

NATIONAL ZOO AND AQUARIUM

Sustainability Strategy

2023-2026



SUSTAINABLE DEVELOPMENT GOALS



In September 2015, the United Nations (UN) General Assembly adopted its 2030 Agenda for Sustainable Development, providing the framework through which to achieve global sustainability. The 17 Sustainable Development Goals (SDGs) set therein, are an urgent call-for-action by all countries to take positive action and drive change towards a sustainable future. With the blueprint set forth by these SDGs, it is the responsibility of zoos and aquariums to contribute to the world's most pressing environmental, social and economic challenges. Accordingly, the project areas listed within this Strategy are aligned with one or multiple SDGs.

We are proud to update you on the achievements made since the foundation of the National Zoo and Aquarium Sustainability Team in 2018. We support a healthy future for people and wildlife and hope to inspire the community to join us as we work to protect our future, and the world that we share together.

Sustainability at the National Zoo and Aquarium

At the National Zoo and Aquarium (NZA), we seek to inspire and assist in the conservation of the natural world on both a local and international level, by contributing to vital initiatives such as wildlife protection, public education, and environmental sustainability. We are committed to the principles of sustainability and intend to reduce our impact on the environment to achieve positive sustainable outcomes.

As a zoo-based conservation organisation there are unique challenges to integrating sustainable practices into our operations. Our animals and visitors produce considerable levels of waste, whilst our inland aquarium requires vast quantities of water and electricity usage to run each day. As such, we must find ways to reduce our ecological footprint without compromising the needs of animals in our care.

We are dedicated to the protection of our natural world and all that is in it, for future generations to come.



Our Achievements

Since 2018, we have:



Diverted over **4.2 tonnes** of soft plastic packaging from landfill

Installed **200kwh** of solar panels 



Recycled over **400,000** containers

Raised \$40,000 for conservation programs through the ACT Container Deposit Scheme 



Used **recycled building materials** to replace fencing/decking infrastructure

Removed all single-use **plastic straws** 



Replaced plastic take-away consumables with **biodegradable** BioPak options

Reduced our overall water consumption by 4% 

Our path forward

The National Zoo and Aquarium is committed to the SDGs set forth by the UN and as such, have selected five primary Goals for inclusion in our Sustainability Strategy for 2022-2025. As our projects progress and evolve, it is our aim to incorporate more SDGs into our operational policies.

The National Zoo and Aquarium's Sustainability Strategy will outline a clear path for how we will reduce carbon emissions, improve our waste management, and encourage positive behavioural changes in staff, visitors, and the wider community over the next three years.



To celebrate Clean Up Australia Day in 2022, staff at the National Zoo and Aquarium pledge to change their behaviour.



Better management of fresh water consumption to ensure good quality, availability and sustainable use in everyday operations



Adoption of renewable energy sources and improvement of energy efficiency



A better understanding of the impacts of our product procurement, production, consumption and disposal



Taking action towards climate change, adaptation and reducing our carbon footprint



Protecting our oceans, waterways and marine life through responsible choices and waste management

Safe drinking water for all.

The daily cleaning and maintenance of the Aquarium and animal exhibits are two of the largest water uses at the zoo. The aquarium alone, is an extensive network of continuous life support systems, comprised of pumps, UV generators, filters, and chillers, which are essential for maintaining the ideal water quality in the many tanks that our marine species call home.

Fortunately, the natural bore that occurs throughout the grounds of the zoo provides an alternative to town water use in many cases. By using bore water to clean our enclosures and fill moats, we can regulate the use of town water for drinking sources only, thereby reducing our consumption and dependence on town water whilst also ensuring clean drinking water is available to all.

However, for this system to operate effectively, there must be access to both bore and town water resources at every animal enclosure and tap site across the zoo grounds. Furthermore, there are often fluctuations in pressure and water quality to the bore, negatively impacting its use.

To promote sustainable water consumption and usage in our staff, visitors, and community, we will define our 'water footprint' and incorporate sustainable water practices into our zoo and aquarium operations. We will expand the usage of our existing rainwater collection tanks and better manage the quality of waterways throughout the site so as to minimise the need for regular water changes.

Because every drop counts.

We will reduce our town water usage by 20%.

Sustainable Development Goal 6

6 CLEAN WATER AND SANITATION



OUR GOALS

- INCREASE THE HEALTH OF ALL WATERWAYS IN THE ZOO
- DEVELOP SUSTAINABLE WATER MANAGEMENT PRACTICES THROUGHOUT THE ENTIRE FACILITY
- EDUCATE STAFF, VISITORS AND THE COMMUNITY IN SUSTAINABLE WATER CONSUMPTION PRACTICES

Affordable, reliable and sustainable energy

One of the greatest challenges in any zoo facility is maintaining an environment that resembles the climate of the species' natural habitat in the wild. With Canberra's searing heat in the summer and frost in the winter, heating and cooling systems are essential in nearly all animal enclosures and indoor areas. The operation of heaters, air-conditioning units, and chillers to maintain the preferred temperature range, as well as more lighting during the winter months, results in an enormous amount of electricity and energy consumption throughout the year.



Sustainable Development Goal 7



Our journey to reducing greenhouse gas emissions through renewable and clean energy use began in 2020, with the installation of solar panels over two sites within the zoo grounds: on the roof of the Aquarium and a separate solar farm on the perimeter fence line. Each site produces approximately 100kwh of electricity, reducing the amount of power that is used from the grid and saving nearly 300 tonnes of carbon dioxide per year. We will continue to maximise our renewable energy resources by expanding our on-site solar production and investigating suitable energy storage solutions.

In addition to reducing our reliance on grid-connected power sources, we will review our current and predicted energy consumption levels and improve the efficiency of existing infrastructure through the introduction of timers, sensor lights in staff and visitor areas (such as bathrooms and offices) and more carbon-neutral products.

OUR GOALS

- REDUCE OUR ENERGY USE AND RELIANCE ON GRID-CONNECTED POWER SOURCES
- INTEGRATE CLIMATE CHANGE MEASURES INTO OUR ORGANISATIONAL POLICIES
- EDUCATE STAFF AND VISITORS ON THE BENEFITS OF CLEAN ENERGY
- PROVIDE TRANSPARENCY TO THE COMMUNITY ON OUR OWN ACTIONS AND PROGRESS

We pledge to not increase our energy usage, even as our site grows.

Environmental and social impact of our waste

Following the establishment of the NZA Sustainability Team in 2018, one of the first issues to tackle was the responsible disposal of our waste products. With thousands of visitors through the gates each week, a hotel to run and animals to care for, an incredible amount of waste was generated on daily basis. Existing recycling procedures only divided waste into mixed recycling and landfill, allowing for enormous quantities of plastic to be incorrectly sent to landfill and eventually end up in the environment or oceans.



We will remove 90% of our single-use plastics from landfill.

Sustainable Development Goal 12



The development of a NZA Waste policy and integration of separate bins for soft plastic items, Container Deposit Scheme (CDS) refundable containers (bottles and cans) and mixed recycling considerably reduced our landfill waste. Furthermore, our new recycling program delivered bonus benefits; with the support of staff and volunteers we raised an extra \$40,000 for animal conservation programs through the refundable container scheme.

However, the responsible disposal of waste is not enough. The full life cycle of a product, from procurement and production to consumption and disposal, has important environmental and social impacts on the world around us. With this in mind, we will develop a framework of sustainability criteria through which to evaluate our providers and source environmentally responsible materials. We can positively influence suppliers to adopt more sustainable practices by partnering with those that are RSPO (Roundtable on Sustainable Palm Oil) or FSC (Forestry Stewardship Council) certified, thus taking the next step towards a better understanding of responsible consumption and production.

OUR GOALS

- REDUCE OUR WASTE PRODUCTION ACROSS THE SITE
- PROCURE AND DISTRIBUTE SUSTAINABLY SOURCED PRODUCTS
- EDUCATE STAFF AND VISITORS ABOUT RESPONSIBLE CONSUMPTION AND PRODUCTION

Positive actions to ensure our future

Climate change, the production of waste and the overexploitation of natural resources present a global threat to biodiversity and habitat loss. With the ongoing increase in atmospheric carbon dioxide levels, greenhouse gas emissions and occurrence of extreme weather conditions, we must protect our natural world through sustainable development and habitat recovery.

We are an organisation committed to environmental protection and species survival. With the development of sustainability-specific policies, NZA is dedicated to reducing our carbon footprint and integrating climate change measures into our daily operations. As we transition to renewable energy sources and more sustainable practices, we will work towards our greenhouse gas emission reduction targets and help mitigate the human-induced impacts of climate change. Furthermore, we will incorporate sustainability principles into future infrastructure designs and evaluate new projects against climate projections, taking into consideration the responsible management of land use, air quality and disposal of harmful substances.

We aim to become 100% carbon-neutral by 2030.

Sustainable Development Goal 13

13 CLIMATE ACTION



As leading organisations within the community, zoos and aquariums have the responsibility to influence positive behavioural change and create a culture of sustainability.

By engaging and educating our staff and visitors, we can raise awareness for climate actions and inspire change to reduce our impacts on the environment. As it is only through sharing our resources and encouraging a more sustainable lifestyle that we can work together to develop strong and resilient communities.



OUR GOALS

- REDUCE OUR CARBON FOOTPRINT AND GREENHOUSE GAS EMISSIONS
- INTEGRATE CLIMATE CHANGE MEASURES INTO OUR ORGANISATIONAL POLICIES
- EDUCATE STAFF, VISITORS AND THE COMMUNITY OF CLIMATE CHANGE IMPACTS

Protection of our unique marine life

Although the ocean covers 70% of the earth's surface, it may be easy to forget that our actions on land can have grave consequences on our ocean ecosystems. As a conservation-based zoo facility, the responsible management of our waste is essential to prevent dangerous substances from entering waterways that ultimately lead to the ocean. Whether it be the disposal of liquid products or chemicals in the waterways, or the procurement of products that originate from the ocean, such as seafood, our choices have the ability to help or harm our unique marine species.

As the only inland aquarium exhibit in Australia, we must emphasise the important connections between freshwater and ocean ecosystems in our messaging and encourage our visitors and guests to consider ocean-friendly choices at home. We intend to broaden our awareness campaigns to further highlight the issues affecting our oceans and promote individual actions, such as the selection of eco-certified seafood options. The development of our own Sustainable Seafood Policy will help us achieve our goal of ensuring that all procured seafood and fish products, both for human and animal consumption, are sustainably sourced and harvested.

The protection of our oceans is essential, not only for the conservation of our precious marine life, but also to ensure the survival of life as we know it. It is our responsibility to support organisations dedicated to marine conservation and promote the establishment of marine-protected areas.

No matter where you are, the ocean connects us all.

We will use 100% sustainably sourced seafood by 2025

Sustainable Development Goal 14



OUR GOALS

- INTEGRATION OF SUSTAINABLE SEAFOOD IN ALL DEPARTMENTS
- SUPPORT MARINE-BASED PARTNERSHIPS AND THE ESTABLISHMENT OF MARINE-PROTECTED AREAS
- EDUCATE STAFF, VISITORS AND THE COMMUNITY ON THE IMPACTS OF OUR ACTIONS ON THE OCEAN