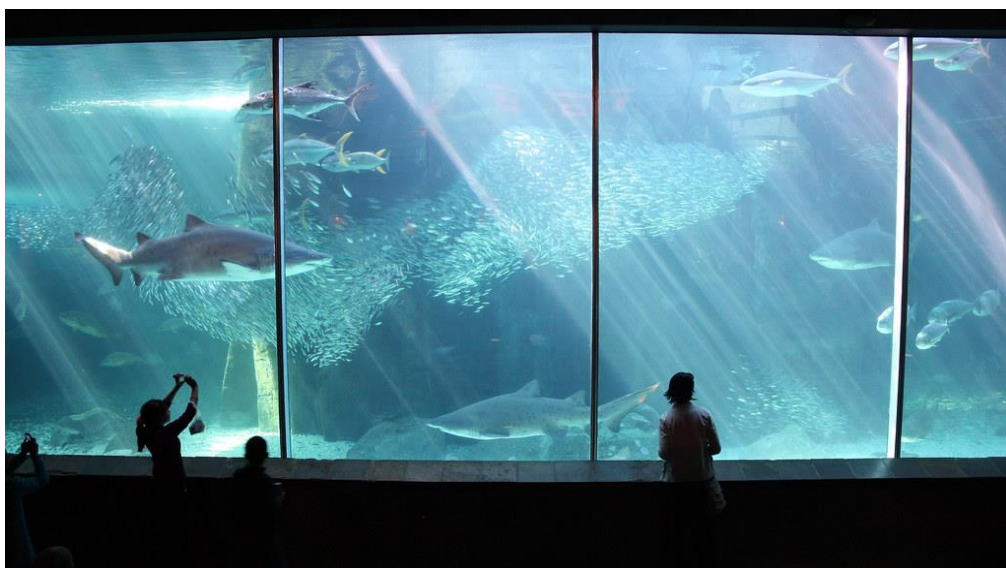


# Carbon Footprint Report



1 April 2023 – 31 March 2024

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## Introduction

The Two Oceans Aquarium (TOA) is pleased to present our 2023 Carbon Footprint Report, which is the ninth carbon footprint report completed by the organisation. This report was prepared by SBS International on behalf of the TOA.

This carbon footprint report has been prepared in full accordance with the Greenhouse Gas Protocol (GHG), the most widely used international carbon calculation methodology, compatible with other GHG standards such as the ISO 14064, which also allows for direct integration with national and international greenhouse gas (GHG) registries.

The emitting activities covered in this carbon footprint report for 2023 includes direct emissions resulting from the Two Oceans Aquarium's owned or controlled equipment and emissions from purchased electricity (referred to as Scope 1 and 2 emissions respectively); and selected Scope 3 indirect emissions. In preparing this report, we acknowledge that under the GHG Protocol, the reporting of both direct emissions and indirect emissions resulting from purchased electricity are compulsory. All other indirect emissions are reported on a voluntary basis. Where we have been able to and dependent on reliable data we have at hand, we have reported on as many voluntary emissions as possible.

SBS International has taken all reasonable lengths to ensure the accuracy of this report and the data provided by the Two Oceans Aquarium.

## Section A: Required Information

### Company Description

The Two Oceans Aquarium is a public aquarium located on the V&A Waterfront in Cape Town and showcases the rich diversity of marine life found in the ocean off the southern African coast. It is a well-recognised and respected brand associated with awe-inspiring exhibits that aim to inspire action for the well-being of the ocean; excellent visitor service levels; caring, dedicated and passionate staff; family fun, and interactive and adventurous experiences to create memories for a lifetime.

The Two Oceans Aquarium is owned by V&A Waterfront Holdings (Pty) Limited and operates as a private trust governed by a Board of Trustees. The Aquarium is a self-sustaining organisation and relies on revenue generated through visitation, alternative revenue streams and corporate sponsorships. It does not receive any funding from municipal, provincial or national government. This 2023 Carbon Footprint Report constitutes the ninth carbon footprint commissioned by the Aquarium and uses the base year of 2015/2016 as a comparison of performance.

The Aquarium is deeply invested in environmental education, conservation, and research and, in 2018, it established the Two Oceans Aquarium Foundation, a registered public benefit organisation, operating on a non-profit basis, to promote and expand on its educational, conservation and research initiatives.

This report covers emissions resulting from activities by the Aquarium and its Foundation at the V&A Waterfront in Cape Town, South Africa. This covers a staff complement of some 161 full-time employees (FTEs), excluding contracted intermediaries, and 4000 square metres (m<sup>2</sup>) of total facilities space.

## Organisational Boundaries

In accordance with the GHG Protocol, clear organisational and operational boundaries (including “scopes”) have to be defined before a carbon footprint can be reported. It is important to highlight that under the GHG Protocol, the reporting of both direct emissions and indirect emissions resulting from purchased electricity are compulsory (scope 1 and 2 respectively). All other indirect emissions (scope 3) are reported on a voluntary basis.

Organisational boundaries determine which business units (core, subsidiaries, franchises, etc.), facilities, or physical places of operation, owned or controlled by the reporting company, are included in the carbon footprint. The more complex the company structure, the more important are the boundaries of an organisation for the clear definition and scope of the report.

**Definition:** *In setting organisational boundaries, a company selects an approach for consolidating GHG emissions and then consistently applies the selected approach to define those businesses and operations that constitute the company for the purpose of accounting and reporting GHG emissions.*

For reporting purposes, the Two Oceans Aquarium has selected the GHG Control Approach to its reporting activities. The control approach accounts for emissions based on operational or financial control of an operation. Using this approach, this Carbon Footprint Report includes emissions from the Two Oceans Aquarium facilities at the V&A Waterfront in Cape Town.

## Operational Boundaries

The following Operational Boundaries have been selected by the Two Oceans Aquarium for reporting purposes.

- **Scope 1:** Direct GHG Emissions from company owned or controlled assets.
- **Scope 2:** Indirect GHG Emissions from purchased electricity, water and services.
- **Scope 3:** Other indirect GHG Emissions from the operation of the company.

The Two Oceans Aquarium has elected to report on all Scope 1 & 2 Emissions and specific Scope 3 emissions.

### Scope 1 Emissions Include:

- Equipment owned or controlled by the organisation
  - Heating and Cooking Equipment Consumption
  - Electricity Generated – Diesel
  - Business Air travel
  - Operation of company-owned or managed vehicle fleet

### Scope 2 Emissions Include:

- Consumption of purchased electricity

### Scope 3 Emissions Include:

- Consumption of purchased Water
- Waste to Landfill

## Reporting Period

The reporting period for this Carbon Footprint report is 1 April 2023 to 31 March 2024

## Base Year

The base year for the purposes of reporting Greenhouse Gas Emissions is 2015/2016. This represents the first year in which recording and reporting on the Carbon Footprint of the Two Oceans Aquarium took place, and it provides a performance track of emissions over a nine-year period. Management of the Two Oceans Aquarium have elected to keep a running performance record for the immediate future as a guide to future performance and to assist with the development of meaningful targets and objectives for improvement.

## Base Year Re-calculation Policy

The Two Oceans Aquarium has chosen a base year re-calculation threshold of ten years or earlier should there be any significant organisational change; external environmental challenges or other cost or calculation impacts that will otherwise result in meaningless comparison against the Base Year findings.

## Calculation Method:

The Two Oceans Aquarium has chosen to use the Emissions Factors Multiplier method for the purposes of calculating its GHG emissions. SBS International has made all efforts possible to use the best available emissions factors available at the time and has cited the source of all emission factors used.

## Gross Emissions

The total emissions for Two Oceans Aquarium in the reporting period of 2023/2024 are:

Reporting Year	Total Emissions (Mt CO <sub>2</sub> e)
2023/2024	2 728

## Emissions by Scope:

The total emissions broken down by Scope are as follows:

Scope 1 Emissions	84 490 Kg (57 398 Kg)
Scope 2 Emissions	2 630 120 Kg (2 751 994 Kg)
Scope 3 Emissions	13 590 Kg (110 896 Kg)

Data in ( ) represents previous year.

Carbon Analysis	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total carbon emission (tCO <sub>2</sub> e)	2488	2299	2408	2452	2983	2699	2705	2884	2728
Total carbon footprint (tCO <sub>2</sub> e/FTE)	22.62	20.9	18.8	19.2	23.3	21.2	21.1	22.4	21.3
Total carbon footprint (kgCO <sub>2</sub> e/ Visitor)	5.67	4.58	4.44	4.69	5.90	15.23	9.64	10.24	5.44
Scope 1 (direct fleet tCO <sub>2</sub> e)	26	67	85	104	35	17.33	20.1	12	19.7
Scope 2 (energy tCO <sub>2</sub> e)	2514	2333	2237	2273	2746	2606	2573	2558	2669
Scope 3 (waste tCO <sub>2</sub> e)	-81	-134	57	52	185	81	95	68	14
Scope 3 (water tCO <sub>2</sub> e)	15	13	15	9	9	8	16	1.01	3.6
Scope 3 (air travel tCO <sub>2</sub> e)	15	20	15	14	8	0	0	5.3	6.57
Negative tCO <sub>2</sub> e (solar and recycling)	<b>224</b>	<b>402</b>	<b>246</b>	<b>230</b>	<b>277</b>	<b>198</b>	<b>221</b>	<b>199</b>	<b>87</b>
Total waste (ton)	128	136	55	48	38	8.26	71.4	58.6	43
Total waste to landfill (kg/Visitor)	0.11	0.08	0.05	0.05	0.23	0.05	0.26	0.01	0.01
Solar energy production (kWh)	23246	165491	194273	189760	182295	184957	178869	51621	37362
Offsetting through purchase of offsets	10	15	25	30	50	60	75	75	75
Offset Value ( <i>estimated subject to rate</i> )					R148 680	R162 230	R202 806	R 347 959	R342 389
<b>TOTAL CARBON FOOTPRINT (tCO<sub>2</sub>e)</b>	<b>2488</b>	<b>2299</b>	<b>2408</b>	<b>2452</b>	<b>2983</b>	<b>2699</b>	<b>2705</b>	<b>2884</b>	<b>2728</b>

## Exclusions and Uncertainties

Although Scope 3 is a voluntary reporting category, we believe data related to waste needs to be verified for a more accurate and substantive report.

## Section B: Optional Information

### Information on Offsets

No offsets have been identified or used. The offset value of **R342 389.00** is an indicative value for administrative purposes only.

### Reduction Strategies

Management at the Two Oceans Aquarium have identified measures and mitigations that aim to result in a reduction in emissions in the coming year.

### Quality Management System

The Two Oceans Aquarium is a certified member of the Heritage Environmental Management Programme and has achieved an overall performance score of 92% compliance. The Heritage Environmental Management System is an ISO140020 compliant environmental management programme that incorporates sustainability at all levels of the organisation.

The Two Oceans Aquarium was last assessed on September 2023 during which a full on-site assessment was undertaken against the published standards of the Heritage Environmental Management Programme. A comprehensive report on the findings of the assessment has been provided to Management.

## Verification

A comprehensive EMS Audit Report has been provided to Management.

The Carbon Footprint Report was compiled using the Heritage Carbon Calculator (2024) and data provided by DEFRA (2023) and The Centre for Environmental Research.

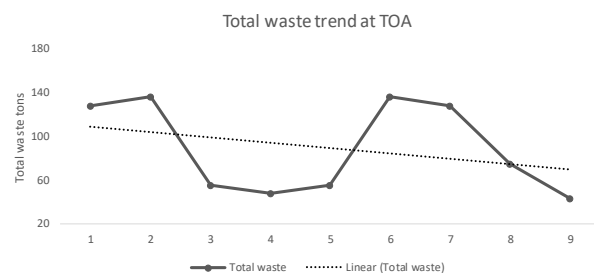
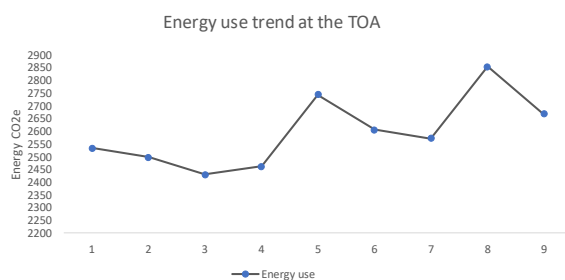
## Contact Information

For further information on the compilation of this report or on the validity of this report, please contact:

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Offset value based on R125 per ton valuation and subject to change depending on market values

Values and impacts related to car-hire, accommodation and other travel have not been provided for evaluation or inclusion.

Fuel consumption of marine craft has not been specified.