



EARTHCHECK

# BENCHMARKING ASSESSMENT REPORT

COMMUNITY BENCHMARKING

**WESTFJORDS**

ÍSAFJÖRÐUR, ICELAND



REPORT DATE: 6 November 2014

Benchmarking Data Collection Period: 1 January 2013 – 31 December 2013

*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>3</sup> Green Power (%) <sup>3</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> Accredited Operations (%) <sup>2</sup>
<b>6</b>		<b>Lead Agency Performance</b> Water Savings Rating (Points) <sup>6</sup> Waste Recycling Rating (Points) <sup>6</sup> Paper Products Rating (Points) <sup>6</sup> Cleaning Products Rating (Points) <sup>6</sup> Pesticide Products Rating (Points) <sup>6</sup>

<sup>1</sup> 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.

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

<sup>3</sup> Person Year is equivalent to 365 person days. EarthCheck Communities 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 calculated on a per unit area basis using total emissions and total bounded area of the Community, 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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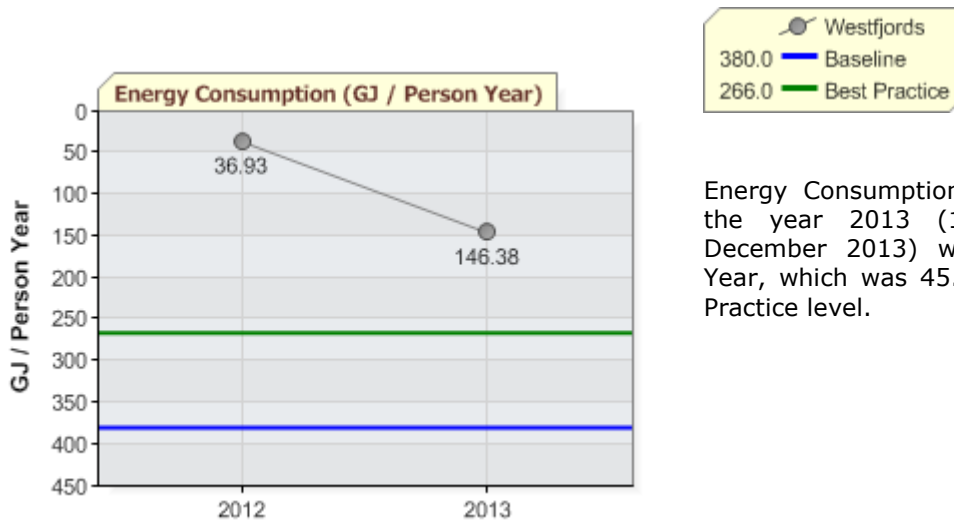
# COMMUNITY PERFORMANCE BENCHMARKS

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

## 1. Policy ★

## 2. Energy

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

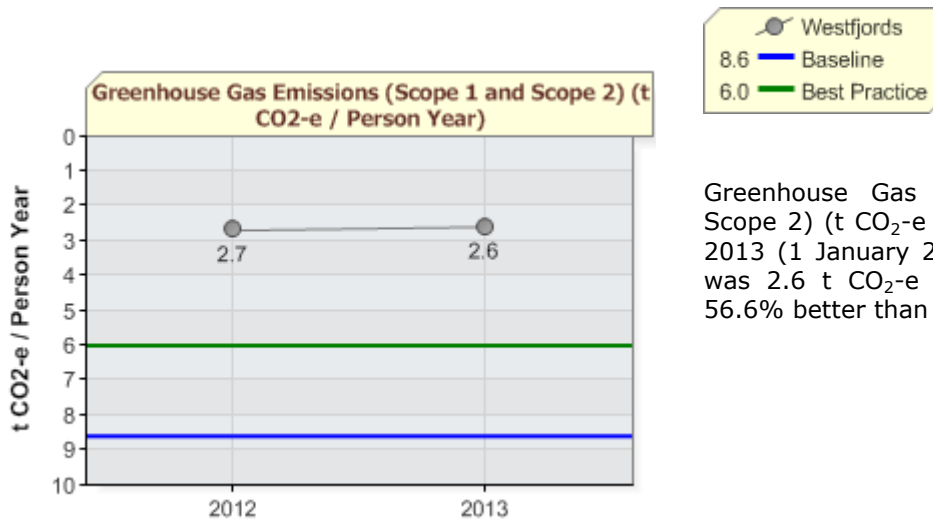


Energy Consumption (GJ / Person Year) for the year 2013 (1 January 2013 – 31 December 2013) was 146.38 GJ / Person Year, which was 45.0% better than the Best Practice level.

### Green Power (%)

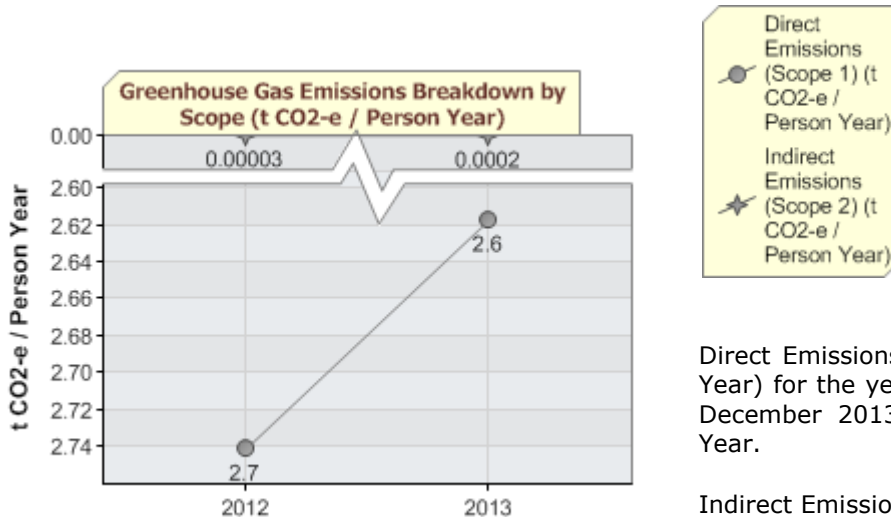
Not Applicable

## 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 2013 (1 January 2013 – 31 December 2013) was 2.6 t CO<sub>2</sub>-e / Person Year, which was 56.6% better than the Best Practice level.

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

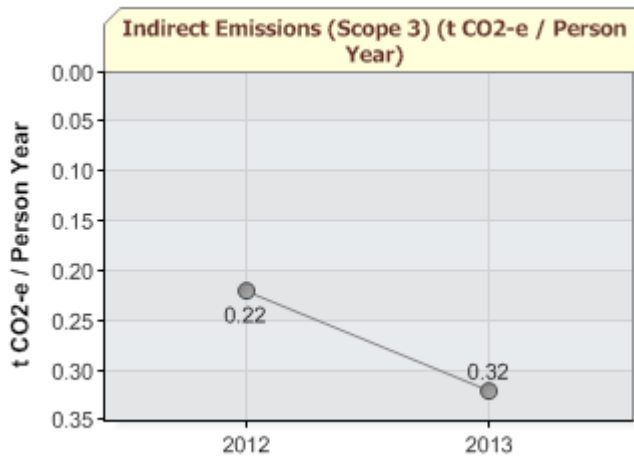


Direct Emissions (Scope 1) (t CO<sub>2</sub>-e / Person Year) for the year 2013 (1 January 2013 – 31 December 2013) was 2.6 t CO<sub>2</sub>-e / Person Year.

Indirect Emissions (Scope 2) (t CO<sub>2</sub>-e / Person Year) for the year 2013 (1 January 2013 – 31 December 2013) was 0.0002 t CO<sub>2</sub>-e / Person Year.

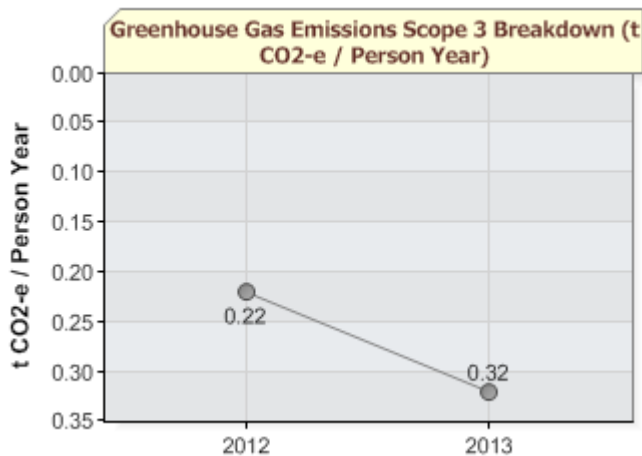
### Indirect Emissions (Scope 3) (t CO<sub>2</sub>-e / Person Year)

Westfjords



Indirect Emissions (Scope 3) (t CO<sub>2</sub>-e / Person Year) for the year 2013 (1 January 2013 – 31 December 2013) was 0.32 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)

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

Transport Indirect Emissions (Scope 3) (t CO<sub>2</sub>-e / Person Year) for the year 2013 (1 January 2013 – 31 December 2013) not measured as no data entered.

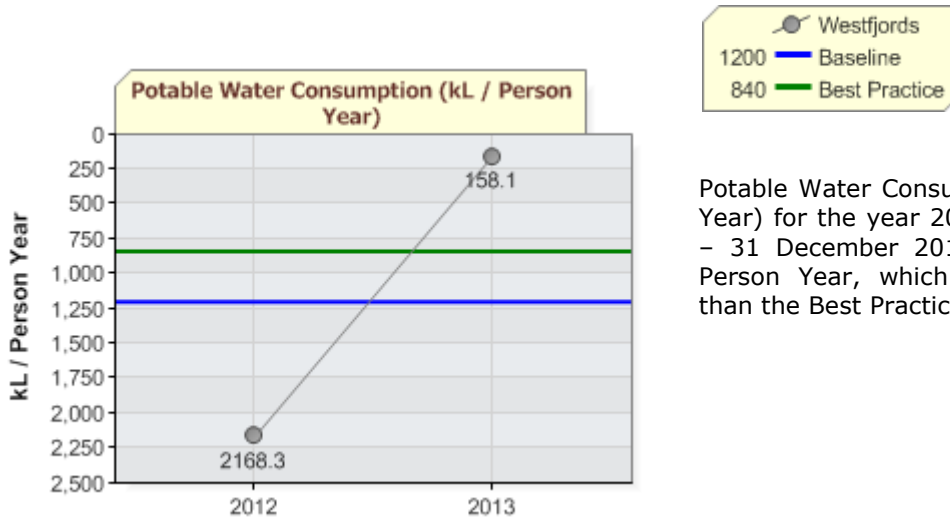
Waste Indirect Emissions (Scope 3) (t CO<sub>2</sub>-e / Person Year) for the year 2013 (1 January 2013 – 31 December 2013) was 0.32 t CO<sub>2</sub>-e / Person Year.

Direct Emissions (Scope 1)									
Stationary Fuel Combustion									
2013									
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	304.24	litres (L)	11621.0	0.8	0.002	0.002	0.8		
subtotal			11621.0	0.8	0.002	0.002	0.8		
Mobile Fuel Combustion (road)									
2013									
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)		
Motor gasoline	2441332	litres (L)	83499607.7	5497.2	41.6	196.7	5735.6		
Diesel	5000113	litres (L)	190988816.2	13444.7	14.9	219.4	13678.9		
subtotal			274488423.9	18941.9	56.5	416.1	19414.4		
<b>TOTAL</b>			<b>274500045.0</b>	<b>18942.7</b>	<b>56.5</b>	<b>416.1</b>	<b>19415.3</b>		
Indirect Emissions (Scope 2)									
Purchased Electricity									
2013									
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)	
225417000	Kilowatt hour (kWh)	N/A*	Iceland	811501200.0	41.3	0.1	0.7	42.1	
subtotal				811501200.0	41.3	0.1	0.7	42.1	
<b>TOTAL</b>				<b>811501200.0</b>	<b>41.3</b>	<b>0.1</b>	<b>0.7</b>	<b>42.1</b>	
Greenhouse Gas Emissions (Scope 1 and Scope 2)									
<b>GRAND TOTAL</b>				<b>1086001245.0</b>	<b>18983.9</b>	<b>56.6</b>	<b>416.8</b>	<b>19457.4</b>	
Indirect Emissions (Scope 3)									
Waste Sent to Landfill									
2013									
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)
1951	tonnes (uncompacted)	Covered and/or managed waste treatment facility	Unknown (mixed waste types)	Other Operation	International	0.0	2341.2	0.0	2341.2
subtotal						0.0	2341.2	0.0	2341.2
<b>TOTAL</b>						<b>0.0</b>	<b>2341.2</b>	<b>0.0</b>	<b>2341.2</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) ★

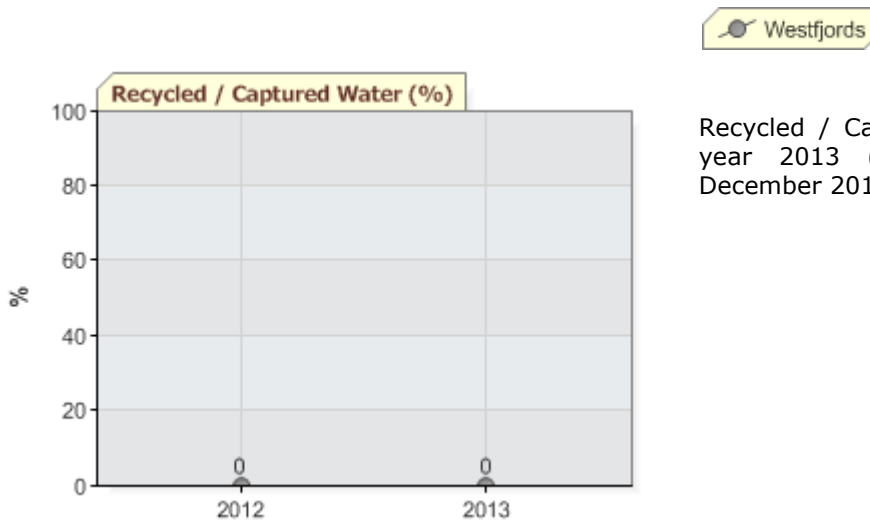


Potable Water Consumption (kL / Person Year) for the year 2013 (1 January 2013 – 31 December 2013) was 158.1 kL / Person Year, which was 81.2% better than the Best Practice level.

#### 2013

Quantity	Unit	Potable Water Consumption (kL)
1172904	cubic metres	1172904.0 kL
	<b>TOTAL</b>	<b>1172904.0 kL</b>

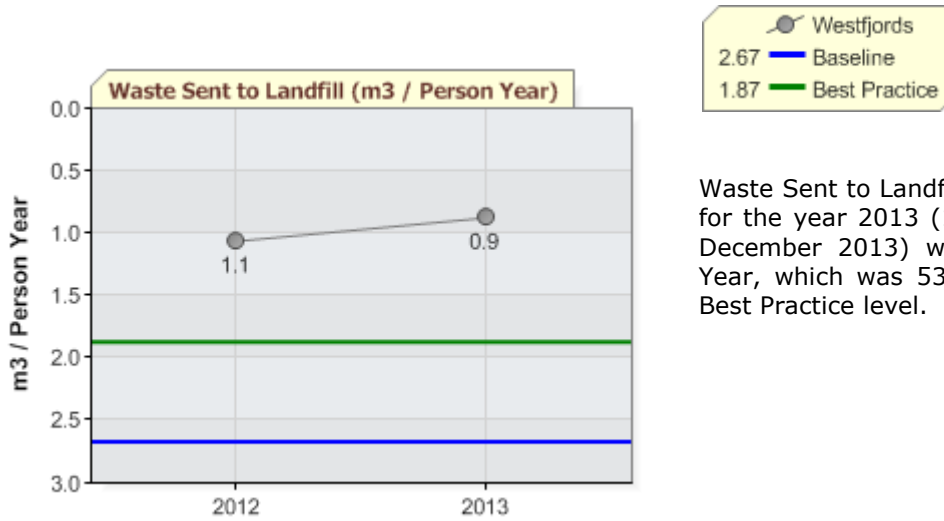
#### Recycled / Captured Water (%)



Recycled / Captured Water (%) for the year 2013 (1 January 2013 – 31 December 2013) 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 2013 (1 January 2013 – 31 December 2013) was 0.9 m<sup>3</sup> / Person Year, which was 53.0% better than the Best Practice level.

#### 2013

Quantity	Unit	Type of Landfill	Type of Waste	Type of Operation	Waste Sent to Landfill (m <sup>3</sup> )
1951	tonnes (uncompacted)	Covered and/or managed waste treatment facility	Unknown (mixed waste types)	Other Operation	6503.3 m <sup>3</sup>
				<b>TOTAL</b>	<b>6503.3 m<sup>3</sup></b>

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

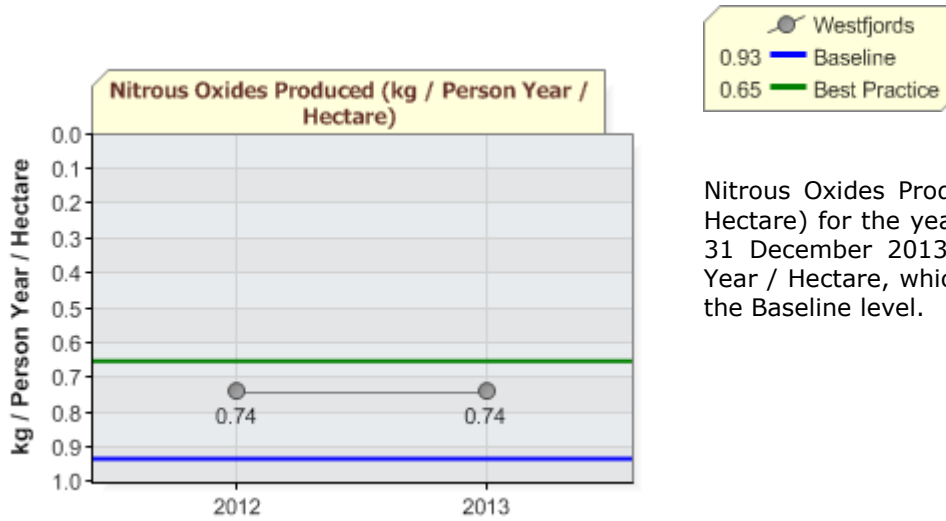


Recycled / Reused / Composted Waste (%) for the year 2013 (1 January 2013 – 31 December 2013) was 23.5%.



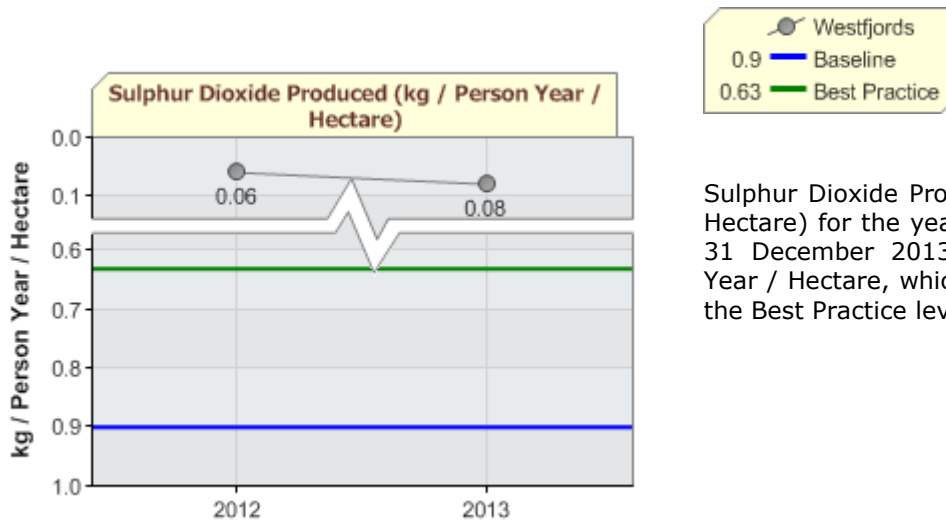
## 5. Sector Specific

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



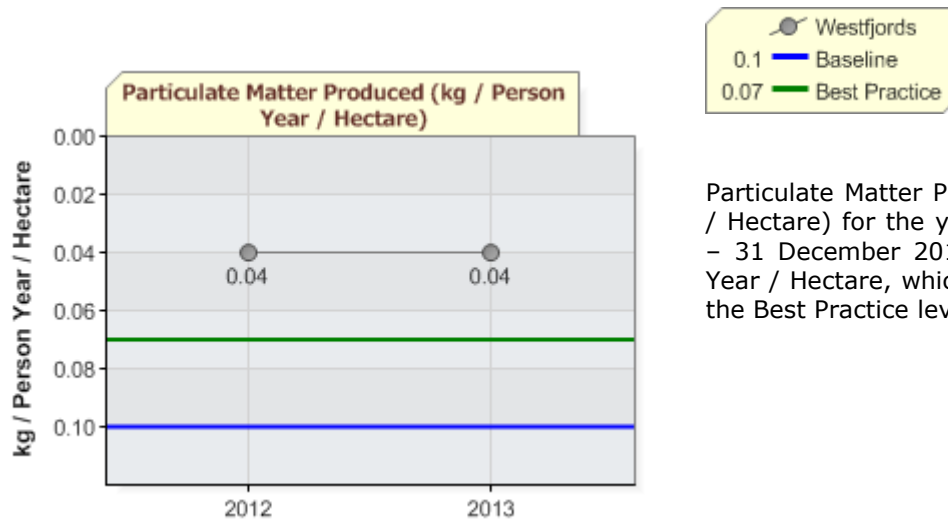
Nitrous Oxides Produced (kg / Person Year / Hectare) for the year 2013 (1 January 2013 – 31 December 2013) was 0.074 kg / Person Year / Hectare, which was 20.4 % better than the Baseline level.

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



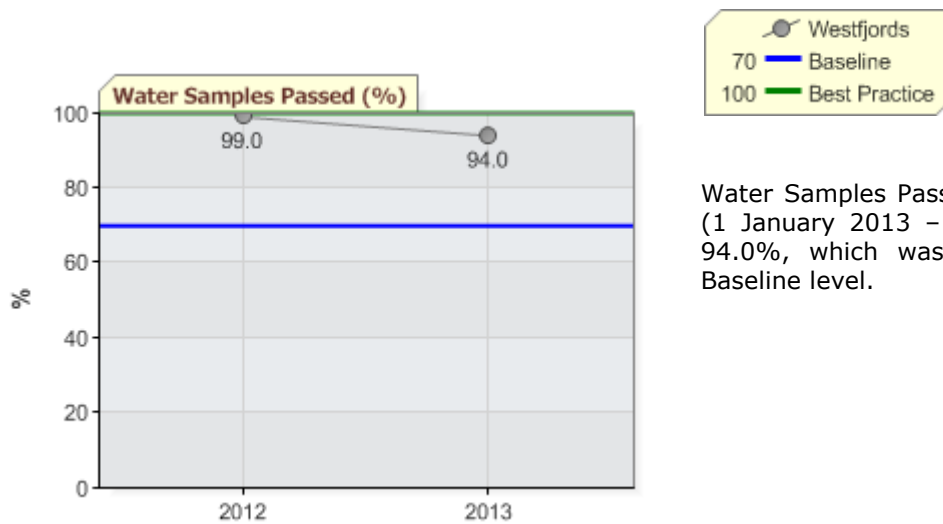
Sulphur Dioxide Produced (kg / Person Year / Hectare) for the year 2013 (1 January 2013 – 31 December 2013) was 0.08 kg / Person Year / Hectare, which was 87.3 % better than the Best Practice level.

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



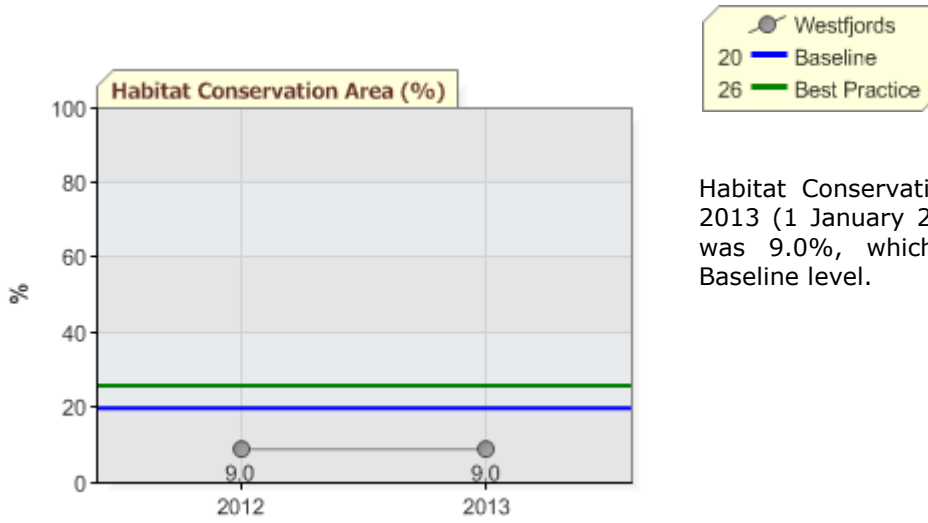
Particulate Matter Produced (kg / Person Year / Hectare) for the year 2013 (1 January 2013 – 31 December 2013) was 0.04 kg / Person Year / Hectare, which was 42.9 % better than the Best Practice level.

## Water Samples Passed (%) ✓



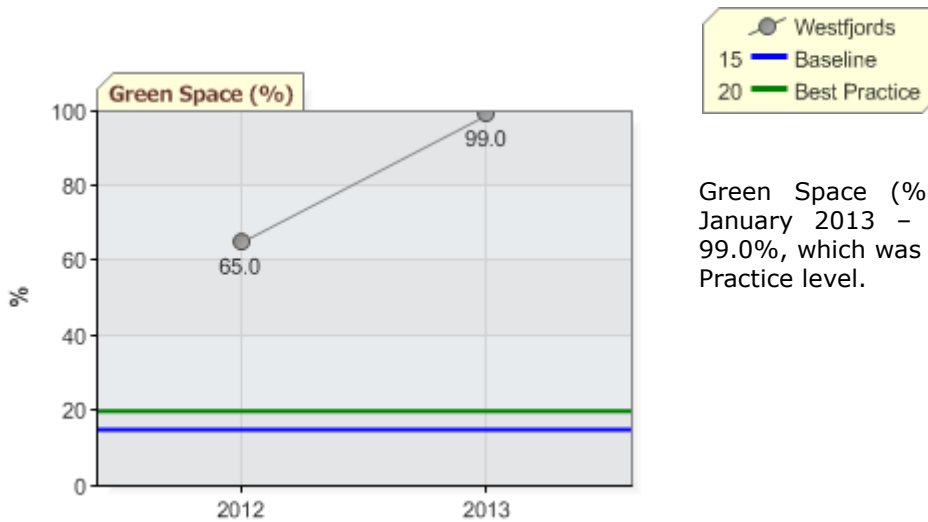
Water Samples Passed (%) for the year 2013 (1 January 2013 – 31 December 2013) was 94.0%, which was 24.0% better than the Baseline level.

### Habitat Conservation Area (%) ✘



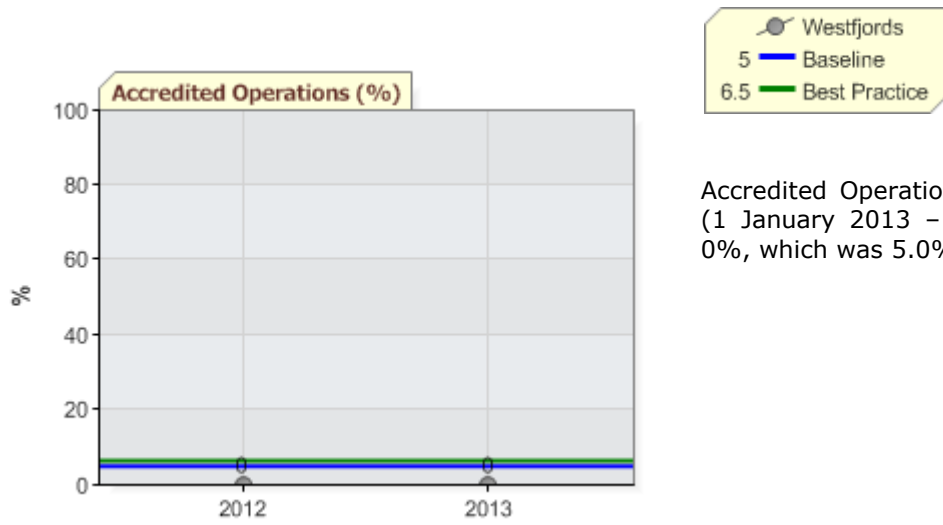
Habitat Conservation Area (%) for the year 2013 (1 January 2013 - 31 December 2013) was 9.0%, which was 11.0% below the Baseline level.

### Green Space (%) ★



Green Space (%) for the year 2013 (1 January 2013 - 31 December 2013) was 99.0%, which was 79.0% better than the Best Practice level.

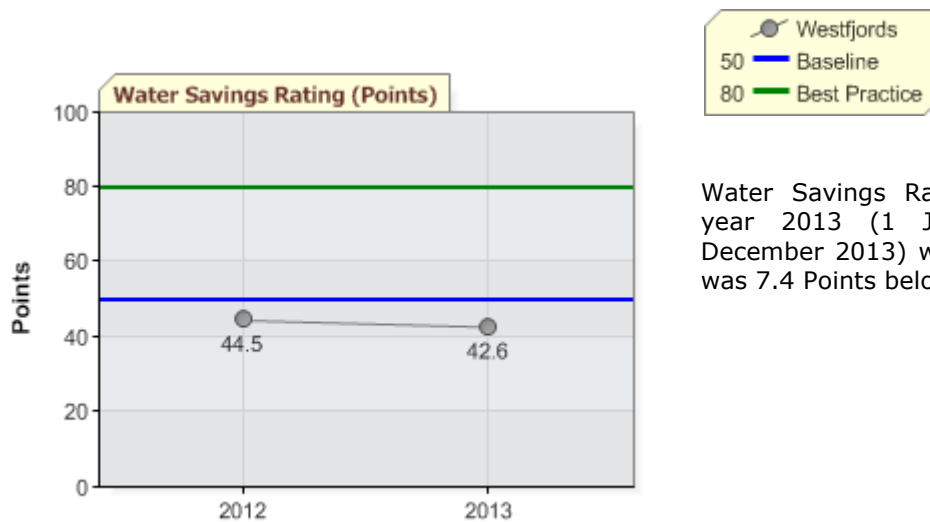
## Accredited Operations (%) ✕



Accredited Operations (%) for the year 2013 (1 January 2013 – 31 December 2013) was 0%, which was 5.0% below the Baseline level.

## 6. Lead Agency Performance

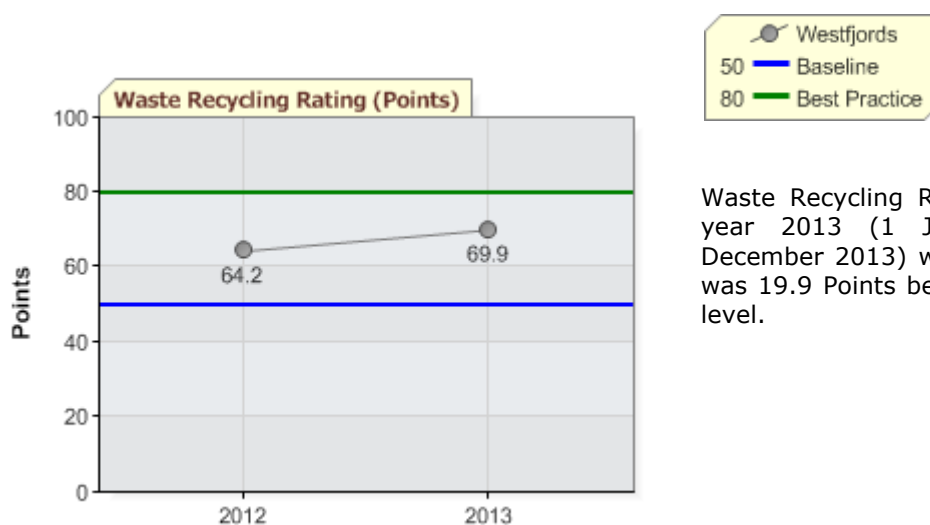
### Water Savings Rating (Points) ✕



Water Savings Rating (Points) for the year 2013 (1 January 2013 - 31 December 2013) was 42.6 Points, which was 7.4 Points below the Baseline level.

Water Savings Measures	Frequency / Percentage Rating	Water Savings Rating (Points)
Check for leaks	Once a year	54.0 Points
Low/dual flush toilets	60-79%	73.9 Points
Low flow tap fittings	0%	0.0 Points
Low flow shower fittings	Not Relevant / Available	-
Water sprinklers used after dark	Not Relevant / Not Available	-
Minimal irrigation landscaping	Not Relevant / Not Available	-
Use of recycle/grey/rain water	Not Relevant / Not Available	-
	<b>Overall Rating:</b>	<b>42.6 Points</b>

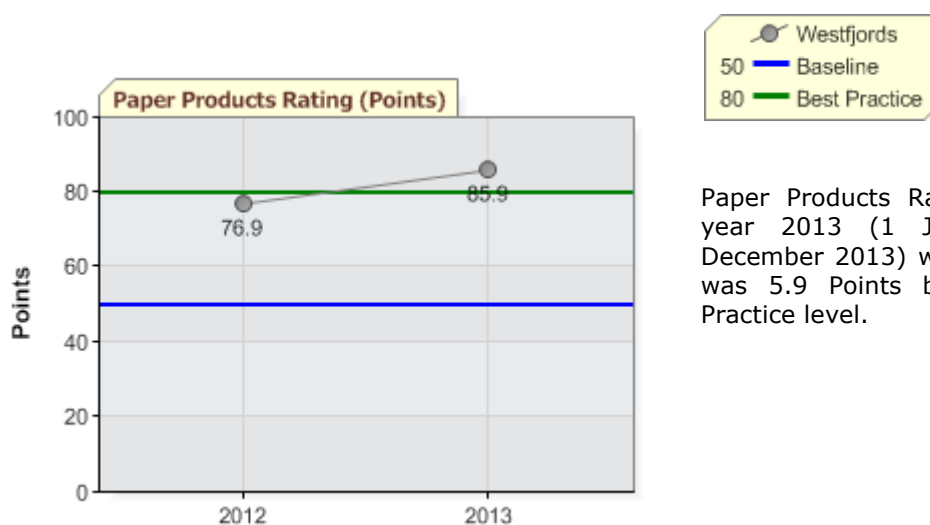
## Waste Recycling Rating (Points) ✓



Waste Recycling Rating (Points) for the year 2013 (1 January 2013 – 31 December 2013) was 69.9 Points, which was 19.9 Points better than the Baseline level.

Waste Recycling Measures	Frequency / Percentage Rating	Waste Recycling Rating (Points)
Glass	20-39%	58.8 Points
Paper/card	60-79%	73.9 Points
Iron & steel (ferrous metals)	100%	100.0 Points
Other metals (non-ferrous)	60-79%	73.9 Points
Plastics	20-39%	58.8 Points
Rubber	Not Relevant / Not Available	-
Green waste	1-19%	54.0 Points
	<b>Overall Rating:</b>	<b>69.9 Points</b>

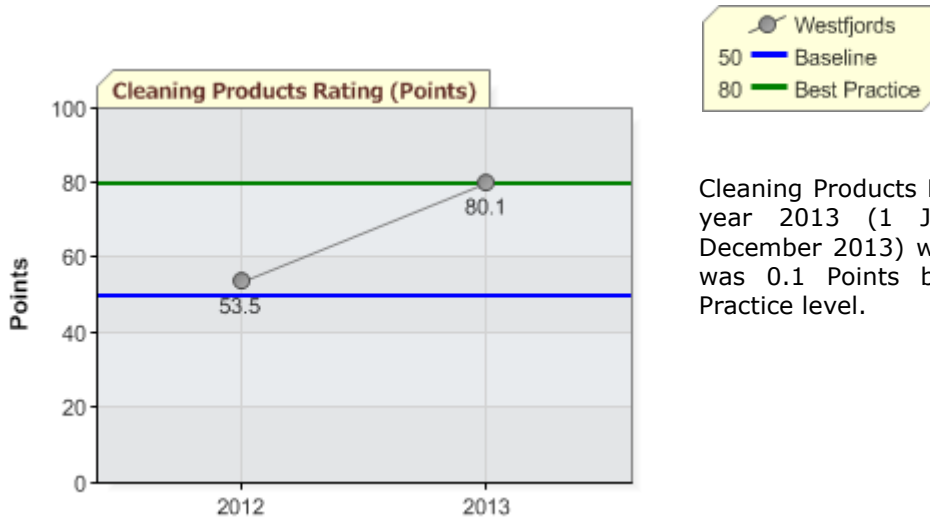
## Paper Products Rating (Points) ★



Paper Products Rating (Points) for the year 2013 (1 January 2013 – 31 December 2013) was 85.9 Points, which was 5.9 Points better than the Best Practice level.

Paper Products Measures	Frequency / Percentage Rating	Paper Products Rating (Points)
Office paper	80-99%	88.9 Points
Serviettes	60-79%	73.9 Points
Tissues	80-99%	88.9 Points
Toilet tissue	80-99%	88.9 Points
Paper towels	80-99%	88.9 Points
	<b>Overall Rating:</b>	<b>85.9 Points</b>

## Cleaning Products Rating (Points) ★

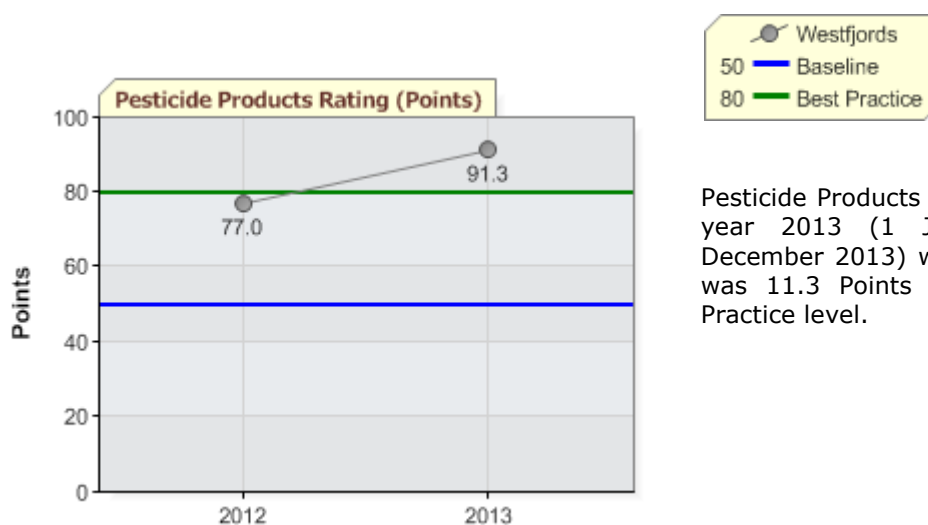


Cleaning Products Rating (Points) for the year 2013 (1 January 2013 – 31 December 2013) was 80.1 Points, which was 0.1 Points better than the Best Practice level.

Cleaning Products Measures	Frequency / Percentage Rating	Cleaning Products Rating (Points)
Hard floor cleaners	60-79%	73.9 Points
Carpet cleaners	Not Relevant / Available	100.0 Points
Interior surface cleaners	40-59%	65.1 Points
External surface cleaners	Not Relevant / Available	100.0 Points
Glass cleaners	20-39%	58.8 Points
Detergents	60-79%	73.9 Points
Personal hygiene	80-99%	88.9 Points
	<b>Overall Rating:</b>	<b>80.1 Points</b>



## Pesticide Products Rating (Points) ★



Pesticide Products Rating (Points) for the year 2013 (1 January 2013 – 31 December 2013) 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	40-59%	65.1 Points
Fungal killers	Not Relevant / Available	100.0 Points
Rodent killers	Not Relevant / Available	100.0 Points
Insect killers	Not Relevant / 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, thirteen of the assessed EarthCheck indicators are at or above the Baseline level. From the benchmarking data provided, ten indicators, *Energy Consumption, Greenhouse Gas Emissions (Scope 1 and Scope 2), Potable Water Consumption, Waste Sent to Landfill, Sulphur Dioxide Produced, Particulate Matter Produced, Green Space, Paper Products Rating, Cleaning Products Rating, and Pesticide Products Rating* are at or above the Best Practice level.

The three indicators that fell below the Baseline level were *Habitat Conservation Area, Accredited Operations* and *Water Savings Rating*.

The value for *Habitat Conservation Area* was 11.0% below the Baseline Level. **Westfjords** is encouraged to promote habitat conservation of land, wetlands and waterways to aid biodiversity conservation and support habitat protection within the region.

The value for *Accredited Operations* was 5.0% below the Baseline Level. **Westfjords** is encouraged to promote environmental accreditation to hotels, restaurants and other business within the community.

The value for *Water Saving Rating* was 7.4 Points below the Baseline level. **Westfjords** is 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). **Westfjords** is 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.

**Westfjords** is encouraged to continue to make improvements in the above indicators and to ensure that any indicators below baseline are 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, **Westfjords** is encouraged to ensure that *Water Savings Rating, Habitat Conservation Area, and Accredited Operations* are at Baseline performance or better. In line with EarthCheck Policy this would enable **Westfjords** to continue to meet the benchmarking requirements of the EarthCheck program.

## APPENDIX

### SUBMISSION COMMENTS

The following comments were provided at time of submission:

*"I have submitted the data for the year 2013. Regarding the sectors - CO<sub>2</sub>-e Produced - Air Quality - Nitrous Oxides Produced - Air Quality - Sulphur Dioxide Produced and Air Quality - Particulate Matter Produced – those sectors are not measured in Iceland so I could not put any value in there excepted 0 so I could submit the data.*

*Regarding the Potable Water consumption – last year measurements (2012) for the water were including the water who went on overflow to the sea. Now we have been trying to measure the actual usage.*

*Regarding the figure Waste sent to Landfill – regarding the information's I have it seems that those figures are correct.*

*Regarding green space – Iceland is a big country and we are only about 325.thousand people who live there. In Westfjords we are less than 7000 people who live in 884424,96 ha. So we have a lot of green spaces and therefore I put green spaces as 99 %"*

### ENERGY CONSUMPTION

The Benchmarking Assessors sought clarification with regards to the *Energy Consumption* as the figure initially submitted for *Stationary Fuel Combustion - Diesel* was considerably less than expected and no *Mobile Fuel* was submitted. Additionally, the figure submitted for *Purchased Electricity* was greater than expected (as per below);

	Stationary Fuel Combustion	Mobile Fuel Combustion (road)		Purchased Electricity (kWh)
	Diesel (L)	Diesel (L)	Motor gasoline (L)	
Current Assessment (2013)	304.24	-	-	225 417 000
Previous Assessment (2012)	311 818.00	4 962 884	2 481 441	222 954

**Westfjords** advised;

*" Our Mobile Fuel – Motor Gasoline usage was for the year 2013 – 2441332 L  
Mobile Fuel – Diesel usage was for the year 2013 – 5000113 L"*

Therefore, the Benchmarking Assessors updated the *Energy Consumption* as per below;

#### Stationary Fuel Combustion

Type	Quantity	Unit	Energy Consumption (MJ)
Diesel	304.24	litres (L)	11621.0

#### Mobile Fuel Combustion (road)

Type	Quantity	Unit	Energy Consumption (MJ)
Motor gasoline	2441332	litres (L)	83499607.7
Diesel	5000113	litres (L)	190988816.2

#### Purchased Electricity

Quantity	Unit	% Green Power	Provider	Energy Consumption (MJ)
225417000	Kilowatt hour (kWh)	N/A	Iceland	811501200.0

These sources produced a total of 1 086 001.25 GJ which equates to 146.38 GJ per *Person Year*. Total *Greenhouse Gas Emissions (Scope 1 and Scope 2)* was 19 416.5 t CO<sub>2</sub>-e which equates to 2.6 t CO<sub>2</sub>-e per *Person Year*.

### WATER SAVINGS RATING

The Benchmarking Assessors sought clarification with regards to the *Water Savings Rating* as the figures submitted for the current assessment differed considerably from the previous assessment.

**Westfjords** advised the following (in red);

*"Does the Westfjords Office have any garden areas which had water sprinklers installed? If so, what is the percentage of these sprinklers used after dark? No*

*Out of the total taps installed at the Westfjords Office, what is the percentage that are **low flow taps**? Not relevant / Available*

*Can you please confirm it is correct that the Westfjords Office conducts checks for leaks on an **annual basis**? Some municipalities started to check for leaks after we started this project so the answer I sent is correct."*

The Benchmarking Assessors sought further clarification with regards to the *Low flow taps* measure as it remained unclear the percentage (%) or taps installed that have low flow devices.

**Westfjords** advised;

*"Regarding the taps we do have taps in our offices. The only thing we have low flow are the toilets and they have two ways of flushing. It is about 65 % of them who are like that."*

Therefore, the Benchmarking Assessors updated the *Water Savings Rating* as per below;

Water Savings Measures	Frequency / Percentage Rating
Check for leaks	Once a year
Low/dual flush toilets	60-79%
Low flow tap fittings	0%
Low flow shower fittings	Not Relevant / Available
Water sprinklers used after dark	Not Relevant / Not Available
Minimal irrigation landscaping	Not Relevant / Not Available
Use of recycle/grey/rain water	Not Relevant / Not Available

This gives an overall *Water Savings Rating* of 42.6 Points.

### WASTE SENT TO LANDFILL

The Benchmarking Assessors sought clarification with regards to the *Waste Sent to Landfill* as the figure initially submitted was greater than expected.

**Westfjords** advised;

*"Recycled waste - 543,562 T  
Waste sent to Landfill - 311.233 T*

Total waste - 311.776,671 T"

Árið 2013	Recycled			Árið 2013	Waste sent to landfill		
	Service Provider	Service provider	Service provider		Service provider	Service provider	Service provider
	Ísafjarðarbær	Gámabjón	Sorpsamlag		Ísafjarðarbær	Gámabjón	Sorpsamlag
	14.00	19.7	610		594	125,891	291
	140	4.8	860		26	29,102	
	4	8.2	70,980		18	122,368	
	66	4.45	33,640		626	30,860	
	50	37.15	69,830		88		
	3		23,660		1,352	308,221	291
	5		16,300				
	282		4,735				
			3,723				
			224338				
<b>Tonn</b>	282	37.15	224.3		1,352	308.221	291
<b>Total</b>	543.450			<b>Samtals</b>	311,233		
<b>Recycled</b>	0.16%			<b>%Landfill</b>	89.54%		

Total waste			
	Ísafjbær	Standasýsla	Gámabjónustan
	594	290.9	308,221
	26		37,162
	18	224.3	345,383
	14	47.2	
	140		
	626		
	88		
	4		
	66		
	50		
	3		
	5		
<b>Tonn</b>	1,634	562	345,383
<b>Total waste</b>	347,579.400		311,776.671

The Benchmarking Assessors sought further clarification based on the spreadsheet provided (above) to ensure that all data has been entered correctly.

The **Westfjords** advised;

*"Regarding the garbage – the Contractors who take our garbage told me that all those figures they gave me are in tones.  
The figure 47,2 is crushed wood who they keep in a storage for using later for a landfill or walking paths."*

Therefore, the Benchmarking Assessors calculated the *Waste Sent to Landfill* as per below;

Árið 2013	Recycled			Árið 2013	Waste sent to landfill		
	Service Provider	Service provider	Service provider		Service provider	Service provider	Service provider
	Ísafjarðarbær	Gámabjón	Sorpsamlag		Ísafjarðarbær	Gámabjón	Sorpsamlag
	14.00	19.7	610		594	125,891	291
	140	4.8	860		26	29,102	
	4	8.2	70,980		18	122,368	
	66	4.45	33,640		626	30,860	
	50		69,830		88		
	3		23,660		1,352	308,221	291
	5		16,300				
			4,735				
			3,723				
	282.00	37.2	224338				
<b>Tonn</b>	282	37.15	224.3		1,352	308,221.000	291
<b>Total</b>	543.450			<b>Samtals</b>	309,864		
<b>Recycled</b>	0.18%			<b>%Landfill</b>	99.81%		
<b>Total waste</b>							
	Ísafjær	Standasýsla	Gámabjónustan				
	594	290.9	308,221				
	26		37.2				
	18	224.3					
	14	47.2					
	140						
	626						
	88						
	4						
	66						
	50						
	3						
	5						
<b>Tonn</b>	1,634	562	308,258				
<b>Total waste</b>	310,454.600						

	Quantity	Unit
<b>Waste Recycled</b>	543.45	Tonnes
<b>Waste Sent to Landfill</b>	309 864.00	Tonnes
<b>Waste Reused</b>	47.2	Tonnes
<b>Total Waste (Landfill + Recycled + Reuse)</b>	310 454.60	tonnes

As the figure remained significantly greater than expected, the Benchmarking Assessors sought further information as to why the figure had increased so significantly from the previous assessment.

The **Westfjords** advised;

**"1. Waste sent to Landfill**

*No I am sorry this is not correct. I have talked again to the service providers and asked them if they are really sending me there numbers in Tons.*

*Some of them did but some of them did not and they did not specify it.*

*Total Waste ( Recycled and waste sent to landfill together) – 2.542 T*

*Of that recycled – 543,5 T*

*Of that sent to landfill 1.951T"*

Therefore, the Benchmarking Assessors updated the *Waste Sent to Landfill* as per below;

Quantity	Unit	Type of Landfill	Type of Waste	Waste Sent to Landfill (m <sup>3</sup> )
1951	tonnes (uncompacted)	Covered and/or managed waste treatment facility	Unknown (mixed waste types)	6503.3 m <sup>3</sup>

The submitted value of 1 951 tonnes (1 951 000 kg) of waste (specified by the operator as uncompacted waste) has been converted into a volume by using the standard conversion of 1 kg (uncompacted waste) = 0.00333333 m<sup>3</sup> or 3.33333 L (i.e. 1 951 000 kg x 0.00333333 = 6 503.3 m<sup>3</sup>). (If the waste is compacted, then the standard conversion is: 1 kg = 0.00153846 m<sup>3</sup> or 1.53846 L).

This equates to 0.9 m<sup>3</sup> per *Person Year*.

The *Waste Sent to Landfill* data has been converted and assessed as a volume due to the direct impact of *Waste Sent to Landfill* relates to the space of landfill that is used to contain waste. The common measure used to measure this indicator is volume. The figure for the 2012 benchmarking period has also been recalculated to a volume value which is reflected in the current assessment report. This update provides **Westfjords** a more accurate reflection of its performance in solid waste management.

### AIR QUALITY

The Benchmarking Assessors have calculated *Air Quality* based on the submitted energy sources;

#### 2013

Nitrous Oxides Produced:	174 925.27 kg
Sulphur Dioxide Produced:	14 422.71 kg
Particulate Matter Produced:	9 023.02 kg

### HABITAT CONSERVATION AREA (%)

The Benchmarking Assessors sought clarification with regards to the *Habitat Conservation Area* as the figure of 76% initially submitted was greater than expected.

The **Westfjords** advised;

#### "2. *Habitat Conservation Area*

*This is incorrect – it is supposed to be 9% but hopefully next year 6 % will be added. In this calculation we are not taking all our coastline which is declared a conservation area."*

Therefore, the Benchmarking Assessors updated the *Habitat Conservation* to 9%.

### GREEN SPACE (%)

The Benchmarking Assessors sought clarification with regards to the *Green Space* as the figure of 99% initially submitted was greater than expected.

The **Westfjords** advised;

#### "4. *Green spaces*

*We in the Westfjords believe that your interpretation of green spaces does not apply to rural communities such as communities in the Westfjords. We have green spaces all-around us. In the mountains and in fjords. We know that this interpretation has been accepted by EarthCheck regarding Snæfellsnes and the Westfjords are just the same so we ask you to consider this interpretation."*

Therefore, the figure of 99% remained unchanged.

## WASTE RECYCLING RATING

The Benchmarking Assessors sought clarification with regards to the *Waste Recycling Rating* as the figures initially submitted were less than expected.

The **Westfjords** advised (in red);

*"Of the total 'Paper/card' waste (eg. office paper, paper boxes, cups etc.) generated by the Westfjords Office, what is the percentage of these 'paper waste' been recycled or reused? 60-79%*

*Of the total 'Iron/steel' waste (eg. food tins) generated by the Westfjords Office, what is the percentage of these 'Iron/steel waste' been recycled or reused? 100%*

*Of the total 'non-ferrous metals' waste (eg. aluminium cans) generated by the Westfjords Office, what is the percentage of these 'non-ferrous metals waste' been recycled or reused? 79%"*

Therefore, the Benchmarking Assessors updated the *Waste Recycling Rating* as per below;

Waste Recycling Measures	Frequency / Percentage Rating
Glass	20-39%
Paper/card	60-79%
Iron & steel (ferrous metals)	100%
Other metals (non-ferrous)	60-79%
Plastics	20-39%
Rubber	Not Relevant / Not Available
Green waste	1-19%

This gives an overall *Waste Recycling Rating* of 69.9 Points.

## PESTICIDE PRODUCTS RATING

The Benchmarking Assessors sought clarification with regards to the *Pesticide Products Rating* as the data initially submitted for 'Fungal killers' differed from the previous assessment.

**Westfjords** advised (in red);

*"Did the Westfjords Office use any **fungal killers** during 2013 benchmarking period? If so, what is the percentage of fungal killers used that was ecolabelled or biodegradable? Is not used They use salt"*

Therefore the information data reported for *Pesticide Products Rating* remained unchanged.





EARTHCHECK

**Benchmarks Assessed by EarthCheck**

# SUMMARY OF SUPPLIED BENCHMARKING DATA

## Activity Measures

Person Years	7419
Total Community Area	884425

## Supplied Benchmarking Data

### Energy

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

Supplied	1086001.25 GJ
Calculated	146.38 GJ / Person Year
Baseline	380 GJ / Person Year
Best Practice	266 GJ / Person Year
Difference	45.0% better than the Best Practice level

#### Green Power (%)

Supplied	N/A
Calculated	N/A

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

Supplied	19416.5 t CO <sub>2</sub> -e
Calculated	2.6 t CO <sub>2</sub> -e / Person Year
Baseline	8.6 t CO <sub>2</sub> -e / Person Year
Best Practice	6.0 t CO <sub>2</sub> -e / Person Year
Difference	56.6% better than the Best Practice level

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

Supplied	19415.3 t CO <sub>2</sub> -e
Calculated	2.6 t CO <sub>2</sub> -e / Person Year

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

Supplied	42092.1 kg CO <sub>2</sub> -e
Calculated	5.7 kg CO <sub>2</sub> -e / Person Year

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

Supplied	2341.2 t CO <sub>2</sub> -e
Calculated	0.32 t CO <sub>2</sub> -e / Person Year

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

Supplied	0.0 t CO <sub>2</sub> -e
Calculated	0.0 t CO <sub>2</sub> -e / Person Year

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

Supplied	2341.2 t CO <sub>2</sub> -e
Calculated	0.32 t CO <sub>2</sub> -e / Person Year

### Water

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

Supplied	1172904.0 kL
Calculated	158.1 kL / Person Year
Baseline	1200 kL / Person Year
Best Practice	840 kL / Person Year
Difference	81.2% better than the Best Practice level

#### Recycled / Captured Water (%)

Supplied	0%
Calculated	0%

#### Water Savings Rating (Points)

Supplied	42.6 Points
Calculated	42.6 Points
Baseline	50 Points
Best Practice	80 Points
Difference	7.4 Points below the Baseline level

### Waste

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

Supplied	6503.3 m <sup>3</sup>
Calculated	0.9 m <sup>3</sup> / Person Year
Baseline	2.66667 m <sup>3</sup> / Person Year
Best Practice	1.86667 m <sup>3</sup> / Person Year
Difference	53.0% better than the Best Practice level

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

Supplied	23.5%
Calculated	23.5%

**Waste Recycling Rating (Points)**

Supplied	69.9 Points
Calculated	69.9 Points
Baseline	50 Points
Best Practice	80 Points
Difference	19.9 Points better than the Baseline level

**Paper****Paper Products Rating (Points)**

Supplied	85.9 Points
Calculated	85.9 Points
Baseline	50 Points
Best Practice	80 Points
Difference	5.9 Points better than the Best Practice level

**Cleaning****Cleaning Products Rating (Points)**

Supplied	80.1 Points
Calculated	80.1 Points
Baseline	50 Points
Best Practice	80 Points
Difference	0.1 Points better than the Best Practice 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	174925 kg
Calculated	0.74 kg / Person Year / Hectare
Baseline	0.93 kg / Person Year / Hectare
Best Practice	0.65 kg / Person Year / Hectare
Difference	20.4 % better than the Baseline level

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

Supplied	14422 kg
Calculated	0.08 kg / Person Year
Baseline	0.9 kg / Person Year / Hectare
Best Practice	0.63 kg / Person Year / Hectare
Difference	87.3 % better than the Best Practice level

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

Supplied	9023 kg
Calculated	0.04 kg / Person Year / Hectare
Baseline	0.1 kg / Person Year / Hectare
Best Practice	0.07 kg / Person Year / Hectare
Difference	42.9 % better than the Best Practice level

**Water Samples Passed (%)**

Supplied	94.0%
Calculated	94.0%
Baseline	70 %
Best Practice	100 %
Difference	24.0% better than the Baseline level

**Habitat Conservation Area (%)**

Supplied	9.0%
Calculated	9.0%
Baseline	20 %
Best Practice	26 %
Difference	11.0% below 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

**Accredited Operations (%)**

Supplied	0%
Calculated	0%
Baseline	5 %
Best Practice	6.5 %
Difference	5.0% below the Baseline 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 (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).