
OUR
CORPORATE SOCIAL
RESPONSIBILITY

Greenhouse Gas Inventory Report 2023

 **Westland Milk Products**
Hokitika · New Zealand
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Carbon Footprint

Base year

1 August 2017 to 31 July 2018. This was the first 12-month period where GHG emissions were calculated and forms Westland's base year. There were significant exclusions in reporting due to data availability at the time. These have been remediated in 2022 and 2023 assessments.

Latest data available

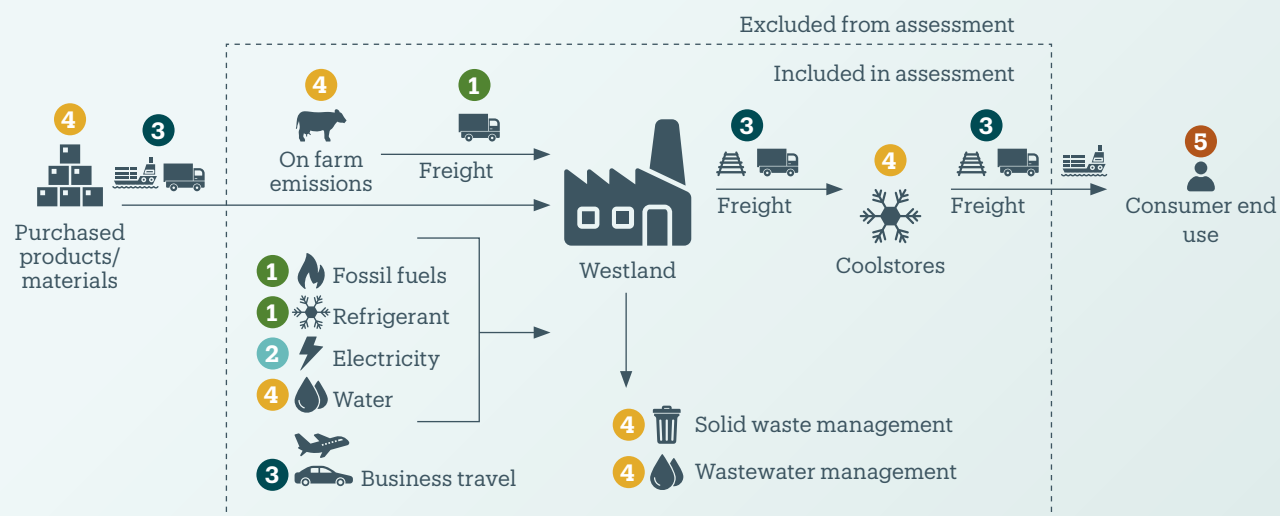
2023 data is available for 1 January 2023 to 31 December 2023

Scope

The scope of the assessment is from farm to NZ port. The following Westland operating sites are included:

	Hokitika Site	Rolleston Site	Hornby Site
2017/18	Yes	Yes	No
2022	Yes	Yes	Yes
2023	Yes	Yes	Yes

What's included in our carbon footprint?



What are the emissions categories?

Category 1	Scope 1	GHG emissions from sources that are owned or controlled by the company.
Category 2	Scope 2	Indirect GHG emissions occurring from the consumption of purchased energy used by an organisation.
Category 3	Scope 3	GHG emissions that occur as a consequence of the activities of the company but occur from sources not owned or controlled by the company.
Category 4		
Category 5		

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*10% reduction in scope 1 and 2 emissions

Scope	Category	Emissions Source	tCO ₂ e			18-23 Evolution
			2018	2022	2023	
Scope 1	Category 1	Coal	108,576	86,703	95,426	-12%
		Diesel - Stationary Combustion	1,223	958	1,572	29%
		LPG	727	1,505	1,887	
		Diesel - Transport	7,847	5,976	5,711	-27%
		Refrigerants	14	153	125	
		Packing Gas		288	203	
Scope 2	Category 2	Electricity	3,290	3,724	4,162	27%
Scope 3	Category 3	Business Travel	667	293	436	-35%
		Road Freight		5,337	6,087	
		Rail Freight		793	1,156	
Scope 3	Category 4	Utilities		96	111	
		Waste		1,699	882	
		On Farm		783,648	783,648	
		Coolstores		483	1,606	
		Electricity T&D	381	432	482	27%
		Well-to-tank (WTT)		20,545	20,360	
Total			122,725	912,632	923,855	-10%*

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2023 Assessment information:

This assessment was conducted in-house using widely available emissions factors. The GHG emissions sources included in the inventory were identified with reference to the methodology described in the GHG protocols. Boundary was determined as on-farm to New Zealand port.

Emissions Factors:

Emissions factors released by the NZ Ministry for the Environment (MfE, 2023) are used where available. Where there are no appropriate MfE factors, UK Government GHG Conversion Factors for Company Reporting (2023).

Inclusions and exclusions in 2023 carbon footprint:

Scope 1	Category 1	<ul style="list-style-type: none"> Fuel use for transport/machinery/process heat etc Refrigerant consumption Packing gas
Scope 2	Category 2	<ul style="list-style-type: none"> Purchased electricity
Scope 3	Category 3	<ul style="list-style-type: none"> Business and staff travel Freight transport 3rd party milk movements (Diesel usage)
Scope 3	Category 4	<ul style="list-style-type: none"> Transmission and distribution losses of purchased electricity. Emissions associated with the production, processing, and distribution of fossil fuels (well-to-tank emissions). This is included as standard practice and is based on volume of fuels consumed. Water supply and wastewater Waste to landfill Emissions associated with cool store storage. On farm emissions (We did not recalculate on-farm emissions in 2023 so have used the 2022 number in 2023 reporting. We have a plan in place to gather updated information going forward).
Scope 3	Category 5	<ul style="list-style-type: none"> Not included in this assessment
Scope 3	Category 6	<ul style="list-style-type: none"> None

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Exclusions:

Scope	Category	Emissions Source	Reason for Exclusion	Expected Significance
Scope 1	Category 1	-	No significant exclusions to our knowledge	-
Scope 2	Category 2	-	No significant exclusions to our knowledge	-
Scope 3	Category 3	<ul style="list-style-type: none"> Transport of final product by ocean freight 	Out of reporting scope	Significant
Scope 3	Category 4	<ul style="list-style-type: none"> Production and transport of other purchased goods (e.g., ingredients for products, packaging for products, packing for shipping etc) Purchased services (e.g., maintenance services, IT support etc) Sludge disposal to local farmers 	Lack of emissions factors available	Medium
Scope 3	Category 4	<ul style="list-style-type: none"> Working from home 	Lack of data available	Insignificant
Scope 3	Category 4	<ul style="list-style-type: none"> Staff commute 	Outside reporting scope	Low
Scope 3	Category 5	<ul style="list-style-type: none"> End of life stage emissions 	Outside reporting scope	Significant
Scope 3	Category 6	There are no additional emissions to be reported on	-	-

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Benchmarking:

Emissions have been benchmarked on a tonne of milk solids (tMS) basis. kgMS has decreased 7% since 2017/18. The below chart compares carbon intensity per tonne of milk solids for only the emissions reported in 2017/18.

This shows that WMP have decreased their footprint by 4% per tMS. This is largely driven by a reduction in coal usage.

kgCO ₂ e			
	2018	2022	2023
Scope1	1,909	1,675	1,810
Scope2	57	65	72
Scope3	17	13	16

The below table benchmarks per tMS utilizing all emissions sources captured in the 2023 carbon footprint:

kgCO ₂ e			
	2018	2022	2023
Scope1	1,909	1,680	1,813
Scope2	57	65	72
Scope3	17	522	538

Fat-protein corrected milk:

	2018	2022	2023
Scope 3 Farmer Supplier Emissions per kg of FPCM	-	1.04	1.03

* FAO method

On-farm emissions from 2022 year have also been used for 2023. We are putting a plan in place to update on-farm emissions reporting going forward.

See our 2022 report for our reference to GRI standards [\[link\]](#). We will include updated reference to GRI standards in our next full progress report. We continue to work towards full alignment to these standards.



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