farm-to-table cuisine – as healthy, quick, convenient and affordable, so it can be enjoyed every day by everyone. In doing so, we will effectively support local farmers, ranchers and fishermen..."





H3. Promote local employment

Employment of local community members is often the greatest economic impact a hotel or resort can have on the surrounding community. Job opportunities provide direct economic benefits to households living near a hotel or resort. In rural areas with limited economic prospects, a major employer like a hotel or resort can dramatically improve the lives of residents and help to alleviate poverty in the region. However, employment without the requisite training or skills development is not sustainable over the long term, and all too often local residents are relegated to the lowest paying tiers of employment within a tourism operation (Yunis, 2009).

In the CNMI, most hotels and resorts rely heavily on the one year 'Transitional Worker' (C-1) visa program to fulfill their workforce needs¹. This creates a disincentive for hotels to invest in building up the local workforce. However, a Human Resources Manager at one Saipan hotel explained: *"We have hardly any [temporary] workers, and we aren't worried if it [the C-1 program] gets renewed or not. We have a relationship with the schools, and train locals. Sure, some of them move off to Guam or seek other opportunities, but a lot of them stay here. We give them a long term career path if they want it. Also, high turnover and retraining costs offset any real savings realized by using those [temporary or transient] workers."*

¹ On July 24, 2018, the Northern Mariana Islands U.S. Workforce Act of 2018, extended the CW-1 program through Dec. 31, 2029.

BMP Applications

- ☐ New construction ☐ Renovation
- ☐ Design ☐ Construction ☒ Operations

Implementation Actions

1. The number of employees that are residents of the local community is measured and documented (in management positions and otherwise). 🗑️
2. The organization encourages local employment by working with technical schools, high schools, and colleges to provide internships, job training, and mentorships. 🗑️
3. Local residents are provided with a living wage, benefits, and a long term career path if desired. 🗑️

Performance Benchmarks

% of local employees and local managers

Basic Practice: 30% of employees are local (minimum required by law); and similar % of locals in management positions

Better Practice: 31-50% local employees; with similar % of locals in management position

Best Practice: >50% local employees; more than half of managers are local

Implementation Resources

- Latte Training Academy: <http://lattetrainingacademy.com/hotel-hospitality.html>
- Island Training Solutions: <http://www.its-arenovski.com/home.html>
- Northern Marianas College hospitality program: <https://www.marianas.edu/index.php>
- Northern Marianas Trades Institute: <http://nmticnmi.org/>

Considerations

- More local residents employed translates to more economic benefits for the community.
- Local residents with good stable long term jobs are a hotel's best advocates.
- Partnerships with technical schools, on the job training, internships, and job shadowing programs ensure a steady pipeline of quality employees ready to fulfill an operation's staffing needs.
- A steady long term stable and diverse workforce can buffer a hotel or resort from the ups and downs of seasonality and economic downturn.
- Local employees are already familiar with 'island life'. This can reduce the all too common turnover from new employees moving to the islands for a job only to find out that they're not suited to the lifestyle.



- Local residents may require additional skills and training to be able to meet job requirements.
- Higher wages and better benefits may need to be offered to encourage retention of local resident employees.
- Working with technical schools and increased onboarding and training costs, makes retaining employees over the long term more important for the investment to pay off.
- Retaining employees during an economic or seasonal downturn can be a significant challenge.

Example

Aqua Resort in Saipan works closely with the Northern Marianas Trades Institute (NMTI) to help fill new positions at the resort. They also host interns from NMTI. Aqua Resort's Facilities and Landscape Manager, conducts a rigorous in house training program, to as he says: *"Make sure everybody is doing things safely and the right way."*

Testimonial

"We hire locally because living on an island takes a unique personality and temperament. We want to avoid employees that are coming here for an unrealistic experience, thinking that their everyday life will be just like the two week vacation they spent here before. It's always better to have local folks with long term local ties to the island if possible." --Hiring Manager for a major hotel in Maui



H4. Provide living wages and clean and safe working conditions

It is important for a hotel to provide decent wages, healthcare, social security, and safe and sanitary working conditions. Wages should be commensurate with the cost of living in the Northern Mariana Islands. Long-term retention of employees should be a goal for hotels and over reliance on seasonal or short term employees is not sustainable over the long run. Each time an employee leaves, ask why they are leaving. Are they seeking better working conditions? Higher pay? More flexibility in their work schedule? While employees move on for a variety of reasons, many having nothing to do with satisfaction with their employer, and valuable insight can be gained by conducting exit interviews. Providing an attractive place to work with good wages and benefits will invariably draw talented and dedicated employees to your organization and increase the overall satisfaction of your customers as people who enjoy their jobs are much more likely to reflect that enjoyment in their customer relations.

BMP Applications

- ☐ New construction ☐ Renovation
☐ Design ☐ Construction ☒ Operations

Implementation Actions

1. Wage levels are monitored and regularly reviewed against national and regional norms for a living wage. 🗑️
2. Employee contracts show support for healthcare and social security. 🗑️

3. Water, sanitation and hygiene facilities are provided for all onsite workers. 🗑️
4. Employee housing/barracks and/or temporary housing meets federal Department of Housing and Urban Development (HUD) standards. 🗑️
5. Employee documents, including those related to workplace safety and environmental stewardship, are clearly posted in English and other languages spoken by employees. 🗑️
6. An up-to-date list of all local and federal legal requirements is maintained. 🗑️

Performance Benchmarks

Wage levels compared to living wage norms

Basic Practice: 100% compliance with all worker health and safety laws and wages = living wage

Better Practice: wages \geq 10% above living wage

Best Practice: wages \geq 25% above living wage

Implementation Resources

- Latte Training Academy: <http://lattetrainingacademy.com/hotel-hospitality.html>
- Island Training Solutions: <http://www.its-arenovski.com/home.html>
- Northern Marianas College hospitality program: <https://www.marianas.edu/index.php>
- Northern Marianas Trades Institute: <http://nmticmi.org/>

Considerations

Tips for attracting and keeping great employees:

- Pay a competitive rate and offer benefits.
- Offer ways to make your employees lives easier like (employee commute shuttles, staff meals on site, flexible work hours, etc.).
- Offer discounts for use of hotel amenities for employees and their families.
- Offer a clear pathway for employee advancement.
- Create an employee incentive program. For example, if one staff member in particular is consistently getting positive customer feedback, reward them with a bonus.
- Consider a profit sharing program so that when your operation does well, your employees do well.

Other considerations

- Competitive rates and benefits will attract talented employees to your operation.
- It is often easy to utilize the hotel's existing infrastructure to support employees. Does your company shuttle regularly pick up guests at the airport? Could it also pick up workers in the area or take them home? Do you regularly make bulk food item purchases? Could you add some to the order, and provide staff meals at cost?
- During slow times, it is easy to offer the use of hotel amenities for employees and their families.
- Profit sharing and employee incentives can reward employees for working hard during times of high occupancy, and give them a vested interest in the overall success of your organization.
- Make certain your operation's advancement policies are fair and transparent.
- Provide clear steps, expectations, and milestones for your employees so they know how to advance in the organization.
- Be very clear about how and when incentives and profit sharing will be conducted, and explain the exact conditions that need to be met for their realization.

over a decade has a kind word of encouragement for each of his employees, and he genuinely cares about their wellbeing. *"I make sure they know how to do jobs safely and handle equipment and substances properly... It's my job to keep everyone safe."*

Examples

Employees at Aqua Resort can learn new skills and have long term careers, and this is reflected in the Resort's high employee retention, low turnover, and lack of reliance on transient workers. The engineering supervisor who has been at his job for

2017 Corporate Responsibility Report HUMAN RIGHTS



Hilton

Successful hospitality thrives on the basis of human dignity. We continuously improve our policies, training and practices to drive respect for the Human Rights of everyone involved in our value chain.

RECOGNITION



Voices of Solidarity AWARD

Presented to our CEO Chris Nassetta recognizing Hilton's leadership and commitment to empowering women and advancing Human Rights around the world



RANKED #1 IN OUR INDUSTRY by Forbes and JUST Capital for America's Most Just companies

100%



Rating in the Corporate EQUALITY INDEX by the Human Rights Campaign

TRAINING

Announced the launch of mandatory Human Rights training for all **5,300 HOTELS**

74,000+

Team Members trained on issues of ethics



Developed and launched first-ever training on risks of modern slavery in labor sourcing, mandatory for all General Managers, Human Resources, Procurement, and Directors of Finance in our owned, leased and managed properties, and corporate offices in Europe, Middle East and Africa

H5. Provide equal opportunities and prohibit exploitation and harassment

The workforce demographic of the CNMI is very diverse. Resort developers and operators regularly bring in laborers from overseas. While this practice contributes to a unique vibrant ethnic and cultural mix in the region, it is important that companies and their subcontractors follow U.S. labor standards and practices at all times, provide equal opportunity, and prohibit exploitation and harassment. Workers from other countries and cultures are likely to be unfamiliar with U.S. labor rights concerning worker exploitation and harassment, hours worked, and safe working conditions. Because of this, they are particularly vulnerable to exploitation or unfair treatment. Language and cultural barriers can make it difficult to know if workers are being treated fairly.

Clear and concise policies and zero tolerance of harassment or exploitation is the responsibility of any hotel. The hospitality industry employs a large proportion of women. Further, women make up roughly 70% of the tourism workforce and working in the hospitality sector can boost household incomes substantially. However, less than 20% of women are found in management positions and less than 8% in board member positions (Women in Tourism, 2015). Equal opportunities for women and minorities are essential for any hotel.

BMP Applications

- ☐ New construction ☐ Renovation
☐ Design ☐ Construction ☒ Operations

Implementation Actions

1. The organization has identified groups at risk of discrimination, including women and local minorities. 🏠🏠
2. The organization has a policy and takes steps to ensure equal opportunities for identified minority groups. 🏠🏠
3. The proportion of employees drawn from each of these groups is monitored and is commensurate with local demographics. 🏠🏠
4. Internal promotion includes members of these groups. 🏠🏠
5. The organization has a documented policy against exploitation and harassment of vulnerable groups. 🏠
6. Staff are trained to recognize and report human trafficking and exploitation situations to appropriate authorities. 🏠🏠

Performance Benchmarks

Provide equal opportunities and prohibit exploitation and harassment

Basic Practice: Anti-exploitation and harassment policy in place and zero tolerance; at least one other action implemented

Better Practice: Basic + 2-3 additional actions implemented

Best Practice: Better + all remaining-actions implemented

Implementation Resources

- Oxfam's report on the exploitation of hotel housekeepers:
<https://oxfamlibrary.openrepo>

[sitatory.com/bitstream/handle/10546/620355/rr-tourisms-dirty-secret-171017-en.pdf;jsessionid=307CBE2D3918D7662461410D0A80734E?sequence=1](https://www.sitatory.com/bitstream/handle/10546/620355/rr-tourisms-dirty-secret-171017-en.pdf;jsessionid=307CBE2D3918D7662461410D0A80734E?sequence=1)

- National human trafficking hotline and information: <https://polarisproject.org/>
- 'Hospitality Toolkit' to inform and educate hospitality employees about human trafficking and exploitation: <https://www.dhs.gov/sites/default/files/publications/blue-campaign/toolkits/hospitality-toolkit-eng.pdf>

Considerations

- It is important for a hotel to identify employees vulnerable to harassment or abuse, and have a clear and concise zero tolerance policy.
- The hotel industry must uphold labor rights and the principle of pay equity, and take tangible steps to improve the safety and overall working conditions of their employees. This can range from supplying less toxic cleaning products, to establishing measures to prevent sexual harassment. Hotels should provide housekeepers with regular schedules and predictable work hours, and move towards paying all of their employees a living wage. In no instances should hotels attempt to thwart employee organizing efforts (Oxfam Canada, 2017).

Examples

- Check out Hilton's Human Rights and Inclusivity reports: <https://cr.hilton.com/our-reporting/>
- Housekeepers, in particular, are at high risk of harassment. A survey of 500 Chicago housekeepers by the organization UNITE HERE revealed that 58 percent of housekeepers had been sexually harassed by guests. Housekeepers complain of unwanted sexual advances, accusations of theft, and unclear mechanisms for protection. A number of hotels and several cities in the U.S. are requiring housekeepers to carry 'panic buttons' that they can activate if they feel threatened by a guest in a hotel room.
- The Wyndham Hotel group consists of 7,587 properties in 71 countries of which 7,529 are franchised and 58 are managed. Fifty five percent of the 6,510 full time staff are women, with 45% women in management positions. Respect and diversity are core company values.
- Wyndham creates opportunities for women through a range of programs:

- Mentor Circle gives women access to senior colleagues as mentors.
- WYNternship allows new entrants to gain exposure of a wide variety to short-term opportunities within the company.
- Sponsorship of the national "Women in Leadership" program.
- Women On Their Way, launched in 1995, is the hospitality industry's longest-running branded program dedicated to women travelers. The program focuses on security, privacy and in-room amenities, resulting in a better hotel experience for all travelers.
- Diversity is part of Wyndham's culture, providing a multi-pronged approach to fostering and supporting talented women within the company. They have built consumer focused brand loyalty through tailored experiences. (Source: *Women in Tourism and Hospitality: Unlocking the Potential in the Talent Pool – was produced by the Hospitality Industry Pipeline (HIP) Coalition and launched at the Women in Tourism and Hospitality Forum in Hong Kong on 5 March 2015*).

Hilton's 2017 tracking of female managers.

↑ 57% female
General Managers in Asia Pacific, progressing towards our UN Women's HeForShe Singapore Impact Champion targets

I. Cultural Heritage



Hotels have a role to play in educating visitors about local Chamorro and Carolinian culture and history. The CNMI's cultural heritage differentiates the Marianas from other tropical tourist destinations, and there is an opportunity for the CNMI to engage visitors in a unique experience, while promoting local traditions. The promotion of local culture and traditions often takes a back seat to hotel industry trends. By promoting local culture as part of CNMI's destination management strategy, the Marianas can demonstrate its rich history, while nurturing and encouraging cultural exchange between locals and visitors. The hospitality industry is at the forefront of promoting local cultures, traditional, art, and history as part of CNMI's destination management efforts and "branding."

Hotels can present visitors with their first impressions of the local flavor in hotel lobbies and promoted visitor activities and attractions.



Cultural Heritage BMPs

- I1: Protect cultural heritage
- I2: Accurately portray & represent culture and heritage



11. Protect cultural heritage

The CNMI's local cultural heritage truly creates a unique visitor experience. The history of the Marianas spans back to ancient Chamorro and Carolinian times and incorporates Spanish, German, Japanese, and American influences. The CNMI is rich with natural areas, cultural sites, and artifacts that should be protected to preserve local culture and traditions. Hotels have a role to play in both protecting and celebrating CNMI's local culture and traditions. As part of that role, hotels should highlight local culture as part of visitor/guest attractions. This may include, providing signage and education materials directing visitors to local cultural sites, providing funding to protect local cultural sites, and maintaining or improving culturally-significant sites.

BMP Applications

- ☒ New construction ☒ Renovation
☒ Design ☒ Construction ☒ Operations

Implementation Actions

1. Protect cultural sites and artifacts during construction activities and long-term operations. 🏗️
2. Make and record monetary contributions and in-kind support to the protection of cultural heritage. 💰
3. Maintain or improve access to culturally significant sites. 🚶
4. Provide visual signage to visitors, communicating the importance of cultural resources. 📋

Performance Benchmarks

Protect cultural heritage

Basic Practice: 1-2 actions implemented per year

Better Practice: 3-5 actions implemented per year

Best Practice: >5 actions implemented per year

Implementation Resources

- Some actions and contributions toward protection of cultural heritage or protection of cultural sites may be mandated by law, regulation, or a site-specific permit, while others may be voluntary. Be sure to know when such actions are required to maintain necessary compliance.
- Keep records identifying recipient, amount, and purpose for all monetary and in-kind contributions.
- Hotels can direct guests to many local events planned by the CNMI's Department of Community and Cultural Affairs (DCCA). These events include the annual Flame Tree Festival (<http://www.flametreefestival.com/>), Garapan Street Market, and annual Coconut Festival. For more information and an events calendar, see: <https://www.dcca.gov.mp/>
- The World Tourism Organization defines sustainable tourism as tourism that meets the needs of present tourists and host regions, while protecting and enhancing opportunities for the future of the tourist sector. For more information about the role of

tourism in protecting and promoting local culture, see: www.unwto.org.

- Hotels have the opportunity to promote free attractions! Free local access to all adjacent culturally and historically significant sites should be maintained, including access to public beaches as part of regulatory requirements.
- Hotels can work with MVA to ensure that interpretive signage includes Chamorro and Carolinian languages, in addition to the languages of key visitor groups. All visitors will then be able to understand the message, while providing exposure to local languages.

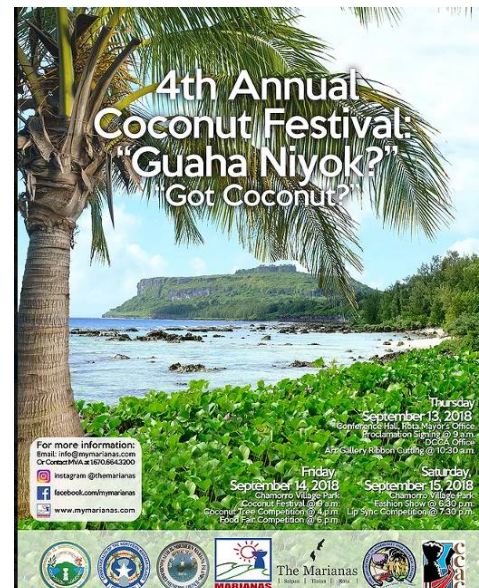
Considerations

- HPO may require protection of cultural sites prior to construction through the DCRM Major Siting process, which may result in requirements for certain monetary or service contributions, depending on what is worked out through the Major Siting process (NMIAC 15-10-500), though nothing explicitly requires that monetary or in-kind contributions be made.
- DCRM regulations require adequate access be provided to shoreline for all projects (NMIAC 15-10-305). HPO regulations require the issuance of a permit for any projects that would directly or indirectly impact cultural resources (NMIAC 55-10-605), though nothing in these regulations specifically identifies the need to preserve access to areas that are not directly on the project site.
- To prevent tourists from taking or damaging artifacts on display, the Department of Public Safety regulations on damaging/stealing property should apply (Commonwealth

Code 6-1-1411, Commonwealth Code 6-1-1803). The Federal Review Process, Section 106 (36 CFR 800) protects historic properties, which seems to include artifacts, as long as those properties are eligible for inclusion on the National Register.

Examples

In Hawaii, Starwood hotels promote an “Events with Aloha” program which provides an opportunity for groups to participate in a variety of locally based volunteer efforts that promote connections with and support of Hawaii’s culture and natural resources. At Starwood hotels in Hawaii, visitors and guest can participate in conservation activities, which are at the center of Hawaiian culture. (HI Hotel Stewardship Guide).





I2. Accurately portray and represent cultural heritage

Accurate portrayal of CNMI culture and history will promote a sense of place and draw tourists to the CNMI to learn about the traditions of local people. Often times, the CNMI hotel industry depicts Polynesian culture in architectural design and visitors' attractions (e.g., dance shows) rather than CNMI culture. This may be due, in part, to the availability of Polynesian décor and costumes or perhaps due to a perception that the visitors have specific expectations to see Polynesian influences. While the promotion of a shared Pacific cultural identity presents some benefits, it is the local Chamorro and Carolinian cultures and histories that set the CNMI apart from other Pacific tourist destinations. Hotels should implement programs, activities, and signage that accurately portray CNMI culture through décor, interior design, and recreational offerings. In addition, hotels can consider displaying local artifacts as on-site attractions for guests.

BMP Applications

☒ New construction ☒ Renovation
☒ Design ☒ Construction ☒ Operations

Implementation Actions

1. Utilize local Chamorro and Carolinian cultural practitioners within hotels operations, such as local dance troupes, craftsmen, artists, and chefs. 🏺🏺

2. Seek out and incorporate the views of the local community on the presentation of local cultural heritage and décor. Accurately portray local cultural motifs in interior design. 🏺🏺
3. Hire local artists and craftsmen for a portion of the building's interior decoration. 🏺🏺
4. Prohibit the use and sale of rare, protected, and/or banned artifacts. 🏺
5. Document and report the onsite display of artifacts to relevant local agencies, maintaining compliance with local regulations for such use. 🏺

Performance Benchmarks

Accurately portray and represent cultural heritage

Basic Practice: 1-2 actions implemented per year

Better Practice: 3-5 actions implemented per year

Best Practice: >5 actions implemented per year

Implementation Resources

- To ensure that representations of local culture are accurate portrayals, local experts should be consulted.
- Hotels can leverage ongoing efforts through DCCA, Northern Marianas College and Trades Institute, local high schools, etc. to hire local dance troupes, craftsmen, artists, and chefs.
- Artifacts can be displayed in hotel lobbies, restaurants, conference rooms, and guest rooms to illustrate the culture and history of the CNMI to

visitors and guests. When incorporated, all CNMI artifacts in displays should be properly documented and secured in accordance with local regulations. Furthermore, care should be taken to ensure that visitors are mindful of the artifacts' cultural and historical significance and the importance of their preservation.

- All displayed artifacts should be properly documented and reported to relevant agencies to ensure compliance with relevant regulations.
- For examples on how some hotels in Hawaii have incorporated local culture and history into activities, see the Hawaii Hotel Reef Stewardship Guide: <https://coral.org/hotelstewardship/>.
- A 2015 study of hotel operations in Northern Thailand found that by integrating local paintings, sculptures, architecture, literature, music and dance, Buddhist necessities of life (food, accommodation, clothing and medicine), beliefs, customs and ceremonies into hotel décor and activities, additional hotel revenue was generated. <http://www.apjmr.com/wp-content/uploads/2015/08/APJMR-2015-3-3-004-Integration-of-art-and-culture-to-develop-the-hotel-business.pdf>

Considerations

- HPO According to the 2012 Tourism Master Plan commissioned by the Marianas Visitors Authority, visitors of various nationalities indicated that they would like to see and learn more about the local culture. Any new implementation of cultural displays, shows, and artifacts could be a selling point to attract potential new visitors.



Disc beads made from the Spondylus (spiny or thorny oyster) were used as ornaments by the ancient Chamorros of the Marianas. Source: <http://beachcomberonsaipan.blogspot.com>

- It may be expensive to incorporate local culture, art, and historical artifacts all at once. Consider adding local cultural artifacts and art to hotel décor as renovations occur. In addition, hotels can work with MVA to direct guests to local attractions that promote CNMI culture, history, and traditions.
- Guests can learn about CNMI culture and history on site at hotel properties rather than directing guests to other attractions, potentially offsetting the costs associated with maintaining and securing the display.

Examples

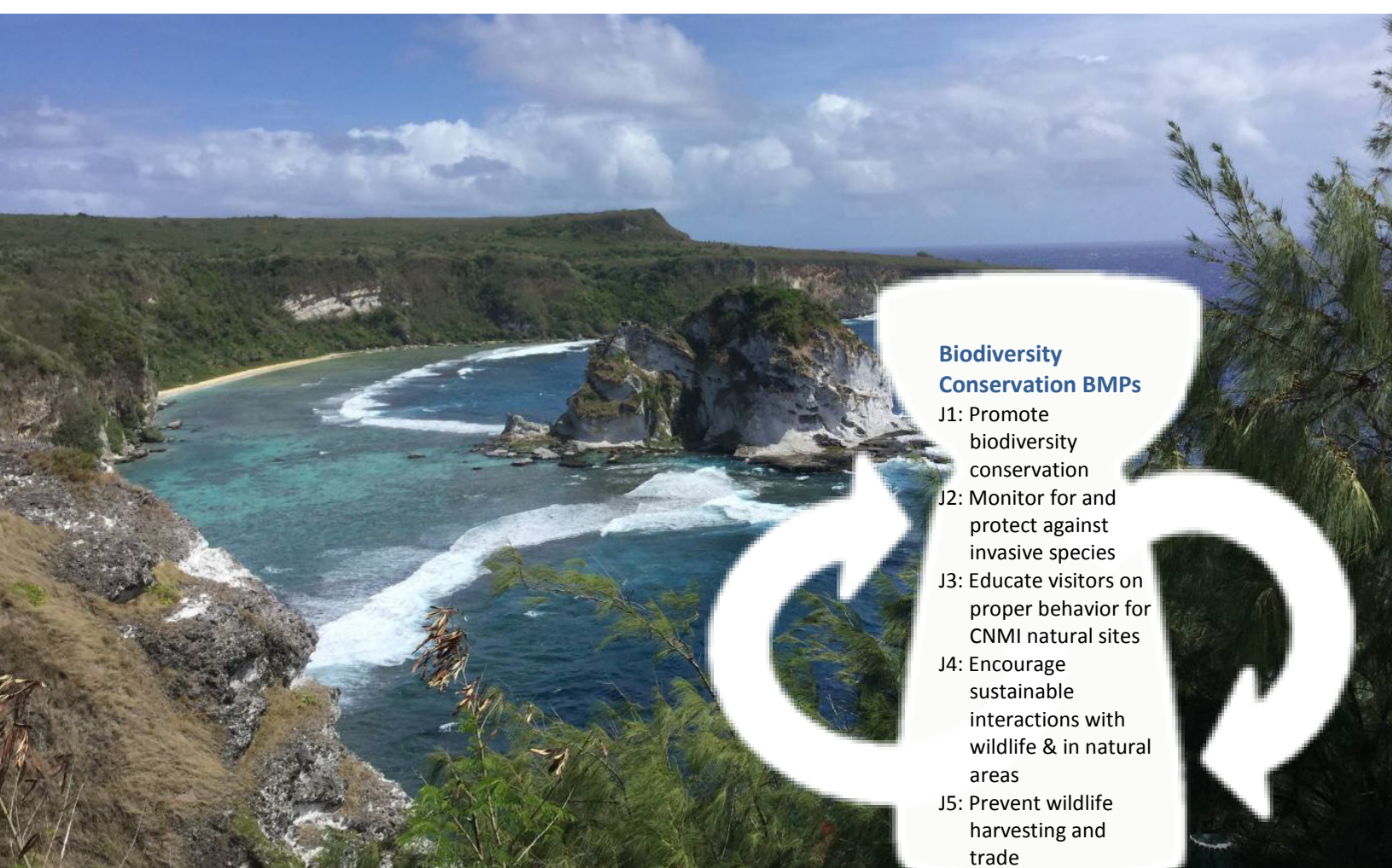
- "Twilight at Kalahuipaa," at the Mauna Lani Resort on Hawaii's Big Island, occurs once a month, at sunset. Locals and guests gather to 'talk story' beside a series of ancient fish ponds on the resort grounds. The event is not formal or programmed. People talk, tell stories, and play music. (*Travel and Leisure Magazine*).
- At Surfrider Resort and Aqua Resort in Saipan, Latte' Stones are incorporated into the buildings' architecture.
- At Pacific Islands Club Saipan local and historical art is displayed in its lobby.

J. Biodiversity Conservation



The natural beauty of the CNMI is one of main reasons that visitors choose it as a tourist destination. In addition, natural and historic sites are heavily used by residents for recreation, sustenance, income, and cultural practices. Protecting and enhancing the natural areas and wildlife that call the CNMI home ensures that visitors and residents can enjoy the beauty that the CNMI has to offer for generations to come. The land and waters of the CNMI are incredibly diverse and provide homes and feeding grounds to many ecologically, economically, and culturally important fish, invertebrates, plants, birds, and other organisms as well as sensitive and threatened species of seagrass, coral, and sea turtles. Ensuring that human actions protect the integrity of the natural systems will bring visitors

back to the CNMI and allow residents to enjoy the beautiful flora and fauna. More than the aesthetic beauty – corals and seagrass reduce wave energy during storm events and keep beaches from washing away. If protected, these natural defense systems have the power to reduce coastal shoreline erosion and flooding. By educating hotel guests and working with local conservation organizations and governmental agencies, hotels can promote biodiversity conservation efforts throughout the CNMI.



Biodiversity Conservation BMPs

- J1: Promote biodiversity conservation
- J2: Monitor for and protect against invasive species
- J3: Educate visitors on proper behavior for CNMI natural sites
- J4: Encourage sustainable interactions with wildlife & in natural areas
- J5: Prevent wildlife harvesting and trade



J1. Promote Biodiversity Conservation

Like many island states, tourism is a major source of economic development in the CNMI. The Global Sustainable Tourism Council (GTSC) Criteria serve as basic guidelines for businesses, organizations and destinations that wish to address sustainability issues in the travel and tourism industry. The GTSC criteria and other industry standards provided a baseline for the BMPs in this Manual, which encourage hotels and other organizations to maximize benefits to the environment and minimize negative impacts.

Tourism businesses, such as hotels, should preserve natural ecosystems, protect wildlife species and contribute to biodiversity conservation. Not doing so can impact a hotel's bottom line by harming the natural environment that tourists pay money to enjoy. Findings from a 2015 study by the European Network of for Sustainable Tourism Development (ECOTRANS), indicate that nature protection and biodiversity can be strengthened by taking specific actions, to address the shortcomings of standard environmental management programs and Corporate Social Responsibility (CSR) initiatives.

Implementation actions can mitigate impacts such as environmental damage, habitat loss, harm to wildlife, and the spread of invasive species. Actions can come in the form of monetary support for mitigation efforts such as payment for wetland restoration. Support can also be in-kind; meaning that

for example, hotel staff could volunteer regularly at events that promote sustainability or serve on the boards of conservation and nonprofit organizations such as MVA, HANMI, or MINA, for example. Alternatively, hotels can host events for these organizations at a discounted rate or for free.

BMP Applications

☐ New construction ☐ Renovation
☐ Design ☐ Construction ☒ Operations

Implementation Actions

1. The property is actively managed to support biodiversity conservation through a site management plan. 🌳🌳
2. Demonstrate awareness of natural protected areas and areas of high biodiversity value, and provide and record monetary support for biodiversity conservation in the area to a local conservation organization such as the Micronesia Islands Nature Alliance (MINA). 🌳
3. Provide and record in-kind or other support for biodiversity conservation in the local area. 🌳
4. Demonstrate awareness and mitigate activities with potential to disturb wildlife and habitats. Compensation is made where any disturbance has occurred. 🌳
5. Visitors/guests are encouraged to support biodiversity conservation. 🌳
6. Engage with local conservation NGOs, such as MINA. 🌳

Performance Benchmarks

Promote biodiversity conservation

Basic Practice: Visitors are encouraged to support biodiversity; hotel provides in kind support to conservation organizations; Compensation is made where any disturbance has occurred.

Better Practice: Visitors are given guidance to support biodiversity; hotel provides monetary compensation to conservation organizations; No disturbance to wildlife and habitats.

Best Practice: Better+ hotel staff volunteer when needed; Hotel actively manages the property to support biodiversity through a site management plan.

Implementation Resources

- MVA's Marianas Tour Guide/Operators Manual includes guidance on CNMI's natural sites and their cultural and ecological importance, as well as information on natural site accessibility. <https://mymarianas.co/about-us/tour-guide-certification-program/>
- MINA manages a variety of programs that promote biodiversity conservation and environmental management. <http://www.minapacific.org/sec.asp?secID=30>
- The International Hotel and Restaurant Association (IHRA) developed videos and reports on actions that hotels can implement to promote biodiversity, including hotel testimonials. <http://www.ih-ra.org/sustainability-biodiversity.php>
- Find information on constructing and operating biodiversity-friendly hotels, <https://portals.iucn.org/library/sites/library/files/documents/2012-018.pdf>
- Case study examples and strategies for integrating biodiversity into Corporate Social Responsibility (CSR) processes in tourism, <https://destinet.eu/who-who/civil-society-ngos/ecotrans/publications/integration-biodiversity-csr-processes-tourism>.

Considerations

- Promoting biodiversity is marketable to environmentally-conscious guests and tourists.
- Some actions, like developing signage that asks guests to protect the environment and native species of the CNMI, are low cost and low effort.

- Destinations rich in biodiversity are attractive places, appeal to quality customers, and offer scope for biodiversity-based recreational activities.
- Employee morale can improve, as well as employees' sense of responsibility to the environment. This may increase employee productivity and loyalty, and reduce staff turnover.
- Efforts to promote biodiversity demonstrate that a hotel cares about the environment and runs a responsible business. This may lead to increased support from government, staff and local communities (IHRA).
- Donating money to local conservation organizations or paying for mitigation measures may not be in the "business as usual" hotel operating budget and may require conversations with hotel franchise management or owners.
- Explain that these actions can actually lower costs. According to the IHRA, good biodiversity practices can actually lower a hotel's operating costs, by reducing expenses for resource procurement, usage and disposal. Implementing biodiversity conservation practices may also attract socially conscious investors want to be sure that their funds are invested in businesses that have good environmental records.
- A hotel or resort need not have an endangered species living on site to promote biodiversity

conservation. Managing a hotel property for the unique flora and fauna of the region may be simple as providing a suitable habitat such as a bird house or by planting a native tree or shrub. Learn about the unique plants and animals in your area to find out ways to encourage them safely to live on your property.

Examples

- Numerous hotels in the CNMI participate in MINA's Adopt-A-Bin program which promotes organized trash and recycling operations. In addition, some CNMI hotel staff have participated in beach cleanups to ensure that human-created trash does not end up in CNMI waters, beaches, or parks.
- Hotels have also provided in-kind donations to nongovernmental organizations and nonprofit groups. For example, in May 2018, Hyatt donated \$65,000 to Make-A-Wish Foundation Guam & CNMI received \$15,000, Center for Living Independently in the CNMI, Dandan Middle School STEM and Garden Club, Saipan Paddling Club, Salvation Army, and 670 Sonics.
- The hotels in the Kapalua Resort on Maui share their beachfront location with the island's largest nesting colony of endangered wedge tailed shearwaters. The Kapalua Coast Trail traverses this sensitive nesting ground, and in partnership with conservation experts, the hotels help maintain the habitat for the birds and allow guests to enjoy the ocean cliff walk by:
 - Educating guests with signage and brochures about the bird's importance
 - Planting native plants and shrubs to revegetate the nesting sites
 - Placing signs and delineating walking pathways so visitors stay on the trail to avoid trampling nesting burrows.
 - Trapping feral cats and mongoose that may harm nesting birds and fledglings.
 - Inviting guests to participate in conservation activities such as bird banding and counting events



Photo Source: Maui Nui Sea Bird Recovery Project

SAVE THE FANIHI!
 If Not for Us... Then for Our Children!



REWARD

Federal, CNMI and Guam officials are investigating the poaching of the fanihi, and a reward of up to \$1,000 is being offered by the Federal government for information leading to the arrest and/or conviction of the person or persons responsible. Anyone with information about the illegal killing and sale of fruit bats is asked to call the US Fish and Wildlife Service's law enforcement office at either (670) 233-0938 or (671) 647-6067. You may also call the US Attorney's Office in Saipan at (670) 236-2980.

WHAT CAN YOU DO?

- Please do not kill or eat the fanihi.
- Help protect fanihi colonies by reporting any illegal activities that affect the animals and their habitat.
- Volunteer with your local natural resource agency to help protect the fanihi.





J2. Monitor for and protect against invasive species

By design, hotels in the CNMI are adorned with natural landscapes, providing habitat for many plants and animals. It is important to ensure that those landscapes support and promote native, endemic, or indigenous species of plants and wildlife and discourage the presence and growth of invasive species. The coconut rhinoceros beetle (*Oryctes rhinoceros*), siam weed (*Chromolaena odorata*), little fire ant (*Wasmannia auropunctata*), and ivy gourd – all invasive, now inhabit the CNMI and threaten native and noninvasive species. If uncontrolled invasive plant species can kill other plant species, cause fires (e.g., fire-adaptive leaves), alter habitat through erosion and negatively impact coral reefs and other surrounding aquatic habitats. Hotels can implement BMPs to monitor for the presence of invasive species and take actions to ensure that invasives are not transported in plant materials for hotel landscaping. Preventing invasives from spreading is the most sustainable option.

In addition to invasive plant species management, the CNMI implements wildlife management programs to combat a number of invasive wildlife species, such as invasive brown tree snake, which depleted Guam's local birds and lizards, causing major habitat impacts. The brown tree snake has eliminated 10 of the 12 bird species native to Guam, including a kingfisher that can't be found anywhere else on Earth. Other invasive animals include rats, cats and non-native birds.

BMP Applications

- ☐ New construction ☐ Renovation
☐ Design ☐ Construction ☒ Operations

Implementation Actions

1. Monitor for presence of any invasive species. This may include implementing a regular monitoring schedule and development of a list of common invasives in the CNMI with pictures to assist hotel staff in identifying invasive species. 📷
2. Action is taken to ensure invasive species are not introduced or spread, such as through imported plant material for landscaping. This may include implementing a checklist to ensure that typical/common invasive species are not brought onto hotel property with landscaping materials. Hotels may also require that native species are used for landscaping and restoration wherever feasible, particularly in natural landscapes.



Performance Benchmarks

Monitor for and protect against invasive species

Basic Practice: Monitoring is done ad hoc and invasives are removed when noticed.

Better Practice: A monitoring schedule is in place and invasive species removal procedures are documented and followed.

Best Practice: Better + Hotel staff are regularly trained on procedures and BMPs, such as using native species for landscaping and restoration.

Implementation Resources

Implementation Resources

- Partner with local nonprofit organizations to organize volunteers to remove invasive species. Example: Mālama Maunaloa implements strategies to remove and prevent re-growth of Invasive Alien Algae in Maunaloa Bay, Honolulu, HI.
- Access photos and descriptions of native, endemic and indigenous species: CNMI Native Plants of the Mariana Islands, <http://www.cnmi-dfw.com/docs/Native%20Plants%20of%20the%20Mariana%20Islands.pdf>
- The Division of Fish and Wildlife Brown Treesnake Program works to keep the brown treesnake out of the CNMI by creating and managing barriers on Saipan and Tinian. Report any snake sightings immediately, <http://www.cnmi-dfw.com/brown-treesnake.php>
- The NPS *Invasive Plant Field Guide: War in the Pacific National Historic Park* provides guidance on preventing invasive plants from invading native habitats in Pacific National Parks. Also included are photos of possible “look-alike” species to keep in mind. <https://irma.nps.gov/DataStore/DownloadFile/575371>
- USGBC’s Practical Strategies in Green Building: Hotel case studies including cost information related to promoting the use of native species in hotel landscaping. <https://www.usgbc.org/Docs/Archive/General/Docs7760.pdf>
- Native species and CNMI’s plans and programs, CNMI 2015-2015 Wildlife Action Plan: <http://www.cnmi-dfw.com/2015wap/CNMI%20SWAP%202015%20FINAL.pdf>
- Hawaii Hotel Stewardship Guide, <https://coral.org/hotelstewardship/>
- CNMI Permitting BMPs and Site Design, Green Tips: <https://dcrm.gov.mp/wp-content/uploads/crm/Green-tips-7-20-16.pdf>

Considerations

- Monitoring for invasive species can be conducted by maintenance or landscaping staff during other duties – requiring minimal additional staff time.
- Local and nonprofit organizations can help by organizing invasive species “Pulls” to eradicate plant species and monitor for invasive plant and animal species at hotels.
- Using native plants can reduce costs for irrigation as many native species adapt to the CNMI climate.

- If invasives are present, removal should be carefully planned and executed to ensure that biocontrol agents or other procedures are not harmful to the environment and human health. For more specific information on invasive species removal, contact DLNR’s Division of Fish and Wildlife at: (670) 664-6000.

Examples

- Native plants often require less irrigation than non-native plants, reducing water costs. The Courtyard by Marriott in Torrance, CA removed 900 square feet of turf and flower beds, swapping them for native grasses and reduced water use by 15%. In addition to water cost savings, native plant species often reduce other maintenance costs, such as needed fertilizer. (Sources: LA Times, LEED *Practical Strategies in Green Building: Hotels*)
- Guests at Starwood Hotel properties throughout Hawaii can participate in conservation activities that benefit reefs and watersheds, including restoring habitat for native birds, and eradicating invasive plant species.
- At Honokowai Valley, a local restoration organization, Maui Cultural Lands, teaches visitors about the culture and archaeology of the Valley; at one time was a home to thousands of native Hawaiian people. Visitors also learn about the unique traditional taro farming techniques and remove invasive plants.



J3. Educate visitors on proper behavior at CNMI natural sites

Some of the CNMI's most heavily visited areas are natural sites such as the Grotto, Puntan Sabaneta (Banzai Cliff), Kalabera Cave, Laderan Tangke (Last Command Post) and Isleta Maigo Fahang (Bird Island). While these places represent some of the primary reasons tourists visit the CNMI, they also represent some of the most environmentally sensitive and culturally important sites. Since hotels house most of the CNMI's visitors, they have a role to play in management of these destinations.

As many visitors see these natural sites through CNMI tour companies, MVA has created a manual for tour guides, available on the organization's website. At minimum, hotels should be aware of this manual and provide guests with guidance on accessing natural sites in ways that minimize harm to the natural environments. A best practice would be to contract only with tour operators and tour businesses that have the MVA certification. Further, hotels should provide information to guests (e.g., brochures, flyers) about accessibility to natural sites and expected behavior when visiting these sites.

BMP Applications ☐ New construction ☐ Renovation
☐ Design ☐ Construction
☒ Operations

Implementation Actions

1. Demonstrate awareness of, and comply with, existing guidelines for guest visits to natural sites. Clear and accurate information is provided to guests on the level of accessibility

to natural sites and proper behavior for interaction with natural resources in the CNMI. 🗿

2. Utilize only tour companies and guides that are certified through the [MVA tour guide certification program](#). The manual for this program is available on MVA's website and includes information on professional tour guide standards, CNMI geography and geology, Chamorro archeology, a history of the Northern Mariana islands, CNMI flora and fauna, sites of importance and Chamorro and Carolinian Word lists. 🗿
3. Engage with the MVA to help identify issues and develop solutions for visitors to particular sites. 🗿

Performance Benchmarks

Educate visitors

Basic Practice: Provide information on accessibility and proper behavior at CNMI natural sites.

Better Practice: Basic + use MVA-certified tour guides only; provide information on accessibility and proper behavior at CNMI natural sites.

Best Practice: Work with MVA; distribute materials on behavior at CNMI natural sites to all guests at check in.

Implementation Resources

- MVA's Tour Guide/Operators Manual includes guidance on CNMI's natural sites and their cultural and ecological importance, as well as information on natural site accessibility.
<https://mymarianas.co/about-us/tour-guide-certification-program/>

- MINA manages a variety of programs that promote biodiversity conservation and environmental management. <http://www.minapacific.org/sec.asp?secID=30>
- Read about ways that numerous Hawaii Hotels are educating guests and visitors. Hawaii Hotel Stewardship Guide, <https://coral.org/hotelstewardship/>
- The International Hotel and Restaurant Association (IHRA) develops videos and reports on actions that hotels can implement to promote biodiversity, including hotel testimonials. <http://www.ih-ra.org/sustainability-biodiversity.php>
- Hawaii Tour Guide Certification Program, <https://www.hawaiiecotourism.org/get-certified/>
- CNMI Beach Tips: <https://dcrm.gov.mp/wp-content/uploads/crm/Beach-Tips-9-28-16-revised.pdf>

Considerations

- Regular communication between MVA and hotels ensures that new information and tourism trends will be relayed to hotel management.
- Protecting natural sites ensures long term sustainability of those resources and promotes eco-tourism in the CNMI.
- Working with certified tour guide operators ensures that natural sites will be protected and guests will have a clear understand of the sites' value to the CNMI.
- Hotels may currently have relationships with tour guide operators who have not been certified through the MVA

program. However, according to MVA, most tour guides in Saipan have been certified, as of 2018.

Example

In partnership with the Coral Reef Alliance, The Fairmont Kea Lani produced a “Be Reef Responsible” guide for each guestroom within the hotel. The guide encourages guests to explore Maui’s coral reef ecosystem with tips on how to protect and preserve the reef. Guests can also use the guide to identify the Hawaiian fish that are most commonly found in the coral reef fronting the hotel (HI Hotel Stewardship Guide).





(Photo source: Encyclopedia of Life)

J4. Encourage sustainable interactions with wildlife and in natural areas

Some plants and animals play integral roles in keeping the CNMI environment balanced. Removing or harming components of the natural environment can have devastating impacts. Shoreline and marine areas in the CNMI are regulated as “Areas of Particular Concern” by the DCRM in part because these areas are especially prone to heavy use and sensitive to negative impacts. Because tourists frequently visit APCs and other natural areas, hotels have a role to play in the protection of those areas.

Hotels can encourage guests and staff to protect the land and sea by 1) not taking any natural organism (e.g., coral, shells, starfish) 2) not walking on or breaking coral 3) not removing seagrass. Seagrass cannot be removed without a permit from DFW.

In addition, littering is against the law in the CNMI. You can report littering using the Reef Report Application, available on the publications page of the DCRM website. You can also call litter control officers at 664-8500 or DCRM Enforcement at 588-2926. It is also illegal to collect or remove all species of corals (hard reef-building corals, soft corals and stony hydrozoans) from the waters of the CNMI without a license. DFW may issue licenses to collecting coral for scientific research, or to take dead coral for manufacturing calcium carbonate.

The CNMI DFW manages and enforces rules and regulations pertaining to non-commercial fishing and aquatic wildlife management. Additional information can be found on the DFW website: <http://www.cnmi-dfw.com/>.

BMP Applications

☐ New construction ☐ Renovation
☐ Design ☐ Construction ☒ Operations

Implementation Actions

1. Engage with the development and implementation of local codes and guidelines for wildlife interactions, including wildlife viewing, as required, based on advice of marine and terrestrial wildlife experts. 🗑️
2. Prohibit direct interactions with wildlife, in particular feeding, unless specifically sanctioned by internationally accepted standards or guided by independent wildlife expert advice. 🗑️🗑️
3. Regularly monitor impacts on wildlife, and take actions to minimize disturbance to wildlife. 🗑️🗑️
4. Prohibit guests from harvesting wildlife directly from Saipan Lagoon, LaoLao Bay, and other natural areas (sea stars, clams, urchins, etc.) and perform periodic inspections. 🗑️🗑️
5. Guests are informed: “Don’t trash our land, seas, or APCs.” 🗑️

Performance Benchmarks

Encourage sustainable interactions with wildlife in natural areas

Basic Practice: Prohibit guests from harvesting wildlife from natural areas.

Better Practice: Basic + monitor impacts to wildlife on property; make information materials available to guests upon request.

Best Practice: Better + distribute materials to guests at check in; assist regulatory agencies with code development on wildlife protection and human interaction.

Implementation Resources

- Read about ways that numerous Hawaii Hotels are educating guests and visitors. Hawaii Hotel Stewardship Guide, <https://coral.org/hotelstewardship/>
- CNMI Beach Tips, <https://dcrm.gov.mp/wp-content/uploads/crm/Beach-Tips-9-28-16-revised.pdf>
- DCRM Permitting, Reef Report, <https://dcrm.gov.mp/our-programs/enforcement/submit-a-reef-report/>
- CNMI DFW, <http://www.cnmi-dfw.com/>
- Rainforest Alliance, *Guide to Best Practices for Sustainable Tourism in Tropical Forests*, https://ra-training-library.s3.amazonaws.com/tropical_forest_eng.pdf



(Photo source: DCRM Beach Tips)

Considerations

- Implementing sustainable approaches to wildlife management and promoting those to your guests helps to ensure that hotel guests and tourists understand the laws in the CNMI and will avoid legal fees and penalties.
- It is often difficult to prevent hotel guests from certain behaviors, such as taking coral or other natural organisms. Implement visual signage to ensure that tourists who speak different languages can understand the importance of protecting the local wildlife and environment.

Examples

Hilton Waikoloa on the Island of Hawaii has an Ocean Explorers Program for guests; participants receive a reef ID sheet, an underwater camera, coloring books, and a glass bottom boat cruise with onsite watersports company Ocean Sports. The resort has also adopted a wildlife viewing code of conduct and shares it with its guests (Hawaii Hotel Stewardship Guide).



J5. Protect animal welfare

Tourists often enjoy interacting with wildlife. Viewing tropical wild animals is difficult because of their secretive habits and thick forest cover, when away from the coast. Some tourist developments fall into the temptation of keeping some attractive species, in captivity for guests' enjoyment (Rainforest Alliance). Similarly to other island states, the CNMI has tried to offer such amenities at hotels and other locations (e.g., Saipan Zoo).

Currently there are just a few captive animal activities in the CNMI, but that may change in the future. When possible, wild animals should not be kept in captivity to be watched by tourists. Instead, hotels can provide entertaining and educational documentaries and/or reserve some sites where some animal groups can be easily watched without disturbing their vital activities.

If captive wildlife operations exist, they should abide by relevant regulations. Living specimens of protected wildlife species should only be kept by those authorized and suitably equipped to house and care for them.

BMP Applications ☐ New construction
☐ Renovation ☐ Design ☐ Construction
☒ Operations

Implementation Actions

1. Demonstrate awareness of, and comply with, relevant laws and regulations concerning captive wildlife and animal welfare. 🦋

2. Personnel responsible for captive wildlife have appropriate qualifications and experience and are fully licensed. 🦋🦋
3. Conduct regular inspections of conditions, housing, and handling of captive wildlife and domestic animals. 🦋

Performance Benchmarks

Protect animal welfare

Basic Practice: Onsite wildlife are managed according to relevant laws; staff are experienced and/or certified.

Better Practice: Daily and weekly inspections of captive wildlife occur.

Best Practice: No captive wildlife kept on property.

Implementation Resources

- National Geographic, "5 Hotels Doing it Right"
<https://www.nationalgeographic.com/travel/top-10/five-luxury-hotels-sustainable-ecotourism>.
- Learn about ways that hotels promote biodiversity conservation and protect wildlife. Hawaii Hotel Stewardship Guide, <https://coral.org/hotelstewardship/>
- Rainforest Alliance, Guide to Best Practices for Sustainable Tourism in Tropical Forests, https://ra-training-library.s3.amazonaws.com/tropical_forest_eng.pdf

Considerations

- Providing sustainable wildlife interactions can be fun and interesting for guests, drawing people to your hotel and demonstrating that animals are treated sustainably with respect and care.
- If no animals are kept in captivity on site, costs are reduced and those funds can be allocated for other guest entertainment and activities, including conservation awareness programming such as guided ecological (“eco”) tours.
- Operating safe, state-of-the-art facilities for captive wildlife with certified and trained personnel may be costly.
- Many captive animals die soon after being acquired as a consequence of overcrowding, captivity-induced stress, depression, food changes, unsanitary conditions, or diseases transmittable from humans; others may become aggressive and show a decline in reproductive success. Documentaries or videos about special wildlife species can provide hotel guests with educational opportunities and raise awareness about why captive animals are not kept on site.
- Operational costs can be reduced if hotels choose to show videos about local wildlife rather than maintaining facilities to keep animals in captivity.

Examples

Six Senses Luxury Resorts is devoted to sustainability in its hotels, resorts, and spas. More specifically, Six Senses Con Dao and Six Senses Ninh Van Bay in Vietnam hotels implement programs to promote wildlife conservation and protect animals in captivity. Con Dao has partnered with the nearby national park to protect and advance a severely damaged coral reef system. The hotel also operates a turtle sanctuary. At Ninh Van Bay, hotel staff protect a nearby reef and providing education on marine life, while guests experience fantastic swimming and snorkeling (National Geographic). For more information: <http://www.sixsenses.com/>



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Appendix A

Summary of Sustainability Practices and Performance Benchmarks



Sustainable CNMI:

A Manual for Design, Construction, and Operational Practices for the Hotel Sector

Appendix A. Summary of Sustainability Practices and Performance Benchmarks

BMP and Implementation Actions		Performance Benchmarks		
		Basic	Better	Best
A. Sustainable Sites	BMP A1: Avoid development impacts	Impact avoidance and environmental improvement		
	1. Avoid new development in natural or agricultural areas by prioritizing the redevelopment or renovation of existing structures and infill activities. 🌿🌿	New development or redevelopment where impacts are avoided or minimized, and no variances to environmental regulations are needed. Site has not been identified as a priority for environmental or historical/cultural conservation area.	Infill (in urban core) or redevelopment/remodel that meets all regulatory requirements without variances; impacts avoided and conditions improved (e.g., clean up contaminated soils or repair failing sewage lines).	Redevelopment that exceeds all requirements (e.g., wider buffers) and implements climate resiliency measures
	2. Site development avoids flood zones and implements resiliency measures in anticipation of a changing climate. 🌿			
	3. Document all environmental and cultural assets potentially impacted by site development and the decision process to avoid, minimize, and/or mitigate negative effects on those resources. 🌿			
	4. Development complies with all land acquisition, leasing, and zoning regulations; permitting requirements, and resource management plans during all stages of the development process. 🌿			
	5. Exceed regulatory open space or other environmental standard. 🌿🌿			
	BMP A2: Use native landscaping	% of native plants used in landscaping		
	1. Document the pre-development plant community at the site. Avoid disturbing sensitive plant communities. Relocate & reuse native plants that would otherwise be removed during construction. 🌿	10-25% of landscaping consists of native or locally-adapted plants	>25% of landscaping is native or locally-adapted plants; some plants were saved and reused during construction; active invasive species management	>50% of the landscaping consists of native or locally-adapted plants; propagate native species on site
	2. Landscaping plans should replicate native or locally-adapted vegetative communities for habitat benefits and reduced maintenance costs. 🌿			
	3. Manage invasive plant species on site through restoration and prohibition on imports. 🌿🌿			
	4. Integrate native plants into education on historic and cultural uses of plants. 🌿			
	BMP A3: Improve accessibility and connectivity	# of actions implemented		
	1. Public access to the ocean and other amenities is maintained or improved with adequate parking, walkways, restroom and shower facilities, trash and recycling receptacles, etc. 🌿	2 actions implemented	3-4 actions implemented	access or connectivity improved (rather than maintained)
	2. Traditional access to fishing or gathering is protected by the organization and a mechanism is in place to report any loss of access. 🌿			
	3. Reasonable accommodation is afforded to persons with physical disabilities & special needs. 🌿			
	4. Site selection and design maintains or improves connectivity of open space, bike paths, or pedestrian walkways. 🌿🌿			
	BMP A4: Minimize off-site lighting	% light fixtures in compliance with Dark Sky Standards		
	1. Lighting is eliminated along beachfront and sensitive natural areas in accordance with local wildlife management guidelines and/or Dark Sky Standards . 🌿	10-25% of light fixtures in compliance with Dark Sky Standards	26-50%	>50%
	2. All exterior fixtures are shielded (Dark Sky-compliant), and lighting is optimized so that the minimum amount of light needed is attained without excess light spillover. 🌿🌿			
	BMP A5: Reduce heat island effect	% paving and roof with greenscape/reflective area		
	1. Limit the amount of paving on a site and/or use any combination of the strategies listed on the A5 Fact Sheet to reduce heating from site paving. 🌿🌿	10-25% paving and roof with greenscape/reflective area	26-50%	>50%
	2. Use roofing materials with a <i>solar reflectance index (SRI)</i> of at least 29 for steep roofs. For flatter-pitched or vegetated roofs, use roofing materials with an SRI of at least 78. 🌿🌿			

BMP and Implementation Actions		Performance Benchmarks		
		Basic	Better	Best
B. Water Resources	BMP B1: Maximize potable water conservation	Water usage (gallons/person/night)		
	1. All water use is metered, and water use per guest per night is calculated and used as a baseline to improve water use efficiency, reduce costs over time, and track compliance. 📊	Water usage is 125 gallons/person/night or less	Less than 90 gpn	Less than 60 gpn
	2. Goals for reducing water consumption are in place, and measured against this baseline. 📊			
	3. Water efficient fixtures are used when possible (low flow toilets, faucet aerators, low flow showerheads). 📊📊			
	4. Towel and bed linen reuse policy is implemented where guests must ‘opt out’ of participation. 📊			
	5. Staff and guests receive guidance on minimizing water use. 📊			
	6. Potable and non-potable water uses are measured by category (irrigation, golf course, potable, non-potable, etc.). 📊📊			
	7. Leak detection procedures/protocols are performed annually. 📊			
	8. Reverse Osmosis (RO) systems are properly maintained and operating at optimal efficiency. 📊			
	BMP B2: Implement sustainable wastewater treatment practices	% of non potable water use being met with potable water (i.e., flushing toilets/irrigation)		
	1. Potable water use for conveying sewage is reduced through use of water-conserving fixtures (e.g., low flow toilets, waterless urinals, etc.) and/or by using non potable water (e.g., captured rainwater, recycled gray water, or treated wastewater). 📊📊	75% or less of non potable water use met with potable water	50% or less of non potable water use met with potable water	0% of non potable water use met with potable water
	2. Wastewater is disposed via municipal or government-approved treatment system, if available. 📊			
	3. If suitable municipal wastewater treatment is not available, there is a system in place on site to treat wastewater to the highest level possible and ensures that any adverse effects on the local population and the environment are minimized. 📊📊📊			
	4. Educate guests and back-of-house staff about keeping potentially harmful chemicals and substances out of the wastewater stream (e.g., pool backwash, toxic cleaning substances). 📊			
	BMP B3: Restore natural stormwater hydrology	Commitment to implementation		
	1. Minimize erosion of disturbed soils during all phases of construction—from clearing until the site is fully stabilized. 📊	All construction and post-construction stormwater standards met and practices maintained	Exceed stormwater management standards; maintenance records available	Manage additional stormwater generated off-site by others
2. Provide stormwater management for rain events that produce 1.5” inches of stormwater runoff through reuse, evapotranspiration, and/or infiltration. Any off-site discharge must be treated to maximize removal of watershed pollutants of concern. 📊📊				
3. Integrate stormwater management with other site objectives to achieve co-benefits (e.g., reduced pavement, landscaping, education, and cooling). 📊				
4. Conduct long-term operation and maintenance for stormwater infrastructure as outlined in an approved O&M plan. 📊				


















BMP and Implementation Actions		Performance Benchmarks		
		Basic	Better	Best
C. Material Resources and Solid Waste	BMP C1: Encourage sustainable solid waste management practices	a. (For new construction & renovations) CWMP with % of landfill diversion, <u>OR</u> % usage of off-site (pre-fab) construction materials b. (For operations only) Solid Waste Action Plan (SWAP)		
	1. Prior to start of construction, a construction waste management plan (CWMP) must be developed that focuses on onsite recovery, recycling and targets waste diversion from the landfill. Develop CWMP based on DEQ Criteria for Major siting Permit that results in end-of project rates for salvage/recycling of at least 50% by weight of construction and demolition waste. 🍷🍷	a. CWMP meeting 50% landfill diversion by weight, OR use of 50% off-site (pre-fab) construction by cost b. SWAP developed and food waste and recyclables separated and diverted from landfill is tracked	a. CWMP meeting 75% landfill diversion by weight, OR use of 75% off-site (pre-fab) construction by cost b. Basic + cooking oil is reused for power generation	a. CWMP meeting 95% landfill diversion by weight OR, use of 90% off-site (pre-fab) construction by cost b. Better + Guest Solid Waste Tracking (kg/guest/night)
	2. During the design phase for new construction or renovations, use off-site construction methods that reduce material waste such as prefabrication or modular construction of wall, roof, and floor elements. Benchmarks are based on use of off-site construction as a percent of total construction material cost. 🍷🍷🍷			
	3. For ongoing operations a Solid Waste Action Plan (SWAP) is developed and implemented diverting food and recyclable waste from the landfill. 🍷			
	4. The amount of solid waste disposed (at landfill) per guest/night is monitored and managed. Performance benchmarks will be targeted to reduce solid waste from an initial baseline. 🍷🍷			
	BMP C2: Minimize the use of harmful substances	Number of actions implemented		
	1. During new construction or renovations, materials & furnishings that contain low or zero Volatile Organic Compounds (VOC) are sourced whenever possible. Performance benchmark is based on meeting U.S. Green Building Council's (USGBC) Table 1: Applicable VOC Limits . 🍷🍷	Implementation of Action 1 only, VOC Limits	Basic + Action 2 & 3 implemented: Green Cleaning Policy and IPM	All actions implemented
	2. A Green Cleaning Policy is in place, and actions are taken to source environmentally friendly alternatives. (Policy extends to outsourced cleaning services). 🍷			
	3. There is an Integrated Pest Management (IPM) plan for landscape maintenance that minimizes or eliminates the use of chemical pesticides and fertilizers per Pesticide Regs. (CNMI § 65-70). 🍷			
	4. Educate guests about personal use of substances which may be harmful to the local environment (such as toxic sunscreens and insect repellants); items are not sold on premises. 🍷			
	BMP C3: Properly handle, store, and dispose of harmful substances	Number of listed actions implemented		
	1. Maintain a detailed list of harmful substances and corresponding material safety data sheets (MSDS). 🍷	2 of the actions are implemented	3 actions implemented	>3 actions implemented
	2. Chemicals, especially those in bulk amounts, are stored and handled in accordance with appropriate standards. 🍷🍷			
	3. Staff are licensed and/or properly certified to handle harmful substances. 🍷			
	4. There is a 'spill response' protocol, and staff are properly trained in its execution. 🍷🍷			
	BMP C4: Use regional materials & re-use materials	% of materials sourced locally/regionally (% total material costs)		
	1. Construction materials and site furnishings are sourced locally/regionally when possible. 🍷🍷🍷	5-10% of materials sourced locally/regionally	11-20% of materials sourced locally/regionally	>20% of materials sourced locally/regionally
	2. Promote indigenous art and architectural elements. 🍷			

BMP and Implementation Actions		Performance Benchmarks		
		Basic	Better	Best
D. Energy & Global Climate	BMP D1: Maximize energy conservation and energy efficiency practices	Optimize energy conservation & efficiency performance		
	1. One of the best ways to improve energy conservation in buildings is to perform an energy audit for an existing building or building commissioning for new construction. An energy audit is an inspection and analysis of energy use and flows for energy conservation in a building, process, or system with an eye toward reducing energy input without negatively affecting output. Building commissioning ensures that energy related equipment is optimized prior to operation. Audits and commissioning are typically performed by ASHRAE Certified Energy Auditors and AEE Certified Building Commissioning Agents. 🏠	Conduct ASHRAE Level 2 Energy Audit for existing facilities or Building Commissioning for New Construction.	Basic + Energy monitoring/metering system.	Better + Establish Energy Star portfolio with Energy Star Rating > 75
	2. The key to effective energy management is a monitoring and metering program. Building technologies and smart meters can allow energy users, to visualize the impact their energy use can have. Advanced real-time energy metering can help hotel operators save energy by their actions. 🏠🏠🏠			
	3. The organization takes actions to increase energy efficiency through demand-side management strategies and utilizes energy efficient systems (equipment, appliances, lighting, etc.). 🏠🏠			
	4. Goals for reducing energy consumption are in place. 🏠			
	5. Staff and guests are given guidance on minimizing energy use. 🏠			
	BMP D2: Optimize renewable energy performance	% On-site renewable energy generation		
	1. Renewable energy sources are favored and percentage of total energy is offset with on-site renewable energy generation (Solar PV or Wind). 🏠🏠🏠	2 to 4%	5% to 20%	>20% + Real-time Tracking
	2. Real-time renewable energy generation feedback/tracking is available for viewing by staff and guests. 🏠			
	BMP D3: Measure and mitigate greenhouse gases	GHG monitoring, management and % reduction		
	1. The total direct and indirect greenhouse gas emissions are monitored and managed. 🏠🏠	GHG Baseline Developed	Basic + (5 to 10% GHG Reduction)	Basic + (> 10% GHG Reduction) + Carbon Footprint Per Guest/Night monitoring
	2. Carbon Footprint per guest/night is monitored and managed. 🏠			
	3. Actions are taken to avoid and reduce significant annual emissions from all sources controlled by the organization. 🏠			
	4. Carbon offset mechanisms are used where practical and offered to guests (i.e., flight carbon offset). 🏠			
	BMP D4: Encourage sustainable transportation options	Transportation survey & alternative transportation rate		
	1. The organization conducts annual transportation survey, to establish transportation benchmark and understand the transportation needs of its employees and guests. 🏠	Conduct Transportation Survey	Basic + (5 to 20% Alternative Transportation Rate Improvement)	Basic + (> 20% Alternative Transportation Rate Improvement)
	2. Demonstrate an alternative transportation rate improvement over conventional vehicle trips in comparison to survey benchmark. Alternative transportation strategies that contribute to this reduction include human-powered conveyances (e.g. walking or biking), public transit, telecommuting, rideshare options, compressed workweeks, carpools, and green vehicles. 🏠🏠			

BMP and Implementation Actions		Performance Benchmarks		
		Basic	Better	Best
E. Sustainable Management	BMP E1: Create and implement a sustainability management plan	Sustainability management plan & manager position		
	1. A documented sustainability management plan is on file and updated annually. 📄	Sustainability Management Plan Developed	Basic + Sustainability manager responsibilities assigned to staff	Basic + Dedicated Sustainability Manager Position
	2. The organization has a ‘sustainability manager’; a ‘go to’ person who is responsible for sustainability initiatives, and reporting to a Sustainability Dashboard. 📄📄			
	BMP E2: Organize a Green Team	Green team established		
	1. The organization has a dedicated staff “Green Team” with representatives from all departments to discuss sustainability efforts and initiatives. 📄	Green Team Established; Monthly Meetings	Basic + Annual Report	Basic + Weekly meetings + Bi-annual Reporting
	2. The Green Team meets regularly during working hours and sustainability efforts are integrated across departments. 📄			
3. Green Team consistently inputs and reports twice/year and manages Sustainability Dashboard reporting requirements. 📄				
F. Sustainable Purchasing	BMP F1: Encourage Socially and Environmentally Preferable Purchasing	% certified or sustainable products used AND % of “green” alternatives to disposable, non-compostable service items		
	1. A ‘Green purchasing’ policy is in place. 📄	Sustainable Purchasing Policy in place and 25-50% certified or sustainable products; 10-50% use of green service items	Policy and 51 to 75% sustainable products; 51-75% green service items	Policy and >75% sustainable products; >75% use of green service items, and 0% use of plastic or polystyrene
	2. Preference is given to products and suppliers with environmental certification – notably with respect to produce, wood, paper, fish, other foods, & products from natural environments. 📄			
	3. Where certified products and suppliers are not available, consideration is given to the origin and methods of growing or production. 📄📄			
	4. Threatened or otherwise protected species are not used or sold. 📄			
	5. Purchasing and use of consumable and disposable goods are monitored, managed, and favor reusable, returnable, and recycled goods. 📄📄			
	6. Efforts are made to eliminate disposable, single-use service items like polystyrene/Styrofoam, plastic bags, and plastic straws, forks, and knives. 📄📄			
	7. Hotel gift shops make "reef safe" sunscreens and rash guards available to guests for purchase and highlight why use of these materials is better for people and the environment. 📄			
	BMP F2: Encourage Local Purchasing	Cost (\$) of products purchased from local vs. imported sources		
	1. Preference is given to products purchased locally. 📄📄	10-25% local purchasing	26%-50% local purchasing	> 50% local purchasing, and any product available locally is purchased locally
	2. Local produce is purchased whenever possible. 📄			
	3. The organization meets regularly with potential suppliers and keeps them abreast of market demands and changes. 📄			
4. The organization supports supplier cooperative organizations like the CNMI Farmers’ Cooperative Association, and participates in meetings. 📄				

BMP and Implementation Actions		Performance Benchmarks		
		Basic	Better	Best
G. Engagement and Outreach	BMP G1: Communicate sustainability efforts and track user experience	Customer feedback and % guests participating in sustainability initiatives		
	1. Sustainability efforts are regularly and accurately communicated to guests through collateral materials, signage, etc. 📄	Customer feedback tracked and 10-15% of guests participating in sustainability initiatives	Feedback tracked, corrective action taken, and 16-25% participation	Feedback tracked, corrective action taken, additional outreach conducted, and >25% participation
	2. Customer feedback is regularly tracked (through comment cards, surveys, etc.) and corrective actions taken. 📄📄			
	3. Guests are actively engaged in sustainability efforts and invited to participate. 📄📄			
	BMP G2: Promote staff engagement and training	Staff trained and % staff participation in initiatives		
	1. Sustainability training is required for all staff members. 📄📄	GM Trained and 25-50% participation	All department Managers trained and 51-75% participation	All staff trained and 76-100% participation
	2. Training records are kept for all staff, showing the level and frequency of training received. 📄📄			
	3. Trainings and materials are accessible to all staff, and available in multiple languages where needed. 📄📄			
	4. Trainings are tailored to specific departments (housekeeping, landscape managers, front of house, etc.) and staff hold certificates or qualifications in relevant skills/trainings. 📄📄			
	5. Employees are encouraged to participate in sustainability initiatives (e.g., beach cleanups, recycling efforts, tree planting), and are given time during working hours to participate in them. 📄			
	BMP G3: Provide information and interpretive materials	% MVA-certified tour guides and front of house staff trained		
	1. Interpretation of natural and cultural surroundings is provided to all guests, and guests understand appropriate behavior when visiting sites. 📄📄	Use 100% MVA-certified tour guides	26-50% of front of house staff trained +100% MVA-certified tour guides	> 50% of front of house staff trained +100% MVA-certified tour guides
	2. The organizations provide information to guests about safety concerns and appropriate behavior while visiting popular sites (Bird Island, the Grotto, Suicide Cliff, etc.). 📄			
	3. The organization utilizes only tour companies and guides that are certified through the MVA tour guide certification program. 📄			
	4. Front of house staff are trained to answer questions and provide appropriate behavior information to guests. 📄			
	BMP G4: Participate in local destination management activities	Active in destination planning and environmental programs		
	1. The organization participates in local sustainable tourism planning and is a member of the Marianas Visitors Authority (MVA). 📄	Participation and member of MVA	Participation and active member of MVA	Robust participation in planning and MVA membership
	2. The organization participates in local environmental programs (e.g., the ‘Beautify My Marianas’ program and the ‘Adopt a Bin’ program). 📄			

BMP and Implementation Actions		Performance Benchmarks		
		Basic	Better	Best
H. Local Community Support and Human Resources	BMP H1: Provide community services and support	Community communication and support (Community meetings; Total monetary and in-kind contributions as % of gross sales)		
	1. Support the local community through employment opportunities, on the job training, charitable giving, etc. and helps fulfill other needs identified by the community, and the levels and types of contributions are recorded. 🟢🟢🟢	Annual community meetings; 1% contribution	Bi-annual meetings; 1-5% contribution	Monthly meetings; >5%
	2. Engage with the local community in identifying needs and opportunities for support and evaluating their potential benefit/impact. 🟢🟢			
	3. The local community is offered the opportunity to access the organization’s facilities and services provided at a local discount or reduced rate. 🟢			
	4. Monitor impact on the availability of local services and resources (e.g., food, water, energy, healthcare, or sanitation) on the local community and address reductions/negative impacts. 🟢			
	5. A communication feedback or grievance mechanism is in place for local communities. 🟢			
	BMP H2: Partner with local entrepreneurs	% of local vendors and subcontractor businesses utilized		
	1. Locally-owned businesses are given access to premises and customers for commercial activity. 🟢	5% of vendors and subcontractors used	6-10%	>10%
	2. Where appropriate, provide advice and support to local service providers on the quality and sustainability of their service (e.g., laundry service for hotel linens). 🟢			
	3. Opportunities for joint ventures and partnerships with local entrepreneurs are considered and pursued where appropriate. 🟢🟢			
	BMP H3: Promote local employment	% of local employees		
	1. The number of employees that are residents of the local community is measured and documented (in management positions and otherwise). 🟢	30% local employees (minimum required by law); similar % of locals in management positions	31-50% local employees; similar % of locals in management positions	>50% local employees; more than half of managers are local
	2. The organization encourages local employment by working with technical schools, high schools, and colleges to provide internships, job training, and mentorships. 🟢🟢			
	3. Local residents are provided living wage, benefits, and a long term career path if desired. 🟢			
	BMP H4: Provide living wages and clean and safe working conditions	Wage levels compared to living wage norms for CNMI		
	1. Wage levels are regularly reviewed against national/regional living wage norms. 🟢🟢	100% compliance with all worker health and safety laws and wages = living wage	Basic + wages ≥10% above living wage	Basic + wages are ≥25% above living wage
	2. Employee contracts show support for healthcare and social security. 🟢			
	3. Water, sanitation and hygiene facilities are provided for all onsite workers. 🟢🟢			
	4. Employee housing/barracks and/or temporary housing meets federal HUD standards. 🟢🟢			
	H5: Provide equal opportunities and prohibit exploitation and harassment	Anti-exploitation/harassment actions		
	1. Staff are trained to recognize and report human trafficking and exploitation situations to appropriate authorities. 🟢🟢	Anti-exploitation and harassment policy in place and zero tolerance; at least one other action implemented	Basic + 2-3 additional actions implemented	Better + all remaining-actions implemented
	2. Policy and steps taken to ensure equal opportunities for identified minority groups. 🟢🟢			
	3. The proportion of employees drawn from each of these groups is monitored and is commensurate with local demographics. 🟢🟢			
	4. Internal promotion includes members of these groups. 🟢🟢			
	5. Written policy against exploitation and harassment of vulnerable groups. 🟢			
	6. ID groups at risk of discrimination (e.g., women, foreign workers, and indigenous people). 🟢🟢			

BMP and Implementation Actions		Performance Benchmarks		
		Basic	Better	Best
I. Cultural Heritage	BMP I1: Protect Cultural Heritage	# of actions taken annually to protect and promote local culture		
	1. Protect cultural sites and artifacts during construction activities and long-term operations. 	1-2 actions	3-5 actions	>5 actions
	2. Make and record monetary and in-kind contributions to the protection of cultural heritage. 			
	3. Maintain or improve local access to culturally significant sites. 			
	4. Provide signage or materials to visitors, communicating the importance of cultural resources. 			
	BMP I2: Accurately portray and represent culture and heritage	# of culturally relevant actions taken and accurate depictions implemented each year		
	1. Employ or hire local Chamorro and Carolinian cultural practitioners within hotels operations, such as local dance troupes, craftsmen, artists, and chefs. 	1-2 culturally relevant actions taken and accurate depictions implemented each year	3-5 actions	>5 actions
	2. Seek out and incorporate the views of the local community on the presentation of local cultural heritage and décor. Reflect accurate portrayal of local cultural motifs in interior design. 			
	3. Hire local artists and craftsmen for a portion of the building’s interior decoration. 			
	4. Prohibit the use and sale of rare, protected, and/or banned artifacts. 			
	5. Document and report the onsite display of artifacts to relevant local agencies, maintaining compliance with local regulations for such use. 			
J. Biodiversity Conservation	BMP J1: Promote biodiversity conservation	Promote biodiversity		
	1. The property is actively managed to support biodiversity conservation through a site management plan. 	Visitors are encouraged to support biodiversity; hotel provides in kind support to conservation organizations; Compensation is made where any disturbance has occurred.	Visitors are given guidance to support biodiversity; hotel provides monetary compensation to conservation organizations; No disturbance to wildlife and habitats.	Better+ hotel staff volunteers when needed; Hotel actively manages the property to support biodiversity through a site management plan.
	2. Demonstrate awareness of natural protected areas and areas of high biodiversity value, and provide and record monetary support for biodiversity conservation in the area to a local conservation organization such as the Micronesia Islands Nature Alliance (MINA). 			
	3. Provide and record in-kind or other support for biodiversity conservation in the local area. 			
	4. Demonstrate awareness and mitigate activities with potential to disturb wildlife and habitats. Compensation is made where any disturbance has occurred. 			
	5. Visitors/guests are encouraged to support biodiversity conservation through donations to location organizations that support conservation. 			
	6. Engage with local conservation NGOs, such as MINA. 			
	BMP J2: Monitor for and protect against invasive species	Monitor and remove invasives		
	1. Monitor for presence of any invasive species. This may include implementing a regular monitoring schedule and development of a list of common invasives in CNMI with pictures to assist hotel staff in identifying invasive species. 	Monitoring is done ad hoc and invasives are removed when noticed.	A monitoring schedule is place and invasive species removal procedures are documented and followed.	Better+; Hotel staff are regularly trained on procedures and BMPs.
	2. Action is taken to ensure invasive species are not introduced or spread, such as through imported plant material for landscaping. This may include implementing a checklist to ensure that typical/common invasive species are not brought onto hotel property with landscaping materials. Hotels may also require that native species are used for landscaping and restoration wherever feasible, particularly in natural landscapes. 			

BMP and Implementation Actions		Performance Benchmarks		
		Basic	Better	Best
	BMP J3: Educate visitors on proper behavior for CNMI natural sites	Visitor education		
	1. Demonstrate awareness of, and comply with, existing guidelines for guest visits to natural sites. Clear and accurate information is provided to guests on the level of accessibility to natural sites and proper behavior for interaction with natural resources in CNMI. 🗑️🗑️	Provide information on accessibility and proper behavior at CNMI natural sites.	Basic + utilize MVA-certified tour guides only	Work with MVA; distribute materials on behavior at CNMI natural sites to all guests at check in.
	2. Utilize only tour companies and guides that are certified through the MVA tour guide certification program . 🗑️			
	3. Engage with the MVA and DLNR-Parks and Recreation to identify issues and develop solutions for visitors to particular sites. 🗑️🗑️			
	BMP J4: Encourage sustainable interactions with wildlife and in natural areas	Protect wildlife onsite		
	1. Engage with the development and implementation of local codes and guidelines for wildlife interactions, including wildlife viewing, as required, based on advice of marine and terrestrial wildlife experts. 🗑️	Prohibit guests from harvesting wildlife from natural areas.	Basic + monitor impacts to wildlife on property; make information materials available to guests upon request.	Better + distribute materials to guests at check in; assist regulatory agencies with code development on wildlife protection and human interaction.
	2. Prohibit direct interactions with wildlife, in particular feeding, unless specifically sanctioned by internationally accepted standards or guided by independent wildlife expert advice. 🗑️🗑️			
	3. Regularly monitor impacts on wildlife and, take actions to minimize disturbance to wildlife. 🗑️🗑️			
	4. Prohibit guests from harvesting wildlife (sea stars, clams, urchins, etc.) directly from Saipan Lagoon, LaoLao Bay, and other natural areas and perform periodic inspections. 🗑️🗑️			
	5. Guests are informed: “Don’t trash our land, seas, or APCs” 🗑️			
	BMP J5: Protect animal welfare	Regulatory compliance		
	1. Demonstrate awareness of, and comply with, relevant laws and regulations concerning captive wildlife and animal welfare. 🗑️	Onsite wildlife are managed according to relevant laws; staff are experienced and/or certified.	Daily and weekly inspections of captive wildlife occur	No captive wildlife kept on property
	2. Personnel responsible for captive wildlife have appropriate qualifications and experience and are fully licensed. 🗑️🗑️			
	3. Conduct regular inspections of conditions, housing, and handling of captive wildlife and domestic animals. This might include a checklist of conditions at regular intervals: daily and weekly depending on the criteria. 🗑️🗑️			

Relative implementation effort:  Low,  Medium, or  High, based on cost, technical skill, or material availability.

Appendix B

Sustainability Checklist



Sustainable CNMI:

A Manual for Design, Construction, and Operational Practices for the Hotel Sector

Appendix B. Sustainability Submittal Checklist

This checklist is provided to assist Major Siting Permit applicants prepare a complete package of materials documenting compliance with the BMPs described in the 2018 CNMI Hotel Sustainability Manual. It should be submitted with a copy of the completed Performance Tracking Spreadsheet.

Applicant is seeking compliance with:

- ☐ CNMI Sustainable Hotels
- ☐ LEED Certification
- ☐ Global Sustainable Tourism Council Criteria
- ☐ Living Building Challenge
- ☐ Other _____

Contact name:

Applicant has:

- ☐ Achieved the Basic level performance benchmarks (at a minimum) for all 35 BMPs.
- ☐ Has not achieved the Basic level for all BMPs. Documentation is provided as to why the BMP is *not applicable* or document *actions that the applicant is taking* to meet the Basic level performance benchmark.
- ☐ Has surpassed the Basic level of performance for _____ BMPs.

The CNMI Hotel Sustainability Performance Tracking Spreadsheet has been completed.

- ☐ Digital copy
- ☐ Hard copy

Confirm that you are meeting the Basic level of performance for each of the following BMPs (check yes or no). Provide name and or page number of support documentation:

BMP	Yes	No	Name (or page #) of support documents (in addition to tracking spreadsheet)
A. Sustainable Sites			
A1: Avoid development impacts	<input type="checkbox"/>	<input type="checkbox"/>	
A2: Use native landscaping	<input type="checkbox"/>	<input type="checkbox"/>	
A3: Improve accessibility and connectivity	<input type="checkbox"/>	<input type="checkbox"/>	
A4: Minimize off-site lighting	<input type="checkbox"/>	<input type="checkbox"/>	
A5: Reduce heat island effect	<input type="checkbox"/>	<input type="checkbox"/>	
B. Water Resources			
B1: Maximize potable water conservation	<input type="checkbox"/>	<input type="checkbox"/>	
B2: Implement sustainable wastewater treatment practices	<input type="checkbox"/>	<input type="checkbox"/>	
B3: Restore natural stormwater hydrology	<input type="checkbox"/>	<input type="checkbox"/>	
C. Material Resources & Solid Waste			
C1: Encourage sustainable solid waste management practices	<input type="checkbox"/>	<input type="checkbox"/>	
C2: Minimize the use of harmful substances	<input type="checkbox"/>	<input type="checkbox"/>	
C3: Properly handle, store, and dispose of harmful substances	<input type="checkbox"/>	<input type="checkbox"/>	
C4: Use Regional Materials & Re-Use Materials	<input type="checkbox"/>	<input type="checkbox"/>	

D. Energy & Global Climate			
D1: Maximize energy conservation and energy efficiency practices	<input type="checkbox"/>	<input type="checkbox"/>	
D2: Integrate Renewable Energy Systems	<input type="checkbox"/>	<input type="checkbox"/>	
D3: Measure and mitigate greenhouse gases	<input type="checkbox"/>	<input type="checkbox"/>	
D4: Encourage sustainable transportation options	<input type="checkbox"/>	<input type="checkbox"/>	
E. Sustainable Management			
E1: Create and implement a sustainability management plan	<input type="checkbox"/>	<input type="checkbox"/>	
E2: Organize a Green Team	<input type="checkbox"/>	<input type="checkbox"/>	
F. Sustainable Purchasing			
F1: Encourage socially and environmentally preferable purchasing	<input type="checkbox"/>	<input type="checkbox"/>	
F2: Encourage local purchasing	<input type="checkbox"/>	<input type="checkbox"/>	
G. Engagement and Outreach			
G1: Communicate sustainability efforts and track user experience	<input type="checkbox"/>	<input type="checkbox"/>	
G2: Promote staff engagement and training	<input type="checkbox"/>	<input type="checkbox"/>	
G3: Provide information and interpretive materials	<input type="checkbox"/>	<input type="checkbox"/>	
G4: Participate in local destination management activities	<input type="checkbox"/>	<input type="checkbox"/>	
H. Local Community Support and Human Resources			
H1: Provide community services and support	<input type="checkbox"/>	<input type="checkbox"/>	
H2: Partner with local entrepreneurs	<input type="checkbox"/>	<input type="checkbox"/>	
H3: Promote local employment	<input type="checkbox"/>	<input type="checkbox"/>	
H4: Provide living wages and clean and safe working conditions	<input type="checkbox"/>	<input type="checkbox"/>	
H5: Provide equal opportunities and prohibit exploitation and harassment	<input type="checkbox"/>	<input type="checkbox"/>	
I. Cultural Heritage			
I1: Protect cultural heritage	<input type="checkbox"/>	<input type="checkbox"/>	
I2: Accurately portray and represent culture and heritage	<input type="checkbox"/>	<input type="checkbox"/>	
J. Biodiversity Conservation			
J1: Promote biodiversity conservation	<input type="checkbox"/>	<input type="checkbox"/>	
J2: Monitor for and protect against invasive species	<input type="checkbox"/>	<input type="checkbox"/>	
J3: Educate visitors on proper behavior for CNMI natural sites	<input type="checkbox"/>	<input type="checkbox"/>	
J4: Encourage sustainable interactions with wildlife and in natural areas	<input type="checkbox"/>	<input type="checkbox"/>	
J5: Protect animal welfare	<input type="checkbox"/>	<input type="checkbox"/>	

Appendix C

Tracking Spreadsheet

contact BECQ for electronic copy of MicroSoft Excel file



Sustainable CNMI:

A Manual for Design, Construction, and Operational Practices for the Hotel Sector

CNMI Sustainable Hotels Performance Tracking Spreadsheet

DASHBOARD

Hotel Name

Your hotel name here

Last revised

Tracking spreadsheet completed by

Reviewed by

Implementation Stats

Total # BMPs

36

Total # BMPs meeting benchmark:

0

Subset of BMPs at "best" level:

0

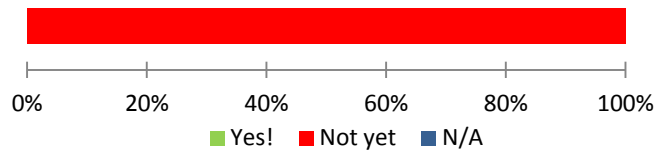
BMPs not yet implemented:

36

BMPs considered not applicable:

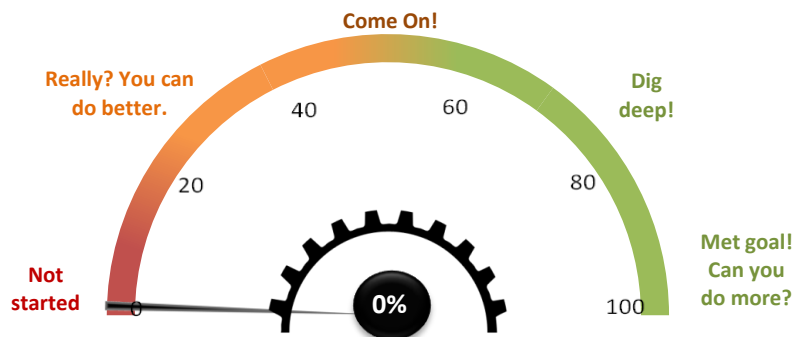
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% BMP Implementation Status

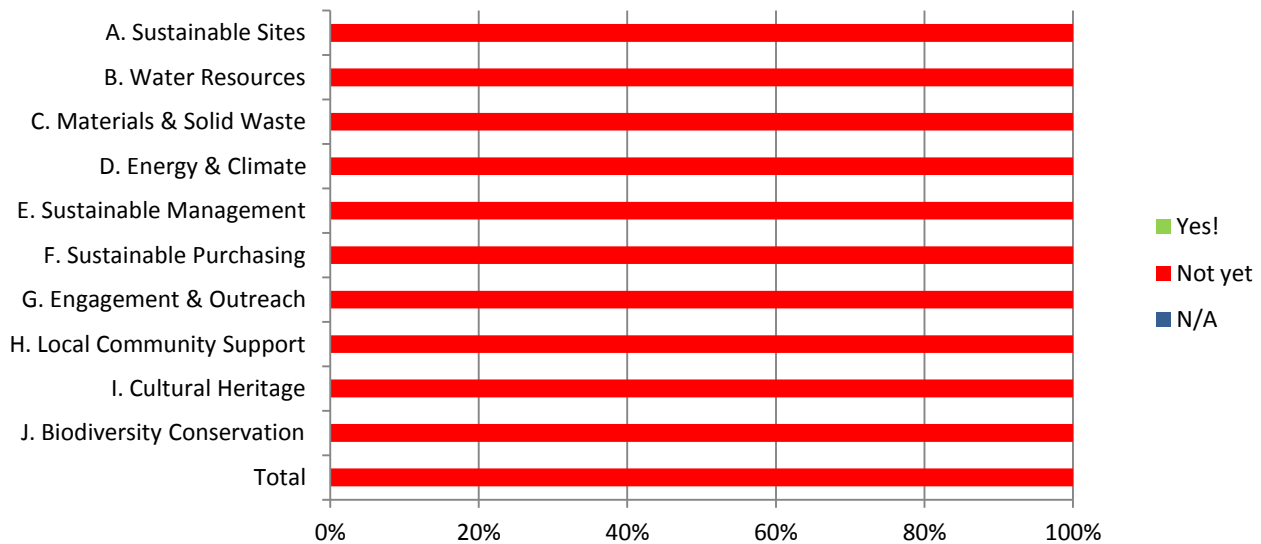


Sustainability Progress Meter

(% progress excludes n/a BMPs)



Sustainability Achievement Summary Chart by BMP Group



A. Sustainable Sites

BMPs

A1: Avoid development impacts

A2: Use native landscaping

A3: Improve Accessibility and Connectivity

A4: Minimize off-site lighting

A5: Minimize heat island

Level

Not yet

Not yet

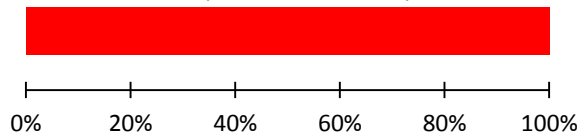
Not yet

Not yet

Not yet

% Sustainable Sites Target Met

(excludes n/a BMPs)



B. Water Resources

BMPs

B1: Maximize potable water conservation

B2: Implement sustainable wastewater treatment practices

B3: Restore natural stormwater hydrology

Level

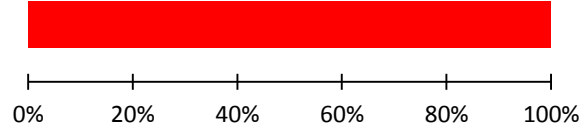
Not yet

Not yet

Not yet

% Water Resources Target Met

(excludes n/a BMPs)



C. Material Resources & Solid Waste

BMPs

C1. Encourage sustainable solid waste management practices

C2. Minimize the use of harmful substances
C3. Properly handle, store, and dispose of harmful substances

C4. Use Regional Materials & Re-use Materials

Level

Not yet

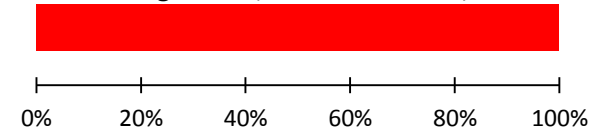
Not yet

Not yet

Not yet

% Materials & Solid Waste Target Met

(excludes n/a BMPs)



D. Energy & Global Climate

BMPs

D1: Maximize energy conservation and efficiency practices

D2: Integrate renewable energy systems

D3: Measure and mitigate greenhouse gases

D4: Encourage sustainable transportation options

Level

Not yet

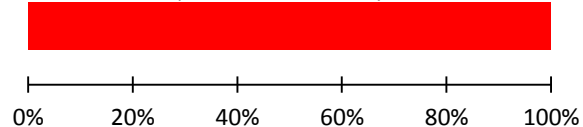
Not yet

Not yet

Not yet

% Energy & Climate Target Met

(excludes n/a BMPs)



E. Sustainable Management

BMPs

E1: Create and implement a sustainability management plan

E2: Organize a Green Team

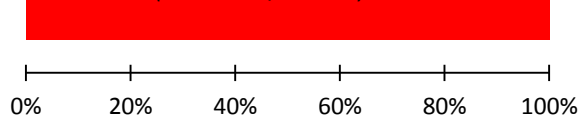
Level

Not yet

Not yet

% Sustainable Mgmt Target Met

(excludes n/a BMPs)



F. Sustainable Purchasing

BMPs

F1: Encourage socially and environmentally preferable purchasing

F2: Encourage local purchasing

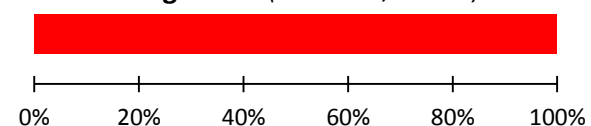
Level

Not yet

Not yet

% Sustainable Purchasing Target Met

(excludes n/a BMPs)



G. Engagement and Outreach

BMPs

G1: Communicate sustainability efforts and track user experience

Level

Not yet

G2: Promote staff engagement and training

Not yet

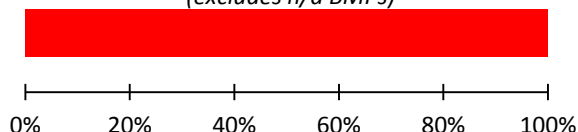
G3: Provide information and interpretive materials

Not yet

G4: Participate in local destination management activities

Not yet

% Engagement & Outreach Target Met (excludes n/a BMPs)



H. Local Community Support and Human Resources

BMPs

H1: Provide community services and support

Level

Not yet

H2: Partner with local entrepreneurs

Not yet

H3: Promote local employment

Not yet

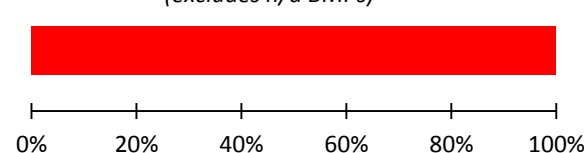
H4: Provide living wages and clean and safe working conditions

Not yet

H5: Provide equal opportunities and prohibit exploitation and harassment

Not yet

% Local Community & Human Resources Target Met (excludes n/a BMPs)



I. Cultural Heritage

BMPs

I1: Protect cultural heritage

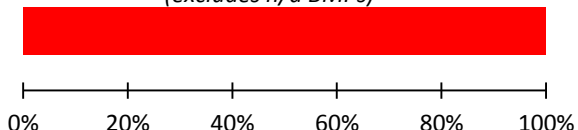
Level

Not yet

I2: Accurately portray and represent culture and heritage

Not yet

% Cultural Heritage Target Met (excludes n/a BMPs)



J. Biodiversity Conservation

BMPs

J1: Promote biodiversity conservation

Level

Not yet

J2: Monitor for and protect against invasive species

Not yet

J3: Educate visitors on proper behavior for CNMI natural sites

Not yet

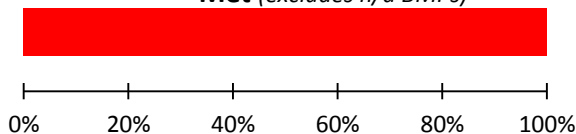
J4: Encourage sustainable interactions with wildlife and in natural areas

Not yet

J5: Protect animal welfare

Not yet

% Biodiversity Conservation Target Met (excludes n/a BMPs)



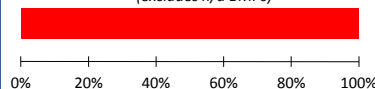
Local Contact Information

Hotel Name: Your hotel name here	Address		Number of Rooms:
Hotel Website	Corporate Ownership (if different than Hotel Name)		
Sustainability Manager (Full Name)	Title	Email	Phone
Other Names (involved in Assessment) 1 2 3	Title	Email	Phone
Wastewater Treatment (on-site or sewer)			
% of electricity purchased from CUC			

A. Sustainable Sites

% Sustainable Sites Target Met

(excludes n/a BMPs)

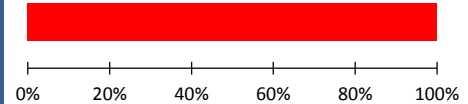


For each BMP, select the level of implementation from the drop down menu (on right), provide a description supporting your selection (yellow box), and check if additional documentation related to the practice implementation is provided/attached. If so, provide the name of the file (yellow box).

BMP	Benchmarks			Implementation Level Achieved
	Basic	Better	Best	
A1: Avoid development impacts	New development or redevelopment where impacts are avoided or minimized, and no variances to environmental regulations are needed. Site has not been identified as a priority for environmental or historical/cultural conservation area.	Urban infill or redevelopment/remodel that meets all regulatory requirements without variances; impacts avoided and conditions improved (e.g., clean contaminated soils, repair sewer lines).	Redevelopment that; exceeds all requirements (e.g., wider buffers) and implements climate resiliency measures.	Not yet
Describe implementation status, actions, or why non-complaint:				
Support document provided: <input type="checkbox"/> no <input type="checkbox"/> yes Filename:				
A2: Use native landscaping	10- 25% of plants used in landscaping, invasives removal	>25% of plants used in landscaping	>50% of used in landscaping	Not yet
Describe implementation status, actions, or why non-complaint:				
Support document provided: <input type="checkbox"/> no <input type="checkbox"/> yes Filename:				
A3: Improve Accessibility and Connectivity	At least 2 actions implemented	3-4 actions implemented	Access or connectivity improved (rather than maintained)	Not yet
Describe implementation status, actions, or why non-complaint:				
Support document provided: <input type="checkbox"/> no <input type="checkbox"/> yes Filename:				
A4: Minimize off-site lighting	10-25% of light fixtures in compliance with Dark Sky Standards	26-50% of light fixtures in compliance with Dark Sky Standards	>50% of light fixtures in compliance with Dark Sky Standards	Not yet
Describe implementation status, actions, or why non-complaint:				
Support document provided: <input type="checkbox"/> no <input type="checkbox"/> yes Filename:				
A5: Minimize heat island	10-25% of paving and roof with greenscape/reflective surfacing	26-50% of paving and roof with greenscape/reflective surfacing	>50% of paving and roof with greenscape/reflective surfacing	Not yet
Describe implementation status, actions, or why non-complaint:				
Support document provided: <input type="checkbox"/> no <input type="checkbox"/> yes Filename:				

B. Water Resources

% Water Resources Target Met
(excludes n/a BMPs)



For each BMP, select the level of implementation from the drop down menu (on right), provide a description supporting your selection (yellow box), and check if additional documentation related to the practice implementation is provided/attached. If so, provide the name of the file (yellow box).

BMP	Benchmarks			Implementation Level Achieved
	Basic	Better	Best	

B1: Maximize potable water conservation

Water usage is 125 gallons/person/night or less

<90 gpn

<60 gpn

Not yet



Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes

Filename:

B2: Implement sustainable wastewater treatment practices

75% or less of non potable water use met with potable water

50% or less of non potable water use met with potable water

0% of non potable water use met with potable water

Not yet



Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes

Filename:

B3: Restore natural stormwater hydrology

Construction and post-construction stormwater standards met and practices maintained

Exceed stormwater management standards; maintenance records available

Manage additional stormwater generated off-site by others

Not yet



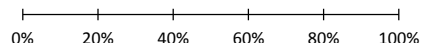
Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes

Filename:

C. Material Resources & Solid Waste

% Materials & Solid Waste
Target Met (excludes n/a BMPs)



For each BMP, select the level of implementation from the drop down menu (on right), provide a description supporting your selection (yellow box), and check if additional documentation related to the practice implementation is provided/attached. If so, provide the name of the file (yellow box).

BMP	Benchmarks			Implementation Level Achieved
	Basic	Better	Best	
C1. Encourage sustainable solid waste management practices	a. (for new construction or renovation) CWMP meets 50% landfill diversion by weight, <u>OR</u> use 50% off-site (pre-fabricated) construction materials by cost. b. (for operations only) SWAP developed and food waste and recyclables separated and diverted from landfill is tracked	a. (for new construction or renovation) CWMP meets 75% landfill diversion by weight, <u>OR</u> use 75% off-site (pre-fabricated) construction materials by cost b. (for operations only) SWAP Implemented, food waste and recyclables separated and diverted from landfill is tracked, and cooking oil is reused for power generation	a. (for new construction or renovation) CWMP meets 95% landfill diversion by weight, <u>OR</u> use 95% off-site (pre-fabricated) construction materials by cost b. (for operations only) Better + Guest Solid Waste Tracking (kg/guest/night)	Not yet ▼

Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes Filename:

C2. Minimize the use of harmful substances

Implementation of Action 1 only, VOC Limits Basic + Action 2 & 3: Green Cleaning Policy and IPM All actions implemented

Not yet ▼

Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes Filename:

C3. Properly handle, store, and dispose of harmful substances

2 actions implemented 3 actions implemented >3 actions implemented

Not yet ▼

Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes Filename:

C4. Use Regional Materials & Re-use Materials

5-10% of materials sourced locally/regionally (%total material cost) 11-20% of materials sourced locally/regionally >20% of materials sourced locally/regionally

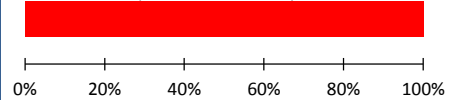
Not yet ▼

Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes Filename:

D. Energy & Global Climate

% Energy & Climate Target Met (excludes n/a BMPs)



For each BMP, select the level of implementation from the drop down menu (on right), provide a description supporting your selection (yellow box), and check if additional documentation related to the practice implementation is provided/attached. If so, provide the name of the file (yellow box).

BMP	Benchmarks			Implementation Level Achieved
	Basic	Better	Best	
D1: Maximize energy conservation and efficiency practices	Conduct ASHRAE Level 2 Energy Audit for existing facilities or Building Commissioning for New Construction.	Basic + Energy monitoring/metering system.	Better + Establish Energy Star portfolio with Energy Star Rating > 75	Not yet ▼

Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes Filename:

D2: Integrate renewable energy systems	2-4% on-site renewable energy generation	5-20%	>20% + Real-time Tracking	Not yet ▼
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Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes Filename:

D3: Measure and mitigate greenhouse gases	GHG Baseline Developed	Basic + (5 to 20% GHG Reduction)	Basic + (> 20% GHG Reduction) + Carbon Footprint Per Guest/Night monitoring	Not yet ▼
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Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes Filename:

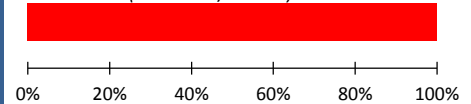
D4: Encourage sustainable transportation options	Conduct Transportation Survey	Basic + (5 to 20% Alternative Transportation Rate Improvement)	Basic + (> 20% Alternative Transportation Rate Improvement)	Not yet ▼
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Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes Filename:

E. Sustainable Management

% Sustainable Mgmt Target Met
(excludes n/a BMPs)



For each BMP, select the level of implementation from the drop down menu (on right), provide a description supporting your selection (yellow box), and check if additional documentation related to the practice implementation is provided/attached. If so, provide the name of the file (yellow box).

BMP	Benchmarks			Implementation Level Achieved
	Basic	Better	Best	
E1: Create and implement a sustainability management plan	Sustainability Management Plan Developed	Basic + Sustainability manager responsibilities assigned to staff.	Basic + Dedicated Sustainability Manager Position	Not yet ▼

Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes Filename:

E2: Organize a Green Team

Green Team Established; Monthly Meetings

Basic + Annual Report

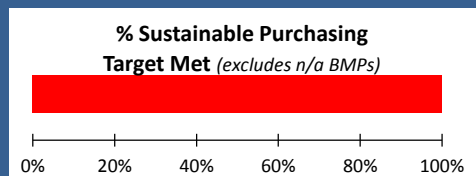
Basic + Weekly meetings + Bi-annual Reporting

Not yet ▼

Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes Filename:

F. Sustainable Purchasing



For each BMP, select the level of implementation from the drop down menu (on right), provide a description supporting your selection (yellow box), and check if additional documentation related to the practice implementation is provided/attached. If so, provide the name of the file (yellow box).

BMP	Benchmarks			Implementation Level Achieved
	Basic	Better	Best	

F1: Encourage socially and environmentally preferable purchasing	Sustainable Purchasing Policy in place and 25-50% certified or sustainable products, AND 10-50% use of green service items (% of disposable, non-compostable services items to green alternatives)	Policy and 51 to 75% sustainable, AND 51-75% green service items	Policy and >75% sustainable, AND >75% use of green items, and no use of plastic or polystyrene	Not yet
	Describe implementation status, actions, or why non-complaint:			

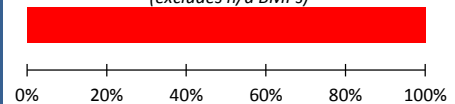
Support document provided: ☐ no ☐ yes Filename:

F2: Encourage local purchasing	10-25% of products purchased from local versus imported sources	26%-50% local purchasing	> 50% local purchasing, and any product available locally is purchased locally	Not yet
	Describe implementation status, actions, or why non-complaint:			

Support document provided: ☐ no ☐ yes Filename:

G. Engagement & Outreach

% Engagement & Outreach Target Met
(excludes n/a BMPs)



For each BMP, select the level of implementation from the drop down menu (on right), provide a description supporting your selection (yellow box), and check if additional documentation related to the practice implementation is provided/attached. If so, provide the name of the file (yellow box).

BMP	Benchmarks			Implementation Level Achieved
	Basic	Better	Best	
G1: Communicate sustainability efforts and track user experience	Customer feedback tracked and 10-15% of guests participating in sustainability initiatives	Feedback tracked and corrective action taken and 16-25% participation in sustainability initiatives	Feedback tracked, corrective action taken, and additional outreach conducted and >25% participation in sustainability initiatives	Not yet ▼

Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes Filename:

G2: Promote staff engagement and training	GM trained in basic sustainability and 25-50% staff participation in initiatives	All department Managers trained in basic sustainability and 51-75% staff participation in initiatives	All staff trained and 76-100% participation	Not yet ▼
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Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes Filename:

G3: Provide information and interpretive materials	Use 100% MVA-certified tour guides	26-50% of front of house staff trained +100% MVA-certified tour guides	> 50% of front of house staff trained +100% MVA-certified tour guides	Not yet ▼
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Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes Filename:

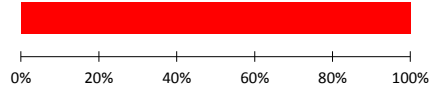
G4: Participate in local destination management activities	Participation and member of MVA	Participation and active member of MVA	Robust Participation and active in planning and MVA membership	Not yet ▼
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Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes Filename:

H. Local Community Support & Human Resources

% Local Community & Human Resources
Target Met (excludes n/a BMPs)



For each BMP, select the level of implementation from the drop down menu (on right), provide a description supporting your selection (yellow box), and check if additional documentation related to the practice implementation is provided/attached. If so, provide the name of the file (yellow box).

BMP	Benchmarks			Implementation Level Achieved
	Basic	Better	Best	
H1: Provide community services and support	Annual community meetings; 1% contribution	Bi-annual meetings; 1-5% contribution	Monthly meetings; >5%	Not yet

Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes Filename:

H2: Partner with local entrepreneurs	5% local vendors and subcontractors utilized	6-10%	>10%	Not yet
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Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes Filename:

H3: Promote local employment	30% local employees (minimum required by law); similar % of locals in management positions	31-50% local employees; similar % of locals in management positions	>50% local employees; at least half of managers are local	Not yet
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Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes Filename:

H4: Provide living wages and clean and safe working conditions	100% compliance with all worker health and safety laws; wages are equal to living wage norm for CNMI	Basic + wages ≥10% above living wage norm	Basic + wages >25% above living wage norm	Not yet
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Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes Filename:

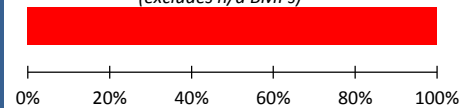
H5: Provide equal opportunities and prohibit exploitation and harassment	Anti-exploitation and harassment policy in place and zero tolerance; at least one other action implemented	Basic + 2-3 additional actions implemented	Better + all remaining-actions implemented	Not yet
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Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes Filename:


I. Cultural Heritage

% Cultural Heritage Target Met
(excludes n/a BMPs)




For each BMP, select the level of implementation from the drop down menu (on right), provide a description supporting your selection (yellow box), and check if additional documentation related to the practice implementation is provided/attached. If so, provide the name of the file (yellow box).

BMP	Benchmarks			Implementation Level Achieved
	Basic	Better	Best	

I1: Protect cultural heritage	1-2 actions taken annually to protect and promote local culture	3-5 actions taken annually to protect and promote local culture	>5 actions taken annually to protect and promote local culture	Not yet 
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Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes Filename:

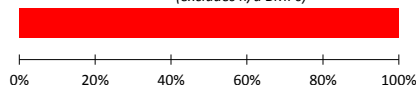
I2: Accurately portray and represent culture and heritage	1-2 culturally relevant actions taken and accurate depictions implemented each year	3-5 culturally relevant actions taken and accurate depictions implemented each year	>5 culturally relevant actions taken and accurate depictions implemented each year	Not yet 
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Describe implementation status, actions, or why non-complaint:

Support document provided: ☐ no ☐ yes Filename:

J. Biodiversity Conservation

% Biodiversity Conservation Target Met (excludes n/a BMPs)



For each BMP, select the level of implementation from the drop down menu (on right), provide a description supporting your selection (yellow box), and check if additional documentation related to the practice implementation is provided/attached. If so, provide the name of the file (yellow box).

BMP	Benchmarks			Implementation Level Achieved
	Basic	Better	Best	
J1: Promote biodiversity conservation	Visitors are encouraged to support biodiversity; hotel provides in kind support to conservation organizations; Compensation is made where any disturbance has occurred.	Visitors are given guidance to support biodiversity; hotel provides monetary compensation to conservation organizations; No disturbance to wildlife and habitats.	Better + hotel staff volunteer when needed; Hotel actively manages the property to support biodiversity through a site management plan.	Not yet ▼
Describe implementation status, actions, or why non-complaint:				
Support document provided: <input type="checkbox"/> no <input type="checkbox"/> yes Filename:				
J2: Monitor for and protect against invasive species	Monitoring is done ad hoc and invasives are removed when noticed.	A monitoring schedule is place and invasive species removal procedures are documented and followed.	Better+ hotel staff volunteers when needed; Hotel actively manages the property to support biodiversity through a site management plan.	Not yet ▼
Describe implementation status, actions, or why non-complaint:				
Support document provided: <input type="checkbox"/> no <input type="checkbox"/> yes Filename:				
J3: Educate visitors on proper behavior for CNMI natural sites	Provide some information on accessibility and proper behavior at CNMI natural sites.	Basic + use MVA-certified tour guides only	Better + work with MVA to distribute materials on behavior at CNMI natural sites to all guests at check in.	Not yet ▼
Describe implementation status, actions, or why non-complaint:				
Support document provided: <input type="checkbox"/> no <input type="checkbox"/> yes Filename:				
J4: Encourage sustainable interactions with wildlife and in natural areas	Prohibit guests from harvesting wildlife from natural areas.	Basic + monitor impacts to wildlife on property; make information materials available to guests upon request.	Better + distribute materials to guests at check in; assist regulatory agencies with code development on wildlife protection & human interaction.	Not yet ▼
Describe implementation status, actions, or why non-complaint:				
Support document provided: <input type="checkbox"/> no <input type="checkbox"/> yes Filename:				
J5: Protect animal welfare	Onsite wildlife are managed according to relevant laws; staff are experienced and/or certified.	Daily and weekly inspections of captive wildlife occur	No captive wildlife kept on property	Not yet ▼
Describe implementation status, actions, or why non-complaint:				
Support document provided: <input type="checkbox"/> no <input type="checkbox"/> yes Filename:				