



EARTHCHECK

BENCHMARKING ASSESSMENT REPORT

ACCOMMODATION - VACATION HOTEL BENCHMARKING

GRAND PALLADIUM JAMAICA AND LADY HAMILTON RESORT & SPA
MONTEGO BAY, JAMAICA



REPORT DATE: 29 April 2011

Benchmarking Data Collection Period: 1 January 2010 – 31 December 2010

The planet deserves more than half measures

OVERVIEW

This annual assessment of **Grand Palladium Jamaica and Lady Hamilton Resort & Spa** was undertaken against EarthCheck benchmarking indicators and checklists developed for EarthCheck and listed below. ¹ They have been carefully selected to track performance in key areas of environmental and social performance impact. Their outcomes which are presented in this report are used by EarthCheck to evaluate whether the operation has reached the standards necessary to pass the benchmarking requirements, as stated in the EarthCheck Benchmarking Policy. ²

Indicator Measure (Benchmark)	
1 Policy	Policy is produced and in place
2 Energy	Energy Consumption (MJ / Guest Night)
	Greenhouse Gas Emissions (Scope 1 and Scope 2) (kg CO ₂ -e / Guest Night)
	Green Power (%) ³
3 Water	Potable Water Consumption (L / Guest Night)
	Water Savings Rating (Points)
	Recycled / Captured Water (%) ³
4 Waste	Waste Sent to Landfill (L / Guest Night)
	Waste Recycling Rating (Points)
	Recycled / Reused / Composted Waste (%) ³
5 Community	Community Commitment (%)
	Community Contributions Rating (Points)
6 Paper	Paper Products Rating (Points)
7 Cleaning	Cleaning Products Rating (Points)
8 Pesticides	Pesticide Products Rating (Points)

¹ Refer to the EarthCheck Sector Benchmarking Indicator (SBI) document for more information. For frequently asked questions (FAQs) about benchmarking or specific help, please log on to 'My EarthCheck' and visit your EarthCheck Benchmarking software.

² To meet the requirements stipulated in the EarthCheck Company Standard, the benchmarks for all the submitted EarthCheck indicators need to be at, or better than, the Baseline level. Baseline and Best Practice performance levels are set with reference to the type of activity (registered sector/s) and appropriate national and international data which take into account social, geographical and climatic impacts.

First-time benchmarking operations that fail to meet the minimum requirements (Baseline performance or better) for up to two submitted EarthCheck indicators (with a third indicator within 10% of the Baseline level), will be permitted to pass benchmarking. The operation is however, given a maximum of 12 months to improve performance in at least one of the indicators to Baseline performance or better. If on the next submission this is not achieved without substantiated evidence that the situation was beyond the control of the operation (e.g., occurrence of a natural disaster), then the right to use the appropriate EarthCheck logo will be withdrawn.

As a standard policy, all EarthCheck indicators are continuously reviewed, along with the performance levels which operators have to achieve in order to meet the requirements of the Company Standard. This review takes into account "business-as-usual" changes in practices and equipment, and is used to update where appropriate Baseline and Best Practice levels.

³ These indicators are for guidance only and do not affect the overall benchmarking evaluation.

EarthCheck® is a registered trademark of Earthcheck Pty Ltd.

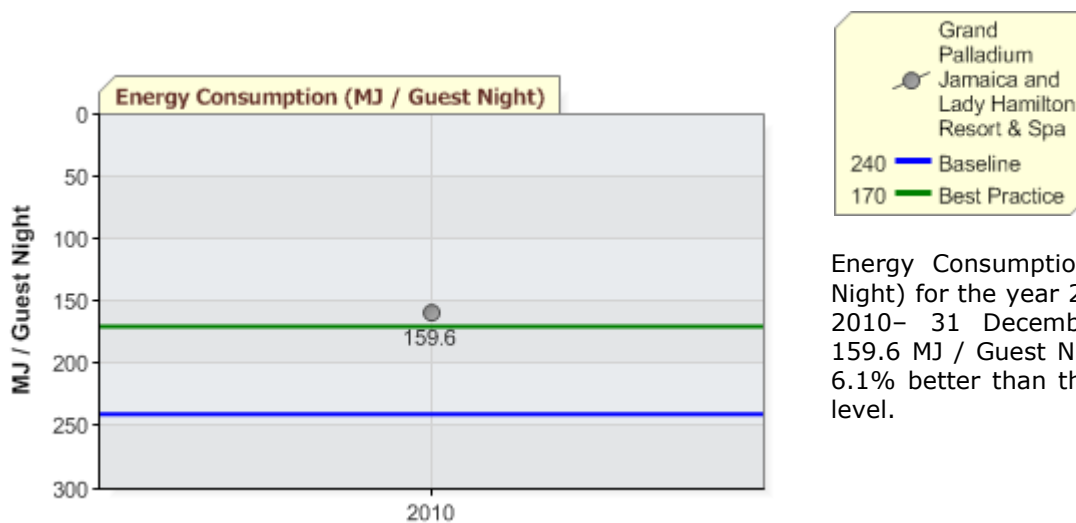
ACCOMMODATION - VACATION HOTEL PERFORMANCE BENCHMARKS

Current performance: Below Baseline ✖ At or above Baseline ✔ At or above Best Practice ★

1. Policy ★

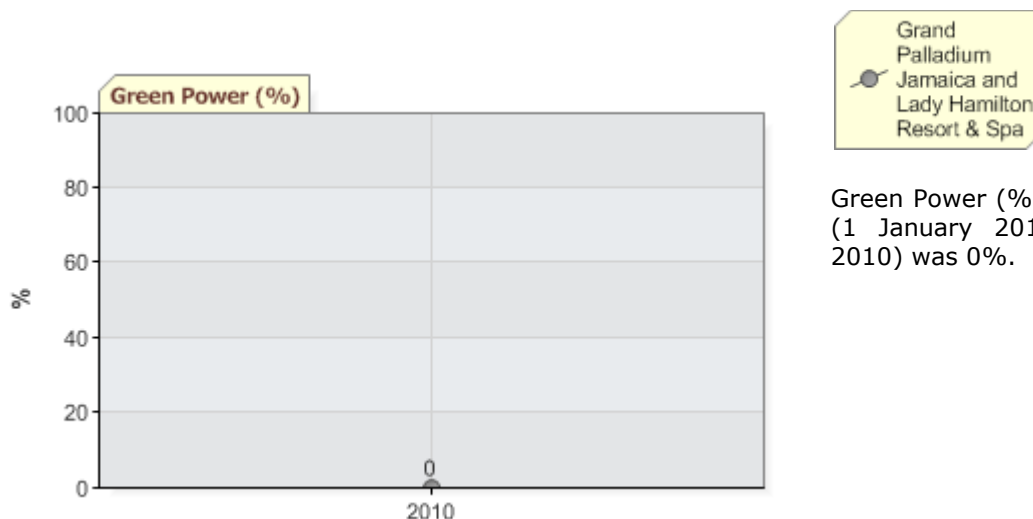
2. Energy

Energy Consumption (MJ / Guest Night) ★



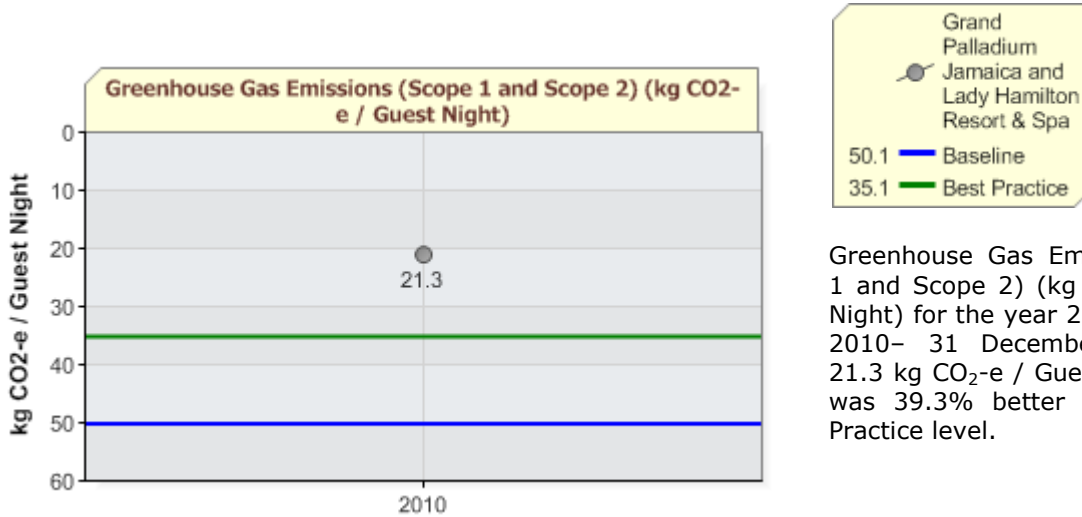
Energy Consumption (MJ / Guest Night) for the year 2010 (1 January 2010– 31 December 2010) was 159.6 MJ / Guest Night, which was 6.1% better than the Best Practice level.

Green Power (%)



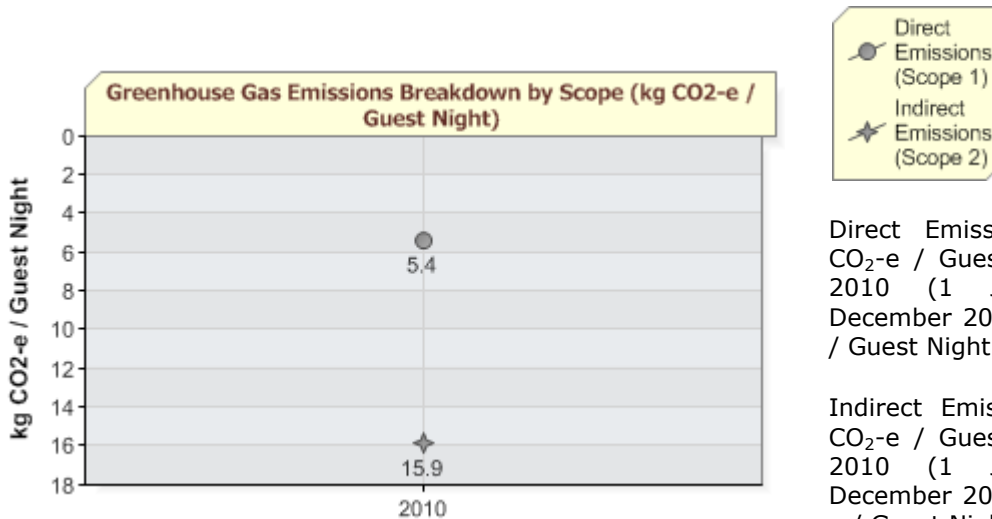
Green Power (%) for the year 2010 (1 January 2010– 31 December 2010) was 0%.

Greenhouse Gas Emissions (Scope 1 and Scope 2) (kg CO₂-e / Guest Night) ★



Greenhouse Gas Emissions (Scope 1 and Scope 2) (kg CO₂-e / Guest Night) for the year 2010 (1 January 2010– 31 December 2010) was 21.3 kg CO₂-e / Guest Night, which was 39.3% better than the Best Practice level.

Greenhouse Gas Emissions Breakdown by Scope (kg CO₂-e / Guest Night)



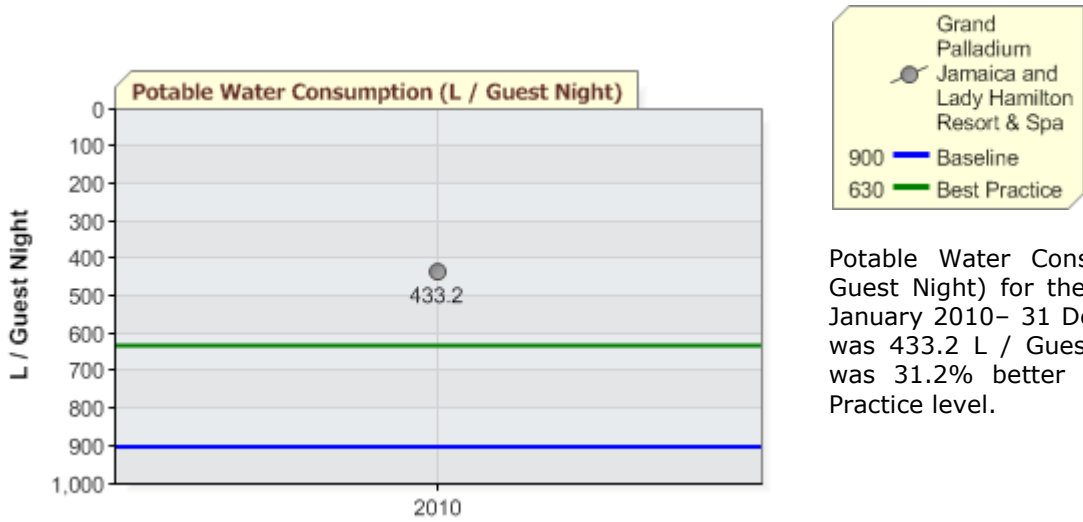
Direct Emissions (Scope 1) (kg CO₂-e / Guest Night) for the year 2010 (1 January 2010– 31 December 2010) was 5.4 kg CO₂-e / Guest Night.

Indirect Emissions (Scope 2) (kg CO₂-e / Guest Night) for the year 2010 (1 January 2010– 31 December 2010) was 15.9 kg CO₂-e / Guest Night.

Direct Emissions (Scope 1)								
Stationary Fuel Combustion								
Type	Quantity	Unit	Energy Consumption (MJ)	CO ₂ Emission Estimate (t CO ₂ -e)	CH ₄ Emission Estimate (t CO ₂ -e)	N ₂ O Emission Estimate (t CO ₂ -e)	Total Emission Estimate (t CO ₂ -e)	
LPG	1361790	litres (L)	33410850.4	2108.2	3.5	1.0	2112.8	
Natural Gas Liquid - Butane	1483	kilograms (kg)	65548.6	4.2	0.01	0.01	4.2	
Diesel	465914	litres (L)	16949019.5	1255.9	3.6	3.2	1262.6	
subtotal			50425418.5	3368.4	7.1	4.2	3379.6	
Mobile Fuel Combustion (road)								
Motor gasoline	45149	litres (L)	1470674.0	101.9	0.8	3.6	106.3	
subtotal			1470674.0	101.9	0.8	3.6	106.3	
Onsite Wastewater Treatment								
Type	Average BOD (mg/L)	Wastewater Volume (kL/day)	Number of days in use	CO ₂ Emission Estimate (t CO ₂ -e)	CH ₄ Emission Estimate (t CO ₂ -e)	N ₂ O Emission Estimate (t CO ₂ -e)	Total Emission Estimate (t CO ₂ -e)	
Aerobic (BOD Known)	1.683	3000	365	-	7.0	-	7.0	
subtotal				-	7.0	-	7.0	
TOTAL			51896092.5	3470.3	14.8	7.8	3492.9	
Indirect Emissions (Scope 2)								
Purchased Electricity								
Quantity	Unit	% Green Power	Provider	Energy Consumption (MJ)	CO ₂ Emission Estimate (t CO ₂ -e)	CH ₄ Emission Estimate (t CO ₂ -e)	N ₂ O Emission Estimate (t CO ₂ -e)	Total Emission Estimate (t CO ₂ -e)
14469264	Kilowatt hour (kWh)	0	Jamaica	52089350.4	10323.8	11.3	33.3	10368.4
subtotal				52089350.4	10323.8	11.3	33.3	10368.4
TOTAL			52089350.4	10323.8	11.3	33.3	10368.4	
Greenhouse Gas Emissions (Scope 1 and Scope 2)								
GRAND TOTAL			103985442.9	13794.1	26.1	41.2	13861.4	

3. Water

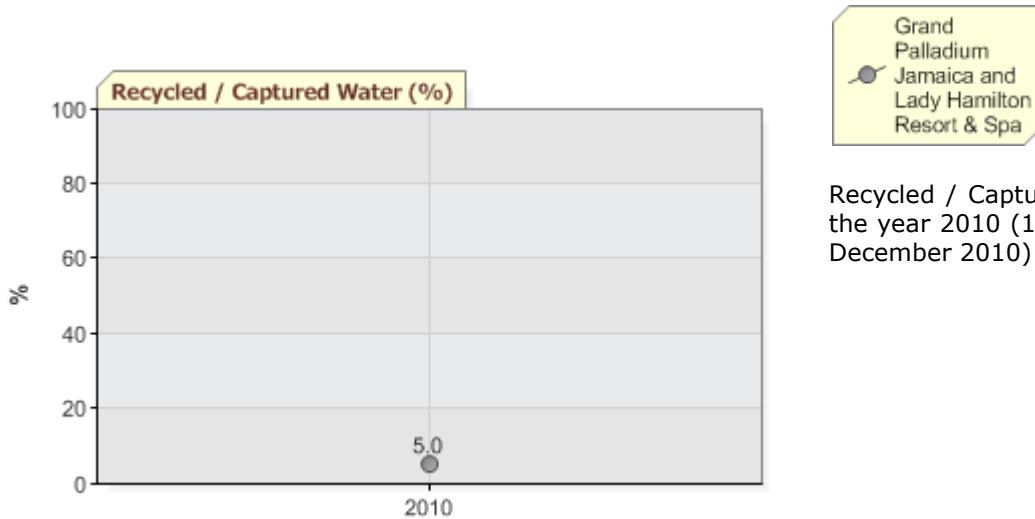
Potable Water Consumption (L / Guest Night) ★



Potable Water Consumption (L / Guest Night) for the year 2010 (1 January 2010– 31 December 2010) was 433.2 L / Guest Night, which was 31.2% better than the Best Practice level.

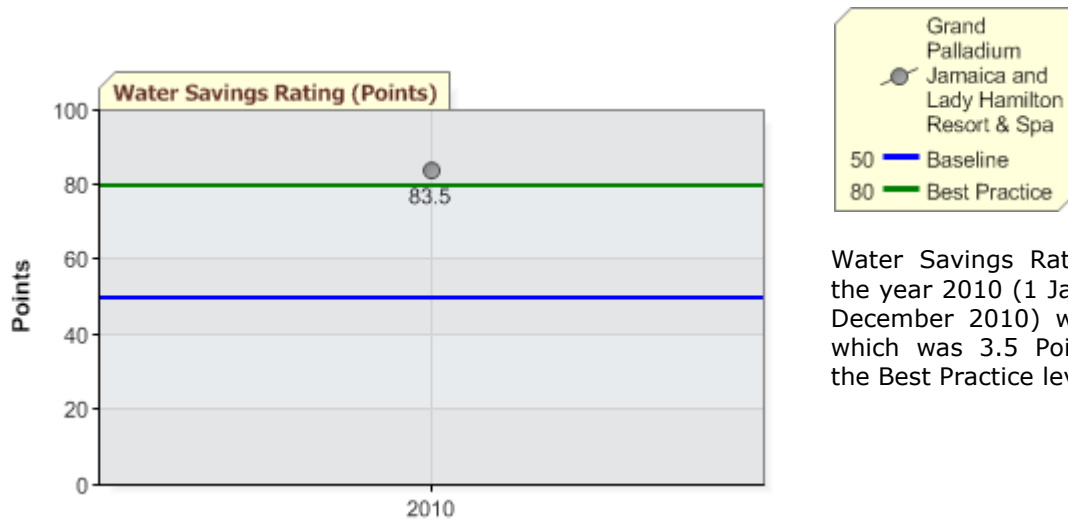
Quantity	Unit	Potable Water Consumption (kL)
282340000	litres	282340.0 kL
	Totals:	282340.0 kL

Recycled / Captured Water (%)



Recycled / Captured Water (%) for the year 2010 (1 January 2010– 31 December 2010) was 5.0%.

Water Savings Rating (Points) ★

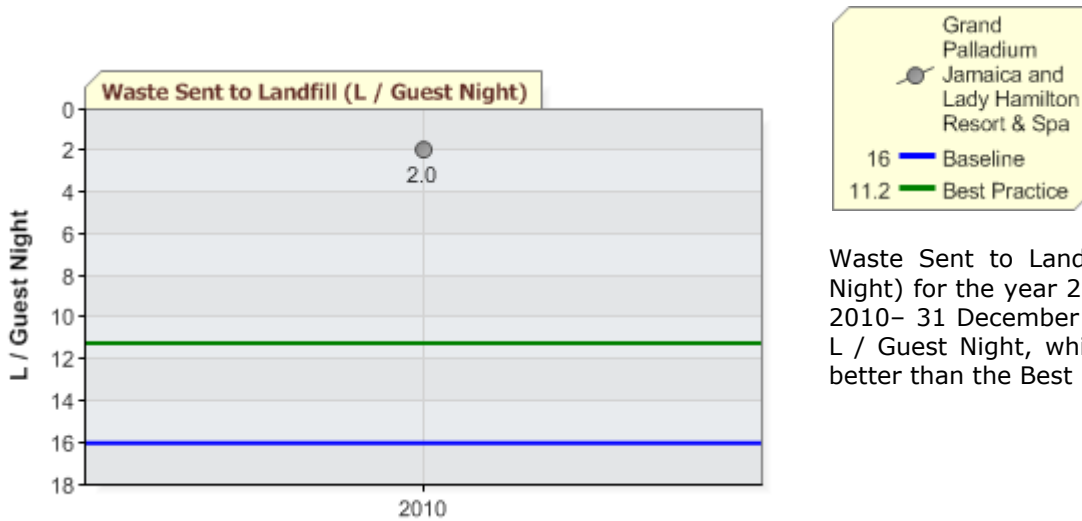


Water Savings Rating (Points) for the year 2010 (1 January 2010– 31 December 2010) was 83.5 Points, which was 3.5 Points better than the Best Practice level.

Water Savings Measures	Frequency / Percentage Rating	Water Savings Rating (Points)
Check for leaks	Every week	100.0 Points
Low/dual flush toilets	100%	100.0 Points
Low flow tap fittings	80-99%	88.9 Points
Low flow shower fittings	80-99%	88.9 Points
Water sprinklers used after dark	80-99%	88.9 Points
Minimal irrigation landscaping	20-39%	58.8 Points
Use of recycle/grey/rain water	20-39%	58.8 Points
	Overall Rating:	83.5 Points

4. Waste

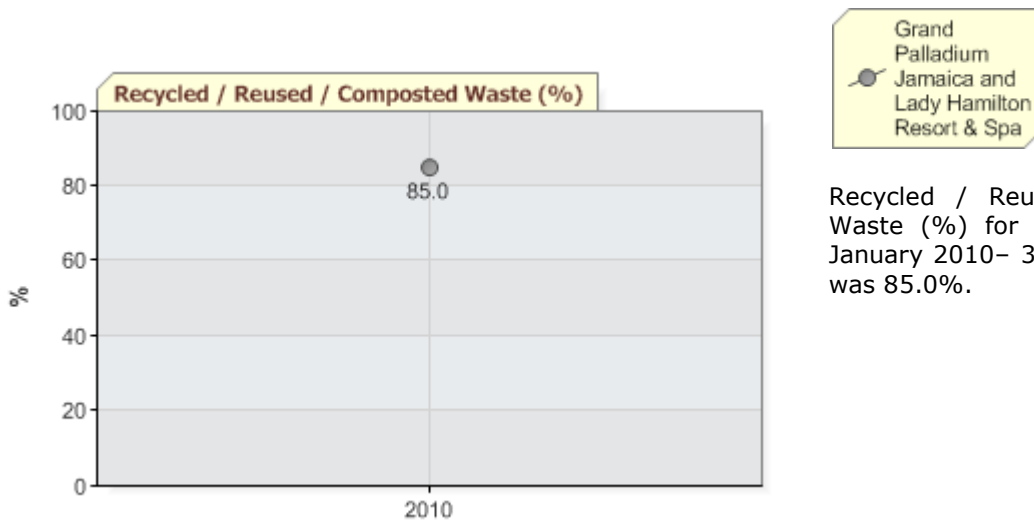
Waste Sent to Landfill (L / Guest Night) ★



Waste Sent to Landfill (L / Guest Night) for the year 2010 (1 January 2010– 31 December 2010) was 2.0 L / Guest Night, which was 82.3% better than the Best Practice level.

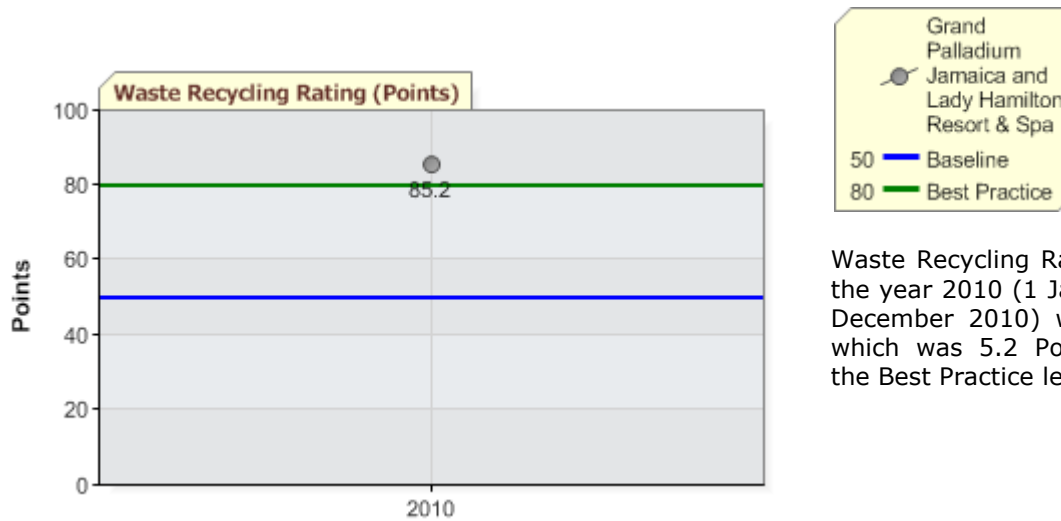
Quantity	Unit	Waste Sent to Landfill (m ³)
1689	cubic yards	1291.3 m ³
	Totals:	1291.3 m³

Recycled / Reused / Composted Waste (%)



Recycled / Reused / Composted Waste (%) for the year 2010 (1 January 2010– 31 December 2010) was 85.0%.

Waste Recycling Rating (Points) ★

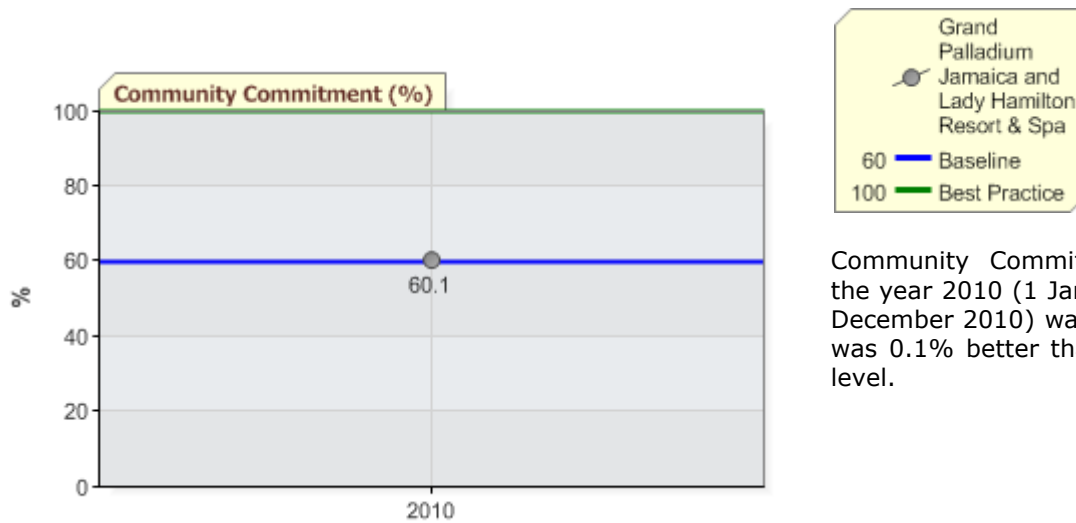


Waste Recycling Rating (Points) for the year 2010 (1 January 2010– 31 December 2010) was 85.2 Points, which was 5.2 Points better than the Best Practice level.

Waste Recycling Measures	Frequency / Percentage Rating	Waste Recycling Rating (Points)
Glass	80-99%	88.9 Points
Paper/card	60-79%	73.9 Points
Iron & steel (ferrous metals)	Not Relevant / Not Available	-
Other metals (non-ferrous)	Not Relevant / Not Available	-
Plastics	80-99%	88.9 Points
Rubber	Not Relevant / Not Available	-
Green waste	80-99%	88.9 Points
	Overall Rating:	85.2 Points

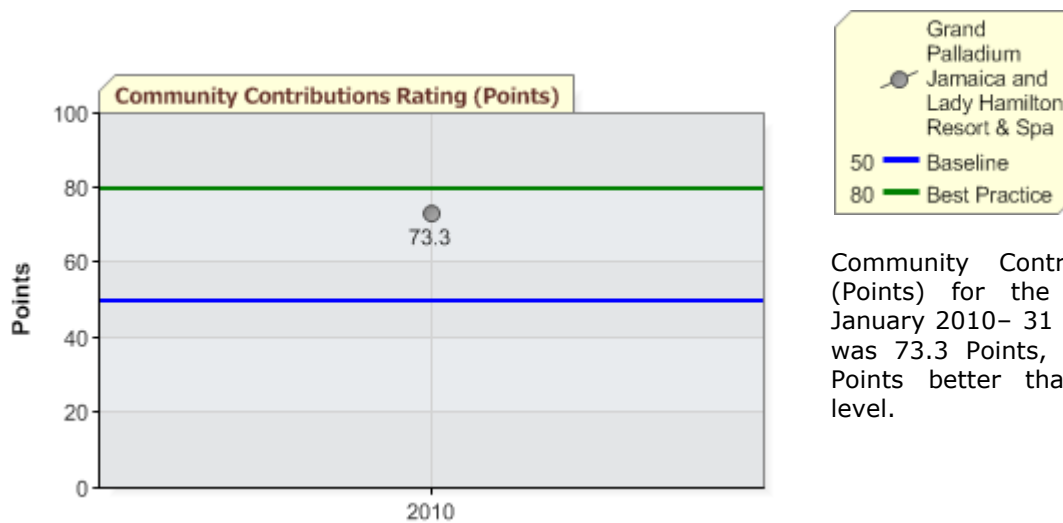
5. Community

Community Commitment (%) ✓



Community Commitment (%) for the year 2010 (1 January 2010– 31 December 2010) was 60.1%, which was 0.1% better than the Baseline level.

Community Contributions Rating (Points) ✓

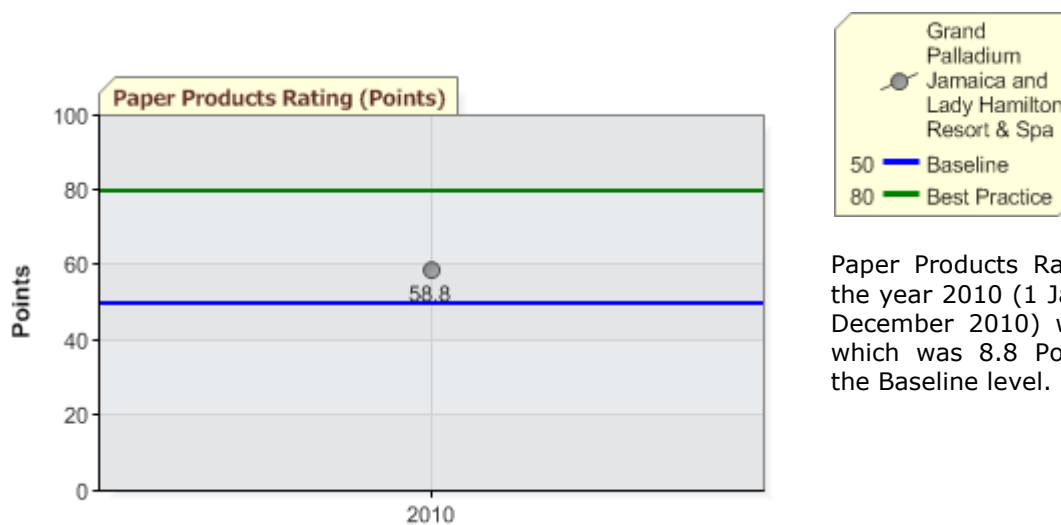


Community Contributions Rating (Points) for the year 2010 (1 January 2010– 31 December 2010) was 73.3 Points, which was 23.2 Points better than the Baseline level.

Community Contributions Measures	Frequency / Percentage Rating	Community Contributions Rating (Points)
Net income spent on sustainability programs	0.1% - 1.9%	54.0 Points
Perishable purchased goods that are of local origin	60-79%	73.9 Points
Service contracts given to local contractors	40-59%	65.1 Points
Staff received training on sustainability issues	100%	100.0 Points
	Overall Rating:	73.3 Points

6. Paper

Paper Products Rating (Points) ✓

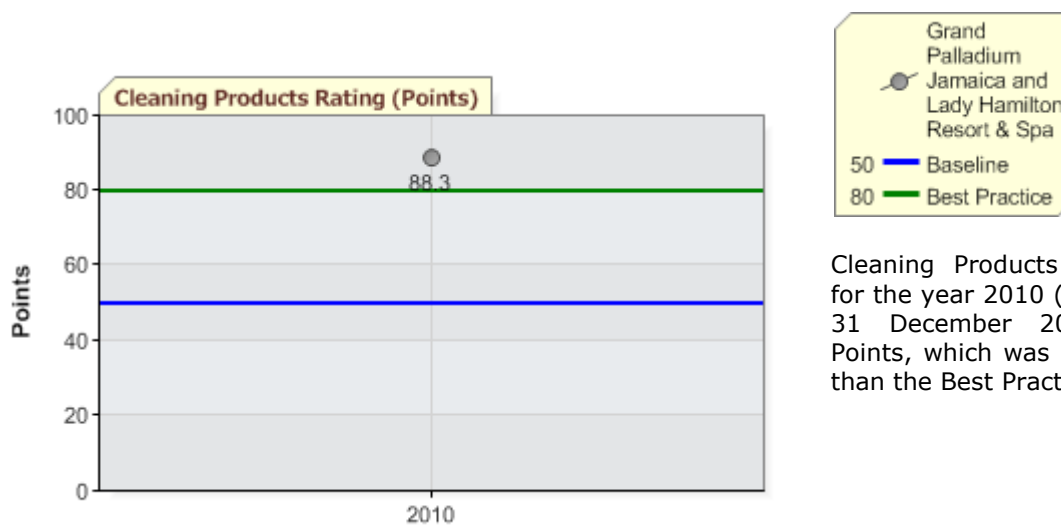


Paper Products Rating (Points) for the year 2010 (1 January 2010– 31 December 2010) was 58.8 Points, which was 8.8 Points better than the Baseline level.

Paper Products Measures	Frequency / Percentage Rating	Paper Products Rating (Points)
Office paper	20-39%	58.8 Points
Serviettes	20-39%	58.8 Points
Tissues	20-39%	58.8 Points
Toilet tissue	20-39%	58.8 Points
Paper towels	20-39%	58.8 Points
	Overall Rating:	58.8 Points

7. Cleaning

Cleaning Products Rating (Points) ★

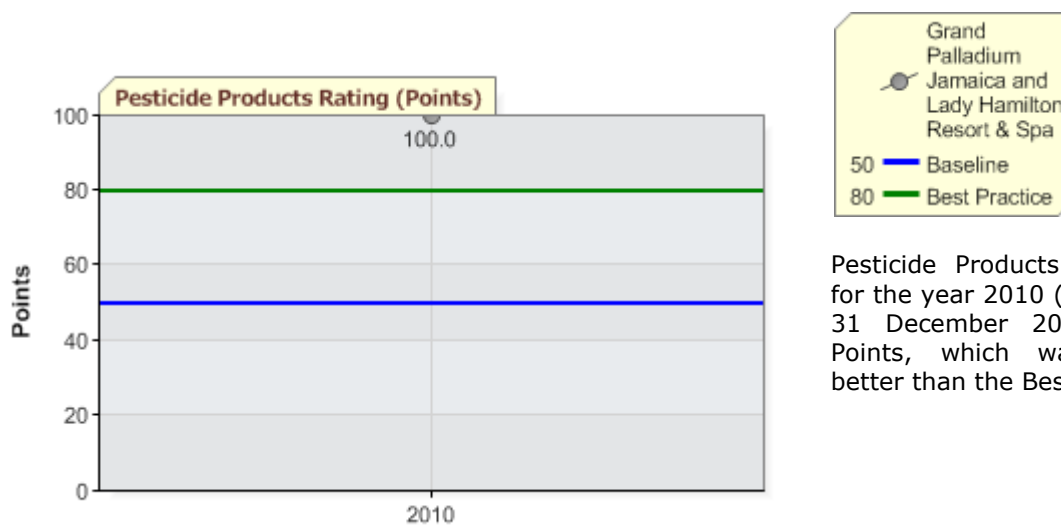


Cleaning Products Rating (Points) for the year 2010 (1 January 2010–31 December 2010) was 88.3 Points, which was 8.3 Points better than the Best Practice level.

Cleaning Products Measures	Frequency / Percentage Rating	Cleaning Products Rating (Points)
Hard floor cleaners	80-99%	88.9 Points
Carpet cleaners	Not Relevant / Not Available	100.0 Points
Interior surface cleaners	80-99%	88.9 Points
External surface cleaners	80-99%	88.9 Points
Glass cleaners	80-99%	88.9 Points
Detergents	80-99%	88.9 Points
Personal hygiene	60-79%	73.9 Points
	Overall Rating:	88.3 Points

8. Pesticides

Pesticide Products Rating (Points) ★



Pesticide Products Rating (Points) for the year 2010 (1 January 2010–31 December 2010) was 100.0 Points, which was 20.0 Points better than the Best Practice level.

Pesticide Products Measures	Frequency / Percentage Rating	Pesticide Products Rating (Points)
Weed killers	100%	100.0 Points
Fungal killers	100%	100.0 Points
Rodent killers	Not Relevant / Not Available	100.0 Points
Insect killers	Not Relevant / Not Available	100.0 Points
	Overall Rating:	100.0 Points

*The supplied data has been compiled by **Grand Palladium Jamaica and Lady Hamilton Resort & Spa** in the prescribed manner, authorised by a senior executive of the company and submitted for an annual assessment.*

CONCLUSION AND RECOMMENDATIONS

Congratulations, **Grand Palladium Jamaica and Lady Hamilton Resort & Spa** has passed the requirements to be recognised as an EarthCheck Benchmarked Accommodation - Vacation Hotel.

In addition to having a Sustainability Policy in place, eleven of the assessed EarthCheck indicators are at or above the Baseline level. From the benchmarking data provided, eight indicators, *Energy Consumption, Greenhouse Gas Emissions (Scope 1 and Scope 2), Potable Water Consumption, Water Savings Rating, Waste Sent to Landfill, Waste Recycling Rating, Cleaning Products Rating* and *Pesticide Products Rating*, are at or above the Best Practice level, which is an achievement to be very highly commended.

Improvements in all the EarthCheck indicators will not only help the environment, but can also help reduce operational costs. Due to the positive commitment that **Grand Palladium Jamaica and Lady Hamilton Resort & Spa** has demonstrated to the environment, the assessors are confident that they can maintain or improve performance, where appropriate and practical, in all indicators. In line with EarthCheck Policy this would enable the **Grand Palladium Jamaica and Lady Hamilton Resort & Spa** to continue to meet the benchmarking requirements of the EarthCheck program.

APPENDIX

BENCHMARKING POLICY

A member benchmarking for the 1st time is permitted to fall below Baseline in two (2) EarthCheck™ indicators (excluding supplementary EarthCheck™ indicators), with a 3rd EarthCheck™ indicator permitted to be within 10% of the Baseline level. **A member benchmarking for the 2nd time is permitted to fall below Baseline in one (1) EarthCheck™ indicator (excluding supplementary EarthCheck™ indicators) with a 2nd EarthCheck™ indicator permitted to be within 10% of the Baseline level.**

ACTIVITY MEASURE

The Benchmarking Assessors sought clarification regarding the submitted figure of 650 976 *Guest Nights*. As per the below methodology;

<p>Guest Nights:</p> $= [\text{Total guests staying overnight}] + \left[\frac{\text{Total Day Guests}}{3} \right]$
--

In response the **Grand Palladium Jamaica and Lady Hamilton Resort & Spa** advised:

"Guest Nights
Overnight guests: 583,087
Day/Banquet guests: 2,185
Staff living onsite: 186"

The Benchmarking Assessors further enquired as to whether the figure of 2 185 Day/ Banquet guests had been divided by three. The **Grand Palladium Jamaica and Lady Hamilton Resort & Spa** advised:

"No it has not been divided and I just realized."

The Benchmarking Assessors have revised the figure for *Guest Nights* using the following calculations:

Overnight Guests: 583 087
 Day/ Banquet Guests: 2 185 /3 = 728
 Staff Living onsite: 186 * 365 = 67 890

583 087 + 728 + 67 890
 = 651 705 *Guest Nights*

The figure of 651 705 *Guest Nights* has been used throughout the assessment.

COMMUNITY COMMITMENT

The Benchmarking Assessors sought clarification regarding *Community Commitment* as the submitted figure of 43 % was less than expected. The **Grand Palladium Jamaica and Lady Hamilton Resort & Spa** advised:

"Community Commitment
Number of employees living within 20km of the operation-485
Number of employees living on-site-186
Total number of employees-1,115"

The Benchmarking Assessors have revised the figure for *Community Commitment* using the following calculations:

$$485 + 186 = 671$$

$$671 / 1\ 115 = 0.601$$

$$0.601 * 100 = 60.1 \%$$

This results in:

Community Commitment

Initial Rating: 43 %

Revised Rating: 60.1 %



EARTHCHECK

Benchmarks Assessed by EarthCheck

SUMMARY OF SUPPLIED BENCHMARKING DATA

Activity Measures

Guest Nights	651705
Area Under Roof	59786.42

Supplied Benchmarking Data

Energy

Energy Consumption (MJ / Guest Night)

Supplied	103985442.9 MJ
Calculated	159.6 MJ / Guest Night
Baseline	240 MJ / Guest Night
Best Practice	170 MJ / Guest Night
Difference	6.1% better than the Best Practice level

Green Power (%)

Supplied	0%
Calculated	0%

Greenhouse Gas Emissions (Scope 1 and Scope 2) (kg CO₂-e / Guest Night)

Supplied	13861381.3 kg CO ₂ -e
Calculated	21.3 kg CO ₂ -e / Guest Night
Baseline	50.07380801 kg CO ₂ -e / Guest Night
Best Practice	35.05166561 kg CO ₂ -e / Guest Night
Difference	39.3% better than the Best Practice level

Direct Emissions (Scope 1) (kg CO₂-e / Guest Night)

Supplied	3492940.1 kg CO ₂ -e
Calculated	5.4 kg CO ₂ -e / Guest Night

Indirect Emissions (Scope 2) (kg CO₂-e / Guest Night)

Supplied	10368441.3 kg CO ₂ -e
Calculated	15.9 kg CO ₂ -e / Guest Night

Water

Potable Water Consumption (L / Guest Night)

Supplied	282340000.0 L
Calculated	433.2 L / Guest Night
Baseline	900 L / Guest Night
Best Practice	630 L / Guest Night
Difference	31.2% better than the Best Practice level

Water Savings Rating (Points)

Supplied	83.5 Points
Calculated	83.5 Points
Baseline	50 Points
Best Practice	80 Points
Difference	3.5 Points better than the Best Practice level

Recycled / Captured Water (%)

Supplied	5.0%
Calculated	5.0%

Waste

Waste Sent to Landfill (L / Guest Night)

Supplied	1291333.2 L
Calculated	2.0 L / Guest Night
Baseline	16 L / Guest Night
Best Practice	11.2 L / Guest Night
Difference	82.3% better than the Best Practice level

Waste Recycling Rating (Points)

Supplied	85.2 Points
Calculated	85.2 Points
Baseline	50 Points
Best Practice	80 Points
Difference	5.2 Points better than the Best Practice level

Recycled / Reused / Composted Waste (%)

Supplied	85.0%
Calculated	85.0%

Community

Community Commitment (%)

Supplied	60.1%
Calculated	60.1%
Baseline	60 %
Best Practice	100 %
Difference	0.1% better than the Baseline level

Community Contributions Rating (Points)

Supplied	73.3 Points
Calculated	73.3 Points
Baseline	50 Points
Best Practice	80 Points
Difference	23.2 Points better than the Baseline level

Paper

Paper Products Rating (Points)

Supplied	58.8 Points
Calculated	58.8 Points
Baseline	50 Points
Best Practice	80 Points
Difference	8.8 Points better than the Baseline level

Cleaning

Cleaning Products Rating (Points)

Supplied	88.3 Points
Calculated	88.3 Points
Baseline	50 Points
Best Practice	80 Points
Difference	8.3 Points better than the Best Practice level

Pesticides

Pesticide Products Rating (Points)

Supplied	100.0 Points
Calculated	100.0 Points
Baseline	50 Points
Best Practice	80 Points
Difference	20.0 Points better than the Best Practice level

DETERMINATION OF BASELINE AND BEST PRACTICE LEVELS

General

The values for the Baseline and Best Practice levels for each indicator are derived from extensive worldwide research into available and appropriate case studies, industry surveys, engineering design handbooks, energy, water and waste audits, and climatic and geographic conditions.

National and regional data for per capita energy use, greenhouse gas and other emissions, wastes to landfill and water consumption, where available provide background data for normalisation of the expected performance values for per customer or employee, and/or overall performance of an enterprise being benchmarked. They are used to gauge the regional or national situation and environmental performances that an enterprise is based in, and hence what are reasonable levels to expect the enterprise to achieve.

A benchmarking result at, or above, the Baseline level demonstrates to all stakeholders that the enterprise is achieving above average performance. A result below the Baseline level indicates that an enterprise can and should carry out actions that will make beneficial improvements in performance.

Consideration of Climate

A major determinant of energy consumption in some sectors, primarily those centred on buildings such as accommodation, visitor centres and administration offices will be the dominant climatic conditions in which the enterprise is located. In general, to maintain the same level of indoor comfort, enterprises operating in hot or cold climates will consume more energy than those in temperate climates.

Similarly, it is recognised that in certain sectors a major determinant of potable water consumption will be the climate in which an enterprise is located, in particular those with large grounds and/or significant water-based facilities or activities. That is, enterprises located in hot climates are more likely to consume more potable water than equivalent ones located in cooler climates. Factors that are likely to lead to a higher level of potable water consumption, for example in the accommodation sector, include increased evaporation rates of swimming pools, personal bathing and irrigation demands of grounds. In consideration of this factor, Baseline and Best Practice levels can vary in relation to country location.

Waste Sent to Landfill

The benchmark indicator used for Waste Sent to Landfill is given in litres as waste bins are usually calibrated by volume, and it has been found that the majority of operations do not have access to the weight of material disposed of. However, if a weight is supplied, standard factors are used to convert from weight (e.g., kilograms (kg)) to volume (e.g., cubic metres (m³) or litres (L)). These are: 1 kg (uncompacted waste) = 0.00333333 m³ or 3.33333 L and 1 kg (compacted waste) = 0.00153846 m³ or 1.53846 L.

Operations should make note of the level of compaction when submitting data for assessment by EarthCheck.

Review of Performance Levels

The Baseline and Best Practice performance levels for EarthCheck indicators are continuously reviewed and are likely to change over time. This review by a team of international experts, takes into account "business-as-usual" changes in practices, equipment and facilities, as well as regulations and general improvement trends in performance and procedures. This review is used to update the levels of Baseline and Best Practice, and provides useful feedback to the user of the indicators.

The list below summarises the basic generic rules used to determine Baseline and Best Practice levels for EarthCheck indicators.

- If relevant enterprise sector specific case studies are not available for a type of activity in a designated region, then national averages will be used to ascertain the Baseline level. In this case, the Best Practice level will be set at a minimum of 30% better performance than the Baseline.
- If case study or national data are not available for a specific indicator, then the first enterprise that benchmarks will have its results set as 15% better than Baseline (i.e., half way between Baseline and Best Practice).