



EARTHCHECK

# BENCHMARKING ASSESSMENT REPORT

DESTINATION BENCHMARKING

**WESTFJORDS**

ÍSAFJÖRÐUR, ICELAND



REPORT DATE: 20 December 2018

Benchmarking Data Collection Period: 1 January 2017 – 31 December 2017

*The planet deserves more than half measures*

## OVERVIEW

This annual assessment of **Westfjords** was undertaken against EarthCheck benchmarking indicators and checklists developed for EarthCheck and listed below. <sup>1</sup> They have been carefully selected to track performance in key areas of environmental and social performance impact. The Lead Agency responsible for collection, collation and authorization of the information required by the indicators was the **Municipality Association of the Westfjords**.

		<b>Indicator Measure (Benchmark)</b>
<b>1</b>	Policy	Policy is produced and in place <sup>2</sup>
<b>2</b>	Energy	Energy Consumption (GJ / Person Year) <sup>2</sup> Green Power (%) <sup>4</sup> Greenhouse Gas Emissions (Scope 1 and Scope 2) (t CO <sub>2</sub> -e / Person Year) <sup>3</sup> Indirect Emissions (Scope 3) (t CO <sub>2</sub> -e / Person Year) <sup>3</sup>
<b>3</b>	Water	Potable Water Consumption (kL / Person Year) <sup>3</sup> Recycled / Captured Water (%) <sup>4</sup>
<b>4</b>	Waste	Waste Sent to Landfill (m <sup>3</sup> / Person Year) <sup>3</sup> Recycled / Reused / Composted Waste (%) <sup>4</sup>
<b>5</b>	Sector Specific	Nitrous Oxides Produced (kg / Person Year / Hectare) <sup>3 5</sup> Sulphur Dioxide Produced (kg / Person Year / Hectare) <sup>3 5</sup> Particulate Matter Produced (kg / Person Year / Hectare) <sup>3 5</sup> Water Samples Passed (%) <sup>2</sup> Habitat Conservation Area (%) <sup>2</sup> Green Space (%) <sup>2</sup> Significant Site Maintenance Fund (%) Destination Safety – Homicide Rate (%) Destination Safety – Theft Rate (%) Destination Safety – Assault (%) Socio-Economic Benefit – Unemployment Rate (%) Accredited Operations (%) <sup>2</sup>
<b>Lead Agency Performance</b>		
<b>6</b>	Water Savings	Water Savings Rating (Points) <sup>6</sup>
<b>7</b>	Waste Recycling	Waste Recycling Rating (Points) <sup>6</sup>
<b>8</b>	Paper	Paper Products Rating (Points) <sup>6</sup>
<b>9</b>	Cleaning	Cleaning Products Rating (Points) <sup>6</sup>
<b>10</b>	Pesticides	Pesticide Products Rating (Points) <sup>6</sup>

<sup>1</sup> Please refer to the relevant EarthCheck Sector Benchmarking Indicator (SBI) document for more details. For frequently asked questions (FAQs) about benchmarking or specific help, please log on to 'My EarthCheck'.

<sup>2</sup> Produced by the lead agency after consultation with the destination and consensus.

<sup>3</sup> Person Year is equivalent to 365 person days. EarthCheck Destinations must also allow for both resident and transient (tourist) populations in indicators assessed on a per person year basis. Tourist activity is classified into an “overnight stay” or “day tripper”. An overnight stay is counted the same as a permanent resident, that is, 1 person day. A day tripper is counted as 0.333 person day.

<sup>4</sup> These indicators are for guidance only and do not affect the overall benchmarking evaluation.

<sup>5</sup> Primary assessed impacts on air quality are emissions due to electricity consumption, vehicular transport, industrial processes and mining. The levels are calculated on a per unit area basis using total emissions and total bounded area of the Destination, including waterways. The data is then normalized against the average number of person years per area of the country.

<sup>6</sup> Assessed for the lead agency only.

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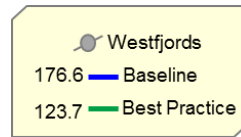
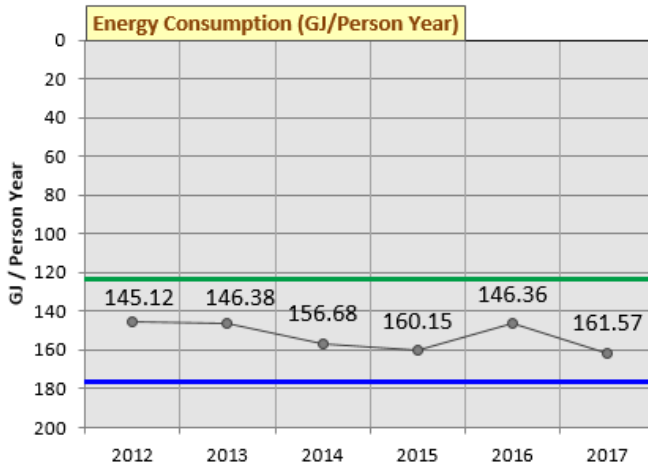
Community Performance Benchmarks

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

1. Policy ★

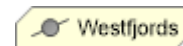
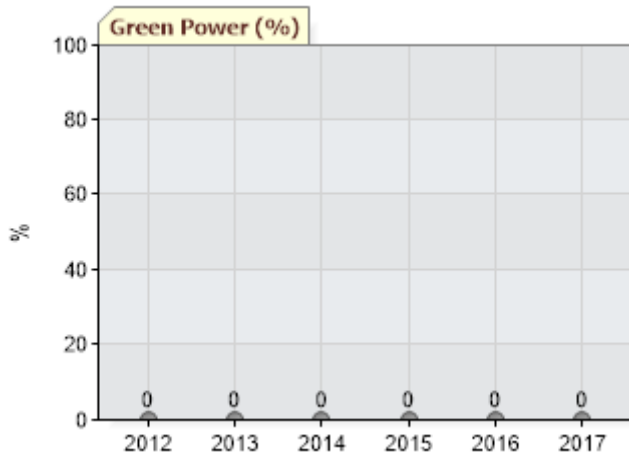
2. Energy

Energy Consumption (GJ / Person Year) ✔



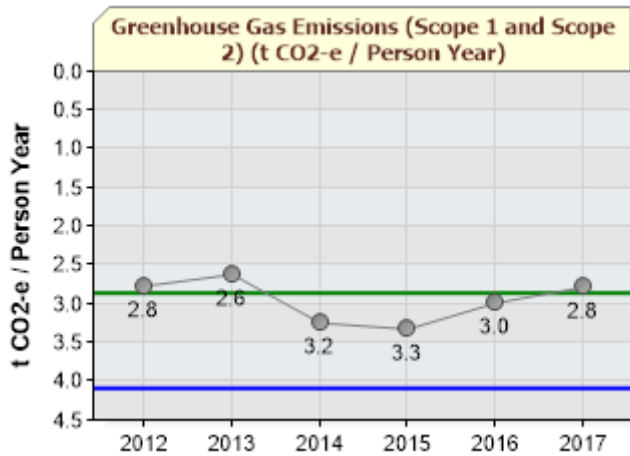
Energy Consumption (MJ / Person Year) for the year 2017 (1 January 2017 – 31 December 2017) was 161.57 GJ / Person Year, which was 30.6% better than the Baseline level.

Green Power (%)



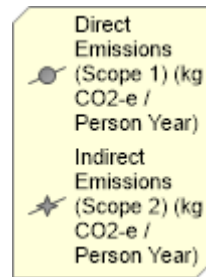
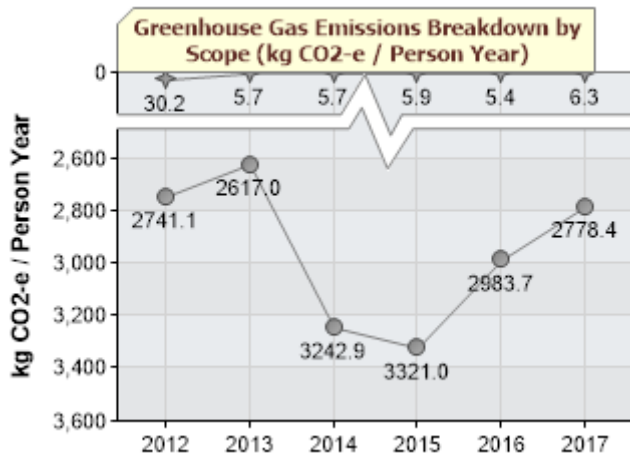
Green Power (%) for the year 2017 (1 January 2017 – 31 December 2017) was 0%.

**Greenhouse Gas Emissions (Scope 1 and Scope 2) (t CO<sub>2</sub>-e / Person Year) ★**



Greenhouse Gas Emissions (Scope 1 and Scope 2) (t CO<sub>2</sub>-e / Person Year) for the year 2017 (1 January 2017 – 31 December 2017) was 2.8 t CO<sub>2</sub>-e / Person Year, which was 2.7% better than the Best Practice level.

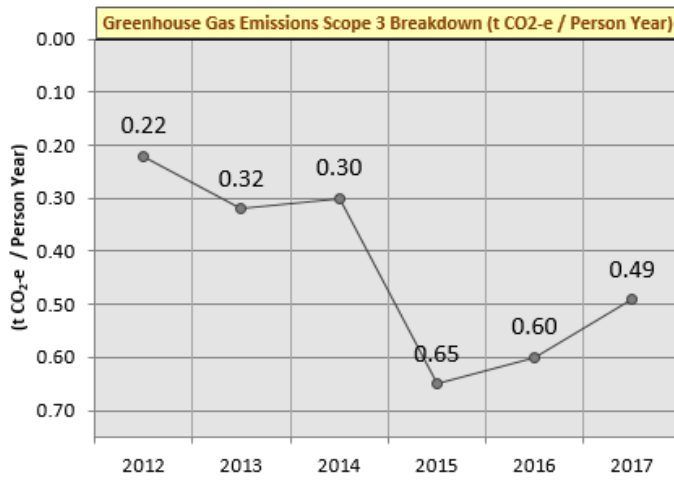
**Greenhouse Gas Emissions Breakdown by Scope (kg CO<sub>2</sub>-e / Person Year)**



Direct Emissions (Scope 1) (kg CO<sub>2</sub>-e / Person Year) for the year 2017 (1 January 2017 – 31 December 2017) was 2778.4 kg CO<sub>2</sub>-e / Person Year.

Indirect Emissions (Scope 2) (kg CO<sub>2</sub>-e / Person Year) for the year 2017 (1 January 2017 – 31 December 2017) was 6.3 kg CO<sub>2</sub>-e / Person Year.

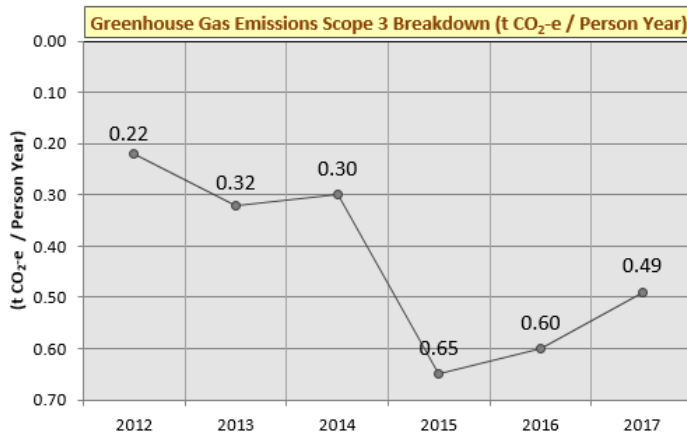
### Indirect Emissions (Scope 3) (t CO<sub>2</sub>-e / Person Year)



Westfjords

Indirect Emissions (Scope 3) (t CO<sub>2</sub>-e / Person Year) for the year 2017 (1 January 2017 – 31 December 2017) was 0.49 t CO<sub>2</sub>-e / Person Year.

### Greenhouse Gas Emissions Scope 3 Breakdown (t CO<sub>2</sub>-e / Person Year)



Waste Indirect Emissions (Scope 3) (t CO<sub>2</sub>-e / Person Year)

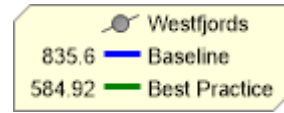
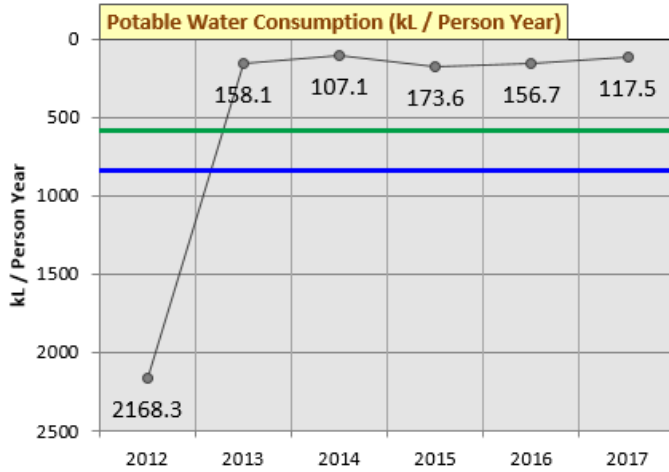
Waste Indirect Emissions (Scope 3) (t CO<sub>2</sub>-e / Person Year) for the year 2017 (1 January 2017 – 31 December 2017) was 0.49 t CO<sub>2</sub>-e / Person Year.

Direct Emissions (Scope 1)									
Stationary Fuel Combustion									
2017									
Type	Quantity	Unit	Energy Consumption (MJ)	CO <sub>2</sub> Emission Estimate (t CO <sub>2</sub> -e)	CH <sub>4</sub> Emission Estimate (t CO <sub>2</sub> -e)	N <sub>2</sub> O Emission Estimate (t CO <sub>2</sub> -e)	Total Emission Estimate (t CO <sub>2</sub> -e)		
Diesel	157138	litres (L)	6002184.5	422.5	1.2	1.1	424.8		
subtotal			6002184.5	422.5	1.2	1.1	424.8		
Mobile Fuel Combustion (road)									
2017									
Type	Quantity	Unit	Energy Consumption (MJ)	CO <sub>2</sub> Emission Estimate (t CO <sub>2</sub> -e)	CH <sub>4</sub> Emission Estimate (t CO <sub>2</sub> -e)	N <sub>2</sub> O Emission Estimate (t CO <sub>2</sub> -e)	Total Emission Estimate (t CO <sub>2</sub> -e)		
Biodiesel	14822	litres (L)	495647.7	0.0	0.6	1.1	1.7		
Diesel	4976000	litres (L)	190067774.4	13379.8	14.8	218.3	13612.9		
Motor gasoline	3057000	litres (L)	104556979.8	6883.5	52.1	246.3	7182.0		
subtotal			295120401.9	20263.3	67.5	465.7	20796.6		
<b>TOTAL</b>			<b>301122586.4</b>	<b>20685.9</b>	<b>68.7</b>	<b>466.8</b>	<b>21221.4</b>		
Indirect Emissions (Scope 2)									
Purchased Electricity									
2017									
Quantity	Unit	% Green Power	Provider	Energy Consumption (MJ)	CO <sub>2</sub> Emission Estimate (t CO <sub>2</sub> -e)	CH <sub>4</sub> Emission Estimate (t CO <sub>2</sub> -e)	N <sub>2</sub> O Emission Estimate (t CO <sub>2</sub> -e)	Total Emission Estimate (t CO <sub>2</sub> -e)	
259150000	Kilowatt hour (kWh)	0	Iceland	932940000.0	47.4	0.2	0.8	48.4	
subtotal				932940000.0	47.4	0.2	0.8	48.4	
<b>TOTAL</b>				<b>932940000.0</b>	<b>47.4</b>	<b>0.2</b>	<b>0.8</b>	<b>48.4</b>	
Greenhouse Gas Emissions (Scope 1 and Scope 2)									
<b>GRAND TOTAL</b>				<b>1234062586.4</b>	<b>20733.3</b>	<b>68.9</b>	<b>467.6</b>	<b>21269.8</b>	
Indirect Emissions (Scope 3)									
Waste Sent to Landfill									
2017									
Quantity	Unit	Type of Landfill	Type of Waste	Type of Operation	Source	CO <sub>2</sub> Emission Estimate (t CO <sub>2</sub> -e)	CH <sub>4</sub> Emission Estimate (t CO <sub>2</sub> -e)	N <sub>2</sub> O Emission Estimate (t CO <sub>2</sub> -e)	Total Emission Estimate (t CO <sub>2</sub> -e)
3101	tonnes (uncompacted)	Covered and/or managed waste treatment facility	Unknown (mixed waste types)	Other Operation	International	0.0	3721.2	0.0	3721.2
subtotal						0.0	3721.2	0.0	3721.2
<b>TOTAL</b>						<b>0.0</b>	<b>3721.2</b>	<b>0.0</b>	<b>3721.2</b>

\*A Green Power Agreement is unavailable for purchased as standard grid supply of electricity is from close to 100% renewable energy sources in Iceland.

### 3. Water

#### Potable Water Consumption (kL / Person Year) ★

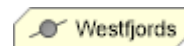
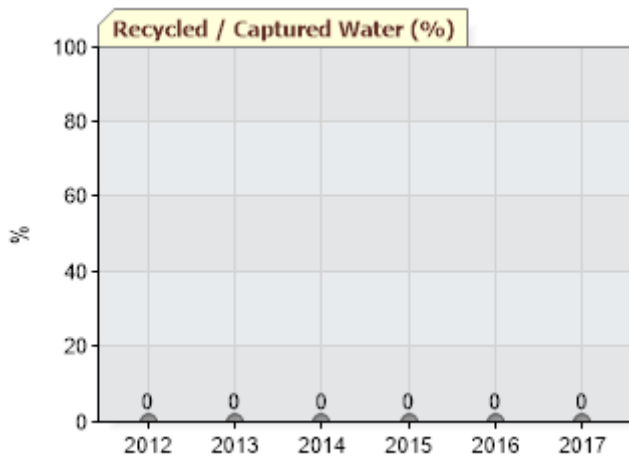


Potable Water Consumption (kL / Person Year) for the year 2017 (1 January 2017 – 31 December 2017) was 117.5 kL / Person Year, which was 79.9% better than the Best Practice level.

#### 2017

Quantity	Unit	Potable Water Consumption (kL)
460782285	litres	460782.3 kL
436632405	litres	436632.4 kL
	<b>TOTAL</b>	<b>897414.7 kL</b>

#### Recycled / Captured Water (%)

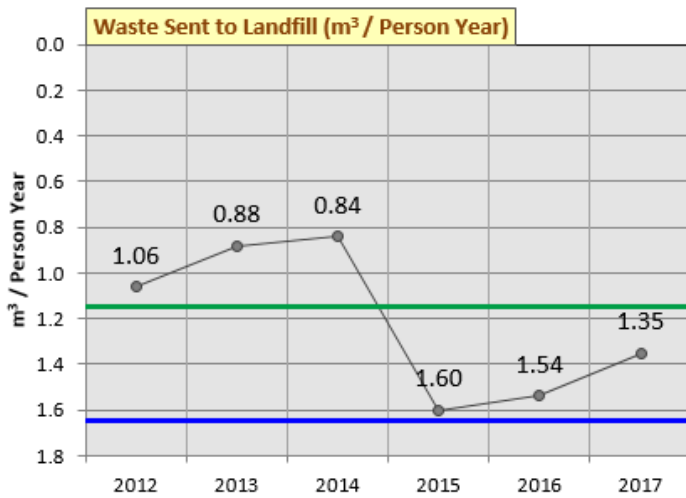


Recycled / Captured Water (%) for the year 2017 (1 January 2017 – 31 December 2017) was 0%.



## 4. Waste

### Waste Sent to Landfill (m<sup>3</sup> / Person Year)

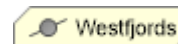
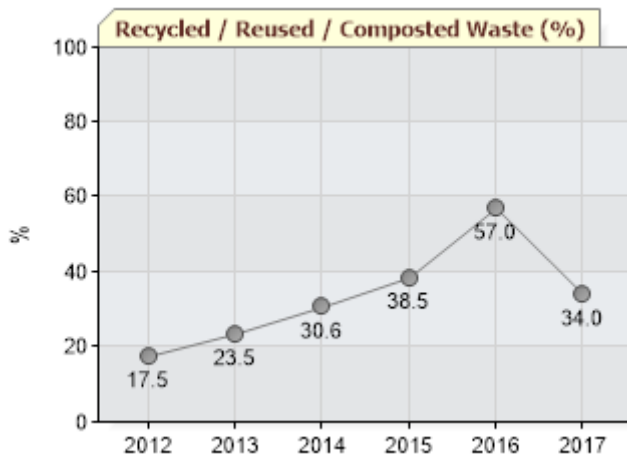


Waste Sent to Landfill (m<sup>3</sup> / Person Year) for the year 2017 (1 January 2017 – 31 December 2017) was 1.35 m<sup>3</sup> / Person Year, which was 21.1% below the Baseline level.

### 2017

Quantity	Unit	Type of Landfill	Type of Waste	Type of Operation	Waste Sent to Landfill (m <sup>3</sup> )
3101	tonnes (uncompacted)	Covered and/or managed waste treatment facility	Unknown (mixed waste types)	Other Operation	1353
				<b>TOTAL</b>	<b>1353.0 m<sup>3</sup></b>

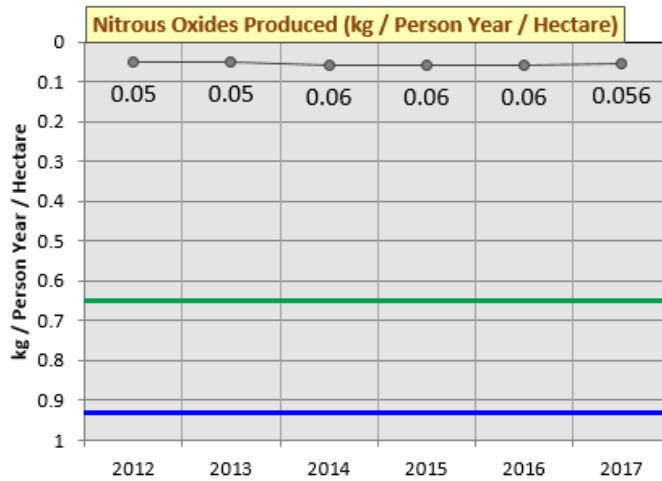
### Recycled / Reused / Composted Waste (%)



Recycled / Reused / Composted Waste (%) for the year 2017 (1 January 2017 – 31 December 2017) was 34.0%.

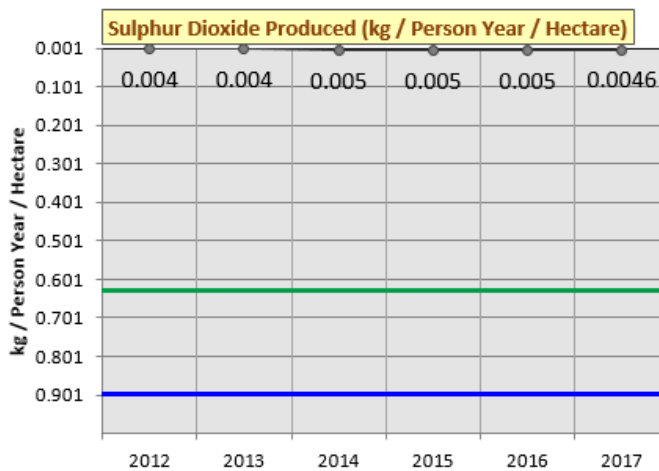
## 5. Sector Specific

### Nitrous Oxides Produced (kg / Person Year)



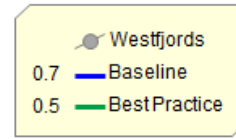
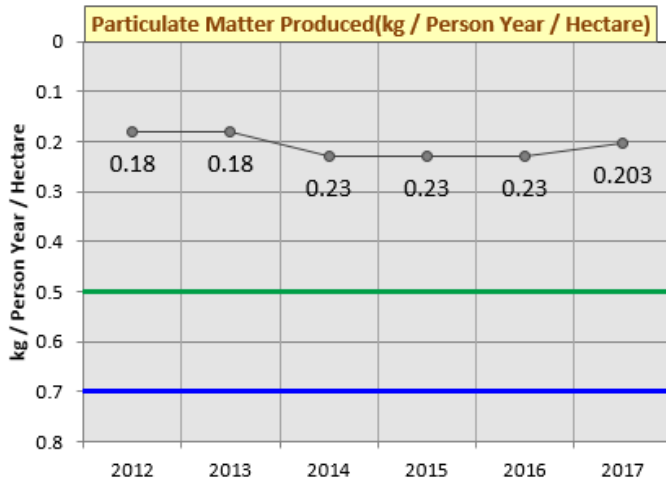
Nitrous Oxides Produced (kg / Person Year) for the year 2017 (1 January 2017 – 31 December 2017) was 0.056 kg / Person Year, which was 91.4% better than the Best Practice Level.

### Sulphur Dioxide Produced (kg / Person Year)



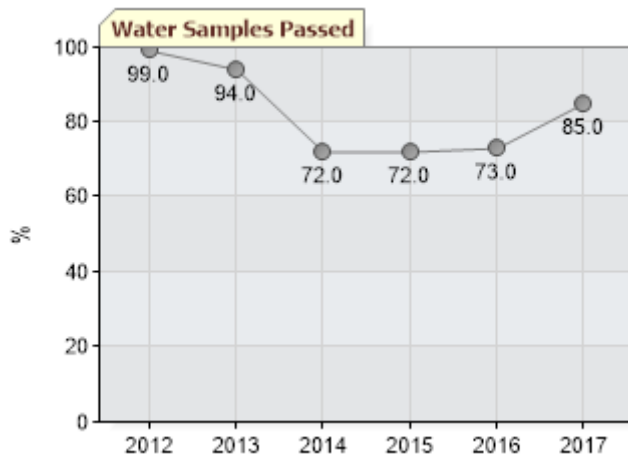
Sulphur Dioxide Produced (kg / Person Year) for the year 2017 (1 January 2017 – 31 December 2017) was 0.0046 kg / Person Year, which was 99.27% better than the Regional Leader level.

### Particulate Matter Produced (kg / Person Year)



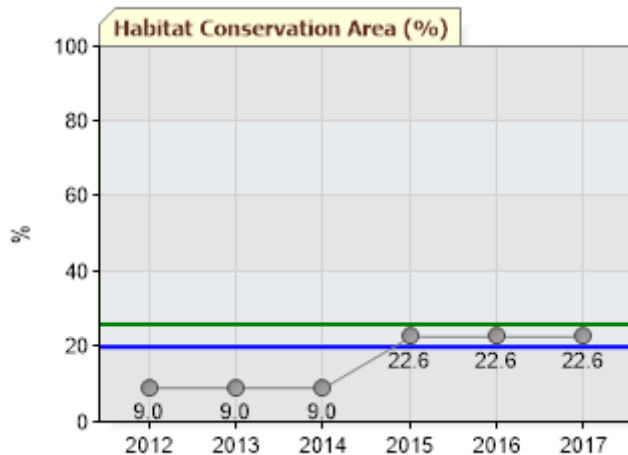
Particulate Matter Produced (kg / Person Year) for the year 2017 (1 January 2017 – 31 December 2017) was 0.203 kg / Person Year, which was 59.4% better than the Best Practice level.

### Water Samples Passed (%) ✓



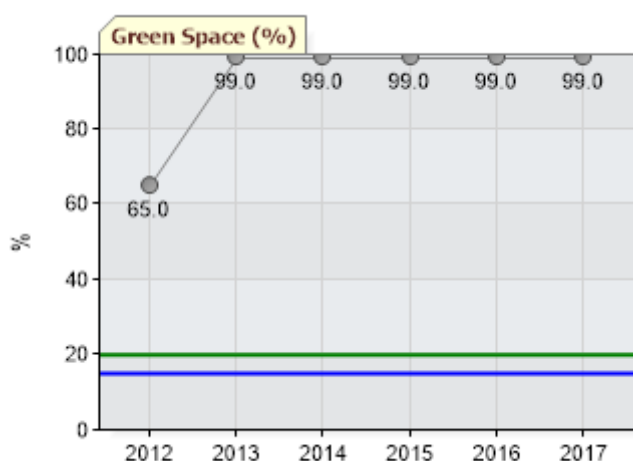
Water Samples Passed (%) for the year 2017 (1 January 2017 – 31 December 2017) was 85.0%, which was 15.0% better than the Baseline level.

### Habitat Conservation Area (%) ✓



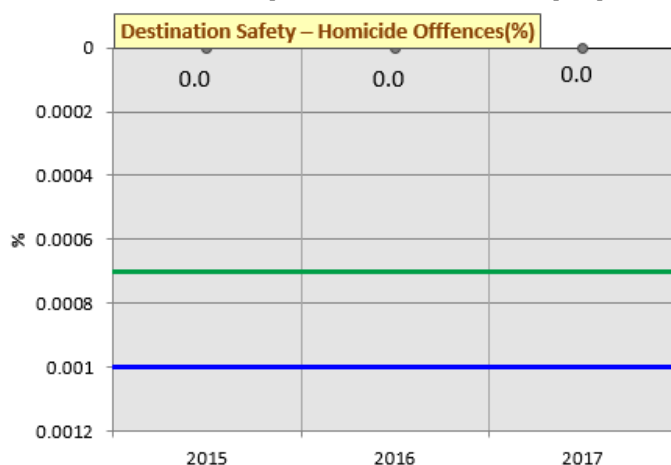
Habitat Conservation Area (%) for the year 2017 (1 January 2017 – 31 December 2017) was 22.6%, which was 2.6% better than the Baseline level.

## Green Space (%) ★



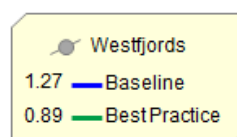
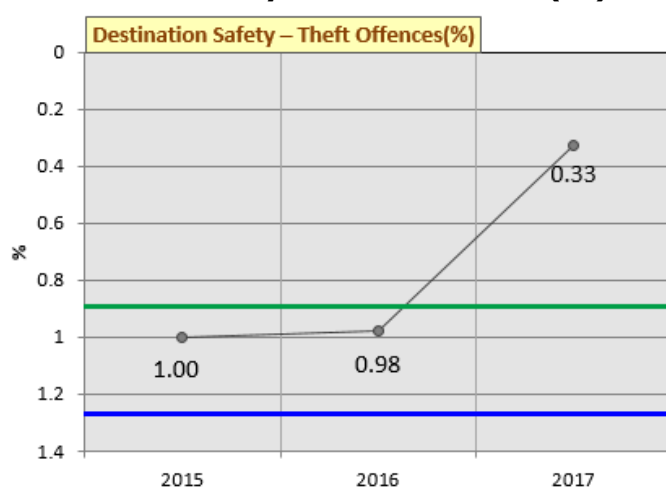
Green Space (%) for the year 2017 (1 January 2017 – 31 December 2017) was 99.0%, which was 79.0% better than the Best Practice level.

## Destination Safety – Homicide Rate (%) ★



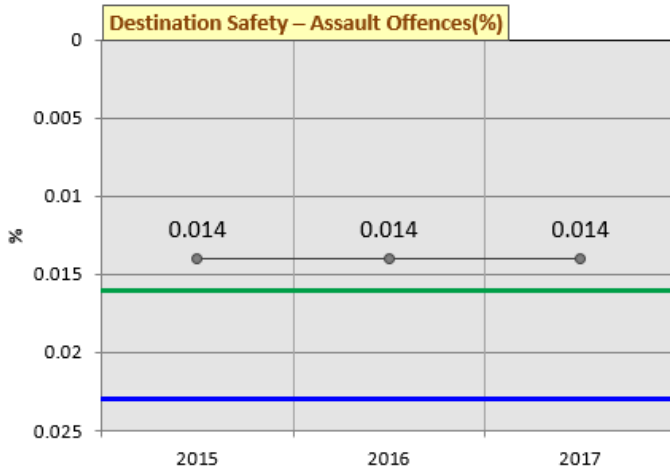
Homicide Rate (%) for the year 2017 (1 January 2017 – 31 December 2017) was 0.0% which was 0.0007% better than the Best Practice level.

## Destination Safety – Theft Offences (%) ★



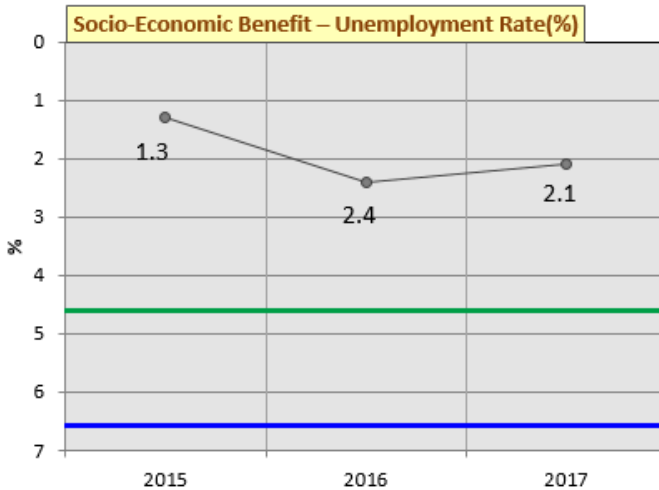
Theft Rate (%) for the year 2017 (1 January 2017 – 31 December 2017) was 0.33% was 0.56% better than the Baseline Level.

### Destination Safety – Assault Offences (%) ★



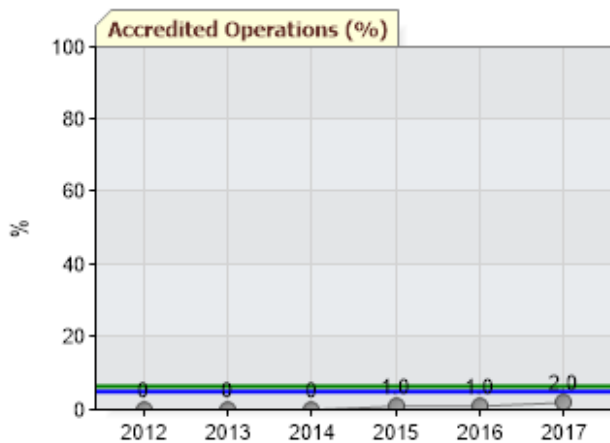
Assault Rate for the year 2017 (1 January 2017 – 31 December 2017) was 0.014%, which was 0.002% better than the Best Practice level.

### Socio-Economic Benefit – Unemployment Rate (%) ★



Unemployment Rate (%) for the year 2017 (1 January 2017 – 31 December 2017) was 2.1%, which was 2.5% better than the Best Practice Level.

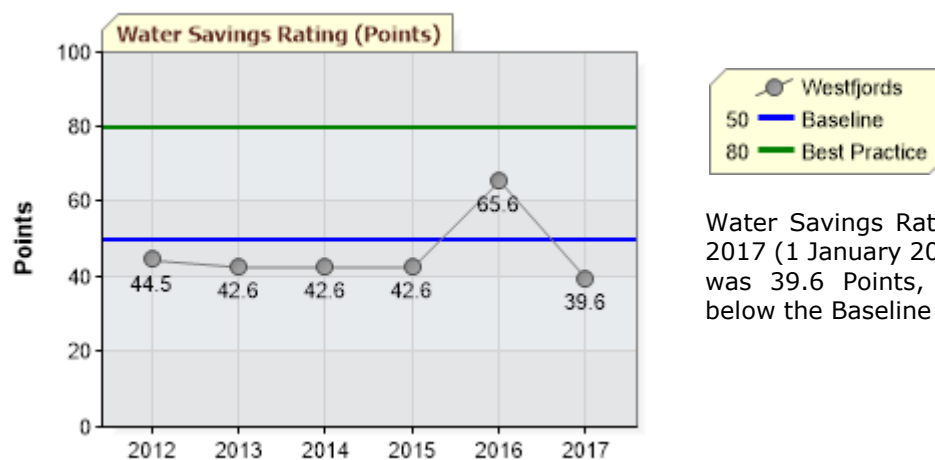
### Accredited Operations (%) ✕



Accredited Operations (%) for the year 2017 (1 January 2017 – 31 December 2017) was 2.0%, which was 3.0% below the Baseline level.

## 1. Lead Agency Performance

### Water Savings Rating (Points) ✕



Water Savings Rating (Points) for the year 2017 (1 January 2017 - 31 December 2017) was 39.6 Points, which was 10.4 Points below the Baseline level.

Water Savings Measures	Frequency / Percentage Rating	Water Savings Rating (Points)
Check for leaks	Not Relevant / Not Available	
Low/dual flush toilets	60-79%	73.9 Points
Low flow tap fittings	40-59%	65.1 Points
Low flow shower fittings	20-39%	58.8 Points
Water sprinklers used after dark	Not Relevant / Not Available	
Minimal irrigation landscaping	0%	0.0 Points
Use of recycle/grey/rain water	0%	0.0 Points
	<b>Overall Rating:</b>	<b>39.6 Points</b>

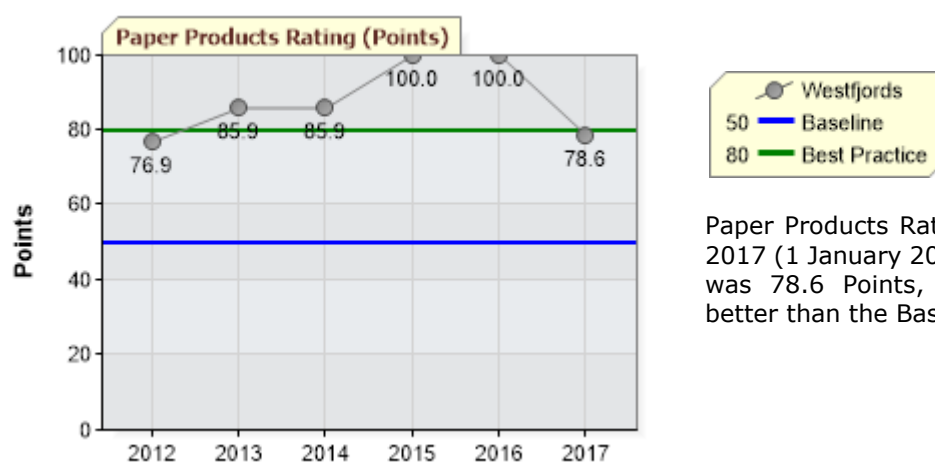
## Waste Recycling Rating (Points) ✓



Waste Recycling Rating (Points) for the year 2017 (1 January 2017 – 31 December 2017) was 69.4 Points, which was 19.4 Points better than the Baseline level.

Waste Recycling Measures	Frequency / Percentage Rating	Waste Recycling Rating (Points)
Glass	60-79%	73.9 Points
Paper/card	60-79%	73.9 Points
Iron & steel (ferrous metals)	80-99%	88.9 Points
Other metals (non-ferrous)	40-59%	65.1 Points
Plastics	40-59%	65.1 Points
Rubber	40-59%	65.1 Points
Green waste	1-19%	54.0 Points
	<b>Overall Rating:</b>	<b>69.4 Points</b>

## Paper Products Rating (Points) ✓

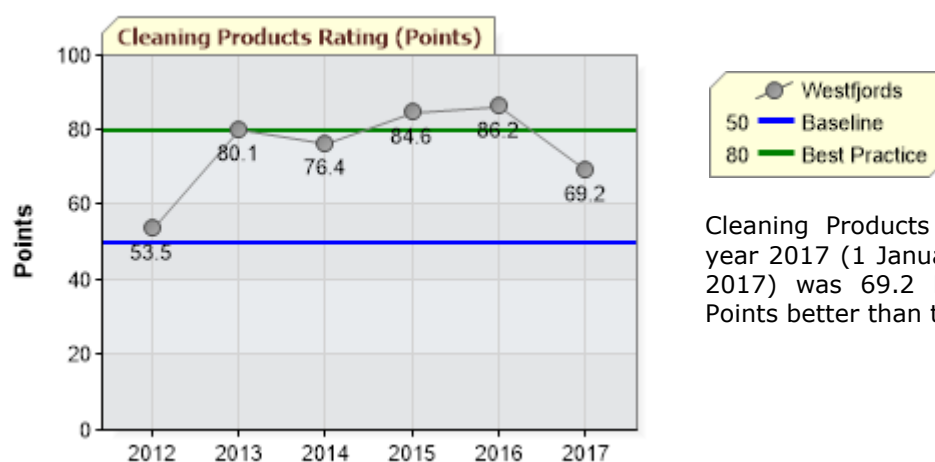


Paper Products Rating (Points) for the year 2017 (1 January 2017 – 31 December 2017) was 78.6 Points, which was 28.6 Points better than the Baseline level.

Paper Products Measures	Frequency / Percentage Rating	Paper Products Rating (Points)
Office paper	100%	100.0 Points
Serviettes	60-79%	73.9 Points
Tissues	40-59%	65.1 Points
Toilet tissue	40-59%	65.1 Points
Paper towels	80-99%	88.9 Points
	<b>Overall Rating:</b>	<b>78.6 Points</b>



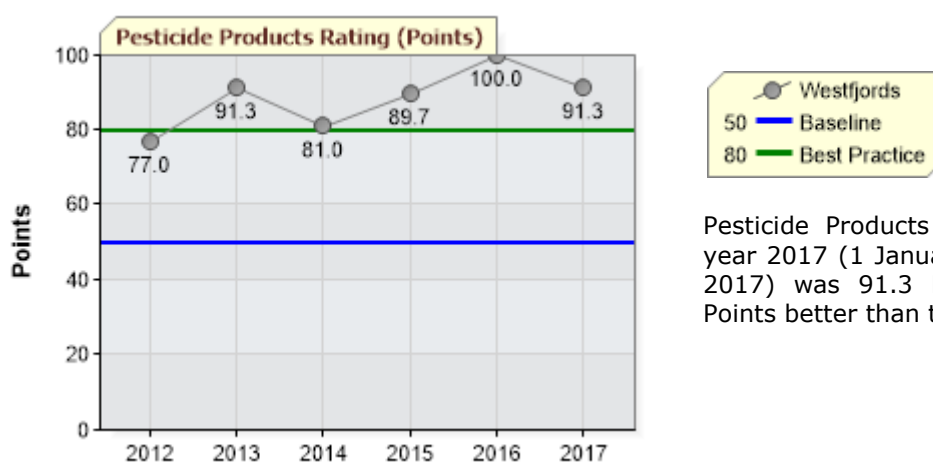
## Cleaning Products Rating (Points) ✓



Cleaning Products Rating (Points) for the year 2017 (1 January 2017 – 31 December 2017) was 69.2 Points, which was 19.2 Points better than the Baseline level.

Cleaning Products Measures	Frequency / Percentage Rating	Cleaning Products Rating (Points)
Hard floor cleaners	1-19%	54.0 Points
Carpet cleaners	Not Relevant / Not Available	100.0 Points
Interior surface cleaners	20-39%	58.8 Points
External surface cleaners	Not Relevant / Not Available	100.0 Points
Glass cleaners	1-19%	54.0 Points
Detergents	20-39%	58.8 Points
Personal hygiene	20-39%	58.8 Points
	<b>Overall Rating:</b>	<b>69.2 Points</b>

## Pesticide Products Rating (Points) ✓



Pesticide Products Rating (Points) for the year 2017 (1 January 2017 – 31 December 2017) was 91.3 Points, which was 11.3 Points better than the Best Practice level.

Pesticide Products Measures	Frequency / Percentage Rating	Pesticide Products Rating (Points)
Weed killers	Not Relevant / Not Available	100.0 Points
Fungal killers	Not Relevant / Not Available	100.0 Points
Rodent killers	40-59%	65.1 Points
Insect killers	Not Relevant / Not Available	100.0 Points
	<b>Overall Rating:</b>	<b>91.3 Points</b>

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*The supplied data has been compiled by **Westfjords** in the prescribed manner, authorised by a senior executive of the company and submitted for an annual assessment.*

## CONCLUSION AND RECOMMENDATIONS

Congratulations, **Westfjords** has met the requirements to be recognised as an EarthCheck Benchmarked Community.

In addition to having a Sustainability Policy in place, ten of the assessed EarthCheck indicator(s) are at or above the Baseline level.

From the benchmarking data provided, four indicator(s), *Greenhouse Gas Emissions (Scope 1 and Scope 2)*, *Potable Water Consumption*, *Pesticide Products Rating*, and *Green Space*, are at or above the Best Practice level.

The three indicator(s) that fell below the Baseline level were *Water Savings Rating*, *Total CO<sub>2</sub>-e Produced*, and *Accredited Operations*.

The value for Water Saving was 10.4 Points below the Baseline level. The **Westfjords** are encouraged, therefore, to review current on-site water use and the possibility of increasing on-site recycling and reuse (e.g. using non-hazardous rain water and/or grey water for watering plants and washing exterior surfaces). The **Westfjords** are also encouraged to regularly check for possible leaks, and fitting (where appropriate) water saving devices such as low-flow shower heads and dual flush toilet cisterns.

Waste Sent to Landfill could not be measured by the operation. The **Westfjords** are encouraged, therefore, to consider adopting a sampling method in order to measure waste for the next benchmarking assessment. This will not only identify performance, but may also uncover ways to reduce costs.

The **Westfjords** is encouraged to continue to make improvements in the above indicator/s and to ensure that any indicator/s below baseline is addressed in the organisation's risk assessment and long term sustainability approach.

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 **Westfjords** has demonstrated to the environment, the assessors are confident that they can maintain or improve performance, where appropriate and practical, in all indicators. In particular over the next 12 months, the **Westfjords** is encouraged to ensure that Water Savings Rating, Total CO<sub>2</sub>-e Produced, and Accredited Operations are at Baseline performance or better. In line with EarthCheck Policy this would enable the **Westfjords** to continue to meet the benchmarking requirements of the EarthCheck program.

## APPENDIX

### PURCHASED ELECTRICITY

The Benchmarking Assessors noted that the Green Power Percentage of Purchased Electricity increased significantly in the 2017 benchmarking period.

PURCHASED ELECTRICITY		
Period	Quantity (kWh)	Green Power %
2016	231525890	0%
2017	259150000	99.37%

The Benchmarking Assessors informed Westfjords that the factors used in the calculation of Greenhouse Gas Emissions from Purchased Electricity account for the sources of energy generation specific to country and region. Therefore the Green Power Percentage was updated to 0%.

### STATIONARY FUEL COMBUSTION

The Benchmarking Assessors sought clarification with regards to why no data was reported on the consumption of Diesel for Stationary Fuel Combustion in the 2017 benchmarking period.

**Westfjords** provided the following response for clarification:

*The year 2017 0,63% of the provided energy in the region came from diesel oil. Otherwise electricity and heating was provided through hydro-power or geothermal sources. That is a 38% in oil use cut as compared to 2016.*

STATIONARY FUEL COMBUSTION		
Fuel Type	2016	2017
Diesel (Litres)	248454	157138

Therefore the Benchmarking Assessors updated the figures submitted for Stationary Fuel Combustion based on the response provided above.

### WASTE SENT TO LANDFILL

The Benchmarking Assessors sought clarification with regards to why the reported quantity of Waste Sent to Landfill decreased significantly in the 2017 benchmarking period.

**Westfjords** provided the following response for clarification:

*The figures concerning waste to landfill are pretty accurate but the figures for things that go to reuse/recycling can differ much between years because f.ex. tyres (used to make soft tiles) timber sold to industry to substitute for coal, paper, glass, etc. is piled up until each container is completely full. This can happen in 1,5 years and therefore does not show up every year. Three thousand one hundred and one tons to covered, managed landfill. None to un-managed.*

Therefore the Benchmarking Assessors updated the figure submitted for Waste Sent to Landfill based on the response provided above.



EARTHCHECK

**Benchmarks Assessed by EarthCheck**

# SUMMARY OF SUPPLIED BENCHMARKING DATA

## Activity Measures

Person Years	7638
Total Destination Area	884414.96

## Supplied Benchmarking Data

### Energy

#### Energy Consumption (GJ / Person Year)

Supplied	1234062.58 GJ
Calculated	161.56 GJ / Person Year
Baseline	176.64 GJ / Person Year
Best Practice	123.65 GJ / Person Year
Difference	30.6% better than the Baseline level

#### Green Power (%)

Supplied	0%
Calculated	0%

#### Greenhouse Gas Emissions (Scope 1 and Scope 2) (t CO<sub>2</sub>-e / Person Year)

Supplied	21269.8 t CO <sub>2</sub> -e
Calculated	2.8 t CO <sub>2</sub> -e / Person Year
Baseline	4.09 t CO <sub>2</sub> -e / Person Year
Best Practice	2.86 t CO <sub>2</sub> -e / Person Year
Difference	2.7% better than the Best Practice level

#### Direct Emissions (Scope 1) (t CO<sub>2</sub>-e / Person Year)

Supplied	21221.4 t CO <sub>2</sub> -e
Calculated	2.8 t CO <sub>2</sub> -e / Person Year

#### Indirect Emissions (Scope 2) (kg CO<sub>2</sub>-e / Person Year)

Supplied	48391.1 kg CO <sub>2</sub> -e
Calculated	6.3 kg CO <sub>2</sub> -e / Person Year

#### Indirect Emissions (Scope 3) (t CO<sub>2</sub>-e / Person Year)

Supplied	3721.2 t CO <sub>2</sub> -e
Calculated	0.49 t CO <sub>2</sub> -e / Person Year

#### Waste Indirect Emissions (Scope 3) (t CO<sub>2</sub>-e / Person Year)

Supplied	3721.2 t CO <sub>2</sub> -e
Calculated	0.49 t CO <sub>2</sub> -e / Person Year

### Water

#### Potable Water Consumption (kL / Person Year)

Supplied	897414.7 kL
Calculated	117.5 kL / Person Year
Baseline	835.5957 kL / Person Year
Best Practice	584.91699 kL / Person Year
Difference	79.9% better than the Best Practice level

#### Recycled / Captured Water (%)

Supplied	0%
Calculated	0%

#### Water Savings Rating (Points)

Supplied	39.6 Points
Calculated	39.6 Points
Baseline	50 Points
Best Practice	80 Points
Difference	10.4 Points below the Baseline level

### Waste

#### Waste Sent to Landfill (m<sup>3</sup> / Person Year)

Supplied	1353.0 m <sup>3</sup>
Calculated	1.35 m <sup>3</sup> / Person Year
Baseline	1.65 m <sup>3</sup> / Person Year
Best Practice	1.15 m <sup>3</sup> / Person Year

#### Recycled / Reused / Composted Waste (%)

Supplied	34.0%
Calculated	34.0%

#### Waste Recycling Rating (Points)

Supplied	69.4 Points
Calculated	69.4 Points
Baseline	50 Points
Best Practice	80 Points
Difference	19.4 Points better than the Baseline level

## Paper

### Paper Products Rating (Points)

Supplied	78.6 Points
Calculated	78.6 Points
Baseline	50 Points
Best Practice	80 Points
Difference	28.6 Points better than the Baseline level

## Cleaning

### Cleaning Products Rating (Points)

Supplied	69.2 Points
Calculated	69.2 Points
Baseline	50 Points
Best Practice	80 Points
Difference	19.2 Points better than the Baseline level

## Pesticides

### Pesticide Products Rating (Points)

Supplied	91.3 Points
Calculated	91.3 Points
Baseline	50 Points
Best Practice	80 Points
Difference	11.3 Points better than the Best Practice level

## Sector Specific

### Nitrous Oxides Produced (kg / Person Year / Hectare)

Supplied	184583.0 kg
Calculated	0.056 kg / Person Year / ha
Baseline	0.93 kg / Person Year / ha
Best Practice	0.65 kg / Person Year / ha
Difference	91.4% better than Best Practice

### Sulphur Dioxide Produced (kg / Person Year / Hectare)

Supplied	14502.0 kg
Calculated	0.0046 kg / Person Year / ha
Baseline	0.9 kg / Person Year / ha
Best Practice	0.63 kg / Person Year / ha
Difference	99.27% better than Best Practice

### Particulate Matter Produced (kg / Person Year / Hectare)

Supplied	677658.0 kg
Calculated	0.203 kg / Person Year / ha
Baseline	0.7 kg / Person Year / ha
Best Practice	0.5 kg / Person Year / ha
Difference	59.4% better than Best Practice

### Water Samples Passed (%)

Supplied	85.0%
Calculated	85.0%
Baseline	70 %
Best Practice	100 %
Difference	15.0% better than the Baseline level

### Habitat Conservation Area (%)

Supplied	22.6%
Calculated	22.6%
Baseline	20 %
Best Practice	26 %
Difference	2.6% better than the Baseline level

### Green Space (%)

Supplied	99.0%
Calculated	99.0%
Baseline	15 %
Best Practice	20 %
Difference	79.0% better than the Best Practice level

### Destination Safety – Homicide Rate (%)

Supplied	0 Offences
Calculated	0.0%
Baseline	0.001%
Best Practice	0.0007%
Difference	0.0007% better than Best Practice

### Destination Safety – Theft Offences (%)

Supplied	25 Offences
Calculated	0.33%
Baseline	1.27%
Best Practice	0.89%
Difference	0.56% better than Best Practice

### Destination Safety – Assault Offences (%)

Supplied	19 (adjusted to 1) Offences
Calculated	0.014%
Baseline	0.023%
Best Practice	0.016%
Difference	0.002% better than Best Practice

### Unemployment Rate (%)

Supplied	2.1%
Calculated	2.1%
Baseline	6.6%
Best Practice	4.6%
Difference	2.5% better than Best Practice

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**Accredited Operations (%)**

Supplied	2.0%
Calculated	2.0%
Baseline	5 %
Best Practice	6.5 %
Difference	3.0% below the Baseline level

**Habitat Conservation (%)**

Supplied	22.6%
Calculated	22.6%



## 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 (m<sup>3</sup>) or litres (L)). These are: 1 kg (uncompacted waste) = 0.00333333 m<sup>3</sup> or 3.33333 L and 1 kg (compacted waste) = 0.00153846 m<sup>3</sup> 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).