



EARTHCHECK

BENCHMARKING ASSESSMENT REPORT

COMMUNITY BENCHMARKING

KAIKOURA DISTRICT COUNCIL
KAIKOURA, NEW ZEALAND



REPORT DATE: 8 December 2015

Benchmarking Data Collection Period: 1 July 2014 – 30 June 2015

The planet deserves more than half measures

OVERVIEW

This annual assessment of **Kaikoura** 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. The lead agency responsible for collection, collation and authorisation of the information required by the indicators was the **Kaikoura District Council**.

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

¹ 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'

² Produced by the lead agency after consultation with the community and consensus.

³ 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

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

5 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 Community, including waterways. The data is then normalized against the average number of person years per area of the country.

6 Assessed for the lead agency only.

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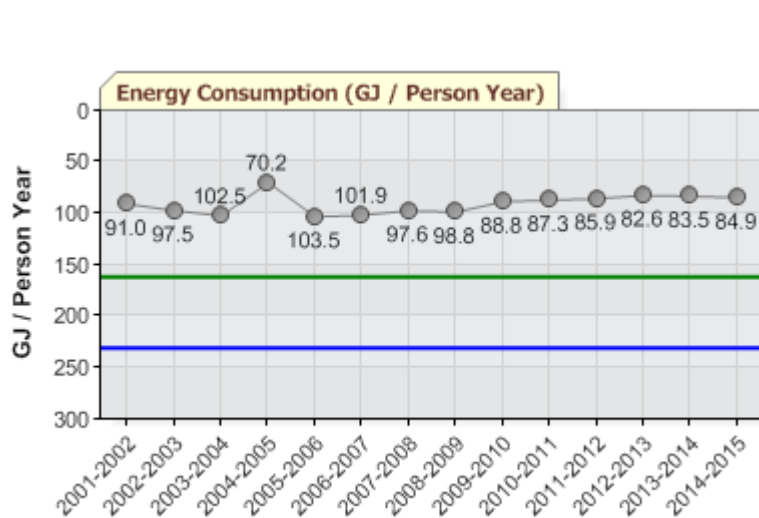
COMMUNITY PERFORMANCE BENCHMARKS

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

1. Policy ★

2. Energy

Energy Consumption (GJ / Person Year) ★

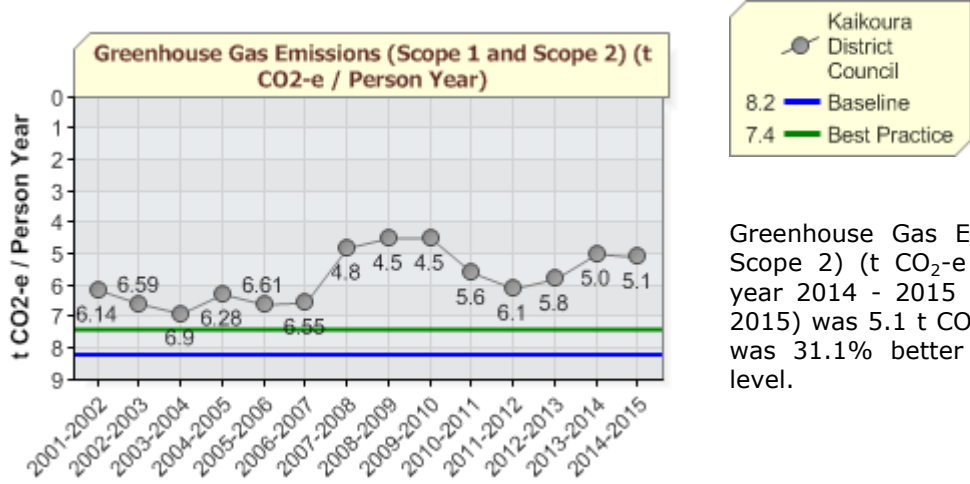


Energy Consumption (GJ / Person Year) for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 84.9 GJ / Person Year, which was 47.6% better than the Best Practice level.

Green Power (%)

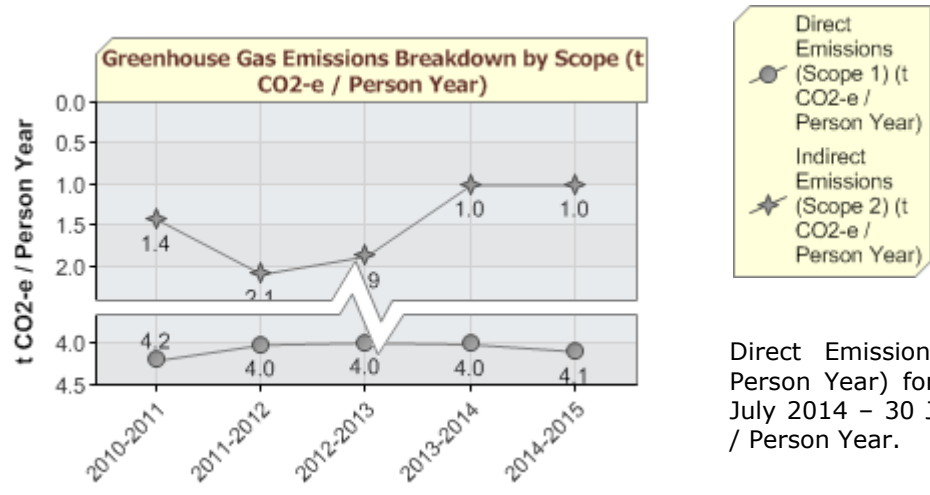
Not Applicable

Greenhouse Gas Emissions (Scope 1 and Scope 2) (t CO₂-e / Person Year) ★



Greenhouse Gas Emissions (Scope 1 and Scope 2) (t CO₂-e / Person Year) for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 5.1 t CO₂-e / Person Year, which was 31.1% better than the Best Practice level.

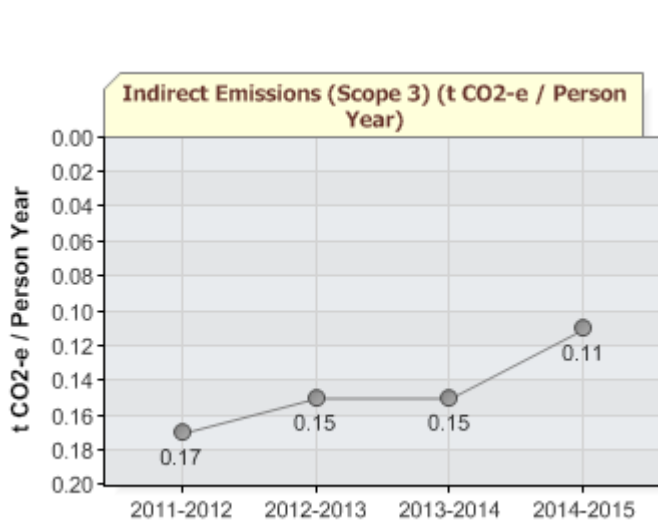
Greenhouse Gas Emissions Breakdown by Scope (t CO₂-e / Person Year)



Direct Emissions (Scope 1) (t CO₂-e / Person Year) for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 4.1 t CO₂-e / Person Year.

Indirect Emissions (Scope 2) (t CO₂-e / Person Year) for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 1.0 t CO₂-e / Person Year.

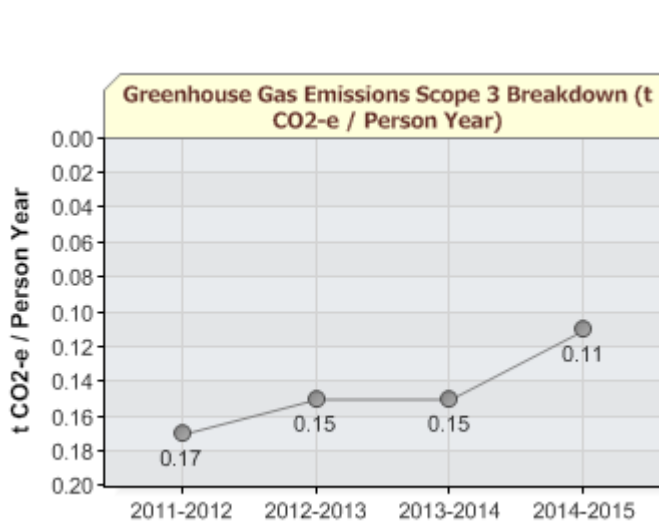
Indirect Emissions (Scope 3) (t CO₂-e / Person Year)



Kaikoura
District
Council

Indirect Emissions (Scope 3) (t CO₂-e / Person Year) for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 0.11 t CO₂-e / Person Year.

Greenhouse Gas Emissions Scope 3 Breakdown (t CO₂-e / Person Year)



Waste Indirect
Emissions
(Scope 3) (t
CO₂-e /
Person Year)

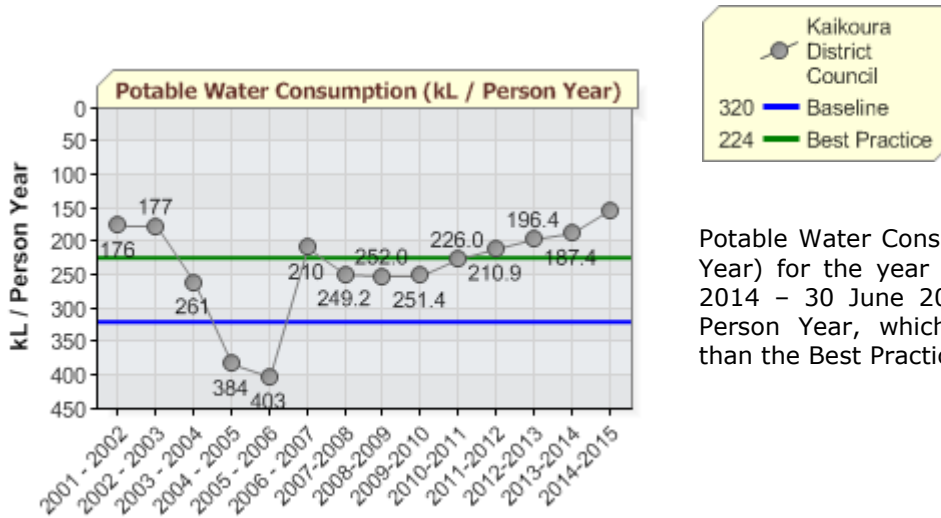
Transport Indirect Emissions (Scope 3) (t CO₂-e / Person Year) for the year 2014 - 2015 (1 July 2014 - 30 June 2015) not measured as no data entered.

Waste Indirect Emissions (Scope 3) (t CO₂-e / Person Year) for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 0.11 t CO₂-e / Person Year.

Direct Emissions (Scope 1)									
Stationary Fuel Combustion									
2014-2015									
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)		
Black coal	30.8	tonne	863478.0	80.6	0.2	0.4	81.2		
LPG	229.55	tonne	11365020.5	653.5	0.3	2.0	655.7		
Wood and wood waste	400	tonne	4832000.0	0.0	1.5	5.7	7.1		
subtotal			17060498.5	734.1	1.9	8.1	744.1		
Mobile Fuel Combustion (road)									
2014-2015									
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)		
Motor gasoline	2838708.25	litres (L)	99553498.3	6563.6	18.8	98.8	6681.2		
Diesel	5456409.09	litres (L)	209798929.5	14465.6	13.5	91.1	14570.2		
subtotal			309352427.8	21029.2	32.3	189.8	21251.3		
Mobile Fuel Combustion (air)									
2014-2015									
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)		
Aviation gasoline	224215	litres (L)	7594162.1	495.4	0.08	4.5	499.9		
subtotal			7594162.1	495.4	0.08	4.5	499.9		
TOTAL			334007088.4	22258.7	34.3	202.4	22495.3		
Indirect Emissions (Scope 2)									
Purchased Electricity									
2014-2015									
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)	
36639377.23	Kilowatt hour (kWh)	0	New Zealand	131901758.0	5503.4	2.4	9.5	5515.3	
subtotal				131901758.0	5503.4	2.4	9.5	5515.3	
TOTAL				131901758.0	5503.4	2.4	9.5	5515.3	
Greenhouse Gas Emissions (Scope 1 and Scope 2)									
GRAND TOTAL				465908846.4	27762.1	36.6	211.9	28010.6	
Indirect Emissions (Scope 3)									
Waste Sent to Landfill									
2014-2015									
Quantity	Unit	Type of Landfill	Type of Waste	Type of Operation	Source	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)
588.44	tonnes (compacted)	Covered and/or managed waste treatment facility	Unknown (mixed waste types)	Other Operation	New Zealand	0.0	623.7	0.0	623.7
subtotal						0.0	623.7	0.0	623.7
TOTAL						0.0	623.7	0.0	623.7

3. Water

Potable Water Consumption (kL / Person Year) ★

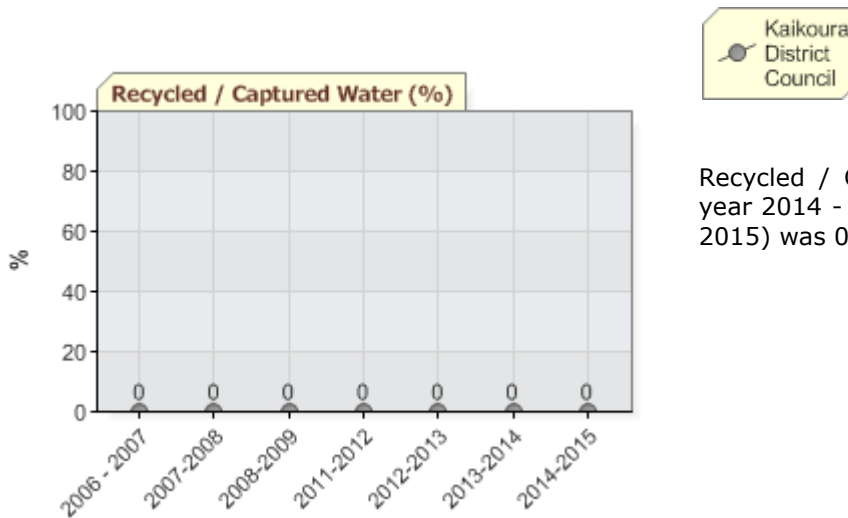


Potable Water Consumption (kL / Person Year) for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 153.1 kL / Person Year, which was 31.6% better than the Best Practice level.

2014-2015

Quantity	Unit	Potable Water Consumption (kL)
840308	kilolitres (kL)	840308.0 kL
	TOTAL	840308.0 kL

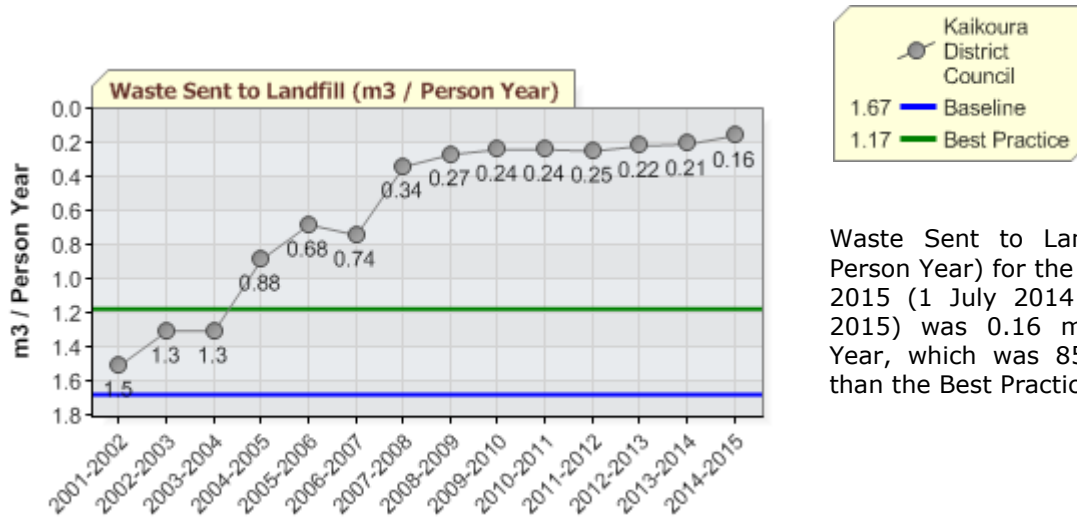
Recycled / Captured Water (%)



Recycled / Captured Water (%) for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 0%.

4. Waste

Waste Sent to Landfill (m³ / Person Year) ★

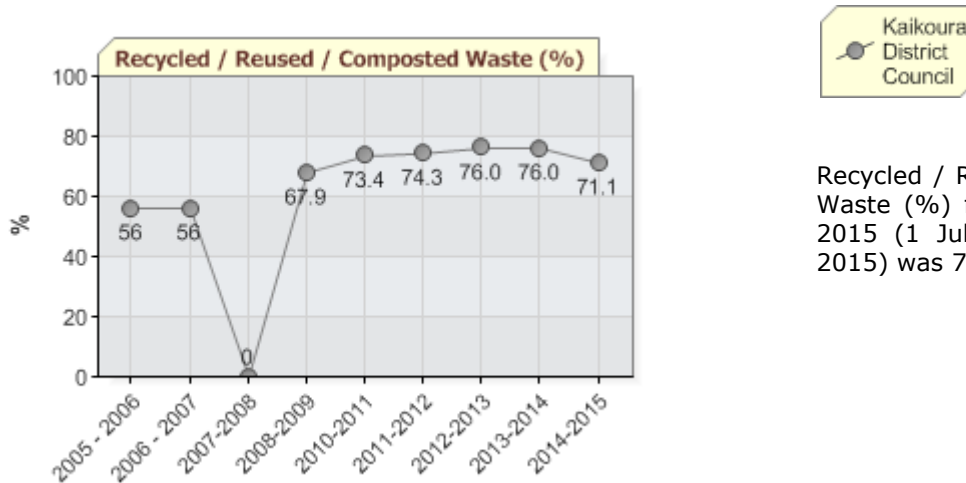


Waste Sent to Landfill (m³ / Person Year) for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 0.16 m³ / Person Year, which was 85.9% better than the Best Practice level.

2014-2015

Quantity	Unit	Type of Landfill	Type of Waste	Type of Operation	Waste Sent to Landfill (m ³)
588.44	tonnes (compacted)	Covered and/or managed waste treatment facility	Unknown (mixed waste types)	Other Operation	905.3 m ³
				TOTAL	905.3 m³

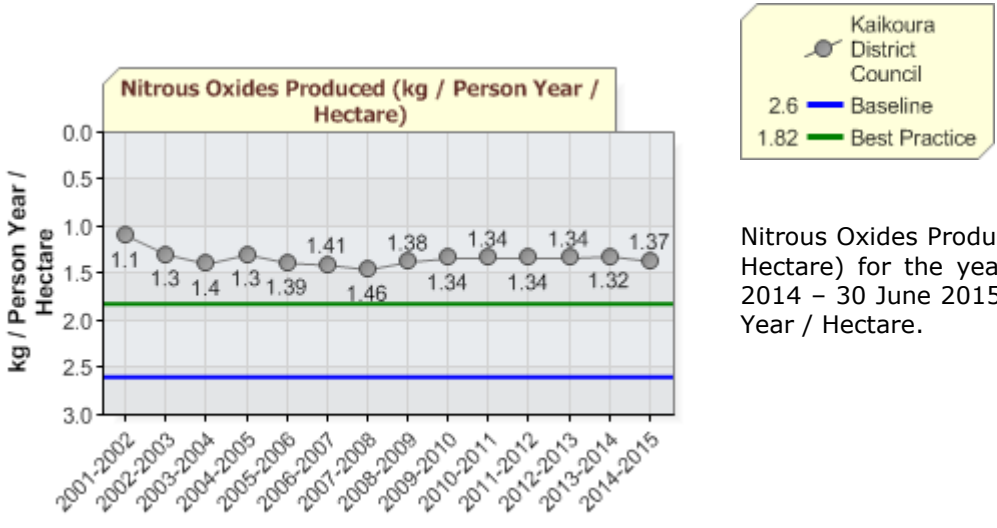
Recycled / Reused / Composted Waste (%)



Recycled / Reused / Composted Waste (%) for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 71.1%.

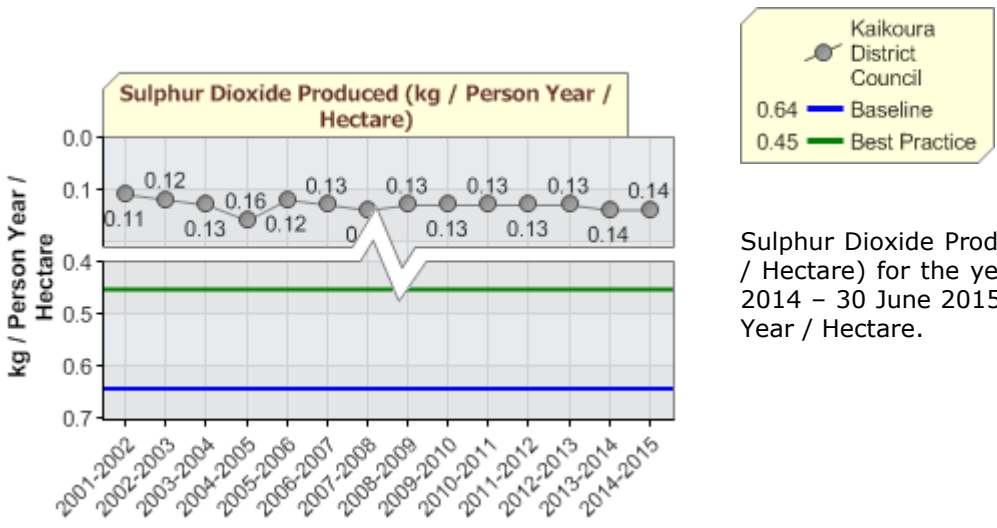
5. Sector Specific

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



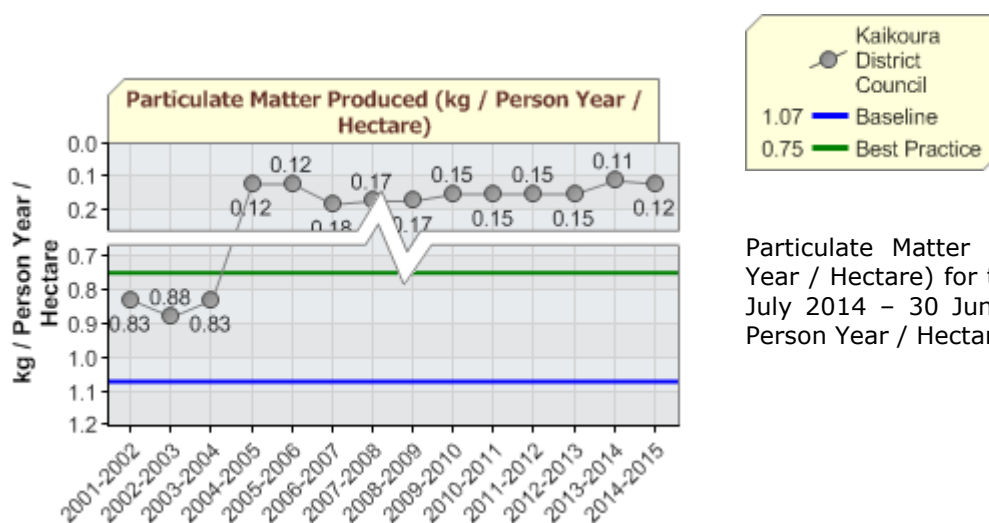
Nitrous Oxides Produced (kg / Person Year / Hectare) for the year 2014 - 2015 (1 July 2014 – 30 June 2015) was 1.37 kg / Person Year / Hectare.

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



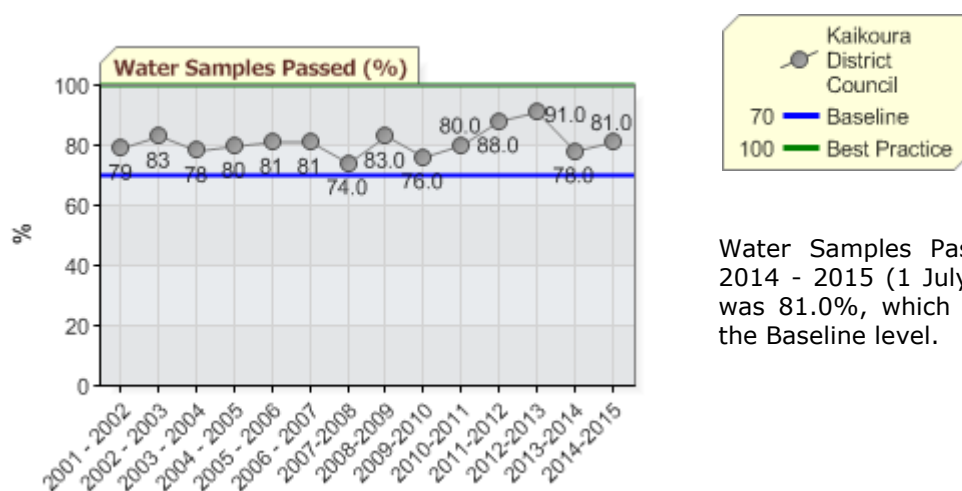
Sulphur Dioxide Produced (kg / Person Year / Hectare) for the year 2014 - 2015 (1 July 2014 – 30 June 2015) was 0.14 kg / Person Year / Hectare.

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



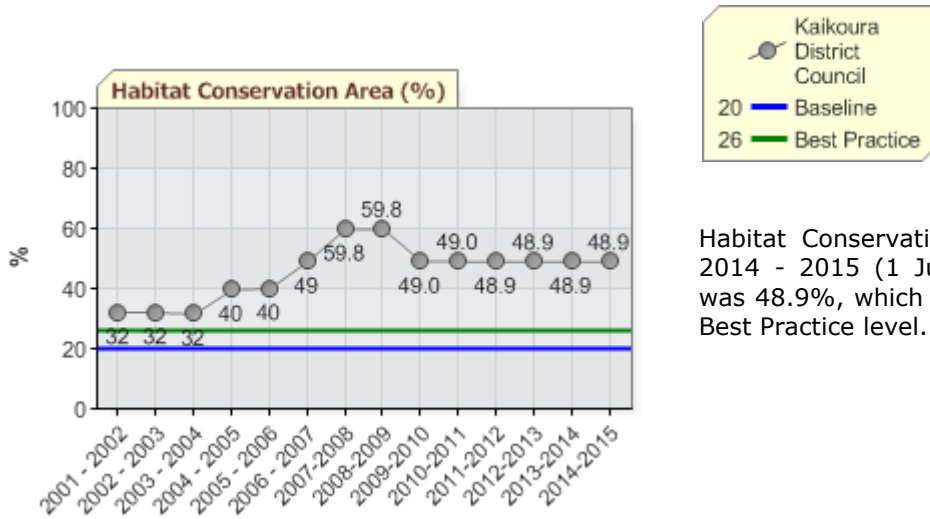
Particulate Matter Produced (kg / Person Year / Hectare) for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 0.12 kg / Person Year / Hectare.

Water Samples Passed (%) ✓



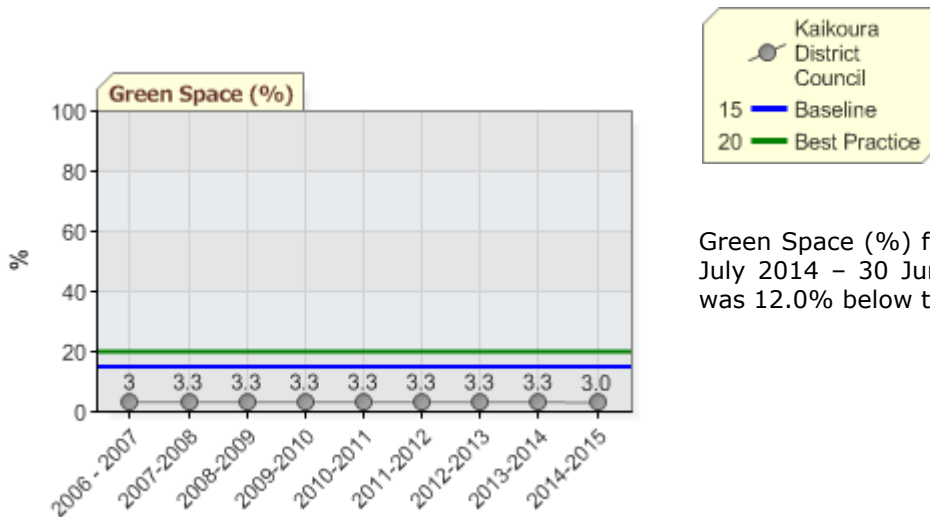
Water Samples Passed (%) for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 81.0%, which was 11.0% better than the Baseline level.

Habitat Conservation Area (%) ★



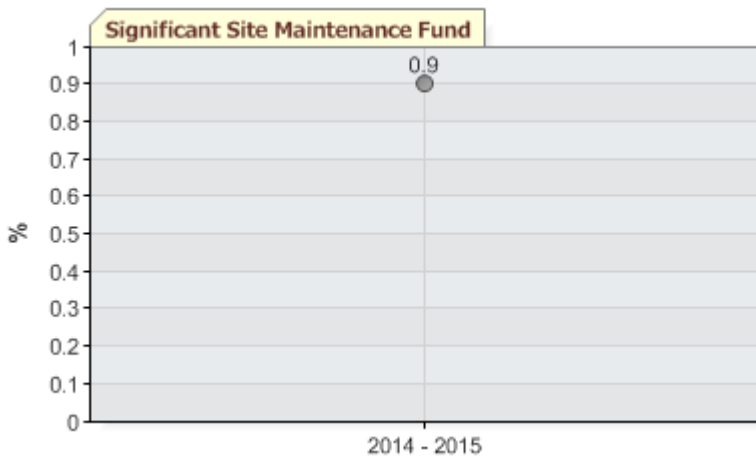
Habitat Conservation Area (%) for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 48.9%, which was 22.9% better than the Best Practice level.

Green Space (%) ✖



Green Space (%) for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 3.0%, which was 12.0% below the Baseline level.

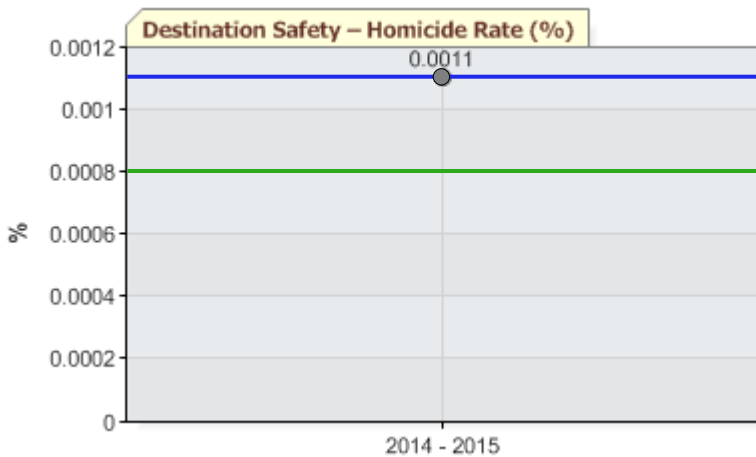
Significant Site Maintenance Fund (%)



Kaikoura District Council

Significant Site Maintenance Fund (%) for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 0.9%.

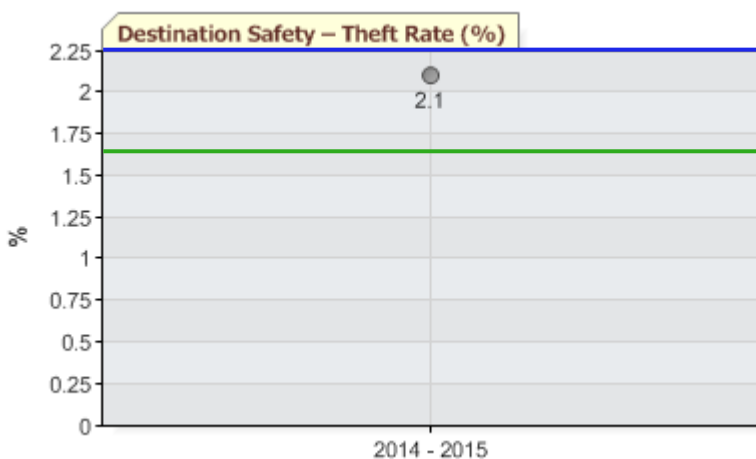
Destination Safety – Homicide Rate (%) ✓



Kaikoura District Council
 0.0011 Baseline
 0.0008 Best Practice

Homicide Rate for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 0.0011 %, which was at the Baseline level.

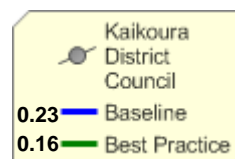
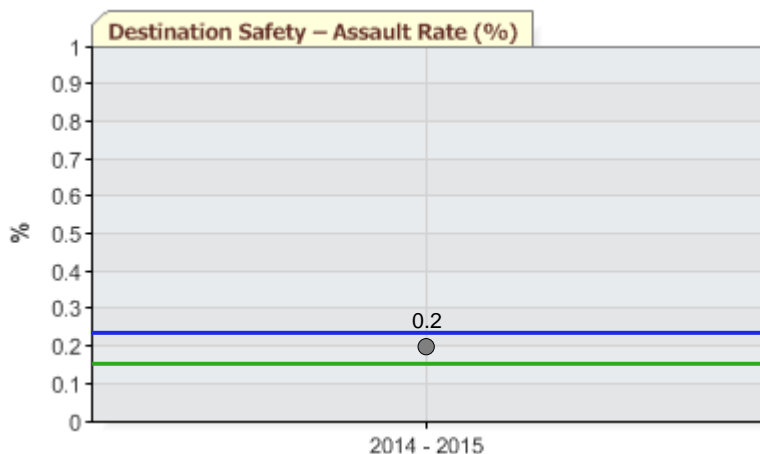
Destination Safety – Theft Rate (%) ✓



Kaikoura District Council
 2.28 Baseline
 1.60 Best Practice

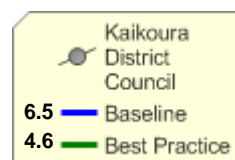
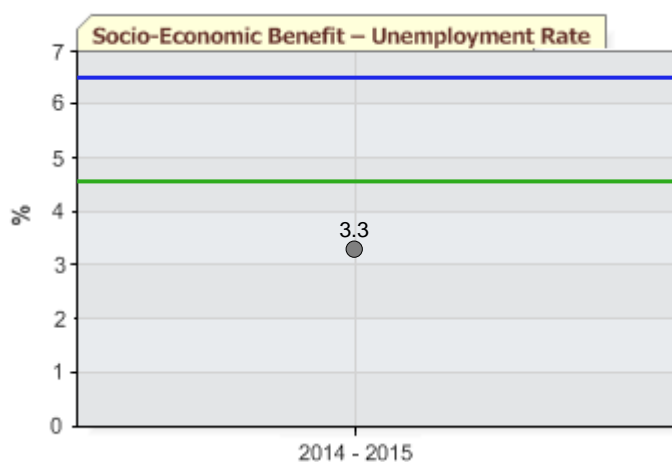
Theft Rate for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 2.1%, which was 0.18% better than the Baseline level.

Destination Safety – Assault Rate (%) ✓



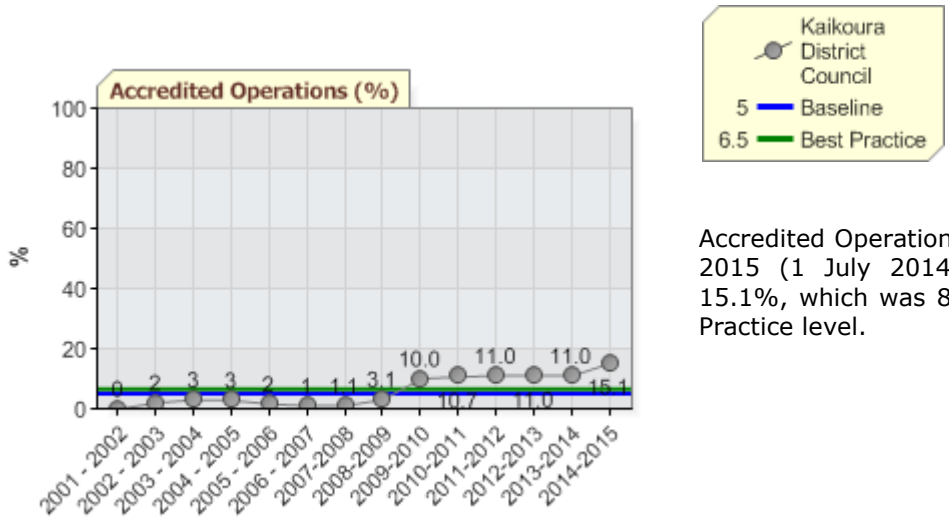
Assault Rate for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 0.2%, which was 0.03% better than the Baseline level.

Socio-Economic Benefit – Unemployment Rate (%) ★



Unemployment Rate (%) for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 3.3%, which was 28.3% better than the Best Practice level.

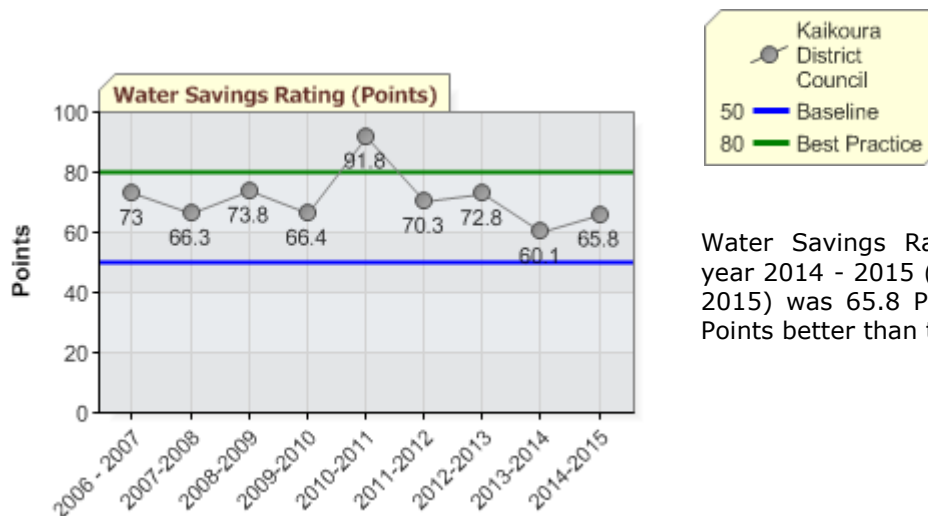
Accredited Operations (%) ★



Accredited Operations (%) for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 15.1%, which was 8.6% better than the Best Practice level.

6. Lead Agency Performance

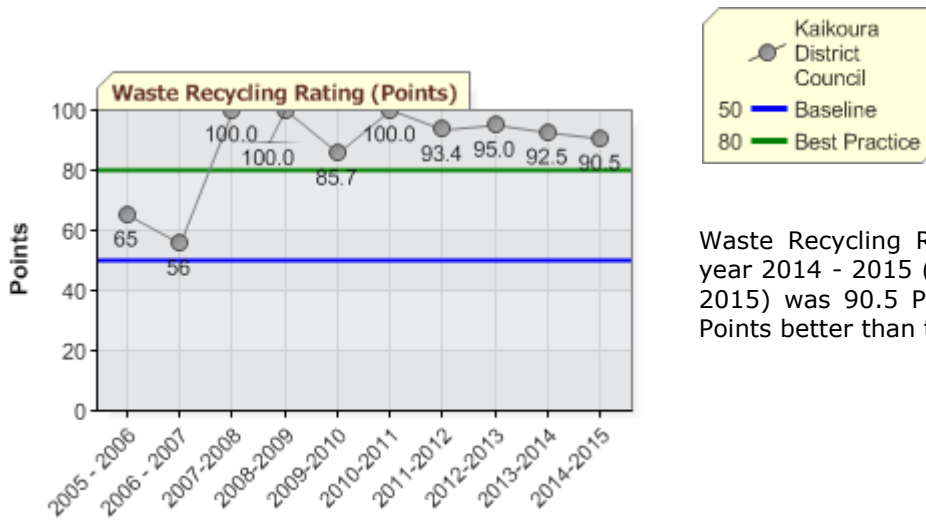
Water Savings Rating (Points) ✓



Water Savings Rating (Points) for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 65.8 Points, which was 15.8 Points better than 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	80-99%	88.9 Points
Low flow tap fittings	80-99%	88.9 Points
Low flow shower fittings	Not Relevant / Not Available	-
Water sprinklers used after dark	60-79%	73.9 Points
Minimal irrigation landscaping	80-99%	88.9 Points
Use of recycle/grey/rain water	0%	0.0 Points
	Overall Rating:	65.8 Points

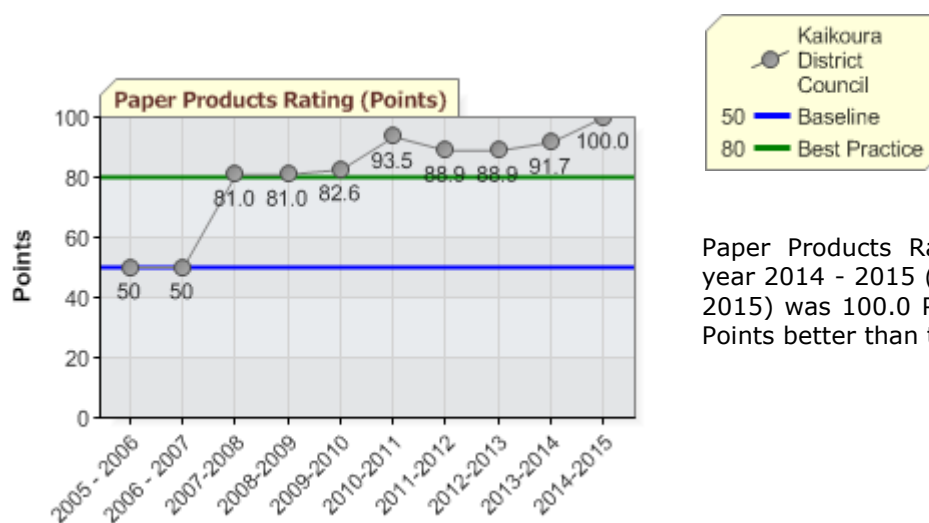
Waste Recycling Rating (Points) ★



Waste Recycling Rating (Points) for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 90.5 Points, which was 10.5 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	80-99%	88.9 Points
Iron & steel (ferrous metals)	80-99%	88.9 Points
Other metals (non-ferrous)	80-99%	88.9 Points
Plastics	80-99%	88.9 Points
Rubber	80-99%	88.9 Points
Green waste	100%	100.0 Points
	Overall Rating:	90.5 Points

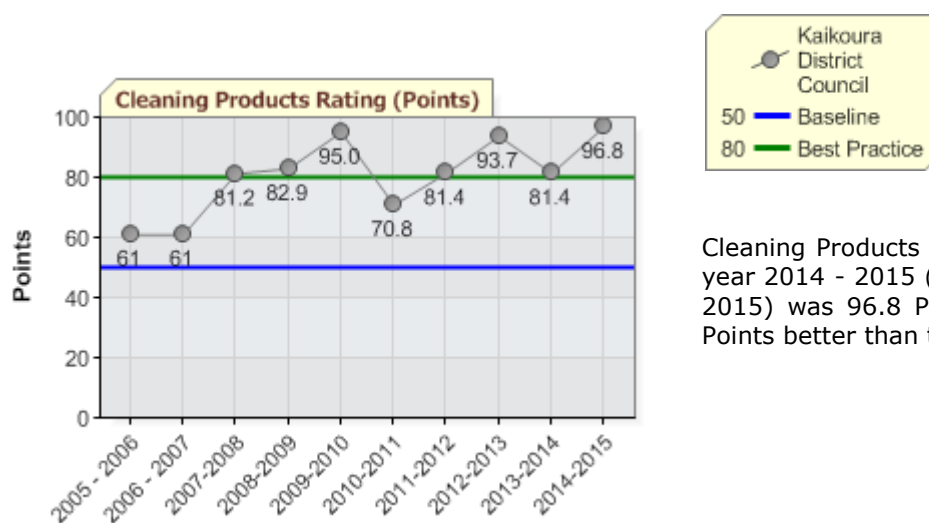
Paper Products Rating (Points) ★



Paper Products Rating (Points) for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 100.0 Points, which was 20.0 Points better than the Best Practice level.

Paper Products Measures	Frequency / Percentage Rating	Paper Products Rating (Points)
Office paper	100%	100.0 Points
Serviettes	100%	100.0 Points
Tissues	100%	100.0 Points
Toilet tissue	100%	100.0 Points
Paper towels	Not Relevant / Not Available	-
	Overall Rating:	100.0 Points

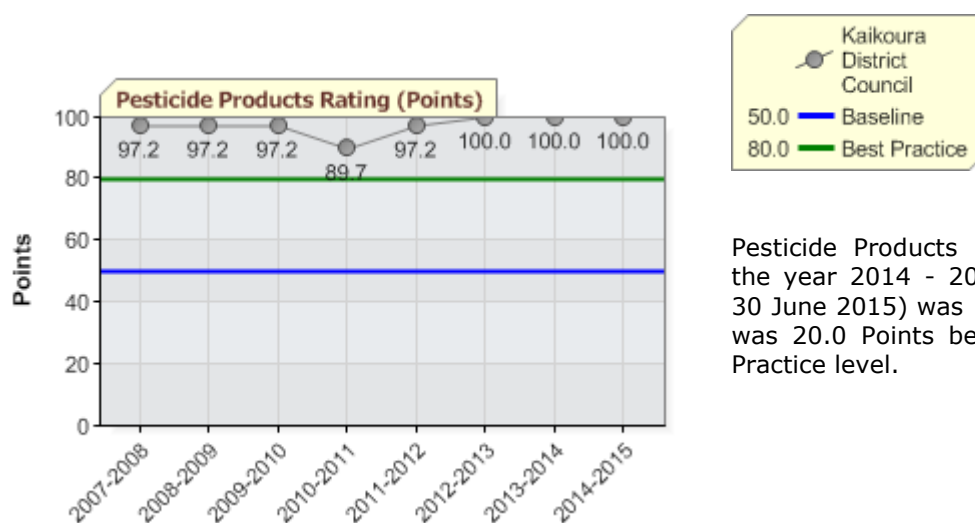
Cleaning Products Rating (Points) ★



Cleaning Products Rating (Points) for the year 2014 - 2015 (1 July 2014 - 30 June 2015) was 96.8 Points, which was 16.8 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	100%	100.0 Points
External surface cleaners	Not Relevant / Not Available	100.0 Points
Glass cleaners	100%	100.0 Points
Detergents	80-99%	88.9 Points
Personal hygiene	100%	100.0 Points
	Overall Rating:	96.8 Points

Pesticide Products Rating (Points) ★



Pesticide Products Rating (Points) for the year 2014 - 2015 (1 July 2014 - 30 June 2015) 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	Not Relevant / Not Available	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

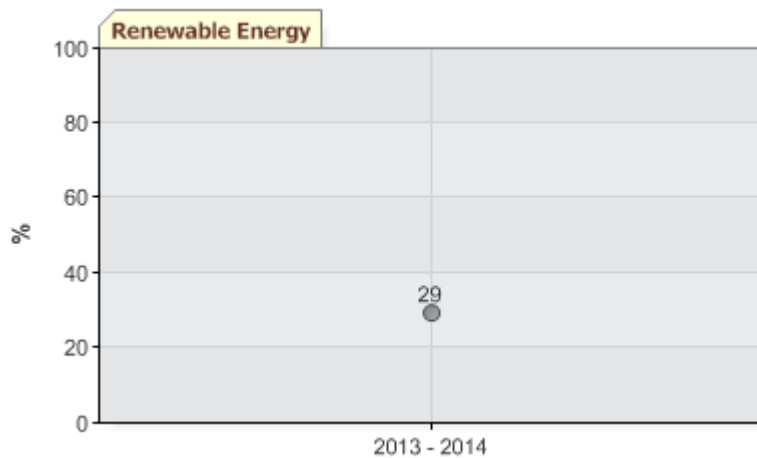
OPTIONAL BENCHMARKING INDICATORS

Kaikoura District Council has also nominated optional Operation Selected and Specified Indicator/s that they consider relevant to their specific operation and locality. The Operation Selected and Specified Indicator/s do not form part of the formal annual benchmarking exercise.

1. Selected Indicators

Selected Indicators are from a supplied list of EarthCheck indicators.

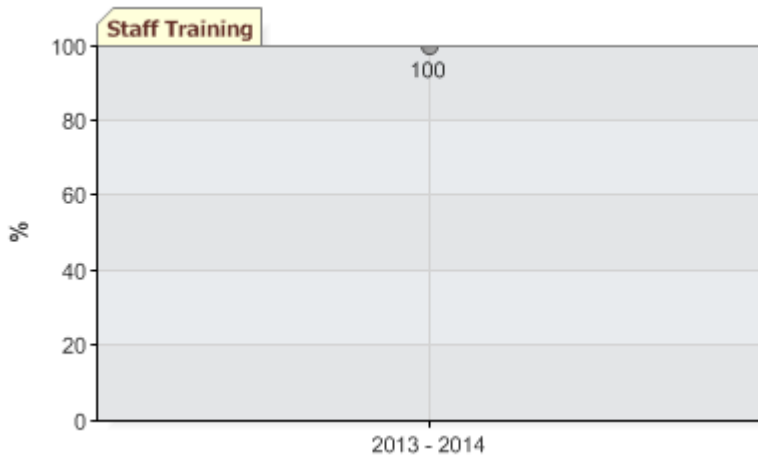
Renewable Energy



Environmentally Accredited Operators



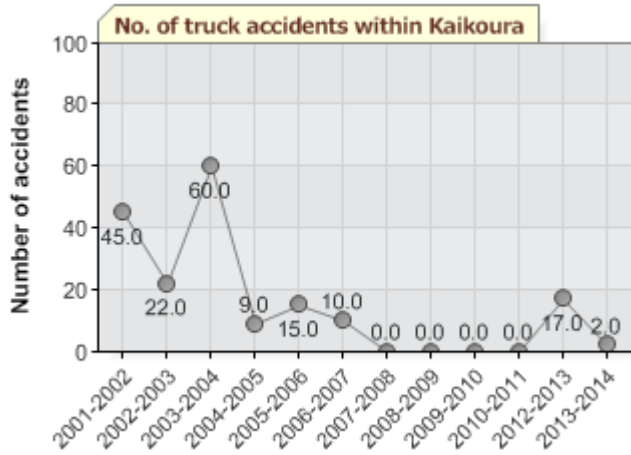
Staff Training



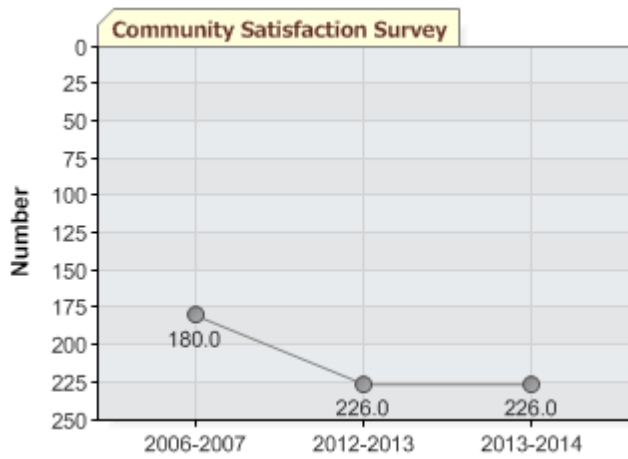
2. Specified Indicators

Specified Indicators are devised by the operator for local and/or internal performance assessment.

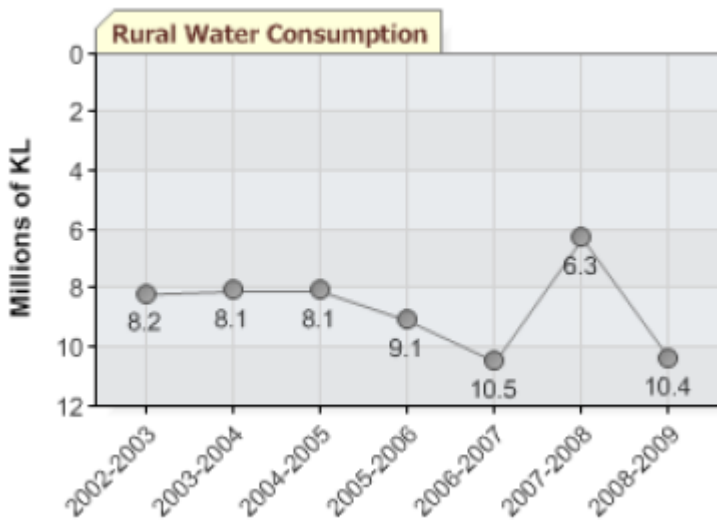
Truck Accidents per annum involving chemical spills



Community Satisfaction Survey



Rural Water Consumption

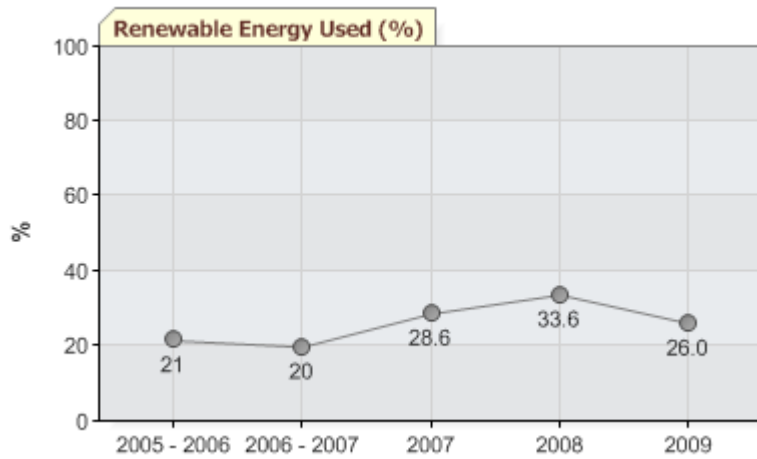


HISTORIC BENCHMARKING INDICATORS

1. Renewable Energy

Renewable Energy % is no longer a supplementary indicator; it is included here for historical reference.

Renewable Energy Used (%)



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

CONCLUSION AND RECOMMENDATIONS

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

In addition to having a Sustainability Policy in place, nineteen of the assessed EarthCheck indicators are at or above the Baseline level. From the benchmarking data provided, fourteen indicators, *Energy Consumption, Greenhouse Gas Emissions (Scope 1 and Scope 2), Potable Water Consumption, Waste Sent to Landfill, Waste Recycling Rating, Paper Products Rating, Cleaning Products Rating, Pesticide Products Rating, Nitrous Oxides Produced, Sulphur Dioxide Produced, Particulate Matter Produced, Habitat Conservation Area, Unemployment Rate and Accredited Operations*, are at or above the Best Practice level, which is an achievement to be very highly commended.

The one indicator that fell below the Baseline level was *Green Space*.

The value for *Green Space* was 12% below the Baseline level, but as this is a focus on open spaces created and set aside for recreational purposes (e.g. sports fields, parks etc.), it is recognised that in rural areas this is not always very relevant and/or a significant percentage of the Community area.

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 the **Kaikoura District Council** 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 **Kaikoura District Council** is encouraged to ensure that *Green Space* is at Baseline performance or better. In line with EarthCheck Policy this would enable the **Kaikoura District Council** to continue to meet the benchmarking requirements of the EarthCheck program.

APPENDIX

HISTORICAL DATA

It is acknowledged that whilst information presented in the benchmarking assessment report displays results for the years 2001/2002 – 2014/2015, it is **Kaikoura District Council's** thirteenth benchmarking assessment. The information for the 2007/2008 benchmarking period represents historical data and has not been formally assessed. It has been requested by the operation to be displayed in the report to provide an overall reflection of the organisation's operational performance.

ENERGY CONSUMPTION

The Benchmarking Assessors sought clarification with regards to the *Energy Consumption* as the figure initially submitted for 'Aviation Gasoline' was greater than expected. Additionally, clarification was sought with regards to 'LPG' as no quantity was provided in litres as per the previous assessment.

The **Kaikoura District Council** advised;

Aviation Gasoline

"This is correct, figure was reported from the supplier."

LPG

"LPG is no longer delivered in litres as in 2013-2014. The product is now recorded in kg and converted to tonnes. The supplier recorded 1005 9.5kg bottles. This equates to 9547.5kg or 9.5 tonnes plus 220 tonnes from the other supplier."

Therefore, the figures initially submitted for *Energy Consumption* remained unchanged.

AIR QUALITY

The Benchmarking Assessors have updated the submitted figures for *Air Quality* as per below;

Initial Figures:

Nitrous Oxides Produced: 0.0002 kg / Person Year

Sulphur Dioxide Produced: 0.00001 kg / Person Year

Particulate Matter Produced: 0.0006 kg / Person Year

Revised Figures:

Nitrous Oxides Produced: 1.37 kg / Person Year / Hectare

Sulphur Dioxide Produced: 0.14 kg / Person Year / Hectare

Particulate Matter Produced: 0.12 kg / Person Year / Hectare

WASTE SENT TO LANDFILL

The submitted value of 588.44 tonnes (588 440 kg) of waste (specified by the operator as compacted waste) has been converted into a volume by using the standard conversion of: 1 kg (compacted waste) = 0.00153846 m³ or 1.53846 L (i.e. 588440 kg x 0.00153846 = 905.3 m³ or 905300 L). (If the waste is uncompacted, then the standard conversion is: 1 kg = 0.00333333 m³ or 3.33333 L).

This equates to 0.16 m³ per *Person Year*.

PAPER PRODUCTS RATING

The Benchmarking Assessors sought clarification with regards to the *Paper Products Rating*, as 'Serviettes' were initially reported as "Not Relevant / Not Available" however in the previous assessment this was "100%".

The **Kaikoura District Council** advised;

"We use minimal serviettes, as we are not a hotel. The few we do use are FS certified."

Therefore, the Benchmarking Assessors updated the *Paper Products Rating* as per below;

Paper Products Measures	Frequency / Percentage Rating
Office paper	100%
Serviettes	100%
Tissues	100%
Toilet tissue	100%
Paper towels	Not Relevant / Not Available

This gives an overall *Paper Products Rating* of 100.0 Points.

CLEANING PRODUCTS RATING

The Benchmarking Assessors sought clarification with regards to the *Cleaning Products Rating* as 'Carpet Cleaner' and 'External Surface Cleaner' was initially submitted as "Not Relevant / Not Available".

The **Kaikoura District Council** advised;

"Cleaning product purpose is not specified. I get a list of purchased products, with advise of biodegradable or eco labelled. So the information is not available for me to assess if the product is specifically a carpet cleaner or external service cleaner."

Therefore, the figures initially submitted for the *Cleaning Products Rating* remained unchanged.

SECTOR SPECIFIC INDICATORS

The Benchmarking Assessors sought further information in relation to the methodology used for calculating the figures submitted for the socio-cultural and economic indicators.

The **Kaikoura District Council** advised;

"The figure is calculated as outlined in the manual:"

Crime	2014	total pop#	%	Catagory in report*
Homicide Offences	2	179,540	0.00%	HOMICIDE AND RELATED OFFENCES
Theft Offences	3749	179,540	2.09%	THEFT AND RELATED OFFENCES
Assault Offences	1613	179,540	0.90%	ACTS INTENDED TO CAUSE INJURY
			1.00%	

<http://www.police.govt.nz/sites/default/files/publications/crime-stats-tasman-20141231.pdf>

*ANZSOC: The Australian and New Zealand Standard Offence Classification.
The offence classification is divided into 16 major offence divisions.
#For Tasman Policing District

The Benchmarking Assessors have reviewed the information provided and updated the number of Assaults used as the initial figure of 1,613 submitted refers to "Acts intended to cause injuries" whereas EarthCheck defines assault as "Physical attack against the body of another

person resulting in serious bodily injury; excluding indecent/sexual assault; threats and slapping/punching. 'Assault' leading to death should also be excluded." Therefore the figure for the number of Assault offences has been update to 361 which refers to the Serious Assaults resulting in injury as per the Tasman District Crime Statistics 2014 report (page 13).



EARTHCHECK

Benchmarks Assessed by EarthCheck

SUMMARY OF SUPPLIED BENCHMARKING DATA

Activity Measures

Person Years	5488
Total Destination Area	204800

Supplied Benchmarking Data

Energy

Energy Consumption (GJ / Person Year)

Supplied	465908.85 GJ
Calculated	84.90 GJ / Person Year
Baseline	231 GJ / Person Year
Best Practice	162 GJ / Person Year
Difference	47.6% better than the Best Practice level

Green Power (%)

Supplied	Not Applicable
Calculated	Not Applicable

Greenhouse Gas Emissions (Scope 1 and Scope 2) (t CO₂-e / Person Year)

Supplied	28010.6 t CO ₂ -e
Calculated	5.1 t CO ₂ -e / Person Year
Baseline	8.2 t CO ₂ -e / Person Year
Best Practice	7.4 t CO ₂ -e / Person Year
Difference	31.1% better than the Best Practice level

Direct Emissions (Scope 1) (t CO₂-e / Person Year)

Supplied	22495.3 t CO ₂ -e
Calculated	4.1 t CO ₂ -e / Person Year

Indirect Emissions (Scope 2) (t CO₂-e / Person Year)

Supplied	5515.3 t CO ₂ -e
Calculated	1.0 t CO ₂ -e / Person Year

Indirect Emissions (Scope 3) (t CO₂-e / Person Year)

Supplied	623.75 t CO ₂ -e
Calculated	0.11 CO ₂ -e / Person Year

Waste Indirect Emissions (Scope 3) (t CO₂-e / Person Year)

Supplied	623.75 t CO ₂ -e
Calculated	0.11 t CO ₂ -e / Person Year

Water

Potable Water Consumption (kL / Person Year)

Supplied	840308.0 kL
Calculated	153.1 kL / Person Year
Baseline	320 kL / Person Year
Best Practice	224 kL / Person Year
Difference	31.6% better than the Best Practice level

Recycled / Captured Water (%)

Supplied	0%
Calculated	0%

Water Savings Rating (Points)

Supplied	65.8 Points
Calculated	65.8 Points
Baseline	50 Points
Best Practice	80 Points
Difference	15.8 Points better than the Baseline level

Waste

Waste Sent to Landfill (m³ / Person Year)

Supplied	905.3 m ³
Calculated	0.16 m ³ / Person Year
Baseline	1.66667 m ³ / Person Year
Best Practice	1.16667 m ³ / Person Year
Difference	85.9% better than the Best Practice level

Recycled / Reused / Composted Waste (%)

Supplied	71.1%
Calculated	71.1%

Waste Recycling Rating (Points)

Supplied	90.5 Points
Calculated	90.5 Points
Baseline	50 Points
Best Practice	80 Points
Difference	10.5 Points better than the Best Practice level

Paper

Paper 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

Cleaning

Cleaning Products Rating (Points)

Supplied	96.8 Points
Calculated	96.8 Points
Baseline	50 Points
Best Practice	80 Points
Difference	16.8 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

Sector Specific

Nitrous Oxides Produced (kg / Person Year / Hectare)

Supplied	0.9 kg
Calculated	0.0002 kg / Person Year / Hectare
Baseline	0.0002 kg / Person Year / Hectare
Best Practice	0.0002 kg / Person Year / Hectare
Difference	22.9% better than the Best Practice level

Sulphur Dioxide Produced (kg / Person Year / Hectare)

Supplied	0.9 kg
Calculated	0.0002 kg / Person Year / Hectare
Baseline	0.0002 kg / Person Year / Hectare
Best Practice	0.0002 kg / Person Year / Hectare
Difference	22.9% better than the Best Practice level

Particulate Matter Produced (kg / Person Year / Hectare)

Supplied	0.9 kg
Calculated	0.0002 kg / Person Year /

	Hectare
Baseline	0.0002 kg / Person Year / Hectare
Best Practice	0.0002 kg / Person Year / Hectare
Difference	22.9% better than the Best Practice level

Water Samples Passed (%)

Supplied	81.0%
Calculated	81.0%
Baseline	70 %
Best Practice	100 %
Difference	11.0% better than the Baseline level

Habitat Conservation Area (%)

Supplied	48.9%
Calculated	48.9%
Baseline	20 %
Best Practice	26 %
Difference	22.9% better than the Best Practice level

Green Space (%)

Supplied	3.0%
Calculated	3.0%
Baseline	15 %
Best Practice	20 %
Difference	12.0% below the Baseline level

Accredited Operations (%)

Supplied	15.1%
Calculated	15.1%
Baseline	5 %
Best Practice	6.5 %
Difference	8.6% 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).