



PUBLIC DISCLOSURE STATEMENT

ZOOS VICTORIA

**CERTIFICATION TYPE: ORGANISATION
YEAR: 1ST JULY 2019 – 30TH JUNE 2020**

Australian Government
Climate Active
Public Disclosure Statement



NAME OF CERTIFIED ENTITY: ZOOS VICTORIA

REPORTING PERIOD: Financial year 1 July 2019 – 30 June 2020

Declaration

To the best of my knowledge, the information provided in this Public Disclosure Statement is true and correct and meets the requirements of the Climate Active Carbon Neutral Standard.

Signature

Date: 25 February 2021

Name of Signatory: Kiam Yoong

Position of Signatory: Senior Manager Environmental Sustainability



Australian Government
Department of Industry, Science,
Energy and Resources

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1. CARBON NEUTRAL INFORMATION

Description of certification

Zoos Victoria (ABN: 96-913- 959-053) defines its organisational boundary in accordance with its properties (Melbourne Zoo, Healesville Sanctuary and Werribee Open Range Zoo), including:

- the controlling organisation – Zoos Victoria located at Melbourne Zoo
- contractors – that operate within the Zoos Victoria boundary and using the zoo’s resources

The Zoos Victoria emissions boundary definition includes all scope 1 & 2 emissions and scope 3 emissions. Scope 3 emissions are included on the basis of materiality and measurability.

This inventory has been prepared based on the following standards:

- Climate Active Standard for organisations
- GHG Protocol – Corporate Standard (WBCSD and WRI, 2004)
- National Greenhouse and Energy Reporting (Measurement) Determination 2008
- ISO 14064.1:2006

For electricity emissions the ‘market-based approach’ is selected to minimise double accounting and transparency of renewable energy sources. This is based on guidance from international best-practice standards including the Greenhouse Gas Protocol and ISO 14064.

Greenhouse gasses calculated in this inventory includes CO₂, CH₄, N₂O and HFCs. All greenhouse gas calculations are converted to tonnes CO₂-e using various emissions factors.

Organisation description

Zoos Victoria is a not-for-profit conservation organisation aimed at saving endangered wildlife from extinction. Zoos Victoria operates Healesville Sanctuary, Werribee Open Range Zoo and Melbourne Zoo and in 2019-20 welcomed 1.96 million visitors. Zoos Victoria is dedicated to connecting these visitors to wildlife and providing them with actions they can take to help save species in the wild. Zoos Victoria sees first-hand the impact of climate change and other human-induced threats to wildlife and this has spurred the organisation to take great lengths to decrease its environmental footprint.

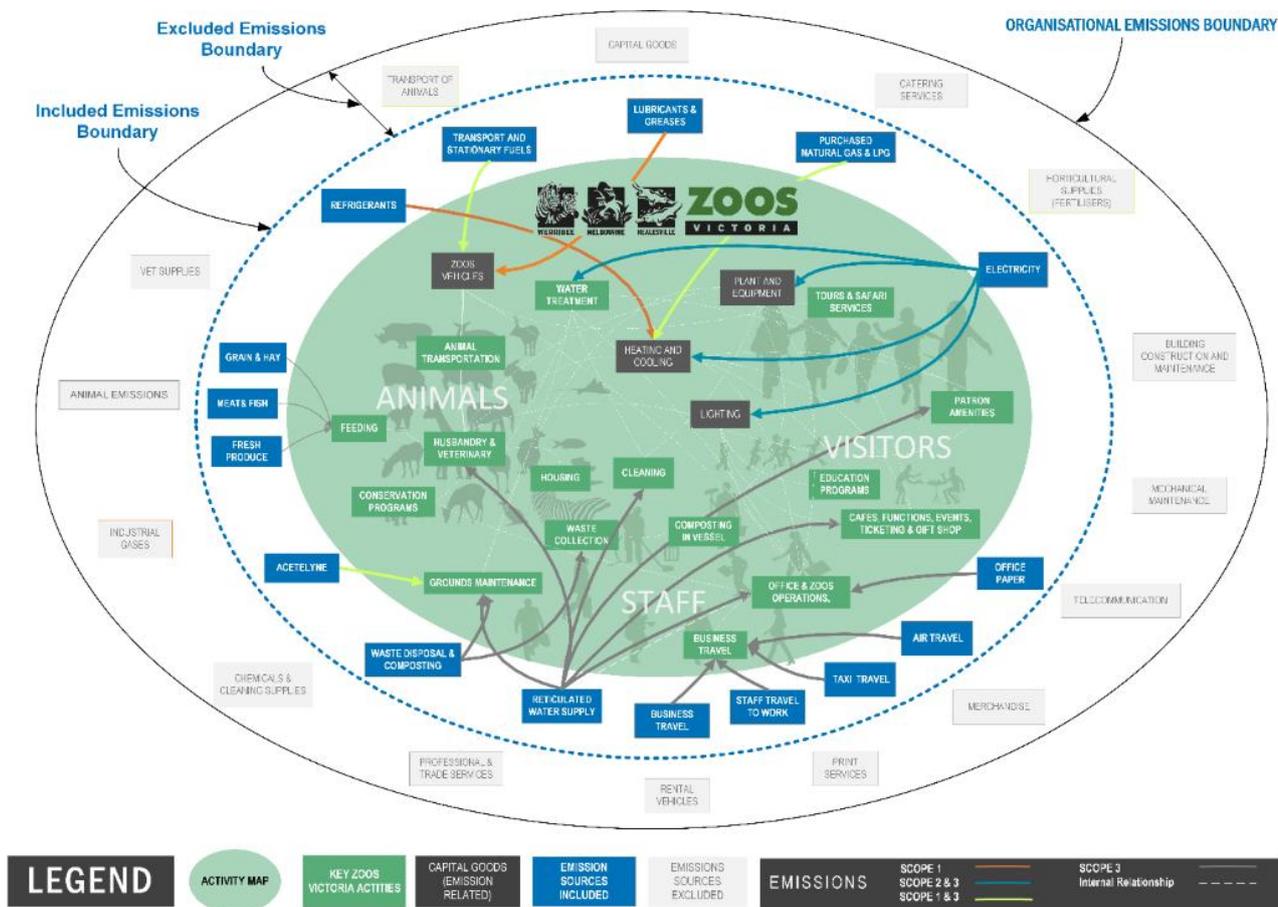
As a voice for wildlife, Zoos Victoria considers any impact or threat to species as firmly within the scope of

“We believe in minimising our carbon footprint to help save the planet. That’s why Zoos Victoria was the world’s first certified carbon-neutral zoo.”

our purpose and our work. Climate change is claimed to be the most significant and immediate threat to the survival of people, habitats and wildlife globally. Zoos Victoria supports the United Nation’s Intergovernmental Panel on Climate Change (IPCC) and the urgent call to slow global warming through rapidly reducing carbon emissions. As the first certified carbon neutral zoo in the world, we are doing everything we can to tackle this threat. It is our duty to wildlife to call out climate change as a critical threat to the survival of all species, and one which must be addressed as a priority so we can secure a future where wildlife, the environment and people thrive together.

2. EMISSION BOUNDARY

Diagram of the certification boundary



Summary of Emission Sources

| <u>Quantified</u> | <u>Non-quantified</u> | <u>Excluded</u> |
|--|-----------------------|--|
| <i>Fuel for vehicles</i> | <i>N/A</i> | <i>Transport of Animals</i> |
| <i>Refrigerant loss</i> | | <i>Rental vehicles</i> |
| <i>Natural gas</i> | | <i>Telecommunications</i> |
| <i>Liquefied petroleum gas</i> | | <i>Chemicals and Cleaning Supplies</i> |
| <i>Acetylene</i> | | <i>Vet Supplies</i> |
| <i>Organics waste composting</i> | | <i>Animal Emissions</i> |
| <i>Greases and lubricants</i> | | <i>Mechanical Maintenance</i> |
| <i>Electricity</i> | | <i>Industrial gasses</i> |
| <i>Municipal and Construction & Demolition Waste</i> | | <i>Horticulture Supplies</i> |
| <i>Air travel</i> | | <i>Professional & Trade Services</i> |
| <i>Business accommodation</i> | | <i>Print Services</i> |
| <i>Taxi</i> | | <i>Building Construction</i> |
| <i>Office Paper</i> | | <i>Catering Services</i> |
| <i>Potable Water</i> | | <i>Merchandise</i> |
| <i>Freight</i> | | <i>Capital Goods</i> |
| <i>Staff commute to work</i> | | |
| <i>Purchased Animal Food</i> | | |

Non-quantified sources

N/A

Data management plan

N/A

Excluded sources (outside of certification boundary)

The following emission sources have been excluded as it has been assessed as not relevant according to the relevance test in line with the provisions of the Climate Active for Organisations. Zoos Victoria uses the following justification for exclusion listed as footnote numbers or each emission source listed in the table below:

1. The emissions are likely to be small relative to electricity, stationery energy and fuel emissions.
2. Does not contribute to Zoos Victoria's greenhouse gas risk exposure.
3. Emissions are deemed not relevant by key stakeholders.
4. Zoos Victoria have no influence on emission reduction.
5. The emissions are not outsourced activities previously in the emissions boundary.

Summary of emission source justification is listed in Appendix 1.

“Our Climate Active certification provides a framework for tourism organisations and institutions to follow”

3. EMISSIONS SUMMARY

Emissions reduction strategy

Zoos Victoria uses the ISO 14001:2015 Environmental Management System (EMS) to manage its environmental performance and minimise environmental impacts. Zoos Victoria has an Environmental Policy and plans that assist in guiding the organisation towards its environmental goals, which includes:

- Maintaining carbon neutrality.
- Water consumption reduced by 10% by 2021 from 2018 levels.
- Zero Waste to Landfill with targets of 90% diversion by June 2021.
- 100% renewable energy by June 2021. Completed for Healesville Sanctuary through a power purchase agreement from the Crowlands Wind farm and 675kW of on-site solar PV.
- Investment in resource efficiency and on-site renewable energy projects through our Zoos Victoria Environmental Sustainability Prospectus.
- Developed the Guiding Principles for integrating Environmentally Sustainable Development (ESD) to minimise environmental impacts associated with new and re-developments.
- Strengthen the Sustainable Procurement policies and processes considering life cycle impacts from services and products we use.
- Encouraging staff and contractors to improve our overall environmental performance by providing training and awareness.

Emissions over time

Table 1

| Emissions since base year | | | | | | | | | |
|------------------------------------|-----------|----------|----------|-----------|----------|----------|----------|----------|---------|
| | Base Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 |
| | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| <i>Total</i> tCO ₂ e | 14,913.8 | 14,730.8 | 14,803.1 | 14,560.32 | 14,783.3 | 14,306.5 | 14,646.9 | 12,245.3 | 8,515.8 |

Zoos Victoria has managed to cut its carbon emissions despite continuous growth in our visitor and staff numbers, exhibits and programs we run. The major reduction over time is due to renewable energy projects on-site and off-site generation through a power purchase agreement from the 1st Jan 2019 for Healesville Sanctuary, and reducing our waste to landfill as part of our Zero Waste to Landfill target. Other reductions are due to projects and programs on resource efficiency and reducing our consumption of resources. In 2019-20; as a consequence of COVID19, there were some reduction in resources such as energy and water but overall baseline load from animal care remained the same. There was also a reduction due to updated animal food emissions factors.

Emissions reduction actions

| Emission source category | % Change from previous year | Reason for Change | Detailed reason for change |
|---------------------------|-----------------------------|---|--|
| Acetylene | -23% | Reduced procurement | Reduced activities requiring acetylene gas. |
| Grease and lubricants | 20% | Change in emissions factor | Small reduction of greases and lubricants but an increase in emissions factor. |
| Refrigerant Losses | 43% | Increase number of refrigerant equipment. | An increased number of refrigerant equipment has been procured and logged into our asset register. |
| Mobile transport – diesel | -3% | Decrease vehicle fuel use | Decrease fleet vehicle activities due to COVID19 restrictions. |
| Mobile transport – petrol | -12% | Decrease vehicle fuel use | Decrease fleet vehicle activities due to COVID19 restrictions. |
| Natural gas | 14% | Increased consumption. | Increased animal heating requirements for animal welfare. |
| LPG | 11% | Increased consumption. | Increased animal heating requirements for animal welfare. |

| | | | |
|-----------------------------------|-------|--|--|
| Electricity | -32% | Decreased consumption of grid electricity. | A result of increased on-site and off-site (power purchase agreement) renewable energy. |
| Potable Water | 12% | Change in emissions factor | Potable water consumption has decreased but the updated emissions actors has increased the GHG emissions. |
| Air travel | 8% | Increased travel and emissions factor. | There was a slight increase in air travel but an increase in emissions factor. |
| Business Accommodation | -17% | Decreased hotel accommodation. | There was a slight decrease in hotel accommodation. |
| Taxi | -42% | Decreased taxi use. | Decreased taxi use. |
| Municipal solid waste | -28% | Decrease waste to landfill. | Our Zero Waste to Landfill program has ensured that waste to landfill has reduced. |
| Construction and Demolition Waste | -100% | No Construction and Demolition Waste | No activities requiring Construction and Demolition Waste removal. |
| Composting organic waste | 0% | No change in composting on-site | Composting a similar amount of organics waste. |
| Office Paper | 544% | Increased use of non-carbon neutral paper. | There was a reduced availability of certified carbon neutral paper. Overall, there was a reduction of all office paper used. |
| Animal food | -51% | Change in emissions factor | There was a similar amount of food procured but the decrease in emissions was due to updated emissions factors. |
| Employee commute to and from work | -22% | Less commute from staff | Due to COVID19, office staff worked from home from 16 March 2020 to 30 June 2020. |

Emissions summary (inventory)

Table 2

| Emission source category | tonnes CO ₂ -e |
|--------------------------------------|---------------------------|
| Accommodation & Facilities | 39.19 |
| Air Transport (km) | 175.44 |
| Carbon neutral products and services | - |
| Electricity | 4,514.56 |
| Food | 1,039.40 |
| Horticulture and Agriculture | 269.22 |
| Land and Sea Transport (fuel) | 342.75 |
| Land and Sea Transport (km) | 738.40 |
| Office Equipment & supplies | 2.00 |
| Refrigerants | 114.26 |
| Stationary Energy | 716.98 |
| Taxi and Uber | 1.10 |
| Waste | 430.66 |
| Water | 131.84 |
| <i>Total Net Emissions</i> | 8,515.80 |

Uplift factors

Table 3

| Reason for uplift factor | tonnes CO ₂ -e |
|---|---------------------------|
| Nil | |
| <i>Total footprint to offset (uplift factors + net emissions)</i> | |

Carbon neutral products

Australian Office Paper

Electricity summary

Electricity was calculated using a Market-based approach.

The Climate Active team are consulting on the use of a market vs location-based approach for electricity accounting with a view to finalising a policy decision for the carbon neutral certification by July 2020. Given a decision is still pending on the accounting way forward, a summary of emissions using both measures have been provided for full disclosure and to ensure year on year comparisons can be made.

Market-based approach electricity summary

Table 4

| Electricity inventory items | kWh | Emissions (tonnes CO ₂ e) |
|--|-----------|--------------------------------------|
| Electricity Renewables | 3,041,519 | 0.00 |
| Electricity Carbon Neutral Power | 0 | 0.00 |
| Electricity Remaining | 4,175,898 | 4,514.56 |
| Renewable electricity percentage | 42% | |
| <i>Net emissions (Market based approach)</i> | | 4,514.56 |

Location-based summary

Table 5

| State/ Territory | Electricity Inventory items | kWh | Full Emission factor (Scope 2 +3) | Emissions (tonnes CO ₂ e) |
|------------------|--|-----------|-----------------------------------|--------------------------------------|
| Vic | Electricity Renewables | 1,838,559 | -1.12 | -2,059.19 |
| Vic | Electricity Carbon Neutral Power | - | -1.12 | 0.00 |
| Vic | Netted off (exported on-site generation) | 6,670 | -1.02 | -6.80 |
| Vic | Electricity Total | 7,224,087 | 1.12 | 8,090.98 |
| | <i>Total net electricity emissions</i> | | 0.00 | 6,024.99 |

4. CARBON OFFSETS

Offset purchasing strategy: in arrears purchasing

Offsets summary

Table 7

| 1. Total offsets required for this report | | | | 8,516 | | | | | |
|--|----------------------|----------|--------------|--|---------|-------------------------|----------------------------------|----------------------------------|------------------------------|
| 2. Offsets retired in previous reports and used in this report | | | | 2,452 | | | | | |
| 3. Net offsets required for this report | | | | 6,064 | | | | | |
| Project description | Type of offset units | Registry | Date retired | Serial number (and hyperlink to registry transaction record) | Vintage | Quantity (tonnes CO2-e) | Quantity used in previous report | Quantity banked for future years | Quantity used in this report |
| Kariba Forest Protection - Zimbabwe | VCU | VERRA | 06 Jan 2020 | 5849-264225372-264231018-VCU-006-APX-ZW-14-902-01012014-30062014-1 | 2014 | 5,647 | 0 | 3,936 | 1,711 |
| Kariba Forest Protection - Zimbabwe | VCU | VERRA | 26 Nov 2020 | 5303-223518430-223518782-VCU-006-APX-ZW-14-902-01012014-30062014-1 | 2014 | 353 | 0 | | 353 |
| Rimba Raya Biodiversity Reserve Project | VCU | VERRA | 15 Jan 2021 | 5959-269202625-269206624-VCU-016-MER-ID-14-674-01012014-30062014-1 | 2014 | 4,000 | 0 | | 4,000 |
| Kariba Forest Protection - Zimbabwe | VCU | VERRA | 25 Oct 2019 | 5303-223499338-223503437-VCU-006-APX-ZW-14-902-01012014-30062014-1 | 2014 | 4,100 | 1648 | | 2,452 |
| <i>Total offsets retired this report and used in this report</i> | | | | | | | | | 8,516 |
| <i>Total offsets retired this report and banked for future reports</i> | | | | | | | | 3,936 | |

Co-benefits

The Kasigau Corridor REDD Project - Phase II: The Community Ranches - Kenya

This project builds on Wildlife Works' first REDD project (Phase I, Rukinga Ranch) which has been protecting forests, flora and fauna since 2006. The aim of this new, larger project is to bring the benefits of direct carbon financing to surrounding communities, while simultaneously addressing alternative livelihoods and protecting vital flora and fauna. Human-wildlife conflict has been a problem in the past, as local agents are directly reliant on the environment as a means for subsistence. This Phase II project directly addresses such sources of conflict in a holistic, sustainable approach, and on a large scale. This project relate to 53% of the total amount of offsets purchased and retired for this reporting period.

Rimba Raya Biodiversity Project

The project aims to protect and preserve 64,977ha of tropical lowland peat swamp forests; home of the endangered Borneo Orang-utan and other RED listed species. These forests are one of the most highly endangered ecosystems in the world. The Rimba Raya project also provides alternative income streams through capacity building, investments in micro-finance, programs that provide necessities and access to a conservation model that does not put the developing world's need for economic growth at odds with the desire to protect this fragile ecosystem.

This project relate to 47% of the total amount of offsets purchased and retired for this reporting period.

5. USE OF TRADE MARK

Table 8

| Description where trademark used | Logo type |
|--|------------------------|
| Zoos Victoria – Environmental Sustainability Investment Prospectus 2019-24 | Certified Organisation |
| Zoos Victoria Annual Reports | Certified Organisation |
| Zoo News | Certified Organisation |
| Web Site | Certified Organisation |
| Plaque on an exhibit at Melbourne Zoo | Certified Organisation |

6. ADDITIONAL INFORMATION

Our Sustainability program highlights.

Zoos Victoria have an ISO 14001:2015 certified Environmental Management System (EMS) in place to ensure continuous improvement in environmental performance and management. We use this EMS and LEAN to continuously improve on our environmental performance.

We also have an Environmental, Social and Governance procurement in place to ensure ethical and sustainable procurement considering life-cycle impacts from procurement.

Our Zero Waste to Landfill program have commenced and in June 2019, with a target of 90% diversion rate from landfill by June 2021. All public waste bins have been removed and replaced with soft plastics and organics bins. We continue to compost our organics on-site through our in-vessel composter and our soft plastics through a circular economy agreement with a local plastics recycler. We will continue diverting waste from landfill through in-house sorting, reuse of materials and finding new recycling routes for materials.

We have 675 kW of on-site solar PV across our three zoos. At Healesville Sanctuary we are using 100% renewable energy for through a power purchase agreement from the Crowlands Wind Farm.

At Melbourne Zoo, we recycle approximately 100ML of wastewater to Class A recycled water per year, with a net reduction of GHG from the use of potable water.

APPENDIX 1

Excluded emissions

To be deemed relevant an emission must meet two of the five relevance criteria. Excluded emissions are detailed below against each of the five criteria.

Table 9

| Excluded emission sources | <i>The emissions from a particular source are likely to be large relative to the organisation's electricity, stationary energy and fuel emissions</i> | <i>The emissions from a particular source contribute to the organisation's greenhouse gas risk exposure.</i> | <i>Key stakeholders deem the emissions from a particular source are relevant.</i> | <i>The responsible entity has the potential to influence the reduction of emissions from a particular source.</i> | <i>The emissions are from outsourced activities previously undertaken within the organisation's boundary, or from outsourced activities typically undertaken within the boundary for comparable organisations.</i> |
|---------------------------------|---|--|---|---|--|
| Transport of Animals | No | No | No | No | No |
| Rental vehicle | No | No | No | No | No |
| Telecommunications | No | No | No | No | No |
| Chemicals and Cleaning Supplies | No | No | No | No | No |
| Vet supplies | No | No | No | No | No |
| Animal Emissions | No | No | No | No | No |
| Mechanical Maintenance | No | No | No | No | No |
| Industrial Gasses | No | No | No | No | No |
| Horticulture Supplies | No | No | No | No | No |
| Professional & | No | No | No | No | Yes |

Trade Services

| | | | | | |
|-----------------------|----|----|----|-----|----|
| Print Services | No | No | No | Yes | No |
| Building Construction | No | No | No | Yes | No |
| Catering Services | No | No | No | Yes | No |
| Merchandise | No | No | No | No | No |
| Capital Goods | No | No | No | No | No |

APPENDIX 2

Non-quantified emissions for organisations

There are no non-quantified emissions

Table 10

| Non-quantification test | | | | |
|--|--|--|---|---|
| Relevant-non-quantified emission sources | <i>Immaterial <1% for individual items and no more than 5% collectively</i> | <i>Quantification is not cost effective relative to the size of the emission but uplift applied.</i> | <i>Data unavailable but uplift applied. A data management plan must be put in place to provide data within 5 years.</i> | <i>Initial emissions non-quantified but repairs and replacements quantified</i> |
| None | | | | |